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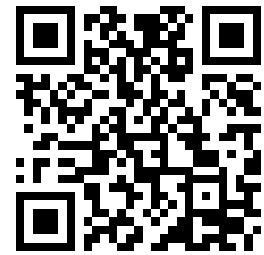
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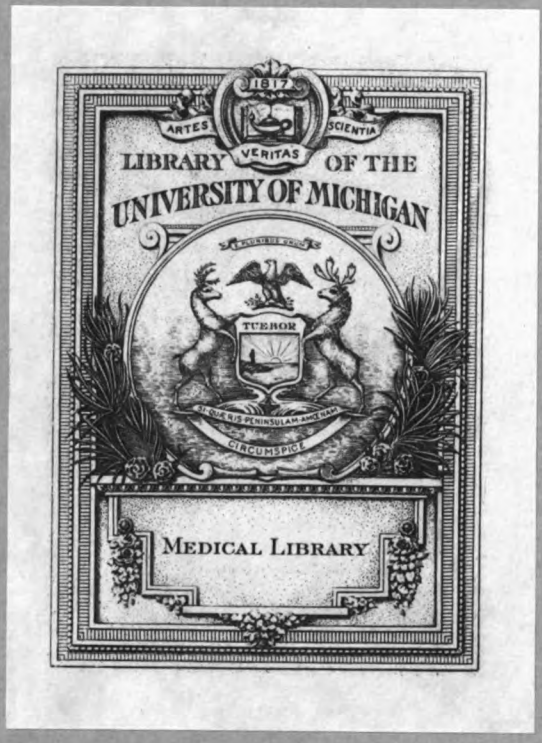
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Considerations

RESPECTING THE

MANAGEMENT OF SIMPLE CONSTIPATION.

By SIR ANDREW CLARK, BART., M.D., F.R.S.,

ONE OF THE LECTURERS ON CLINICAL MEDICINE AT THE LONDON HOSPITAL.

THE untoward consequences of constipation are always considerable and sometimes serious; but greater than they—greater than the anæmia, the blood-poisoning, the headache, the nervousness, and the heart disorder which arise out of fæcal retention—are the untoward consequences of ignorant and unskilful domestic management.

For two days a patient has had no relief to the bowels. He has been travelling, or he has changed his diet, or his accustomed routine has been in some other way interrupted. The subject is seriously considered: in the light of an excited self-consciousness impending dangers are seen, and forthwith he determines to take "a dose." But the taking of doses is an inconvenient and a disagreeable procedure, and so it is settled that the dose shall be a good one—such a one as will speedily and effectually overcome the constipation and relieve the patient of his trouble. The dose is taken, the bowels (small, perhaps, as well as large) are emptied of their contents, the object of treatment has been achieved, and all for a time seems well. But the next day arrives, and there is no fresh movement of the bowels; even a second day passes, and they are still inactive. The patient is more uncomfortable than he was before he took his "dose." What is to be done? Matters cannot continue as they are. Plainly the medicine first employed has confined the bowels, and so another must be taken which shall be free from this disadvantage. The other is taken; again the bowels are freely moved, and a liquid, light-coloured, mucoid, and feculent discharge attests the success of the new endeavour. But the bowels fail to resume their periodical discharges; the patient becomes worse than ever; again he flies to artificial help for relief; again he is disappointed in recalling Nature to her own ways; and at last the bowels, robbed of their normal conditions of action and exhausted by frequent irritation, refuse to act at all except under the spur of strong aperients frequently repeated. With few exceptions, no person has passed through this experience and fallen under the tyranny of aperients without finding his life invaded by a pack of petty miseries which lower his health, vex his temper, and cripple his work. Now for the most part all these troublesome consequences of constipation may be avoided by attending to the conditions of healthy defecation. The chief of them requiring consideration at this time, and assuming the integrity of the nervo-muscular apparatus of the bowels, are plenty of solid and liquid digestible food, a fair amount of refuse matters in the colon, regard to the promptings of nature, daily solicitation at an appointed time, the co-operation of expectation and will, and contentment with a moderate discharge. I propose to discuss briefly each of these conditions.

1. Plenty of solid and fluid digestible food. People leading a sedentary or a society life become disposed to eat too fine foods, and to drink too little liquid. Among the results of such habits are a general want of nervo-muscular vigour, a deficiency of intestinal secretion, and an insufficient amount of refuse matter in the bowels to secure daily relief. To correct this without the help of drugs, coarse and irritating foods are taken. For a day or two perhaps they succeed; but after a time they provoke catarrhal irritation, and either increase the constipation or bring about lienteric diarrhœa. As a rule, it is a practical error to treat constipation by means of hard, indigestible, and irritating articles of food.

2. A moderately full colon is essential to the sufficient periodical discharge from the bowels. It is true that the ordinary peristaltic action of the bowels is automatic, and substantially independent of external stimulation; but it is, I think, equally true that for the stronger peristaltic action which, accompanied by inhibition of the associated lumbar centre and relaxation of the anal sphincter, issues in normal defecation, an external stimulus, the stimulus of an adequate amount of retained fæces, is necessary. If by an aperient or by any other means the colon is more or less completely emptied of its contents, defecation will be suspended until the colon becomes again more or less full; it cannot act independently of the appointed conditions of action; it cannot make bricks without straw.

3. Regard to the promptings of nature. When the lower part of the sigmoid flexure is full, sensory impulses are sent to the nervous centres, and these are responded to by discharges which not only excite vigorous peristalsis in the upper part of the colon and solicit the co-operation of the will, but tend to inhibit the lumbar centre and to bring about relaxation of the anal sphincter. The conditions of defecation are present, and it needs only a patient effort of will and concurrent expectation to originate and complete the operation. But when attention to these promptings of nature is denied they cease for the time; and although they recur and suffice for action, the denial, if often repeated, blunts the sensibilities of the parts concerned, deprives us of the normal intimations of the need for relief, and brings about a form of constipation difficult to cure.

4. Daily solicitation of nature at an appointed time. It has been found that for the great majority of people the most favourable, and also the most convenient, time for procuring relief to the bowels is after breakfast, and it is one of the greatest helps to sufficiency and regularity of action that the daily solicitation of nature should be practised at that time. In order that both solicitation and action should become developed into a habit, it is necessary that nature should not be listened to at any other than the appointed time. And in this precept there is no contradiction of the statement made in the previous paragraph; for it is not the temporary and exceptional denial of nature with the view of establishing a regular habit of defecation,—it is the repeated denial of nature with no such object in view which blunts the reflex sensibilities of the parts concerned and brings about an obstinate constipation.

5. The co-operation of expectation and will. Many persons seek relief to the bowels without taking any pains to secure success. With some persons, indeed, such pains are unnecessary. A certain automatism has been established; and it needs only time, place, and position to set it in successful motion. But in persons whose defecation is difficult, direct attention, expectation, and effort are essential, and when patiently practised seldom fail. The practice of slight alternate contraction and relaxation of the anal sphincter sometimes provokes exceptionally active peristalsis of the lower colon; and so, with concurrent effort, secures relief which could not otherwise be obtained.

6. Contentment with a moderate discharge. Ignorance of the average amount of fæces required for the daily healthy relief of the bowels is one of the main causes of constipation, the unnecessary use of aperients, and the evils that arise from both. For a man of average weight, consuming an average amount of food, the average amount of fæces ready for discharge in twenty-four hours is about five ounces. This should be formed, sufficiently aerated to float, and coherent. According as the cylinder is moist or dry it will measure from four to six inches in length. Now, many people expect to have a much more abundant discharge, and are dissatisfied or anxious if they do not get it. They complain of their insufficient relief, and take aperients to make it larger. For a day or two larger discharges are procured, but then, when the reserves of fæces are removed and the colon is empty, and the conditions of defecation no longer exist, more or less complete inaction of the bowels ensues, constipation (as it is here erroneously called) becomes confirmed, new and stronger aperients are had recourse to, and at last the patient falls into a pitiable condition of physical suffering and moral wretchedness. And from this condition there is no escape except through the complete suspension of aperients, the renewal of obedience to physiological laws, and a courageous patience in waiting upon Nature.

I will conclude these imperfect remarks by putting down as briefly as possible the instructions which I ask my pupils to give to their patients for the management of simple constipation:—1. On first waking in the morning, and also on going to bed at night, sip slowly from a quarter to half a pint of water, cold or hot. 2. On rising, take a cold or tepid sponge bath, followed by a brisk general toweling.

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3. Clothe warmly and loosely; see that there is no constriction about the waist. 4. Take three simple but liberal meals daily; and, if desired, and it does not disagree, take also a slice of bread-and-butter and a cup of tea in the afternoon. When tea is used it should not be hot or strong, or infused over five minutes. Avoid pickles, spices, curries, salted or otherwise preserved provisions, pies, pastry, cheese, jams, dried fruits, nuts, all coarse, hard, and indigestible foods taken with a view of moving the bowels, strong tea, and much hot liquid of any kind, with meals. 5. Walk at least half an hour twice daily. 6. Avoid sitting and working long in such a position as will compress or constrict the bowels. 7. Solicit the action of the bowels every day after breakfast, and be patient in soliciting. If you fail in procuring relief one day, wait until the following day, when you will renew the solicitation at the appointed time. And if you fail the second day, you may, continuing the daily solicitation, wait until the fourth day, when assistance should be taken. The simplest and best will be a small enema of equal parts of olive oil and water. The action of this injection will be greatly helped by taking it with the hips raised, and by previously anointing the anus and the lower part of the rectum with vaseline or with oil. 8. If by the use of all these means you fail in establishing the habit of daily or of alternate daily action of the bowels, it may be necessary to take artificial help. And your object in doing this is not to produce a very copious dejection, or to provoke several smaller actions; your object is to coax or persuade the bowels to act after the manner of nature by the production of a moderate more or less solid formed discharge. Before having recourse to drugs, you may try, on waking in the morning, massage of the abdomen, practised from right to left along the course of the colon; and you may take at the two greater meals of the day a dessertspoonful or more of the best Lucca oil. It is rather a pleasant addition to potatoes or to green vegetables. 9. If the use of drugs is unavoidable, try the aloin pill. Take one half an hour before the last meal of the day, or just so much of one as will suffice to move the bowels in a natural way the next day after breakfast. If it should produce a very copious motion, or several small motions, the pill is not acting aright; only a fourth, or even less, should be taken for a dose. When the right dose has been found it may be taken daily, or on alternate days, until the habit of daily defecation is established. Then the dose of the pill should be slowly diminished, and eventually artificial help should be withdrawn. The aloin pill is thus composed: R Aloinæ, ½ gr.; extr. nucis vom., ½ gr.; ferri sulph., ½ gr.; pulv. myrrhæ, ½ gr.; saponis, ½ gr.; fiat pil. 1. If the fæces are dry and hard, and *if there is no special weakness of the heart*, half a grain of ipecacuan may be added to each pill. Should the action of the pill be preceded by griping and the character of the action be unequal, half a grain of fresh extract of belladonna will probably remove these disadvantages. If the aloin pill gripes, provokes the discharge of much mucus, or otherwise disagrees, substitute the fluid extract of cascara sagrada, and take from five to twenty drops in an ounce of water either on retiring to bed or before dinner. And when neither aloin nor cascara agrees, you may succeed by taking before the mid-day meal two or three grains each of dried carbonate of soda and powdered rhubarb.

The exact agent employed for the relief of constipation is of much less importance than its mode of operation. If, whatever the agent may be, it succeeds in producing after the manner of nature one moderate formed stool, it may be, if necessary, continued indefinitely without fear of injurious effects. But, treated upon physiological considerations, I have the belief that in the great majority of cases simple constipation may be successfully overcome without recourse to aperients.

GLASGOW SICK POOR AND PRIVATE NURSING ASSOCIATION.—The eleventh annual meeting of the supporters of this Association was held on the 24th ult., when it was reported that exclusive of midwifery cases the number of patients attended during the past year was 1621. The number of midwifery patients attended was 1438 and nurses had been engaged by 366 private families. The total ordinary expenditure for the year was £4040, the ordinary receipts amounting to £3371. Donations and legacies amounted to £307, and a balance of £635 is now due to the bank.

A Lecture
ON THE
SENSE OF HEARING.

Delivered before the British Association at Birmingham on September 6th, 1886,

BY WILLIAM RUTHERFORD, M.D., F.R.S.,
PROFESSOR OF PHYSIOLOGY IN THE UNIVERSITY OF EDINBURGH.

MR. PRESIDENT, LADIES, AND GENTLEMEN,—I am privileged this evening to address you on a subject that lies in the borderland between the realm of physics and that of consciousness. Our sense organs are the portals whereby the movements of the world around us find an entrance to our minds. We are so accustomed to the inflow of impressions through these organs; we are so familiar with light and darkness, with sunshine and shadow, with the colours and forms of objects; we are so accustomed to hear a multitude of sounds, and to readily apprehend the various meanings attached to them by our minds—that we constantly forget that but for the eye the world would be in darkness, and but for the ear nature would be silent.

That mode of motion which we term Light does not dispel the darkness until it falls on a living eye. That other mode of motion which we term Sound does not break the silence of nature until it enters a living ear. It is difficult to estimate how much we owe to the sense of sight for a revelation of the secrets of nature. It is still more difficult to form any just conception of what we owe to the sense of hearing. Far down in the scale of life, in long ages that are past, the first rudiment of an ear was developed; through its agency the vibrations of sound were enabled to influence the nervous system, and there to produce sound-sensations. As time went on, the organ became more highly developed, and no doubt more refined in its power of receiving and transmitting sound-impressions. At first there was no organ whereby the animal could produce sound as a mode of expression. But when an organ for sound-production was evolved, and when the animal became able to use that organ in suitable response to its various sensations of sound, the highest phase of brain action became possible. It needed only the higher development of the intellectual operations of the brain to make the perception of the different sound-sensations sufficiently refined to render possible the invention of language, with its manifold meanings and wonderful results. And at last it has come about, so closely are the impressions of sound associated with our mental operations, that we *think* in unspoken words.

I desire this evening to direct your attention specially to the sense of hearing—a subject full of interest, but at the same time so full of difficulty that I shall have to be careful lest I involve you in a maze of complex detail and baffle your perception of the main points. Those of you who have studied acoustics will have no difficulty in following my discourse. Therefore, I trust they will allow me to endeavour to carry with us those who may not be in a position so advantageous.

NATURE OF SOUND.

Let us in the first place attend to the nature of the physical agent that stimulates the organ of hearing. Strictly speaking, sound is a sensation produced in the brain by the activity of its nervous mechanism. But for convenience the term Sound is commonly applied to that mode of motion which enters our ears and throws the hearing apparatus into action. I shall use the word in that sense, and employ the term Sound-Sensation to indicate that state of consciousness which consists in hearing a sound. Sound is a wave motion, and therefore consists in vibration. Every sounding body is in a state of vibration. The vibration may be *simple* or *compound* in its nature, and it will be necessary for me at the outset to explain what is meant by simple and compound vibrations, otherwise you cannot understand the sense of hearing.

Simple Sound-Vibrations.—The motion of a pendulum is a familiar example of the sort of vibration that produces sound. The pendulum oscillates to and fro. When it swings from one side to the other and back again, it makes one

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complete vibration. Its vibrations are repeated again and again in exactly the same period of time—they are *periodic*. The number of vibrations that occur in a unit of time—say in a minute—indicates the *frequency of vibration*. I can readily change the frequency of vibration by altering the length of the pendulum. If I shorten it, it vibrates more rapidly. The shorter I make it, the greater is the frequency of its oscillation. Observe that I can make the vibrations large or small without altering their period. If I throw the pendulum into motion with a gentle touch the *amplitude* of its vibration is small; if I use a greater force the amplitude of vibration is increased. But in both cases the frequency of vibration is the same. Every simple musical tone is due to simple pendulum-like vibrations of the air or other elastic medium. The *pitch* of the tone depends on *frequency*, its *loudness* depends on *amplitude*, of vibration. When a tuning-fork is thrown into motion, its elastic limbs oscillate to and fro like a pendulum, and throw the surrounding air into the invisible waves of sound. The molecules of the air oscillate forwards and backwards in the same period as the fork. When the two limbs fly apart they give a blow to the surrounding air that condenses it. When they swing towards each other the air is rarefied. And so the air is thrown into a series of concentric waves that continually expand, and gradually fade away as they travel to a distance. Each wave consists of a layer of condensed and one of rarefied air. You hear that the tuning-fork gives a musical tone. For the production of a musical tone two things are essential: 1. The vibrations must be strictly periodic; if they are not so, the result is not a musical tone, but a noise. 2. The vibrations must be sufficiently frequent. The fork which I have sounded gives 130½ vibrations in a second. The pitch of the tone is C in the bass clef. You cannot distinguish its individual vibrations; they are too rapid. But if a fork be made so long that it vibrates less frequently than sixteen times per second, one hears the pulses of sound separate and distinct. When the frequency of vibration is raised to sixteen per second, and still more clearly when it is raised to thirty or forty per second, the separate sensation due to each vibration lasts until the next appears, and so the sensation becomes continuous and the individual vibrations are no longer perceived. The pitch of a tone entirely depends on frequency of vibration. A very sensitive ear can distinguish an immense number of tones, varying from sixteen up to as many as 40,000 vibrations per second. In some persons the ear is so sensitive to frequency of vibration that in tones of ordinary pitch a difference of half a vibration in a second gives rise to a sensible difference in the sound-sensation. When a tuning-fork is properly sounded, its vibrations are simple, like those of a pendulum, and therefore produce a simple tone. The tone appears of lower pitch than is really the case, because no harmonics are present. If I attach a piece of brass-foil to the end of one of the limbs of the fork and place it in contact with a revolving cylinder covered with smoked paper, its vibrations are recorded and produce a wavy line similar to a vertical section of the surface of water in a state of wave motion. I have made an enlarged copy of one of the vibrations, and you see that it is a smooth curve, produced equally on both sides of an imaginary line of equilibrium, termed an abscissa. That is, then, the curve of a simple vibration.

Compound Sound-Vibrations.—Let us now attend to compound sound vibration. I sound two tuning-forks, the second of which vibrates twice as rapidly as the first. You hear two tones, and you recognise the second to be an octave above the first. We have a double sensation, evidently due to two sets of simple vibrations differing in frequency. Now, do the two sets of simple vibrations enter the ear? No, they are compounded into one vibration. You see from the drawing that when the two sets of vibrations are placed one upon another, the phases of movement are repeatedly in the opposite direction. But, as it is impossible for the same molecule of air to move in opposite directions at the same moment, the two vibrations must be compounded into one. When the two vibrations are in the same phase of movement they are added together, and the extent of the motion increased. On the other hand, when they are in the opposite phase they interfere with each, so that the resulting difference of motion has to be taken. The result is a vibration that differs in *form* from both of its constituent vibrations. It is still strictly periodic, but no longer pendular in form. Within the organ of hearing a compound vibration of that form produces an effect the same as if its two constituent simple vibrations acted independently. Now, suppose we take three forks with frequencies of vibrations in the relative proportion of 1, 2, 3. I sound them all at once, and again you hear a complex sound consisting of a fundamental tone with the octave above it, and with the fifth note of the scale above the second octave. The compound vibration differs in form from that of the previous case, and it produces a sensation of three tones, just as if the three sets of simple vibrations reached the ear independently. Suppose we were to take, say, eight tuning forks, having frequencies of vibration in the simple arithmetical relation of 1, 2, 3, 4, 5, 6, 7, 8. If we sounded them all at the same time we should get the highly complex vibration which I show you. The organ of hearing would treat that complex vibration as if it consisted of eight distinct series of simple vibrations. Eight different tones could be distinguished by a practised ear, and indeed by most ears if aided by resonators. Infinitely more complex are the vibrations produced by an orchestra with a chorus of human voices and solo singers associated. The mind fails in its effort to grasp the wave form of the flood of complex vibrations that pours into the ear at every moment. The highest and lowest tones are heard; the qualities of the notes produced by the strings, the wind instruments, and the voice are all discernible. The theory offered by Helmholtz in explanation of this wonderful property of the sense of hearing is that the terminations of the nerves in our ears can analyse complex vibrations. As they are supposed to do this by what is known as sympathetic vibration, I must explain what is meant by that term.

Sympathetic Vibration.—1. Of a tuning-fork; If I throw the air about a tuning-fork into vibrations of the same frequency as those which the fork can produce, the fork is thrown into feeble vibration. But it does not vibrate if the neighbouring tone has a higher or lower pitch than its own. 2. Of a string: If you lift the dampers from the strings of a piano by pressing down the loud pedal, and sound a note having the pitch of one of the strings, that string is thrown into sympathetic vibration and gives quite an audible note. If you produce a complex vibration with a number of tones having exactly the same pitch as some of the piano strings, they would analyse the compound vibration, and treat it as if it consisted of a distinct series of simple pendular vibrations, so that we should hear the piano strings giving forth notes of the same pitch as those which produced the compound vibration. A piano is better adapted than any other stringed instrument for doing this experiment, because of its large sounding box, which readily takes up the vibrations and communicates them to the strings. It is maintained by Helmholtz and others that in the ear every audible tone throws into sympathetic vibration one or more of the nerve terminations, and that all complex tones are analysed by them into simple pendular vibrations, which affect different nerve terminations according to their frequency of vibration. I shall presently show you reasons for doubting that theory.

THE ORGAN OF HEARING.

There is a general scheme applicable to all animals.

1. There is a *peripheral mechanism* to receive the sound vibrations and transform them into nerve impulses. In all animals that can hear, this peripheral apparatus consists of a modification of the epidermic cells that cover the integument. Each cell is a nucleated mass of protoplasm that has undergone some profound change whereby it has acquired the power of transforming sound vibrations into nerve impulses. The inner end of each of these auditory cells is connected with a nerve fibre, and from its outer free end there project one or more short, stiff, hair-like processes, termed Auditory Hairs. The hairs project into a watery fluid in the innermost part of the ear. The sound wave penetrates the fluid and causes the hairs to tremble. The sound vibrations caught up by the hairs pass into the auditory cells, and there, by some unknown mechanism, are transformed into nerve impulses.

2. The second part of the mechanism consists of nerve fibres that conduct the nerve impulses to the brain of a vertebrate, or to the cephalic ganglia of an invertebrate, animal.

3. The third part consists of sensory nerve cells in the brain, which are thrown into action by the arrival of impulses along the auditory nerve, and give rise to that state of consciousness termed Sensation. The position of

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the centre for sound-sensation is definitely known in the ape's brain. Destruction of it on both sides of the brain produces total deafness. These three parts constitute the sensory mechanism for sound-sensation.

4. But we must add to this sensory mechanism other nerve cells in the brain concerned in perception—an intellectual act far higher than mere sensation, whereby the consciousness examines the various sensations of sound, and attaches to them various significations, with which they are afterwards associated. The centre for perception is probably placed in the front part of the brain.

FURTHER DETAILS REGARDING THE PERIPHERAL MECHANISM.

I must now state some further details regarding the peripheral mechanism of the organ of hearing.

The Invertebrate Ear.—A hearing apparatus is found in the Medusæ, and in all animals above them. Stated briefly, its most general condition is that of a minute sac with a membranous wall. The sac is full of fluid, and lined by a layer of ectodermic cells, some of them modified into hair cells. The auditory hairs may project free into the fluid, but that is rare. Most commonly they project into a calcareous mass, termed an Otolith or Earstone. The otolith consists of about 75 per cent. of lime salts in the form of grains or crystals, held together by a small amount of mucous jelly. The effect of the otolith is not well understood. It has been thought that the hard calcareous particles may rattle against the hairs, like the shingle on the sea beach when the wave breaks over it. If that be so, we may reasonably suppose that the periodic vibrations of a musical tone must be changed into indefinite vibrations, and produce nothing but noise. It may be, however, that there is no rattling of the particles, and that the otolith and hairs move to and fro as one mass when the sound wave reaches them. If that be so, the mechanism is probably not advantageous for the hearing of faint sounds, because it is difficult to throw a heavy mass into movement. Otolith sacs are found in the ear of every vertebrate, but when in the vertebrate series the ear becomes an organ for the delicate appreciation of musical sounds there is a great development of hair cells without any otolith in connexion with them.

The Vertebrate Ear.—Let us turn to the structure of the ear in the vertebrate series of animals. In the lowest group of fishes the otolith sac has in connexion with it a membranous semicircular canal, with a swelling at each end of it containing hair cells with nerves passing to them. In the higher fishes, and in all other vertebrates, three semicircular canals are developed in each ear. Each canal has a swelling at one end of it containing hair cells without any otolith. These canals are nearly always placed in the planes of a cube—that is to say, in the three dimensions of space,—and are now supposed to be peripheral organs, not of the sense of hearing, but of a sense that renders us acquainted with the movements of the head, and so helps us to maintain the equilibrium of the body. The otolith sac becomes divided into two: one termed the Utricle, connected with the semicircular canals; the other termed the Saccule, from which a single membranous canal, the cochlear canal, becomes developed in reptiles, birds, and most of all in mammals. In reptiles and birds it is short and nearly straight. In mammals it is much longer, and coiled up like a snail's shell. Hence the term Cochlea. The cochlear canal contains an immense number of hair cells, with a multitude of nerve fibres passing to them. The membranous sacs and canals that I have mentioned constitute the membranous labyrinth, and are found in the innermost part of the ear. They are all filled by a watery fluid, and nearly surrounded by another watery fluid enclosed in the bony labyrinth. The sound waves are conveyed to the outer fluid of the labyrinth. They then pass through the membranous walls of the otolith sacs and the cochlear canal into the fluid within them, from which they are caught up by the hair cells.

Much as I should like to indicate to you the structure and action of the beautiful mechanism by which sound is conducted to the labyrinth, the shortness of the time at my disposal compels me to limit your attention to the cochlear canal which contains the hair cells that enable us to appreciate musical sounds. It is a canal of somewhat triangular shape when cut across. Two sides of the triangle are bounded by thin membranes that are traversed by the sound waves. The chief of these two membranes is termed the Basilar Membrane. It is composed of fibres of connective tissue, that stretch across the general cavity of the cochlea, and are continuous at both ends with the periosteum that lines it. The membrane somewhat resembles a slender suspension-bridge stretching across a ravine. This cochlear suspension-bridge, if I may so term it, extends through the whole length of the cochlea in mammals, but in birds it is wanting at the upper or closed end of the tube. It is covered on both surfaces by epithelial cells. Very many of those on the upper surface are hair cells, with ordinary or somewhat modified epithelial cells placed between them to support them in their places. There is an immense number of these hair cells. In the cochlea of the cat four rows of them run the whole length of the cochlear canal. In the human subject there are five or six rows of them, and the total number of the cells is estimated at about 15,000. These hair cells of the cochlea seem placed in a position of advantage, inasmuch as they are supported on a membrane that can vibrate with the sound wave. It is otherwise with the hair cells of the otolith sacs. They are planted on a membrane that is fixed in the periosteum lining the bony wall of the labyrinth. Immediately over the free ends of the hair cells there is a thin covering membrane, the use of which it is difficult to comprehend. During life it is probably soft, but when the soft parts of the cochlea have been hardened to permit of thin slices being made for microscopical observation, the membrane has a laminated appearance, with a distinct hem at its lower surface. In other respects it is homogeneous. One margin of it is always firmly attached to the periosteum at the inner angle of the cochlear canal. The other margin is usually free and turned up like a scroll. But it may be that, in a cochlea which has not been injured by slicing it with a knife, the outer margin dips down, and is attached to the supporting cells outside the hair cells. It is also difficult to say what may be the relation of this covering membrane to the hairs of the auditory cells. It is not definitely known whether the ends of the hairs are free, or touch the covering membrane, or project into it. I have never seen them projecting into it, nor have I seen any hairs torn off and adhering to the membrane. It must be admitted that the function of the covering membrane is quite obscure, and must remain so until we know its precise position with reference to the hairs. It has been suggested that its function is to damp the vibrations of the hairs, and so prevent their vibrating too long. But it may be supposed that structures so excessively short as these hairs need no damping apparatus. However that may be, the sound-wave comes into the cochlear canal on the side of this covering membrane, and travels through it to reach the auditory hairs.

THE ACTION OF THE COCHLEA.

I have now, in the last place, to criticise the present accepted theory of the action of the cochlea in the reception of sound, to point out its shortcomings, and to offer for your consideration a new theory. Helmholtz, in his great work on the "Sensations of Tone," supports the theory that the nerve terminations in the cochlea are affected by sound, on the principle of sympathetic vibration; that is to say, there is a finely graduated series of nerve terminations that individually respond to tones of a pitch varying from sixteen to many thousands of vibrations in a second. That theory is based on the analogy of the sympathetic vibration of tuning-forks and strings. No doubt it has been shown by Professor Hensen of Kiel that the free auditory hairs of some crustaceans vary in length, and that when he sounded different notes with a horn some hairs vibrated more than others to particular notes; he admits, however, that when he sounded any note very loudly all the hairs vibrated. But when we turn to the cochlear hair cells, especially those of mammals, we find that the hairs are all nearly of the same length and all exceedingly short. It would take from 120 to 220 of them placed end to end to make the breadth of one millimetre. The shaft of an ordinary pin is just about the breadth of a millimetre. The hairs are therefore exceedingly short, and their variation in length so trivial that no one has ever suggested that the different hairs can be expected to make a selective response to sounds of different pitch. But in all animals auditory hairs are the recipients of sound vibrations. In the organ of taste also, delicate hairs at the free ends of epithelial cells are the parts impressed by molecular motion. Why, then, is the theory still maintained, although the condition of the auditory hairs gives no countenance to it? Hensen has endeavoured to show that, as the fibres of the basilar membrane slightly increase in length from the

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base to the apex of the cochlea, they answer the conditions required for the sympathetic responses to tones of different pitch. But the fibres are at most very short, and their variation in length very slight. They vary from one-fifth to rather more than a third of a millimetre—that is to say, it would take from three to five of them put end to end to make the breadth of a common pin; and yet within the limits of dimensions so minute we are expected to find a series of vibrating bodies that with unfailing precision select particular vibrations, varying from 16 to 40,000 in a second. But the fibres of the basilar membrane are regarded by no one as the terminations of nerves, and although an attempt has been made to show how the vibrations of certain fibres may be communicated to certain hair cells, the explanation is so far-fetched that I need not trouble you with it. I am convinced that this theory of sound analysis in the cochlea, or in any other part of the peripheral mechanism of the ear, must be abandoned. But even supposing the theory a feasible one, see what would be the result of its acceptance. Imagine a great number of sensory nerve cells, all in a row, for the sake of simplicity, with a nerve fibre going from each one of them to a hair cell in the cochlea. A tone of say 100 vibrations per second arrives at the hair cells and stimulates its particular cell. Its nerve is then stimulated. A particular sensory cell is in turn excited, and we hear a tone of a low pitch. On this theory, the pitch of the tone we hear is not due to 100 impulses per second coming along the nerve to the sensory cell. Not at all; that is no part of the theory. It is the excitement of a particular nerve cell or group of cells that is supposed to give the sensation of this particular tone. Suppose a tone of 101 vibrations per second entering the ear: we have the sensation of a tone of higher pitch than the other. On this theory, the sensation of this higher tone is supposed to be due to the stimulation of another sensory nerve cell. So that for every different sensation of pitch, even although the exciting cause differ only by one, or even half a vibration, there must be a different sensory cell in the brain to give it.

Let us see how the theory of *concord* and *discord* fares on this theory. I sound two organ pipes tuned to give the same note. You hear an even flow of sound. I throw them out of tune by causing the one to vibrate a little more rapidly than the other. The even flow of sound is lost, and you hear a harsh discord due to alternate risings and fallings in the loudness of the sound—commonly termed Beats. The beats result from the action of the two sets of sound waves upon each other. Suppose we have two sets of waves started at the same moment, one having the frequency of 100, the other of 101 per second. The crests, so to speak, of the two sets of waves will coincide only once in a second, and give a flash of sound. At all other periods in the second the two sets of waves interfere with each other and diminish the sound; therefore once every second the loudness of the sound would rise from a minimum to a maximum, fall again to a minimum, and so produce one beat per second. The absence of beats is essential for the concord of sound. If I sound three forks whose vibrations are in the proportion of 4, 5, 6, we get the common chord of Do, Mi, Sol in the major mode. We recognise these three tones individually; yet they blend, and the compound vibration flows smoothly on without beats, and is therefore harmonious and agreeable. It is admitted that this agreeable sensation of harmony is entirely due to the relative numbers of the vibrations. Its cause is strictly physical and mathematically precise.

But see what is supposed to happen in the organ of hearing on the theory I am criticising. The complex vibration is supposed to be analysed in the ear and the vibrations of Do, Mi, Sol are caught up by at least three different fibres of the basilar membrane and transferred to at least three different hair cells. The nerve impulses are sent along at least three nerve fibres to the brain, and at least three sensory cells are excited there, and so give the three sensations of Do, Mi, Sol. But the three sensations are blended into the compound sensation of a harmony. How and where can they blend? No doubt the sensory cells send their impulses to the common centre for perception, and we can imagine the blending taking place there. *But if the motions in the three sensory nerve cells are eventually to be blended, it seems unnecessary that the already blended sound-vibrations should have been analysed in the cochlea.* And if the sensation of a harmony so clearly depends on the relative number of vibrations, it seems necessary to suppose that in the three sets of nerve fibres there are vibrations of nerve molecules at frequencies in the proportion of 4, 5, 6, and that these pass to the sensorium, and are eventually blended into a harmonious sensation. If this be not so, then we have really received no explanation of the *physiological causes* of harmony and discord.

This theory of sound-sensation, then, is so full of difficulty when applied to the peripheral mechanism in the ear, and so unsatisfactory when we pursue it into the brain, and it seems so hopeless to adapt it to the facts, that I think it must be abandoned. But before I propose another theory, I would pay a humble but sincere tribute to the genius of Helmholtz. His magnificent services to science have long since placed his name amongst those of the immortals. His theory of sound-sensation may be faulty, but that can never tarnish the splendour of his many wonderful contributions to the progress of scientific knowledge.

A NEW THEORY OF THE SENSE OF HEARING.

Some five years ago it struck me that the case of the telephone may throw light on these difficulties regarding the sense of hearing. In the telephone there is a thin plate of iron placed near the end of a permanent steel magnet. A bobbin of thin copper wire is coiled round the end of the magnet nearest the plate, and is connected with a bobbin of wire around the magnet of a second telephone in every respect similar to the first. When sound-waves fall on the plate of the transmitting telephone it vibrates. The vibrations of the iron near the magnet affect the magnetism, and so induce in the wire currents of electricity whose frequency and amplitude correspond to those of the vibrations of the iron plate induced by the sound. The currents travel to the receiving telephone and induce oscillations of its magnetism, which in turn cause its iron plate to vibrate and produce sounds similar to those communicated to the first telephone. There is no analysis of the sound-waves. The transmitting telephone takes up simple or complex vibrations. The harmonies of an orchestra may fall upon it, and it does not fail to convert the complex sound-vibrations into electrical vibrations, and these again into the complex sound of the orchestra in the receiving telephone. It is, indeed, one of the most wonderful inventions of recent times. Can it throw light on the sense of hearing?

The theory which I have to propose may be termed the Telephone Theory of the Sense of Hearing. The theory is that the cochlea does not act on the principle of sympathetic vibration, but that the hairs of all its auditory cells vibrate to every tone, just as the drum of the ear does; that there is no analysis of complex vibrations in the cochlea or elsewhere in the peripheral mechanism of the ear; that the hair cells transform sound-vibrations into nerve-vibrations similar in frequency and amplitude to the sound-vibrations; that simple and complex vibrations of nerve-molecules arrive in the sensory cells of the brain, and there produce, not sound again of course, but the sensations of sound, the nature of which depends not upon the stimulation of different sensory cells, but on the frequency, amplitude, and form of the vibrations coming into the cells, probably through all the fibres of the auditory nerve. On such a theory the physical cause of harmony and discord is carried into the brain, and the mathematical principles of acoustics find an entrance into the obscure region of consciousness. Now if nerve energy were only electricity, that theory would probably be accepted at once. But nerve motion is very sluggish when compared with electricity.

I have kept this theory back for five years, because I felt I had no evidence of the possibility of sending a rapid succession of vibrations along a nerve. It cost me a good deal of thought and experimental observation to find the evidence I required. If we give to a motor nerve of a frog or rabbit ten instantaneous shocks of induced electricity in a second, ten impulses will pass along the nerve to the muscle, and produce ten distinct contractions in the same period. If we send forty impulses along the nerve, we get, not forty contractions of the muscle, but a single continuous contraction, because the several contractions are fused together. Now, if we listen to the muscle so stimulated, we hear a musical note having the pitch of forty vibrations per second. Each sound-vibration results from the sudden shock of chemical discharge due to the arrival of each nerve impulse in the muscular substance. If we stimulate the nerve, say, 200 times per second, by causing a tuning-fork to make and break the primary circuit of an induction machine, and so send 200 shocks per

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second into the nerve, the pitch of the note in the muscle exactly corresponds. It has the same pitch as the fork. I experimented in this way, and eventually found that I could send as many as 352 impulses per second along the nerve of a rabbit and get a note from the muscle of the pitch of 352 vibrations per second—that is, a note of the pitch of F in the lowest space of the treble clef. But when I tried by more rapid stimulation of the nerve to get a higher note from the muscle, I failed; there was nothing but a noise heard. That a low rumbling sound is produced by a contracting muscle is known to every physiologist. You can hear it if you firmly clench the jaws during the stillness of night, when other sounds are hushed. It is a sound of very low pitch due to vibrations certainly below 40—perhaps not more than 10 or 12 per second. There is therefore nothing new in my statement that a note may be heard in a muscle; the new point is that the pitch of the note may be increased by a more rapid stimulation of the nerve, and that as many as 352 impulses may be sent along a nerve and retain their individuality so sharply that they can produce a note in a muscle having a pitch number of 352. That fact will give support to a vibrational theory of nerve energy.

Now, am I to conclude that, because I failed to get a higher note than one of 352 vibrations from the muscle, it is not possible to send more than 352 vibrations per second along a nerve? By no means; the fibres of a muscle are very different from those of a nerve, and also very different from nerve cells. The molecules in both of them can probably vibrate far more rapidly than 352 times per second.

I have therefore directly proved that vibrations of the same frequency as all the lower tones of the scale, from the lower F of the treble clef downwards, can be transmitted by a nerve. A short time ago it occurred to me that the note produced by the wing of an insect furnishes a simpler proof of the possibility of transmitting a rapid series of impulses along a nerve. The wing of the humble-bee produces the note F in the lowest space of the treble clef. It gives, therefore, 352 complete vibrations in a second. Every downward motion of the wing doubtless results from an impulse sent along the nerve to the muscles that lowers the wing. Therefore we may conclude that about 352 impulses per second traverse the motor nerves of the humble-bee's wing during flight. In the honey-bee the note of the wing is A in the treble clef—that is, two notes higher than in the humble-bee, so that 460 impulses appear to pass along its motor nerves in a second. In a human motor nerve the impulses transmitted by it during voluntary effort are not more than 10 or 12 per second (Schaefer). I have therefore some substantial evidence in support of my theory of sound-sensation. And I cannot but think that the evidence in favour of it will increase. I do not wish you to suppose that on my theory of hearing difficulties disappear; far from it. I merely assert that the difficulties which seem insurmountable on the theory of Helmholtz are diminished by the theory which I have submitted. Should my theory of the sense of hearing find acceptance, it will lead to a reconstitution of theories regarding the other sense organs.

Harveian Lectures
ON
CANCER OF THE UTERUS.

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LECTURE I.

GENTLEMEN,—No apology is needed for making cancer of the uterus the subject of the Harveian Lectures; the disease has been, and always will be, one of great interest to the practitioner and the pathologist. The frequency with which it is met, its irresistible progress, the horrible sufferings which it entails upon its victims, the utter helplessness of medicine in its presence, and its fatal character, all alike join in demanding a careful study of its insidious onset and destructive habits. I should have liked to have reviewed the history of cancer, to have summarised the views which have been held with regard to it, and the various methods of treatment which have been suggested and practised with a view to its cure and the relief of the symptoms and sufferings caused by it, and to have traced the progression and retrogression of knowledge with reference to it; but time will not permit me this indulgence. I must be satisfied with endeavouring to depict to you the present state of scientific knowledge with regard to the disease. To do this I must invite your attention more particularly to the early stages of cancer—the curable stages, if there be any such—before the diseased process has passed beyond the limits of the uterus itself.

Before beginning the consideration of the subject we must have a clear and exact knowledge of what we mean by cancer; and to avoid misunderstanding I will explain the meaning I shall attach to the word. I adopt that meaning which is given to it by one school of pathologists, and which appears to me to be the most reasonable, and the most likely to favour the growth of our knowledge of malignant diseases. Cancer, then, is a new growth possessing malignant properties—that is, it possesses the power of invading neighbouring tissues, and of reproducing itself in the form of secondary growths in other and distant parts. It is not so very long—not more than forty years—since the term was applied to growths which are now known to be devoid of any malignant properties. Fibroid tumours of the uterus were then regarded as cancer, but without good reason. They possess none of the peculiar properties, anatomical or clinical, which are possessed by the more serious affection. The distinction between growths which possess malignant properties and those not possessing them is to be made by two kinds of observations—those made at the bedside and those made at the laboratory. Clinical observation alone is sufficient to decide whether a growth be malignant or not, provided one condition is fulfilled—viz., that time is not stinted. Weeks or months of watching will solve the question; but examination of the growth by means of the microscope enables us to solve it at once. All malignant growths, however, are not cancer, and clinical observation, as a rule, is not equal to making the distinction between the different kinds of malignant disease. Here the work of the laboratory, and, above all, that done by the help of the microscope, comes to our aid. It is by the microscope alone that we are enabled to distinguish them. Progress in our knowledge of malignant disease in the future will depend in a great degree upon microscopic or laboratory work. Its revelations must form the basis of the classification of our clinical observations. During the early stages of cancer, or of other malignant growths, the microscope, I believe, will enable us to recognise and make sure of the disease long before clinical examination; and it is by no means improbable that in any given case, even in the most advanced stages of cancer, the structures revealed by the microscope will empower us to read back the whole of its past history, when clinical examination and observation of the living growth have failed to cast a ray of light upon the previous progress of the disease.

The varieties of malignant disease which affect the uterus are three—namely, sarcoma, carcinoma, and adenoma. Sarcoma and carcinoma are always malignant; adenoma often, but not always, but perhaps always in the uterus. Sarcoma is a growth of the connective tissue type. "It originates in a structure of the connective tissue group, and grows from its constituent cells. Carcinoma and adenoma, on the other hand, contain epithelial elements, and these elements are the structures which give its special characters to the class. All these tumours consist of epithelial cells on the one hand, and of vascular connective tissue on the other. The latter tissue goes to form the framework or stroma in which the epithelial elements are embedded. Some of these are built exactly on the plan of some particular gland; the new-formed tissue corresponds to a definite glandular type. These are called adenomata. Another group never reaches this perfection; they exhibit, as it were, only the first stage of the gland-making process. Epithelium and fibrous tissue interpenetrate each other in an inchoate way. The process is never carried higher. By the multiplication of epithelial cells we have produced nests and clusters and strings of cells, and these are embedded in connective tissue whose elements are likewise multiplying. The result is a neoplasm consisting of a fibrous network or framework, in the meshes of which are lodged a multitude of variously shaped epithelial cells. But there is no orderly arrangement of these epithelial cells. In the adenomata they tend to clothe the alveoli in

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a regular way, leaving open a central lumen in the acinus of a gland." (Ziegler.) It might be thought that with anatomical characters apparently so distinctive there would be no difficulty in distinguishing between the different kinds of malignant growths. Such, however, is not always the case, because growths of the connective tissue type or sarcomata sometimes assume an alveolar form, and their alveoli contain groups of cells which are indistinguishable by the microscope from epithelial cells; so that, judging by anatomical evidence alone, a sarcoma may be mistaken for a carcinoma, and a carcinoma for a sarcoma. This fact has led to different views with regard to the origin of cancer. Some authorities maintain that it originates only in tissues in which epithelium is present, while others hold that it originates in connective tissue in the absence of epithelium. I will not enter upon a discussion of these views, for the definition of cancer which I adopt obviates the necessity for it. I define cancer not anatomically only, but anatomically and genetically—that is, cancer is an alveolar new growth containing epithelial structures which have originated from previously existing epithelium. In this sense only will the term be used in these lectures.

Before classifying and describing the various forms of cancer as they affect the uterus, we must enumerate the parts into which the organ is divided, and note their limits. The uterus is divided into three parts, according mainly to the character of the epithelium and of the glands met with in each part. The first is the vaginal portion. This is the part of the uterus exposed in the vagina. It is bounded below by the stratified epithelium covering the vaginal surface of the cervix, and above by a line drawn from the external orifice, or a little above that point, to the insertion of the vagina. The discovery of the position of the original external orifice is, however, in many cases difficult, and sometimes impossible. The position of it alters, and its characters are liable to be destroyed by tears and by "erosions." The position of the external orifice is that place where the squamous epithelium covering the cervix ends and the transitional begins. This transitional epithelium disappears in many cases, and is replaced by a glandular "erosion," which is covered by columnar epithelium, and the columnar epithelium meets the squamous of the portion without the intercalation of the transitional, and may even extend over an area which in health was covered by squamous epithelium. Such surfaces contain glands, and present the characters of the mucous membrane of the canal of the cervix. They should, I think, be treated as parts of the mucous membrane of the cervical canal, and therefore I shall limit the term vaginal portion to that part of the cervix which is covered by epithelium of the squamous and transitional kinds. This will give the inner end of the line limiting the portio vaginalis above, a little within the cervical canal, in cases of small narrow os externum; and somewhere on the surface exposed to the vagina, in cases of "erosion" or of lacerations of the cervix with eversion. This portio vaginalis is really a cap of stratified epithelium resembling a tailor's thimble, which fits on the lower end of the cervix proper.

The next part is the cervix. It is limited below by the portio vaginalis, above by a plane drawn transversely through the inner orifice, or more accurately through that point where the follicles characteristic of the mucous membrane of the cervix end and the tubular glands characteristic of the decidua begin. The portion of the organ above this plane constitutes the body and fundus of the uterus. This division of the uterus with the boundaries mentioned is of importance because cancer may begin in any one of them, and it appears that the disease generally presents different characters, runs a different course, and is amenable to treatment in different degrees, according as it begins in one or other of these divisions. To trace the life history of cancer has always been found to be a difficult task, and the difficulty has arisen from two causes:—Firstly, because cases rarely come under our notice at a period sufficiently early for observations of the first beginnings of the disease to be made; they come at an advanced stage, when it has become impossible to guess even at their earlier course; from this time on to its certain and uniform termination we possess ample knowledge of the disease, of a kind. The second cause of difficulty is that when cases are examined early their true nature is overlooked. I believe this to occur much oftener than is generally supposed. The result is a very scanty knowledge of the natural history of cancer, with very imperfect descriptions of it.

Cancer is usually classified into scirrhus, encephaloid, medullary, and epithelioma. This classification has no value, and little meaning, as far as the uterus is concerned. Names have also been given to the disease descriptive of the morphology of the new growth—such as cauliflower excrescence, polypoid, diffuse cancer, &c.; but no classification of cancer of the uterus according to its structure has been made with the exception of that made by Ruge and Veit. I shall not refer again to the usual division into scirrhus, encephaloid, &c., but shall describe the structures met with in cancers of the several parts of the uterus, and then I shall arrange cancers according to the structures we shall have met with. The observation of structure alone is not sufficient. We want to trace the course of the disease, the lines along which it moves, discover the tissues which form its favourite pasture—in short, to read its history. When we shall have done this, we may hope to know something about it, and to be in a position to estimate, in some degree at least, the value of any proposed method of treatment. Cancer of any one part of the uterus is cancer which has originated in that part, and not cancer which has invaded it from some other source. Now cancer may begin in the vaginal portion, in the cervix, or in the body of the uterus, and these I shall describe by examples of each. Cancer of the vaginal portion and of the cervix have been described together until Ruge and Veit published their work on Cancer of the Uterus—a work which marks an epoch in the study of the disease.

CANCER OF THE PORTIO VAGINALIS.

Cancer of the vaginal portion begins in the stratified epithelium on the vaginal surface, or in the transitional epithelium at the os externum. Cancer involving this part is common enough; indeed, most of the cases of so-called cancer of the cervix are instances of cancer involving this part, but not originating in it; the instances, however, in which cancer had originated in the portio, and in which the disease was observed at an early period, are very few. Ruge and Veit, to whose work I have already referred, and to which I shall have to refer again, describe twenty-one cases of what they consider cancer of the portio. Among them are included glandular cancers, originating in erosions, as well as certain malignant growths, originating in the connective tissue—which they include among cancers. The glandular cancers I shall range among cancers of the cervix proper, and the connective tissue growths among sarcomata. If we exclude these from among Ruge and Veit's cases, we find they have seen no case of cancer of the portio, or only one surrounded by doubt. Of cancer of the vaginal portion I have observed eight cases only, and have seen specimens from several others; and it is upon these cases mainly will depend the account I have to offer of cancer of this part. I know of no better way of giving you an idea of the disease than by describing typical cases as fully as possible.

CASE 1.—This case presented perhaps the earliest instance of cancer which can be distinguished with certainty. It was a patient in whom the cervix had been divided into three lobes by laceration. She improved greatly under treatment; so much so, indeed, that she complained of no uterine symptoms at all. Two of the lobes into which the cervix had been lacerated assumed a healthy appearance, but the third remained in an unsatisfactory condition, and I cannot tell you what was unsatisfactory about it. It was not hard, it was not unduly red, it did not bleed on digital examination, it did not enlarge, and yet it looked vicious; and the vicious character seemed to be expressed by a slightly livid appearance of the part only, and scarcely that even. But I will read brief notes of the case to you.

The patient was thirty years of age, married, and had had two children and one miscarriage. She was admitted into University College Hospital on Jan. 12th, 1886. She knew of no cause for her illness; but she began to bleed in February, 1884, when she was two months pregnant: she had several irregular floodings until May, when she miscarried, and was laid up afterwards for six weeks with what she called "rheumatism" in her foot and elbow. She afterwards improved, but since the miscarriage menstruation has been irregular, returning at too short intervals, and lasting longer than usual. She did not feel any the worse for it until eight or nine months ago, when the flow began to be so excessive and prolonged as to give her only one week clear. Her strength and general health failing, she sought advice. She had lost flesh of late. She said she had sore-throat and loss of hair in 1884, but no rash. She began to menstruate at twelve years of age; was regular every four

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weeks, the flow lasting a week in considerable quantity, but without pain. She was married at twenty-two. Her second labour was accompanied by a flooding, but she made a good recovery. No family history of cancer was obtained. Her mother died of consumption.

The cervix was low in the pelvis; it was torn on the right side and on the left, and deeply through the anterior lip; there was considerable eversion; there were granules on the everted surface like enlarged and closed follicles. The body of the uterus was anteverted and normal. Through the speculum the vaginal portion appeared pale and covered by squamous epithelium; the left three-quarters of the anterior lip was everted, and bled when touched. The right quarter formed a projection like a nipple; the posterior lip was everted and paler than the everted portion of the anterior. It did not bleed on examination. There was a considerable quantity of muco-purulent discharge on the surface. Temperature 98·4° to 100° F.

By the application of a solution of sulphate of copper to the cervix and canal of the body, menstruation became normal, the discharge ceased, and the lips of the cervix assumed a healthy appearance, with the exception of the left portion of the anterior lip. In July this portion of the anterior lip was removed for reasons already given. This was examined under the microscope, and a very interesting state of things was found. Beginning our examination on the vaginal surface, we found the stratified epithelium intact and somewhat thickened. At the reflexion of the vagina, however, the deeper layers of the epithelium sent processes into the subjacent tissue, and beyond this, on the surface of the portio, several such processes were met with; these processes branched, and some entered glands, which were evidently the glands of an erosion; further on were found swellings of the deeper epithelial layers and glands lying in them; glands again running more or less parallel to the surface, branched or simple; then a gland, one side of which was invaded by squamous epithelium, the rest being lined by epithelium of the columnar form; then irregular thickenings of the deeper strata of the epithelium of the surface, running into and between the glands; the cells of such glands were partially replaced by the squamous variety and were rapidly proliferating; then we came upon a part of the cervix in which the papillæ were everywhere enlarged, and beneath which were found numerous glands. The cervical tissue near the whole of the surface I have described was everywhere infiltrated with small cells, but this was not seen under those portions over which the superficial epithelium was healthy. In some places the glands were filled with secretion, and some were changed into closed follicles. This is the earliest condition of undoubted cancer of the portio which I have met with, and it is the earliest condition which is recognisable as cancer. It presented no symptom, and was discovered accidentally. Its nature was not recognised with certainty, but was held in suspicion.

CASE 2.—In this case there was no difficulty in coming to the conclusion that the disease was cancer, for there was a new growth which progressed so rapidly as to leave no doubt as to its nature. It was in an early stage, but it differed in several respects from the one I have just related. In the first case cancerous processes appeared to enter the cervix from several points on the portio. In the case we deal with now there was a distinct papillary growth situated at the external orifice on the posterior lip.

The patient, aged thirty-nine, married, was admitted into University College Hospital on Dec. 10th, 1883; and she gave the following account of her illness. About Sept. 1882, she noticed a yellow discharge from the vagina, and since that time she had been getting thinner. She attended as an out-patient in June, 1883, and was prescribed a vaginal injection containing Condy's fluid. About a fortnight later, when administering to herself an injection, she noticed blood in the discharge. The blood appeared again when an injection was administered, and varied in quantity from time to time, and afterwards appeared independently of the injections. For nine months there had been pain during, and hæmorrhage after, sexual congress. For five weeks before admission the blood had increased in quantity and the discharge had been offensive. The patient began to menstruate at eleven years of age, and had always been regular until nine months before admission, the quantity lost being moderate. She had been married eighteen years, had had one child seventeen years ago, and one miscarriage a year later. She said that she had had inflammation of the womb three times, and had suffered slight scalding with micturition since she had rheumatic fever nine years before.

On admission she was thin, but looked fairly healthy, and weighed 6 st. 1 lb. External examination of the abdomen revealed nothing abnormal. On vaginal examination there was found what was taken for a red ulcerated surface, raised about one line above the level of the surrounding parts, and situated on the posterior lip and part of the anterior. There was a narrow strip of healthy mucous membrane on the posterior lip, between the growth and the insertion of the vagina, and another about three-quarters of an inch in width on the anterior lip. The red surface had the diameter of a florin. Four days before it was not bigger than a shilling, and affected chiefly the posterior lip. On the left side there was a fissure in the cervix, and the lips were everted.

The cervix was amputated above the internal orifice. The part removed was an inch and a half in length. On the posterior lip was no ulcer, but a raised papillary growth, about three-quarters of an inch in diameter, and on section its thickness was seen to vary from one-third to one-sixth of an inch. It was rough on its surface; and on its sides towards the commissure, and on the anterior lip, was a shallow, narrow, depression. At the border of this depression the stratified epithelium terminated abruptly; the border of the epithelium was sinuous and somewhat swollen, as if thickened. Posteriorly the stratified epithelium was retained up to the growth. The lips were everted, so that the disease appeared to affect the lowest parts of the lip; this was, however, not really the case, for it originated at the os externum, and was advancing along the posterior lip. On examining this specimen with the microscope, and beginning on the healthy surface of the portio, this was found covered by stratified epithelium; beneath the epithelium were the papillæ, somewhat enlarged: beneath these, again, was what appeared to be the healthy tissue of the cervix. As we approached the diseased part, the deeper layer of the stratified epithelium was found increased in thickness; small cells and nuclei appeared in great numbers in the tissue immediately beneath the thickened epithelium. Close to the new growth the stratified epithelium became greatly increased in thickness; here the papillæ became longer, and strings of epithelial cells ran into the tissues beneath, and papillæ grew upwards from the tissue beneath towards the surface, and penetrated the superficial thickened layer of squamous epithelium, as the processes from that epithelium penetrated the tissue of the cervix. These papillæ grew very rapidly, and over their points the horny layer of the squamous epithelium was, in the main, lost. It should be borne in mind that the deepest layer of the stratified epithelium of the cervix is formed of columnar cells, the cells of the middle layers are variously shaped, and the superficial cells only are flat. At the point where the deeper layers began to proliferate the superficial layer of flat horny scales was lost. As the growth proceeded the columnar cells forming the deepest layer lost their character, and abutting against the proliferating stratified epithelium was a thickness of what appeared to be indifferent tissue; beyond this was a string of cancerous cells, then again what appeared to be indifferent tissue. This might lead us to the conclusion that the cancer was really developed from connective tissue, both the connective tissue and the epithelial having been first transformed into indifferent tissue. The loss of the flat horny layer of the epithelium, and the apparent termination of the proliferating epithelium in indifferent tissue, appears to favour this view—a view which has been adopted by Ruge and Veit. A little closer examination, however, will, I think, show that the layer of indifferent tissue in which the proliferating epithelium seemed to end was a rapidly growing papilla—that this was making its way through the thickened epithelium to the surface, and that in the course of this process the horny epithelium fell off. The surface epithelium falls off as the result of the growth of tissues from beneath towards the surface, as I shall have occasion again to point out. The cords and strings of cancerous tissue which appeared in the growth, and which anastomosed freely, were not cancerous tissue developed from connective or indifferent tissue, but the thickened cancerous epithelium of the part penetrated through and through and in all directions by papillæ growing towards the surface, and the loss of the epithelium in places on the surface was the direct effect of the growth of the papillæ. The accuracy of this view of what occurs is shown by the fact that in other places the epithelium was continuous from the healthy

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surface to the diseased, and that in many places in the diseased surface points were found denuded of epithelium. It is a curious fact that when papillæ grow on a uterine surface covered by columnar epithelium they are always covered by columnar epithelium; whereas when they grow on a surface covered with stratified epithelium the surface epithelium is lost—the horny layers are not compatible with growth.

CASE 3. — The third patient, a widow, aged forty-two, was admitted into University College Hospital on Nov. 26th, 1883. She had been treated on and off for perimetritis for several years. She said that twelve months ago the pain in the side for which she had been treated returned with great severity; it radiated from the left side of the lower abdomen. At the same time she had a dragging pain in the left axilla. Four months ago she noticed a greenish discharge from the vagina, which became offensive two months ago. The discharge was in considerable quantity during the day, and contained blood. During the last week the blood had diminished, while the discharge had increased, but the latter had to a great extent lost its fetor. The catamenia appeared first at eighteen; they had returned regularly since, in moderate quantity and without pain. The patient was married at twenty-two years, and had had seven children. The third labour was hard, but delivery was accomplished without the use of instruments. It was followed by a flooding. After this she said that she had inflammation of the womb and bowels. In her fourth confinement she was delivered of twins. She had had no miscarriages. The father died of asthma; the mother of a cause unknown to the patient; one sister died of cancer of the womb. The patient was fairly nourished; the heart and lungs were healthy. The cervix of the uterus was flattened and circular, almost like the head of a mushroom. There was a deep laceration in the left commissure, but the anterior and posterior lips and the right commissure were not torn. The cervix was amputated just above the internal orifice. The portion removed was an inch and a half in length. The posterior lip was the seat of a papillary growth one inch in diameter. There was a narrow strip of healthy mucous membrane between the disease and vaginal vault posteriorly. The vaginal canal appeared healthy. On microscopic examination, it was found that in places the superficial layers of the stratified epithelium were lost, and the deeper layers were exposed; in other places the superficial layers were retained, and the deeper layers were thickened and presented a wavy border. The disease was quite superficial, its thickness being not more than one-sixth to one-third of an inch.

(To be concluded.)

THE TREATMENT OF TYPHOID FEVER BY THE COLD WET PACK AND ALCOHOL.

BY JOHN CURNOW, M.D. LOND., F.R.C.P.,

DEAN OF THE MEDICAL FACULTY IN KING'S COLLEGE, LONDON; PHYSICIAN TO KING'S COLLEGE AND THE SEAMEN'S HOSPITALS, ETC.

DURING the past few years I have had under my charge at the two hospitals with which I am connected more than three hundred cases of typhoid fever, and my experience has led me to a line of treatment in severe cases which has been very successful, but which is not quite in accord with the statements laid down by some of our most recent authorities on this disease. In "Quain's Dictionary of Medicine" Dr. Broadbent urges most forcibly the advantages of the cold-bath treatment, and states that "the cold wet pack has been tried as an alternative to the bath, but without effects adequate to the requirements of the case." I shall show that, when the cold wet pack has been carefully and systematically applied, it is not only more easily made use of, and is less distressing to the patient than the cold bath, but that it is an adequate and effectual alternative. I have used it not only in cases with high temperature, but even in cases complicated with hæmorrhage, and in the latter any movement of the patient, so as to place him in a bath, would have been attended with grave risk. My first experience of the cold wet pack as a remedy was in 1876. I was called in consultation with Dr. Massey, of Camberwell, to a case of acute rheumatism and hyperpyrexia. At 2.45 P.M. the temperature was 106·8° F., and was rising so rapidly that at 3.5 P.M. it was 107·2°. The patient, a young man about twenty-five years of age, was quite unconscious, and his pulse was so rapid that it could not be counted. It was impossible, for want of the necessary assistance in an emergency in a private house, to put him into a cold bath, so he was stripped naked, a mackintosh sheet placed under him, and he was wrapped in a linen sheet wrung out of cold water, kept at 32° by the addition of lumps of ice. The first application stopped the rapid rise in temperature, but the sheet began to get warm in two or three minutes, when another was substituted for it. On this being replaced by a third the temperature began to fall, and on further reapplications this fall became very decided and the patient's condition rapidly improved; his pulse fell, and he was soon quite conscious. After a continuous packing in this manner for four hours, and intermittent reapplications during the night, the tendency to an excessive rise in temperature gave way, and the patient recovered without any further complication or relapse. He had no cardiac mischief, and I saw him in perfect health only two weeks ago.

In typhoid fever the rise in temperature is more gradual, and the risk of a rapid death from hyperpyrexia is not nearly so imminent as in rheumatic fever. I therefore pack only the chest and abdomen, leaving the head and the extremities free, and a thin linen sheet is wrung out of ice-cold water and folded double, and used as in the case just recorded. This method of treatment is adopted whenever the temperature remains above 103·5° for any time (say twelve hours), and is continued until it falls to 102° or less. The pack is changed before it gets in the least dry, and another, wrung out as before, replaces it. When the temperature falls to 102° or less the patient is wiped dry, and the packing is stopped until the temperature again rises to 103·5°. In very severe cases the temperature is taken every half-hour or every hour. In a very protracted and severe case (J. A——), to which I shall presently refer, the patient was in the pack continuously for eight days and at intervals for five days longer, so that this treatment can evidently be carried out with benefit for a much longer time than is usually supposed.

In many cases, when the cold wet pack has been used to diminish the temperature, and to prevent it from rising above 104°, I have given no stimulants or drugs, excepting two or three grains of quinine two or three times daily. The patient is kept in bed, on a milk and beef-tea diet, and in an uncomplicated and ordinary case nothing else is required. I mention this particularly, because I do not prescribe alcohol in every case of typhoid. I have treated nearly 100 cases without any alcohol, and considerably more than this number with less than twenty ounces of brandy throughout the whole course of the illness and convalescence. I am quite convinced, however, that in exceptionally severe cases a much larger quantity of alcohol may be administered than is usually the practice, and in some desperate and apparently hopeless cases it is the only remedy that will save the life of the patient. It must be given with discrimination, and if its administration be carefully watched, and if the patient is improving or not becoming worse, there can be no valid reason why we should not push brandy as we do quinine, iodide of potassium, or opium in suitable cases. I quite agree with the late Dr. Murchison, that "fever may be treated successfully with little or no alcohol," and that it is "very rarely necessary to give more than eight ounces of brandy at any period of the fever"; but I must take exception to another of his statements, that "if, notwithstanding this amount (12 oz.), the patient die, it is doubtful if any amount of brandy would have saved him, and a larger amount would probably only have contributed to the fatal event." The cases which I record will prove that much larger amounts have not contributed to a fatal result, and I further believe that in these exceptionally severe cases the patients owe their lives to the large quantities of alcohol which were administered to them, and that they would not have recovered if any limit such as 12 oz. had been enforced, and I know that this opinion is shared by those who watched and nursed them.

The first case of typhoid fever in which I saw very large quantities of stimulants administered was during my house-physiciancy at King's College Hospital, when a domestic servant about twenty-two years of age was given one pint of brandy and some champagne daily for three or four

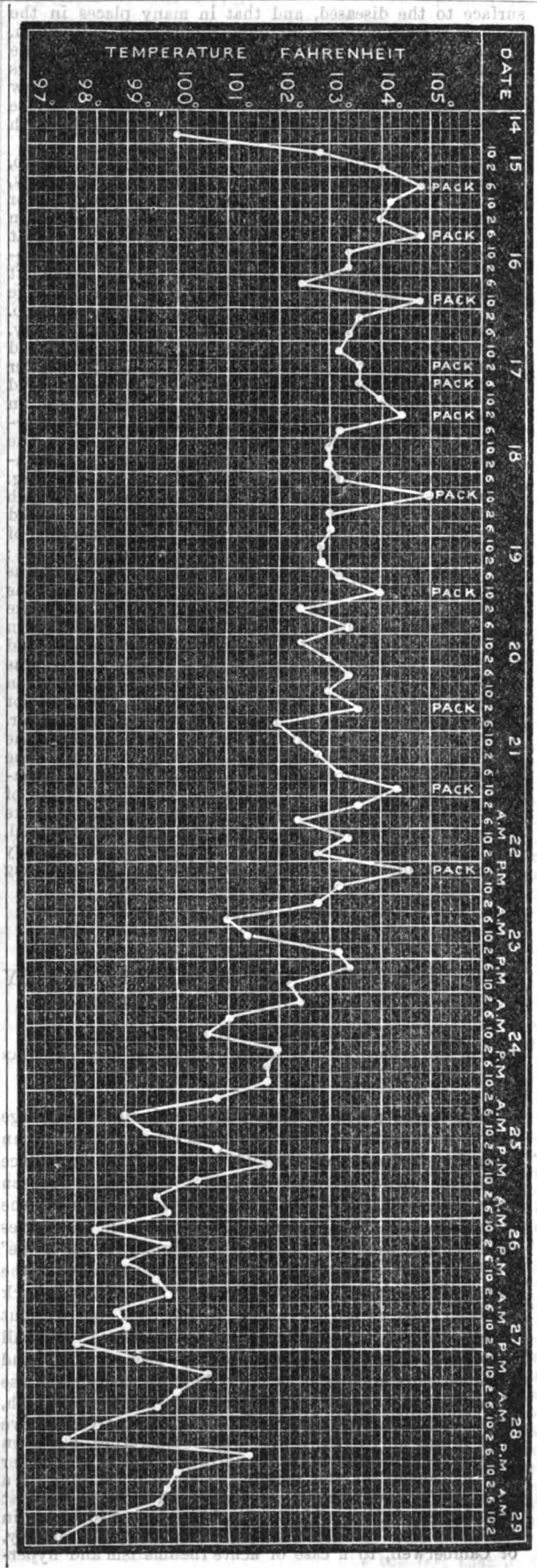
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successive days. She recovered from one of the most severe attacks which I have ever witnessed. I saw her some years after, and she told me, in reply to my inquiry, that she had never tasted spirits after leaving the hospital, and that even taking them up to her master's study at night nearly made her sick, so much did she dislike their sight and smell. In another case, in which a nurse at the Seamen's Hospital in somewhat delicate health fell ill with typhoid fever, I was summoned by an urgent message and found her almost moribund, with a double hypostatic pneumonia, reaching on both sides as high as the spine of the scapula. Brandy in milk or beef-tea was given to her every twenty minutes for two days, and at gradually increasing intervals for some days after, with occasionally some champagne, and she made a good recovery. She is now the sister matron of a large provincial hospital, and has been actively and constantly engaged in nursing since her illness some eight or nine years ago. With the exception of taking a glass of beer with her luncheon, she has taken no stimulants since then. These cases show that brandy given in such large doses, instead of inducing people, especially women, to become drunkards, really have an opposite effect.

The method of administration which I follow in my worst cases is this: About three or four tablespoonfuls of milk or strong beef-tea are given regularly every twenty minutes or half-hour, and to these brandy is always added, the quantity being calculated so that the full amount of twelve, sixteen, twenty ounces, or even more, in the twenty-four hours, is equally distributed. If the patient refuses milk and beef-tea, as is occasionally the case, or the pulse becomes smaller and intermittent, a tablespoonful or a little more of champagne is used in their stead, and the brandy added to it, or if sickness be an urgent symptom the champagne is given freely for a few hours without brandy. In no instance has the brandy been given alone. The following cases are appended as typical of the advantages that have been derived from this plan of treatment.

CASE 1.—J. R—— was admitted on October 14th, 1884, having been ill with diarrhœa, occasional epistaxis and headache for nearly a fortnight. He had taken several doses of castor oil. On admission, there were tenderness and gurgling over the right iliac fossa, a few typical spots, and diarrhœa. His pulse was 96°, regular, and the temperature 102·4°. The diarrhœa continued. Next morning a smart attack of epistaxis occurred, and in the evening his temperature rose to 104·8°. He was constantly packed for twenty-four hours until the temperature was reduced to 102·4°, and, on its rising to or above 103·8°, this was repeated for the next seven days, after which he gradually improved. He had several attacks of epistaxis during this period, and his condition can be best appreciated from the notes for Oct. 23rd and 24th:—Oct. 23rd: The patient is very restless; tongue dark brown, covered with sordes; skin dry; bowels open three times; respiration 36; pulse 120, very small. 24th: Tongue black; muttering delirium throughout the night; quite unconscious; passes everything involuntarily; bowels open three times; he still takes milk well, although swallowing seems laboured. Respiration 40; pulse 128, so small as to be hardly counted. On the 27th his pulse was slower, temperature lower, and his tongue began to clean, and from this date his recovery was uninterrupted. The amount of stimulants which was given to him was as follows:—18th, brandy, 4 oz.; 19th, 4 oz.; 20th, 6 oz.; 21st, 10 oz.; 22nd, 12 oz.; 23rd, 14 oz.; 24th, 14 oz., and a pint bottle of champagne; 25th, 14 oz., and 2 pints of champagne; 26th, 14 oz., and 2 pints of champagne; 27th, 10 oz.; 28th, 6 oz.; 29th, 6 oz.; 30th, 4 oz.; 31st, 4 oz.; Nov. 1st, 2 oz.; making a total of 5 pint bottles of champagne, and 124 oz. of brandy. The temperature chart will show the severity of the case (by no means one of the worst), and the advantages of the cold wet pack and alcohol, which were freely used in the earlier stages of his illness.

CASE 2.—T. H—— was admitted on Oct. 3rd, 1884, after an illness of about fourteen days, but the patient was so prostrate that no reliable history could be obtained. He had some abdominal tenderness; his face was cyanosed; there was marked subsultus, a dry brown tongue, and a weak fluttering pulse of about 120. The temperature, which was 101·4° on admission, quickly rose to 104·2°. The area of splenic dulness was increased, and there were a few rose-spots. His condition from Oct. 9th to 15th is thus described in the case-book: "Patient lies quite unconscious; face blue; subsultus very marked; diarrhœa continues, and



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occasionally a little blood in the motions, which, as well as the urine, are passed involuntarily; tongue black and dry; pulse 144, almost imperceptible." On the 15th he began to show some signs of improvement, and from this date he slowly progressed towards recovery, although there was a relapse lasting eighteen days. He was packed whenever the temperature rose above 103·5°; and the daily quantity of stimulants given to him was: on Oct. 3rd, 4th, and 5th, 10 oz.; 6th and 7th, 15 oz.; 8th, 15 oz. and 2 pints of champagne; 9th to 14th, 20 oz. and 2 pints of champagne; 15th, 15 oz.; 16th, 10 oz.; 17th to 22nd, 6 oz.; 23rd to Nov. 5th, 4 oz.; and Nov. 6th to 8th, inclusive, 2 oz.: making a total of 310 oz. of brandy and 14 pints of champagne.

CASE 3.—J. S——, aged nineteen, was admitted on Sept. 15th, 1884, after a week's illness. On admission his temperature was 103·6°; his pulse 120; tongue brown and dry; abdomen tumid; pain and tenderness on pressure over right iliac fossa; bowels loose; and there were a few rose spots scattered over his chest and abdomen. He became rapidly worse, with low muttering delirium; and on the 19th, at 9 A.M., his temperature having risen to 104·4°, he was packed, and this was renewed again and again, when his temperature rose above 103·6°. From Sept. 17th until the 27th inclusive he was quite unconscious: his pulse was 140 on the average, fluttering and irregular; he had some diarrhœa; and on the night of the 22nd his temperature fell 8° (from 105° to 97°), without any hæmorrhage, and everyone expected his immediate death. By the persistent application of warmth and the use of stimulants he rallied, and his temperature at 9 P.M. on the 23rd had risen to 103·8°. On the 27th he began to improve, and progressed favourably until Oct. 12th, having been allowed some custard on the preceding day. A relapse took place and continued until the 26th, and he then again went on satisfactorily until Nov. 12th, a slice of mutton having been given to him for dinner on the 9th, 10th, and 11th. A second relapse now occurred, but it lasted only three days. From this date he slowly convalesced, and was sent home to Norway on Dec. 12th. He was put on 4 oz. of brandy on Sept. 15th, 16th, and 17th; on the 18th, 6 oz.; on the 19th, 6 oz. and 2 pints of champagne; on the 20th and 21st, 10 oz. and the same quantity of champagne; on the 22nd and 23rd, 12 oz.; from the 24th to the 30th inclusive, 16 oz. daily; from Oct. 1st to the 4th, 12 oz.; from 5th to 8th, 8 oz. and 2 pints of champagne; from 9th to 17th, 4 oz. and 1 pint of champagne; on the 18th the brandy was raised to 6 oz., and again reduced to 4 oz. on the 25th, when the champagne was stopped; on Nov. 6th, 2 oz. only of brandy were given daily, and on the 9th its use was discontinued. The total quantity consumed by this patient was 388 oz. of brandy—2 gallons, 3 pints, 8 oz.—and 21 pint bottles of champagne.

CASE 4.—In the case of J. A——, who was admitted on Feb. 16th, 1884, we had to deal with the most protracted case which has come under my notice. He had been ill some nine or ten days previous to his admission, and the case ran a severe course for five weeks, after which he had a very severe relapse for about twenty days. During the first stage of the illness he was occasionally packed, and from 4 oz. to 8 oz. of brandy were administered daily. In the relapse he was packed almost constantly for eight days, and intermittingly for five days following, as his temperature when not in the pack was almost always 104°, and on two occasions reached 105°. Ten ounces of brandy and two pints of champagne were given daily throughout this relapse. His temperature for a fortnight was almost steadily above normal at some time of the day, and again rose after this, so that it was only on the 130th day, or after eighteen weeks of illness, that it became normal and steady. An exacerbation on the 128th day was probably malarial, as it gave way to 20 grs. of quinine administered in a single dose. He took brandy daily from his admission to April 14th, and 6 oz. of Tarragona port from that date until June 21st, when he was able for the first time to sit up in bed. His temperature fell suddenly on one night during the first relapse from 105° to 96·2°, and the fall coincided with severe vomiting, but there was no hæmorrhage, sweating, or profuse diarrhœa. For the last nine weeks of his illness, during his third pyrexial rise, he took 5 grs. of quinine every four hours. Fresh spots came out during both his relapses. He was kept on milk, with occasionally beef-tea, from Feb. 15th to April 19th, when some custard was allowed. On the 24th a little bread was given, but this and the custard were stopped on the 26th; they were resumed on May 10th. Fish was added on the 21st. A mutton chop replaced the fish on June 2nd, and on the 26th he was put on the ordinary hospital regimen.

I have selected these cases as typical examples of the advantages derived from wet-packing and free stimulation, as they were for longer or shorter periods in the most imminent peril, and in all of them complete recovery took place, notwithstanding, as some would say—or in consequence of, as I should say,—the amount of alcohol which was administered. All credit must be given to my house-physicians—Dr. E. Penny and Dr. E. H. Booth—for their assiduous attention, and to the excellent nurses who watched over these sailors. It must be remembered that the cases of fever admitted into the Seamen's Hospital are on an average more severe than those seen in general hospitals, for the patients have usually been kept at work as long as they could move about the vessel; that they have had no rest, medical attendance, or proper dieting previous to their admission; and that they are all adults, in whom a high rate of mortality is to be expected. In the past seven years I find that only eight deaths have occurred in the cases under my care, of which four were due to hæmorrhage, two to perforation of the bowel and peritonitis, one to exhaustion and thrombosis of the veins during a relapse and one to pneumonia.

SURGICAL MISHAPS.

BY T. PRIDGIN TEALE, M.A., F.R.C.S.

SURGICAL mishaps are happily not always identical with surgical calamities, as the following three cases, slightly sketched without much detail, will show. The narration may be useful, and may bring comfort to others who meet with similar occurrences.

CASE 1. *Disappearance of Tumour after ineffectual attempts at Removal.*—I cannot do better than describe this case in the words of a letter which I wrote to Sir James Paget on Jan. 11th, 1878: "Mr. H——, of H——, consulted me three weeks ago about a tumour behind the angle of the left lower jaw. After existing for several years as a small movable lump, the tumour had within a few weeks begun to grow with an increasing rapidity. It was fairly movable in all directions, and I advised its removal. A fortnight later I went over to H—— to remove it, and then found that the tumour had become at least double in size, was very elastic, and more fixed. I cut down upon the tumour, and found that it involved, and seemed to be growing in, the anterior portion of the sterno-mastoid, and that it had no limiting capsule, as I hoped. Having stripped the outer side of the tumour with the finger, separating it from contiguous fibres of the muscle, I followed it deeply until I could almost touch the transverse processes, where it was firmly attached to deep structures in the neighbourhood of the large vessels. I therefore thought it more prudent to abandon any further attempts at removal. Having inserted a drainage-tube, I closed the wound, and all healed satisfactorily. Curiously, the rapid growth seems to have been checked, and this makes me regret that I did not strip the opposite side also, with a view to cutting off supplies." Sir James Paget and Mr. John Wood, who saw the patient, after hearing my description of the operation, agreed that no further surgical interference was advisable, and the former suggested a course of small doses of iodide of potassium, with large doses of liq. potassæ. On April 24th Mr. H—— wrote that, apparently under the influence of the medicine, the tumour had decreased so rapidly that ten days previously he had omitted the medicine, and that "it is now scarcely feelable and not perceptible." In December, 1878, he again wrote, "The tumour, or whatever it was, has departed in peace, seemingly never to return." I have heard of him from time to time, but never of any relapse.

Dec. 25th, 1886.—Mr. H——writes: "The tumour had existed two years before the operation. There is not a trace at present. I took about six bottles of the medicine, and the tumour disappeared in six months."

CASE 2. *Chronic Inversion of the Uterus; Attempted Reduction by Taxis: Laceration of Vagina into Douglas's Pouch; Recovery.*—Mrs. J——, aged twenty, was sent to me in November, 1884, by Dr. Blair, of Goole, suffering from inversion of the uterus resulting from her second confinement four months before. The labour was prolonged and difficult. She remained in bed for a week after delivery,

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and on getting up for the first time the womb came down and protruded nearly two inches. The womb was returned, and never prolapsed again, but it was afterwards discovered that she was suffering from inversion of the uterus. The patient was anæmic and frail-looking. In consultation with my colleagues, it was considered that the os and cervix were so much relaxed that I might attempt to reduce the inversion by taxis whilst the patient was under ether. I therefore at once made the attempt, using, as I believed, no immoderate force, and fully realising the need of caution so as to avoid the danger of laceration. After careful pressure with the fingers upon the fundus, which in about a quarter of an hour had been reduced to within the level of the os, and just as it seemed that complete reduction was being effected, the whole receded within the peritoneal cavity through a rent in the roof of the vagina, posterior to the cervix. I was then face to face with a most difficult problem, and called to my aid Mr. Robson, who was in the Infirmary at the time. After some deliberation, we came to the conclusion that the safest course would be to transfix, tie, and cut off the inverted womb. This having been done, one stitch was inserted into the rent in the vaginal wall as a safeguard against prolapse of the bowels, and a large drainage-tube was inserted within the lips of the wound so as to project for about an inch into the peritoneal cavity, and was fixed by catgut sutures to each side of the ostium vaginæ. The vagina was carefully syringed with weak carbolic acid lotion, and well charged with iodoform. Her further progress was satisfactory. There were never any symptoms of peritonitis. In a few days her temperature rose to about 103°, and then slowly fell, and she returned home within three weeks of the operation. I have since heard that she is in good health, and menstruates regularly.

Dec. 25th, 1886.—Dr. Blair writes me: "Mrs. G—— is quite well; menstruates regularly, and suffers neither pain nor inconvenience."

CASE 3. *Wound of Popliteal Artery and Vein during an Operation for Necrosis of Femur; Recovery without Gangrene.* A young man, aged about twenty-one, came under my care at the Leeds Infirmary about six years ago, on account of necrosis of the femur. The sinuses led to the back part of the femur, about the bifurcation of the linea aspera. Having enlarged the sinuses, I had considerable difficulty in reaching the denuded bone. In trying to release what seemed to be an indurated edge of fascia or a ridge of new bone, I passed the knife along this edge, loosening it, as I thought, from its apparent attachment to the bone, when a gush of hæmorrhage startled me. To my dismay, the cord proved to be the popliteal vessels coated with a tough hard case of cicatricial lymph, and both artery and vein were wounded. Having commanded the breach in the vessels by the finger, I sent for my colleague Mr. Wheelhouse, who fortunately was paying his visit to the wards, and most kindly came to my assistance and gave me timely aid and counsel. Finding it impossible to deal effectively with the wounded vessels through the lateral wounds, I made a vertical incision about four inches long in the middle of the popliteal space, and so exposed the wounded vessels. Having severed the vessels at the seat of injury, I tied both ends of the artery and vein. The whole proceeding was both difficult and tedious. For some days I watched the case with grave anxiety, fearing gangrene and the need of amputation. Fortunately my fears were disappointed. The foot soon became warm, was never blue, and gave me no cause for anxiety. The wound healed favourably, and the patient recovered the use of the limb. Knowing the frequency with which gangrene results from arrest of circulation through both the main artery and vein of a limb, the impunity which resulted in this case was unexpected, and gave great relief to my mind.

Leeds.

PRESENTATIONS.—On the 21st ult., at Camberwell, Mr. Oldfield was presented with a marble timepiece and a purse containing £150, as a token of the esteem in which he is held, and as a mark of sympathy with him in the trouble entailed by an action which was brought against him, and summarily disposed of by the Grand Jury at the Central Criminal Court.—Mr. H. E. Richardson, who has recently resigned the post of senior house-surgeon to the Birkenhead Borough Hospital, has been presented by the nurses and others connected with that institution with a surgical case and other gifts, as a token of the high esteem felt for him.

CLINICAL AND PATHOLOGICAL ILLUSTRATIONS OF CEREBRAL LESIONS.

BY DAVID DRUMMOND, M.D.,
PHYSICIAN AND PATHOLOGIST TO THE NEWCASTLE-ON-TYNE INFIRMARY.

CASE 1. *Double Cerebral Lesion simulating an Apopletic Bulbar Lesion.*—A boiler-smith, aged sixty-five, complained of nothing of importance until he reached the age of sixty, when he experienced "a very slight stroke," which affected his left side somewhat. Eighteen months later another somewhat similar seizure overtook him, also affecting the left side. His articulation now became difficult, and it was observed by his friends that his face was smooth and expressionless. Soon after this attack he came for the first time under observation, when the following points were noticed. The patient could walk, but he dragged the left leg slightly, whilst his grasping power was decidedly weaker on the left side. The face presented a stupid, stolid expression, the result of incomplete double facial paralysis. The tongue was protruded straight, but with undoubted difficulty, for the tip scarcely reached beyond the lips. The saliva constantly dribbled from his mouth. The speech was exceedingly indistinct, but there was an absence of true aphasia. One could imitate his attempts at articulation very readily by speaking with the mouth open and the tongue still. Both vocal cords were seen with the laryngoscope to be considerably relaxed. His attempts at swallowing were attended with great difficulty, and fluids frequently regurgitated through the nasal passages. I observed this patient for a considerable time before more alarming symptoms set in, and by degrees the signs suggestive of a bulbar lesion became intensified. The double facial and hypoglossal paralysis, the imperfect articulation, the difficulty in swallowing, all advanced together, whilst as time went on there was comparatively little alteration in his locomotion and grasping power. At length one day he was brought into the infirmary, having just had, it was stated, another seizure. It was then observed that, although conscious, he was almost speechless; the tongue could not be protruded; the lower facial muscles were completely paralysed; swallowing was almost impossible; both legs and the left arm were markedly paralysed, and the right arm enfeebled. After lingering in this condition for about three weeks, he sank and died comatose.

It was obvious that we had in this case to do with many of the features of an acute labio-glosso-laryngeal paralysis, such as Leyden and others have described as resulting from hæmorrhage or softening in the medulla. At the necropsy, however, the medulla and pons were found to be normal. The dura mater was thickened and firmly adherent along the edges of the longitudinal fissure; the pia mater and arachnoid were also thickened and presented the sodden wash-leather appearance so suggestive of general paralysis of the insane. The brain substance was of soft consistency. The vessels at the base were atheromatous, and in places markedly thickened, especially the termination of the internal carotid, the middle cerebral, and the posterior communicating on the left side. On cutting the cerebral hemispheres in the usual way, two patches of degenerated brain tissue were observed as the lower levels of the centrum ovale majus were reached, one in each hemisphere; these resembled cicatricial tissue. That on the left side appeared to be placed just above the posterior and middle portion of the optic thalamus, and that on the right was situated a little in front and to the outside of this point. The next section brought into view two cicatricial and cyst-like areas of degeneration. In the left hemisphere the disease occupied the anterior and inferior portion of the optic thalamus and the adjacent centre of the internal capsule, almost at its lower part; whilst in the right hemisphere it was found to implicate the lenticular nucleus of the corpus striatum (especially its middle and posterior portions), the middle of the internal capsule with the posterior part of its anterior division, and the external capsule. Thus it will be seen that the symptoms were due to two lesions which were almost symmetrically situated in each hemisphere. The diagnosis from bulbar disease was by no means easy, and practically rested alone upon the history of distinct hemiplegic seizures; but it must be borne in mind that there was no account obtained of a right-sided

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hemiplegia, and I am inclined to think that the lesion in the left hemisphere was not followed by hemiplegia proper, but simply by paralysis of facial and hypoglossal nerves, the arm and leg paralysis developing later. This opinion is justified by the fact that the lesion was an old-standing hæmorrhage, whilst the paralysis of the right arm and leg only took place a few weeks before the case terminated, being due, in all probability, to an extension of the softening in the neighbourhood of the primary lesion.

CASE 3. *Disseminated Cerebro-spinal Sclerosis; Glycosuria.* Ed. H——, a boy, aged eight years, first came under observation in July, 1885, for headache and a staggering gait. It was stated that he had been ill for three months. There was neither vomiting nor optic neuritis. The speech was slow and hesitating. There was very slight tremor of the arms, but no pronounced paralysis of either upper or lower extremities, and the legs were free from rigidity. There was no nystagmus. The urine was normal; in some weeks, however, it increased in quantity, and sugar appeared. About this time he became gradually blind, and the discs grew white. The auditory nerves also became affected, causing deafness. The legs grew very feeble, but never remained flaccid, though the knee-jerk was increased. Three weeks before his death, which occurred thirteen months after the onset of the cerebral symptoms, the patient was confined to bed with paralysis of both arms and legs, though the former were affected to a slighter degree. His mental state towards the end grew very feeble, but diabetic coma never made its appearance. At the post-mortem which was incomplete, as it had to be made in the patient's home under rather trying circumstances, the body was seen to be markedly emaciated. The brain weighed 46 oz. The basal arteries were normal, but the small vessels of the pia were deeply congested. The convolutions were flattened, and to the touch the posterior parts of the hemispheres were harder than the anterior. Sections exposing the upper part of the basal ganglia revealed in the white matter symmetrically arranged patches of sclerosis, which passed backwards from opposite the middle of the optic thalami on each side. These sclerosed areas were very extensive, and were found to invade the occipital lobes to a marked degree. The grey matter was normal. Nodules were found in the upper part of the spinal cord, and one was observed in the white matter of the left hemisphere of the cerebellum, whilst another occupied the medulla, appearing on the surface of the floor of the fourth ventricle about its centre. The spinal canal was not opened.

CASE 4. *Injury to the Head; Chronic Meningitis; Ventricular Effusion; Minute Hæmorrhage in the Upper Part of Floor of Fourth Ventricle; Diabetes.*—A boy aged seven was admitted into the infirmary in a very emaciated condition, complaining of great thirst and other symptoms of diabetes. It was stated that he had received a blow on the head some four or five months previously, and that he had suffered ever since from headache. The urine was full of sugar. He died in a state of diabetic coma two days after his admission. At the necropsy the body was found greatly wasted and post-mortem rigidity very pronounced. The stomach was considerably dilated, and its walls were very thin. The liver was pale, but a large quantity of blood poured out from the cut veins. Brain: The dura mater was strongly adherent to the upper part of the occipital bone. There was a slight amount of subarachnoid effusion. The pia mater beneath the cerebellum was much thickened and congested, especially the portion, forming the roof of the fourth ventricle. The lateral ventricles were dilated and contained fluid. The iter e tertio ad quartum ventriculum was considerably dilated, and the usually smooth surface of the floor of the fourth ventricle presented a large number of minute glistening elevations, the whole resembling the ground-glass appearance of the ependyma so characteristic of general paralysis. A small hæmorrhage occupied the central fifths 4 mm. above the linea transversa and 16 mm. above the calamus scriptorius.

CASE 4. *Tumour of the Left Cerebellar Lobe; Convulsions, with Rotatory Movements from Left to Right; Ventricular Effusion; Glycosuria.*—Henry M——, aged seven years, was admitted into the infirmary complaining of pain in his head of two years' duration. Twelve months after the commencement of the symptoms vomiting and staggering gait made their appearance, and the attacks of headache became much more severe. On admission he was particularly had severe occipital pain, which culminated in convulsions, at the height of which he generally vomited. The knee-jerk was absent. The optic discs were markedly atrophied. There was no nystagmus, nor was there any retraction of the head. The urine contained sugar, but not in large quantities; the specific gravity was never above 1025. The day before his death two fits occurred; he lost consciousness during the convulsions, and each time *rolled from left to right*. At the necropsy the body was found to be well nourished; rigor mortis marked. The head only was examined. The convolutions of the convex surface were flattened. The veins were full. The pia mater covering the pons was thickened. The optic nerves were greyish and firm. The lateral ventricles were considerably dilated, and contained fluid. The veins of the ependyma were distended. The left hemisphere of the cerebellum contained a firm tubercular growth the size of a walnut. This tumour extended slightly over the middle line to the right side, and to within half an inch of the lateral surface of the left. The effusion had evidently reached the fourth ventricle.

CASE 5. *Complete Hypoglossal Paralysis depending upon a Lesion in the Left Internal Capsule.*—A labourer, aged fifty, had what was described as a "stroke" three months before he came under observation. Consciousness was not lost in this attack, and the only result was paralysis of the right side of the face, with inability to protrude the tongue, and difficulty of articulation, so that his friends did not understand what he said. Seven weeks subsequently he had another attack, in which his face became more profoundly paralysed and his right arm and leg were affected. He was now, it was stated, deprived completely of his speech. On admission into the infirmary the right leg and arm were almost helpless and late rigidity was commencing. The right side of the face was also paralysed, and the power of protruding the tongue was lost. Even efforts such as are wont to arouse automatic tongue movements failed—such, for example, as holding a lozenge near his lips, and at the same time showing him what was required of him. For some weeks he lay in this condition; but by degrees the general nutrition failed, the tongue as it lay in the mouth became foul and covered with a thick dry crust, and he began to refuse food. In a short time he died, without the development of any further seizure. At the post-mortem examination a considerable quantity of fluid escaped when the dura mater was opened. The superficial veins of the hemispheres were much congested. The arachnoid was cloudy, and enclosed some serous effusion. The basal vessels were much degenerated—viz., the vertebrals, basilar, posterior cerebrals, and especially the middle cerebrals. The lenticulo-striate branch of the left middle cerebral was completely blocked and thrombosed. A patch of softening was found occupying the posterior part of the caudate nucleus and adjacent anterior portion of the optic thalamus, as well as the central division of the fibres forming the internal capsule. The right hemisphere appeared to be free from disease.

In this case the aphasia scarcely corresponded with Lichtheim's published views on the variety of aphasia that results from a lesion of the afferent fibres connecting the "speech centres" with the medulla,[1] inasmuch as the patient had not quite lost volitional speech or the power of repeating words. He could always, for example, when asked his name, mumble it in such a fashion that anyone familiar with its sound could recognise the attempt at articulation, and efforts were made to reply to other questions in the same imperfect manner. The case is important as showing that the impression that "a bilateral lesion is required to produce paralysis of the motor organs" (of speech)—to quote from a recent writer—is not always the case, for in this particular instance bilateral movements of the tongue would appear to have been excited by innervation from the left hemisphere alone.

(To be concluded.)

[1] Brain, January, 1885, p. 449.

MANCHESTER ROYAL INFIRMARY.—An addition has just been made to the collection in this infirmary of portraits of distinguished members of the medical profession, by the presentation by Mr. Charles Jordan of memorial busts of two eminent surgeons, Charles White and Joseph Jordan, who did much during their lifetime to advance the importance and value of the charity to the city.

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CASE OF

SUCCESSFUL REMOVAL, PER VAGINAM, OF A CANCEROUS (AND PREGNANT) UTERUS.

BY J. GREIG SMITH, M.A., F.R.S.E.,
SURGEON TO THE BRISTOL ROYAL INFIRMARY.

THE patient, a well-nourished woman, aged thirty-four, was admitted to the Bristol Royal Infirmary in September, 1886, with characteristic and well-marked signs of uterine cancer. She had had eight children (twins on two occasions), and her frequent and excessive hæmorrhages had been attributed to miscarriages. It is very probable that she had had miscarriages; indeed, it was suspected before operation that she was pregnant, though bleeding had been almost continuous up to the date of admission.

The epitheliomatous growth was for the most part confined to the cervical canal. Hard cauliflower granulations sprouted from the os, and the whole of the posterior lip was occupied by nodular growths, which bled freely on being touched. The vaginal portion of the cervix and the growth in it together were in bulk about as large as a tennis-ball. The contiguous vaginal surfaces were healthy; the uterus was freely movable, though it was considerably enlarged (the sound entered four inches); signs of implication of glands, broad ligaments, bladder, or rectum were absent; and the patient was in good condition, though anæmic. On the whole, it seemed to be a suitable case for operation. The decision was not definitely to remove the whole uterus, but to begin as if for supra-vaginal amputation, and, if this operation did not seem radical enough, to perform total hysterectomy. The first steps of partial amputation, as I perform it, are identical with the first steps of total amputation. When the cervical mucous membrane is detached the finger can reach as high as the internal os outside, and, being in actual contact with uterine fibres, can diagnose the condition with accuracy. Pregnancy would have little influence either way; probably its existence would favour complete removal. After partial amputation abortion would take place, and the bleeding and discharging would add to the patient's risk.

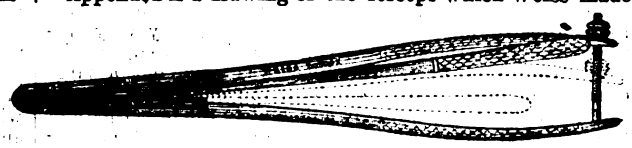
Preliminary cleansing of the parts was carried out for three days before the operation, and immediately before operating the whole of the genitals were washed with 1 in 20 carbolic lotion. The patient was placed in the lithotomy position. The cervix was caught in strong vulsellum forceps, which were entrusted to an assistant, who pulled down the uterus, and manipulated it according to direction. The mucous membrane surrounding the cervix was divided all round by scissors at a safe distance from the new growth, and was dissected upwards by scissors and fingers, catch forceps being placed on bleeding points. As high as dissection could be carried without entering the peritoneal cavity induration was felt in the uterine tissue; it was therefore decided to remove the whole organ. The peritoneum behind was perforated by the finger close to the uterus, and enlarged laterally by tearing. In front the peritoneum was opened by pushing a Lister's sinus forceps through it close to the uterus, and the opening enlarged sufficiently to admit the finger by separating the blades. The finger, inside the abdomen, readily tore the peritoneum from the uterus close down to the broad ligaments. I then endeavoured to hook the finger over the top of the broad ligaments so as to place on them the clamp forceps which I had some time previously devised for the purpose. But the ligaments were so much elevated by the enlargement of the uterus that I could not reach high enough; and, besides, they were so voluminous that the clamp could not have efficiently grasped them; I therefore proceeded to antevert the uterus. This was done by taking successive grips of its anterior surface by means of powerful catch forceps, placing one above the other, and so gradually and completely anteverting the whole organ. A sponge had been previously placed in the abdominal cavity through the posterior opening to keep the bowels out of the way and absorb any fluid that might be effused. The fundus now lay between the labia, distending the vagina. By dragging it to one side and retracting the labia the top of one of the broad ligaments could be brought within reach. A powerful Wells's forceps was made to grasp as much as possible of the ligament (including the Fallopian tube and round ligament of course) close to the uterus. A corresponding depth of the ligament was then caught in a silk ligature at a distance of about a third of an inch from the forceps and divided between. This division enabled the uterus to be drawn down a little further. Three other ligatures were successively placed in the same way, and one side of the uterus was thus fixed, the catch forceps being left on the uterus. The same proceeding was then carried out on the other side, and the uterus was removed. The vessels in the broad ligament were very large and very numerous, and it was deemed wise to leave the catch forceps attached to the ligaments where the vessels were most numerous, so as to give extra security against hæmorrhage. These were removed after twenty-four hours. The sponge was now removed from the abdominal cavity; a clean sponge reintroduced removed all blood clot, and at the same time pulled the peritoneal flaps downward over the mucous flaps, so that the rawed surfaces lay in contact and the serous surfaces were apposed. No stitches were used. The vagina was finally cleansed; iodoform powder was insufflated, and pure boroglyceride smeared all over the external parts. A small plug of iodoform wool in a fold of carbolic gauze was placed in the vagina to fix the forceps. The operation occupied about forty minutes.

Next day the vaginal plug was taken out and the forceps removed. In the track of the forceps an ordinary glass drainage-tube was carried inside the abdominal cavity, the end lying outside the vulva. By means of an irrigator the cavity was washed out through the tube with warm boroglyceride solution every six hours. Before each cleansing the urine was drawn off; then the genitals were washed, the tube isolated with sal. alembroth wool, and plugged with a roll of wool, which at once acted as a capillary exhauster and as an antiseptic. After four days the tube was removed, as there was no discharge; but vaginal irrigation was continued for a few days longer.

The patient's recovery was most easy and straightforward. On the second day there was some tympanites, which was relieved by a turpentine enema. On the third day a saline purge was given, followed by another enema, and thereafter tympanites gave no trouble. There was no sickness. Her progress was, in fact, as rapid and as satisfactory as that seen after an ordinary ovariotomy.

The uterus, on bisection, was found to contain two fœtuses and their membranes, about six weeks or two months old. But its measurements were larger in proportion, as might be expected. The cancerous growth in the cervix was much crushed by forceps, and the fundus and sides were also compressed and flattened by instruments, so that the measurements were inexact. Roughly its length was about seven inches, the other dimensions being proportionate. The disease extended up the whole of the cervical cavity, and abutted on the fœtal membranes.

Appended is a drawing of the forceps which Weiss made



for me some months ago for the purpose of clamping the broad ligaments. It consists of two grooved blades, which lock over the top of the broad ligaments, and are tightened by a screw at the end of handles which lie in the vagina and pass outside the vulva. On the inner aspect of the clamp grooves are placed to carry a small knife, with its edge set obliquely to the handle. When pushed up the grooves it cuts the broad ligament away from the uterus. The clamps, one on each side, are placed and tightened, and when the circulation is thus completely stopped the uterus is cut loose by simply pushing the knife up the grooves on the clamp, first on one side and then on the other. The compressing edges of the clamps are deeply slotted to prevent the possibility of their slipping; elsewhere they are rounded and smooth so as to avoid irritation of peritoneal surfaces. It matters little whether the anterior or the posterior blade is first placed; only the grooves must be placed towards the uterus.

It has been abundantly proved that crushing or compression maintained for forty-eight hours on vessels the size of the uterine arteries is efficient and trustworthy for per-

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manent hæmostasis. The instrument is intended to avoid the chief difficulty in kolpo-hysterectomy—the application of ligatures to the broad ligaments. It also renders the operation an extremely easy one. On the dead body it is possible to remove the uterus in five minutes and leave the parts in a satisfactory surgical condition.

Remarks.—The latest statistics of kolpo-hysterectomy show, in a total of 350 cases, a general mortality of about 26 per cent. This mortality is steadily decreasing. In the hands of specially skilful operators the percentage of deaths is under 10; indeed, a hundred cases could be gathered as representing the whole of the operations of four men, with a death-rate of only six. Brennecke and Schede can show records of 18 and of 16 operations respectively, all successful; Fritsch has lost 2 out of 24; Martin is well through his second 50 operations, with a mortality under 9 per cent.; and Sänger, with a few others, have almost equally brilliant results.

The amount of literature which has accumulated around the operation is truly enormous. The variations in details are very numerous and very confusing; but unessential details are being eliminated, and the methods are now settling down to a few definite practices which are followed by the most noted operators. The essential details in the operations I would shortly describe as follows:—1. Thorough preliminary cleansing of the accessible genital parts. This ought to include the vulva and labia, as well as the vagina and cervix, and ought to be particularly exact in the deep sulci of the external parts, which are so liable to harbour filth. 2. A bladder and rectum perfectly empty and collapsed. A sound in the bladder is quite unnecessary. The forefinger, after a little practice on the cadaver, can readily feel and recognise the bladder wall, and easily diagnose its relations. 3. Circular denudation of the mucous membrane surrounding the cervix, and separating it, close to the uterus, as high as it will go without force. 4. Perforation with finger or blunt instrument of the peritoneum behind and in front of the uterus, and close to that organ. If a blunt instrument is used the bowels cannot be wounded, and if perforation is made close to the uterus, the rectum cannot be wounded behind nor the bladder or uterus in front. The peritoneum is to be separated from the uterus laterally as far as the broad ligaments, and no further. 5. Efficient surgical hæmostasis of the vessels in the broad ligament: This may be done by temporary forcipressure, or by compression instruments such as those I propose, the uterus being cut away between them. If deligation be decided upon, inversion of the uterus renders the method easier. Silk is a trustworthy ligature, and simpler of application than any other. 6. Apposition of serous and of raw surfaces. This may be effected by simply pulling out of the abdomen into the vagina a sponge placed there at an early stage of the operation; stitches are unnecessary, as the parts lie naturally in apposition. This arrangement of flaps permits of free drainage from the peritoneum, and from the denuded surfaces back into the vagina. 7. Abdominal drainage per vaginam for a few days is expedient, if not necessary. If clamp forceps are used drainage may be dispensed with. A simple straight tube is quite efficient.

Bristol.

NOTES OF A

CASE OF ACUTE DIFFUSED MYELITIS; RECOVERY.

By F. R. FAIRBANK, M.D., L.R.C.P. LOND.,
SURGEON TO THE DONCASTER GENERAL INFIRMARY.

DISEASES of the spinal cord are now attracting so much attention that the notes of the following remarkable case may be perused with interest. It is probably seldom that recovery—complete recovery—takes place in so severe an attack as that which is the subject of these notes. The absence of the complications in the chest and on the surface, which so commonly occur in cases of myelitis, was greatly due to the high character of the nursing which the patient was fortunate in receiving. She was unable to lie on her side on account of the pain which it occasioned. She was therefore kept with her shoulders raised as much as possible, and moved frequently. The nates were carefully protected with pads of cotton-wool, and the utmost cleanliness was observed. At one time the paralysis was so complete that she was unable to move any part of her body, and the respiration was of the shallowest possible character. Careful inquiry elicited an exposure to cold as the cause of the mischief. But there was no reason apparent why the spinal cord should specially suffer. Much care was taken with the use of galvanism, and its effect on the patient was carefully watched; I have seen much mischief occasioned by the too early use of it in cases of myelitis. The notes appended by Dr. Clifford Allbutt, who saw the case with me, and by Dr. Gowers, who has been kind enough to criticise the case from my notes, will be read with interest

Miss ——, aged sixty-five, was first seen on Oct. 25th, 1885. A short, spare woman, hair white, of a kind disposition, cheerful, and thoughtful for others. Has enjoyed good health; father suffered from gout. Called me in to see her for pain in the lower end of the œsophagus on swallowing, "as if something had stuck in her throat." There were symptoms of subacute gastritis. In the course of three days the gastric symptoms were relieved, but the pain on swallowing remained. Right sciatica now came on, followed next day by extension to the left side, and the day following she faltered in rising from her seat. I sounded a note of alarm, and requested a consultation with Dr. Clifford Allbutt. She rapidly became much worse. The legs became paralysed, the arms painful down the course of the main nerves, the breathing shallow, and there was a feeling as of a cord being round the waist and also round the legs. When her legs were lifted from the bed they "flopped about." There was great weakness of hands and arms. Bowels confined; urine escaped involuntarily. The pain in the limbs was much worse after movement. There was considerable cerebral excitement. My diagnosis was "spinal meningitis—myelitis." I gave her bichloride of mercury, iodide of potassium, and cinchona. This was her condition when on Nov. 3rd I saw her with Dr. Allbutt. We then examined her together. She was able to say which leg was touched, and felt the difference in succession when touched with sharp points. When seen it was afternoon, and she expressed herself and appeared slightly better than she had been in the morning. This suggested to Dr. Allbutt the idea that the case *might* be one of peripheral neuritis, and inquiry was made as to the patient's habits, with negative results. But for this he would have diagnosed acute ascending paralysis. The improvement was, however, most transient. She rapidly got worse and could not raise her head, and when it was raised it moved powerlessly about. The patient's breathing was shallow in the extreme, and hurried. The pains in the limbs subsided as the paralysis increased. The fæces had to be scooped out of the rectum by the nurse. The urine would only flow through the catheter when the body was firmly pressed by the hand. When either knee was touched she could tell the difference, but if one was touched after the other she was not aware of the change. When at the worst, she appeared unable to see the night through on account of the inability to breathe. She was then entirely powerless from head to foot. There was extreme emaciation. I gave her dilute phosphorus acid, ammon. carb., and cinchona, with a draught of hydrate of chloral with bromide of ammonium at night, as she could not sleep. Reflex contraction was lost at the knee and the sole of the foot. From the worst point she gradually improved. The breathing gradually became deeper, then she could swallow a little better, then move a finger. Her hands, as she improved, were held straight (unbalanced action of extensors), and were stiff and tremulous, and felt soft and puffy. She gradually got power of control over the bladder; first she could empty it herself when the catheter was introduced, then she could control the action of it. The urine had become muco-purulent; this improved. The legs could after a time be moved, "after the nurse had worked them about freely first." Power returned in the flexors of the legs before the extensors; the reverse in the hands. I changed the medicine to bromide of ammonium with oxide of zinc, with sleeping draughts of morphia and belladonna. There had been no indication of lung mischief apart from the paralysis. The temperature had not exceeded normal. There was no facial paralysis. This report is to Dec. 11th, 1885.

On Dec. 21st the report was as follows:—Can move her left hand above her head. Able to sit on the edge of the bed with assistance. Has not passed urine involuntarily for the last fortnight; it has been drawn off by catheter. More control over the rectum; fæces have not now to be scooped out. Can raise her thighs to a right angle. Has very

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little power over the muscles of the leg, and the feet fall. When the front of, say, the left leg is rubbed, can tell which; if the right be then rubbed also with the other, does not detect any difference; then when the right is continued to be rubbed and the left is let alone, is not aware of the change. Has all along, with the improvement, suffered from painful sensations over her body, which she has spoken of as "fidgets"; these were almost continuous, but have now changed into paroxysms, more severe while they last, but with intervals of ease. Along with the bodily improvement her mind has become alienated, and her disposition entirely changed. She screams at the top of her voice frequently through the night and day, and when told how seriously this interferes with other people's comfort, says she does not care; it is nothing to her if they are kept awake all night by her noise. As she has become able to move her hands, &c., they have become subject to fits of uncontrollable movement after voluntary effort. There has throughout been no tendency to bedsores; very great care has been taken to guard against this.

March, 1886.—Has had a long, weary time of it. Can now walk about her room; at first with assistance, now without. Can feed herself, and write letters with great effort. Has still pain after movement, and general feeling of distress all over her body. Disposition again natural. Bowels usually moved without enema, with a pill every other night. Has severe pain after passing urine. Small quantities of pus come from the vagina (there had been symptoms of a small pelvic abscess which burst through the vagina). Legs are plump again; pain in the joints, knees especially, much less. There had been considerable redness about the right patella.

The patient subsequently went on improving. Great care was taken with the muscles to prevent degeneration—by movement, rubbings, galvanism, &c. The medicines during the later period of convalescence were nux vomica, arsenic, iron, and valerian. Went away to the seaside and elsewhere for change of air, and returned home by midsummer well.

My patient had the advantage of first-rate trained nurses from the Leeds Nursing Institution, and I wish to acknowledge their care and faithful discharge of their duties, without which she could hardly have escaped the various accidents which are liable to occur in such a case. From time to time I reported her condition to Dr. Allbutt, and he has kindly favoured me with the following criticism:—"As the later history of this remarkable case unfolded itself, of course I gave up the idea of peripheral neuritis. Ascending paralysis (so-called Landry's palsy) was set aside for several reasons, among others the profound anæsthesia, the palsy of rectum and bladder with cystitis, and the age of the patient. It is clear that the disease involved the whole thickness of the cord, including the grey matter, and was probably a myelitis—either an ascending diffused myelitis, or a myelitis ascending in patches. In any case the recovery is very remarkable. The symptoms of returning health in the cord are full of interest."

Dr. Gowers, who has seen my notes, has kindly favoured me with the following criticism of the case founded upon them, which is too interesting and valuable to be omitted. Dr. Gowers remarks on the absence from the report of "some information as to the electric irritability of the muscles at various stages, because this is an important element in the diagnosis." "The diagnosis rests between true acute ascending paralysis and acute ascending disseminated myelitis, and I should incline to the latter, partly on the ground of the cerebral complication, which points to either meningitis or to disseminated inflammation of the cortex. Coincident cerebral and spinal inflammation is not rare, while the brain functions are usually—it is said always—unimplicated in true ascending paralysis. At the same time no malady is sharply defined, and aberrant forms are met with, differing more or less widely from the customary type."

AN UNHEALTHY HOUSE.—At the Nottingham County Court a woman was recently sued for the rent of a cottage in which she had resided. The defendant admitted the debt, but alleged that, owing to defective sanitary arrangements, the place was unfit to live in, and she presented a counter-claim for medical charges and funeral expenses in respect of a child whose death was proved to have been caused by an illness arising from defective drainage. The judge gave judgment for the rent due, and allowed the counter-claim, on the ground that the cottage was not reasonably fit for habitation.

WOUND DIVIDING THE TENDO ACHILLIS AND OPENING THE ANKLE-JOINT.

SUTURE OF TENDON; RESULT.

BY A. G. P. GIPPS, M.R.C.S., &c.

F. S——, a carpenter, was working with an adze on July 30th last, when the tool slipped and struck him over the posterior and inner portion of the left ankle-joint. The result was a transverse wound of about 1½ in. long, dividing the tendo Achillis immediately above its insertion into the os calcis, "nicking" the edge of the tendon of the flexor longus pollicis, and the corner of the adze entering the ankle-joint. There was also considerable bleeding from a branch of the posterior tibial artery, divided close to its junction with the main artery. The patient was a very muscular man and the cut tendon at once receded some distance into the calf of the leg. He was as soon as possible placed under the influence of chloroform, and, the parts having been thoroughly examined, I made an incision two inches and a half long at right angles to the wound, and parallel to the edge of the cut tendon, this being required before it was possible to catch hold of the upper end of the tendon. When this could be grasped by the fingers, it was forcibly pulled down till it was almost in contact with the lower end, when three silver sutures were passed through both ends and secured by twisting. The wounded vessel had previously been secured by torsion; the silver sutures were cut off long. The whole wound and joint were now freely syringed out with a solution of perchloride of mercury (1 in 1000); the skin wounds were brought together with silver wire, leaving only the lowest portion of the wound open, through which were brought the ends of the wires used to unite the tendon, and which served for drainage purposes. The whole wound was well dusted with iodoform, covered with a pad of lint wrung out in the mercurial solution, and the joint surrounded with absorbent wool. The limb was placed on a metal back splint extending above the knee, and the foot secured to the foot-piece in a state of extreme extension, and the patient put to bed.

Aug. 6th: Wound dressed for the first time since the operation (a week). The lint over it was found dry, the wound quite aseptic, and no discharge of any kind present. The upper part of the wound was healed, and all the wires in position. The solution of perchloride of mercury was again used, the wound dusted with iodoform, and the whole replaced as before.—13th: Wound re-dressed. No discharge of any kind. Except at the spot where the inner sutures project, both wounds have united entirely. The skin sutures were removed, and as any attempts to get at the sutures in the tendon only produced a good deal of bleeding from the newly-formed material, these were pulled out as far as possible and cut off short, the small unhealed point being dressed as before.—17th: As the ship was going to sea, the foot was taken down and readjusted, the foot being flexed in order to stretch the tendon. Patient can move the joint himself, and the reunited tendon can be felt in continuity as he extends his foot. There is but little stiffness in the joint itself.—25th: The cicatrix being now firm, everything was removed from the joint, and the patient told to work it freely in bed.—31st: Patient up to-day, and commenced to walk about. He has complete use of the joint as far as movement goes in all directions, and complains only of some weakness and a feeling at present of insecurity.—Sept. 9th: Patient can now walk fairly well, go up and down ladders, &c.

Remarks.—With regard to the temperature, the first two nights it went up to 100°, being normal in the mornings. On the third day it was normal, and remained so for the rest of the time. The bowels were opened on the eighth, tenth, eighteenth, and twenty-fourth days, to avoid all possible disturbance; after that they were allowed to act naturally. With regard to the silver sutures cut off and left in the tendon, so far no effect has been felt from them: firm pressure gives no sensation of "pricking," so they are probably completely buried. The tendon has complete and free play, and the wounded ankle-joint its natural mobility. The treatment by means of the solution of the perchloride of mercury and iodoform proved completely antiseptic, its

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easy preparation being a great boon in a he patient's confinement to bed he was kept nging cot by an open port.

Clinical Notes:

L, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

THE CAUSE AND CURE OF A FORM OF BACKACHE.

AMES SAWYER, KNT., M.D. LOND., F.R.C.P.,
CIAN TO THE QUEEN'S HOSPITAL, AND PROFESSOR OF EDICINE IN QUEEN'S COLLEGE, BIRMINGHAM.

the year 1881, in a note which was published in a fessional journal, I asked the attention of my a form of backache which had not, so far as I know, ed before.[1] I desire now to refer to this subject o record that my further experience in practice ed my previous remarks upon the point in ques-

e symptoms are always important diagnostic they are often clear therapeutic indications. ch sensations backache is frequently a leading nd also one which is pressingly dwelt upon by Of backache there are divers forms. Dr. George n an able clinical lecture, and Mr. William practical memorandum, have drawn the attenprofession to many of these.[2] But they have ed a variety of backache in which the cause of traceable to the condition of the large bowel. I me patients complain of a pain, aching, dull, and haracter, and extending "right across the back." d to point out its position, they indicate this by hand behind the trunk and drawing the extended ight across the back, in a transverse line, about etween the inferior angles of the scapulæ and the n. This pain I venture to attribute to a loaded nclude I have correctly found its proximate cause cumulation in the large intestine. I have found it after the exhibition of an efficient cathartic. This ckache is a concomitant of habitual constipation, ecially significant of the alvine sluggishness of persons. In such a condition, as I have stated I find aloes, given in combination with iron, to best results.[3] We owe the valuable suggestion ing iron with aloes, when aloes is given for laxaes, to the late Sir Robert Christison. He showed athartic property of aloes is much increased by ation with sulphate of iron. Dr. Neligan, Dr. der, and Dr. David Bell have confirmed this ex- I prefer socotrine aloes, and I give of it one, two, rains in a pill, combined with a quarter of a grain e of iron and one grain of extract of hyoscyamus. should be taken every night. We must aim at a full alvine evacuation after breakfast. When athartic is indicated, I usually employ the old- Rochelle salt. This "goes" well with tea, coffee, One or two teaspoonfuls may be taken at breakfast, in a large cupful of one of these beverages.

am.

ASE OF COCAINE POISONING.[4]

BY C. S. KILHAM, L.R.C.P., &c.

9th, 1886, at 12.10 noon, John B—— accidentally a. of cocaine hydrochlorate in the form of solution. e was seized with severe cramps in the stomach, robbing and feeling of bursting in his head, yesight, loss of use of his legs, incoherence of confusion of ideas, and drowsiness, but could wer questions if roused. No delirium; appeared as if drunk, and got quite helpless. Brandy was given to him, and he vomited after it, but only the remains of food. About 12.50 he commenced sweating most profusely, shirt &c. being soaked through, perspiration streaming down his face and body, and his head steaming. Pupils were normal and equal. No loss of taste. The sweating lasted some time, and was succeeded by very severe prostration, shivering, and feeling of impending death. At intervals the patient had severe cramps in the stomach, with retching and vomiting of a quantity of clear mucus, which relieved the pain. About 1.15 P.M. the pulse became intermittent (missing every fifth beat). This was accompanied by cyanosis of the face, and intense feeling of suffocation over the cardiac region. Relief was afforded by sinapisms. The pulse varied from 80 to 86, never more, and became gradually regular. About 1.45 P.M. he began to have cramps in the legs and feet (especially on dorsal surface of right foot), and tingling and numbness in both hands. Later on the pupils became dilated. The vomiting and cramps ceased about 4 P.M. (unless food was taken), but the drowsiness, throbbing of head, and prostration continued up to 6 P.M., when the patient began to get warm and feel relieved. The improvement continued, and he could be moved at 8.30 P.M. There was great weakness, with swimming of head all night.

Next day there was still weakness, continual vomiting, a dry leathery feeling in the mouth, with loss of taste, partial loss of power in the legs, and tingling and numbness of the fingers, especially of the right hand. These symptoms commenced nearly thirty-six hours after taking the cocaine, and most of them disappeared in twenty-four hours. The loss of power in the legs lasted three days, and the tingling and numbness of fingers longer. He was not able to write a letter until the sixth day, as he could not feel the pen between his fingers before. An emetic was at first given, with sinapisms over the heart and stomach; afterwards warmth and stimulants (principally compound spirit of ammonia).

Remarks.—The solution of cocaine had been made at least twelve months, but appeared all right. The patient was in the habit of taking ¼ gr. of cocaine for neuralgia of the stomach. The dose taken was 4¼ gr. of hydrochlorate of cocaine. The official dose is up to 1 gr. Martindale, in his book on "Coca and Cocaine, &c.," mentions two cases where larger doses were taken. In one case (of attempted suicide) 23 grs. of cocaine were taken without "seriously injurious effect." In the other case 32 grs. of cocaine were taken within three hours, but the symptoms varied considerably from those in the case under notice. The most remarkable symptoms were the severe sweating, the intense prostration, and the intermittent pulse. The last symptom I have not seen mentioned before.

Sheffield.

[1] British Medical Journal, Feb. 19th, 1881.
[2] Lancet, Feb. 12th, 1881.
[3] Practical Medicine, p. 48. Cornish Brothers, 1886.
[4] Clinical Medico-Chirurgical Society, Nov. 25th, 1886.

A CASE OF RETRO-ŒSOPHAGEAL ABSCESS, CAUSING DEATH BY PRESSURE ON THE TRACHEA.

BY PHILIP D. TURNER, M.B. LOND.,
LATE HOUSE-SURGEON, VICTORIA HOSPITAL FOR CHILDREN.

I AM indebted to Dr. Julian Evans for permission to publish this case, which occurred at the Victoria Hospital in April last.

T. H. M——, an infant, aged three months, had been attending the hospital as an out-patient for some weeks for congenital syphilis. It first came towards the end of March with a strongly marked syphilitic eruption, which was followed in the beginning of April by the appearance of multiple subcutaneous phlegmons in the limbs. On April 19th there was an attack of dyspnœa, which passed off in a few minutes. On the 22nd, as the mother was bringing it to the hospital, the child was seized, according to her account, quite suddenly with dyspnœa, and became of a very dusky colour. She hurried to the hospital, where it was at once admitted. There was, on admission, great dyspnœa, with considerable retraction of the thorax; colour very dusky; pulse rapid and feeble; voice not at all hoarse. Hot fomentations were applied to the neck, and the child placed in a steam tent. An hour after admission the respirations became more unfrequent and gasping, the colour very bad, and the pulse scarcely perceptible. Tracheotomy was therefore at once performed. After the operation the child rallied considerably. The recession almost ceased and the colour improved. About three hours later, however, the breathing got worse, the recession increasing again, and

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a cold sweat appeared on the forehead, the patient becoming very feeble. There was not any great difficulty in swallowing, and the child took milk and brandy with avidity. The symptoms increased in severity, and death took place four hours after the tracheotomy, and about six hours after the onset of the dyspnœa.

Necropsy.—Heart: Left ventricle contracted and empty. Right side flaccid and distended with post-mortem clot. Heart substance and valves normal. Lungs: Marked emphysema of anterior margins and upper lobes. Lower lobes of a dark purple colour, devoid of crepitation; portions cut off sinking readily in water. Liver about normal size. Intralobular veins distended; substance rather tough. Spleen about twice the normal size; friable, but somewhat tougher than natural. Kidneys normal. On endeavouring to dissect out the trachea and œsophagus, the knife entered an abscess cavity on the right of the latter. On further examination, it was found that there was an abscess the size of a large walnut in the areolar tissue behind the œsophagus and lower part of the pharynx. It had no distinct sac posteriorly, being bounded by the bodies and transverse processes of the vertebræ, no disease of which could be detected. The abscess extended from the level of the cricoid cartilage to within a quarter of an inch of the bifurcation of the trachea. On opening the larynx and trachea from the front, no disease could be found in them. The tracheotomy wound was low, commencing about the third ring of the trachea. There was slight flattening of the trachea.

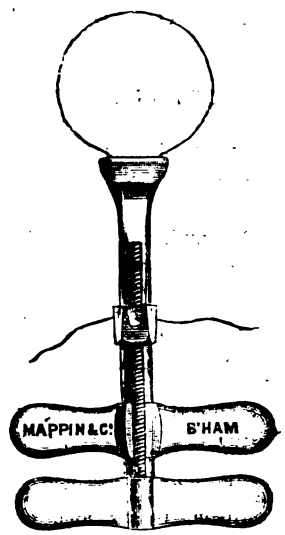
Remarks.—The case appears worthy of record both on account of the rarity of the condition as a cause of death, and of the difficulty of diagnosis in consequence of the low position of the abscess in the neck. A remarkable feature of the case, also, is the almost entire absence of dysphagia. The subject of retro-pharyngeal abscess is treated at some length by Despines and Picot ("Traité des Maladies de l'Enfance"), who state that dysphagia is the most prominent symptom, placing it before dyspnœa. The dyspnœa might be referred to reflex spasm were it not that it returned (with recession of the chest, &c.) after tracheotomy had been performed. Death was probably immediately due to the condition of the lungs &c., as much as to the obstruction. No cause for the abscess was discovered, so it was probably due to suppuration of the post-pharyngeal lymphatic glands which exist in infants, and are, according to Bokai, the commonest cause of retro-pharyngeal abscess. It is interesting to note that the child had suffered from multiple subcutaneous phlegmons only a week or two before its death.

NOTE ON HYSTERECTOMY.

BY LAWSON TAIT, F.R.C.S., M.D., &c.

THIS operation, which only a few years ago looked as if we never should achieve with it the success which alone could justify its continuance, has now, thanks to a large number of small improvements, come within the limits of ranking alongside the operation for removal of ovarian tumours, and, according to my own recent experience, has become almost as successful. It is strange that this success should have been arrived at under conditions almost the exact opposite of those which have contributed to our success with ovarian tumours. In the latter it has been the ligature and its displacement of the clamp which have brought about our triumph. In the removal of uterine tumours, on the contrary, it is the displacement of the ligature by the clamp which has given us the great success.

More than one writer in your columns, in speaking of these operations, has stated that the clamp devised by myself some years ago forms the best method of dealing with the uterine pedicle. This for many reasons I think still to be correct, but there is one reason which makes Kœberlé's form of clamp much superior, and I have therefore discarded my own instrument in favour of Kœberlé's. I have, however, found it necessary to make in the latter two very important modifications, and these seem to make the instrument as perfect as anything we are ever likely to possess. The difficulty with my own clamp is that its power is so enormous that it is difficult to estimate exactly the amount of constriction which it is exercising, and the arrangement, therefore, becomes a difficult one to adjust, specially if it has not been tightened enough, and hæmorrhage should set in a few hours after the operation. At such a time only the nurse may be present, and nurses are not to be trusted to tighten up my clamp. The modification, however, which I speak of in Kœberlé's instrument is one which may be tightened by any nurse, even the most inexperienced, without any risk.



The defects in Kœberlé's original instrument are, first, a movable head, which has an inconvenient habit of dropping off at most inopportune times; and, second, the button upon which the wire is fastened necessitates a twisting of the wire, which loses time and makes it extremely difficult and inconvenient to haul in the slack of the wire, if that should become necessary. I have, I think, completely obviated these two difficulties by making the screw and the head in one piece, and so arranging it that the point of resistance is at the end of the screw, and not in a collar. The new method of fastening the wire is easily explained. It is exactly on the same principle as the cleats of a Canterbury hammer arranged for withdrawing nails. There are two cleats right and left, the wire is firmly bitten in each of them, no loop being in the least necessary, and a slight turn of the wire outwards renders this fastening absolutely secure. I am now in the habit of removing the clamp and wire on the third or fourth day, leaving the pedicle entirely to the care of the needles, and this enables the dressing of the stump to be much more easily effected.

Birmingham.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

LONDON HOSPITAL.

A CASE OF GENERAL TUBERCULOSIS; NECROPSY; REMARKS.

(Under the care of Mr. FREDERICK TREVES.)

THE following case of general tuberculosis will be found to present several points of considerable interest, and is a good example of a form of the disease. We would draw attention to the remarks by Mr. Treves, especially to those bearing on the etiology of some forms of tuberculosis, the condition of the spine, and of the right knee-joint.

The patient, a young man, aged nineteen, was admitted on Sept. 30th, 1886, suffering from disease of the right knee, paraplegia, and great emaciation. He died on Dec. 6th, 1886. The account of the case can be simplified by commencing with a description of the post-mortem examination.

Necropsy.—The body was extremely emaciated. Five large and deep bedsores had formed over the sacrum and the great trochanter. The former bone was bare. A lymphatic gland in the right groin and another in the left side of the neck had sloughed out, and had left deep holes, surrounded by thin, purple, and undermined skin. There was a general but slight enlargement of the cervical, inguinal, and axillary glands. The right knee-joint was filled with pus. The cartilage was gone over the inner half of the patella, and over both condyles of the femur. It was fairly sound over the tibia. The bared bone was

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[redacted] The crucial ligaments were destroyed. The joint was flexed, but not dislocated. The other articulations in the body were normal. The left epididymis was converted into a caseous mass. The left testis was nearly wholly caseous, and in the centre was a collection of thick purulent fluid. The right epididymis was caseous, but the right testis appeared to be normal. Both the vesiculæ seminales were blocked with caseous matter. A like material occupied a considerable part of the prostate. The bladder appeared to be in every respect normal. Both kidneys were studded throughout with miliary tubercles. The anterior parts of the bodies of the last two cervical and the first four dorsal vertebræ had been destroyed by caries. The inter-vertebral discs had also disappeared to an extent corresponding to that of the caries. There was no anterior abscess, nor, indeed, was any real pus found in the vicinity of the disease. There was no angular deformity of the column. The spinal canal opposite the affected dorsal vertebræ was occupied by a soft caseous mass. By means of this the cord had been compressed, and in this region it was found greatly softened. Both lungs were studded throughout with miliary tubercles. Here and there was a caseous mass. There were no cavities. There had been slight pleurisy (old) on one side. The peritoneum covering the stomach was dotted over with miliary nodules. It is remarkable that no other part of this membrane was affected. The brain and its membranes were normal, as were such viscera as have not been already referred to.

Clinical history.—The patient was a native of Windsor. His father and mother died when he was young, and he knew nothing of the causes of their deaths. Of four brothers one only is living. Of the other three, one died of a chest affection, one of fever, and a third of abscesses. He had never been strong, and had not been able to follow a definite employment. At the age of fourteen, when walking with bare feet, a rusty nail penetrated the left great toe. An abscess resulted and discharged. The parts did not heal, and at the end of four months the toe was amputated at the metacarpo-phalangeal joint. From this time the patient was never free from suppurative trouble. A few weeks after the operation an abscess formed in the palm of the left hand. Similar abscesses appeared at various parts of the body without intermission from this time. Before one healed another would appear, so that there were usually two present at one time. On admission there were two such abscesses, one on the dorsum of the right hand and one on the neck. They had all the characters ascribed to superficial tubercular abscesses. Before his death the abscess on the hand healed, but another appeared in the groin. Two years ago the patient began to be weak in the legs and to experience increasing difficulty in walking. There were no disturbances of sensation and no bladder or rectum troubles. He became an in-patient of St. Mary's Hospital, where he remained thirteen weeks. Blisters were applied over the dorsal spine, and he was sent out with a Sayre's jacket and a jury-mast. He left the hospital quite well. He wore the jacket for four months, and when he left it off he was able to work. The weakness of the legs had quite disappeared. He remained well in this respect until April, 1886, when the legs again commenced to feel weak. The weakness increased, and by July the patient had entirely lost all power in both lower limbs. At the same time he began to experience difficulty in retaining his fæces and urine.

When admitted into the London Hospital he was very thin, weak, and anæmic. There was complete loss of power in the lower limbs, but no loss of sensation. There was considerable loss of power in the right arm, but no anæsthesia. The patient had lost control over the sphincters. Large bedsores had formed over the sacrum. The right knee-joint was disorganised and filled with pus, and was flexed nearly at a right angle. A swelling had appeared in the left testicle six months previously, and another in the right testicle some three months before admission. Pain was complained of over the upper dorsal spinous processes. The column in this situation was rigid, and presented a trifling projection backwards.

The case admitted of none but general treatment. The patient became weaker and more emaciated. His temperature varied from 99° to 103°. He was the subject of severe night sweats, but had no rigors. He suffered occasionally from diarrhœa. On Nov. 26th he developed a slight cough, which persisted until his death. He died of increasing [redacted] on Dec. 5th.

Remarks by Mr. TREVES.—Without entering upon the vexed question of the pathology of tuberculosis, the case presents certain notable clinical features. In a patient disposed to tubercular disease a simple injury may induce and localise the first manifestations of the trouble. From this primary centre the specific affection may slowly spread to other parts of the body, assuming the mode of progress of a very chronic type of pyæmia. It is allowed that in subjects predisposed to tuberculosis a simple lesion like catarrhal pneumonia may be the initial local factor in pulmonary phthisis. Rabbits appear to be naturally predisposed to tubercular processes, and in these animals the long retention of a simple seton may induce tubercular changes that in time become general and fatal. Moreover, if rabbits be made to breathe an atmosphere charged with atoms of the sputum from a tubercular patient (diffused by spray), and if their joints be contused, those articulations may become the seat of tubercular disease even when the lungs remain unaffected. In the present patient the mischief appears to have been induced by an injury to a toe, and I have no doubt that the subsequent changes in that part that led to amputation were of a tubercular nature. From this primary focus the trouble spread from one part to another. Certain of the superficial lesions underwent spontaneous cure. It is clear that the infection of the lungs, kidneys, and peritoneum were the latest phases of the disease. It is interesting to note that the vertebral affection remained quiescent for nearly two years. The knee became diseased after the onset of the paraplegia; it was never injured, and had long been retained in a position of complete rest. The occurrence of joint affections in limbs, the seat of nerve disturbances, is always a matter of interest. It may be surmised that the paraplegia served to localise the trouble in the knee, and that the relation between the affection in the cord and that in the joint was of a character allied to that assumed by many to exist in the case of Charcot's joint disease. It may be observed also that the weakness in the lower limbs had commenced on the right side, and was more marked in that extremity until the paraplegia became complete. One point remains: The diseased knee was flexed almost at a right angle. The knee disease had not commenced until the paraplegia was complete, and therefore the flexion must have been independent of muscular action. Its occurrence in a paralysed extremity serves to illustrate Braune's experiments of injecting fluid into the knees of post-mortem subjects. These experiments show that the flexed joint can accommodate more fluid than the extended one, and that distension of the cavity leads to flexion of the limb. The flexion in the present instance may be taken to represent that produced by distension alone, for the articulation was filled with pus.

DEACONESSES' INSTITUTION AND HOSPITAL, TOTTENHAM.

CEREBRAL EMBOLISM FOLLOWING PARTURITION, TERMINATING IN HÆMORRHAGE INTO LATERAL VENTRICLE; NECROPSY.

(Under the care of Dr. RUSCH.)

FOR the notes of the following case we are indebted to Mr. Lloyd G. Smith:—

C. C.——, aged thirty-three years, married, was admitted on Oct. 26th, 1886. She complains of weakness of the upper and lower extremities on the right side and giddiness, and is aphasic (of the amnesic type). The illness began two weeks and a half ago. Her father died of a "head affection"; several members of her family are "subject to fits." She is in comfortable circumstances, and of satisfactory habits. Four years ago she was burnt and frightened by the explosion of a fog-signal in the fire, which had got in among the coals; this laid her up for two months. Has had no previous illness. Her present illness began three weeks after her last confinement (ninth), which took place five weeks before admission. The puerperium was quite normal, and lasted two weeks. After being up a few days, she fell while walking along the passage of the house (no known cause—supposed giddiness); was able to get up herself, and suffered no apparent ill effect, but in four days afterwards she had "a fit," the hands being clenched and the mouth drawn to the right side. A streak of blood was seen on the lip. On recovery from the fit her right side was said to have been para-

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lysed; the face on that side had improved since, while the aphasia remained stationary. Has had nine children; no miscarriages. Two children died, one of measles and one of bronchitis. Labours and puerperia always normal. No specific history.

On admission she had a heavy and vacant expression, but no paralysis of face. She was pale, and well developed, tending to obesity; tongue protruded straight out, but with difficulty; bowels constipated; no abnormal physical signs in alimentary, respiratory, or circulatory systems. Temperature 100°; became normal afterwards. Pupils equal; somewhat dilated; no strabismus. Organic reflexes normal. Patellar reflexes exaggerated on both sides. Slight ankle-clonus. Plantar reflex absent on right side; marked on left. The grasp of the two hands appears to be equally strong. Extremities of right side redder and of higher temperature than those of left. She attempts conversation, but is quite unable to express herself; uses words of few syllables only; time and quantity appear especially difficult to express, her attempts ending with "How stupid I am." Is unable to write her name, but begins first two letters correctly, and then says she "can't see." The case was diagnosed to be one of embolism in the middle cerebral artery or one of its branches, and the treatment was mainly expectant.

The patient's condition remained as above until Nov. 4th, when in the evening she became restless, imagined her child was dead at home, and was depressed and emotional; had a good night. On the morning of the 5th, while taking breakfast, she became suddenly unconscious. The right side was limp and motionless, while the left hand was raised up to her face as if to wipe away something. Right eyeball insensitive. Left ocular reflex normal. Pupils equal at first; later on, right dilated and left contracted. Two hours afterwards the patient became unconscious, the face dark and livid, and respiration ceased, the heart's pulsation continuing a few minutes longer.

Necropsy, seven hours after death.—Vessels of scalp and meninges very congested. Large clot distending the left lateral ventricle; an area the size of a walnut in the left third frontal convolution near the posterior part and in surrounding part of brain, softened into a red diffluent mass, with vessels passing through it. In the middle cerebral artery, at its origin, a large embolus was easily detected. There was effusion of lymph at the base of the brain. With the exception of a small blood cyst on the surface of the liver, all the organs (including the uterus) appeared healthy. No signs of atheroma were found.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, PLYMOUTH.

REMOVAL OF THE UPPER EXTREMITY, AND LATER OF THE SCAPULA AND PART OF THE CLAVICLE, FOR SARCOMA.

(Under the care of Mr. PAUL SWAIN.)

FOR the following notes we are indebted to Dr. Buchan, house-surgeon.

Louis G——, aged eighteen years, picture-frame maker, was admitted on Feb. 7th, 1886, for tumour of left shoulder. The patient was a pale, delicate lad, much emaciated, with an anxious expression. The family history and previous personal history were good. He complained that six months before admission he used to be frequently pinched in the left deltoid by a fellow-workman. About two months afterwards he first noticed pain and swelling over the deltoid. This swelling had increased rapidly during the following two months, with great increase of pain. On examination (Fig. 1) there was a large firm swelling involving the whole upper part of the left humerus, and extending somewhat over the scapula and clavicle. The humerus moved with the scapula, almost entirely. There were enlarged veins over the tumour, but no glands were involved.

On Feb. 11th, under methylene, a V-shaped incision was made over the scapula, as if for excision of that bone. However, on cutting down to the joint, the humerus only was found to be involved, and it was removed at the joint. All arteries were tied with chromic catgut, the wound dressed with iodoform and carbolic oil on lint, and a drainage-tube inserted. Morphia and stimulants were freely used from the time of the operation. On the evening of the 12th the temperature was 101·2° F., the highest point. For the first fortnight the wound was dressed under the carbolic spray, by which time it was practically healed.

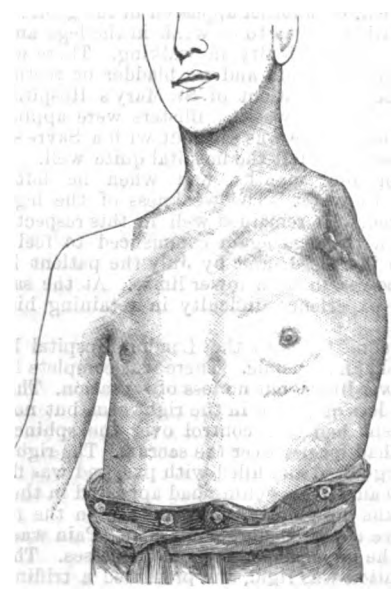
The patient was discharged cured on March 13th, and had no return of the disease. The tumour was a myeloid sarcoma, arising from the periosteum and causing erosion of the bone.

On April 22nd the patient was readmitted with a recurrence of growth in the left scapula. On April 24th, under methylene, a V-shaped flap was made over the scapula and the whole bone removed, together with the acromial end of the clavicle. Wound dressed as before. A slight skin slough formed at the lowest end of the flap, but with this exception the wound healed rapidly. The patient was discharged on May 27th.

FIG. 1.



FIG. 2.



After recovery from second operation.

Remarks by Mr. PAUL SWAIN.—I regret to say that some weeks after his discharge from hospital the patient caught a severe chill while boating. Pneumonia of the right lung set in, and he gradually sank. (The woodcuts are from photographs kindly taken by Fleet-Surgeon Longfield H.M.S. *Royal Adelaide*).

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EDINBURGH ROYAL INFIRMARY.

CASE OF TRAUMATIC TETANUS CURED BY REMOVAL OF THE CICATRIX AND SURROUNDING PARTS.

(Under the care of Mr. J. MONTAGU COTTERILL.)

GEORGE McC——, aged thirty-nine, was admitted on Aug. 2nd with a history of having stabbed the ball of his right thumb with a piece of broken glass on July 17th. Tetanus began to manifest itself on the twelfth day after the infliction of the wound, the first symptom being difficulty in mastication accompanied by pains in the back. As the disease progressed rapidly he consulted his medical attendant, who treated him with Calabar bean (half a grain of the extract every three hours). In spite of this treatment being carried on for four days, the symptoms became more distressing. He consequently applied to the infirmary for advice.

The man's condition on admission was as follows. Trismus was well marked; deglutition was difficult; the muscles of the face, neck, and back were in a state of rigidity; his walk was tottering, and he had to support himself with his hands to avoid falling. He complained of considerable pain in the face, neck, chest, and back. The tongue was moist, white, and furred; the bowels costive. The temperature was slightly subnormal. There was a V-shaped scar, some three inches in length, bluish in colour, knotty, and painless on pressure, situated over the ball of the right thumb.

During the first few days of his stay in hospital he was treated by full doses of chloral and bromide of potassium. This treatment certainly subdued for a time the intensity of the symptoms, though he had frequent spasmodic contractions of the muscles of the back and legs. These spasms could be induced at once by pressure over the ulnar nerve at the bend of the elbow on the affected side, though pressure over other nerves or over the cicatrix itself had no such effect. The application of ice-bags to the spine was tried, but appeared to have a rather prejudicial effect than otherwise. The hypodermic injection of one-fifteenth of a grain of eserine was next tried; this caused alarming cardiac depression, which necessitated very free stimulation for some hours. The eserine seemed to have no effect on the tetanus, and as increased difficulty in deglutition, more frequent and more severe attacks of opisthotonos, and retention of urine occurred, on Aug. 20th Mr. Cotterill freely excised the cicatrix, taking away a considerable slice of the muscles and skin in its immediate neighbourhood. The result was most satisfactory; the patient at once began to mend in all respects, and with the exception of one slight attack of opisthotonos, brought on by the indiscretion of a visitor, he made a rapid and uninterrupted recovery.

Remarks by Mr. COTTERILL.—The interest of the case centres in the fact that though the operation was delayed for twenty-two days after the tetanus set in, and though the central nervous system was seriously implicated, the mere removal of the cicatrix effected a rapid cure. Speaking of this line of treatment, Fayrer[1] says: "I believe that though this treatment would frequently be of service if practised early, it would become useless if resorted to after the disease has become thoroughly developed for even two or three days." Spence[2] also writes: "If the operation be performed at the very first before the symptoms have made any very great progress, the result may be favourable; but after the disease has progressed when the trismus and spasms have become marked, or when the disease has passed beyond stiffness in the neck and difficulty in swallowing,—then amputation will do no good, as by that time the disease has been propagated to the nervous centres." On the other hand, M. Nicaise of Paris says: "Neurotomy is especially indicated when the spasms begin near the seat of injury before their generalisation; but it may still contribute much to recovery when generalisation has occurred by removing the cause which keeps up the spinal irritation."[3] Brown-Séquard writes: "Those who maintain that tetanus, when it has fairly begun, and attacked not only the head but the trunk and limbs, cannot be cured by these operations (amputation and neurotomy), have not read the details of the cases which have been published.....It is most important to give the chance to the patient." Amongst others, Mr. Annandale has reported a case[4] in which a case of acute tetanus affecting the whole system was cured by the free removal of the cicatrix. In the case now reported, though not of the most acute form, the tetanus was decidedly severe, and, in spite of energetic medical treatment, was becoming rapidly worse. Its cure under these circumstances encourages one to operate more hopefully even in what are usually considered unfavourable conditions.

[1] Clinical Surgery in India. [2] Lectures on Surgery.
[3] Injuries and Diseases of Nerves, in Ashhurst's Encyclopedia of Surgery. [4] Edinburgh Medical Journal, 1873.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Ulceration and Endocarditis of Right Side of Heart.—Syphiloma of Heart.—Rare Aneurysm of Undefended Space with Cerebral Tumour of Brain (? Syphilitic).—Alcoholic Paralysis.—Ulcers of Stomach in Infantile Tuberculosis.—Epithelioma of Bladder.—Tumours of Testes and Cord.

AN ordinary meeting of this Society was held on the 21st ult., Dr. J. S. Bristowe, F.R.S., President, in the chair. The next meeting will be the annual one, and the new President is to be Sir James Paget, Bart.

Dr. HALE WHITE exhibited a specimen of Right-sided Malignant Endocarditis. It came from a man, aged thirty-nine, who had been ill for four months with rigors. On admission he was found to have a basic systolic bruit, audible chiefly over the pulmonary area and conducted upwards to the left. The rigors continued; the temperature, which was not easily controlled, sometimes reached 105°. The diagnosis of malignant endocarditis of the pulmonary valve was made. At the necropsy the right ventricle was found dilated and hypertrophied. The two anterior pulmonary valves were ulcerated and perforated; a large mass of vegetations sprang from the right one. The liver was fatty; the spleen enlarged; but nothing else abnormal was noted.

Dr. W. PASTEUR showed a specimen of Syphiloma of Heart from a woman aged thirty, who was taken to Middlesex Hospital *in articulo mortis*. She was probably a prostitute. None of the ordinary signs of syphilis were visible except in the heart. The liver had a peculiar marbled appearance. There was some recent lymph on the surface of the left ventricle, which was hypertrophied and dilated. Greyish opaque patches of varying size and distribution were seen in the wall of the ventricle and septum. At least one half of the ventricle was diseased. The right ventricle was less diseased. The patches were ill-defined and translucent at the edges. There were milky-looking patches on the endocardium. Microscopical sections showed infiltration of corpuscular growth, which was very vascular at the margin; the nuclei were spherical and distended. In some of the vessels of the heart doubtful evidences of periarteritis were to be seen, and possibly also of endocarditis. The liver showed numerous accumulations of small round cells, like that met with in some forms of interstitial hepatitis of congenital syphilis.—Dr. CARRINGTON demurred to the syphilitic view of the disease. Why could it not have been an early case of fibroid disease of the heart? The microscopical appearance in the liver was not evidence of syphilis.—Dr. A. MONEY said the specimens were just like those seen in inherited syphilis of liver and heart, and thought that this was in favour of the view that they were syphilitic.—Dr. BARLOW agreed with the last speaker. He spoke of the macroscopical appearance being like that caused by the action of strong carbolic acid on the heart substance and endocardium. With regard to fibroid heart, he asked what was so likely to produce it as syphilis? There was no evidence of old pericarditis, which was a common cause of fibroid lesion of the myocardium. Alcoholism should also be considered in this connexion.—Dr. DAWSON WILLIAMS mentioned a case which nearly resembled that described by Dr. Pasteur. The patient was a boy aged thirteen, who suffered from emphysema and died of bronchitis. At the necropsy it was found that the heart was large and heavy; the pericardial cavity was obliterated over a large extent of surface. In the substance of the heart were numerous nodules. The nodules varied in size from that of miliary tubercle to nodules fully an inch long and half an inch thick. The patient was an only child and had a syphilitic aspect, and the mother had had miscarriages; but there was no direct evidence of syphilis. The changes were sup-

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posed at the time to be syphilitic, although the appearance on section somewhat suggested sarcoma.—Dr. SIDNEY COUPLAND adopted the syphilitic view because there was no other alternative. He thought the resemblance of the changes to those of inherited syphilis would not be sufficient to remove them out from category of acquired syphilis. It was an infiltrating form, rather than the better known circumscribed lesions of syphilis. Alcoholism as a cause of heart lesions was still involved in obscurity.—Dr. GOODHART argued from the liver to the heart. He had seen such appearances in adults from syphilis of the acute form.

Dr. ANGEL MONEY showed a rare specimen of Aneurysm of the Heart and large Tumour of the Brain, taken from an idiotic female child aged five years. The aneurysm occupied the "undefended space"; its walls were formed by the opened-up laminæ of the septal cusp of the tricuspid valve. All the valves of the heart were in a sacculated or "pouchy" condition, and irregularly thickened. The tumour in the right cerebral hemisphere was of the size of a small orange, and probably gummatous; no bacilli had been found. There were a few fibroid nodules in the right lung, and both lungs were very small and flat. The child was microsomatic, weighed only 13 lb., and measured 31 in. The head measured 18 in. in circumference and 12 in. over the vault from ear to ear. The forehead was almost covered with hair. The child had never walked or talked, and could not even sit up. The anterior fontanelle was still open, and measured one inch and three quarters by one inch and a quarter. There was a loud systolic murmur heard over the præcordia.—Dr. BARLOW thought that the tumour was much tougher than a scrofulous mass, and had a firm chestnut section. The probable very early origin of it was also in favour of syphilis; the evidence of fœtal tubercle was inconclusive. He had seen a specimen of undoubted fœtal syphiloma of the brain. The aneurysm was a unique specimen, and had been shown as such by Dr. Wickham Legg in his Bradshawe Lecture. The question of the origin of aneurysm of the heart in syphilitic changes was a most interesting one, that would repay study. A subacute endocarditis might result from syphilis. He had seen only a second case of aneurysm of the heart in a child in the anterior wall of the right ventricle about the size of a shilling; it was accompanied by mitral stenosis; the syphilitic origin of it was doubtful.—Dr. S. COUPLAND asked whether the aneurysm could have had an origin in an error of development, but deferred to the syphilitic view.—The PRESIDENT asked whether there was evidence of syphilitic disease in the heart.—Dr. MONEY, in reply, said the syphilitic history was inconclusive. He adopted Dr. Barlow's view that the heart changes might have been of syphilitic origin, and possibly that this may have arisen during intra-uterine life. The myocardium showed no sign of congenital syphilis to the naked eye, but it had not been examined microscopically. The presence of bone-thickening in the skull favoured the syphilitic view.

Dr. HADDEN described three fatal cases of Alcoholic Paralysis. The first patient was a woman, aged twenty-seven, who had been drinking to excess for at least four years. For a year before admission her arms and legs had been growing weak. The lower limbs were paralysed and wasted, especially the extensor muscles. The limbs were bent at the knees, and much pain was felt on trying to straighten them. Sensation was unimpaired. The knee-jerks were absent. The muscles were tender, and gave no response to strong faradaic or galvanic currents. There were evident signs of phthisis. On microscopical examination of the spinal cord, it was found to be quite healthy. The myelin of the peripheral nerves had broken up into a finely granular material, and the axis cylinders were quite obscured. The nuclei of the fibres were enlarged. The nerve tubes were irregular in shape, enlarged in some parts, reduced in others, in consequence of the removal of the granular material. The muscles showed an increase in the sarcolemma nuclei and nuclei of the interstitial tissue. In some places there were groups of small round cells, which gave rise to local atrophy of the fibres; slight granular change was seen in some of the fibres, but as a rule the structure was good. In another patient, aged forty-four, who had suffered from alcoholic paralysis for about a month, the spinal cord was found healthy, but the nerves exhibited mixed parenchymatous and interstitial degeneration. The muscles were affected as in the first case. The third case was that of a gentleman, aged fifty-six, who had relapsed after a severe attack of alcoholic paralysis. He was admitted into St. Thomas's Hospital for a deep ulcer on the dorsum of the left foot, opening into the small joints of the toe. He had well-marked paralysis of the legs, with impaired sensation. In this case also the spinal cord was healthy, and the nerves and muscles diseased. There was well-marked phthisis in all three cases. The results of five fatal cases were summed up. The spinal cord was healthy in all. In four of the five the nerves were examined and found degenerated, but in two the change was rather that of a perineuritis. The muscles simply showed increase of nuclei, and occasionally appeared granular. In two cases the medulla was examined and found healthy, and in two the motor convolutions were healthy. The association of phthisis was observed in four cases, and in one the lung mischief was early.—Dr. G. N. PITT, Dr. FINLAY, and Dr. A. MONEY corroborated the statements of Dr. Hadden in regard to the nature of the microscopic changes in alcoholic paralysis.—Dr. BRISTOWE asked whether the changes obtained were more in the distal or proximal parts of the nerves.—Dr. S. COUPLAND referred to the occurrence of peripheral neuritis in association with tubercular disease. Were the changes inflammatory or degenerative? He thought rather the latter.—Mr. A. A. BOWLBY thought the term "neuritis" misleading, for the changes were like those found in Wallerian degeneration.—Mr. H. T. BUTLIN said that sometimes the change might be chiefly in the connective tissue of the nerve. In a specimen of Mr. Savory's there was but little change in the parenchymatous part of the nerve; the case was one of perforating ulcers. The sensory fibres of the nerve were smaller and more affected in some cases than the larger motor fibres.—Dr. HADDEN said that the changes probably began in the smaller nerve fibres, and were less evident in the larger nerves, whilst the anterior roots of the cord were usually free. He rather thought there were sensory changes in some cases of alcoholic paralysis. A considerable thickening of the endoneurium obtained in the sciatic nerve in a case of locomotor ataxy that he had examined. He opined that Mr. Butlin's view might be correct, that in some the changes were more interstitial than parenchymatous. He carefully avoided the discussion of the inflammatory or degenerative nature of the nerve changes.

Dr. BARLOW showed a specimen of Tubercular Ulcer in the Stomach of a child, twenty-one months old, affected with general tuberculosis. It was situate near the cardiac end in the great curvature; had undermined edges, but no thickening around. There were also follicular ulcers at the mid-point of the great curvature, and two near the pylorus. In the first ulcer there was a minute elevation under the mucous membrane, which might have been a miliary tubercle, but had not yet been searched for bacilli. The interest of the case lay in the relation of the small tubercle to the ulcer. Small ulcers of the stomach had been found in adult phthisis. Louis said he had never once seen anything like tubercle in these, and Andral had only once found tubercle of the stomach. Of 146 cases of tuberculosis in children, Barthez and Rilliet found 21 with the stomach affected, and in 7 of these there were miliary tubercles. They had no doubt that the ulcers were caused by tubercle. He had seen two other cases of this kind, but not with miliary tubercle in their base.

Mr. BRUCE CLARKE showed a specimen of Epithelioma of the Bladder. There were two separate tumours. The question was discussed whether the one tumour might have been the cause of the other.—Mr. H. T. BUTLIN mentioned a similar case.—Mr. A. BOWLBY referred to two other specimens in St. Bartholomew's Hospital of multiple growths in the bladder.—Dr. HADDEN had seen an epitheliomatous ulcer of the œsophagus associated with a few other growths in the lower part of the gullet.

Mr. SWINFORD EDWARDS showed specimens of Tubercular and Malignant Disease of the Testis and Spermatic Cord. The first specimen was taken from a man aged fifty; the microscopical appearances were doubtfully those of round-celled sarcoma, and the growth was seen extending chiefly along the vessels. The second specimen was from a man aged forty-five; it began as a painful nodule; the section was obscurely fibrous; it was probably of a tuberculous nature. There were no signs of tubercle elsewhere. The third specimen came from a man aged thirty; it was a round-celled sarcoma of the testis.—Mr. A. BOWLBY referred to the fat and fibrous tissue appearance as of an inflammatory growth in the first specimen, which he thought was not sarcomatous.

The following card specimens were shown:—Mr. S. Paget: Recurrent Epithelioma of the Foot. Mr. Shattock: Hammer

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Toes. Mr. Targett: Congenital Deformity of Hip. Dr. Beavan Rake: Spontaneous Cure of Thoracic Aneurysm in a case of Anæsthetic Leprosy. Dr. G. N. Pitt: Round-celled Sarcoma of Thyroid growing round Œsophagus and into Left Vagus and Internal Jugular Vein.

HARVEIAN SOCIETY.

Peripheral Neuritis.—Paraplegia in Pott's Disease.—Pityriasis Versicolor.—Dyspnœa from Pressure of Enlarged Bronchial Glands.—Chylous Ascites.

A meeting of this Society was held on Thursday, Nov. 4th, 1886, Dr. J. Hughlings Jackson, F.R.S., President, in the chair.

Dr. Buzzard exhibited a patient who had been affected with Paraplegia of neuritic and not of spinal origin. He was a carpenter, and had been exposed to wet and cold in September, 1885. This was followed by pain and weakness, in the right side at first and then in the left, with some tenderness on pressure. In three months' time he had lost power to such an extent that he could not walk; he complained of numbness and tingling, and the soles of the feet were tender. Sometimes also he had tingling in the hands. When seen in March, 1886, he was able to get about on crutches, but did not raise the toes in walking. The knee-jerk was absent. The muscles in the front of the legs did not respond to a very strong induced current, its application not being even felt. The peronei acted slightly, the calf muscles still better, those of the thigh reacting normally. Slight reaction returned in the anterior tibial muscles, a stronger current being required when the negative pole was placed on the muscle. Steady improvement took place. There was slight plantar reflex, but all the superficial reflexes were normal, and the vesical functions were not in any way affected. All portions of the cord, therefore, were probably intact. A large quantity of urine was passed, which contained sugar. Treatment had consisted mainly in the application of the constant current. The patient could now walk a mile, and was still improving. Dr. Buzzard pointed out that the local pain and tenderness, the loss of electrical reaction and of pain in the affected muscles, all combined to indicate peripheral neuritis, while the presence of the superficial reflexes was inconsistent with a lesion of the cord sufficiently grave to produce the other symptoms.

Dr. D. B. Lees exhibited a case for Diagnosis between Peripheral Neuritis and Tabes Dorsalis.—The President thought that in all future cases the possibility of peripheral neuritis should be borne in mind. He thought the new name of neuritic paraplegia was quite justified as descriptive of a fairly common class of cases.

Dr. Hughlings Jackson showed a boy, aged twelve, recovering from a second attack of Paraplegia associated with Pott's Disease of the Spine. The prognosis in such cases was good when rest was enforced. He also exhibited a boy, aged eleven, who had become paraplegic in Sept. 1884, in consequence, it was supposed, of a transverse myelitis. There was no discoverable disease of the vertebræ. He was admitted into the London Hospital, in Jan. 1885, without a trace of movement in the legs, and with extreme rigidity. Not until Oct. 1885 was the slightest movement observed, and then only in the toes. From that time improvement had been steady, but the boy could only now just walk. Dr. Hughlings Jackson remarked on the great length of time during which a patient might remain paraplegic and yet recover, sometimes as long as twelve months. He trusted to rest in bed, not thinking that any drugs or local applications to the spine had any beneficial effect upon the spinal cord disease. He hoped at a subsequent meeting to show both the patients walking well.

Dr. Sidney Phillips showed a case of Pityriasis Versicolor in a child. The boy, aged seven years and nine months, exhibited symmetrical patches of a fawn colour on the chest and back. Scrapings from these examined microscopically were found to consist of mycelium and spores. There was no ringworm of the scalp or any history of its existence.—Dr. Thin threw some doubt upon the diagnosis, and pointed out that the disease was equally uncommon in very old as well as in very young people.

Dr. W. Ewart exhibited a case of Dyspnœa with Metallic Cough and Stridulous Inspiration. The patient, a woman aged thirty-six, had suffered from cough for ten months, at first uncomplicated with dyspnœa. As the cough became more paroxysmal, the difficulty in regaining breath was proportionately increased. Inspiratory dyspnœa also followed upon any severe exertion. The physical signs were dulness in the upper sternal and parasternal regions (especially on the right side), and dulness in the right interscapular region. In all these places there was tracheal breathing, and also in the left upper interscapular region. The patient had had syphilis, and might therefore be the subject of cicatricial bronchial stenosis. This alone, however, would not explain the presence of dulness, which was more probably due to enlargement of bronchial glands, from syphilitic or other cause, which were exerting pressure upon the bronchi, with the above results.

Dr. Robert Maguire showed a case of Chylous Ascites, in a man aged forty-two, who had suffered from œdema of the feet twelve months before admission into hospital, but this had subsided with rest in bed. Nine months later he was seized with sudden pain in the epigastrium, which, though less intense, lasted for five weeks. Two months later the abdomen began to enlarge. There was history of alcoholism, but not of syphilis, and the patient had never lived out of England. On admission there was general distension of the abdomen with fluid, enlargement of superficial veins and of spleen, but not of the liver. Two hundred and twenty ounces of milky fluid were removed by tapping. The fluid was slightly albuminous, contained a large amount of fat and peptones, and did not coagulate on standing. Fat globules, granular matter, and leucocytes appeared under the microscope. In three weeks' time 218 oz. of similar fluid were removed; the fluid did not return, and there was then discovered prominence in the epigastrium, with some increase in the liver dulness. Œdema of the legs still remained. Dr. Maguire diagnosed cirrhosis of the liver, with some inflammatory material behind it, pressing upon the vena cava and the receptaculum chyli, causing rupture of the latter. It seemed very anomalous, however, that lymph, which ordinarily flows under such very slight pressure, should in these cases accumulate to such an extent as to burst both the thoracic duct and the peritoneum.—Dr. Ewart, commenting upon the case, believed that the collective force exercised by the muscular coats of the villi might be sufficient to cause the rupture, although that exercised in each individual villus was very small.

The following is a list of the officers of the Society for the coming year:—President: Mr. Edmund Owen. Vice-Presidents: Mr. T. Bryant, Drs. Cavafy, Buzzard, and John Williams. Treasurer: Mr. G. P. Field. Hon. Secretaries: Drs. Clifford Beale and Handfield-Jones. Council: Drs. W. Ewart, T. Morton, Champneys, Hughlings Jackson, R. S. Mair, R. H. Milson, J. R. Walker, H. W. Page, J. Ernest Lane, C. W. Mansell-Moullin, F. J. Marshall, and A. J. Pepper.

MEDICAL OFFICERS OF HEALTH SOCIETY.

At a meeting held at the Scottish Corporation Hall, Crane-court, Fleet-street, on Friday, Dec. 17th, Dr. Alfred Hill President, in the chair,

Dr. Ashby read a paper on the Contagious Diseases (Animals) Act, 1886, of which the following is an abstract:—The author began by pointing out that the changes effected by this Act in existing statutes had been rendered necessary by the complete failure of the previous Act to produce any effectual control of dairies and cow-sheds. He gave the provisions of the 9th section of that Act, which embodied the 34th section of the Contagious Diseases (Animals) Act of 1878, and which alone affected sanitary authorities. For the purpose of that section, the Privy Council were replaced by the Local Government Board as the central authority. Local authorities in the metropolis were the same as formerly, and in other parts of England and Wales they were now urban and rural sanitary authorities. He pointed out that the wording of the section only conferred on local authorities and their officers a right of entry to any premises between 9 A.M. and 6 P.M., for the purpose of enforcing Orders and Regulations, and not for any other purpose, such as for examining as to the existence of any infringement of Orders or Regulations. He stated that it would be convenient for the officers of the sanitary authority most concerned with duties under the Act to obtain from the local authorities, under the Act of 1878, of their districts a general authorisation to enter any premises in which there was a diseased animal in an infected place. No officers in particular were mentioned, but

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the clerks of sanitary authorities would be concerned with all legal questions or proceedings arising out of the administration of the Act. Upon inspectors of nuisances would probably devolve the chief part of the work. Medical officers of health would have to advise sanitary authorities on questions arising out of the enforcement of Orders and the framing and enforcing of Regulations. They would advise the inspectors when in doubt, and exercise a general supervision over the administration of the Act. In the event of an outbreak of infectious disease, they would have important duties to perform in making inquiries into the causes of epidemics, and advising such measures as might be necessary to check the spread of disease through contaminated milk. It would behove them to exercise much tact in prosecuting such inquiries, for in the absence of it great injury might be done to persons in the trade. A surveyor's advice would be necessary when important structural alterations were contemplated. Should the work prove to be heavy, the officers chiefly concerned might fairly be entitled to extra remuneration, and, if required, additional officers might be appointed. The Dairies, Cowsheds, and Milkshops Order of 1885, and regulations made thereunder, remained in force; those already made might be adopted by the new authorities, but it might be deemed advisable to revoke them and make new ones. Registers kept by the authorities under the Act of 1878, or copies, were to be delivered to the new authorities. The speaker pointed out that there were no definitions of terms used in the 34th section of the Act of 1878, except "cattle," which meant bulls, cows, oxen, heifers, and calves. "Animals" meant cattle, sheep, goats, and all other ruminating animals and swine. Horses, asses, mules, and dogs were included in certain Orders. "Disease" meant cattle plague, pleuro-pneumonia, foot-and-mouth disease, sheep-pox and sheep-scab. Glanders, farcy, swine fever, anthrax, and rabies were also included in certain Orders. The want of exact definitions of other terms would cause doubt as to the interpretation of parts of the Acts and Orders. It was much to be regretted that this defect had not been remedied in the Act of 1886. It did not appear that any effectual provision had been made to compel defaulting authorities to carry out the Act. Local authorities had to deal solely with occupiers, and not with owners. They could adopt any forms of register or notice they pleased. They and their officers still had no concern with contagious diseases amongst animals, except so far as related to milk from diseased cows. Cowkeepers, dairymen, and purveyors of milk only were named in the 34th section of the Act of 1878. The Privy Council had added much confusion by using in their Order of 1885, without definition, the further titles of "occupier of a milk store or milk shop" and "persons selling milk by retail." That Order required every cowkeeper, dairyman, or purveyor of milk to be registered. Every local authority had to keep a register of such persons, and were empowered to make their own regulations on specified matters. Dr. Ashby next commented on the various articles of the order exempting certain persons from registration, requiring certain provisions for regulating the sanitary condition of new and old cowsheds, and precautions to be observed against contamination of milk. The milk from diseased cows, those ill with cattle plague, pleuro-pneumonia, or foot-and-mouth disease only might not be mixed with other milk, or be sold or used for human food, or be sold or used for food of any animal without being boiled. It would seem desirable that the meaning of "disease" should be from time to time extended so as to comprise tuberculosis, scarlet fever, diphtheria, or any other disease which might be observed to dangerously affect the milk of cows. It might be thought that the Local Government Board should have done this by order, but they had not the power; only the Privy Council could make such an Order under the Act of 1878. The Local Government Board had issued the Dairies, Cowsheds, and Milkshops Amending Order of 1886. It provided a penalty for the enforcement of the Order of 1885. It would have been more acceptable if it could have assigned a definite meaning, in default of the Act of 1886 having done so, to all the terms in the 34th section of the Act of 1878, and in the Order of 1885, which had not been elsewhere defined. Dr. Ashby observed that it was incumbent upon sanitary authorities and their officers to exercise these new powers and duties with due regard to the enormous interests involved, and whilst it behoved them to use all vigilance to diminish human preventable diseases in every lawful way, these remarkably trying times did not admit of landlords and farmers, already hampered, being further harassed through being called upon to reconstruct almost every dairy and cowshed, as would be the case if too stringent regulations were made. Medical officers of health would be called upon for advice in the framing of regulations, and it was most desirable that in their laudable efforts to annihilate preventable diseases they should not be led so far as to annihilate the unfortunate cowkeepers and dairymen instead. The general principles to be kept in view in framing regulations were:—They must adhere rigidly to the letter of the law, they might not go outside the matters in respect of which powers had been given for making them; they must not include anything specifically enacted in an Act of Parliament; and they must not be of too restrictive a character, or repugnant to the laws of England, but must be reasonable, certain, and determinate. The powers for making regulations specifically defined by the 34th section of the Act of 1878 and the Order of 1885 could not be exceeded or departed from in any way. The regulations were of a penal character, and local authorities must not in framing them invent offences. In drawing up regulations, he would say be strong in things really essential for preventing disease; in other things be less stringent. Although they might consider that matters beyond those actually named in the Acts and Order had a bearing on disease prevention, yet they might not be comprised in regulations, because they would be *ultra vires*. Since it appeared to the author that some of those points had not been sufficiently kept in view in making regulations, and that the powers of local authorities had thus been exceeded, he proposed to consider the matters under the several headings of the 13th Article of the Order of 1885, which authorised regulations "for the inspection of cattle in dairies." Under that a regulation giving a general power of entry could not be made, but only one "for the inspection of cattle." It might not provide for the inspection of buildings or premises or animals, as the latter term would include something more than "cattle." The inspection must be of cattle in "dairies" only. That was a most unfortunate term in the absence of any definition. It was evidently intended to signify a dairy farm, but he thought in most districts it would excite the risible faculties of farmers if they were asked to allow cattle to be inspected in their dairies. The use of the term was due to the wording of the Act of 1878. The speaker submitted a set of regulations he had drawn up, from which he had endeavoured to exclude all the points he believed to be *ultra vires*. It was difficult to conceive that the Legislature ever intended that such vast structural alterations as would be entailed by some regulations should be enforced upon the owners of buildings already erected. Their powers were not very satisfactory or well defined, and would remain so until Parliament could spare time to amend such a Parliamentary curiosity of literature as the ninth section of the Act of 1886, and until the Local Government Board should have defined, by Order, the terms in the Order of 1885, if they had power to do so.

The discussion was adjourned until the next meeting.

Sanitary Registration of Buildings.

AT the adjourned meeting of the Society the President, Dr. Alfred Hill, again occupied the chair. The attendance was not so large as on the former occasion.

Dr. C. E. SAUNDERS read the report of the Council, which was as follows:—"Your Council find themselves quite unable to approve the principle of compulsory registration involved in the Sanitary Registration of Buildings Bill, and having given the details of the measure a very full and careful consideration, they regard it as impracticable, and recommend the Society to petition against the Bill, should it be necessary to do so."

The PRESIDENT said that as the Council have expressed an opinion so adverse to the Bill, it would be useless and supererogatory to enter into any further discussion of its clauses and provisions.

Mr. MARK H. JUDGE then made a few remarks in favour of the Bill, and afterwards,

Mr. SHIRLEY F. MURPHY, hon. sec., read a letter from Mr. Ernest Turner, F.R.I.B.A., who regretted his inability to be present. Mr. Turner wrote as follows: "The scheme presented in the draft Bill promoted by the Sanitary Assurance Association is, in my humble opinion, not only totally impracticable, but is also calculated to do much harm to the cause of sanitary progress. The principles of

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house sanitation are only just beginning to be understood by a few, and the practice is understood by fewer still—although amongst those who have made a special study of the subject any difference of opinion is confined to detail—amongst those engaged in building operations, and amongst sanitary officials there appears to be at present too wide a divergence of opinion even upon general principles to admit of any hope that such a compulsory measure would be satisfactorily carried into effect. As an instance, I may mention the views of the surveyor of a large London parish, who, a short time since, expressed the opinion, at one of the meetings of the Society of Medical Officers of Health, that the public sewers should be ventilated through the drains and soil-pipes of private houses, and that disconnecting chambers were objectionable. Again, I know architects in extensive practice who are still of opinion that the pan-closet is a desirable appliance, and this view obtains amongst some of the officials in Government departments. When we know that even sanitary officials and men of high standing in their profession hold such opposite views, we may fairly conclude that if sanitary reform were handed over to the persons proposed by the Bill, insanitary muddle would be the result. ..... I hope the Society will take the view that the right field of labour is first of all with the sanitary education of the officials who have to administer the laws, and of those to whom the erection of buildings is entrusted, and then the amendment of existing Acts or passing of new Acts of Parliament. The Metropolitan Building Act is ably administered by a body of trained officers, who are not elected to office until they have given proof of their competency to discharge the duties. Surely any comprehensive Sanitary Act such as is proposed would be premature until sanitary education has advanced sufficiently far to provide a similar safeguard to the public."

The motion for the adoption of the report of the Council was then carried, with one dissentient; and on the motion of Professor CORFIELD, it was unanimously resolved that copies of the report be sent to Dr. R. Farquharson, M.P., Sir Henry E. Roscoe, M.P., F.R.S., Sir W. Guyer Hunter, M.P., M.D., and P. Charles Cameron, M.P., by whom the Bill is to be brought into the House of Commons.

ACADEMY OF MEDICINE IN IRELAND.

Narcolepsy.—Myxœdema.

At the opening meeting of the Medical Section on Nov. 19th, the PRESIDENT delivered a short address on some of the circumstances which have prevented a precise knowledge of the Action of Medicine.

Dr. A. W. FOOT read a paper on Narcolepsy (so called by M. Gélineau in 1880) and narrated the case of a youth, aged eighteen, who had been under his observation for three or four years, during which time he was subject to sudden attacks of morbid somnolence, which came on whether he was sitting, standing, walking, eating, driving, railing, or playing the piano. He had no tonic or clonic spasm, retained common sensation, and did not lose consciousness. His personal history was good, but he came of a neurotic family. No treatment availed to relieve him. Dr. Foot referred to two other cases which had been observed in Ireland by Prof. Macnamara and the late Dr. Graves; and concluded by suggesting that the word "hypnolepsy" would be more correct than narcolepsy; that this condition was quite different from the sleeping sickness of Western Africa, and by pointing out the distinction between it and epilepsy.—Dr. HENRY KENNEDY said that in Simpson's Hospital he had frequently observed persons, more or less advanced in life, showing a tendency to fall asleep under unusual conditions—for instance, at dinner. He considered this tendency to be due to the blood being overloaded with the purest kind of fat, as described by the late R. Smith.—Mr. CORLEY mentioned a case which he had had under treatment that agreed in every respect with the description of the disease given by Dr. Foot. Three or four years ago a dairyman's labourer was admitted into the Richmond Hospital. He had some months before fallen from a dairy cart on the back of his head. While eating he suddenly let his knife and fork fall and went to sleep. He had evidently cerebral pressure. His family history suggested that he had something in the nature of a tumour, probably out of reach of the surgeon's knife. The case had a fatal result. Dr. Abraham made a post-mortem examination, which confirmed this diagnosis. There was a small abscess, twice the size of a walnut, in the posterior right lobe of the cerebrum; and no doubt the symptoms depended upon that. The striking similarity in the symptoms described by Dr. Foot indicated that some part of the cerebrum was affected in his case also.—Dr. C. J. NIXON had recently seen a member of his own profession who was suffering from attacks like angina pectoris. Close on sixty years of age, the gentleman in question had been for several years, whilst in the Army Medical Service, subject to sudden attacks of periodic sleep at extraordinary times, even on duty. The intervals between the attacks greatly decreased, and he was obliged to leave the service.—The PRESIDENT said he had seen only one such case—that of a powerful young man, aged twenty-seven or twenty-eight, who managed successfully a great business in the city. He was of a family in whom neurotic affections abounded consequent on close intermarriage, his father and mother being first cousins.—Dr. FOOT, in reply, said he was aware of Smith's observations on fat and free oil, which that writer had used not in connexion with extreme tendency to sleep, but with fatty degeneration of the viscera, and thus he had described free oil flowing out of the body. Sleepiness at meals had nothing to do with narcolepsy. A good dinner, a warm fire, and a comfortable chair invited sleep. Following Gélineau and Dana, he had used the word "neurosis." One of Gélineau's patients, who was a soldier, had started a nice medico-legal question, "What would become of me," he asked, "if the sleep attack came on me whilst I was on sentry or on guard? I should be shot, and not for any fault of mine."

Dr. C. J. NIXON read a paper on a case of Myxœdema, having previously exhibited the patient.—Dr. M'SWINEY said the paper proved, as also did a recent case operated on by Sir William Stokes, that the crucial experiments performed by the surgeon often disproved theoretical conclusions which were the result of mere observation.—Sir WM. STOKES said his case was that of a female with a rapidly increasing bronchocele. Owing to the mechanical effects of pressure of the tumour, he deemed it necessary to relieve her. The operation consisted of two parts. He first removed the left lobe of the thyroid gland as the largest of the two. The wound healed, and the patient perfectly recovered. After a considerable interval she presented herself again for admission into hospital. The tumour on the right side having undergone remarkable diminution, increased rapidly, and gave rise again to the serious symptoms referable to mechanical pressure. Thereupon he removed the remaining lobe of the thyroid. The wound completely united, and the patient seemed to go on favourably till the remarkable symptoms detailed in Dr. Nixon's case supervened—pallid face, puffy eyes, and swelling about the wrist and ankles, which pitted on pressure, while the intellect became impaired, as indicated by the length of time it took her to answer a question. At length, as the symptoms became urgent, she had convulsive seizures, somewhat epileptiform, respiration became difficult, and she expectorated large quantities of mucus—these conditions increasing till she died from exhaustion. He had little doubt there was a distinct connexion between the complete removal of the thyroid gland and the symptoms which subsequently developed. Still, he would not take a gloomy view of the future of thyroidectomy. There had been a large number of cases of removal of the thyroid gland unattended by the development of myxœdema.

MANCHESTER PATHOLOGICAL SOCIETY.

A MEETING of this Society was held on Wednesday, Dec. 8th, 1886, Dr. J. Dreschfeld, President, in the chair.

Broncho-pneumonia in Children.—Dr. H. ASHBY showed the lungs of a child who died from broncho-pneumonia.

Epithelioma of the Tongue.—Dr. W. THORBURN showed a number of sections of an epithelioma of the tongue, which had apparently developed from an ulcerating gumma. The sections, being cut continuously, demonstrated the method of growth and invasion of the tumour.

Diaphragmatic Hernia.—Mr. A. H. YOUNG exhibited a preparation of a case of diaphragmatic hernia, which had been discovered in the dissecting room. He pointed out the impossibility of diagnosing such a case during life.

Surgical Kidney.—Mr. C. E. RICHMOND showed specimens of surgical kidney, together with the bladder and ureters. The bladder was chronically inflamed, much dilated, hypertrophied and fasciculated. The ureters and pelves of the

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kidneys were dilated and inflamed, and contained a mixture of foul urine and pus. The kidneys were enormously enlarged; the whole parenchyma was macerated in pus, and the capsules separated easily. There were large perinephritic abscesses. There had been a history of chronic retention, with much ropy mucus in the urine. Death had occurred from uræmia after the use of the catheter. There was no stricture or prostatic disease; hence it was inferred by Mr. Richmond that retention and consequent dilatation of the bladder had been due to the obstruction caused by ropy mucus.

Phosphatic Intestinal Calculus.—Mr. A. H. YOUNG showed for Mr. Wren, M.R.C.V.S., an enormous calculus found after death in the large intestine of a pony.

Dr. J. DRESCHFELD gave an account of some recent researches on thrombosis.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

AN ordinary meeting of this Society was held on Nov. 8th, Mr. Edward Atkinson, Vice-President in the chair.

Mr. MAYO ROBSON showed a specimen of Hydrosalpinx which he had removed from a patient ten days previously. She had had pelvic pains which prevented her from working for several years. The patient was recovering.

Mr. ROBSON also exhibited a specimen of Ruptured Jejunum, caused by a fall from a scaffold. The man presented no external signs of injury, but had symptoms of intestinal strangulation and peritonitis, for which laparotomy was performed.

Mr. W. H. BROWN showed a Ruptured Bladder, apparently spontaneous, for there was no history of injury. The patient survived four days.

Mr. EDWARD ATKINSON showed a patient from whom he had excised the Sternal End of the Clavicle for dislocation upwards. The man, who before the operation was unable to use his arm, had now a very useful limb.

Mr. MAYO ROBSON brought forward a patient, twenty years of age, in good health, on whom he had performed Supra-pubic Lithotomy three weeks before, the interesting feature of the case being the suture of the bladder and primary union of the wound.

Oöphorectomy.—Mr. W. H. BROWN read notes of a case of Oöphorectomy undertaken for indefinite nervous symptoms, which had existed for ten years, and which were chiefly referred to the pelvis. During the whole period the patient had been attending some charitable institution, and the operations of stretching the sphincter ani and the urethra and scooping out the uterus had been performed in vain. The last operation, in which normal ovaries and tubes were removed, was also without effect.—Dr. BRAITHWAITE thought the case was not a proper one for oöphorectomy.—Mr. WHEELHOUSE considered it unjustifiable to perform such operations for such indefinite symptoms.—Mr. MAYO ROBSON thought it was very seldom justifiable to remove healthy ovaries, as in the operation known as Battey's; but he was quite sure that a great advance had been made in surgery by the removal of diseased uterine appendages known as Tait's operation. He had operated on a number of cases of pyosalpinx and hydrosalpinx with great benefit, and as yet with no mortality. He always had a full consultation on the case previously, and explained the nature of the operation fully to the patient.

Removal of Ingrowing Eyelashes by Electrolysis.—Mr. BROADBENT HEWETSON described this method, and showed the apparatus. The needle attached to the negative pole was inserted for twenty seconds.—Mr. SNELL referred to a paper in which he had described this operation three years before. He had used the method for removing superfluous hair on the face in females, and in one case he had removed a moustache from a young lady.

Cataract.—Mr. SNELL read a paper on the Treatment of Cataract and other eye operations, to the exclusion of dark rooms, bandages, &c. He referred to his article in THE LANCET, of Sept. 18th, and said that experience had taught him the value of plaster as a means of closing the eye as superior to the method by bandage. He had used the method in fifty-three cases, thirty-two being operations on the lens, the remainder being iridectomies, iridotomies, sclerotomies, and operations for anterior synechiæ. Reference was made to its utility in injuries of the eyeball, and in other cases where it was desirable to keep the eye at rest. He explained the method of cutting the plasters, which was that known as "salicylated isinglass plasters."

Hemiplegia.—Mr. J. W. TEALE read notes of a case of a lady of sixty-four, who, after prolonged and obstinate constipation with albuminuria, was seized with hemiplegia on the left side, accompanied by convulsive movements of that side. In the deep unconsciousness which followed the attack (lasting fifty-four hours) the sphincter ani was stretched. This was followed by copious action of the bowels. The patient recovered a considerable amount of movement, and the albumen was reduced to a trace.—Dr. HUTCHINSON remarked on the great difficulty of estimating the value of remedies in nervous disease.—Mr. T. P. TEALE described cases of rigid sphincter without spasm, giving the sensation to the finger of a cartilaginous ring, and relieved by stretching.—Mr. FLETCHER LITTLE remarked on the less frequent occurrence of obstinate constipation among French women, due to the more general use of enemata.

Dr. ERNEST JACOB showed a Papillomatous Tumour which he had removed from the larynx of a young man, where it greatly interfered with the voice. It was a return growth, the first having been removed by him eight months previously. He showed various forceps used in such operations, and remarked on the value of endo-laryngeal operations over thyrotomy.

Dr. GRIFFITH exhibited the temperature chart from a case of Enteric Fever, showing two complete relapses, each of three weeks' duration.

MIDLAND MEDICAL SOCIETY.

A MEETING of this Society was held on Wednesday Dec. 8th, 1886, Mr. Lloyd Owen, President, in the chair.

Radical Cure after Strangulated Hernia.—Mr. BARLING showed a man aged thirty-five on whom he had operated for congenital inguinal hernia eighteen months ago. At the operation blood was found in the sac and walls of the intestine, in which there was also a slight laceration. After the strangulation was relieved a tunica vaginalis was made from the lower part of the sac, and the upper part was ligatured and left in the inguinal canal. Two short wire sutures were then passed through the pillars of the ring and walls of the inguinal canal; these were tightened up and cut short. The wound healed by first intention; the patient got up with a truss on in three weeks, and has since worn a truss, until a month ago, when he was instructed to discard it. At the present time there is no return of the hernia, and the external ring is tightly closed; the wire sutures can be felt *in situ*, the testicle feels normal, and slides easily in its tunica vaginalis.

Fœtal Abnormality.—Mr. A. F. HAWKINS showed an eight months' fœtus which presented the following abnormalities: the umbilical cord was 2½ in. long; there was ectopia abdominale, the lining of the bladder being covered with a mass of meconium. The intestine opened into the left upper corner of the bladder, there being no distinction between the large and small gut; the penis was undeveloped, imperforate, and above the pubic arch, the latter being incomplete, and the halves joined by a ligamentous band. The scrotum was divided, the right testicle lying loose in the abdominal cavity, with a stalk about an inch long; the left testicle was in front of the left kidney under the peritoneum. At the back a large cyst extended from the angles of the scapulæ above to the buttocks below; it was in the median line, about the size of a tennis-ball, and was lined by a smooth vascular membrane; this contained a perfectly clear limpid fluid; no nerves stretched across it. In the anterior portion were two depressions, one the size of a crowquill, ¼ in. in depth and apparently blind; the other, which was higher, was an opening with circular and well-defined edges ¼ in. in diameter; a probe could be passed through this upwards into the vertebral column. Both feet were clubbed; the hands were normal.

The Leg Type of Progressive Muscular Atrophy.—Dr. SUCKLING exhibited a woman, aged forty, suffering from Progressive Muscular Atrophy, which had commenced in the feet and legs. There was marked emaciation of the leg muscles, the feet being dropped, inverted, and useless. The gait was of a "high-action" or "equine" character, and the knee-jerk was lost. The thenar and hypothenar eminences of both hands were wasted, and the *main en griffe* was present. The "reaction of degeneration" was also present in the tibialis anticus, extensor longus digitorum, and peronei in both

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legs. The patient's two sisters were affected in an exactly similar manner, and her uncle and father suffered from wasting of the legs.

Chevet's Disease.—Mr. CHAVASSE showed a case of Chevet's Disease in the ankle of a man who some years previously had his thigh amputated for some disease of the knee.

Dr. C. J. LEWIS read a paper entitled "Clinical Observations on Syphilis of the Larynx."

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

A meeting of this Society was held on Friday, Dec. 3rd, at which twenty-two members were present.

Dr. KERR showed the following specimens, with notes of the cases:—1. Case of unexpected Hysterectomy, in which abdominal section was made to remove a pyosalpinx. During the operation a small subperitoneal myoma was also removed. The pedicle was secured by the Staffordshire knot. During the tightening of the ligature the peritoneal coat of the uterus was fissured, from which a slight oozing of blood took place. This was stopped by sponge pressure, and the operation was completed, a drainage-tube being left in. Finding that the bleeding continued, the abdomen was again opened in the evening, and, the actual cautery and continuous suture proving ineffectual, hysterectomy was performed. The patient made a good recovery. 2. Two Diseased Ovaries: one an example of a very small multilocular cystoma; the other a cirrhotic ovary removed from an unmarried woman, who had been almost entirely disabled for five years. 3. A section of Diseased Mammary Gland, which proved to be malignant, and an Axillary Gland, likewise affected, from a patient otherwise in better health than she had been for years. There was only a seven months' history of the growth. 4. Uterine Polypus, three-quarters of a pound in weight, separated from its connexions by the écraseur, and delivered by midwifery forceps.

Dr. HANDFORD showed a boy, aged nine, in the early stage of Pseudo-hypertrophic Paralysis. Difficulty in walking was first noticed at five years of age; he has had several fits; the mental faculties are deficient. No other members of the family have had a similar affection. Patellar tendon reflex was absent; electro-sensibility was unaltered; electro-contractility to both currents much diminished and delayed. Dr. Handford showed photographs of a second case. They were taken in 1882, and the boy was then aged eleven. His elder brother died two years ago of the same disease. In November, 1886, this boy was again seen and found to be much grown and well nourished, but unable to stand or raise his legs when lying in bed.

Dr. HANDFORD exhibited photographs and coloured drawings of two cases of Pemphigus, and one of Hydroa Herpetiforme. In one of the cases of pemphigus attention was called to a marked pigmentation of the skin, and to a very unusual condition of the cicatrices left by the bullæ.

Mr. W. T. CARR, read a paper upon Anæsthesia and Anæsthetics. An interesting and prolonged debate followed, which was adjourned to a special meeting.

THE GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

THE third meeting of the session was held in the Faculty Hall on the evening of Dec. 22nd. Drs. W. W. Anderson, R. H. A. Whitelock, Skene Keith, F.R.C.S.E., and S. George Campbell were admitted Fellows.

Injury in Twin Pregnancy.—Dr. GLAISTER exhibited (1) a Typical Battledore Placenta, and (2) a Placenta and Fœtus, illustrative of the effects of injury in a twin pregnancy. In this case the mother when three months and a half pregnant with twins had a severe fall, which caused the death of one, the cephalic extremity of which presenting along with the head of the other at labour caused some dubiety as to twins or to what it could be. The fœtal remains exhibited within inches of cord attached showed signs of post-mortem inflammatory action, one of the feet being found attached by lymph deposit, in the form of a band, to the body, as were further lymph formation. The placenta was in one mass, but divisible into two portions; one, the larger, containing ordinary healthy placental tissue, and the smaller being markedly white. There was one chorion and one amnion.

Dr. R. POLLOCK exhibited a fœtus which bore signs of maceration.

Dr. W. L. REID exhibited the Head of a Fœtus which he had extracted after Basilysis, and a discussion ensued as to the respective merits of basilysis and cranioclasm, or craniotomy. The balance of opinion was against the former.

A Review of Thirteen Years' Private (Obstetric) Practice.—Dr. J. K. KELLY read a paper on this subject. Guarding himself, firstly, by stating that his results, owing to the imperfections not only inherent in every recorder, but also due to the conditions of general practice, must be regarded as approximately and not absolutely correct, he said he had attended, between the years 1873-85, inclusive, 2823 confinements, at which 2868 children were born. In all these the maternal mortality had only been seventeen, or one in 166. Five of these were due to causes unconnected with parturition, thus reducing the true childbed mortality to one in 235·2. Taking the last six years only, the maternal mortality had only been one in 411. In 762 primiparæ, the mortality was eight, or one in 95½, and in 2061 pluriparæ, nine, or one in 229. But in his last six years practice he had 284 primiparæ, with no deaths, and 949 pluriparæ, with three deaths. The paper was full of scientifically interesting statistics, was listened to with great interest, and the discussion upon it was adjourned.

Reviews and Notices of Books.

The Parasites of Man and the Diseases which proceed from them. By RUDOLF LEUCKART. Translated from the German by WILLIAM E. HOYLE, M.A. Oxon., M.R.C.S., F.R.S.E. Edinburgh: Young J. Pentland. 1886.

THERE is no more interesting subject in natural history than that of parasitism. It embraces the whole of the animal and vegetable kingdoms, and illustrates in a remarkable way the laws of adaptation. In relation to mankind, the subject has, moreover, a special interest for the medical profession, for it not only explains the origin of certain obscure diseases and points the way to the prevention of others, but it embodies a doctrine which is capable of being most widely applied. For the "term 'parasite'"—so runs the opening sentence of the work before us—"in its widest sense includes all those creatures which inhabit a living organism and obtain nourishment from its body." This definition is wide enough to take in all the bacterial organisms that modern investigations have shown to play so important a part in the etiology of disease, and at present we are doubtless far from embracing in our view the whole range of their activities. It is, then, all-important that we should be well instructed upon the subject of parasitism, and yet it is a subject which has attracted the study of comparatively few. In the late Dr. Cobbold England lost almost her only exponent of the subject, for he was one who had devoted time and labour to its investigation. His great work on the Entozoa remains as a monument of his industry, which was further shown in the numberless monographs upon special branches of helminthology that he contributed from time to time. But even Cobbold would admit that the work of Rudolf Leuckart was greater than his own, and it is therefore with peculiar gratification that we welcome the appearance of this classical treatise in an English dress. Professor Leuckart is a naturalist, and he deals with the subject from the point of view of a naturalist, but this is no disadvantage; on the contrary, it is a real gain, since he clearly traces the origin and nature of the various forms of parasites, and dwells upon their distinctive features in a way that not only imparts new knowledge, but also points to the most effectual means for coping with these unwelcome guests of the human body.

The bulky volume before us does not comprise the

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whole of Leuckart's great work. It contains a general account of the natural history of parasites, and a special description of all the forms from protozoa to cestoda. The second volume, which will include the nematode and trematode helminths, as well as the arthropod ectozoa, is at the present time appearing in the second German edition; and Mr. Hoyle tells us that the translation will proceed *pari passu* with that publication. The English edition has also had the benefit of further revision by the author himself, who contributes to it a preface. The work is confined to *animal* parasites. These, we are told, are either "occasional" or "constant," the former varying their habitat according to circumstances, and forming a link between the true parasite and the free-living animal. Then, as regards their relation to their hosts, parasites may be "temporary" or "stationary," terms which explain themselves; and the stationary forms may be "permanent" in their attachment, or "periodic" and wandering. Many examples of these varieties must be familiar to all; and what is of especial interest is the fact that the more stationary a parasite is, the more does it lose all the features characteristic of an independent animal organism. It becomes degraded in type, and assumes more the form of an appendage to its host than a separate individual. A very interesting chapter in this connexion is that upon the origin of parasites, where the author traces the changes undergone in organisms that depart from the nature of free-living beings to become dependent upon others for their sustenance, retaining often (e.g., trematodes) in their larval state the attributes and powers of the independent creature. The effects produced by parasites upon their hosts are multifarious, depending for their gravity largely upon the situation which is selected by the entozoon for its habitat, as in the case of Cœnurus cerebralis, Syngamus trachealis, or the Strongylus equinum that infests the mesenteric arteries of the horse, leading to aneurysm; or else depending on the injuries inflicted by them upon the body, as in the case of Dochmius duodenalis, which not only extracts blood for its own nutriment, but is the cause of intestinal hæmorrhage and a fatally progressive anæmia. Nor need we do more than mention the agency of such parasites as Bilharzia hæmatobium, Trichina spiralis, Tænia echinococcus, and the hæmatozoon Filaria sanguinis hominis, with which medical literature is now so fully familiar. From general considerations such as these we turn to the detailed and systematic account that forms the bulk of the volume. It is here that the reader will be especially struck by the thoroughness and knowledge which the author brings to his work. A large number of protozoic organisms are described, the majority of which are of but slight importance; but the attention of the pathologist should be especially directed to the gregarines or sporozoa, of which the coccidia infesting the liver of rabbits and mice are perhaps the most striking examples. Man also may be infested by these minute organisms, probably by contamination of food through the excreta of the rabbit. A fatal case in a man, marked by enlargement of the liver, is recorded by Gubler; and drawings are given of coccidia from the human liver from another case. Several infusoria occur in the intestinal canal, the Balantidium coli discovered by Malmesten in 1856 being one of these. It occurs in the pig very abundantly, as well as in man; but it is interesting to note that it has only been found in cases where the intestines are already diseased. The cestode worms receive, commensurate with their wide distribution and importance, a very large share of attention their remarkable metamorphosis and life-history preceding the special anatomical description of each genus. Here will be found a full discussion of the views of other writers and the records of the author's own work, which have thrown such a clear light on the history of these organisms. The Tænia saginata (better known in this country as T. medio-canellata), perhaps the most common, is first described, and then Tænia solium, with its larval cysticercus. Later we meet with an ample discussion of the Tænia echinococcus, and then of the interesting Bothriocephalus latus with its ciliated embryo, and the much-debated question of its intermediate host.[1] The zoological account is followed in each instance by sections upon the distribution and medicinal significance of the tapeworm under consideration.

Such, then, is the scope of a work which, holding the first rank among treatises upon the subject, is to be welcomed as a great addition to our literature. It is a book to be widely read and studied, and we may congratulate both Mr. Hoyle upon the excellent translation which he has effected, and his publisher for presenting the volume in so attractive a form, with the numerous illustrations that add greatly to the interest and value of the text.

The Diseases of the Prostate; their Pathology and Treatment. Comprising the Jacksonian Prize Essay for the year 1860. By Sir HENRY THOMPSON, Consulting Surgeon and Emeritus Professor of Clinical Surgery to University College Hospital. Sixth Edition. London: J. and A. Churchill. 1886.

THIS work is so well known that we are absolved from the duty of doing much more than noting the fact of the publication of a new edition. Some of the chapters show signs of revision and addition, but for the most part it is a reprint of the former edition. Four new illustrations have been added. One notable change in the nomenclature is to be observed. We no longer read of "hypertrophy of the prostate," but of the "enlarged prostate of elderly men." Sir Henry Thompson does not think that the contour of the prostatic urethra can be modified by the passage of instruments, and he leaves his readers to infer that he does not believe that the passage of soft bougies will prevent the obstruction of the canal by outgrowths of this organ. In the cases of this disease where life is rendered a misery by very frequent and painful efforts at micturition, in spite of the proper use of the catheter, the draining of the bladder by an incision into the membranous urethra is recommended in preference to epicystotomy, which Sir Henry Thompson previously advised. We do not think that sufficient importance is attributed to the effects of the atony of the bladder so often associated with chronic enlargement of the prostate. There is much to show that in a large number of cases the symptoms are really the outcome of the atony rather than of the hypertrophy, and that the benefit obtained by daily catheterism and emptying of the bladder is to be explained by the recovery of power in the bladder which this causes.

The more recently recorded cases of malignant disease of the prostate have been added to the table of cases of this disease but cancer is stated to be more common than sarcoma. We doubt the accuracy of this view. It is more than probable that, as in the testicle, *all* the cases of malignant disease of the prostate in children are cases of sarcoma, although recorded originally as cancer, and some of the cases in adults which have been described as "medullary cancer" have probably been sarcomatous in nature. The chapter on Tubercular Disease of the Prostate opens with this sentence: "The prostate is very rarely the seat of the tubercular deposit," whereas "prostatic cancer" is spoken of only as "a rare affection." Surely these expressions do not represent the facts with sufficient accuracy. As a primary disease tubercle of the prostate is no doubt very rare, even if it ever occurs, but we have often observed the prostate enlarged secondarily to tubercular disease of the testicle, and Curling writes that the disease in the testicle is "often associated with

[1] Leuckart holds it to be the pike and turbot, but has failed to prove this experimentally.

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tions of other parts, especially of the vesiculæ prostate."

us oversight the much-used flexible rubber twice spoken of as "vulcanised" rubber istake which might possibly give rise to trouble der were sent to an instrument-maker. One feature of this book is the absence of e writings of contemporary British surgeons. h and American surgeons are named, and tioned several times; and we notice that the of Philadelphia is referred to as Gross of

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ionnaire de Médecine et de Chirurgie Pratiques. : Zym. Supplément. Table Analytique. de la Rédaction le Dr. JACCOUD. Paris: ère et Fils. 1886.

e completes the Dictionary, and we may make l observations upon its scope and character. is kind may belong to one of two types. It give short explanations of every important t under such a term as "anæsthesia" the find the etymology and explanation, or the haracters of anæsthesia may be included under term, such as "nerve" or "nervous system," or " or "sensibility." Each method has its advan- disadvantages. If a reader meet with a term he is unacquainted, he has only to refer to his he finds, if it be a good one and framed on the a brief and explicit account of it; but the f course completely isolated and unconnected. hand, a dictionary constructed on the second gh it renders it difficult for the reader to meaning of a particular term unless the index arily good, yet supplies the busy man with a rustworthy and, if we may use the term, read- of the various diseases; and if he have time to y such articles, he can make himself acquainted ecently introduced words and phrases, and imself with the existing state of medicine and e Dictionary before us belongs to the latter e feel bound to state that, owing to the the contributors and the care which has d upon the several articles, the purchasers k will find that they obtain a thoroughly equivalent for their money. It was com- 1864, and has been published with much t the rate of about two volumes a year. The deaths amongst the contributors, considering e that has elapsed since the first volume was has not been great. It includes, however, the d names of Demarquay, Gintrac, Hirtz, Laugier, Nélaton, Maurice Raynaud, Amb. Tardieu, Trousseau, ite recently one of the most original and hard- coadjutors, Paul Bert, whose too early death regretted by all who have an interest in the ad- t of science. The Dictionary has been published markably cheap price of seven shillings and sixpence me; and considering that each volume makes about undred pages, it contrasts favourably with any American, or German work of a similar character. ve in our notices of the several volumes as they peared called the attention of our readers to the l articles, it is unnecessary that we should recapitu- remarks previously made. In respect of the present it is to be regarded as a supplement containing several such as Microbes, Chloral, Jequirity, Cocaine, and ich have either been accidentally omitted or which into being or into general use subsequently to the the articles having the same initial letters were The work terminates with an accurate and very complete Analytical Index by Dr. Decaye. Great praise is due to the able editor, M. le Docteur Jaccoud, for the admirable manner in which the editing has been accomplished. The general arrangement of the articles is excellent. The typographical errors are few in number and trivial in their nature, especially in regard to the spelling of the names of English and German authors, in respect to which the French are, as a rule, extremely careless, in proof of which we may just observe in passing that we saw in a work of repute some time ago Faraday referred to as Professor "Farrhadouy." We must not conclude our observations without a word of praise to MM. Baillière et Fils, for the good paper, clear print, and excellent illustrations with which the work has been published. Those who desire a good French dictionary of medicine and surgery cannot do better than place a copy of the "Dictionnaire de Médecine et de Chirurgie Pratiques" on their bookshelves, and consult it whenever they have the misfortune to meet with a rare, a refractory, or an inexplicable case.

Analytical Records.

BENGER'S PEPTONISED CHICKEN JELLY.
(MOTTERSHEAD & CO., MANCHESTER.)

MR. BENGER'S preparations are now so well known, that all we need say of the sample before us is that it is excellent. It has a delicate chicken flavour, free from the bitterness which used to interfere with the employment of peptonised articles. We gave some to a patient in a critical stage of recovery from typhoid, and found that it was taken easily.

CARNRICK'S LIQUID PEPTONOIDS WITH COCA.
(CARNRICK & CO., LIMITED, HART-STREET, LONDON.)

Like the preparation noticed above, this is only a new adaptation of a well-known and highly esteemed article, The idea, which seems to have been successfully carried out, was to unite the powerful nerve stimulant coca with an equally powerful and easily assimilated food stimulant.

FINEST MONING GLENELG TEA, 1884-85.
(T. F. ALLEN, CHURCH-PASSAGE, GUILDHALL.)

Small clean leaves, quite free from adulteration; delicate flavour. Analysis gave the following percentages:—Ash 6·27. insoluble ash 2·83, alkalinity of ash (as KOH) 1·32.

FINEST MONING GLENOGLH TEA, 1886-87.

Closely resembles the last, but with somewhat smaller leaf. Is a very fine tea. Analysis:—Ash 6·59, insoluble ash 2·65, alkalinity of ash 1·23. It will be seen that there is no important chemical difference between the two samples.

VOLTMER'S ARTIFICIAL HUMAN MILK.

This preparation deserves to be given an extended trial, by which method alone can its value be determined. It has for five years met with some success in Germany. There is no doubt of its containing the necessary principles of food. It is sold in packets that look something like soft toffee or butter-scotch. One of these makes half a pint of milk. The cream rises to the surface, and the casein sinks to the bottom if the fluid be allowed to stand. The peptone reaction comes out well.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The library of the College will be closed on Tuesday, Wednesday, Thursday, and Friday, the 4th, 5th, 6th, and 7th of January, and on Friday, Jan. 14th, for the purposes of the examinations of the Examining Board in England and the Primary and Pass Examination for the diploma of member of the College. We believe these will be the last occasions on which the library will be closed for examination purposes, as the new Examination Hall is expected to be ready by the end of March.

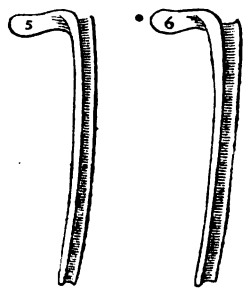
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New Inventions.

A NEW STYLE FOR FACILITATING THE TREATMENT OF STRICTURE OF THE LACRYMAL DUCT.

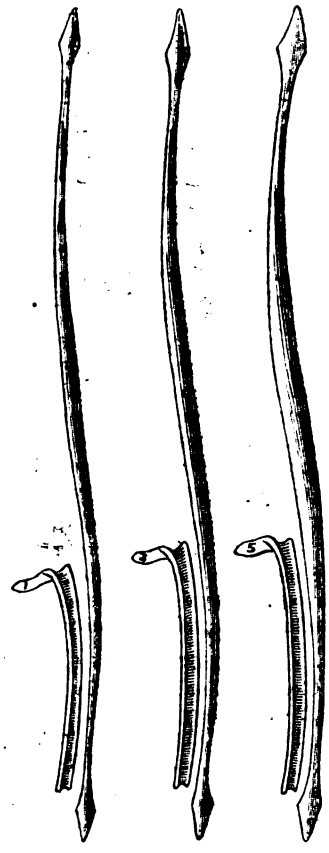
THE many difficulties in the way of satisfactorily treating obstinate cases of this apparently simple affection have induced me to devise the instruments which I have the honour of bringing before the notice of the profession. These instruments are grooved styles of various sizes, as shown in Fig. 1, are made of silver-gilt, and are each arranged to slide along Bowman's bulb-ended lacrymal probes. They are so constructed that the probe and its corresponding style will together pass through an opening which will not admit the next-sized probe. In performing the operation, as soon as the canaliculus has been slit up and a probe inserted, a style of corresponding number can be gently pushed along the probe through the stricture.

FIG. 1.



Showing grooved styles. Nos. 5 and 6 have been selected for the diagram.

FIG. 2.



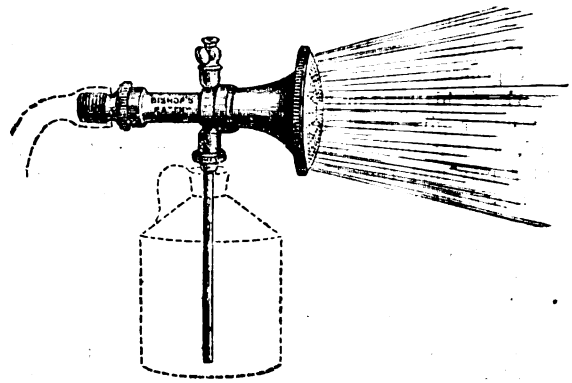
Showing probes and grooved styles.

The probe is then withdrawn, leaving the style in position. After a few days' interval the probe may again be passed along the grooved style, and the small style replaced by a larger one. This process may be repeated until as large a style as may be wished has been inserted. This may then be left in the dilated stricture. In case of irritation produced by the presence of the style, it may be withdrawn and replaced in a similar manner as before when the irritation has subsided. The cases in which these grooved styles will be found most useful are: (1) Very tight or almost impermeable strictures. (2) Strictures complicated with fistulous openings and displacement of the natural passages. (3) Strictures in children or very nervous subjects. The advantages claimed by using these instruments are: (*a*) Greater facility of introduction. (*b*) It is more advantageous where rapid dilatation is required. (*c*) There is a more perfect system of drainage, of natural as well as of inflammatory secretions. In those cases in which I have had an opportunity of putting the instruments to a practical test the result has fully realised the expectation formed of them, and I venture to think that their use in dealing with almost intractable cases will be attended with much benefit.

FREDERIC DALE, M.D. Cantab., F.R.C.S. Eng.,
Surgeon to the Scarborough Hosp. and Disp.

BISHOP'S PATENT DISINFECTANT DISTRIBUTOR.

THE simple apparatus of which we give an illustration has recently been invented by Mr. Bishop, of the pharmaceutical department of Charing-cross Hospital. It appears to us to be as valuable as it is simple, and we have no doubt that it will be extensively employed. One of the chief difficulties in the use of all liquid disinfectants is the uniform and accurate dilution of the fluid selected. "Directions for use" are of course given on each bottle, but they are very irregularly followed, and injuriously large or absurdly small quantities are often added by those who have to do the actual work. With Mr. Bishop's disinfector mistakes can easily be made impossible, and the danger of neglect is reduced to a minimum. It will be seen from the drawing that an ordinary rose jet, capable of attachment to an india-



rubber hose or to the cock of the water-supply, is made to draw in by lateral suction a definite quantity of any liquid disinfectant. The lateral tube is provided with a small stopcock, by which the supply of disinfecting liquid is regulated. We have seen the apparatus tried with strong carbolic acid and with permanganate of potash, and can testify to the ease with which the proportion of disinfectant to water may be controlled and a perfect mixture effected. The apparatus can be set so that, for example, 1 in 40, 1 in 80, or 1 in 160 parts of the disinfectant can be introduced with the water without the possibility of variation by the operator. This is exactly what is wanted in public urinals, ships, stables, and many other places where frequent disinfection is required. By a simple modification the automatic disinfection of waterclosets can also be effected. The apparatus can be obtained of the inventor (47, Maygrove-road, Brondesbury).

MENTHOL INHALER.

CUSHMAN'S patent menthol inhaler has been submitted to us by Messrs. Christy and Co., 155, Fenchurch-street, E.C. It is of pocket size, and consists of a strong glass tube four inches long, with a tapering nozzle at one end, which can be introdnced into one nostril. The tube is filled in the central three-fourths by menthol crystals, and a free passage of air through these is possible by the aid of a spiral of metallic wire. Perforated corks and a kind of grate at either end of the crystals allow of ingress and egress of air without the falling-out of the menthol. Each end of the tube is fitted with corks to prevent evaporation of the menthol when the inhaler is not being used. The inhalation of air drawn through the menthol is said to prove of service in mitigating headache and lassitude resulting from excessive head-work and deficient exercise. Various neuralgiæ and nervous affections, hay fever, influenza, and catarrh may be relieved or cured by the inhalations.

ALCOHOLIC POISONING.—A child, aged five, died in Dublin last week from having swallowed a noggin of whisky administered by his father while intoxicated.

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THE LANCET.

LONDON: SATURDAY, JANUARY 1, 1887.

It remains to prophesy without being able to ensure the fulfilment of the predictions made. The year 1887 is especially one in respect of which no observer having any considerable experience of the vicissitudes of politico-social life would willingly hazard a forecast. It may happen that the intentions of undoubtedly well-meaning, but possibly too sanguine, statesmen and administrators will not be carried into effect, and that, after all, the session of Parliament to be held in the year on which we are entering will not prove the most productive of beneficent and lasting results. It may chance that no measure for the reconstruction and amendment of the laws relating to lunatics will be brought under the consideration of the Legislature; or that if such a measure should be introduced it will either fall through for lack of time for its discussion, or be thrown out by one of the two Houses; besides which, it may prove to be either objectionable in itself or worthless. Whatever its fate, there are precedents for each and all of these destinies of a Lunacy Bill. It is probably fair to assume that, whatever party may be in office, and whether or not there be any exceptional parliamentary enterprise in the coming session, there will be this year a formulated scheme, of some sort, before the Houses for the development of local government; and it can scarcely be that a measure of this class will fail to raise issues, affecting the health of the community, which will demand the very serious attention of those who are engaged in the practice of medicine in its several departments. Without anticipating, it may be stated briefly that no proposal to alter the laws controlling the government of localities can be satisfactory unless it include arrangements for the more responsible and efficient administration of local affairs relating to health-preservation and the stamping out and prophylaxis of disease. We heartily wish it were reasonable to hope that the statesmanship of 1887 would rise to the dignity of that comprehensive and far-sighted view of our public needs which perceived the great and urgent necessity of a Ministry of Health—the logical outcome of a policy which once found expression in the phrase, *Sanitas sanitatum, omnia sanitas*. As regards medical reform, we cannot look upon what has been accomplished in this province in any light other than that of a provisional achievement. Sooner or later, and the sooner the better, there must be another step of progress towards a fuller development of the single-portal system. Granting everything that can be said for the claims of various interests and the so-called rights of the many licensing bodies, each and all of which give admittance to the Register, it must be affirmed that the real and permanent interests of the general community require that there shall be one statutory examination which all must pass who would practise the art of healing in these realms, and which shall be the portal to legal qualification. The acquisition of higher titles and distinctions in particular universities are doubtless to be encouraged, and the qualifications thus obtained may be held as honours; but it is unsafe in the interests of the public and the general health of the community to assume that what seems the greater attainment must necessarily include the lesser qualification for all-round practice; and it is therefore imperative that there should be one pass examination of a thoroughly practical character, which shall ensure a safe minimum of knowledge and capacity, and to which every member of the profession must submit himself, let his "superior" qualifications or special learning be what they may. It would be fortunate if it were possible to include a measure to establish this one-portal system in the legislative programme of 1887. Among the reforms which lie, to a large extent at least, within the province of the profession itself, is a sagacious concession to the conspicuously reasonable demand which has been urged on behalf of the great bulk of the medical students of the metropolis, for a degree in medicine attainable in London itself. It has been deemed undesirable that the University of London should lower the level of its high scientific standard to the needs of the average practitioner, and it is proposed that the Royal Colleges of Physicians and Surgeons should combine to constitute a Senatus Academicus conferring an average degree. This project has now been finally cast as a practical measure, and it remains only to obtain legal authority for the function. We trust that the steps taken with this view will be successful. It is manifestly unfair and unreasonable that the capital should be almost the only available city in this country wherein a "pass" degree in medicine cannot be fairly obtained. The exclusion of the Apothecaries' Society from the confederation of the Colleges for this enterprise is, we venture to think, an act unworthy of the Physicians and Surgeons on the one hand, and unjust to the Apothecaries' on the other. It should never be forgotten that the Apothecaries Society was the first body to protect the interests of the great mass of practitioners, and it has borne the burden and heat of the day's work since the passing of the Act by which "The Hall" was constituted.

IN the "Prefatory Address" which appeared in THE LANCET of Sept. 28th, 1833, while referring to the evidence afforded—by the rejection of a Medical Bill "because it did not go far enough,"—that the Legislature was at length beginning to recognise the claims of a previously neglected profession, the founder of this journal made the following reflection: "Thus we observe a chain of effects, all referable to one important cause—a feeling which is wholly indebted for its origin to the exertions of a FEARLESS MEDICAL PRESS." It was to sustain this character and to assert and defend the rights and privileges of the medical body as "a profession to which is entrusted the guardianship of the public health," while acting the part of a friendly censor and critic, and striving to break down all injurious monopolies and reform abuses, that THE LANCET was established. The idea of creating a thoroughly independent and free organ for the profession was the dominant purpose of Mr. WAKLEY'S mature life, and to render the attainment of his purpose the more certain, his desire was that the proprietorship of the journal should continue in his family

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By the lamented death of Dr. J. G. WAKLEY, who, being joint proprietor with THOMAS WAKLEY, F.R.C.S., had also acted as Editor since his father's decease in 1862, the proprietorship devolves on THOMAS WAKLEY, F.R.C.S., who has now brought in his son, THOMAS WAKLEY, jun., L.R.C.P. Lond., and the editorial direction will from this time rest in their hands. As in the past, so in the future, THE LANCET will be conducted as the organ of the profession as a whole, and not of any association, society, company, party, or clique. That the distinctive position occupied by this journal is appreciated by the profession is apparent from the striking fact that, although in every instance subscribed for, or purchased, for its own sake purely, and not distributed as the organ of a special body, it has attained a steadily increasing circulation, and is now more largely read and quoted than any other medical journal in the world. To meet the requirements of a widening circle of readers, the capacity of the journal has been enlarged, so that it now contains more matter than occupied its pages seven years ago, to the extent of about 20 per cent. And this very considerable increase calls for further development, to meet which the journal will be permanently enlarged to ninety-six pages in the present and subsequent issues, thus affording augmented facilities for the publication of original papers and the communication of new and useful facts and opinions, to the advantage of the profession, and, indirectly, of the public. The several departments in which the work of the journal is cast will be extended and strengthened as opportunity offers, and with a view to its increased usefulness as a medium of medical news second editions will be issued whenever it seems desirable, as on the occasion of the recent election to the Medical Council. No pains will be spared to enhance the value of the periodical to its readers, while nothing will be allowed to impair its efficiency as a representative and leading organ of the great body of medical practitioners. It might be unseemly to say more, but this much needs to be said, at the commencement of a year on which THE LANCET enters under, to some extent, new auspices. The modifications which have been made, or are contemplated, will be apparent to our readers; but the purpose we cherish and are seeking to carry into effect is that which the founder of the journal conceived and so successfully compassed during his lifetime (and which the late Dr. WAKLEY still further developed); and it cannot be better expressed than in his own words—namely, to ensure "that, as far as it is possible for the cultivation of the science of medicine to alleviate human suffering, the agonies of our fellow-creatures shall be made to succumb to the power which the human mind is capable of exercising when fortified by a knowledge of that science." In a very special sense it is true of all that interests us as a profession, and which makes our function one of the highest in the service of humanity, that "knowledge is power." To extend this knowledge, and to develop and secure the free exercise of that power which is antagonistic to disease, relieving suffering and prolonging life, has been and must ever be the one worthy object for which a fearless medical press exists, and its promoters strive.

THE peculiar joint affection that complicates certain cases of tabes dorsalis has been a fruitful source of controversy, and its precise pathogeny can hardly yet be considered established. Professor CHARCOT, who first described it, compared it to other nutritive changes depending upon nerve lesion, and has always maintained its peculiar specific character. The debate at the Clinical Society two years ago served, however, to show that, at any rate in this country, this view was not universally held. It would seem almost as if there was a natural divergence of opinion, according to the point of view from which the subject was regarded. The neurologist takes his stand on the primary disorder of the spinal cord, and deems the articular and osseous changes to be essentially secondary; the surgeon thinks mainly of the joint disease, and sees no essential difference between its anatomical features and those of arthritis deformans. To him the connexion is little more than a coincidence; the cord changes are independent of any direct relation to the articular. The Society still awaits a report from a committee appointed on that occasion, but if rumour be true, the committee are unable to arrive at any definite conclusion. It may then be useful briefly to revert to the opinions upon the subject expressed by Professor VIRCHOW at a late meeting of the Berlin Medical Society, especially as his standpoint is strictly that of the pathologist who investigates the nature of a disease from the lesions that mark it. It must, however, be observed that the clinical cause of tabetic arthropathy is in itself different from the joint affections with which it is contrasted, mainly in the rapidity with which the extensive joint destruction is evolved, and the entire absence of any inflammatory phenomena, characters which, taken with others, all point, as Dr. ROTTER, who introduced the subject at this meeting, stated, to something special and peculiar to tabes.

Professor VIRCHOW began his remarks by holding that it was quite legitimate to compare this affection with arthritis deformans; a condition, however, which is by no means well defined. Thus, it may be a general or multiple affection, idiopathic in origin, or it may be purely local, limited, and traumatic; and, moreover, changes similar to those of rheumatoid arthritis occur in old-standing dislocations, and (rarely) in syphilis. Between arthritis deformans and arthropathia tabidorum (as Prof. VIRCHOW prefers to style it), no marked anatomical distinction is possible, and it is owing to the disease being described in all stages that stress has been laid by some on variations which do not actually exist. In tracing out the series of changes that eventuate in the characteristic destruction of the joint, Professor VIRCHOW stated that the earliest change is in the cartilages, then follow synovial changes, then capsular, and finally extracapsular; and throughout the whole process no distinctive inflammatory lesions may arise. It is a progressive tissue change, but so masked and altered by degenerative processes that, looking only to the final result, it might be attributed merely to mechanical friction, to 'wear and tear." (It is of interest to note here that Mr. ARBUTHNOT LANE contributes to the current volume of the Pathological Society's Transactions a paper in which he argues strongly in support of the view that mechanical causes alone may suffice to induce the joint-lesions characteristic of rheumatoid arthritis.) But the erosion and final entire destruction of the cartilages are preceded by a hyperplastic

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process, which begins at various points of the surface layers, and it is after this stage (too early to be often noted) that the destruction takes place, through fatty degeneration of the proliferated cells. Similar hyperplasia occurs at the margins of the cartilage, and here ossification may ensue, the new-formed bone often extending on to the neck of the bone itself. Later on the head of the bone is laid bare and gradually wastes, and from ossification of the marrow the exposed end becomes dense and porcellaneous; whilst the synovial membrane becomes the seat of villous growths in which bony or cartilaginous nodules may form. Lastly, the ligamentous structures are destroyed or ossified, and the disorganised joint loses all its normal characters, save the osteophytic formations that surround it and the atrophic changes that have destroyed the extremities of the bones. Now in the tabetic joint the chain of events is precisely the same, but the processes are hastened, and evidently the result of more irritation. To illustrate this Professor VIRCHOW exhibited two specimens, in one of which only the early stage of cartilage lesion was present; in the other the internal changes were extreme, with a great amount of ossification outside the rest of the capsule. The reason for the more rapid destruction of the joint in tabes is, he thought, to be found *not* in any direct trophic disorder affecting the particular joint, but in the general loss of nutrition of the subject of this disease. Tabes, then, would be a predisposing cause to the arthropathy, but the arthropathy itself would depend on local influences, which in consequence of the deranged nutrition operate with increased severity. He was sceptical as to the alleged occurrence of arthropathy in the early stages of tabes having any connexion with the changes in the cord, and suggestively alluded to the influence of syphilis as being competent to initiate the articular lesions; just as it is also doubtless in many cases the cause of the spinal sclerosis. The opinion of so high an authority as Professor VIRCHOW on this subject is worth attention, and his statements may do something to clear the way to the adoption of more tangible views than at present prevail as to the nature not only of tabetic arthropathy but also of rheumatoid arthritis.

THERE are few more pressing matters than the medical succour of the sick poor. The questions which challenge attention in connexion with this subject are urgent, and of public not less than professional interest. We may be excused for looking at the matter from a point of view specially important to the practitioners of medicine, albeit we would not ignore the more popular aspects in which it is desirable that it should be regarded.

It must be freely admitted at the outset that the medical profession is not animated solely by sentiment and the impulse of benevolence, in lavishing its time and skill on the treatment of cases occurring among the indigent. We are not less humane than our fellow-men, but it would be absurd to lay claim to exclusively charitable motives. A field must be found for practice, if our students are to be trained in clinical work, and it is only by clinical labour in a large sphere that such experience as qualifies a physician or surgeon to offer advice to his colleagues can be acquired. The opportunities for the study of our art and the mastery of its principles as the case demands can only be secured by the organisation of an extensive system of hospital relief for the poor, and therefore it must be conceded that the interest of the medical profession, as a profession, in hospital work is *professional*. In saying this we do not abate one jot of our claim to be credited with a full share of the philanthropy which animates the mass of right-minded citizens, but it is inconsistent with that feeling of self-respect which has its foundation in honesty of view and purpose to lay claim to more than this.

Having said thus much by way of clearing the position, it may be asked why—seeing that professional enterprise in hospital charity is in the main a business undertaking—should we, of all other professional men, affect to recoil from the idea of business? It cannot be that there are no limits to this enterprise marked out by prudence and sound policy. In plain truth, there must clearly be a point beyond which it is selfish on the part of any one class of practitioners to push their ambitions and endeavours to the damage of their fellow-practitioners and the profession as a whole. Unless we are to assume that the great body of the medical profession is composed of men who labour solely for the love of science and humanity, and that they are not, in large measure at least, dependent upon the emoluments derived from professional business for their support and that of their families—propositions too ridiculous to be entertained,—it must be manifest that the extension of hospital charity further than the boundary line determined by the actual indigence of the subjects of relief is a direct injury to the profession. We cannot even admit that it is legitimate to afford facilities for the gratuitous supply of advice to the sick poor unless such advice is actually needed. There is a great deal of spurious sentiment about the glamour cast over this subject on platforms and in the reports of committees. No one for an instant doubts that it is proper to give medical succour to those who cannot otherwise procure it, nor is it questioned that all the successful treatment a case demands ought to be furnished in every instance of real need. The medical profession is fully prepared to make any sacrifice to these ends. What the great mass of practitioners are *not* prepared to do is to bolster up a system by which they are required to look on with amiable equanimity whilst a vast proportion of the classes who can pay, reasonably well, for advice and medicine are not simply supplied with both gratuitously, but persistently touted for by rival charities administered by injudiciously philanthropic committees. We are not in the least degree surprised, nor can we say that we are sorry, that this feeling has at length found expression, and that the body of practitioners are beginning to move in the matter.

Hospital charity, as regards both in and out-patients—though more particularly, perhaps, the latter,—is rapidly becoming an abuse. The aggregate of relief given, and boasted of, has reached a total which constitutes a very heavy drain on the resources of the profession as a whole. It would perhaps be under the mark to estimate that fully five-and-twenty per cent. of the relief given is not actually required. By this we mean that if it were impossible, or even a little less easy than it now is, to obtain gratuitous medical and surgical aid at the hospitals, probably one-fourth of the total number of persons

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now relieved gratuitously would obtain assistance at the hands of the profession generally, and *pay for it*. It is not succour necessary to save life the hospitals are giving, but something to spare the pockets of persons who could, if they needs must, find the means of obtaining it by reasonable payment.

We offer no apology for speaking thus plainly on a subject of very immediate and widespread interest. It is time to cast aside traditional prejudices, and set the truth before our readers, and, through them, before the public. The medical profession is long-suffering, but it must sooner or later defend itself against the development of a policy which exaggerates self-sacrifice until it verges on the suicidal. We cannot hesitate to affirm that the amount of gratuitous relief afforded almost indiscriminately by medical charities has reached proportions which are not simply formidable but overwhelming, and the majority of practitioners will agree with us that this is rapidly becoming a cause of scandal. It is neither wise nor kindly on the part of the medical staffs of hospitals to shut their eyes, or affect to shut their eyes to the fact that they are inflicting a very serious and increasing injury on their fellows by assisting in the folly of pushing unnecessary charity beyond all due bounds.

WE are very pleased to be able, in this our first issue for a new year, to record the completion of the initiatory step towards the securing of degrees for medical students educated in London on the same terms as those which obtain in the great medical teaching centres in Scotland and the provinces. The Royal College of Physicians of London and the Royal College of Surgeons of England have now finally settled that it is "desirable and practicable to grant degrees in medicine and surgery to persons who have passed the conjoint examinations of the two Colleges"; also that "an application be made to the Crown by the two Colleges, acting conjointly, for power to confer degrees in medicine and surgery." The grievance of the average London medical student, that he is unable to obtain a degree under conditions similar to those which prevail elsewhere, is now definitely admitted, and the official authorities who determine his curriculum and period of study are pledged to its removal, if they can do so. A decisive step has been taken, and from this there can be no retreating. An application to the Crown for a Charter empowering the two Colleges, acting conjointly, to grant degrees, has been determined on. This conjoint action preserves the individual character of the two corporations respectively, and is only a necessary move forward in harmony with the spirit and the needs of the time. The Committee of Delegates appointed by the two Colleges will now have to consider upon what terms the degrees shall be granted, and these will have to be practically decided on when the application for powers is made. The principle is agreed to, but the working out of the details will require most grave and serious consideration, and must be settled speedily and without any waste of precious time. It will probably be dependent on the nature of the detailed scheme whether the opposition which is sure to be forthcoming will be successful or futile, and whether the application for powers will be supported earnestly and thoroughly by the teachers and the profession as well as by their leaders in the Colleges. No thought of an "inferior degree" can be entertained for a moment, and doubtless it was a fear lest some such result might be the outcome of the movement that caused the taking of a hostile vote to be insisted on by the very small minority at the College of Physicians on the 23rd ult. The degrees must be equal to the Scotch and provincial degrees, and when this equality is secured, no higher level is required or called for. The degrees must be "pass" degrees only. The Senate of the University of London has over and over again affirmed that all its degrees must be considered "honours" degrees, and it is from its determination to remain immovable at this standpoint that the present difficulty and grievance have arisen. The lowest preliminary examinations in Arts recognised by the General Medical Council are quite insufficient for a degree, and candidates for the distinction must be compelled to show a higher standard of general education. A revision of the present examinations for the qualifications of the combined Colleges is also necessary, so that some biological knowledge on the part of the intending graduate should be secured. The degrees of M.B. and B.S. might then be given on the existing professional examinations, and a decided tone would be added to the higher degree if some such suggestion as Sir WILLIAM GULL'S were adopted—that a further examination in *clinical* medicine and surgery be instituted for the M.D. and M.S. respectively. If the details of the scheme follow these lines, no one will be able to sneer at the degree as an "inferior" one, and much will be done towards raising the general and special education of the average London student. This is a reason for its existence which is too important to be overlooked.

Before leaving the subject, we must point out the great assistance to the movement, both in council and debate, which has been afforded by Sir WILLIAM JENNER and Mr. SAVORY, the Presidents of the two Colleges, and by Sir H. PITMAN, the Registrar of the College of Physicians. Dr. WILSON FOX and Mr. DURHAM led the movement by first bringing it before the Colleges for their official consideration, and it has been most generously supported, among others, by Sir ANDREW CLARK, Drs. BRISTOWE and WILKS, by Sir JOSEPH LISTER and Messrs. MARSHALL and MACNAMARA. Sir WILLIAM GULL and Drs. LATHAM and PRIESTLEY, by an acknowledgment during the recent discussion of their conversion to the necessity of some such scheme, have rendered it a conspicuous service. We must also refer to the late Dr. MOXON, who at once saw the justice of the agitation in its favour, and by his articles in our columns and his speeches gave it an impetus such as only his characteristic fervour and singleness of purpose could impart. His wise counsels in directing and assisting the progress of the movement will be much missed.

IT was decided at a meeting on Dec. 27th last of the governors of Addenbrooke's Hospital, Cambridge, that a dental department with two dental officers should be instituted, the cost not to exceed £50.

THE Queen has been pleased, on the recommendation of the Secretary for Scotland, to appoint John Theodore Cash, M.D., Professor of Materia Medica in the University of Aberdeen, in the room of Dr. Dyce Davidson, deceased.

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Annotations.

"Ne quid nimis."

WOOLWICH AND SANDHURST.

THE information given in the reports of the Board of Visitors respecting the health of the cadets at the Royal Military Academy, Woolwich, and the Royal Military College, Sandhurst, is of the most meagre character. Prior to 1885, a return, by the medical officer, of the cases of sickness occurring among the cadets was always appended to the report of the Visitors, and occasionally remarks by the medical officers were incorporated in it. Last year the hospital return was omitted for the first time, and it has not been restored in the reports just issued for 1886. We are disposed to attribute the omission to the remarks, not devoid of a complimentary nature, which we have felt it our duty to make upon the health-condition of the two establishments, and the necessity for a careful inquiry on the part of the military authorities into the causes of the abnormal amount of sickness which the returns showed to prevail, especially at Woolwich. In this view we are confirmed by a remark in the report of the Visitors to Woolwich in 1885: "It is not possible to draw a comparison between the cadets of the Royal Military Academy and those of the Royal Military College, as the position and the surroundings of Woolwich will in no respect compare with those of Sandhurst." But surely, when there is such a difference in the cases of sickness as was shown by the medical returns in 1884, when Woolwich had 1227 cases per 1000 against 639 at Sandhurst (see THE LANCET, Dec. 20th, 1884), it is only a fair presumption that some other causes of sickness are in operation besides "the position and surroundings" of Woolwich. We cannot but think that it would be a much more judicious course to furnish correct information respecting the health of the cadets, than to give grounds for the inference that it is so unsatisfactory as to require the suppression of the established returns respecting it. In the reports for 1886 the only definite information respecting the health of the Woolwich cadets is, "The medical report shows a daily average of 2·90 on an average of 319 gentlemen cadets"; and of Sandhurst, that "the medical officer reported their health to have been good during the past year, that there had been no cases of serious illness, and that the average daily sick was 3·78 on an average strength of 304 cadets." These figures show the constantly sick at Woolwich to have been in the proportion of 13·2, and at Sandhurst of 12·4 per 1000, a sufficiently high ratio, from which it is impossible, however, to draw any conclusions in the absence of all information as to the diseases by which it was caused. The want of this is the more to be regretted as the conditions in which the cadets are placed at Sandhurst, as regards their rooms and the hospital accommodation, appear to be much more satisfactory than at Woolwich. We trust that in future reports of the Visitors the returns of the medical officers may again be given, as formerly, for the satisfaction of the parents and friends of the cadets. We were much pleased to see that at the annual inspection at Sandhurst the Duke of Cambridge directed that, as desired the medical officer should receive [illegible] commendation for the skilful manner in which he had stamped out what threatened to be an epidemic of [illegible] some little time since." It was a well-earned [illegible] to Brigade-Surgeon Clarke, the able and zealous [illegible] of the College.

INTER-COLONIAL MEDICAL CONGRESS.

THE South Australian Branch of the British Medical Association recently appointed a committee to take steps in the initiation of an Inter-Colonial Medical Congress, to be held at Adelaide this year during the Jubilee Exhibition period. The cordial responses received from South Australia and the adjoining colonies to the preliminary announcement of this committee warrant, we understand, the prosecution of the scheme with every anticipation of good results. It has been decided to hold the Congress in August and September, during the University vacation, the meeting to last not more than six days. The promoters of the Congress, we are glad to learn, wish the meetings to be under the direct guidance of the whole body of the profession in the colony, as it is most desirable that the Congress shall be of a thoroughly representative character. It is anticipated that the attendance from the sister colonies will be large and influential. We congratulate our colonial brethren upon their enterprise and courage in organising a rival to the great meeting of the profession which is to be held about the same time in the United States, and sincerely trust that their anticipations of success in their undertaking may be realised: though they cannot command success, they may at least deserve it.

THE REGISTER OF MEDICAL STUDENTS.

THE third report by the Statistical Committee of the General Medical Council has just appeared. It contains a summary of statistics regarding medical students registered as commencing their curriculum in the quinquennium of 1871-75. The investigation of the committee, to the success of whose labours, it is scarcely necessary to say, the aid of the registrar, Mr. W. J. C. Miller, has been indispensable, has included the tracing of 6403 registered students, of whom 4472 were found to have gained a place in the Medical Register. The committee propose to elaborate their work by constructing a census of the profession at two selected annual periods, the years chosen for this purpose being 1881 and 1886. "In such quinquennial censuses," remarks Mr. Marshall (chairman of the committee), "many most interesting points will be cleared up, such as the strength of the profession, its distribution amongst the population of town and country, its fluctuations, its migrations, and many other details relating to titles, qualifications, age, mortality, and so forth. The construction of these censuses will be a comparatively easy task, as compared with that already accomplished. It will be undertaken by the same diligent and accomplished agents as we have hitherto had the advantage of engaging, and care will be taken to make the basis and outcome of the inquiry as sound and accurate as possible."

SMALL-POX INOCULATION.

IN a lecture recently delivered at St. Mary's Hospital Mr. Shirley Murphy adduced some evidence to show that there was a probability that the virus of small-pox obtained from the initial vesicle produced by inoculation of small-pox differed in its action from that obtained from the general eruption; and he expressed the opinion that it was probable the different results attending the operation of inoculation by various operators might be dependent upon the use of virus procured from the one or the other source. Thus of 182 inoculations performed in the years 1721 and 1722, three persons died, or nearly one in sixty; and in Dublin, in 1723, of twenty-three persons inoculated, three died. The not infrequent death from inoculated small-pox led at first to much opposition to this method of protection against natural small-pox, but later it was found that inoculation could be performed without risk. In an account given by Sir George Baker of the

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extraordinary success attending the inoculations of Daniel Sutton, of Ingatestone, in Essex, who in three years inoculated some 20,000 persons without bad result, he attributed this success to the fact that Sutton allowed his patients to enjoy fresh air during their illness; while Dr. Glass of Glasgow believed that Sutton's treatment in encouraging perspiration was responsible for their recovery. It is clear that Sutton professed to have a secret in his treatment, although this secret is only mentioned in relation to the composition of certain medicine; but Sir George Baker, curiously enough, observed that "What is extremely remarkable, he (Sutton) frequently inoculates people with the moisture taken from the arm before the eruption of small-pox"; and Dr. Chandler, who also witnessed Sutton's work, referred the chief benefit of his plan to the infecting humour being taken in a crude state "before it has been ultimately variolated by the succeeding fever." Baron Dimsdale, who took much interest in Sutton's proceedings, and subsequently himself practised inoculation, closely imitated his method, and was very successful in his results. If, as Mr. Murphy pointed out, the virus of the initial vesicle differs in any respect from that of the general eruption, some difference may also be found in the ease with which the bovine animal is inoculated with the one and the other virus. Certainly this point deserves further investigation.

M. VERNEUIL AT BRUSSELS.

M. VERNEUIL has been paying a short visit to Brussels, where, in return for the hospitality of his Belgian *confrères*, he treated them to several interesting and instructive speeches and lectures. They seem to have kept him somewhat hard at work, for on the Saturday (Nov. 27th) he was present at a meeting of the Royal Academy of Medicine, where he gave an important address on Vertebral Disease, in which he insisted on the importance of prolonged rest and immobility of the vertebral column, mentioning that when absolutely necessary he let out pus, injecting subsequently a 5 per cent. solution of iodoform in ether. On the Sunday he gave a lecture on Tuberculosis at the Hospital St. Jean, and on the Monday visited the surgical and children's wards in the Hospital St. Pierre, where he gave clinical lectures on cases of Comminuted Fracture, Abdominal Tumours, and Hip Disease which were shown him, delighting his audience with his diagnostic acumen and his happy phraseology.

"COUP DE VENT."

OUR neighbours, the French, have the advantage of a language which is both epigrammatic and comprehensive, and is capable also of giving expression to an idea with the greatest scientific exactness. It has therefore been acknowledged to be the best language for European diplomacy, as well as that of polite intercourse at nearly every Court of Europe. The "coup d'œil," the "coup d'état," and the "coup de vent" of the French have no such expressive equivalents in any other European language. The sudden changes in the weather of the past few weeks, from days of bright sunshine to murky nights, from days of damp and fog to sharp frost with dry and bracing air, from wind rising to a hurricane to atmospheric stagnation, with scarcely sufficient movement to divert the upward current of the smoke from our chimneys, and these alternations varied from time to time by a keen piercing north or north-east wind, have brought home to many of us the chilling influence of a "coup de vent." A very much lower temperature can be borne when the atmosphere is at rest than when it is in active motion. In Captain Parry's account of his voyage to the North Pole it is stated that the crew suffered less when the thermometer was 55° below zero—i.e., 87° of frost—in a still atmosphere, than when the thermometer was as high as zero, with a keen wind blowing. Stagnant dry air is a very bad conductor of heat: thus the film of the atmosphere immediately surrounding the body parts very slowly with the warmth which is abstracted from the body; it becomes, indeed, an intermediate temperate coating between the colder atmosphere and warmer body; but when air is in motion this intermediate protecting film is removed, and a chilling atmosphere is repeatedly brought nearer the surface of the warmer body, with a risk of producing what the French graphically call a "coup de vent."

THE METROPOLITAN PUBLIC GARDENS ASSOCIATION.

THE fourth annual report of the Metropolitan Public Gardens Association has just been published, and is a highly satisfactory one in every respect. The Association, which works in conjunction with the National Health Society, was formed, as most of our readers are doubtless aware, for the purpose of supplying one of the most pressing wants of the poorer districts within the metropolitan area—namely, to provide breathing and resting places for the old, and playgrounds for the young, in the midst of densely populated localities. The following is a brief summary of the work accomplished during the past year:—Seven recreation-grounds have been laid out and opened to the public; trees have been planted in one garden and one thoroughfare; seats have been placed in ten public gardens; grants of money have been made to five public gymnasia; two commons have been improved; and assistance has been given in the formation of a swimming-bath and a recreation club. The income has been raised from £7283 in 1885 to £10,917 in 1886, and the membership has increased to 448. London is year by year becoming more and more populated and extended. The ever-widening girdle of bricks and mortar, the ever-increasing height of dwellings and warehouses, the tendency that there is for the current of human life from all directions to flow towards the metropolis as a centre, can have but one possible effect, and that is to render London less and less a place where the bodily functions can have full and natural play, where bone and muscle in the young may be developed, and where constitutions are able to ward off disease and postpone decay. The Association, by securing open spaces, is adopting the best method to meet this threatened evil, and those who have the health and welfare of the toilers in this modern Babylon at heart will be unable to resist Lord Brabazon's appeal for renewed, increased, and fresh donations and subscriptions to the funds of this most useful and deserving Association.

HOSPITAL REQUIREMENTS.

SIR RUTHERFORD ALCOCK writes a long letter to *The Times* on the present serious deficiency in hospital support, the chief burden of which is to suggest the urgency of inquiry into the whole subject by a Royal Commission. The medical profession has had very recent experience of the limited powers of a Royal Commission. Such a Commission, composed of most influential men, took a great deal of trouble and a great deal of evidence, and came, by a majority, to certain recommendations for legislation on medical matters. But the legislation which followed came grievously short of the recommendations. The best portion of Sir Rutherford's letter is that in which he elucidates the grievous deficiency in the incomes of all the hospitals. He thinks the urgency of the case is not realised by the public. We hope his letter will help the public to do so. If not by a Royal Commission or otherwise, the facts must be faced and the remedies pointed out.

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ADELAIDE UNIVERSITY AND MEDICAL EDUCATION.

THE University of Adelaide has recently instituted a medical school, not without some opposition, it being contended that the Universities of Melbourne and Sydney are amply sufficient to supply medical graduates to the colony, which is already becoming as much overstocked by the profession as is the mother country. The scheme, however, has been warmly taken up, and subscriptions to the amount of £16,000 were announced at the meeting of the Senate, which decided to make this new departure. Such private endowments will now be supplemented by grants of public money. For our own part, we do not see why South Australia should decline to further the cause of higher medical education, or why its resources are not adequate to supply a properly equipped medical school. The question of overstocking the profession is one which can always be met by the stringency of the tests imposed on those who seek to enter it.

THE CROWN SEAT FOR IRELAND IN THE MEDICAL COUNCIL.

ALL who knew Dr. Lyons will deeply regret his death. He was one of those genial Irishmen who could hold a different creed without bating any of his respect for those from whom he differed. It would have been better for Ireland if more of her representatives had had more of his nature. The Government will have to fill his place in the Medical Council. Many provincial Irishmen are hoping that advantage may be taken of the vacancy to give the Irish practitioners in the Provinces a representation which even Direct Representation has not disposed them to secure. We should be glad to see the Government take this liberal view of their opportunity. We must admit that the practitioners of Ireland, by failing to elect one of their own rank when they had the chance, have given occasion for the remark that they prefer Dublin consultants to provincial fellow-practitioners. But the Government should make allowance for the enormous vantage-ground enjoyed by the Dublin magnates in an election; and it would act generously in supplying the conspicuous defect of the Medical Council—a typical representative of the general body of practitioners in Ireland.

TOOTH POWDERS.

PROPHYLACTIC medicine is of greater value to the public than curative, although they are slow to give it its due; hence the subject of tooth powders may be of some interest. The necessity of keeping the teeth clean, with a view to the prevention of future trouble, is overlooked by too many, even in the higher classes, sometimes from carelessness, sometimes from ignorance. Now, cannot the medical attendant do a great deal to combat this state of things? The dental surgeon is often asked, "How soon should the first tooth-brush be used?" "As soon as there are teeth to use it upon" should be the reply. An ideal tooth-powder should be alkaline, since acids dissolve the tooth substance; finely pulverised, that it may not mechanically abrade; antiseptic, to prevent decomposition of food lodged between the teeth, and perhaps to destroy the microbes which are always found choking the tubules of carious dentine; it should contain nothing irritating to the gums; and, lastly, it should be pleasant to the taste, or it will not be used. Fluid dentifrices do not, as a rule, clean the teeth effectually, unless they contain some ingredient which acts upon the enamel itself; and those preparations which are eulogised as making teeth white or preventing deposit of tartar, should be avoided. Charcoal was at one time a very popular form of dentifrice, and is even now largely used, but from the amount of silica it contains it will rapidly wear away teeth that are not of exceptional hardness; and, moreover, the gums in some instances become tattooed in a curious manner from absorption of minute particles. Pumice-powder, again, is too gritty; and camphorated chalk is said to make the gums spongy. Precipitated chalk forms the best basis for a tooth powder, to the base of which may be added pulv. saponis and ol. eucalypt., a drachm of each; and, if there is no objection to the taste, half a drachm of carbolic acid.

REFORM OF THE SCOTTISH UNIVERSITIES.

A MOVEMENT very similar to that of the Members of the Royal College of Surgeons in England for representation in the Council now obtains in the Scottish universities. The members of the University Council, consisting chiefly of the graduates, desire to have a larger representation than they have at present in the University Court. They protest that this desire is not based on any selfish or revolutionary purpose, but on a conviction that such representation will give an impetus to important changes in the regulations and administration of the University, tending to raise their standards, especially in Arts. It is not proposed to interfere with the vested interests of existing professors, but to endeavour to give the University Court more power over the curriculum and the recognition of extra-mural teaching. Lord Wemyss has accepted the office of President of the Association of the Council of the University of Edinburgh, and from the chair of the Association has expressed his agreement with the objects of the Association, and several of the professors have already done the same. A similar Association exists in Glasgow, and Professor Edward Caird has given it valuable assistance. The Scottish universities are being, and will be, subjected to much criticism, the best answer to which will be the readiness of their professors to accept any reasonable improvements in their constitution, even if involving some control of the powers of the Senatus.

HOME FOR LOST DOGS.

EVEN those who objected to the muzzling of dogs will not complain of the translation of ownerless animals from the streets to comfortable quarters. The temporary Home for Lost and Starving Dogs, Battersea, has received into its kennels over 40,000 animals in the course of the year and ten days during which the muzzling order has been in force. This institution is not responsible for the seizure of dogs; it acts as a trustee of public property. We are sorry to learn that there is a debt of some £1500, the result chiefly of the great demand on the Home during the period of the police edict. The committee appeal for subscriptions to meet their present difficulty. Assuredly the object to which the money has been applied was in the highest degree humane; the results, both for human beings and dogs, have been entirely beneficial. There can be little doubt that the purse of the charitable will be opened with the usual liberality of the British heart.

BULLET WOUND OF ABDOMEN.

EARLY on the morning of Dec. 25th a man aged twenty-three was admitted into St. Thomas's Hospital, under the care of Mr. Mackellar, suffering from a bullet wound of the abdomen inflicted about two hours previously. The bullet, which had been fired from a revolver at a distance of about 18 ft. above and to the left of the patient, had made a small opening 2 in. above and 1 in. to the inner side of the left anterior superior spine of the ilium. There was no evidence of wound of the bowel, and there was comparatively a small amount of shock; but on the following day sym-

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ptoms of peritonitis developed, and the abdomen was explored. Mr. Mackellar found two perforations with bruised edges in the lower part of the sigmoid flexure, from which there had been an escape of contents of the bowel; these openings were secured by ligature, the effused blood and other fluid carefully washed out, and the wound closed and drained. The patient rallied from the operation, but died a few hours later. At the post-mortem examination the bullet was found lodged in the right side between the bladder and rectum. No other portion of bowel had been wounded. The openings in the bowel were not sutured on account of the collapsed condition of the patient, the distance of the wounds from the surface, and the fixation of the gut, which prevented its being brought out of the abdomen. For similar reasons the question of excision of the wounded part was dismissed. The man was acting as a "wait" at the time of receipt of the wound, and his sad death ought to act as a warning to those who are in possession of fire-arms and careless in their use.

LIFEBOAT CREWS AND LIFE INSURANCE.

WHILE the recent terrible disaster to the Southport and St. Ann's lifeboats still remains fresh in public sympathy, it may be well again to refer to the subject of life insurance as a provision against the death of the bread-winner for the maintenance of his widow and orphans. By this sad misadventure twenty-seven valuable lives have been lost, and what makes it even more deplorable is that the men to save whose lives they lost their own were all rescued before the latter started on their mission of mercy. Among other lessons to be learned from this disaster, we may trust that it will not in future be permitted that a man suffering from well-advanced phthisis shall be entrusted with the responsible duties of coxswain—a position requiring the soundest mind in the soundest body. We may also expect further improvements in the construction of lifeboats, and better means of communication between lifeboat stations within view of the same points of danger, though out of sight of each other. But when all this has been done, and the lifeboat service has been made as perfect as possible in human hands, we must still expect that accidents and misadventures will happen in the future. It is very gratifying that a sum has been raised, not only sufficient to provide amply for all the bereaved families, but even to leave a surplus, which a contemporary suggests should form a nucleus of a fund for the relief of sufferers from future similar disasters. Would it not be better, however, to apply any such surplus in aiding lifeboat men to effect an insurance on their lives against all risks, or, if this be not practicable, specially against the risk to which they are necessarily exposed? We would earnestly commend to the Royal National Lifeboat Institution the adoption or modification of the plan carried out for many years by the Commissioners of Northern Lighthouses. Each lighthouse-keeper is insured for £100 in the Edinburgh Life Assurance Company. He must be an "insurable life" before he can be admitted into the service, and from his wages there is an annual deduction of £3 to pay the premium. In the event of his death, the principal sum is given as he may by will direct, or, if he die intestate, to his next of kin. At present the rate of premium for lifeboat men is no doubt high; but it may also be suggested to insurance offices whether it would not be to their advantage to offer facilities for such insurance. Should this suggestion be carried out and become as national as the lifeboat itself, great benefits would accrue. The men could not be braver, but they would go on their errands of mercy with lighter hearts, knowing that those dependent on them for their bread would be amply provided for. We cannot expect to see often such munificence as has been shown in the recent case; but by a system—partly compulsory, partly voluntary—every lifeboat man may provide for his wife and children without leaving them to the charity of the public. Nothing can be more reasonable than that the men in the service shall be insurable lives, and not only so, but insured as well.

HOSPITAL SATURDAY FUND.

THE delegates of the Hospital Saturday Fund for 1886 have seen their way to distribute £9750 out of about £11,000 realised up to a few days ago. The institutions to be benefited are seventy-five hospitals, thirty-nine dispensaries, and eighteen convalescent homes. The Board reserve 5 per cent. of the sum distributed for surgical appliances and other purposes. The chief awards to hospitals are:—Brompton Consumption, £589; London, £588; Victoria Park Chest Hospital, £288; Middlesex, £276 3*s.* 6*d.*; St. George's, £267 8*s.* 10*d.*; St. Mary's, £224 17*s.* 1*d.*; Metropolitan Convalescent Home, £211 0*s.* 5*d.*; Westminster, £208 0*s.* 1*d.*; King's College, £175 13*s.* 8*d.*; Royal London Ophthalmic, £174 2*s.* 7*d.*; North London, £176 12*s.* 1*d.*; Charing-cross, £162 11*s.* 1*d.*; University College, £204 8*s.* 8*d.*; Royal Free, £168 5*s.* 8*d.*; Hospital for Sick Children, £129 0*s.* 2*d.*; German, £115 19*s.* 10*d.*; Royal National, £108 4*s.* 10*d.*; City-road (Chest), £96 1*s.* 9*d.*; North-West London, £81 1*s.* 10*d.*; St. John's, £82 7*s.* 6*d.*; Royal Orthopædic, £89 0*s.* 8*d.* The great efforts of the Board to increase this Fund must be recognised; but it is disappointing to notice that they have not been more successful. The sums distributed do not exceed those of last year by more than £250. A sum of under £10,000 is altogether disproportionate to the ability of the working classes of the metropolis and to their obligation to the hospitals, which exist chiefly for them. A committee has been appointed to take the necessary steps for registering this Fund under the Friendly Societies Act. It is thought—though there is some difference of opinion on this subject—that some advantages will be gained by this, especially in acquiring greater facilities for dealing with occasional defaulters. But what is seriously wanted is a better method of organisation to gather weekly and regular subscriptions to the Fund. The present condition of the hospitals ought to make the time favourable for such action.

THE MEAT-SUPPLY OF MARSEILLES.

AMONG many other causes that contribute towards the exceptional insalubrity of Marseilles must be noted the fraudulent sale of meat unfit for human consumption. This is a grievance which affects not only the inhabitants, but also the crews and passengers of the ships, many of them English ships, that take provisions on board at Marseilles. It appears that in the district of Aveyron, and notably at Saint Afrique, the principal industry is the making of the celebrated Roquefort cheese. For this purpose the sheep as well as the cows are valuable principally on account of their milk. It is to the interest of owners to kill both calves and lambs before the flesh is sufficiently formed to constitute wholesome food. But a calf will consume an amount of milk which, in the Aveyron district, is equal to three francs a day, while augmenting in meat value at the rate of only one franc per day. Thus a calf, which should be kept at least thirty days, would cost ninety francs, and yield an increased value of only thirty francs. With respect to lambs, the loss is in the same proportion. It has therefore been the practice to kill lambs and calves at once, and import the meat direct into Marseilles. After the ravages made by the cholera the Mayor decided to issue a special decree against this practice. Henceforth the head must not be detached from the carcase, so that the presence of the teeth may testify to the age of the lamb or calf. But the above was not the only grievance. A bullock brought into Marseilles

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and killed at the municipal slaughter-house paid, in all, dues to the amount of thirty-two francs. If the same bullock were killed outside the town and the meat imported, the dues to be paid would amount to no less than a hundred francs. Yet, in spite of this prohibitory tariff, a great quantity of dead meat was brought into Marseilles. The fact is, the meat came from animals that had been killed while ill, or that had died before they could be killed. Taught by the epidemics the necessity of attending to such matters, the Mayor has also decreed that beef, mutton, and pork can only be brought into the town if the owner has first secured the certificate of a veterinary surgeon who shall have seen the animals before they were slaughtered. These new regulations have not long been in operation, and it is too soon to speak of the effect produced. Few persons, however, will be found to cavil at their severity; and, in this respect at least, we can venture to congratulate the local authorities. Unscrupulous meat merchants will find, we trust, their trade destroyed, and the municipality has done well to protect the population and strangers who visit the port from their nefarious practices.

REPORTED CURE FOR LEPROSY.

UNDER this heading the *St. James's Gazette* of Dec. 17th quotes a portion of a letter from Father Damian, of the Molokai Leper Settlement, to a German publication, in which he shortly refers to and extols the wonderful effects of a treatment carried out at the Kakaako Leper Hospital by by Dr. M. Goto of Japan, who was invited over by the king. The treatment referred to is similar to that long carried out by Dr. S. Goto, of the Kihai Hospital, Tokio, Japan. It is hygienic, dietetic, and medical. Strong patients are bathed thrice daily, and weaker ones twice daily, in warm fresh water at 90° to 100° F., into which has been placed an infusion of a few ounces of Hichiyou bark (*Æsculus turbinata*), together with certain proportions of Taifuushi, sulphur, and other ingredients. The patients are fed generously, but not excessively, thrice daily, on rice, milk, beef, mutton, chicken, eggs, good strong broth, boiled taro, vegetables, and fruit; but sour poi and also raw fish, when used with the usual native condiments, are forbidden. The medical treatment "varies according to the condition of the patient and the stage and character of the disease." The two chief medicines used are, in all cases, Seiketsu-ren as pills and in large doses (? the bark of the Hoang-nan tree with realgar and alum), and yoku-yaku for baths. Dr. Goto also employs tincture of the perchloride of iron, sulphate of quinine, iodide of potassium, vegetable tonics and bitters, and the carbonate of soda and potassium, especially the alkaline salts. Under this treatment he reports, under date of April 20th, 1886, five cases as "almost cured," nineteen as "improving," and seventeen as "relieved."

THE VACCINATION OF THE AUSTRO-HUNGARIAN ARMY.

STRUCK by the wonderful fact that in the German army the compulsory vaccination had reduced the mortality from small-pox to *nil*, the Crown Prince Rudolph of Austria had been led to urge a similar precaution for the Austro-Hungarian army, and within the last few months, the *Evening Standard* observes, every soldier has been compulsorily vaccinated. The result is that whereas in Pesth a small-pox epidemic of great severity has been raging among the civil population (who are under no compulsion), there has not been a single case among the numerous troops of the garrison at Pesth. Of course all this will be explained away by our anti-vaccination friends, and the many who have died of small-pox will be regarded as better off than those who have been saved by vaccination. But the majority of people will not go wrong over such plain facts.

THE NEW REICHSTAG BUILDING AT BERLIN.

AN account of the proposed ventilation of the new Reichstag at Berlin has recently been published by Mr. W. H. Tyler, who gives an interesting description of the efforts that are being made to ensure the ventilation of the Houses of Parliament being as perfect as possible. The Grand Hall is to be ventilated by air admitted through the roof and drawn out through the floor, the air being drawn from a height of 250 ft. to ensure its purity. It will be first conveyed into a large chamber, where it will be prepared for admission into the hall. The preparation will consist of exposing it in winter to hot pipes, a surface of 43,000 square feet being required for this purpose. The same pipes in summer will contain a liquid at nearly freezing-point, so that the temperature of the hall cannot during this season of the year become unduly high. Here also it will be dried or moistened as occasion may require, and by a simple arrangement of valves the necessary quantity will be admitted. The hall is to contain nearly 1000 persons, each of whom is to be provided with 1420 cubic feet of air per hour. When the House is sitting, the air will be constantly examined by four assistants, who will report on the thermometer, hygrometer, and anemometer indications, and thus enable the engineer to modify it whenever this is required. It is thus expected that the condition of the atmosphere of the houses will be maintained in proper condition.

PENURIOUS TREATMENT OF MEDICAL OFFICERS.

WE have frequently had occasion to refer to the paltry remuneration which is offered for medical services by many municipal and parochial bodies. At a recent meeting of the Darlington Town Council a fact was incidentally mentioned which affords a fresh example of this short-sighted economy. It appears that the three medical officers who attend the poor of this considerable town, numbering about 13,000, and who with curious assurance are required to supply medicines and appliances, receive each per annum for these attentions the utterly insignificant sum of £35. With every allowance made for hard times and for work among the poor which may be done by medical men in independent practice, the sum above mentioned is, we repeat, unjustifiably small in comparison with the duties exacted in return.

NEW FOREIGN MEDICAL JOURNALS.

A NEW French weekly medical journal commences with the new year. Its object is to assert the importance of provincial medical science and to assist in the decentralisation of French medicine, which it is considered is concentrated too much at Paris. The title is *La Province Médicale*, and it is published at Lyons.

The appearance is announced in Vienna of two new medical journals—*Klinische Zeit- und Streitfragen*, edited by Professor Schnitzler; and a weekly entitled *Internationale klinische Rundschau*, edited by Drs. Bela Weiss and A. Schnitzler.

A SURGEON FINED FOR CERTIFICATE OF STILL-BIRTH.

THE writing of certificates is one of the chief ways in which medical men come into contact with public offices and public law. It is a duty which they cannot discharge too carefully. We regret to see that a medical practitioner has been fined £5 and costs for signing a certificate of still-birth for a baby that had lived a few hours. The mother was attended in her confinement by a midwife, though for phthisis, of which she died in the evening, she had been seen before and after her labour by the medical man. The

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child lived a few hours. Statements varied as to whether this had been made clear to the signer of the certificate. But the magistrates imposed the above fine. It is a great temptation to save poor people all the paraphernalia and expense of a funeral for a child that can scarcely be said to have lived. But it would have been better to have left the midwife to state the facts, and in any case the utmost care to be accurate is necessary.

THE CARRIAGE TAX.

THE movement to repeal, or at least modify, the tax on carriages is one that deserves success, if it were only for the pertinacity with which it has been, and still is, carried on in the face of unaccountable neglect and opposition. A great mistake is made by those who think this is a "rich man's question." The profession of medicine is in this way undoubtedly unduly taxed, but it is the coachbuilders' class that suffers most, and the tax is a burden on industry. It ought to be abolished, and the magnitude of the revenue derivable from the tax is not so stupendous as to be overwhelming to any spirited Chancellor of the Exchequer.

THE ACCURACY OF THE NEW MEDICAL REGISTER.

THE Registrar of the Medical Council is very anxious to secure the greatest possible accuracy in the new volume of the Medical Register. This can only be attained by the co-operation of the profession, and especially of all those who have changed their addresses or added to their titles. If such gentlemen will immediately intimate such changes they will be duly registered; otherwise inaccuracies will remain which not only discredit the Register, but may disqualify practitioners.

THE PROGRESS OF CHOLERA.

IT is stated that there has been no recurrence of cholera in the neighbourhood of Tirnova since the first report, when eight deaths occurred. The sanitary authorities are, however, still maintaining a quarantine round the infected locality; and since the Bulgarian authorities decline to admit that any cholera has occurred within their principality, Roumania has placed Bulgaria in quarantine.

CHONDROMA OF THE LIP.

IN the Transactions of the American Dermatological Association for 1886 Dr. A. R. Robinson reports a very rare case of chondroma of the right side of the upper lip of a man thirty-six years of age. This affection has been described by Pagot under the term "labial glandular tumours."

OVERHEAD TELEGRAPH AND TELEPHONE WIRES.

THE recent heavy snowstorm has emphasised the lesson of warning as regards overhead wires. Many have fallen, and great damage has been done; but probably some considerable loss of life will be required to bring the facts clearly before the Legislature and to rouse public indignation to the boiling point.

FOREIGN UNIVERSITY INTELLIGENCE.

Bern.—Dr. Demme has been appointed Professor in Ordinary of Pharmacology and Children's Diseases.

Bologna. — This University will celebrate its seven hundredth anniversary in the Spring.

Bonn.—Dr. Franz v. Leydig, Professor of Comparative Anatomy and Zoology, will retire in April.

Freiburg.—Dr. Baumgärtner, formerly Professor of Pathology and Director of the Medical Clinic, died at Baden-Baden on Dec. 11th.

St. Petersburg. — It is now announced that Professor Nasiloff is to take charge temporarily of the surgical clinic—not Dr. Beltsoff, as originally stated. The report that Professor E. Bergmann of Berlin had declined an invitation to St. Petersburg is confirmed.

BERI-BERI IN THE DUTCH INDIES.

IT is officially stated that during the year 1885, there were 5388 persons in the Atchin colony treated for beriberi, of whom 235 died and 842 were incapacitated for duty Up to the present time no regulations seem to have had any effect on the ravages of this strange malady.

FROM the report of the examination made by Colonel Sir Francis Bolton of the water supplied by the several metropolitan water companies during the month of November, 1886, it appears that the Thames water sent out by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies contained rather more organic matter than the previous month's samples, although the actual amount present was in every case small for the season of the year. The water taken from the Lea and distributed by the New River and East London Companies also contained only a very small proportion of organic matter. All the waters were clear and bright on delivery.

DR. RAYNER'S plea, in *The Times*, for the treatment of mental disease at general hospitals deserves the attention of the profession. It is precisely what we have urged upon the consideration of our readers for many years past; but the subject has so many aspects that it cannot be at present adequately discussed.

DR. ALFRED MEADOWS has been elected an honorary member of the Washington Obstetrical and Gynæcological Society.

MR. CHARLES A. BALLANCE, M.S. Lond., F.R.C.S., has been elected Surgical Registrar to St. Thomas's Hospital, in the place of Mr. G. H. Makins, F.R.C.S., resigned.

THE *Deutsche Medicinische Wochenschrift*, which has hitherto been published by G. Reimer of Berlin, will now be published in Leipsig by G. Thieme.

The Lancet Sanitary Commission.

THE SANITARY CONDITION OF ROCHESTER.

ENGLAND has recently had much cause for congratulation that she has escaped the terrors of a disease which has visited with calamitous results France, Italy, and Spain. She has been able to regard with equanimity the possible introduction of cases of cholera into her midst, and has witnessed, without feeling the necessity for interference with her trade, the epidemic prevalence of this malady in continental seaports with which she is in constant communication. For this security she has undoubtedly paid a price, but the money expended has not procured for her safety in regard to this disease alone, but has given her inhabitants prolongation of life, and has raised the standard of health in all parts where the teachings of sanitary science have been allowed to prevail. But this security is not shared alike in all parts of the kingdom: in some, local authorities have striven to guard to the fullest the health interests of

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those who are dependent on them; in others, there has been less willingness to incur the expenditure which is necessary for this purpose, and, strangely enough, amongst those which have been less active in this direction are localities that are more immediately exposed to risk of infection from without than are some others.

There are probably no towns more exposed to risks of the sort we have indicated than those which are situated on the waterside between London and the mouth of the Thames. Gravesend is known to be a special defaulter in this respect, but it by no means stands alone; the report recently issued by the Local Government Board gives but too grave an account of sanitary negligence in other districts of that neighbourhood. We have therefore thought it well to discuss in these columns the sanitary condition of other waterside towns in Kent, and we have directed our attention, in the first instance, to the towns of Rochester and Strood, which are situated respectively on the right and left banks of the river Medway.

Rochester forms part of a sanitary district which includes not only the parishes of St. Nicholas, Rochester, Precinct Cathedral, St. Margaret, and Chatham (*intra*) on the one side of the Medway, but also the parishes of Strood and Frindsbury on the other side of the river. The sanitary district is not therefore coterminous with either the registration districts of Medway or North Aylesford, but includes a part of each. The total population of the district numbered at the last census 21,307 persons, that on the right bank of the river being 14,240 in 2582 inhabited houses. During the year 1885 the death-rate for the whole district was 18·5 per 1000 of population; but if the deaths occurring in public institutions receiving patients from other districts be excluded, the rate is reduced to 14·9 per 1000. During this year, of a total of nine deaths from diphtheria in the whole district eight occurred in the Medway division, and of four total deaths from enteric fever three occurred in the Medway division. Of these two diseases, therefore, the Medway or Rochester division, as distinct from the North Aylesford or Strood division, suffered out of all proportion to the extent of population.

Rochester and Strood have shared with other towns the benefits of an improved water-supply. Thirty years ago two companies began to give facilities to the inhabitants for procuring water from deep wells in the chalk. Until this time the townspeople had nothing but wells in connexion with each house for their supply. These wells, situated in many instances in close proximity to cesspools, readily became contaminated, and proved a fertile source of disease to the inhabitants. Gradually the majority of these wells have been abandoned, and at the present time some three-fourths of the houses in Rochester and nine-tenths of the houses in Strood derive their water from the public supply. In 1880 the waterworks supplying the latter town passed into the hands of the Corporation, who thereupon expended £11,000 in their extension, and provided a sufficient quantity of water both for Strood and Frindsbury, and for more than three years a large majority of the houses in these three towns have been on constant service. The attention of the medical officer of health, Dr. Sladen-Knight, and of the surveyor, Mr. Banks, is being directed to the remaining houses receiving their water from local wells; maps have been prepared, showing for each the relative positions of wells and cesspools and the distance between them, and efforts are being made to induce the inhabitants to have their houses connected with the mains of the waterworks. Thus, during the year 1885, 117 samples of water were examined by the former officer, and some 60 wells were closed.

But while the local authority deserve credit for their recognition of the necessity of an ample supply of wholesome water, they have failed to keep pace with other towns in providing proper means for the disposal and removal of excremental matter. Speaking generally, the whole of the sanitary district depends solely upon cesspools. These receptacles vary from ten feet and more in depth. They are, as a rule, bricked, but must nevertheless afford ample means for the pollution of the soil beneath the towns. The smaller cesspools are emptied every year, but the larger retain their filth for four or five years. The contents are removed at night in buckets, which in some instances have to be conveyed through the houses to enable them to be emptied into the cart. The sanitary authority exercise little or no control over the operation, the inhabitants making their own arrangements with a contractor, who charges from £1 to £5 for the business of emptying each cesspool, the charge being proportioned according to its size. The surface-water is removed by means of drains, which discharge into the river Medway, and are carried on the foreshore to a position between high and low water mark. In some instances the inhabitants have connected their cesspools with these drains, and thus the overflow passes on to the banks of the river. The unsatisfactory nature of these arrangements appears to be well understood, and recently a firm of engineers submitted to the sanitary authorities of Rochester, Chatham, and Gillingham a scheme for the combined sewerage of these towns. It was proposed that the sewage should be utilised, and that the effluent, after purification, should be discharged into the Medway, not far remote from Gillingham. But the estimated expenditure proved a stumbling-block. The greatest opposition came from Chatham and Gillingham, and in the end the scheme was abandoned.

(To be continued.)

Pharmacology and Therapeutics.

MENTHOL PLASTER.

THE menthol plaster recently introduced into England by Messrs. Burroughs, Wellcome, and Co. for the American National Plaster Company is a good preparation. The specimen submitted to our inspection has the agreeable odour of peppermint, and indicates its nature also by the action of the menthol vapour on the conjunctivæ. We gave a plaster of it to a patient who complained of pain below the left breast. She expressed herself as greatly relieved by the application, which appeared to be more agreeable and to have greater effect than the belladonna plaster which she had previously worn. The writer applied a strip of the plaster to his brow whilst suffering from an attack of megrim. The action of the menthol was decidedly refreshing; it did not cure the headache, but seemed to abate its intensity, and even rendered movement less distressing.

ACETANILIDE, OR ANTIFEBRINE.

M. R. Lépine has published in the *Lyon Médicale* an account of a number of observations he has made both on animals and on patients of the action of this drug. He finds that it is a very valuable "nervine" in doses of seven and a half grains, producing as great an effect on the lightning pains of patients suffering from locomotor ataxy as a drachm or so of antipyrin. Like the latter, it lowers the temperature in fevers, and is preferred to antipyrine by patients because it does not produce a condition of semi-intoxication, as antipyrine in large doses is apt to do.

BICARBONATE OF SODA IN TONSILLITIS.

The treatment of tonsillitis by frequent local applications of carbonate of soda, which has been practised and recommended by Dr. D. Juan Giné, has been put to a series of tests by another Spanish physician, Dr. D. Rovira y Oliver, who deduces from them the opinion that, though it is often beneficial in cases where the parenchyma of the tonsil is affected, it is of much less value than many other applications in cases which are merely superficial, and catarrhal.

QUILLAJA SAPONARIA AS AN EXPECTORANT.

Dr. Maslovski has used the root of quillaja saponaria, which was recommended by Kobert, as a substitute for senega in a number of different pulmonary affections, and finds that it is a valuable expectorant. It is, however contra-indicated where hæmoptysis is present.

BENZOIN RESIN IN ULCERS.

Dr. Woskresenski, writing in the *Russkaya Meditsina* on the use of benzoin resin as a popular remedy for ulcers, says that he has frequently employed an ointment of the strength of four drachms to the ounce spread on lint, and renewed twice a day, with excellent results.

RESORCIN IN CONDYLOMATA AND MUCOUS PATCHES.

Dr. Gachkovski mentions in a Russian medical journal that he has applied resorcin as a dusting powder to thirty-four cases of acute condylomata which he has met with in the last five years, with the most satisfactory results. In one case where there were no less than thirty condylomata

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on the prepuce, one of them as large as a raspberry, a daily application of resorcin reduced them all in the course of a week. Mucous patches, too, were easily cured by resorcin, though the cure was not permanent, as recurrence always took place.

TREATMENT OF ERYSIPELAS.

For the treatment of erysipelas Dr. Archangelski has tried a number of applications, and finds that their comparative efficiency is represented by arranging them in the following order: (1) benzoic acid; (2) tincture of iodine and turpentine, as ointment; (3) sulphate of copper; (4) sulphate of iron; (5) oxide of zinc; (6) naphthalin; (7) solution of perchloride of mercury, 1 to 300; (8) chloride of zinc; (9) iodoform.

CASCARA PASTILS.

The liquid extract of cascara sagrada though a valuable is not a palatable drug. Mr. Martindale has prepared some pastils containing the liquid extract. These gelatinous morsels can be rapidly swallowed without effecting the sensation of taste in any noticeable degree. That the pastils possess purgative properties we know from personal experience.

FORMIC ACID A DISINFECTANT.

Formic acid, according to Dr. Voitoff, who has made a number of experiments on cultures of pyogenic micro-organisms, is a specific against their success, and so may be considered as an excellent disinfectant.

THE COLLEGE OF PHYSICIANS AND MEDICAL DEGREES.

THE adjourned debate upon Dr. Allchin's amendment to the report of the Committee of Delegates upon Medical Degrees took place at the Royal College of Physicians on Dec. 23rd, Sir W. Jenner, Bart., President, in the chair. There was a large attendance of Fellows.

Sir H. PITMAN spoke first, and passed in review the previous resolutions of the College upon the subject, which, judging from the debate, he feared had been lost sight of by some of the Fellows. In 1884, upon the motion of Dr. Wilson Fox, the College referred to the Medical Bill Committee to consider how far it was desirable that the College should obtain powers to confer the title of Doctor of Medicine upon its Licentiates. To this resolution there was no opposition, the only material change being a further reference for suggestion of any other means whereby the alleged grievance to medical students, so thoroughly educated and examined, might be remedied. That Committee reported that it was desirable that increased facilities should be afforded for obtaining the degree of M.D., and recommended that the two Colleges should immediately take steps, either in co-operation with an existing University or by independent action, to secure this end. An interval now elapsed pending the scheme for the conjunction of the Colleges and its sanction by the Medical Council; and, this done, a further remarkable and instructive portion of the history of the question occurred. This was the reception of a letter from the Royal College of Surgeons requesting the College of Physicians to nominate seven delegates (later increased to ten) to meet the same number from their College, in order to determine what steps, if any, could be taken to enable the two Colleges to obtain the legal right of granting the title of Doctor to persons who have passed the examinations of the Conjoint Board. It was scarcely possible that the College of Surgeons would have proposed this unless they had known that the College of Physicians had previously viewed the matter favourably. No question was raised as to the desirability of this step, and the report of the delegates was now before the College. He thought the Fellows could hardly have recollected this history, when they were asked to assent to an amendment which was so adverse to the spirit in which the College had been acting. Moreover, the College had some time ago received a most influential memorial urging the combination of the Colleges to form one Royal College of Medicine with power to grant degrees. It was for the advantage of the profession, and it would be to the honour of the College by being useful to the profession, that the candidates approved by them should have something more than a bare qualification to practise. At the same time they could not object to any possible opposition. Naturally opposition might be expected from the Universities, for those who possess power are loth to see it shared by others. When Durham University was established it was opposed by Cambridge and Oxford. He did not believe that such opposition would arise from any feeling of jealousy of the Colleges; but he could understand that the Universities would be unwilling to see any degree granted on conditions less honourable than those of other bodies. In this he himself concurred, holding that a degree should be a distinction as well as a title. That was the question they had to settle. A degree would have to be obtained somewhere or other, whether through a teaching university or through the Colleges; and if a university were independently started in London, the Colleges would stand in a peculiar position with regard to it. Sir W. Gull's suggestion was opportune, for if they instituted an additional examination as the basis of the degree, the opposition of the Universities would be disarmed; and no doubt such a step would benefit the public as well as the profession, by stamping men as fully qualified in clinical medicine and surgery. The College owed a duty to the profession, but if it had to abandon the scheme, let it abandon it altogether. The College could of course change its opinion, but it had already gone too far to retreat with honour, and if it deserted the profession now it would do an injustice, and bring discredit on itself. If the College sought the powers and failed, it would have done its best to remedy this acknowledged grievance. But why should it not succeed? Some thought it anomalous for Colleges to grant degrees, but they forgot that the University of Edinburgh was founded as a College, and existed as such for over a century; and, to come down to modern times, they had seen instituted in London by Royal Charter a College of Music, with power to confer degrees of Bachelor, Master, and Doctor of Music. If a College can be instituted by Charter, why not a Medical Faculty? As regards the teaching university, it must be remembered that all things develop by degrees. They would endeavour to get power for the two Colleges to grant degrees in medicine, and other faculties would in time crystallise around them. But if they held their hands, and waited until a complete university was established, they might very possibly be left outside altogether, and would lose their acknowledged position at the head of medical education; and if they failed to grasp the present opportunity, their claim to deal with the question would be gone for ever.

Dr. MATTHEWS DUNCAN, whilst agreeing with nearly all of Sir H. Pitman's remarks, still maintained that the essence of the question had not yet been touched. The report contained statements which were far from being confirmed. It spoke of the "schools associated with the Colleges," but was it sure of the co-operation of the schools and of their hospitals? How could a teaching university be instituted without teachers? The project evidently aimed at such a university but there was no word as to its constitution, who were to form its senators, or in what relation the College councils were to stand to it. All were agreed as to the grievance, and that the Colleges would be honourably engaged in trying to remedy it, but there the difficulties of the question arose. They had to distinguish between a university and a college, and he held that a College such as this was distinct from a university, and its functions would be swamped in the new body. The College would lose its established position, and become a rival of other Universities. No doubt it would have done a great work, but it would be work foreign to the duties of the College; it would create a new body and would involve its own ruin.

Dr. ORD congratulated Dr. Allchin on his speech, but maintained that, although himself greatly interested in the work of the Teaching University Association, he could not support the amendment, for he felt that the Colleges, if they prosecuted this matter earnestly, would be working in harmony with the objects of the Association. The power and influence of the Colleges would be of great value in effecting this quickly; and it was in the belief that a university organisation would thus be originated that he urged the rejection of an amendment the effect of which was to stop all progress.

Sir ANDREW CLARK did not think that perfect unanimity could be expected, but considered that in discussing the principle it was important not to anticipate the details of a scheme. He warned the College that if Dr Allchin's amend-

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ment were adopted it would be bound to apply to a university, and be quite unable to act independently; its offers might be rejected or might only be accepted on terms humiliating to the College. That it was unreasonable for the Colleges to become a university was no argument against the course proposed, which was urged on not only by practitioners, or by London teachers, but by a reasonable demand on the part of London students. The argument that the scheme was "without precedent" was made in ignorance of the history of universities. Was any precedent ever required to found a university? and as to the Colleges not representing the teaching body, were they not constituted of teachers? Nor would it be an "inferior degree," for had not the whole action of the Colleges been one to raise and improve the standard of medical education? He was sure that such training, particularly in clinical work, would be advanced and improved by this scheme. Nor would this be gained at the cost of the autonomy of the College. The degree would be given in unison with the College of Surgeons, and each College would retain, as at present, its individuality. The question should be dealt with on the ground not of what is theoretically desirable, but on what is just and practicable. It could not detract from the dignity of the College. If an institution such as theirs did not progress, it would certainly decay. He maintained that the grievance they had to remedy was a just one, and that it was reasonable and natural that it should be remedied by those who were at the head of the profession. If the Colleges did not seek the powers by themselves, they might be supported by a third body constituted by the State and representative of the schools; or a third alternative would be that shadowed forth in the amendment—affiliation with a university. The College was in the midst of a crisis, and he felt that if they were to be loyal to their inheritance and hand down its traditions unimpaired, they must take the lead in this great movement.

Dr. STURGES asked for a definition of the phrase "Arts or Science" in the resolution, and was proceeding to criticise a previous report suggesting details of a proposed Arts examination, when it was pointed out that the College had not at present considered such details.

Dr. QUAIN contended that Dr. Allchin's amendment did not point out how the object they aimed at was to be secured. The College was bound to give a degree, and the details of the scheme could be referred for further consideration.

Sir RISDON BENNETT said his loyalty to the College and anxiety on its behalf prevented him accepting the resolution of the delegates. He thought that if the opportunity now before them of acquiring these powers were lost for ever, it would be to the advantage of the College; yet he quite admitted there was a grievance, and that it was the duty of the College to assist in getting rid of it. He could vote for the second resolution, which involved an application for powers to grant degrees, but could not concur in the details of the first resolution. He would consent to nothing which touched on the rights and privileges of the College, and he maintained that the first effect of creating a new class of graduates would be to break down the partition between the Licentiates and the Members, and would entirely alter the value of the Fellowship. How could this be done without converting the College into a new-fangled university, with the consequent loss of its prestige? Whatever is done, it must tend to raise the examinations, and would lead to the establishment of an inferior body, whilst doing away with one high-class examination. He felt that they were very imperfectly acquainted with the probable outcome of such a scheme.

Dr. DICKINSON said there was a great work before the College, and that if they obtained powers to confer a degree, it must be a worthy one, embracing a higher examination in Arts, a clinical examination, and a requirement that candidates should have had part of their education in London.

Dr. LATHAM had formerly opposed the project, but had been converted to it, and hoped that, for the advantage of the general public, of the medical students in London, of the Colleges of Physicians and Surgeons, and especially of the old Universities, it would be carried into effect. He believed that any opposition that might come from the old Universities would proceed from a sentimental grievance, and that they would hold their own ground. The graduates of the Universities were proud to become Fellows of the College; and was there any reason why that relationship should not be still maintained? Were not the two Colleges in a better position to judge of medical education than the small bodies of the Universities; and would they not seek to maintain the standard of medical learning; whilst they certainly could not lower the value of University degrees?

Dr. BARNES said that it was wrong to fear that the Colleges would suffer in reputation by taking this course. If they have a leading part in the project, how could they suffer degradation? They had gone too far to retire with any decency or safety. He held that medical education was superior in London, and the student life in London could be compared with the life at a University.

Sir W. GULL said it was the duty of the College to advance the profession of medicine, and to minister to its wants. If students are driven away from London for want of a degree, the Colleges should meet this. They had already accepted this, and had to consider on what terms such a degree should be given. He suggested the title of M.D. Lond. as one worthy of adoption, that of M.D. Univ. Lond. standing for the present University. The time had come for granting a degree on professional merits.

Dr. BROADBENT pointed out that the question was whether they were going to delegate this power to others or do it themselves. If the College decided not to take powers, according to the amendment, then the whole question would fall. If the decision were otherwise, then they must expect that all who now objected would co-operate to make the degrees worthy of the Colleges. To all intents and purposes, the Colleges at present exercised the functions of a medical university; so that the step proposed was merely a further development of their powers, the real revolution being when the College began to examine Licentiates. That action of the College had raised the whole tone of medical education. If the amendment were carried, another body would be called into existence, and the Colleges would sink into a secondary place.

Dr. PRIESTLEY had been much influenced by Sir H. Pitman's speech, and having no doubt that this would be the starting point of a new university, he should support the resolution.

The College then divided, and Dr. Allchin's amendment was rejected by a large majority, only nine Fellows voting in its favour.

Dr. BROADBENT moved, and Sir W. GULL seconded, the next resolution—viz., "That an application be made to the Crown by the Royal College of Physicians of London and the Royal College of Surgeons of England, acting conjointly, for power to confer degrees in medicine and surgery." This was unanimously acceded to, and a further motion referring the resolutions and Sir W. Gull's amendment to the Committee of Delegates was also carried, on the motion of Dr. Quain, seconded by Dr. Priestley.

DONATIONS AND LEGACIES TO MEDICAL CHARITIES IN 1886.

THE following is a list of the principal legacies and gifts during the past year to the various medical charities and institutions of Great Britain:—Mrs. Mary Anne Curwen (in default of her daughter having issue), £40,000 to St. George's Hospital, £5000 each to two and £2500 each to about twenty other London medical charities; Mr. Richard Henry Vade Walpole, over £185,000, in equal shares, to the Westminster Hospital, Charing-cross Hospital, King's College Hospital, St. Mary's Hospital, the London Hospital, the Royal Free Hospital, the London Fever Hospital, the City of London Hospital for Diseases of the Chest, the Norfolk and Norwich Hospital, the Cheltenham Hospital, the Great Yarmouth Hospital, and the British and Foreign Sailors' Home, Great Yarmouth; Mr. Henry Chisley of Hastings, £13,650 to the London Hospital; Alderman Thomas Rose, Manchester, £10,000 to the Manchester Royal Infirmary, £5000 to the Salford Hospital, £2000 to St. Mary's Hospital for Women, Manchester, and £1000 each to the local Eye, Lock, and Clinical Hospitals; Mr. James M'Ewan, £5000 each to the Glasgow Royal Infirmary and the Western Infirmary, Glasgow; Mr. Beardwood, £5000 to the Blackburn and East Lancashire Infirmary; Mr. Alfred Burges, Worthing, £3500 to such institutions or societies as his trustees shall think

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fit; Miss Mary Elizabeth Tanner, £3000 to the Royal Hospital for Incurables, Putney, and £500 to the German Hospital, Dalston; Mr. Charles Johnson da Silva, such part of the residue of his personal property as may by law be applied for charitable purposes to the Royal Medical Benevolent College, to found three exhibitions of £50 per annum, each tenable for three years, for boys educated at the College and proceeding to the Universities, and to pay £20 per annum each to twenty-six poor pensioners of the said College; Mr. William de Hague, £3000 each to St. George's Hospital, the Middlesex Hospital, the London Hospital, the Hospital for Incurables at Putney, the Westminster Hospital, and the City of London Hospital for Diseases of the Chest; Mrs. Mary Gatley Litler, £1000 each to the National Hospital for the Paralysed and Epileptic, Queen's-square, Bloomsbury, and the Royal Hospital for Incurables at Putney, and £500 to the Warneford Hospital, Leamington; Harvey Kimpton Owen, M.D., F.R.C.S., £1800 to the Royal Medical Benevolent College at Epsom to found a scholarship, and £500 to the British Medical Benevolent Fund; Mr. William Augustus Guy, M.B., F.R.S., F.R.C.S., £250 each to King's College Hospital and King's College Hospital Convalescent Institution, and on the death of his wife, or twenty-one years after his decease, whichever happens first, one-half of a moiety of the residue of his real and personal estate which is left in trust for accumulation in the meantime to King's College Hospital Convalescent Institution; Mr. Samuel Taylor, £1050 to the Bedford General Infirmary; Mr. Thomas Phillip Danson, £1000 to the Endowment Fund of the Bootle Borough Hospital and £500 to the Liverpool dispensaries; Mr. Henry Boddington, £1000 to the Manchester Royal Infirmary and Dispensary; Mrs. Harriett Anne Richardson, £1000 to the Hospital of St. John of Jerusalem and St. Elizabeth, Ormond-street; Mr. Richard Towne, £1000 to the National Orthopædic Hospital; Mr. Joseph Stevens, £1000 to the Nottingham General Hospital and £500 to the Midlands Institution for the Blind, Nottingham; the Right. Hon. Katherine Anne Viscountess Cranley, one moiety of £1000 Consols to the Brompton Hospital for Consumption; Mr. Abraham Altham, £500 towards erecting a children's ward at the Victoria Hospital, Burnley, and £500 to the endowment fund of the said hospital; Mr. James Fletcher, £500 to the Northern Infirmary, Inverness; Mrs. Frances Acton, £500 to the Royal Hospital for Incurables, Putney; Dame Anna Maria Hare-Clarges, £500 each to the Putney Hospital for Incurables and the Taunton Hospital, Somersetshire; Mr. Foster Connor, £500 to the Belfast Royal Hospital; and Mr. Charles Charlesworth, £500 to the Bradford Fever Hospital. In respect to donations, Mr. Philip Horsman defrayed the cost (about £4000) of the in-patient department of the new Eye Infirmary at Wolverhampton; the Duke of Westminster contributed £1000 to the Hospital for Women, Soho-square; Miss Cooper of Southport, £500 to the endowment fund of the children's ward at the local hospital; and Mrs. Booth, £500 to the Manchester Clinical Hospital for Women and Children.

CHRISTMAS FESTIVITIES IN THE HOSPITALS.

Charing-cross Hospital.—The annual Christmas entertainment to the inmates of this hospital was given on the 17th ult., when the principal item in the performances was Mr. Maddison Morton's rather old-fashioned, but interesting little comic drama, "A Husband to Order," which was acted with care and judgment, and was received with the heartiest demonstrations of approval. An amateur orchestra of strings and pianoforte performed a selection of music during the evening, and in the interval between the performances the visitors made a tour of inspection through the wards of the institution.

Guy's Hospital.—In accordance with the annual custom, Mr. E. H. Lushington, the treasurer, and Dr. Steele, the medical superintendent of this institution, accompanied by a party of visitors, made a tour through the wards of the hospital at dinner-time on Christmas Day. The effect of the lack of funds at this institution was, to some extent, perceptible in an increased number of empty beds, and in the diminished display of evergreens in one or two of the wings of the hospital, but otherwise Christmas was as gaily kept up as in other years. The dinner, consisting of roast beef, turkey, plum pudding, and dessert, was served promptly at one o'clock, and apparently enjoyed by the inmates. In all the wards there were Christmas trees, and in the evening concerts were improvised in the wards in which the attendant noise could safely be permitted.

St. Thomas's Hospital.—The Christmas dinner at this hospital consisted of beef, weighing over 300 lb., and plum pudding, weighing 475 lb. The wards were all artistically and tastefully decorated with flags and evergreens. In the Victoria ward, solely occupied by children of tender age, were two large Christmas trees, the toys from which were distributed to the convalescent children on the 27th ult. In the evening carols were sung by the probationer nurses in all the wards with the exception of the Victoria, and the efforts of the staff to render their Christmas Day as enjoyable as possible seemed to be fully appreciated by the sick inmates of the institution.

Royal Free Hospital, Gray's-inn-road.—The various wards of this hospital presented a very pleasing appearance, the nurses and convalescent patients having decorated them with holly, evergreens, mottoes, and Scriptural texts. On the morning of Christmas Day the usual short service was held in each ward, and carols and hymns were sung. The patients were allowed to receive visitors at any time of the day and various extras were permitted. In the evening the convalescent patients, with their friends, had an entertainment in the Calthorpe ward, in which the medical staff and nurses took part.

Seamen's Hospital (late Dreadnought), Greenwich.—At this hospital a Christmas dinner, consisting of turkeys, pheasants, plum pudding, &c., was served to 202 patients. Of this number 126 were natives of Great Britain and Ireland, 20 were Norwegians, 12 Swedes, 12 Germans, 6 Fins, 4 Russians, 4 Frenchmen, and 4 natives of the West Indies, 5 citizens of the United States of America, 3 Danes, and 3 Portuguese, while Austria-Hungary, New Zealand, and St. Helena had each a representative. On the 28th ult. a conjuring entertainment and concert was given by the officers of the institution and their friends for the amusement of the nurses and servants, and on the 29th the same performance was repeated for the benefit of the patients.

The London Hospital.—At this hospital, which has room for nearly 900 beds, there were on Christmas Day 592 in-patients distributed over some fifty wards, the whole of which were decorated, and special fare was provided. The children were specially cared for in the way of toys, sweets, &c., and carol-singing was indulged in at intervals throughout the day.

North-Eastern Hospital for Children, Hackney-road; East London Hospital for Children; the German Hospital; and the Hospital for Diseases of the Chest, Victoria-park.—At all of these institutions there were the usual Christmas festivities and indulgence. The wards were decorated, special fare was provided, and toys distributed to the juvenile inmates.

University College Hospital.—The usual Christmas entertainment at this institution took place on the 29th ult., when the children were entertained by a Punch and Judy show, and the adults by a miscellaneous performance. Mr. Corney Grain, who kindly gave his services for the occasion, amused a large gathering of patients and visitors with a musical sketch, and Mr. Horace Chester gave a musical and mimetic entertainment entitled "Broad Grins." Later on a miscellaneous concert was held. The wards were effectively decorated with holly and evergreens, and all the children were presented with toys. Money has in addition been collected to enable welcome gifts of hats, boots, and clothing to be made to other patients.

Mr. Barnardo's Homes.—A Christmas dinner was given to all the inmates of the London branches of these homes, and afterwards sundry prizes for good conduct and diligence during the year were presented. In the evening a general Christmas entertainment was given, which met with evident and well-deserved appreciation.

THE MODE OF CAPITAL PUNISHMENT.—The New York Legislature at its recent session appointed a commission to investigate and report upon the most practical and humane method known to modern science of carrying into effect the sentence of death in capital cases. The present method of execution by hanging is for many reasons repulsive to the citizens of New York, and the report of the commission is awaited with considerable interest.

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Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Sunderland.—This borough is now estimated to contain nearly 125,300 people. The birth-rate of 37·7 per 1000 exhibits a decline; that of deaths, which was 23·7, shows a slight increase; and Mr. Harris, in an interesting study of the value of statistics as affecting Sunderland, urges that when correctly apprehended they indicate the need for further waging war against every circumstance that leads in any degree to interfere with the health of the community. Already a decrease in the infantile and in the diarrhœa mortality tends to show that results have been obtained from the improvements effected in the sanitary condition of the town, and householders are urged to second the efforts of the authority in the matter of disposing of vegetable and other house refuse by burning. With regard to the zymotic diseases, small-pox, diphtheria, and measles were the only three that during 1885 showed any excess over the average for the preceding ten years. The borough Act compelling the notification of infectious diseases, only came into operation in the latter half of the year. The cases of small-pox numbered 126, and of these 17 died. Of 98 vaccinated persons attacked 2, or 2·04 per cent. died; whereas of 17 unvaccinated persons 5, or 29·4 per cent., died. In 11 cases nothing could be seen or heard of vaccination, and of these 99·9 per cent. died. In only three cases did small-pox attack revaccinated persons, and in each cese the revaccination was performed after the patients had contracted the poison of small-pox. Measles is known to have caused 1310 cases and 385 deaths; and it became an important question at one time whether the elementary schools should not be closed. But Mr. Harris felt that the evils of this course might, at the stage of the epidemic in question, exceed any good that could result, and in this view he was supported by the medical officer of the Local Government Board, to whom the facts were submitted. Diphtheria caused 12 deaths, but this only just exceeded the average. During the year 183 patients were removed to hospital, including 105 from small-pox and 46 from typhus. Unfortunately hospital isolation has for years past been greatly hindered in Sunderland, owing to the permanent retention of a temporary arrangement inaugurated under the influence of panic; but steps are now well forward for providing a hospital in every way creditable to the borough. Space prevents our doing more than giving a superficial summary of Mr. Harris's report, which is one of the most comprehensive and carefully prepared documents which have recently come under our notice.

Hull.—During 1885 the birth- and death-rates for this borough were 33·7 and 17·3 per 1000 living respectively, the population being 186,292. Both the general and the zymotic death-rates were exceptionally low, the latter only amounting to 1·06 per 1000, and the infant mortality was only 127 per 1000 registered births, as opposed to 155 for England and Wales as a whole. Of the zymotic deaths diarrhœa was the most fatal, 59 deaths resulting from it; but this was by no means a large number when contrasted with previous years. Great interest, however, attached to an attack of diarrhœa in the borough, which occurred during the exceptional month of March, 1885, and which was believed to have been associated with the pollution of the Hull water-service. Suddenly, on the 21st of the month, and "like a storm," diarrhœa manifested itself in Hull, and by April 5th, when the disease subsided, no less than from 18,000 to 20,000 persons had been attacked. The outbreak was peculiar in its special incidence on adults, but very few children in the affected areas were attacked. The characteristic symptoms were purging, vomiting, and pain in the bowels, attended with great prostration. But the mortality was trivial. The comparative absence of the disease amongst those of old age and in youth is regarded by Dr. Mason as pointing to the fact that the poison expended itself mainly on that portion of the intestines occupied by Peyer's patches. The cause of the outbreak is explained as having been due to the admission into the Hull water service, during certain operations at the works, of polluted and noxious matters from a beck and from Wood's drain; these receiving some of the drainage from the village of Willerby and the drainage from a farmstead. The disease, although in the first instance limited to houses supplied by the Hull water, or to persons using that water either in their own houses or elsewhere, subsequently indicated its contagiousness by spreading in the houses of persons who had drunk the water at their places of business and elsewhere than at home; but the question as to the origin of the infection is, unfortunately, dismissed in a few words, to the effect that there was possible contamination of the Hull water by admission into it of the excreta of persons suffering from diarrhœa just anterior to the epidemic. During the year 261 patients were admitted into the isolation hospitals. These are inefficient, and a ground plan is submitted in the report showing a new sanatorium which is in contemplation. The arrangement indicated appears to us defective, in so far as all persons entering the grounds must pass by the wash-house, one of the most infected of all hospital buildings, before reaching the administrative block, the approach to which should always be so arranged that persons passing to it will have no chance of communicating with those who deal with infected articles. There appears also to be, in connexion with the administrative building, which should be kept free from infection, a ward for probationers. This is a mistake, for probationers need as much isolation as those whose diseases have been fully recognised.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 4589 births and 3745 deaths were registered during the week ending Dec. 25th. The annual death-rate in these towns, which had been equal to 22·9 and 20·7 per 1000 in the preceding two weeks, rose again last week to 21·4. During the first twelve weeks of the current quarter the death-rate in these towns averaged 19·9 per 1000, and was 2·3 below the mean rate in the corresponding periods of the ten years 1876-85. The lowest rates in these towns last week were 11·7 in Brighton, 18·1 in Birmingham, 18·1 in Birkenhead, and 18·6 in Sheffield. The rates in the other towns ranged upwards to 29·4 in Manchester, 30·0 in Plymouth, 30·7 in Wolverhampton, and 31·9 in Preston. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 424 and 386 in the preceding two weeks, rose again last week to 433; they included 182 from measles, 71 from scarlet fever, 75 from whooping-cough, 34 from "fever" (principally enteric), 31 from diphtheria, 40 from diarrhœa, and not one from small-pox. No death from any of these zymotic diseases was registered last week in Derby; whereas they caused the highest death-rates in Leeds, Halifax, and Wolverhampton. The greatest mortality from measles occurred in Cardiff, Leeds, Halifax, and Wolverhampton; from whooping-cough in Manchester, Bradford, Plymouth, and Huddersfield; from scarlet fever in Newcastle-upon-Tyne, Bristol, and Salford; and from "fever" in Preston. The 31 deaths from diphtheria in the twenty-eight towns included 17 in London, 3 in Portsmouth, 3 in Bristol, and 4 in Liverpool. No death from small-pox was registered in London and its outer ring, or in any of the twenty-seven large provincial towns. Only one case of small-pox was under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease. The deaths referred to diseases of the respiratory organs in London, which had been 494 and 415 in the preceding two weeks, were last week 436, and were 93 below the corrected weekly average. The causes of 95, or 2·1 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol. The largest proportions of uncertified deaths were registered in Huddersfield, Brighton, Blackburn, and Halifax.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 22·0 and 22·5 per 1000 in the preceding two weeks, further rose to 26·2 in the week ending Dec. 25th; this rate was 4·7 above the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 15·5 and 18·0 in Leith and Perth, to 24·8 in Aberdeen and 32·2 in

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Glasgow. The 648 deaths in the eight towns last week showed a further increase of 92 upon the numbers in the previous two weeks, and included 15 which were referred to whooping-cough, 13 to measles, 13 to scarlet fever, 11 to diarrhœa, 7 to diphtheria, 4 to "fever" (typhus, enteric, or simple), and not one to small-pox; in all 63 deaths resulted from these principal zymotic diseases, against 81, 63, and 75 in the preceding three weeks. These 63 deaths were equal to an annual rate of 2·4 per 1000, which was 0·1 below the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 15 and 19 in the previous two weeks, declined again last week to 15, of which 10 occurred in Glasgow and 4 in Aberdeen. The 13 deaths from measles (of which 12 were returned in Glasgow) showed a further increase upon recent weekly numbers. The fatal cases of scarlet fever, however, which had been 25, 17, and 16 in the previous three weeks, further declined last week to 13, and included 8 in Glasgow and 2 in Aberdeen. The 11 deaths attributed to diarrhœa, of which 5 occurred in Glasgow and 3 in Paisley, showed a further decline from recent weekly numbers. The 7 deaths from diphtheria, including 3 in Edinburgh and 2 in Glasgow, exceeded those in the previous week by 1; while the 4 referred to "fever," of which 2 occurred in Edinburgh, showed a decline of 7. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had increased in the preceding four weeks from 125 to 174, further rose last week to 188, and exceeded by 37 the number in the corresponding week of last year. The causes of 89, or more than 13 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 35·6 and 29·6 per 1000 in the preceding two weeks, further declined to 28·5 in the week ending Dec. 25th. During the first twelve weeks of the current quarter the death-rate in the city averaged 25·9; the mean rate during the same period did not exceed 18·4 in London and 19·1 in Edinburgh. The 193 deaths in Dublin last week showed a further decline of 7 from the high numbers in the previous two weeks, and included 6 which were referred to scarlet fever, 6 to whooping-cough, 5 to "fever" (typhus, enteric, or simple), 3 to diarrhœa, 1 to diphtheria, and not one either to small-pox or measles. Thus 21 deaths resulted from these principal zymotic diseases, against 23 and 22 in the previous two weeks; they were equal to an annual rate of 3·1 per 1000, the rates from the same diseases being but 2·1 in London and 1·6 in Edinburgh. The fatal cases of whooping-cough and scarlet fever showed an increase upon the numbers in the previous week; whereas those referred to "fever" and diarrhœa had declined. Six inquest cases and 5 deaths from violence were registered; and 61, or nearly a third, of the deaths occurred in public institutions. The deaths of infants showed a considerable decline, while those of elderly persons exceeded those returned in the previous week. The causes of 31, or 16 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

WAR OFFICE.—Army Medical Staff: Surgeon-Major Sir Samuel Rowe, M.B., K.C.M.G., from the Seconded List, to be Surgeon-Major. This gentleman has also been granted retired pay, with the honorary rank of Brigade Surgeon.

RIFLE VOLUNTEERS.—3rd Volunteer Battalion, the Lancashire Fusiliers: Acting Surgeon Richard Crean, M.D., to be Surgeon.—1st Midlothian (Leith): Surgeon and Honorary Surgeon-Major James Struthers, M.D., resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Corps on his retirement.—4th Middlesex (West London): Surgeon and Honorary Surgeon-Major G. E. Norton resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Corps on his retirement.—5th Lancashire (the Liverpool Rifle Volunteer Brigade): Acting Surgeon G. W. Steeves resigns his appointment.

VOLUNTEER MEDICAL STAFF CORPS.—London Division: Henry Work Dodd, Gent., to be Surgeon.

Correspondence.

"Audi alteram partem."

MR. SAVORY'S PAPER ON LIGATURE OF THE FEMORAL ARTERY.

To the Editors of THE LANCET.

SIRS,—I am indebted to Mr. Holmes for calling attention to the accidental omission of a few important words in the short abstract of my paper lately read before the Medical and Chirurgical Society, for which I alone am responsible. Instead of "the artery is pervious throughout," it should of course have been "the portion of the artery between the ligature and the sac is pervious throughout," &c. I can only hope that the omission was too obvious to mislead any one. The point is, I think, made clear enough in the paper itself. The title of this is, "On the Effect upon the Femoral Artery of its Ligature for the cure of Popliteal Aneurysm," and it opens thus: "When the femoral artery is tied at the apex of Scarpa's triangle for the cure of popliteal aneurysm, what effect is produced on the vessel *between the point of ligature and the sac?*" I say in my paper that I think the majority of surgeons will hardly be prepared for the conclusion which is to be drawn from the facts I report. It need not be said that I may be wrong in this; but I confess it is an impression I still retain. I cannot here of course refer at length to evidence of this; but when Mr. Holmes says it is stated in every text-book that the artery remains pervious from the ligature to the aneurysm, it may be enough if I answer him with a single passage from one of the most recent and important works on surgery. When the superficial femoral is tied in Scarpa's triangle for popliteal aneurysm, "the artery very often becomes occluded by coagulum from the ligature to the aneurysm, and beyond it to the first large branch below, while in other cases a certain portion of that length remains pervious. After a little time the aneurysm and the obliterated vessel undergo a process of contraction and absorption, so that they come to resemble a solid cord with a knot on it." In the discussion which followed, I meant to say, in the remarks to which Mr. Holmes refers, that I do not remember to have seen in any work the facts (as I find them) stated correctly. The passages in his own works, which Mr. Holmes quotes, would, it seems to me, hardly convey the idea that the portion of artery between the ligature and sac was, in the majority of cases, pervious throughout.—I am, Sirs, yours obediently,

Brook-street, W., Dec. 28th, 1886. W. S. SAVORY.

THE DENSITY OF THE TEETH AS INFLUENCED BY THE FOOD, ETC.

To the Editors of THE LANCET.

SIRS,—"Every dental surgeon knows that the hardness of the teeth may vary greatly in the same individuals at different periods; the most marked, although by no means the only cases, are those of pregnant women; and this cannot be explained solely on the ground that the secretions of the mouth are vitiated by reduced acid from gastric disturbance. There is undoubtedly an absolute softening of the whole tooth substance, due, probably, to the robbing of the teeth of the mother of their lime salts in order to build up the osseous system of the fœtus." This extract (apparently a quotation from the writings of Dr. Miller of Berlin) occurs in an annotation in THE LANCET of Dec. 18th. It is certainly not the case that every dental surgeon adopts these statements as true; and I venture to affirm it will be difficult to find one competent authority who will accept any or either of them. It is hardly possible to imagine the occurrence of degenerative or nutritive changes in a tissue like enamel—the tissue in which caries begins. To believe in such changes we must first conceive of some means by which this calcareous substance, as dense as quartz and devoid of cellular elements, could assimilate nutritive material when conveyed to it; and we must next imagine the conveyance of new and effete material to and from the vessels of the pulp, through the odontoblast layer of the pulp, and through the dentinal fibrils to its destination

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in the enamel. The evidence is overwhelming that dental caries is due entirely to external agents; that enamel and dentine are perfectly passive under the process of disintegration; manifesting neither pathological action nor vital reaction of any kind. A dead tooth replaced in the mouth as an artificial substitute is just as liable to caries as its living neighbours; when it is attacked decay begins in those situations where it would be most liable to disease were it living, and the decay is true dental caries, identical in every way with the disease in living teeth. There exist three demonstrated predisposing causes of caries which enable us to understand clearly its common association with diseases and cachexiæ. Given, 1st, innate structural imperfections in the tissues—from which few sets of teeth are free,—varying infinitely in different individuals; 2ndly, crowding and irregularity of the teeth, equally varying in degree; and 3rdly, vitiation of the secretions of the mouth, not only varying in amount, but highly irregular in its appearance and duration through the life of different individuals—and the facts are fully accounted for without the invention of the questionable hypotheses which Dr. Miller has adopted. These hypotheses, which were held by early writers before the anatomy of the teeth was made out, have not been supported by investigators working in the light of modern science. They have, however, recently been revived by some few American writers. Some of these state that they have been enabled to demonstrate the presence of a distinct substance between the prisms of enamel, having stained the tissue with chloride of gold. On the strength of this they write of a "complete network of protoplasm extending from the pulp to the surface of the enamel." If such a substance do exist, it must be in a condition of extreme tenuity, and it is impossible to accept the gratuitous and unnecessary hypothesis that this trace of organic matter is a medium through which nutrition as well as gross degenerative changes are brought about in enamel.

I am, Sirs, your obedient servant,

Wimpole-street, Dec. 20th, 1886. HENRY SEWILL.

*** To open up our columns to a discussion on the causes of dental caries is not possible on account of want of space. It is a subject which is as yet by no means satisfactorily explained; but Mr. Sewill's theory that the teeth only play a passive part has very few supporters (*vide* a discussion at the Odontological Society some time ago). Experiments like those of Dr. Miller will doubtless clear up many points that are now difficult of explanation. In our annotation, tenth line, "vitiated by reduced acid from gastric disturbance" should read "vitiated or rendered acid by gastric disturbance."—ED. L.

THE RELATIONS OF MEDICAL PRACTITIONERS TO THEIR PATIENTS.

To the Editors of THE LANCET.

SIRS,—In your issue of December 25th, in an annotation on "The Lessons of the Campbell Case," you draw attention once again to the folly of practitioners making friends of patients (clients). Few of any experience in the working of general practices will be found ready to dispute this point. A well-nigh twenty years' personal experience, during the whole of which time I have been a keen observer of the ways of other practitioners, has demonstrated to me, over and over again, the wisdom of your strictures. The Campbell Case gives, of course, an extreme example of the complications which such friendships may lead a man into, but many, and many a time, have I seen good-paying patients lost to excellent practitioners over some trivial matter, which a strict professional bearing during the whole period of medical adviserships would have entirely obviated. At the same time, and this is what I wish to find out, how is a general practitioner (a provincial or country one at all events) to avoid the difficulty? He is truly between two stools—if he does not make friends (socially) his practice does not develop, and he is said to be a 'proud' man; if he does make friends, he very likely makes clients (patients) of them ultimately, but his very friendship, undoubtedly, puts him in constant danger of losing them. Many a tradesman's and farmer's family have I lost as patients because they became friendly with some neighbouring practitioner and his family. On the other hand, one's better class farmer clients are seldom or never attracted unless through a previous acquaintance of more or less friendly intimacy; and unless this is kept up, they will in nine cases out of ten discontinue to employ you. In these days of depression a farmer of fair middle class education, and *with money*, is a power in country districts, and he knows it, nor does he hesitate to exercise his adverse influence, if he feels aggrieved with his doctor, his parson, or his lawyer, politically, municipally, or ecclesiastically.

Finally, I do not write as a disappointed practitioner. I have a fair practice with good appointments, and I have made money at it. I may also state that I am a gentleman's (a widely-known man) son, and have had a liberal education in both general and professional subjects. I enclose my card.

I am, Sirs, yours truly,

Dec. 27th, 1886. GENERAL PRACTITIONER.

NORTHERN COUNTIES NOTES.

(*From our own Correspondent.*)

THE NEW CHILDREN'S HOSPITAL IN NEWCASTLE.

AT a late meeting of the governors of the Children's Hospital, held in Newcastle last week, it was stated that the contract was ready to sign with the builder, and that all legal formalities were now complete. It was announced that the new buildings, apart from the land, would cost £15,000, all provided by the munificence of Mr. John Fleming, of this city. The plans which were exhibited, showed an entrance hall twenty feet square; close to which will be a committee-room, housekeeper's sitting-room, linen, and work room, and matron's room. These are to the right of the entrance hall, and to the left will be a waiting-room, porter's room, consulting room, drug stores, surgery, and medical officer's room, the last being provided in view of the possibility of a resident medical officer being appointed at some time or other. Facing the entrance hall will be a spacious dining-room, and beyond that will be rooms for the necessary domestic work. On the first floor, over the entrance hall, will be a day ward, and play room. To the right will be a small ward, a nurse's room, and a large general ward for girls, twenty of whom may be accommodated there. To the left will be a similar provision for boys. There will also be isolation wards, an operating room, and other necessary conveniences, while the second floor will be used as nurses' and servants' bedrooms. The front, which will have an imposing appearance, will be of red brick with stone dressings, and a belfry over the main doorway.

DEATH OF MR. ALFRED ROBSON BENSON, M.R.C.S., OF WHITBY.

I regret to announce the death, on the 9th of December, after a rather long illness, of Mr. A. R. Benson, M.R.C.S., of Whitby, Yorks, at the age of seventy-two. Mr. Benson held, for many years, an appointment in the Hudson Bay Company's Service at Fort York, Columbia River, Vancouver's Island. Whilst at Vancouver's Fort, Mr. Benson became intimate with the late General Grant, then a captain in the United States Army. He frequently made journeys into the interior amongst the Indians with whom he had much influence. Mr. Benson returned to England about twenty years ago, and settled in his native place, Whitby. He did not practise after his return, but was ever willing to advise the poor. He was known as an authority on local and genealogical history, being himself a member of one of the oldest families in Whitby. He was a genial and kind-hearted man, whose portly form and friendly greeting will be missed by many.

A NEWCASTLE DOCTOR IN BURMAH.

The special war correspondent of the *Allahabad Pioneer and Indian Mail* of the late date says, that after four days of hard marching, Yemethen was reached. The men were very much fatigued and pulled down by fever and sickness, and from exposure to rain; and, had it not been for the unremitting efforts of Surgeon Nichol, Medical Staff, 3rd Brigade, who always had his medicines ready to dispense hourly to a long line of patients who streamed in daily after a long march, our lines would have been sadly weakened. Dr. Nichol is intimately connected with Newcastle, and it will be a pleasure to his many friends to see this honourable mention of his name from the Indian newspaper.

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POLICEMEN AS MEDICAL "EXPERTS."

Unless there is some change in the mode of conducting coroner's inquests, people will begin to ask what is their use; for instance, an inquest was held in Newcastle last week on the body of an itinerant dealer in medicine, or "Quack Doctor," who was found dead in his bed in his lodgings. A policeman deposed that he forced open the bedroom door, and found the body lying on a bed. On a chair he found a bottle (produced); and also a tumbler half full of water. The policeman further said that the bottle and glass had a similar smell—that of laudanum. Upon this very "conclusive" evidence as to poisoning, the jury returned a verdict to the effect that the deceased was found dead in his bed, but that the evidence was not sufficient to show whether death was due to natural causes, or to poisoning. The question naturally presenting itself in regard to this loose verdict is, why—if evidence was required only to show the cause of death—no medical man was called.

Newcastle-on-Tyne, Dec. 27th.

MANCHESTER.

(From our own Correspondent.)

VICTORIA UNIVERSITY.

THE financial condition of the Victoria University is at present by no means what it is desirable it should be, and it is therefore satisfactory to note that some of our citizens are not unmindful of its wants, as shown by the acquisition to its funds of £1000 under the will of the late Mr. Boddington. At the last meeting of the Leeds Town Council it was decided to support the application to the Government for an annual grant in aid of the University funds. Leeds will probably be the next place to become affiliated to the University. Much surprise has been expressed at the rumoured proposal to affiliate University College, London, to the Victoria University. No greater reflection than this can be made upon the present regulations in force at the London University, and it shows how keenly the want of facilities for London students to obtain a medical degree is felt at the present time. Amongst the external examiners appointed by the Council on Dec. 16th, one was from Scotland, one from Ireland, and one from London.

ROYAL INFIRMARY.

This institution also received £1000 under the above-mentioned will, and smaller legacies were left to many of the other hospitals, but amongst the numerous bequests and donations made to our various medical charities, the Ancoats Hospital, which is doing good and useful work in one of the poorest parts of Manchester, appears to be singularly overlooked. A little more prominence and "pushing to the front" on the part of those connected with this institution would probably remedy this apparent neglect. What appears to have been a case of hydrophobia from a cat's bite was recently admitted to the infirmary wards. The man was bitten some four months ago on the right hand by a cat; about a week before his admission he complained of much pain up the arm, and rapidly became worse, and was only brought to the infirmary a few hours before his death. It would have been more conclusive as to the real character of the disease had some corroborative evidence been obtained by experiment on one of the lower animals.

INFANT MORTALITY.

A deplorable loss of infant life appears to be going on. The coroner, when holding an inquest in Salford recently on the body of a child that had been overlain by its mother, said that within the previous week or so he had held inquests on about a dozen infants who had thus been found dead in bed.

Manchester, Dec. 20th, 1886.

THE JACOB TESTIMONIAL.—The executive committee met on Wednesday, Dec. 29th, Sir Wm. Stokes, President of the Royal College of Surgeons in Ireland, in the chair. Subscriptions amounting to over £90 were announced by the Honorary Treasurers, Professor Edward Hamilton, 120, Stephen's-green, and Dr. Thomas Purcell, 71, Harcourt-street, Dublin. The committee, having decided to immediately publish the list of subscribers, adjourned for a week.

EDINBURGH.

(From our own Correspondent.)

ROYAL SOCIETY OF EDINBURGH.

AT the ordinary meeting held last week, Sir Willia Thomson, the newly-elected President, took his seat. H subsequently made two communications to the Socie upon wave motion, producing formulæ which express t relation of the velocity of propagation to the wave-leng in cases where a stone is thrown into still water; and calculation of the total disturbance, and its compone elements, in the case of a ship gliding through a perfect smooth tract of water.

UNIVERSITY LIBRARIANSHIP.

The Senatus Academicus of the University have ma an appointment fraught with most important issues regards its general status as a centre of learning. Throu the death of the late Dr. John Small, the custodianship of t 200,000 volumes, constituting the library, had becon vacant, and the Senatus have made a very good use their patronage in appointing Mr. Hugh A. Webst to the office. There were over seventy applicants for t post. Mr. Webster is a graduate of Edinburgh, and has wide knowledge of books and of general literature. F twelve years he has worked on the staff of the "Encycl pædia Britannica," and has contributed articles on ver varied subjects of general interest to that publication amongst them articles upon Epigrams, Antiquities, Hamle the Indian Archipelago, Mermaids, and Fortunatus. He h also contributed geological, botanical, zoological, ethn graphical, and statistical accounts of various geographic areas to the same work, which are of high merit. H thorough knowledge of modern languages is also great importance, since it will enable him to suppl the marked deficiencies of the library in moder treatises and periodicals, especially in the department of natural science and medicine. In addition to ac quiring new treatises his duties in regard to those alread collected will not be slight, since there is at present no com plete catalogue of the library available for the genera public, a state of things which exists in no other collectio of equal importance in Europe. If Mr. Webster succeeds, a he doubtless will, in rectifying this deficiency, he will confe a lasting benefit on his *alma mater*, and will greatly lighte the task of those who seek knowledge in the volumes o her rich though pathless collection.

DRINKING FOUNTAINS FOR STUDENTS.

An elaborate drinking-fountain for the use of student was recently erected in the upper quadrangle of th New University Buildings, the gift of Mr. John Hope of Edinburgh; and following closely upon this presentatio another fountain has been added to the attractions of th Quadrangle at the College Buildings in South Bridge-street The latter is the gift of Dr. W. F. Cumming. It was publicl inaugurated by the Principal, Sir William Muir, and th members of the Senatus, last week, in the presence of numerous gathering, amongst whom were Dr. Cumming the donor, Mr. Sydney Mitchell, the well-known Scottis architect, who furnished the design, and his father, Dr Arthur Mitchell, C.B.

STUDENTS AND PROFESSIONAL EXAMINATIONS.

At a recent meeting of the Students' Representative Council, the subjects of professional examinations in medicine, and the compulsory attendance of certain lectures were under discussion. The outcome of their deliberations were a series of resolutions, which were respectfully submitted to the University Court, in favour of permitting medical students to enter for the first part (anatomy and physiology) of the second professional, or intermediate, examination at the end of the second year of study, instead of at the end of the third, as now obtains. The Council also prays the Court not to sanction any further addition to the number of compulsory courses in the medical curriculum, while its conditions are as they are. Both these requests are justified by the present state of medical study in the University, where course after course of lectures or demonstrations has been added to the list of classes, attendance upon which is compulsory, without any corresponding

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extension of the curriculum in respect to time. The consequence of this is overpressure in the case of very many of the students, and a sense of oppression in those who are not actually overworked, which it would be well if the authorities could see their way to mitigate in the way requested, or in other ways which might suggest themselves.

ROYAL HOSPITAL FOR SICK CHILDREN.

The Directors of the Royal Hospital for Sick Children have appointed Dr. Melville Dunlop to the post of extra-physician upon the staff of the hospital, vacant through the resignation of Dr. Hodsdon.

Edinburgh, Dec. 28th, 1886.

ABERDEEN.

(From our own Correspondent.)

ROYAL INFIRMARY.

The quarterly court of the managers of the Royal Infirmary was held on Monday, Dec. 13th, when it was resolved, on the motion of the president, Lord Provost Henderson, to make an appeal to the public for the funds necessary to carry out the proposed improvement and extension of the infirmary buildings. It was left to the committee of management to select a large committee thoroughly representative of town and country, who would take the matter in hand, and it was hoped that an endeavour would be made to have the sum, £24,000, subscribed before June 20th, 1887. There is little doubt as to the success of this scheme of the Lord Provost to celebrate the Queen's Jubilee. He himself has subscribed £1000, and a subscription of £500 has also been intimated. Two vacancies in the medical staff had to be filled up at this meeting, and a large number of managers attended to bestow their patronage. For the office of ophthalmic surgeon, rendered vacant by the lamented death of Dr. Dyce Davidson, Dr. MacKenzie Davidson was the only candidate, and he was appointed unanimously. When Dr. Blaikie Smith was appointed assistant physician he resigned the office of chloroformist, which he had held for eleven years, and Drs. Booth, MacGregor, and Ruxton were candidates for the appointment. The first vote gave the following result: Dr. Booth, 83; Dr. MacGregor, 78; Dr. Ruxton, 16. A second vote was then taken as between Dr. Booth and Dr. MacGregor, when the former was elected by a majority of four votes.

THE UNIVERSITY COURT.

A meeting of the Aberdeen University Court was held on Saturday, Dec. 18th, when there was laid before the meeting a communication from the Senatus, stating that at a meeting held on the 11th, the Senatus resolved to represent to the Court their desire to withdraw the proposals as to changes in the examinations in medicine. The court granted consent, and this, for the present at any rate, gets rid of the difficulties raised by Prof. Struthers' dissent and Prof. Ogston's threatened action.

THE TRAINING OF PROBATIONER NURSES.

Two or three months ago the late Dr. Dyce Davidson and Dr. Garden were appointed a subcommittee of the medical committee to make inquiries as to the training of probationers in other hospitals, and as a result of their inquiries they submitted a report upon the subject, and their suggestions have so far been acted upon. The report says that probationers ought to be engaged for two years, during which time they ought to receive a regular course of instruction both theoretical and practical. The theoretical part of their instruction is to consist of lectures, which are to be divided into three courses: first, a series of lectures by the lady superintendent on nursing, the economy of the sick-room, instructions as to the preparation of food for the sick, &c.; second, lectures by one of the surgical staff on elementary anatomy, with lessons on surgical nursing, including bandaging, description and preparation of instruments, dressings, &c.; third, a course of instruction by one of the medical staff on elementary physiology and medical nursing. The practical or ward training is to be given by the ward sisters, supervised by the lady superintendent and teachers who supply the theoretical teaching. Drs. Bruce and Garden have been appointed with Miss Lumsden to give the different lectures.

THE HEALTH OF THE CITY.

In October there was a decided decrease in the number of cases of scarlet fever, but it has again begun to spread, and the report for last month shows a large increase. In October 78 cases of scarlet fever were reported, but during November there were 107. In the later month there were also 14 cases of typhoid fever, as against 4 cases in October. The death-rate for October was 17·28 per 1000, but last month it mounted up to 23·22 per 1000. Whooping-cough and measles are also prevalent, and many cases have proved fatal.

Dec., 1886.

IRELAND.

(From our own Correspondent.)

ROYAL UNIVERSITY OF IRELAND.

A MEETING of Convocation takes place on Dec. 30th, and consequently will be held too late for me to record this week the result of the election for a Member of the Senate. One of the candidates (Major Fitzgerald) has withdrawn, and the contest will lie between Professor O'Sullivan, Mr. O'Connor, and Dr. McMordie. I have already given my opinion that the first-named gentleman will probably be elected, and therefore shall not refer further to this subject. At the meeting this week, several notices of motion have been given, the principal being as follows:—Dr. Knight will move that the Senate be requested to consider what precautions can be taken to ensure that only the votes of members of Convocation are recorded in senatorial elections. Dr. Thompson will move a resolution requiring that at elections of a Senator by Convocation each voter shall affix his name to his voting paper in presence of a justice of the peace or a clergyman, who also shall sign his name as witness. The recent rules adopted by the Senate for the medical curriculum of the University have created considerable dissatisfaction, and it is gratifying to learn that Professor Pye has a notice relative to this matter, in which he will call attention to it, and move, that in the opinion of Convocation it should be repealed, and rules framed for the guidance of medical students in accordance with the direction of the General Medical Council be adopted. The proceedings are expected to prove very animated, and it is to be hoped that the Chairman will exercise the powers entrusted to him in repressing all unseemly attempts at disturbance.

THE EPIDEMIC OF ENTERIC FEVER IN CORK.

The Public Health Committee will this week have under their consideration a very important report, prepared by an inspector of the Local Government Board (Dr. O'Farrell), which deals with the present sanitary condition of the city of Cork. Additional interest must be attached to the communication in view of the epidemic of enteric fever which has prevailed for some time past. Cork is supplied with water from the river Lee, taken about a mile above the city. A filtering tunnel has been erected, but sufficient precautions are not adopted to prevent contamination from the houses and towns and villages situated on the banks of the river from its source to the point of intake at the water-works. The physical features of the site on which Cork is built render it extremely difficult to drain the hills, causing steps and abrupt gradients, while the flat of the city is below high water of spring tides. The rubble sewers in the older parts of Cork are defective in every respect—rat-eaten and blocked, so that they are no better than elongated cesspools, saturating the porous alluvial soil, which surround them with organic matter, and throwing back foul sewer air on the higher levels, thus producing zymotic diseases in those parts of the city which ought to be most healthy. There are about 1700 tenement houses in Cork, and many of them, especially in the centre of the city, are old and structurally bad. The public cleansing of the streets is carried out in a most unsatisfactory manner; this is partly due to the want of funds, the soft character of the limestone used for repairing roads, and to the large rainfall. The want of a public abattoir and the condition of the private slaughter yards must exercise an injurious influence on the health of the citizens. Dr. Donovan, the medical officer of health, is inclined to attribute the prevalence of typhoid fever to the cleansing of old drains and the dispersion of their contents over the surface of the public park and other places of public resort. Dr. O'Farrell

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thinks these views very probably to be correct, and that the present outbreak is due to the faulty condition of the sewers and to the effluvia arising from them and from a soil saturated with organic matter and specific germs, acting at a time when in many parts of the United Kingdom there would seem to be an "epidemic tendency" to the development of enteric fever. These are the chief points referred to in Dr. O'Farrell's report, and in addition he makes the following suggestions for the consideration of the Public Health Committee:—1. That street cleansing be improved, and that a complete system of domestic scavenging be undertaken by the Corporation. 2. That the sewers of the city be completed and modernised, and that a map of the city be provided, in accordance with the 23rd section of the Public Health Act. That all main sewers be ventilated at their highest levels, and that they be provided with side entrances, manholes, and not less than twenty ventilators for each mile of sewer. 3. That lodging-house and tenement yards and premises be kept in proper sanitary condition, and that the bye-laws made under the 41st, 91st, and 100th sections of the Public Health Act be strictly enforced. 4. That a public abattoir be erected on a suitable site, such as the old Passage Railway, with proper appliances for drainage, ventilation, and cleanliness. 5. That the sewage matter removed from drains and deposited in the Park, and elsewhere, be thoroughly disinfected; and, in future, that all scavenged materials be immediately removed from the city by water carriage, or else that they be deposited and disinfected in suitably placed and properly constructed manure depôts. 6. That the water-supply of the city be protected, as far as possible, from contamination by the means already suggested in this report. 7. That the Medical Superintendent Officer of Health should devote his whole time to the duties of his office.

Dublin, Dec. 27th, 1886.

PARIS.

(From our own Correspondent.)

EXPERIMENTS WITH THE VIRUS OF RABIES.

The most important news of the week comes to us from Vienna in the account of Professor von Frich's experiments with the virus of rabies supplied to him for that purpose by Monsieur Pasteur. M. von Frich finds: 1. That in animals which have died from rabies the virus exists in its most concentrated form in the central nervous system. 2. That small quantities of the cerebro-spinal substance of animals which have died from rabies injected under the dura mater by trephining are sure to be followed after a latent period of from fourteen to twenty-one days by the same disease, and this may be transmitted from these to other animals. 3. That the same disease, with the same symptoms and the same period of incubation, may be induced by intra-cranial inoculation with particles of medulla from human beings who have died of rabies, showing the identity in man and in the lower animals. 4. That infection is less sure by the subcutaneous method, and the period of incubation longer than with intra-cranial inoculation. 5. The length of the period of incubation depends upon the quantity of virus injected under the skin; the less the virus, the longer the incubation. 6. By the continuous intra-cranial transmission of the virus taken from the cerebro-spinal substance of rabbits, after a series of generations the period of incubation is shortened and its invasion is irregular. Later on the incubation still decreases, but the invasion becomes regular. 7. The *fixed virus* of an incubation period of seven days, which M. Pasteur obtains by inoculation from rabbit to rabbit through forty or fifty generations exceeds in intensity the virus of *street rabies*, not only in that the invasion of the disease is earlier, but also because the animals die without exception as well after subcutaneous injection as with inoculation of the dura mater. 8. The fixed virus does not seem to acquire by further transmissions any noteworthy shortening of its period of incubation. Sometimes the disease begins after six days; but, on the other hand, it may extend to eight, ten, or even twelve days. An incubation period of from eight to twelve days, and consequently a virulence of the same intensity as that of the fixed virus, may also be obtained by the transmission of street rabies, and this sometimes at the second or third generation. 9. M. Pasteur's method of obtaining a fixed virus of seven days' incubation is, perhaps, not the only one, for the said virus may sometimes be obtained much earlier, independently of the transmissions, and this virus is constant in its effects and in its period of incubation. 10. The virulence of particles of medulla diminishes daily under desiccation at 20° Centigrade over caustic potash, and is entirely destroyed after from fourteen to sixteen days. 11. Animals which have been subjected to hypodermic injections of a series of virus attenuated by desiccation become refractory to the stronger virus by the previous inoculations with the weaker virus if the stronger virus have not been used in too rapid succession. 12. Animals which have been inoculated hypodermically during ten days with virus of progressive virulence (medulla from ten days to one day) have not been refractory to infection with the fresh virus of street rabies, and have only exceptionally escaped after intra-cranial infection. 13. Rabbits and dogs inoculated by trephining with the virus of street rabies of sixteen days' incubation have always succumbed, notwithstanding the preventive treatment already described. 14. M. Pasteur attributed to the method of slow vaccinations the unsatisfactory results obtained previously by M. von Frich, and recommended a more intensive mode of treatment. The experiments carried out conformably to M. Pasteur's instructions have given no more favourable result; all the animals died of rabies. 15. The experiments have demonstrated a most important fact—that is, that in the rapid process the weaker preservative medullæ do not confer the same certainty of immunity from the effects of inoculation with the stronger medullæ. Of a series of dogs and rabbits inoculated as a control-experiment to that described in the preceding paragraph, and in which the rapid process was carried out without previous infection, most of the animals died of rabies. 16. Most of the animals which were submitted to the preventive treatment after subcutaneous inoculation with street rabies, died of the disease even when the period of incubation was thirty-four days. These experiments show, says M. von Frich, that Pasteur's method of rendering animals refractory to rabies is not yet either sure or certain. There is not yet a sufficient scientific basis for the application in man of a preventive treatment after the bite of a rabid animal. It is, moreover, quite possible that the preventive treatment, at any rate the intensive method recently recommended by M. Pasteur, may itself transmit the disease.

A PATHOGNOMONIC SIGN OF CANCER OF THE STOMACH.

A patient was shown at the last meeting of the Société Médicale des Hôpitaux who exemplifies the condition said by German writers to be characteristic of cancer of the stomach, a condition found by M. Debove to be constant in such cases, and which he proposes as a pathognomonic sign of the disease. In malignant disease of the stomach it will be found that hydrochloric acid is always wanting, whereas it lasts constantly during digestion in every other case. In M. Debove's patient this absence of hydrochloric acid enabled a diagnosis to be made at a period when there was no other symptom of cancer, and the disease was looked upon as dyspepsia, an opinion shared by M. Debove himself until he had ascertained the composition of the gastric juice. Since the beginning of the year the man has been under observation, and the real nature of his disease now constituted by a characteristic tumour the size of an egg, is no longer doubtful. In reply to questions M. Debove said that he obtained the liquid for examination by means of the œsophageal tube, and that the test used for distinguishing the acids were those recommended by the Germans. A solution of gentian violet (1 in 5000) gives a blue coloration with HCl. "l'orange Poirier" in saturated solution gives a red reaction with the same acid. Lactic acid is recognised by the increased yellowing of perchloride of iron, and by change in colour of a mixture of perchloride of iron and carbolic acid, from amethyst blue to yellow.

TREATMENT OF EPILEPSY.

M. Dujardin-Beaumetz is using antifebrine extensively in the treatment of epilepsy. As far as I know nothing has as yet been published on the subject, but I am told that in antifebrine we possess one of the most powerful "moderators" of the spinal centres.

Paris, Dec. 29th, 1886.

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THE CLIMATE OF HYÈRES.

(From our Special Correspondent.)

AMONG the health-resorts of the Riviera, Hyères holds its own for its climatic advantages. While Cannes was but a miserable fishing village, and Mentone and Nice almost unknown, French doctors sent their patients to Hyères, and it was the first town on the Riviera where experiments were made in the climatic treatment of disease. It has the double advantage of being more to the south that any of the other towns on this line, and yet it is the nearest to London and Paris. Dr. W. P. Biden, the resident English physician, has favoured us with the meteorological observations he has made during the last six winters. His Sheringdon screen or box is well exposed to the north in the garden of the Hôtel des Isles d'Or. There are no plants near to afford shelter, and having visited the spot I can testify that the observations are taken in the fairest possible manner. The record of the results acquired will be seen in Table I. The climatic advantages, as demonstrated by these statistics, are further set forth by a comparison with other health-resorts. (See Table II.) The statistics in this table are open to question so far as the San Remo record of the number of days on which rain fell is concerned. As the amount of rain which fell was in excess of the other Riviera stations, probably those days when the showers were very slight were not included in the calculation. It will be seen that Hyères is at once warmer and yet colder than the other Riviera resorts mentioned. This implies that greater care must be taken at night, and then the invalid will derive all the profit of the higher day temperature and the higher mean temperature. For all practical purposes this is just the advantage required. In conclusion, it may incidentally be mentioned, that the great storms of Dec. 8th and 9th had altogether lost their fury when they reached Hyères. The weather has, on the whole, remained fine throughout this trying period.

December 11th.

TABLE I.—*Six Months of the Winter Season at Hyères during the Years 1879 to 1885.*

	November.	December.	January.	February.	March.	April.	Means.
Mean daily temperature of the six years	53·6°	49·0°	47·3°	50·5°	52·5°	56·0°	51·4°
Average maximum temperature of the day	61·7°	56·8°	55·0°	58·2°	61·5°	64·6°	59·6°
Average daily minimum temperature	45·4°	40·1°	39·5°	42·8°	43·4°	47·6°	43·2°
Average relative humidity (saturation = 100)	72·0	72·0	78·0	77·0	73·0	71·0	74·0
							Mean per six winter months.
Days of sunshine	23·0	23·5	20·6	19·3	25·6	22·8	134·8
Days on which rain fell	4·2	4·5	7·0	7·83	5·43	8·0	36·96
Days of calm	16·8	20·0	19·6	13·6	14·6	13·2	97·8
Days of light wind	10·0	6·3	9·0	11·16	13·8	14·4	64·66
Days of strong wind	3·2	4·5	2·4	3·8	2·28	2·4	18·58
Rainfall in inches	2·62	2·22	3·41	1·48	2·13	3·10	14·96

TABLE II.—*Climatic Advantages of Hyères as compared with other Health-resorts.*

	Hyères.	Cannes.	Nice.	Mentone.	San Remo.	Pau.	Greenwich.
Mean daily temperature in the shade	51·4°	50·8°	50·9°	51·5°	51·3°	45·7°	41·8°
Mean of daily maximum shade temperature	59·6°	56·7°	—	58·2°	—	55·62°	—
Mean of daily minimum shade temperature	43·8°	44·0°	—	45·9°	—	39·17°	—
Mean relative humidity	74·0	73·0	—	72·8	68·0	—	—
Total days of sunshine	135·0	117·0	97·0	—	108·0	—	12·0
Total days on which rain fell	37·0	45·6	36·2	47·0	26·0	69·0	90·0
Total days without any wind	97·0	48·0	—	—	—	—	—
Total days with slight wind	66·0	88·0	—	—	—	—	—
Total days with strong wind	17·0	41·8	—	—	—	—	—
Rainfall in inches	14·61	20·3	19·45	16·87	21·0	26·87	10·68

Obituary.

ALFRED WILTSHIRE M.D., F.R.C.P.

THE loss sustained by the early death of Dr. Wiltshire—a loss scarcely less felt in the world of science than by his friends and family—cannot be passed by without record.

Alfred Wiltshire was a native of Gloucester. Members of his family had been yeomen in that county and in Worcestershire. He received his early education at a private school. His medical studies were pursued at University College in London. The *res angusta* perhaps frustrated his desire to graduate at the University of London. The loss of so earnest and capable a member is but one of many examples of the injury suffered by the London schools through the narrow and exclusive policy of this University. Like many other men distinguished as successful students, he found it desirable to seek superfluous attestation of the theoretical knowledge and clinical skill acquired in London by going to Scotland for a university degree. He was enrolled M.D. at St. Andrews in 1862.

In the following year he passed the more real, but less honorific, examination for the licence of the Royal College of Physicians. Thus equipped, he started in the north of London as a general practitioner, fought bravely the battle of life, urged by the consciousness of being fitted for a higher position, and resolute to achieve it. His first step upwards was made when he was appointed a medical inspector of the Privy Council. This position helped him materially on the road towards the goal to which his ambition pointed. In it he did good work in the cause of vaccination. He next took the bold step of entering in the competition for consulting practice. So he took the Membership of the Royal College of Physicians in 1868, and when he had made his mark he was elected a Fellow in 1878. Fairly launched on his new career, and working hard in scientific pursuits, he was made treasurer of the Medical Society. He rendered valuable service in the administration and reorganisation of that Society, and was appointed to give the Lettsomian Lectures in 1877.

The bent given to his studies by his opportunities, rather than perhaps by his inclination, led him to cultivate obstetrics more especially. But he was accomplished as a general physician, and became distinguished as a surgeon. He joined the Obstetrical Society in 1866, was made librarian in 1871, secretary in 1874, and vice-president in 1877. He contributed five papers to the Transactions of this Society, all marked by the qualities of keen observation, earnest study, and judicious deduction. Amongst the most valuable of these is the memoir on "Tetanus after Abortion," written in 1872. Amongst less formal communications two are more especially interesting. In vol. xx. for 1878, Dr. Wiltshire referred in discussion to the "normal asymmetry" of the

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child's head at birth, and to the blue colour of the eyes as a constant condition. He had originally described this phenomenon in THE LANCET in 1871. He said that, from information received from physicians practising amongst negroes, every black child was born with blue eyes.

Diagnostic skill and surgical enterprise have seldom been more strikingly exhibited than in an operation which made him famous amongst ovariotomists. In the nineteenth volume of the "Transactions of the Pathological Society, 1868," is recorded the history of a case of "A large multilocular ovarian cyst removed by operation from a patient with acute peritonitis." His merit in the initiation of this practice of looking upon collapse and peritonitis from bursting or other injury of the tumour as a reason for prompt action rather than for regarding the case as beyond hope, has received just recognition from Olshausen in his work on "Diseases of the Ovaries." This distinguished authority says: "Wiltshire appears to have been the first who had the courage to operate during collapse caused by torsion of the pedicle." It is given to few men to deserve the triple praise due to pathological sagacity, surgical boldness, and originality.

In 1883, when the first blow had already been struck at his health, he published a series of lectures on the "Comparative Physiology of Menstruation." He was always given to visiting the Zoological Gardens, and he turned to account the opportunities there afforded to study the habits and physiology of the animals. The knowledge so acquired was extended by observations made in the country, to which his shattered health often compelled him to retreat. These lectures constitute the most original and instructive accession to our knowledge of menstruation—a function which lies at the foundation of gynæcology—that has appeared in this generation. We cannot in this place attempt an adequate analysis of it. The leading theme is to illustrate and accentuate the general law insisted upon by Darwin, that Periodicity rules alike over the physical, animal, and vegetable worlds.

Dr. Wiltshire held various public appointments. First he became attached to the St. Mary's Hospital School as assistant-physician, and subsequently he was made physician to the out-patients and joint lecturer on obstetrics with Dr. Meadows. He was physician for diseases of women to the West London Hospital, and was for a short time physician to the Samaritan Hospital. He also held the post of physician to the British Lying-in Hospital. About four years ago symptoms of locomotor ataxy appeared. The significance of these symptoms became plain to his colleagues and immediate friends, although, with the hopefulness and tenacity of a sanguine nature, he battled against the enemy, refusing to yield. And more than once his resolution seemed to have conquered. But the remissions inspired little confidence in anyone but himself, and at last body and mind gave way. In the summer of 1885 he resigned his appointments and the hope of resuming practice. He had married a daughter of the late Mr. Albert C. Waterlow, thus becoming the brother-in-law of Dr. Ferrier. His widow and two sons survive him.

De mortuis nil nisi bonum. We need not hesitate at the qualification: *nisi verum.* What is true of him is mostly good. He had a warm heart for his friends. If he at times exhibited some jealousy, tinged even with bitterness towards those who he thought opposed his progress, the failing will be explained and pardoned by the reflection that it is not uncommon in men who have been forced to struggle hard in early life; and who, in their impatience to succeed, are apt to be irritated by opposition which they feel is undeserved. And those who knew him best would trace not a little of his asperity to the disease which was insidiously sapping his nervous centres. At any rate, Alfred Wiltshire leaves behind him sterling work enough that will endure, bearing no trace of ungenerous feeling.

THOMAS WALKER, M.D., J.P.

DR. THOMAS WALKER, who died at Peterborough on the 16th inst., was born in Dumfriesshire in September, 1796, and was therefore in his ninety-first year. He had been for seventy-one years a qualified member of the medical profession, having become a licentiate of the Edinburgh College of Surgeons in 1815. At the time of his death he was the oldest licentiate of that College, and also father of the Faculty of Physicians and Surgeons of Glasgow. The oldest son of the late Josiah Walker, M.A., Professor of Humanity (Latin) in the University of Glasgow, Dr. Walker was descended from a long line of ministers eminent in the Scotch Church, his ancestor in the seventh generation being that most celebrated of sixteenth century Scotchmen, the great reformer, John Knox. In stature tall, square-built, muscular, with a countenance expressive of strong individuality, endowed with abilities far above the average, courteous, honourable, and just to everyone, he was physically, intellectually, and morally a notable man. Most hospitable, highly educated, of refined tastes, his mind stored with accurate and widely-ranging information, his society and friendship were at all times highly valued by those of all classes and ages with whom he was brought in contact. He was especially fond of associating with men younger than himself, and, as was remarked by us of him in our memoir of his pupil, the late Dr. Harry Leach, he was "a physician who had been peculiarly fortunate in the number of honoured and successful men trained by him for the profession." Although Dr. Walker was, in his own town and district generally, universally esteemed and regarded with strong personal affection, it was given perhaps to only a privileged few to know the almost feminine tenderness of heart which lay beneath the somewhat austere exterior.

Dr. Walker studied in Edinburgh, and qualified at the earliest possible date with a view to entering at once on active medical service in the army; but the battle of Waterloo and the subsequent general peace defeating this ambition, he went to Paris, and there, under Roux, Dupuytren, Dubois, Larrey, and other eminent surgeons (of whom he wrote in letters still extant life-like descriptions), continued his medical studies. On his return from the Continent he became house-surgeon to the Westminster Hospital, and at the same time attended the School of Medicine in Great Windmill-street. Thus specially qualified for the practice and teaching of surgery, Mr. Walker returned to Glasgow, intending to become a candidate for the Chair of Surgery which was shortly to become vacant. The success of his candidature was considered certain, but an attractive offer of a practice at Peterborough induced him to change his plans. He commenced practice at Peterborough in 1819, and the Chair of Surgery, on becoming vacant, was filled by his most intimate friend, Professor James Laurie. Mr. Walker speedily acquired the confidence alike of his medical brethren and the public, and was appointed the first surgeon to the Peterborough Infirmary—an office which he held for forty-three years.

In 1843, Mr. Walker added to his other qualifications that of M.D. of Edinburgh. Dr. Walker was a most successful surgeon, and although he himself wrote but little, the first hints of many a step in modern surgery are to be found in the note-books of the young men who were from time to time either his private pupils or house-surgeons to the Peterborough Infirmary. In his operations, as in all else he did, there was an utter absence of attempt at display. Thorough anatomical knowledge, a skilful hand, a clear judgment, and a cool temperament ensured success. He was an excellent lithotomist, and operated eighteen times successfully before losing a case. Fond of mechanics, and himself a practical adept, he continually devised new surgical appliances and methods of treatment. As a physician Dr. Walker was no less successful than as a surgeon, early discarding the indiscriminate and empirical use of remedies. He continued in full practice until the year 1876, when a severe illness laid him aside for some months, and he never resumed active work. He was a Justice of the Peace for the Peterborough division of the County of Northampton, and for some forty years served as an active and efficient magistrate, filling also various public offices, until partial deafness made him doubt his own capacity for business. He leaves fifty-five direct descendants, of whom two sons and a grandson are members of the profession. An early riser, temperate in his habits, taking pleasure in strong physical exercise, he occupied his leisure in gardening, carpentering, and drawing. He was a great reader, and retained his vigour of intellect and body almost to the last. When in his eightieth year, he, with his friend Mr. O'Connor of March, Cambs., went at night on foot across a fen drove and fields too bad for wheels, and in a cottage by the light of a tallow candle performed herniotomy.

The funeral took place on the 21st inst. at Peterborough, amid every sign of respect from the inhabitants.

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Medical News.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a recent meeting of the Court of Examiners, the following was admitted a Fellow of the College:—

Joseph Byrne.

SOCIETY OF APOTHECARIES.—The following gentlemen passed the examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise, on Dec. 23rd:—

Barton, G. A. Heston, Wenlock House, Burton-road, Kilburn.
Bidwell, Leonard Arthur, Lee-terrace, Blackheath.
Blenkinsop, Alfred Percy, Hilldrop-crescent, N.
Carvalho, Alberto Pedro de, M.R.C.S., Lidlington-place, Ampthill-square.
Fox, Geo. Martin, Oxford-street, Bilston, Staffordshire.
Harris, Edward Bernard, Alkham-road, Stoke Newington.
Housley, Philip Henry, Colebrooke-road.
Phillips, Thomas, Newcastle Emlyn, South Wales.
Slater, William Arnison, Green-lanes.
Vidler, Albert Edward, Magdala House, Rye, Sussex.

Passed on the 30th ult.:—

Cook, Edward Thomas, M.R.C.S., Southsea.
Jong, Edward Meyer de, Blackpool.
Walls, James, Wigan.

SCARLET fever is reported to be spreading rapidly in the locality of Treharris.

A LEGACY of £200, free of duty, left to the Leeds Infirmary by the late Mr. William Neal, has recently been paid over to the treasurer of that institution.

THE QUEEN'S JUBILEE is to be recognised at Bristol by the founding of a Maternity Hospital, and at Folkestone by the erection of a public hospital.

MEATH HOSPITAL, DUBLIN.—It has been determined by the governors to build a special ward, to be called the "John Barber Ward," as a token of appreciation of the late Mr. Barber's generosity.

ON the 21st ult. a property owner at Ramsgate was summoned for neglecting to connect his property with the sewers. The magistrates ordered the nuisance to be abated.

A ROMAN Catholic Home for Female Inebriates was formally opened at Hammersmith on the 21st ult., the premises recently occupied at Kilburn having proved unsuitable.

AN inquest was held at Sutton Coldfield on the 23rd ult., on the body of Mr. Charles Barlow, surgeon, whose death occurred suddenly on the 21st. Medical evidence having been given to the effect that death had resulted from syncope, the jury returned a verdict accordingly.

KILMARNOCK FEVER HOSPITAL AND INFIRMARY.—The annual meeting of the subscribers to this institution was held on the 16th ult. The annual report showed an income for the year of £1521 and an expenditure of £1528, which, with the deficit of previous year, left a balance due to the bank of £349. The invested capital amounts to £5605.

AT a meeting of the Board of Management of the Manchester Royal Infirmary on the 23th ult., it was resolved that one of the wards of the Institution be named the "Thomas Rose Ward," to perpetuate the name of Alderman T. Rose, from whom the hospital recently received a munificent legacy.

PROSECUTION UNDER THE FOOD AND DRUGS ACT.—At the Dale-street Police-court, Liverpool, last week two grocers were fined each 10s. and costs for selling adulterated pepper. The foreign ingredient—a mixture termed "poivrette," which was found in one case to the amount of 65 per cent., and in the other to 55 per cent.—appeared to consist of ground nutshells and olive-stones.

AT the Greenock Police-court, on the 18th ult., a lodging-house keeper was fined 10s., with the option of going to prison for seven days, for neglecting to report to the sanitary inspector the presence on her premises of a child who was suffering from enteric fever, although she had been warned to do so by a medical man.

"THE VALUE OF ANALYSIS."—Dr. Thomas Stevenson has sent in his resignation of the office of analyst for Bedfordshire in consequence of the Town Council having tacitly declined to take any further action in respect of the late dispute regarding the analysis of a sample of beer. The resignation has been accepted.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

DUNLOP, G. H. MELVILLE, M.D., M.R.C.P.E., has been elected an Extra Physician to the Royal Edinburgh Hospital for Sick Children.

DUTT, A. C., B.A.Cantab., L.S.A., has been appointed Resident Medical Officer to the Morpeth Dispensary.

DOUTY, JOEL HARRINGTON, M.R.C.S. (late Senior Assistant Medical Officer to the Worcester County Asylum), has been appointed Medical Superintendent of the Berks County Asylum, vice R. B. Gilland, M.D., resigned.

HOVELL, DENNIS DE BERDT, F.R.C.S.E., has been appointed Consulting Surgeon to the London Orphan Asylum, Watford, Herts.

HUDSON, LEOPOLD, M.R.C.S., L.R.C.P. Lond., has been appointed Pathologist and Curator of the Museum to the Middlesex Hospital.

HURLBUTT, SPENCER, M.R.C.S., L.R.C.P.Lond., L.S.A., has been appointed Assistant Medical Superintendent and Dispenser to the Fulham Union Infirmary, Hammersmith, W., vice H. Bamber, M.B., C.M., resigned.

LLOYD, JOHN JENKIN, L.R.C.P., &c., has been appointed Medical Officer to the Prince of Wales Lodge of Oddfellows, Llanelly.

LOCKE, GEORGE, M.R.C.S., L.R.C.P.Ed., L.S.A., has been appointed Medical Officer to the Dalston and Haggerstone Branch of the Metropolitan Provident Medical Association, vice Towne, resigned.

MORGAN, WILLIAM PRINGLE, B.A., M.B., B.Ch. Univ. Dub., has been appointed Medical Officer and Public Vaccinator to the Seaford District of the Eastbourne Union, vice Buckmaster J. Tuck, M.R.C.S., L.S.A., J.P., deceased.

PEARSON, RICHARD, M.R.C.S., L.R.C.P.Lond., has been appointed Junior Assistant House-Surgeon to the Hull Royal Infirmary.

PRAEGER, B. A., L.F.P. & S.Glas., L.S.A., has been appointed Surgeon to the Vancouver Coal Company's Collieries at Nanaimo, British Columbia.

Births, Marriages, and Deaths.

BIRTHS.

CARTER.—On the 24th ult., at Dilkusha, Lucknow, the wife of Surgeon-Major Sidney H. Carter, M.B., Army Medical Staff, of a daughter.

MACLEHOSE.—On the 17th ult., at The Croft, Sevenoaks, the wife of Norman M. MacLehose, M.B., of a son.

MEYERS.—On Nov. 16th, at Rushworth, Victoria, Australia, the wife of Herbert Henry Meyers, M.R.C.S., L.R.C.P., of a son.

PIGEON.—On the 26th ult., at 6, Albion-street, Hull, the wife of Henry W. Pigeon, M.A., M.B., B.C., F.R.C.S., of a son.

PLATT.—On the 15th ult., at St. James's Lodge, West Hampstead, the wife of William H. Platt, L.R.C.P.Ed., L.R.C.S.I., of a daughter.

MARRIAGES.

HUNTINGTON — BOWLES. — On the 15th ult., at St. Mary's, West Kensington, William Huntington, M.R.C.S., L.R.C.P.Lond., to Charlotte MacLeod, daughter of Joseph Bowles, Esq., late of Sydenham.

MERCES—ROW.—On the 15th ult., at the Parish Church, Stoke Damerel, by the Rev. W. H. Allin, James Merces, M.R.C.S., L.R.C.P.Lond., of Drayton-park, Highbury, to Florence Everard, seventh daughter of the late Fred. Row, M.D., J.P., of Devonport.

MORTON—HALL.—On the 16th ult., at St. Paul's Church, Edinburgh, John Morton, M.D., L.R.C.S., L.R.C.P., to Agnes, only daughter of the late John Hall, Esq., of Birmingham.

MURRAY—MATHESON.—On the 29th ult., at 25, Abercromby-place, Edinburgh, by the Rev. Alexander Whyte, D.D., Free St. George's Church Edinburgh, assisted by the Rev. Donald Murray, Free Church Tarbat, Ross-shire, father of the bridegroom, Donald Roderick Murray, M.B., C.M., Admiralty Surgeon and Agent, Leith, to Johanna (Bunty), daughter of the late Robert Matheson, Esq., of H.M. Board of Works, Edinburgh.

REEKS—THORNTON.—On the 23rd ult., at the Cathedral of the Holy Trinity, Gibraltar, by the Ven. Archdeacon Govett, assisted by the Rev. D. Nickerson, Chaplain to the Forces, John Reeks, M.R.C.S.E., &c., of Forest-gate, Essex, to Mary Rosa, elder daughter of Henry Thornton, Esq., of Ashtead Cottage, Gibraltar.

DEATHS.

BELL.—On the 14th ult., at his residence, Merlin, Eastbourne, William Bell, M.D., L.R.C.S.I., in his 83rd year.

DICKINSON.—On the 27th ult., at 162, Bedford-street, Liverpool, Annie, the beloved wife of Edward H. Dickinson, M.A.Oxon., M.D.

GREAVES. — On the 10th ult., at Burton-on-Trent, George Greaves, L.S.A., in his 83nd year.

GROVER. — On Christmas Day, suddenly, at St. Anne's, Lewes, John Pollington Grover, M.R.C.P.Ed., M.R.C.S., L.S.A., aged 38.

NANKIVELL.—On the 24th ult., at Ashley Lodge, Torquay, Chas. Benjamin Nankivell, M.D., aged 81.

TAYLOR.—On the 17th ult., at 5, Ashley-road, Bristol, Frank Taylor, M.R.C.S., L.S.A., late of Redcliff, Bristol, aged 30.

TRAILL.—On the 10th ult., at North-street, St. Andrew's, Fife, William Traill, M.D., of Woodwick, Orkney, aged 68.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

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Medical Diary for the ensuing Week.

Monday, January 3.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesdays, same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. J. Langdon Down: On some of the Mental Affections of Childhood and Youth (Lettsomian Lecture).

Tuesday, January 4.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 1.30 P.M. Skin Department, Mondays and Thursdays, 9.30 A.M.
ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Prof. Dewar: The Chemistry of Light and Photography (adapted to a juvenile auditory).
SOCIETY FOR THE STUDY AND CURE OF INEBRIETY.—4 P.M. General Quarterly Meeting. Mr. Tudor Trevor: The prevailing Indifference to Inebriety.
PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Annual General Meeting for election of Officers and Council. Mr. Eve: Multiple Cavernous Angeiomata in Deformed Leg.—Dr. Griffith: Extra-uterine Fœtation.—Mr. Butlin: Melanotic Sarcoma of Breast.—Dr. Carrington: A case of Recovery from Tubercular Meningitis.—Dr. Wiglesworth: Peripheral Neuritis in Raynaud's Disease.—Dr. Bruce Clarke: Subperitoneal Rupture of Bladder. Card Specimens:—Mr. Targett: Congenital Deformity of Lip.—Mr. Eve: (1) Multiple Painful Lipomata of Arms; (2) Diffuse Unilateral Papilloma of Tongue.—Mr. Charters Symonds: Hydatid of the Breast.

Wednesday, January 5.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesdays and Thursdays, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; and on Friday, 2 P.M.; and Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M.; Saturday, same hour.

Thursday, January 6.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Prof. Dewar: The Chemistry of Light and Photography (adapted to a juvenile auditory).
HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Dr. T. Morton: The Analogy between Croup and Asthma.—Dr. Goodhart: Cases of Peritonitis.—Dr. Blenkinsop: Some remarks on Cancer and its Treatment.

Friday, January 7.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—8 P.M. Dr. Blenkinsop: Phthisis and its Treatment.—Dr. Seymour Taylor: The Etiology of Phthisis, and its Treatment from a Hygienic Standpoint.—Mr. Bruce Clarke: The Operative Treatment of Intercurrent Disease in Phthisical Patients.—Mr. H. Percy Dunn: Card Specimens of Pulmonary Tuberculosis.—Dr. P. S. Abraham: Specimens of the Tubercle Bacillus, and Microscopical Sections of Tubercular Organs in Man and the Lower Animals.—Messrs. Wright and Co.: An Exhibition of Oro-nasal Inhalers, Sprays, and Instruments.

Saturday, January 8.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Prof. Dewar: The Chemistry of Light and Photography (adapted to a juvenile auditory).

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, December 30th, 1886.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Dec. 24	29·63	W.	40	39	...	46	37	...	Overcast
,, 25	29·94	W.	39	37	...	42	31	·33	Fine
,, 26	29·90	E.	40	39	...	41	34	...	Raining
,, 27	29·75	N.	36	35	...	41	33	1·04	Overcast
,, 28	29·88	W.	40	40	...	42	34	...	Overcast
,, 29	29·89	W.	40	38	...	44	35	...	Overcast
,, 30	30·30	N.E.	34	33	...	...	32	...	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

HEALTH OF THE UNITED STATES ARMY.

THE annual report of the Surgeon-General of the United States Army for 1885 shows that the American soldiers, like the greater part of the rest of the world, were unusually healthy during that period. The actual number of admissions to sick was 32,990, or 3839 less than for the preceding year. Compared with the average rate for ten years preceding, the admissions were about one-fifth less. A greater proportion of invalids was furnished by troops under thirty-one years of age, while up to the age of twenty-five the rate proved so much above the mean for the whole army that the Surgeon-General states it may be fairly questioned whether the services rendered by these young men are equal to the cost of their maintenance. Men of Irish birth furnished the highest mortality rate, or 7·9 per 1000; the English stood next, and the Germans third.

H. W. Verdon, M.D., and *W. Gibson Bott, L.R.C.P., M.R.C.S.*—Our correspondents' letter arrived too late for publication this week.

Mr. E. M. Harwood is thanked.

VACCINE LYMPH IN TROPICAL CLIMATES.

To the Editors of THE LANCET.

SIRS,—At the request of Bishop Smythies in E. Central Africa—lat. 4° to 15° S.—I would ask you to give me space in your columns to solicit information as to the best way of preserving and transmitting vaccine for use in that tropical climate. We send out quantities every month, and have tried various kinds, and also methods of storing. The mail is monthly only, and the voyage is twenty-eight days to the nearest port, with a fortnight further on the inland journey to our stations. Only quite a small percentage is any good on arrival. If any of our home authorities can help us to discover the right kind and method it will be a great boon, and of public advantage.

It may interest your readers to know that Archdeacon Foster, in lat. 5°, has lately vaccinated thousands by means of several assistants and one qualified medical man. He has kept a district round his stations free from small-pox, whilst the belt of the country just beyond is badly troubled with the disease. I will gladly give further information to any who care for it. I am, Sirs, yours faithfully,

The Universities' Mission to Central Africa, Delahay-st., S.W., Dec. 20th, 1886. WM. H. PENNEY.

*** If lymph has to be kept for a long period, it is best preserved in sterilised tubes, and should be stored in the icehouse of the vessel conveying it to its destination. The cultivation of vaccine lymph at the place where it will be used gives a better promise of success than its transmission from England.—ED. L.

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THE MOST EXTENSIVELY QUOTED MEDICAL JOURNALS IN THE WORLD.

To the Editors of THE LANCET.

SIRS,—A short time ago I had the curiosity to count the number of extracts from foreign sources in some Russian journals which are remarkable for their copious and impartial *précis* writing from the medical journals of all other countries. The numbers were as follows:—THE LANCET, 12; *Brit. Med. Jour.*, 7; *La Semaine Méd.*, 7; *Deutsche Med. Zeit.*, 3; *Centralbl. für Chir.*, 3; *Med. Press*, 2; *Journ. of Cut. and Venr. Dis.*, 2; *La France Méd.*, 2; *Centralbl. f. Nervenheilk.*, 2. Besides these, there were single extracts from 1 English, 4 American, 1 Canadian, 6 French, 9 German, and 3 Italian medical journals. Again, I have just counted the quotations from non-Russian journals in the last four numbers of the *Vrach*, with the following results:—THE LANCET, 11; *Brit. Med. Jour.*, 7; *Münchener Medicin. Woch.*, 11; *Allgem. Med. Cent. Zeit.*, 8; *La Semaine Médicale*, 8; and a large number of other English, American, German, French, and Italian medical journals from 1 to 4 each. This all tends to show that though our English medical journals are less numerous than those of several other countries, our great weeklies are extensively read and appreciated abroad. *A propos* of weeklies, it is not, I suppose, generally known that there is in existence one (and one only, as far as I can learn) daily medical journal. I have before me a copy of *El Diario Médico-Farmaceutico*, published at Madrid; but I cannot say that I feel any longing for the time when it shall be instituted in England. There is more valuable and original matter in one number of THE LANCET than would probably be found in a whole year's issue of the *Diario*.

I am, Sirs, yours truly,

Woolwich, Dec. 22nd, 1886. THEODORE MAXWELL.

An Intending Candidate will find the information he desires in our last Students' Number, published in September, 1886.

THE RIDDELL FUND.

To the Editors of THE LANCET.

SIRS,—Will you kindly insert the enclosed list of subscriptions to the above fund, and oblige,

Yours truly,

Dec. 29th, 1886. J. WICKHAM BARNES.

Amount stated in the last issue of THE LANCET	£3	13	0
H. Snow, Esq.	3	3	0
Arthur E. Stokes, Esq.	1	1	0
Jas. Somer, Esq.	1	1	0
Dr. Henry Sheldon	1	1	0
F. A. Gray, Esq.	1	1	0
R. A. Clarke, Esq.	0	10	6
Joseph Hinton, Esq.	0	10	6
L. Tinnston	0	10	6
C. H. Johnson, Esq.	0	10	0
Name, Newcastle-on-Tyne	0	10	0
Amounts received by Dr. Woodman, Exeter:—			
Mark Farrant, Esq.	3	3	0
J. E. Whidborne, Esq.	£3	0	0
Dr. G. Bothwell	2	2	0
Miss Farmer	2	0	0
J. Woodman, Esq.	1	1	0
Dr. F. Nankivell	1	1	0
A. Canning, Esq.	1	1	0
J. Ackland, Esq.	1	1	0
G. C. Kingdon, Esq.	1	1	0
T. H.	1	0	0
T. B.	1	0	0
Friends	1	0	0
H. W. Gould, Esq.	0	10	6
J. T. Tucker, Esq., J.P.	0	10	0
— Pattinson, Esq.	0	10	0
W. C.	0	2	6

H. (Oulwich).—Our correspondent will find sufficient information in a little work on Diabetes by Dr. Philpot, published about a year ago.

PERSISTENT DIARRHŒA.

To the Editors of THE LANCET.

SIRS,—I recently had a case similar to the one described by your correspondent, "A. H.," in your last issue (p. 1209), but of so much more severe a type as to bring the patient in the course of two years into a condition of extreme prostration and emaciation. My patient—also a young lady—consulted me about six months ago, and she is now quite well. I prescribed the perchloride of iron in four-minim doses, and hydrochloric acid in ten-minim doses, after meals. The diet ordered was one of milk and farinaceous foods, at regular intervals of four hours only. When the diarrhœa had considerably abated and the patient was beginning to put on flesh, massage was used, on the recommendation of Dr. Whitehead of Manchester, with the effect of rapidly restoring the patient's flesh and strength.

I am, Sirs, your obedient servant,

Clapham-le-Moors, Dec. 22nd, 1886. C. R. ILLINGWORTH, M.D.

MATERNAL IMPRESSIONS.

To the Editors of THE LANCET.

SIRS,—Some difference of opinion exists in reference to the influence of maternal impressions on the formation of the fœtus in utero. The following case will at least show a reasonable *propter hoc*.

Mrs. [redacted], aged thirty-eight, was delivered of her first child minus one hand, the left forearm terminating at the wrist in a perfect stump. I questioned her directly after delivery as to any impression she may have received during pregnancy; but she could call none to mind. The morning, however, she remembered that two men presented themselves at the bar of an inn, of which she was then landlady, and showed her that [redacted] had lost a hand in some accident. At the time, she said, I gave her "quite a turn." She was then in about her second month of pregnancy. It is a curious coincidence, if nothing more.

I am, Sirs, yours obediently,

Dec. [redacted], 1886. J. G. BRADEN, M.R.C.S., L.S.A.

COMPLAINT AGAINST A PHYSICIAN IN JAMAICA.

A CORRESPONDENT writes reflecting on a medical practitioner for not responding to the call of a lady in her labour, on the ground that he was going to devote himself to black and brown women who appeared to appreciate him more. It is asserted that the physician in question was the family attendant, and that in consequence of his refusal, of which he had given no notice, the labour became protracted and complicated. We do not think that this can be a complete statement. It is incredible that a physician engaged to attend a lady in her confinement would make such a frivolous excuse for not doing so.

Mr. Clark Bell (New York).—It will always be impossible to define insanity, because it is a *negative* quality. Like disease, insanity simply means unsoundness. It is only in respect to special forms of disease or unsoundness there can be definitions.

M.D. Edin. will see by reference to our issues of Dec. 18th and 25th, pp. 1208, 1257, that the matter has been already noticed.

A PLAN OF CASE-MAKING.

To the Editors of THE LANCET.

SIRS,—Since entering into practice it has always been my wish to keep notes of every case treated; but I have found this very difficult to do, partly from want of time, and partly from want of a convenient method of taking and keeping the notes. After trying a great many plans I arranged, about a year ago, a case-sheet with convenient headings, and had a number printed. These I have used during the present year, and have found them very convenient. The cases being entered on loose sheets, it is easy to write them up at odd moments; the subdivisions make the writing of them more rapid, and the arrangement of them in portfolios renders reference to old cases easy. The sheets have the usual heading, with spaces for name, address, age, occupation, disease, result, date; also spaces for a letter and a number. The former is filled in with the initial of the surname, the latter with the number the case occupies amongst those of the same letter. Thus if the name is Smith, and it is the tenth case commencing with S, notes of which have been taken, the case-sheet is endorsed—Letter S, No. 10. On the first page, under the heading, are spaces for family history, personal history, present condition, and advice and treatment. The second page is occupied with progress of case, whilst the third and fourth pages are utilised either for diagrams, charts, or for any particulars which have to be given more fully than the first and second pages admit of. The sheets as filled are placed in a portfolio, which has separate compartments for each letter. Thus, if it is wanted to look up the case of Smith, it is only necessary to take the case-sheets out of compartment S. There are also compartments for unfilled case-sheets, blotting-pad, and diagrams and charts. The label outside the portfolio shows the period of time covered by the sheets within. I showed a specimen to Messrs. Daniellson and Co., London, and they have undertaken the publication of the case-sheets and portfolios.

I am, Sirs, yours faithfully,

December, 1886. E. MACDOWEL COSGRAVE, M.D.

CONSULTANTS.

To the Editors of THE LANCET.

SIRS,—Is it usual for a consultant in London to write a reply, direct a patient, advise and prescribe, asking and taking a guinea fee, when the patient is under the care of the ordinary family attendant, and when that gentleman has been in communication on several occasions with the said consultant in this particular case?

I am, Sirs, yours faithfully,

December, 1886. M.D.

*** The above action on the part of the consultant is not usual, and cannot be commended.—ED. L.

MEDICAL BURSARIES.

To the Editors of THE LANCET.

SIRS,—In your issue of Oct. 30th I see that some of our old graduates do not forget their *alma mater* even when far away. It is to be hoped that more will follow Dr. Gunning's example in founding bursaries for graduates of the University. There is only one thing that I, as an old university man, regret, and that is that the names of Syme and Spence were omitted in denominating the different bursaries. "Honour to whom honour is due," and no two men together ever did more, in my humble opinion, for clinical and practical teaching than those two.

I am, Sirs, yours faithfully,

Uniondale, Cape Colony. JOHN BROWN, M.B.

DEGREES FOR LONDON MEDICAL STUDENTS.

To the Editors of THE LANCET.

SIRS,—I have been rather surprised at the seeming apathy of the London medical students with regard to the movement which has been, and is being, made in their favour. I refer, of course, to the scheme for granting degrees in place of the present double qualification. As the present movement concerns all London medical students, does it not seem strange that they have never held a meeting among themselves to pass resolutions which would serve to strengthen the hands of those agitating on their behalf.

I am, Sirs, yours truly,

Dec. 27th, 1886. STUDENT.

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ACTION BY A MEDICAL MAN AGAINST AN INSPECTOR OF THE POOR AT KIRKWALL.

We are glad to see that the judge expressed his sense of the "technical, not to say harsh," way in which the Board of Birsay had treated their medical officer in terminating one engagement, without notice, to put him upon lower and less advantageous terms. The judge thought the board should pay their own expenses.

Mr. H. Anderson.—The observations which were made upon the Llandudno Cottage Hospital in our issue of Dec. 11th, 1886, were based upon the last report, issued that year, and also on a comparison between that and the one for the previous year.

G. P.—There is no invariable rule. It is better to follow the custom that has been in vogue in the locality.

T. P. R.—The question is discussed pretty fully in our present number.

EPITHELIOMA OF THE LIP REMOVED BY THE AID OF COCAINE.

To the Editors of THE LANCET.

SIRS,—Perhaps the following case of epithelioma of the lower lip, removed by the aid of cocaine, may interest some of your readers.

A man came to me a few days ago with a growth on his lower lip. It had been there for some time, but within the last month had rapidly increased in size. On examination I found it to be an epithelioma, and decided to remove it. He objected to the administration of chloroform; so I injected on either side of the growth a 4 per cent. solution of cocaine, and dusted the mucous membrane of the lip with hydrochlorate. After waiting ten minutes I removed the growth, and such was the good effect of the cocaine that I was enabled to take time and perform the operation with great exactness. The man expressed himself as feeling no pain, and the after progress was excellent.

I am, Sirs, yours truly,

Leighton Buzzard, Dec. 13th, 1886. JOHNSTONE HARRIS.

Dr. Glazier.—The Swiss authorities will not allow a foreigner to practise even amongst his own countrymen in Switzerland without passing the State examination at Bern or Geneva; and this is by no means a mere matter of form.

Caligraph.—Our correspondent should consult his ordinary medical attendant. We do not give advice.

J. R.—We regret we cannot satisfy our correspondent. The data for a reply are wanting.

E. S. had better address the author named.

INCOME-TAX ASSESSMENT.

To the Editors of THE LANCET.

SIRS,—Will you allow me to suggest to your readers who may be dissatisfied with their income-tax assessment that they should apply to the Income-tax Repayment Agency, 16, Artesian-road, W. Acting upon advice received therefrom I have lately recovered £7 8s., and obtained a lower assessment.

I am, Sirs, yours faithfully,

December 24th, 1886. S. W.

Viator.—So far as we are aware, Dr. Fattorini is the latest Italian writer on the probable causes of enteric fever in Rome. That author, in a comparatively recent essay, laments the abolition of the old cloacæ, and attributes the existence of typhoid in the Eternal City to the introduction of the English watercloset system.

R. C.—Such breaches of good taste are often to be attributed to the enthusiasm of injudicious friends.

ACTION OF DRUGS IN ALBUMINURIA.

Dr. Robert Saundby writes, in reference to our annotation on this subject last week, that the solution of bitartrate of potash employed was *half an ounce* to a pint, not an ounce and a half, as there stated.

J. C. is referred to our advertising columns.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir Andrew Clark, London; Mr. Savory, London; Mr. T. P. Teale, Leeds; Dr. N. Kerr, London; Mr. Barlow, London; Dr. Elliott, Andover; Dr. W. Pearce, London; Dr. J. Williams, London; Mr. Harrison, Clifton; Mr. Wigmore, London; Mr. Fernandez, Perim; Messrs. Mottershead and Co., Manchester; Mr. A. Jackson, Sheffield; Messrs. Harris and Co., Birmingham; Mr. Cowan, Glasgow; Mr. McGruer; Dr. Wesley Mills, Montreal; Mr. O'Neale, St. Leonards-on-Sea; Messrs. J. and H. Grace, Bristol; Mr. Patwardhana, Poona; Mr. Clark Bell, New York; Mr. Spitzly, Paramaribo; Mr. Boyd, Wandsworth; Mr. Martyn Clark, Amritsar; Mr. Tower, Ipswich; Mr. S. N. Bruce; Mr. Burgess, Manchester; Mr. Somerville, Edinburgh; Mr. Grimsley, St. Asaph; Mr. Leighton, Cheltenham; Mr. Affleck, Manchester; Messrs. Battle and Co., London; Mr. Denman, Beaconsfield; Messrs. Howlett and Son, London; Mr. Somerville, Lenham; Mr. Logan, Newcastle-on-Tyne; Mr. Donald, Inverness; Dr. Lucas, Notting-hill; Mr. Parry, Bagillt; Mrs. Hill, Salford; Mr. Spiers, Tottenham; Dr. Bower, Bedford; Mr. Weir, Hanley; Mr. H. W. Freeman, Bath; Mr. Wickham Barnes, London; Prof. Tricomi, Naples; Mr. Newington; Messrs. Lee and Nightingale, Liverpool; Mr. W. Coates, Manchester; Dr. Sinclair White, Sheffield; Dr. Murphy, Sunderland; Messrs. Macalister and Co., Liverpool; Dr. Percival Hunt; Mr. Burns, Ipswich; Dr. Mair, Bayswater; Dr. Fitzsimons, Bayswater; Mr. Hill; Messrs. Slater and Co., Accrington; Dr. Buckle, Storrington; Mr. Wheeler, Manchester; Mr. Mackney, Oban; Mr. Craske, Kentish-town; Dr. Gresham, Los Angeles; Mr. Murlin, Sutton; Dr. Piesse, Fulham; Dr. Dale, King's Lynn; Mr. Etherington, Ipswich; Mr. Birchall; Messrs. Oliver and Boyd, Edinburgh; Mr. Hopkinson, Notts; Mr. Grayling, Forest Hill; Mr. F. Page, Newcastle-on-Tyne; Messrs. Burgoyne and Co., London; Mr. Wesley Mills, Montreal; Delta, Gallaboola; Experientia docet; Principal, Kew; L.R.C.P.; General Practitioner; Justitia; S. W.; M.D.; Scaphoides; Surgeon.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Laffan, Cashel; Dr. Caird, Lochgoilhead; Mr. Poole, Maldon; Dr. Taylor, Bristol; Dr. Smart, Bombay; Mr. Pickles, Leeds; Dr. Castle, Cape of Good Hope; Mr. Lay, Northampton; Dr. Hickey, Auburn, New York; Dr. Row, Highbury; Dr. Heelas, Bonchurch; Dr. Spicer, North Molton; Mr. Gibson, London; Mr. Hoare, Birmingham; Mr. Ricker, St. Petersburg; Mr. Unsworth, Liverpool; Dr. McHeath, Wickham Market; Mr. G. Lawson, London; Mr. Pearce, Lewes; Dr. Waters, Liverpool; Mr. Gibbon, London; Mr. Bowser, London; Dr. Winslow, Hammersmith; Mr. Griffiths, Lampeter; Dr. Newell, Macclesfield; Mr. Churchill, Carnforth; Mr. Gell, Macclesfield; Dr. Owens, Long Stratton; Mr. Beaumont, Kentish-town; Miss Larritt; Messrs. Lee and Martin, Birmingham; Dr. Gresham, California; Mr. Plummer, Thame; Dr. Eberle, Thirsk; Mr. Spicer, Tottenham; Mr. Hacker, Belfast; Mr. Pigeon, Hull; Dr. Davies, Wrexham; Mr. Williams, Macclesfield; Isabella Horrocks, Philadelphia; F. M., Liverpool; H. C.; Medicus, York; Cantab.; H., Brighton; Surgeon, Halifax; Alpha, Eastleigh; C. W.; L. S. C.; S. B., Kinnetey; D. B., Newcastle-on-Tyne; J. M., London;

Staffordshire Sentinel, Liverpool Courier, Advocate of India, Montreal Daily Herald, York Herald, Birkenhead Weekly Albion, &c., have been received.

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NOTICE.—Advertisers are requested to observe that it is contrary to the Postal Regulations to receive at Post-offices letters addressed to initials only.

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Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

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Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

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Lecture

ON THE

ÆTIOLOGY OF CONSTITUTIONAL DISEASES OF THE EYE.

Being an Introduction to a Systematic Course of Lectures on Ophthalmic Medicine and Surgery, delivered in University College, London,

BY JOHN TWEEDY, F.R.C.S. ENG.,

PROFESSOR OF OPHTHALMIC MEDICINE AND SURGERY IN UNIVERSITY COLLEGE, AND SURGEON TO THE ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.

GENTLEMEN,—Very little experience in the observation of diseases of the eye is needed in order to discover that while some of these diseases are strictly local or due to external causes, there are others which are associated with morbid constitutional states and apparently dependent thereon. Contagious ophthalmia, the effects of injuries, errors of refraction, and presbyopia are common examples of local affections; and the ophthalmia of strumous children, the keratitis, iritis, and choroiditis which occur in syphilis, the retinitis met with in kidney disease, the cataract of diabetes, are equally common examples of ocular lesions associated with abnormal constitutional states. A still closer observation discloses the additional fact that not only are the grosser parts of the eye, such as the cornea, the iris, the choroid, the retina, or the lens, affected in constitutional disorders, but that particular portions of these parts are implicated in particular constitutional conditions. The form of inflammation of the cornea which is so common in strumous children is altogether different, both as regards its site and the mode of its manifestation, from that form of inflammation which is met with in the subjects of hereditary syphilis; and both these in turn differ from the special form of keratitis which occurs in sympathetic ophthalmitis, and in some cases of toxæmia, septicæmia, Bright's disease, and gonorrhœal rheumatism. Similar differences are observable in the various forms of iritis, choroiditis, and retinitis associated with different morbid diatheses.

What is the explanation of these coincidences and these differences? The answer to this question is by no means so easy or so obvious as might at first sight appear. But the inquiry suggested by the question is worth undertaking, because the conclusions at which we may arrive will not only explain the ætiology of the constitutional diseases of the eye, but will also throw light upon the nature and origin of other localised foci of constitutional diseases.

I may perhaps so far anticipate the result of the inquiry as to state that I believe the association of ocular lesions with general diseases is determined partly by anatomical connexions, partly by histological peculiarities of the textures severally involved, but chiefly by their embryological origins, relationships, and affinities.

The eye is peculiarly adapted for such an investigation as this. The optic nerve and retina are genetically direct and very early outgrowths from the brain; and physiology and pathology have both demonstrated what might have been *a-priori* anticipated, that there is an intimate correspondence between the development and functions of the brain and those of the optic nerve and retina. This correspondence is further increased by the communication which exists between the lymph spaces of the eye and those of the brain and spinal cord. These embryological and anatomical conditions not only account for the occurrence of neuro-retinitis and other ocular changes in diseases or injuries of the brain and spinal cord, but also for the concomitancy of retinitis pigmentosa, coloboma of the retina and choroid, microphthalmia, and other congenital defects of the eye, with faulty development and growth of the brain.

The eyeball and its appendages draw their blood-supply from two main sources—the internal and the external carotid [illegible] by means of the bloodvessels and the fluid which [illegible] or other morbific materies [illegible] blood current into the eye. Particles of fat, clots, débris, parasites, and emboli may block the central artery or other vessels, or be deposited in other parts; or hæmorrhages may occur in the retina or choroid in those states of altered blood, or altered relations between the blood and the vascular tunics, which occur in Bright's diseases, in leucocythæmia, in diabetes, &c.

Of the twelve pairs of cranial nerves, the eyeball and its appendages receive the whole or parts of six, as well as many fibres of the sympathetic, which influence the nutrition of the eye, controlling the size of the bloodvessels, and regulating the size, equality, and mobility of the pupil. It is not surprising, therefore, that the eye is very susceptible to all those influences, healthy and morbid, which affect the nervous system generally, or the special innervating apparatus of the eye, either at the centres, the periphery, or in any part of its course. Paralysis or spasm of the muscles of motion, of accommodation, or of the iris, with the attendant phenomena of strabismus, diplopia, myosis, mydriasis, nystagmus, ophthalmoplegia, pain, photophobia, neuralgia, anæsthesia, and some forms of trophic changes, such as inflammation and ulceration, are some of the more common neuropathic ophthalmic lesions associated with cerebro-spinal disease or with general diseases which especially affect the nervous system.

There is another factor in the ætiology of constitutional diseases of the eye which has not received, as far as I know, the consideration and attention which it deserves. There is a constant relationship between the differentiation of the muscular layer of the body and that of the nervous system. Muscles imply the existence of nerves, and throughout the whole animal kingdom an intimate connexion may be observed between the power of locomotion and the sense of sight. Sessile animals do not, as a rule, possess visual organs; while free and active animals, even of lower organisation, have well-marked eyes. Some organisms which, like the medusæ, have an early sessile stage and are then eyeless, acquire ocelli when they assume a free mode of life; other organisms, like young barnacles and balani, in passing from a free to a fixed state lose their eyes with their other higher sense organs. It is, at least, noteworthy that in most cases of locomotor ataxy the sense of sight is sooner or later lost. Indeed, not infrequently blindness occurs very early, and before the appearance of actual ataxia.

So that we see the eye is not a separate and autonomous organ, living, as it were, a life apart. Nor is it a mere appendage or accessory convenient and advantageous to the rest of the organism. On the contrary, it is in the closest relationship with the rest of the body, and participates in its various moods. This inter-dependence of the several organs of the body is at once an acknowledged fact in physiology and pathology and the basis of the doctrine of evolution.

The conditions which I have already enumerated are, however, only some of the factors in the production of so-called constitutional diseases of the eye; they are not all the factors. They are, indeed, only accidentals, as it were; the essential factor being the nature and constitution of the tissue-elements themselves.

No other organ of the body contains so many different kinds of histological elements or textures of so high a quality as the eye. Not only are there the coarser constituents of bloodvessels, nerves, muscles, and fibrous tissues, but there is in the cornea a rich network of protoplasm and lymphatic channels, in the choroid a collection of peculiar pigment cells, in the crystalline lens specialised transparent fibres, and in the retina some of the most highly differentiated tissue-elements in the whole body. It is, I repeat, the number and complexity of the different kinds of tissue-elements and their kinship with many systems of similar elements distributed throughout the body which render the eye so apt to participate in constitutional diseases.

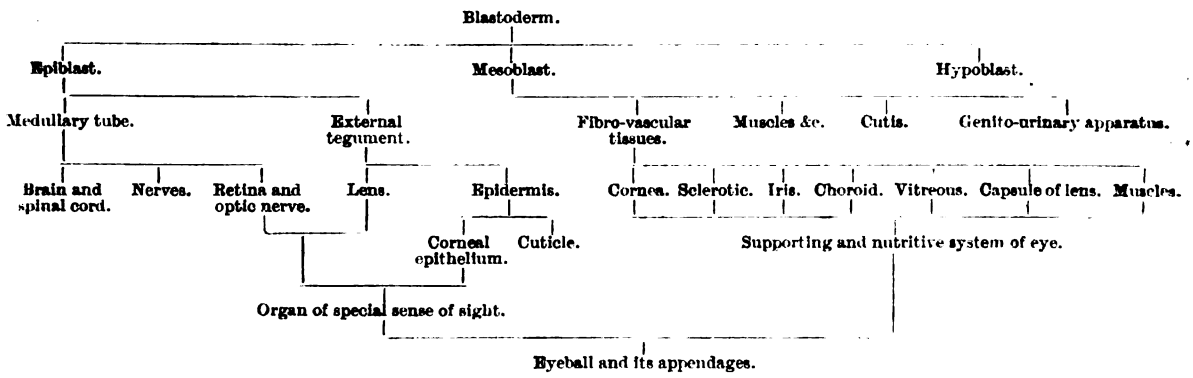
Healthy life and nutrition depend upon two conditions first, the inherent properties of the organism; and second, the environment. So long as there is a sufficient correspondence between the organism and its surroundings health is fairly maintained, but when these relations fall out of correspondence, disease, decay, or death takes place. No organism, whether unicellular or multicellular, is endowed with the power of indefinite life. In complex organisms of even the best ancestry it is scarcely likely that all the systems of tissue-elements derived from the division of the parent cell receive at birth exactly the same share of vital

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energy (Ziegler). Other things being equal, the less favoured cells will succumb sooner than the more favoured to all those external agencies which are antagonistic to cell life. If these agencies exist as morbific qualities of the blood, the changes will, in accordance with what is called the law of selective assimilation, affect all the faulty elements in whatsoever parts of the body they may be located. Mr. Herbert Spencer has generalised the facts of selective assimilation somewhat as follows: "Just as the growth of an entire organism is carried on by abstracting from the environment substances like those composing the organism, so the production of each organ within the organism is carried on by abstracting from the substances contained in the organism those required by this particular organ; like units tend to segregate."

The law of organic assimilation prevails in pathological states no less than in physiological, and just as in healthy nutrition the structural elements of the body select from the nutritive particles and fluids circulating round them the pabulum proper to their composition and constitution, so in pathological states kindred elements in all parts of the body will be affected in a similar way. This is demonstrably the case in so-called blood diseases; the altered physical, chemical, or vital properties of the blood manifest themselves in local lesions of textures similar in constitution or function. The similarity of constitution is ultimately determined by the embryological origin of the tissues.

The blastoderm consists of three layers, called the epiblast, the mesoblast, and the hypoblast. From the epiblast are developed the brain, spinal cord, and nerves, the retina and optic nerve, the crystalline lens, the epithelium of the cornea, the sense-organs, the enamel of the teeth, and the cuticle. From the mesoblast the osseous skeleton, muscles, bloodvessels, lymphatics, the muscular and fibro-vascular portions of the skin and of the alimentary canal, and the genito-urinary apparatus. The hypoblast gives rise to the epithelium lining the air passages, the alimentary canal, and the principal gland ducts, and cellular elements of the associated glands. (See schema.)



A glance at the accompanying schema will show that the retina and optic nerve are not only closely related to the cerebro-spinal system, but that they and it, together with the crystalline lens and the corneal epithelium, have also a kinship with the cuticle through their common origin from the epiblast. With this help we can understand the frequent association of zonular cataract with fits and other neuroses, and a deficiency of dental enamel. So also it will be seen that the stroma of the cornea, the sclerotic, the iris, choroid, vitreous, capsule of the lens, as well as the vascular and muscular tissues of the eye, have relationship with all the other textures of the body, including the genito-urinary apparatus, which are derived from the mesoblast. The eye has no elements derived from the hypoblast. Thus we see how a histological, physiological, and also a pathological relationship is established between the epiblastic elements of the eye and epiblastic tissues in the rest of the body, and between the mesoblastic tissues of the eye and all other mesoblastic tissues. All the textures of kindred origin retain a strong family likeness throughout their existence and behave more or less similarly in similar contingencies, in spite of differentiation of structure and specialisation of function. The qualities which they have in common manifest themselves in disease as well as in health.

In applying this doctrine to actual facts, it should be remembered that all the organs and tissues of the body are not indiscriminately affected in constitutional disorders, but that in each disorder the local lesions have determinate seats, and involve only tissues or organs of a particular kind. So it is with the constitutional diseases of the eye.

In elucidation of what I have stated, it may be mentioned that Waldeyer has pointed out that sections of the cornea treated with chloride of gold and carmine present three well-defined strata of different tints. The anterior layer comprises the corneal epithelium, the anterior elastic membrane, and the immediately adjacent portions of the stroma; the posterior includes Descemet's membrane and the adjoining portions of the stroma; while the intervening layer consists of the principal mass of the proper substance. This experience, taken in conjunction with the observations of Manz, Langerhans, and others on the development of the cornea, has led Waldeyer to designate these layers respectively, cutaneous, choroidal, and scleral. As already indicated, it is certain that the anterior layers of the cornea are almost, if not entirely, epiblastic, and are therefore related very closely with the epidermis and superficial layers of the dermis, and more remotely with the cerebro-spinal system, and with the lens. The rest of the cornea is mesoblastic, the posterior layer having acquired the character and properties of a serous membrane, and being at an early stage of embryonic life apparently continuous with the choroid. It is an interesting fact that this chemical and embryological differentiation of the layers of the cornea is very closely imitated by the various forms of inflammation of the cornea. In strumous children cutaneous eruptions are common; hyperæmia, eczema, herpes, and impetigo about the lids, lips, and nose being almost invariable concomitants of the so-called strumous ophthalmia. The essential lesion in this form of ophthalmia is a vesiculo-pustule (*phlyctenula*) on the cornea, or at its margin, or on the circumcorneal zone of conjunctiva. The phlyctenula involves only the epithelial and anterior elastic layers of the cornea, or portions corresponding to those affected in the skin. So, likewise, in inflammation of the cornea dependent upon neuropathic causes, as disease of the fifth nerve, or ophthalmic herpes, the corneal change is here also primarily superficial—the epiblastic portion. In the keratitis of hereditary syphilis, on the other hand, it is the stroma of the cornea and the posterior layer which are involved—the mesoblastic portions. Now, syphilis is essentially a disease of mesoblastic textures; and those portions of the cornea, and indeed of the whole eye, which are affected in syphilis will be found to be of mesoblastic origin. The notched, pegged, and stunted teeth of inherited syphilis depend not upon faults of the epiblastic enamel, but upon those of the mesoblastic dental papillæ. The epiblastic portions of the eye may become secondarily involved; but here, as in the brain and spinal cord, the lesion begins in the mesoblastic elements—bloodvessels, &c. Inflammation of the posterior layer of the cornea (which is called by the various names—keratitis punctata, aquo-capsulitis, and serous iritis) will in the majority of cases be found to be associated with constitutional states in which inflammation of serous membranes are apt to occur—namely, rheumatism (simple or gonorrhœal), Bright's disease, septicæmia, &c. Corresponding differences and coincidences could easily be pointed out for all other parts of the eye, and for

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all its constitutional diseases, but these must suffice as general illustrations.

In conclusion, however, I would suggest that the doctrine which I have propounded is available not only for the purposes of ætiology and nosology, but also for those of practical and didactic therapeutics. Many drugs and other remedial agents are already known which appear to have a special affinity for particular tissue-elements, and as therapeutical science advances their number will increase. The phenomena of "selective assimilation" would seem to indicate in localised lesions of constitutional diseases the exhibition of those remedies which are known or believed to influence the nutrition and action of kindred elements in any and every part of the body.

Harveian Lectures
ON
CANCER OF THE UTERUS.

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LECTURE I.

(*Concluded from page 9.*)

CASE 4.—The foregoing two cases illustrate the tendency of the disease to extend along the vaginal surface of the portio rather than up into the cervical canal; the next case shows this tendency in a still more marked manner.

The patient was married, forty-seven years of age, and had seven children. She had had some pain and discharge for three months, but no hæmorrhage. Menstruation was regular. The body and cervix of the uterus were enlarged but not harder than natural. There was an ulcer on the left commissure about the size of a shilling; its base and edges were not indurated. The external orifice was open, and admitted the tip of the finger as far as the first joint, and the palmæ plicitæ felt swollen. The lips were not red, but of a slightly livid hue, and there were a few points in the anterior like suppurating follicles. A small portion of the anterior lip at the os externum was removed for diagnostic purposes, and in a fortnight afterwards induration was felt in the anterior vaginal vault, without other recorded changes in the cervix. I would observe here that induration, which is so frequently mentioned as a sign of cancer of the uterus, was not present in these cases. Indeed hardness does not appear to be marked until the cellular tissue is involved in the disease. Under the microscope the flat epithelium on the surface was found to be intact, and its deeper strata sent processes into the tissues beneath and formed therein cancerous masses. It was a typical case of squamous epithelioma. The depth to which it reached could not be ascertained, inasmuch as only a small piece was removed for diagnostic purposes. The disease, however, clearly spread towards the vaginal vault, for the connective tissue in that situation became soon involved.

CASE 5.—This case is one of great interest, showing a further step in the progress of cancer of the portio. The patient was married and sixty-seven years of age. She was admitted into University College Hospital in March, 1886, with the following history: Thirteen years ago she was knocked down by a bale of goods, and almost directly afterwards she noticed that the womb came down. At first it used to go back of itself, but for the last two or three years the patient has had to return it herself. There has been occasional slight hæmorrhage for twelve months, but not much at a time. During the last three months she has become worse: there has been a continuous discharge—sometimes blood, sometimes matter. She used to suffer from a yellow discharge before she began to bleed. She could always return the womb until a few days ago, when it came down during the act of defecation, which was followed by a profuse hæmorrhage. She has lost flesh rapidly during the last six weeks. She began to menstruate in her fourteenth year; was regular every four weeks, the flow lasting five days without pain. The catamenia ceased about forty-five. She was married at twenty-eight, and has had one child and two miscarriages. There is no history of cancer or tumours in her family. There was marked rheumatoid arthritis of the inter-phalangeal joints and of the metacarpo-phalangeal of the thumbs, but not of the other digits; the wrist and elbow were also affected. The joints of the lower limbs were not affected in any marked degree. The vagina was inverted; the mucous membrane of it was pale and horny. The cervix was outside the vulva, and on the anterior part of it, and extending over the posterior half of the anterior wall of the vagina, was what appeared to be a large ulcer. This was red, and bled readily; its surface was not depressed, but the horny layer of the epithelium appeared to the naked eye to cease at its margin. The sound passed into the uterus for four inches. Temperature 99° to 100° F.; pulse 80.

An incision was made through the anterior vaginal wall about half an inch from the diseased surface, and the mass was dissected from the base of the bladder. The incision was carried round behind the cervix through the posterior wall of the vagina, and the cervix was amputated. On microscopic examination the stratified epithelium of the vagina was found thickened, and the superficial layer horny. On approaching the diseased part, the lower strata were proliferating and sending processes into the subjacent tissue. Advancing further into the disease, these processes increased in length, and cords, masses of cancer cells, and nests with horny cells in their centre were abundant. The disease terminated at the external orifice where the stratified epithelium ended; a few glands lined with columnar epithelium and a few closed follicles filled with secretion, and with their lining epithelium intact, were found in that situation. These were not involved in the cancer. In some places the stratified epithelium was very little thickened, while in others, where the disease was more advanced, it was more or less completely lost. The surface of the ulcer was generally tubercular. The disease was superficial, its greatest thickness being about three-fourths of an inch. Owing to the extrusion of the cervix and vagina through the vulva these parts were swollen and œdematous, and this naturally increased the apparent thickness of the diseased tissue.

CASE 6.—This patient, fifty-three years of age, married, was admitted into University College Hospital in May, 1884. She said that four years previously she had a slight discharge from the vagina, accompanied by pain, but had seen nothing since. Three weeks before, while in bed, she woke up with a severe dragging pain in the right inguinal region, which gradually worked round to the left hypochondriac region and then passed off. It lasted about half an hour, and left her prostrate and powerless. She had a similar attack the following night. She had had three such attacks up to the time of her admission into the hospital, one since. There was no vaginal discharge until May 7th, the day after her admission, when she observed a slight pale yellow discharge, which lasted for one day only. She had had some difficulty in passing her urine, especially when it had been retained for a long time, but there had been nothing unusual in this respect during the previous three weeks. She had suffered from nausea and eructations, dyspnœa on exertion, great depression of spirits at times which passed off after a good cry. Seventeen years ago she had pain in the supra-pubic region, but no vaginal discharge. Menstruation began in her fifteenth year, was regular every four weeks, lasting three or four days, moderate in quantity, with slight pain. It ceased at the age of forty-four. She was married at nineteen, and had four children during the first seven years of married life. She had had no miscarriages. Her labours were lingering and severe, but not instrumental. She nursed each of her children sixteen months. She had been stouter since she ceased child-bearing, but had lost flesh during the last twelve months, and had for the same period been nervous and irritable.

On admission she was well nourished, there being about one inch and a half of fat on the abdominal wall. The mucous membranes were well coloured. There was slight prolapse of the posterior wall of the vagina, and this wall was red and apparently ulcerated to within an inch of the skin of the perineum. The anterior wall seemed to be ulcerated to within half or three-fourths of an inch of the meatus urinarius; on the left side the ulcer was prolonged a little further along the wall of the urethra. At the apparently ulcerated part the vagina was greatly narrowed and its walls were rigid, so that the finger could be introduced only as far as the second joint. The lips of the cervix could not be felt. The vaginal walls were not fixed. The exami-

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nation caused slight bleeding. Examination by the rectum showed that there was no appreciable thickening of the posterior septum.

In October, 1884, she had a slight discharge of blood for the first time since the menopause, nine years and a half before. It lasted one day. She had a dragging pain before it came on. She had had free hæmorrhage since with clots, and constant pain in the stomach, shooting down the legs. Defecation had become difficult and the urine escaped involuntarily. Vaginal examination at this period showed much the same condition of parts as was found at the examination made six months previously. On examination by the rectum, however, the parts appeared to be thickened, and the mass in the situation of the uterus seemed to consist of three lobes, two of which were very distinct; the mass was movable; there was some thickening on the right side. The growth was scraped with a sharp spoon and the diseased tissue was found to extend backwards into the mass just mentioned. Temperature 99·4° to 99·6°F.

Specimens of the growing part as well as of the higher and evidently older portion of the disease were submitted to microscopic examination. Beginning on the healthy surface, the squamous epithelium was found to be normal. Proceeding backwards towards the disease, the deeper layers became thicker and thrown into the appearance of folds by the papillæ growing beneath, and in the diseased part these processes became longer and entered into the tissues beneath, and masses of epithelial cells were to be discovered in the vaginal wall. The tissues adjacent to the proliferating epithelium were infiltrated with nuclei and small cells. The superficial and horny layers of the epithelium were retained almost to what appeared to be the ulcerating part; there they became thinner and thinner and ceased altogether. The scrapings from the older portions of the growth consisted largely of fibrous tissue, with what appeared to be muscular fibre cells in bundles, which formed small irregular meshes or alveoli, containing abundant nucleated small cells often presenting a granular character. In some places well-defined spaces were seen filled with nucleated cells, variously shaped, but apparently epithelial in character. Sections of these spaces presented various forms; sometimes long string-like collections of cells were seen running from them, showing apparently that these were sections of altered epithelial cords which had grown into the stroma around.

CASE 7.—This patient was forty-one years of age, married, and had had three children and one abortion. She began to menstruate at thirteen, was regular every four weeks, the flow lasting four days, in moderate quantity, and before marriage being accompanied by pain. She was married at twenty-seven. Her first labour was severe; it lasted sixty hours, and was finally terminated by forceps. She had a flooding ten days afterwards. She kept her bed for a month, and had a bad getting up. She has had leucorrhœa for three months after the periods. Four days ago she had a flooding. There is no history of tumours or cancer in her family.

On examination the vagina was found to contain much purulent discharge. The cervix was red, angry-looking, and ulcerated. There was no swelling or induration around the uterus. The sound was passed for a distance of three inches. The cervix was amputated above the insertion of the vagina. The piece removed weighed 3oz. 1dr. It was of a conical shape, and measured two inches and a half from apex to base. The base measured an inch and a half from before backwards, and two inches and a half from side to side. On the lips was a kidney-shaped ulcer, the part corresponding to the pelvis of the kidney being on the anterior lip, which was less affected than the posterior. On the posterior lip the ulcer was an inch in depth, and it split the lip in its whole length into two layers. On the anterior lip the disease burrowed in its substance from the left to the right, and had the parts been left untouched it is probable that the anterior lip would have been split in the same manner as the posterior. In some places the edges of the ulcer were everted; in others they sloped somewhat abruptly towards the healthy surface. The margin for about one-sixth of an inch felt slightly raised; the floor was irregular. The external os was near the centre of the diseased mass, close to the part corresponding to the pelvis of the kidney. It was a slit-like opening. The most extensive destruction of tissue had taken place in the posterior lip. The disease was everywhere surrounded by what seemed to be healthy tissue. On slitting up the cervix, the mucous membrane of the canal was injected, but did not appear to be diseased. The amputation seemed to have been made through normal tissue. Temperature 100° to 101°F.

On examining the specimen microscopically the squamous epithelium on the apparently healthy surface was found irregularly thickened and the papillæ enlarged. Close to the diseased part there was a very marked thickening of its deeper strata, and small papillæ penetrated into it. Between this thickened part and the edge of the ulcer the surface epithelium was extremely thin, and at one point it appeared to have been entirely lost. This narrow space was occupied, not by indifferent tissue, but by cervical tissues somewhat altered by the presence of small cells in its substance; beyond this, again, were large strings of epithelium, and between these strings cords of cervical tissue or papillæ ran. Some of these cords or papillæ ran right to the surface, having their points bare and not covered by epithelium; the points of others were covered by a thick layer of cancerous epithelium, the papillæ not having yet penetrated through it; they were bounded on each side by a similar cancerous cord. This clearly shows the mode of growth in this case. There is no indifferent tissue. The cancerous cords are formed by the ingrowth of the surface epitheljum. Papillæ often break through this proliferating epithelium, and this gives rise in sections to the apparent want of continuity of the surface epithelium with the diseased epithelium. The disease was everywhere superficial, being not more than a quarter of an inch in depth at any point; but the whole of the excavation was lined by such a layer. The new growth appeared to have ulcerated almost as soon as it was formed. The mucous membrane of the cervix was healthy, except at one part close to the disease, where the columnar epithelium had grown into several layers. On its surface were many papillæ, with an erosion presenting large branching papilliferous glands. Between the glands and the cancer there was a distinct layer of healthy tissue. The growth was independent of the glands, although in many places it assumed a form having a central lumen, which suggested a glandular origin. The disease evidently began on the surface, and then took a very unusual course for squamous epithelioma by burrowing into the substance of the cervix and then running in a circle more or less in the substance of its wall, dividing the wall into two annular layers.

I have seen but one other case which presented conditions of cervix similar to this. In that case the cervix was split completely into two circular layers. The vaginal surface of the outer layer appeared healthy to the finger. In the course of a few days the inner layer fell off completely, leaving a great conical ulcer in the place of the cervical canal. No specimen was obtained in this instance for microscopic examination, and I am unable to state the exact nature of the cancer.

CASE 8.—The patient in this case, who was thirty-five years of age, was admitted into University College Hospital in June, 1880, under the care of Dr. Graily Hewitt. She had been married sixteen years, had had nine children, but no miscarriages. The last child was born ten months previously to admission, after an easy labour. The patient had had a leucorrhœal discharge during her last pregnancy, and for the last two months she had had a bloody discharge from the vagina. She dated her illness from the first appearance of the catamenia since her confinement, eight weeks before. The flow lasted three hours, was normal, and without pain. After this she passed a clot of light colour, and subsequently larger and darker ones. The bleeding continued for four weeks, and she kept her bed and applied ice. The bleeding stopped for a fortnight, and during this time she had a white discharge; then flooding returned, but lasted only twenty-four hours; it returned again, and had continued since. She was getting weaker, but had no pain. She began to menstruate in her eighteenth or nineteenth year, and was regular until eight weeks before admission. Her periods were normal in every respect, and were almost quite free from pain. The mother died in an asylum, and the father of dropsy; brother and sisters are healthy.

The patient looked healthy; she was not anæmic, but was somewhat sallow. She had lost some flesh. On vaginal examination a tumour the size of a turkey's egg was felt projecting from the cervix; it was of the shape of a mushroom, and was everywhere hard, firm, and smooth. It grew from the right commissure and anterior lip. The sound could be introduced in the normal direction to the normal distance. The tumour, together with a portion of the anterior lip, was removed with the écraseur. It measured

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two inches by one inch. When cut through it was found that its surface was decidedly softer than its central part, which cut like a fibroid. On microscopic examination the growth proved to be a fibroid polypus or a hypertrophy of the lip of the cervix, for it was covered on one side by squamous epithelium, and its surface was the seat of a superficial epithelioma of a typically squamous character. The flat epithelium was retained, and great processes were sent from it into the substance of the tumour, but they did not penetrate deeply. They formed strings and groups of cancer cells and nests, many cells among them being horny.

On looking through these cases, we find that cancer may begin at any point of the vaginal portion, from the os uteri to the vaginal vault. It may begin at more than one point—at several spots close together, as in the first case; or it may originate at the external orifice, as in the second and third cases; or it may commence on the surface of a polypus growing from the lip; it may begin, in fact, on any point of the cervix covered with stratified epithelium. The forms which it assumes in its early stages are few. Ruge and Veit state that cancer of the portio forms nodules, but the cases they describe in which the disease took this form are instances of cancer developed from connective tissue, and if they are correct as to its mode of development we must class the disease as sarcoma. Of the eight specimens I have seen, three had no special form; there was some enlargement of the lips only. In one the disease was papillary, and it was possibly the beginning of a cauliflower excrescence. True cauliflower excrescence is, I believe, rare, and is a squamous epithelioma growing from the portio. Cases are met with not infrequently presenting growths not unlike the head of a cauliflower, but they are without a stalk, and they present a firm solid structure after removal, while a cauliflower growth is a soft spongy mass which collapses after removal, and has the cervix for a peduncle. I have only met in practice with one instance of true cauliflower excrescence, and that was twelve or thirteen years ago, and the specimen was not examined microscopically. Through the kindness of Dr. Godson, however, I have had an opportunity of examining this disease in a specimen which he had removed with the écraseur, with the best results. About half to three-quarters of an inch of healthy tissue of the portio was removed together with the disease. The excrescence appeared to grow from the lip around the os uteri, was about an inch in diameter at the base when hardened in spirit, and to be altogether of the size of a small walnut. It appeared almost like a mass of tangled thread, and was entirely villous and soft. Microscopically it proved to be a squamous epithelioma growing apparently from the surface covered by transitional epithelium. One of the eight cases presented a red, tubercular surface, and one an uneven surface having a granular appearance. It should be borne in mind that a portio having a thin layer of cancer on its surface may be perfectly smooth and look fairly healthy, presenting perhaps only a little lividity. In no instance have I seen the disease start from a tear, nor is there any evidence that a laceration plays any part whatever in the etiology of the form of cancer we have been discussing.

The next point for consideration is the direction of the growth of the disease. Does it grow deeply and involve the uterine tissues, or does it extend superficially, and, if the latter, in what direction? In all the cases—six in number—in which the depth of the growth could be ascertained, the disease was found to be superficial, from a sixth to a third of an inch in thickness only, with one exception, in which it was three-quarters of an inch in thickness at its deepest part; in this instance, however, the vagina was inverted and the cervix outside the vulva constricted, and the increased thickness was probably due to the œdema and swelling caused by the displacement. Doubtless at a later stage, when the disease has destroyed the surface and invaded the cellular tissue, deeper parts are invaded, but even at a late stage it may remain superficial for a long period, as in the case in which almost the whole of the vaginal surface was involved in the disease without appreciable thickening. Later the cellular tissue in the broad ligaments, and perhaps the sacro-uterine ligaments, become involved in the disease, but in none of my cases were the latter affected.

The direction in which the growth takes is another important point in respect of treatment especially. In none of the cases was the cervical canal involved, so far as could be ascertained. In two of the eight cases this point could not be determined. In six the canal was healthy, so that the lines of the growth are not towards the cavity of the uterus, but outwards and downwards towards the vagina. It creeps towards the vaginal vault and then down along the surface of the vaginal walls. Various stages of its progress in this direction are shown by the cases given. In the first it is just beginning at several points; in the second it is growing from the os externum along the posterior lip towards the vagina; the third shows it more advanced in the same direction; in the fourth it has advanced to the vaginal vault, as shown by the thickening in that situation; in the fifth it has involved the upper part of the anterior wall of the vagina, and in the sixth it has invaded both walls for the greater part; so that the tendency of cancer of the portio—which is a squamous epithelioma—is to affect the parts superficially, and to spread on to the vagina and downwards along the walls of that tube. Whether it affects the anterior or the posterior lip most frequently I do not know, and my cases throw no light upon this point. When it grows like a cauliflower it is superficial, and enters but for a short depth into the cervix, as is shown by the cases which have recovered after removal of the growth by the écraseur, which removes, as a rule, a very superficial portion of the cervix.

There is among these cases one which has run a course differing entirely from that of all the others. I mean the seventh case. In this instance the disease appears to have commenced on the vaginal surface of the portio midway between the external orifice and the vaginal vault, and to have bored its way into the substance of the cervix, ulcerating as it grew until it had entered into the cervical wall to a depth of about one inch. It presented no tendency to spread superficially, nor to affect the tissues extensively, for the depth of the diseased tissue at any point was not more than a quarter of an inch.

In most of these cases the disease was in too early a stage for us to expect secondary deposits, and in none of them were any discovered; but in the sixth case, in which most of the vagina was affected, such deposits might have been looked for with the expectation of finding them. None, however, were discovered except some thickening in the broad ligament; the uterus was still movable, and the obturator gland and the glands in the groin were unaffected. I have seen two other cases in which the disease had spread down the vagina, but no specimens were obtained for microscopic examination, and therefore I cannot speak positively of their histological structure, although I suspect them to have been cases of squamous epithelioma of the portio. In one of these the glands in the groin were enlarged. The structure of the cancer in all the cases was squamous epithelioma. I have seen no other form commencing in the portio vaginalis, although I have seen it invaded by other forms. My cases are so few that it is but little use to discuss them further, but I must make one or two observations upon the etiology of this form of cancer. We find the earliest subject of it was thirty years of age, and the oldest sixty-seven; in two it appeared long after the menopause; while the remaining six were between thirty and forty-seven years of age: so that this form of cancer appears much more frequently during menstrual life than after the menopause.

All the patients were married except one, who was a widow. It does not seem clear that child-bearing has much to do with the disease, for one had had one child and one abortion, two had had two children and one abortion, one had had three and one abortion, one had had four, two had had seven, and one nine. Here we have five women with less than the average number of children, and three with more. Again, among all the labours none appeared to have been very bad; one or two were described as lingering and severe, but none were instrumental. In one case only was a hereditary tendency traced, a sister having died of the disease.

The previous history of the patients gives no clue to the cause of the disease. Menstruation begins early and late—at eleven and twelve, and eighteen and nineteen; and it may be regular, painless, and normal in every respect; so that, as far as these cases show, early or late development makes no difference, nor many or few children.

The symptoms are few during the early stages. Hæmorrhage appears to have been an early, perhaps the first, symptom in four, after coitus in one, independently of it in three. Discharges, white and yellow, are so common in women as to be unreliable as a symptom of cancer. There was one case in which hæmorrhage was present, but it may have been caused by the polypus present, and not by the

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cancer, though against such a view is the fact that the polypus must have existed for some time before the bleeding appeared, and it is not improbable that it began soon after the commencement of the cancerous change on the surface of the polypus.

A white or yellow discharge was present in every case in a greater or less degree, with one exception: it had been present long before any evidence of the disease existed in some. It appeared before or at the same time as the bleeding in four, and it was offensive at a very early stage in two. It was absent throughout in one, even when almost the whole of the vagina was diseased. Fetid discharge is generally regarded as a sign of a late stage of cancer, and as depending upon sloughing and breaking down of the new growth. It may, however, be present during the earliest stages, and be quite independent of sloughing of the tissues. The fetor under these circumstances is perhaps due to slight hæmorrhage retained in the vagina, and undergoing decomposition and then appearing as fetid discharges.

There were few bladder symptoms of note. One had had slight scalding for many years, which she attributed to rheumatism; and one had had slight difficulty of micturition for many years, when the urine had been retained long, which may have been due to the disease, for the disease had probably existed for many years. Of the exact duration of this form little or nothing is known. The patient in one of the cases died twelve months after an operation for the removal of the disease, and the disease had existed for four months at least before the operation was undertaken; in one almost the whole of the vagina was cancerous when first seen two years and a half ago, and she was still living and in much the same condition last summer. The disease had existed in this instance probably for many years.

ABSTRACT OF THE

Lettsomian Lectures

ON SOME OF THE

MENTAL AFFECTIONS OF CHILDHOOD AND YOUTH.

BY J. LANGDON DOWN, M.D. LOND., F.R.C.S.

LECTURE I.

Paucity of Early Literature.—There is not much to be found on this subject in the early records of medicine. The earliest attempts at the education of idiots were made in France by M. Séguin at the Bicêtre. A school was established in 1842 at Abendberg, Switzerland, by Dr. Guggenbühl; but great neglect prevailed there, and the Commune had to intervene on behalf of the wretched children. M. Sægert, at Berlin, had not only been engaged in the education of deaf-mutes, but had extended his efforts on behalf of mutism from mental disease. In 1846 Germany established a special school at Leipzig; Mrs. Plumbe, Dr. Conolly, and Dr. Andrew Reed in England secured attention to the subject; whilst the claims of the feeble-minded children in the United States were brought to a practical issue by the enterprise of the late Dr. Wilbur. A school was instituted at Bath, and others in 1848 at Highgate and Colchester. Earlswood was built in 1858, and Dr. Langdon Down undertook the superintendence of this institution.

Terminology.—The term "idiot" was always avoided by parents and medical men. Idiot means "solitary," but a typical idiot who led a purely vegetative existence was scarcely ever met with except in anencephalous monsters. Imbeciles were usually regarded as less grave cases than idiots. There is, however, no definite limitation between so-called idiocy and so-called imbecility. Feeble-minded was the best term to use.

Classification of Feeble-minded.—There is a resemblance between feeble-minded children and the various ethnic types of the human family. The Negroid have characteristic malar bones, prominent eyes, puffy lips and retreating chins, woolly hair, but not black; no pigmentation of skin. The Malay variety have soft black curly hair, prominent upper jaws, and capacious mouths. The North American Indian type have shortened foreheads, prominent cheeks, deep-set eyes, and slightly apish nose. The Mongolian type is largely represented. Their characteristics are very marked. The hair is brownish, straight, and sparse; face flat and broad, without prominences; cheeks rounded and widened laterally; eyes obliquely placed, and internal canthi too far apart; palpebral fissure very narrow; forehead wrinkled transversely; lips large and thick, with transverse fissures; tongue long and thick and very rugous; nose small; skin tawny and somewhat inelastic.

Causation.—Accidental causation by malpraxis, by falls and blows, or opiates was possible, but the being able to refer a child to an ethnic type other than Caucasian precluded such a possibility. The *congenital* and *accidental* cases are well-defined from one another. But a *developmental* group must be recognised. Children may become feeble-minded, especially at the crisis of first or second dentition and puberty. The speech may be deferred or lost, and epilepsy may appear. The mind may cease altogether to develop. Those that break down at puberty usually have characteristic crania; they are dolichocephalic and prow-shaped anteriorly, the line corresponding to the medio-frontal suture being a prominent ridge. In these cases there may have been intra-uterine arrest of development of the medio-frontal synostosis; and the same cause may have also arrested the development of the cerebral centres. Over-excitement in babyhood and "over-pressure" at schools at the second dentition and puberty may be the cause of mental break-down. But, forewarned by the characteristic cranium, catastrophes may be averted. A large number of boys and girls come under Dr. Langdon Down's notice who are *not* feeble-minded, but who have the prow-shaped forehead. These are of unstable mental equilibrium. Severe frontal headache, wayward petulance, and incapacity for sustained mental work are some symptoms frequently noted. These children should not perform any serious intellectual work during the important developmental periods. "I never knew a child stammer before the commencement of the second dentition," wrote Dr. C. West, and the lecturer confirmed this statement. Dr. Down also said that he had never met with a case of stammering at that period, which did not bear evidence of its neurotic origin, which could be traced back to a period anterior to birth.

The Accidental Type.—Traumatic lesions, medications and inflammatory diseases may cause feeble-mindedness, even in children born, or ready to be born, with all the potentiality of intelligence. In these cases there is an absence of any of the physical aspects of feeble-mindedness. They may be bright in expression, active in movement, mobile in temperament, fearless of danger, persevering in mischief, and petulant. But their language is one of gesture only. Living in a world of their own, they are indifferent to ordinary changes, and yield only to the counter-fascination of music. Mothers and doctors often entertain the strongest hope of these cases, but prognoses based on the mobility and agility will prove utterly fallacious. There may be no outward sign of mental vacuity. They are cases with a vast amount of surplus nervous energy. Much may be done by training. The energy may be directed into better channels. The improvement, however, will be smaller than may be obtained from children with less promising looks. Far more improvement is to be obtained from an ill-developed than from a damaged brain. Griesinger describes the *apathetic* and the *excited* varieties of idiots. Some of his latter class doubtless correspond to Dr. Down's accidental type.

The *Congenital Type* group is a large one. The members of it are less interesting in appearance, but more amenable to treatment, than those of the preceding groups. Many years ago Dr. Down gave great attention to the physical aspects of idiocy, and contributed a paper to THE LANCET on a *cause célèbre*. Dr. Down insists on the small size of the head. Dolichocephaly rather than brachycephaly is the rule. It may be scaphocephalic, the line of the sagittal suture being raised into a "keel." Rapid shelving from the vertex posteriorly is common, corresponding to arrest of the posterior cerebral lobes. Not unfrequently the cranium is extremely small, reverting to the *Aztec* type. Even these cases are sometimes susceptible of some amount of education.

Macrocephalic Crania may be due to hydrocephalus or to an increase of the neuroglia of the cerebral mass. The

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cisinitious part in some of the heavy brains is pale, and the increased weight appears to be due to increase of the white substance, especially of its connective tissue.

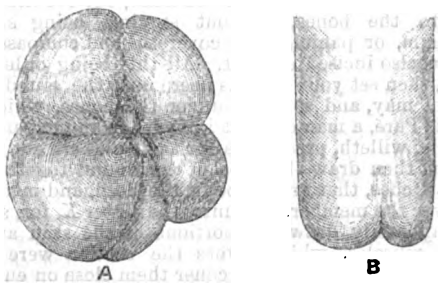
Asymmetry of the cranium was a notable deformation. There may be increase of the facial development in contrast with the cranial, the ears being planted relatively further back than usual. At the inner canthi the skin often forms semilunar folds—*epicanthic folds*. These are more frequent in the feeble-minded. The importance of the physical deformity of the palate was now generally admitted. High V-shaped palates were taken exception to, however, in some quarters. The front teeth may not be on the same plane as the molars. Dr. Down did not contend that all the feeble-minded had high-arched palates, but that a large proportion of those of intra-uterine origin had this physical deformity. The feeble-minded have a tendency to become stout. Sensation, both common and special, is often blunted and obtuse. Congenital cataract is commonly associated with congenital feeble-mindedness, as also are strabismus, nystagmus, myopia and hypermetropia, weakness of muscular system, automatic rhythmical movements, lateness in learning to walk, imperfect prehension with the upper extremities, postponed or absent speech, obtuse-angled jaw, large ill-controlled tongue, and defective hearing.

A SIXTEENTH CENTURY AMPUTATION.

By FREDERICK TREVES, F.R.C.S.,
SURGEON TO, AND LECTURER ON ANATOMY AT, THE LONDON HOSPITAL.

THE present taste for revivals has not extended to the re-introduction of ancient surgical procedures. It is improbable that we shall return to the "button" for arresting hæmorrhage, or to the falciform knife for excising breasts, or to the chisel and mallet for "dismembering" toes. There is little doubt, moreover, that we have seen the last of the stitching quill, the phlegme, the terebellum, and the buccas pipe. It is only by the occurrence of some such remarkable incident as is here recorded that it is possible to have any practical experience of the surgery of the past. The amputation performed in the present instance resembled in all essential points the operation as it was carried out in the Elizabethan period. For the opportunity of seeing the patient I am indebted to the kindness of Dr. Boyter Johnson, of Northumberland-avenue.

A photographer, aged thirty-five, carrying on business in Australia, having amassed a fair competency, resolved to take a long holiday. He had no children, and he and his wife determined to start for England in a sailing ship. He left Australia in May, 1886. On June 11th the ship was off Cape Horn, and was being driven before a furious gale. Before the storm subsided one of the crew had been killed and the captain and first mate injured. One sea swept the decks while the photographer was standing amidships. He was thrown violently over the sky-light and carried into the mizen rigging. When the water left the ship the man found himself suspended by the arm, and evidently much injured. After he had been assisted to the deck, it was found that there was a compound fracture of the left forearm. The limb had been terribly crushed, and a large part of the skin torn away so as to leave the tendons bare. The damage did not extend beyond the elbow. There was but slight bleeding. The ship carried no surgeon, and the treatment was undertaken by the second mate, who had no knowledge of surgery other than that dictated by common sense. The forearm was lightly splinted to a board, and the wounds covered with wet rags. The medicine chest contained some laudanum, but the victim appeared to have gone out of it, for it in no way relieved the acute pain. Four days after the accident the hand and forearm were gangrenous, and the gangrene was spreading. The patient had suffered intensely, and had had no sleep. A consultation was held between the patient, the carpenter, and the second mate, and it was decided that an amputation should be performed. None of them had ever witnessed a surgical operation—a point that was probably in the patient's favour. It was resolved that the amputation should be performed through the arm at the junction of the middle and lower thirds. The reasons were these: The gangrene had not reached the elbow, and it was considered wise to cut well above the mortified parts. (This decision was certainly in advance of th surgery of the sixteenth century.) In the second place, the brachial artery could be felt beating most easily at the place named, and it was deemed well to keep a careful eye upon the vessel when the amputation was carried out. The patient came up on the deck, which at the time was covered with snow, and took his seat upon a pile of sails. The instruments were provided by the carpenter, and consisted of a shoe knife, a saw, and a sail needle. The patient's wife furnished a sewing needle and some silk. A cord was bound tightly round the limb above the operation line. The operation was commenced by the carpenter, but his courage soon failed, and he handed the knife to the second mate, who performed the amputation with considerable skill and nerve. A circular incision was made through the skin with the shoe knife. The site of the pulsating artery had been previously noted, and the cut was cautiously deepened until the vessel was exposed. It was isolated by the sail needle, and secured in its continuity by a thread ligature. After it had been firmly tied the vessel was cut. It is probable that the ligature included the veins and the nerve. The incision was then cautiously deepened around the other parts of the limb, and a careful search made for vessels of equal magnitude that could be secured in the same way. None were found, and it is to the credit of the operator that he did not mistake the ulnar nerve for a blood-vessel. The muscles were now divided down to the bone by the same circular cut. The biceps retracted more than the triceps of course, and the mate removed an inch or so of the latter muscle to make the section even. The divided soft parts were protected and retracted by strips of linen, and the bone was then sawn through



by the carpenter. After the ligature was removed from the limb there appears to have been but little bleeding. The mate rounded off the end of the bone with the shoe knife so as to make it as smooth as possible. Finally, four vertical cuts were made in the stump so that the edges of the divided skin should meet over the bone in a point. All parts of the wound were now brought together with sutures, a sewing needle and the silk provided by the patient's wife being used for the purpose. The stump was further supported by some plaster that was found in the medicine chest. The operation was completed in the somewhat unusual time of one hour and forty-five minutes. Amputations of the arm have been performed in less time than this, but the procedure can seldom have been carried out with greater ingenuity and courage. As for the patient, it is scarcely possible to speak in too high terms of admiration of his splendid pluck and marvellous powers of endurance. The records of surgery can provide few more remarkable pictures than this: a ship on the high seas, and on the snow-covered deck a photographer, seated on a pile of sails, critically supervising the amputation of his arm by a ship's mate and a carpenter.

The patient's recovery was slow. The stump was kept covered with muslin bags filled with snow. For eight days following the operation he had little or no sleep. Many of the stitches gave way and suppuration followed. The parts were kept scrupulously clean. In time the wound healed by granulation, and the patient began to regain his strength. When I saw him early in September he was in excellent health. The stump was well and firmly healed, and was devoid of pain. A side view of the stump is shown in Fig. B, and a rough drawing of its extremity in Fig. A. (The two are not drawn to the same scale.) It will be seen that it had no tendency to assume a conical outline. The bone was well covered, and the chief peculiarity of the part was given it by the deep furrows left by the four vertical

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incisions. Apart from its unusual aspect, it was an admirable stump, and reflected great credit upon the operator. The patient, a vigorous and most intelligent man, showed no other traces of his terrible holiday.

The following is the account of amputation as given by Master Clowes in his "Profitable and Necessarie Booke of Observations," published in 1596:—"You shall haue in readiness a good strong and steady fourme, and set the patient at the very end of it; then shall there bestride the fourme behind, a man that is able to holde him, or hir fast, by both the armes; which done, if the leg must be taken off beneath the knee, let there be also appointed another strong man to bestride the leg, that is to be cut off, and he must hold the member very fast aboue the place where the incision is to be made, and very steadily, without shaking, drawing up the skin and muscles; and he that doth so hold should haue a large strong hand, whereby he may the better stay the bleeding, in the place and steede of a straight band or ligature, which band indeed is also very necessarie, for by reason of its hard and close binding, it doth so benum that part, that the paine of the binding doth greatly obscure the sence and feeling of the incision; and the foresaid band is also a good direction for him that doth cut off the member; but yet in some bodies, it will not be amisse to admit bleeding according to discretion, specially in such bodies as are of hot complexions, and do abound in blood, and I have often seen, by the skillfulnes of the holder, there hath not been lost at a time fower ounces of blood; for in weake bodies it is not good to loose much blood; for blood is said to be the treasure of life. In like manner, there must be chosen another skilful man, that hath good experience in holding the leg below. And he that is the master or surgeon, which doth cut off the member, must be sure he haue a sharpe sawe, also a very good catlin, and an incision knife, and then boldly, with a steddy and quicke hand, cut the flesh round about to the bones, without staying, being sure the periosteum, or panicle that covereth and compasseth the bones be also incised and cut. All this being orderly performed, then set your sawe as neere unto the sound flesh as well you may, and so cut asunder the bones, which done, Ambrose Paré, a man of great knowledge and experience in chirurgie, willeth, presently after the bones are cut asunder, that you then draw the sides of the wound together, with fower stitches, that are deepe in the flesh, and made crosswise over the member, like unto the letter X, for, saith he, you may easily draw the portions of the skin and their divided muscles, which before the section were drawne upward, ouer the bones, and couer them close on euery side, that they may take the less aire, and the wound sooner conglutinate." To arrest the bleeding Clowes used a certain "restrictive." Later "buttons" were more generally used. It was about 1560 that Ambrose Paré urged the use of the ligature to cut or wounded bloodvessels, but more than a century elapsed before the practice came into general use.

In the "Marrow of Chirurgery," published at the commencement of the seventeenth century by "James Cooke, lover of Physick and Chirurgery," the following observation appears: "The third [mode of arresting bleeding] is stitching, which is troublesome and dangerous, on which the vessels are to be taken up and after bound, above the place amputated." This method was employed in the present instance. The curved shoe knife is probably the nearest modern representative of the falciform dismembering knife used in the sixteenth, seventeenth, and eighteenth centuries, and for which great antiquity can be claimed. The first flap operation appears to have been performed by Lowdham of Exeter, and an account of it to have been given in 1679.

In the present case the clear intelligence and shrewd sense of these inexperienced operators placed them far in advance of the primitive practitioners of surgery, and the excellent result obtained is not a flattering criticism upon the niceties of modern handicraft.

Wimpole-street, Cavendish-square, W.

ILKLEY HOSPITAL.—A sum of £1000, which, under the will of the late Mr. Thomas Emsley of Burley was left to the Ilkley Convalescent Hospital, and was paid over under a misapprehension by the executors of the deceased to the Bradford Corporation as trustees of the Semon Convalescent Home at Ilkley, has been paid over by the Bradford Corporation to the trustees of the Ilkley Bath Charity Hospital, it having been satisfactorily ascertained that the legacy was intended for the latter institution.

CLINICAL AND PATHOLOGICAL ILLUSTRATIONS OF CEREBRAL LESIONS.

BY DAVID DRUMMOND, M.D.,
PHYSICIAN AND PATHOLOGIST TO THE NEWCASTLE-ON-TYNE INFIRMARY.

(*Concluded from page 13.*)

CASE 6. *Cerebral Tumour complicated by Bright's Disease of the Kidneys; Difficult Question of Diagnosis.*—In September, 1883, a labourer, aged forty-two, was admitted into the Newcastle Infirmary complaining of severe headache, marked prostration, and loss of memory, of about six weeks' duration. His manner was exceedingly stupid and heavy, and it was with great difficulty that any history could be procured of his case. The urine was diminished in quantity, and was highly albuminous. In a few days the headache became greatly intensified, and delirium was added to his other nervous symptoms, which, from the obvious kidney mischief and total absence of all localising cerebral symptoms, were believed to be of uræmic origin. The delirium was occasionally of the most boisterous character, and it was with great difficulty he was kept in bed. By degrees the flow of urine increased, and *pari passu* the headache and delirium subsided. He left the hospital very much improved, but with the urine still albuminous. On Nov. 6th, 1884, he again presented himself for admission. Now, as before, he was complaining of pain in the head and weakness; his mental state was much obscured, so that he was unable to give a clear account of himself, and, with the addition of some emaciation, his symptoms resembled closely his condition when he first came under observation fifteen months previously. There was no dropsy. The urine contained a large quantity of albumen, but no casts, and, as he voided it in bed, it was impossible to compute the quantity passed in twenty-four hours. *There was no optic neuritis*, or other material alteration of the fundus oculi. There was an entire absence of paralysis, and vomiting did not form a feature of the case. The headache, which was general, continued, and the mental hebetude gradually deepened. He died in a fortnight from the date of his second admission.

At the necropsy, the kidneys were found to be striking examples of the so-called large pale form of Bright's disease. They weighed from 13 oz. to 14 oz. each. There was no evidence of lardaceous degeneration. The microscopic examination made subsequently of pieces hardened bore out the post-mortem-room diagnosis. The heart was not hypertrophied. The brain was soft and œdematous. At the anterior extremity of the right frontal lobe there was a gummatous tumour the size of a large fig, which was incorporated with the dura mater on the one hand and with the brain substance on the other.

In this case the symptoms of gross cerebral disease were masked by the kidney condition, for granular kidney was suspected, with a considerable show of reason. It may be said that the severity and persistency of the headache should have pointed to some cerebral affection implicating the membranes, but I have met with pure kidney cases with just as violent and obstinate a headache as in the present case. It is interesting and instructive to notice the absence of retinal changes and vomiting. I may add that I have failed in several cases of tumour of the frontal lobes to elicit a history of vomiting.

CASE 7. *Hemiplegic Hyperæsthesia.*—The patient was a remarkably well-preserved and intelligent old lady, aged seventy-five. She had led an active life, and, until quite recently, had been extensively engaged in literary work. Dyspepsia had been her only ailment until the occurrence of the attack I am about to describe. Twelve weeks before I saw her she was suddenly seized, while standing in her room, with numbness and a sense of weakness in the right arm, leg, and face, which rendered walking to the sofa a matter of great difficulty. Next day the right side was distinctly affected, especially the arm, which was numb and feeble. This condition remained for a day or two unchanged, when the feeling of numbness became aggravated, and was accompanied by an intense prickling sensation, with great tenderness. The hyperæsthesia affected the hand and foot particularly, but also the whole of the right side more or less, and continued unaltered for nearly three weeks, when it subsided to a considerable extent. With the diminished

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tenderness there was a decided improvement in the motor paralysis, so that she could walk about and write a little. This improvement was only temporary, however, for, five weeks before she came under my notice, the hyperæsthesia and prickling returned, and with it a slight renewal of the motor paralysis. I found her a lively and very intelligent old lady. As she lay in bed she kept the right hand on the top of the bedclothes, and exercised a watchful supervision lest anything should come in contact with it. The speech appeared to be slightly thick and nasal, though Dr. T. W. Barron, her medical attendant, with whom I saw the case, and her friends, assured me that there was no real impairment. The forearm and the fingers were somewhat flexed, and the latter, with the dorsum of the hand, were distinctly swollen. A marked feeling of stiffness with tenderness and prickling in the arm, face, and leg was complained of. The slightest touch on the tips of the fingers, especially in the distribution of the median nerve, caused great pain, with an exaggeration of the prickling. The power of grasping was considerably impaired, but it was difficult to test this point accurately owing to the hyperæsthesia. The cutaneous sensitiveness appeared to be particularly well marked on the application of thermal stimuli. The teeth on the right side, especially of the upper jaw, were exceedingly sensitive, whilst the tongue and face were somewhat anæsthetic though tender. Taste was unimpaired, but everything taken into the mouth felt "rough" on the right side. The urine was normal. The heart was dilated, with an aortic systolic bruit. The knee-jerk was considerably diminished on the right side as compared with the left, which was by no means exaggerated. In spite of the marked hyperæsthesia of the sole of the right foot, the plantar reflex was absent. There was no apparent loss of power of the right leg.

Were it not for the distinct hemiplegic seizure involving cranial nerves, the features of this case could best be explained by the assumption of an extensive peripheral neuritis, in which hyperæsthesia is often so pronounced a symptom. But the attack was so obviously cerebral that it seems necessary to assume some vascular lesion, probably hæmorrhage, the situation and *modus operandi* of which, in the absence of post-mortem evidence, are matters of pure speculation.

CASE 8. *Thrombosis of the Basilar Artery of unusual origin.*—A man aged fifty was lately brought into the Newcastle Infirmary in an unconscious state by the police, who ascertained that he had suffered for a few days previously from attacks of giddiness, in one of which he had fallen in the street an hour before his admission. When seen by the house-physician (Dr. Waldy) his breathing was slow and laboured, the pupils were contracted, the pulse was slow (about 60) and irregular, and the left side was paralysed. Very shortly the limbs on the right side also became affected, so that there was almost complete paralysis of all four extremities and face. He died about three hours after the seizure in the street. No rise in temperature was observed.

At the necropsy the right vertebral and basilar were seen to be filled with firm clot (thrombosed). The arteries forming the circle of Willis were empty. A small quantity of fluid occupied the lateral ventricles, and the pons was slightly softer and paler than the remainder of the brain substance. The left vertebral artery was absent, so that the thrombosed vessel was simply the continuation of the right vertebral, which was dilated, except at its origin, from the subclavian, where an annular thickening of atheromatous deposit considerably diminished its calibre. This atheromatous patch was the starting-point of the thrombosis, the clot having extended from the subclavian and passed into the basilar, which vessel was entirely free from atheroma; indeed, the circulatory apparatus was normal, except for the absence of the left vertebral and the limited patch of atheroma at the commencement of the right vertebral. The impression at the time of the necropsy was that the latter was congenital.

This case is interesting as showing how a congenital peculiarity in the circulation on the one hand, and a very limited extent of disease on the other, may determine a fatal result, for in all probability, had the basilar received blood from two vertebrals, the clot arising from the patch of disease would not have altered the basilar.

CASE 9. *Purpura Hæmorrhagica; Death from Meningeal Hæmorrhage.*—J. D——, a tramp aged twenty-nine, was admitted into the infirmary on June 3rd, 1886, in an unconscious state. The following history was supplied by [illegible] stated that he was supposed to have been assaulted by one of the force. The patient was a confirmed tramp; he frequented a limekiln, in the neighbourhood of which he had lived for some time on tea and bread supplied by neighbours. A policeman was accused of striking him when removing him from the premises, and very soon after his expulsion he became unconscious. When admitted he was bleeding from spongy gums. The pupils were dilated and insensible to light. The skin was covered with petechiæ, and several well-marked brawn-like bruises were noticed on the legs and feet. From time to time a general convulsion ensued, whilst in the interval the limbs were rigid and the arms were moved spasmodically. The respiration was stertorous, and the right side of the face was puffed out with expiration. The knee-jerk was present, but not increased. There was almost constant diarrhœa. The urine was normal. The pulse was rapid and compressible; the temperature was raised, being about 100°. On the following day he appeared to recover consciousness slightly, and was able to sit up in bed, but could not be persuaded to protrude his tongue. He died twenty hours after his admission.

Necropsy.—Rigor mortis pronounced. The heart weighed 16 oz.; left ventricle hypertrophied, and right dilated; tricuspid orifice admitted five fingers. The lungs were œdematous and congested. Kidneys suggested commencing sclerosis. Brain: Bone unusually thick; the whole of the upper surface was covered by a thin layer of coagulated blood, which appeared to occupy the subarachnoid space. The clot was best marked over the left hemisphere, where it was ½ in. in thickness in some parts over the parietal lobe. A considerable quantity of fluid blood was found in each Sylvian fissure. The blood clot penetrated between the convolutions, but did not lacerate the brain surface. The substance was somewhat soft and œdematous, but was otherwise normal. There was no fracture or other evidences of injury.

CASE 10. *Acute non-Tubercular Idiopathic Cerebro-spinal Meningitis in an Adult.*—H. M——, aged thirty, a billiard-marker in a club, was admitted into the infirmary in a state of semi-unconsciousness, in which condition he had been found in his bedroom on the morning of his admission. It was stated that he had been engaged, as usual, on the previous night in the billiard-room, having retired to bed about 12 o'clock in his usual health. As one or two bottles containing patent cough mixtures were found in his room, it was supposed, when he was seen by the medical man who sent him to hospital, that he might possibly be suffering from some form of narcotic poisoning. On admission the patient was observed to be exceedingly stupid and drowsy; he could be roused with difficulty, but was quite unable to respond to questions. The pupils varied from a state of contraction to medium dilatation; to light they acted sluggishly, but responded better to efforts at accommodation. The legs and arms were occasionally moved voluntarily. There was no rigidity. The tendon-jerk phenomena were increased in the arms and legs. On the following day the patient was in a most extraordinarily fidgety state. He moved his legs about incessantly, and uttered groans as though he were in pain. When spoken to loudly, he replied in a sleepy way, stating that he had pain in his head and legs. He could now protrude his tongue, which was dry and brown. The pupils were dilated and more fixed. The temperature was raised, but never rose above 101° until the fourth day after his admission, when pulmonary œdema and congestion developed. On the third day slight internal squint was detected in the right eye, and commencing double optic neuritis was made out. A petechial eruption appeared over both knees. Talkative delirium set in. Next day a copious herpetic eruption made its appearance in the left side of the mouth, and distinct signs of congestion of the right lung were discovered. The head was now fixed, and the muscles of the back and extremities were rigid. The right side of the face was evidently paralysed, though the forehead was frequently drawn into a frown. The pupils were widely dilated. Pulse 120, compressible; muttering delirium. Next day the patient became profoundly comatose, and died on the fifth day after the onset of the attack.

Necropsy.—Brain: The veins on the surface were much distended. Some pus and greenish purulent lymph lay beneath the arachnoid. At the base a considerable quantity of the same purulent matter covered the pons and medulla, and descended the spinal canal. The same appearances were found in the Sylvian fissure and on the surface of the cerebellum. The lateral ventricles contained some turbid

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fluid, and the vessels of the plexus were remarkably congested. No signs of bone disease or fracture were observed, nor was there any ear disease or tubercle.

Newcastle-on-Tyne.

SOME POINTS IN THE TREATMENT OF ACNE, ESPECIALLY OF THE FACE.

BY JOHN KENT SPENDER, M.D.LOND.,
PHYSICIAN TO THE MINERAL WATER HOSPITAL, BATH.

IF a doctor may strive to rival an artist in idealising the human face, there are few functions for which he will earn stronger gratitude than in removing the traces of disfigurement and deformity. There are, indeed, deformities which have almost classical tradition to consecrate them; and there is a native ugliness which may be to some extent glorified by the powerful lineaments of emotion and character; but most disfigurements are associated with pettiness or vulgarity, and there are few consolations for the unhappy man or woman who has a big red nose or a heavy crop of pimples on the forehead. Pimples, though veiled under the elegant Greek of the word "leichen" (λείχην), are supposed to denote the glutton or the wine-bibber, and to be beyond the rhetoric of the most subtle special pleader: for instance, if they are red, they are said to tell the tale of excess; if dotted with black spots, they proclaim uncleanliness and struma; and if only pale and insignificant, there is always the dark hint of a bad constitution in the background. Popular pathology is not always logical; and it would be difficult to convince some patients that their skin trouble is, after all, a purely local affair, depending upon inflammation or inaction of the small cutaneous glands. The purifying action of the skin is an obscure dogma to the popular understanding; and therefore people are slow to take in the fact that when Nature is baffled in her duties by too much wind, or dust, or sun, and too little soap and water, she takes her revenge by desquamations and efflorescences, and perhaps more serious things than these.

Acne (the Greek original means the "bloom of anything") is the term given to a retention of the secretion of the sebaceous glands of the skin, with secondary inflammation and deposit in them and in the hair follicles. It is characterised by red conical or hemispherical elevations or nodules; some are solid, others are filled with pus; they are found everywhere except upon the palms and soles, and affect chiefly the skin of the face, chest, and back; and they occur mostly in young persons. The disease appears to be due to the occlusion of the orifice of the hair follicles or of the ducts of the sebaceous glands opening into them. The retained secretion then becomes a source of irritation and inflammation, and suppuration follows in and around the hair sac and its appendages.[1] This, expressed in the fewest words, is the pathological anatomy of simple or uncomplicated acne.

Omitting for the sake of brevity and clearness all the intermediate forms, we may go at once to a type of disease at the other end of the scale, and speak of the so-called acne rosacea. This attacks the face and scalp alone, and is characterised by an intense reddening of the skin, due to an injection of the bloodvessels, without much swelling or tension. The serpentine vascular lines, the blood in which may be momentarily driven out by pressure, are most abundant on the sides and the bridge of the nose. This is an obstinate disease, occurring chiefly in advanced age, though not unknown in youth. However great may be the hypertrophy of the skin the disease never extends deeper than the skin, nor does it lead to ulceration.[2] Between the extreme phases of local disease thus delineated there are countless grades and shades which ought to be recognised; for they are so many tokens of constitutional power or inertness, as the case may be.

My notes of treatment profess, then, to deal only with acne punctata, acne vulgaris or indurata, and the acne rosacea, which betrays a grave alteration in the nutritive function of the skin.

The object of the practitioner should be to prevent acne punctata from passing on to acne vulgaris by getting rid of obstruction in the glands and checking the hyperæmic condition; in acne indurata, to lessen hyperæmia and promote the absorption of inflammatory products; and in acne rosacea to destroy the new growth of connective tissue.

The therapeutic points may be expressed thus:—Quiet dormant acne requires stimulation and a spur to more healthy action, while those species of acne which are marked by heat and tension call for soothing local measures. In the one case the medicinal and dietetic plan should be tonic and supporting; in the other we should advise a combination of tonic and aperient remedies and a cooling abstemious regimen.

In order to promote a healthy action of the sebaceous glands, and to prevent the formation of what are called "comedones," the following plan should be adopted, as originally described by Dr. Liveing. The steps of his method are as follows: (*a*) Steam the face every night by holding it over a basin of hot water for a few minutes. (*b*) Rub the skin for five or ten minutes with soap (I prefer terebene soap) and flannel, or with a soft nail-brush; then sponge off the soap with warm water. (*c*) When the face has been dried, a lotion should be thoroughly applied, composed as follows: half an ounce of precipitated sulphur, two drachms of glycerine, one ounce of spirits of wine, with three ounces each of rose-water and lime-water. This is allowed to dry on the skin and to remain on all night. In the morning the face is cleansed with warm oatmeal and water or weak gruel. If, for any reason, an ointment seems preferable to a lotion, a combination of precipitated sulphur and vaseline is very useful. The treatment must be modified or suspended for two or three nights if the skin becomes sensitive and somewhat tender. Dr. Liveing contends that the most common cause of failure is want of perseverance or timidity on the part of the patient or of the doctor; and that we ought not to be frightened from continuing efficacious remedies by a temporary increase in the redness and irritability of the skin.[3] If, by any chance, this plan be unsuccessful, nothing is so effective as the application of potash soap in the form of a lotion. The lotion is composed of one ounce of soft soap, one ounce of rectified spirits of wine, and seven ounces of rose (or distilled) water. This should be rubbed in vigorously with a piece of flannel for a short time, taking care not to make the skin sore. According to Dr. Liveing, the worst cases of acne will yield to the soft soap treatment if practised with necessary caution.

For eight years and more I have followed in its main outlines Dr. Liveing's plan, and with great success. But the experience which only actual work brings has led me to make modifications to suit the various susceptibilities and irritabilities of human nerves and skin. Some of these modifications I will now relate in the fewest words. In the first place, something is often required to be done during the daytime to pacify the heat and throbbing, which are part of the usual history of acne. An excellent lotion, the heritage of nearly every dermatologist, is made by combining oxide of zinc, calamine, prepared chalk, lead lotion, and lime water, to which may be added a small quantity of glycerine. Let the bottle containing this be gently waved about so as to diffuse the materials, which are only held in suspension; then pour a little into a saucer, and with a sponge (reserved for the purpose) sprinkle the face from time to time. Wipe off, when necessary, with a bit of fine muslin the powder which remains on the skin after the evaporation of the fluid, and the face may be washed occasionally with a little starch gruel. In the second place, the cases are not a few in which it is better not to use any kind of soap as part of the evening ceremonial. After the face has been steamed, we may put on a medicated jelly composed of oxide of zinc, gelatine, and glycerine. It must be liquefied by putting the vessel that holds it into hot water, and then applied with a brush. Then, thirdly, there are some sensitive skins intolerant of sulphur in any guise. When this is so, we should think of combinations of lead and chalk and zinc, blended as a quasi-ointment with the finest vaseline. There are several pharmaceutists in London and the provinces who prepare oleate of lead and oleate of bismuth; and Dr. McCall Anderson's formula of oleate of bismuth with vaseline and white wax has been aptly described as "one of the most healing of salves." Sometimes nothing agrees better than the old-fashioned but

[1] New Sydenham Society's Lexicon of Medicine and the Allied Sciences. [2] Ibid. [3] THE LANCET, Jan. 19th, 1878.

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capital substance called Kirkland's "neutral cerate," which is composed essentially of lead plaster and olive oil. Whatever combination may be chosen (and only a ripe experience with a sound judgment can decide), the ointment should be smeared over all the affected parts of the face immediately after the process of steaming, and allowed to remain during the whole night. For the acne which is often a trouble to young women at the time of commencing menstruation I prescribe the following ointment with much confidence:—Ammoniated mercury, a scruple; precipitated sulphur, a drachm; oil of the sweet almond, half an ounce; and white vaseline to make two ounces. By methods such as the above, industriously carried out, an ugly, blotchy face may be commonly restored to a fair share of comeliness.

In the treatment of acne there is still room for those emollient "dusting powders" which once occupied an important place in the therapeutics of the skin. Equal quantities of oleate of zinc and pulverised starch, with a small percentage of precipitated sulphur, may be put on several times a day after moistening the surface with a warm damp sponge. Now and then a quiet acne may disappear entirely in a few weeks without any other application. But the extreme forms of the so-called acne rosacea require a whole battery of new remedial forces, as it seldom yields to mild and coaxing means. I refer with much satisfaction to a paper published in the early part of 1885 by Mr. Tom Robinson.[4] He advises no parley with an enemy which cannot be tamed or dislodged after inflammatory hyperplasia of connective tissue has once been set up. When inflamed papules are developed, a lotion should be applied occasionally, composed of bisulphuret of mercury and almond emulsion (two grains of the former to one ounce of the latter). When the congestive process goes on to suppuration the face may be fomented with hot water; and after the acute stage has subsided a combination of a scruple of yellow oxide of mercury and one ounce of lard ought to be rubbed into the face, and continued every night so long as it may seem necessary. Mr. Robinson's favourite means for tranquillising an angry skin is a lotion composed of bismuth and glycerine of starch, lessening the starch by three-fourths.

It is time to say a few words about internal remedies. It is a pity that so much attention must be given to the diet and the details of cooking, as this is the real impediment in many instances to the attainment of even a moderate success. All food which is difficult to digest must be avoided, as the waste stuff which it contains is a source of physiological irritation and worry. Simplicity will best suit that "conscience of the body" called the stomach; and regularity in the meals is of high importance. Alcohol and tobacco are usually superfluous, and sometimes poisonous; but concerning the former an exception may be made in the case of strumous young men and women, to whom a little beer (taken with meals) is often quite valuable. I must insist upon the daily constitutional walk as a necessary article of faith and practice; and I venture to add that systematic writers on diseases of the skin do not lay sufficient stress on the proper ventilation of houses and rooms (especially the bedroom) as essential to the respiratory function of the skin. This function is thwarted and blocked when the surrounding air is deficient in quantity and chemically bad in its quality; and we cannot wonder at the prevalence of acne and other similar skin diseases, when we call to mind the polluted elements which some people love to breathe.

With regard to the Pharmacopœia, the rule is almost absolute that arsenic is nearly the last drug which a practitioner should think of. Combined with perchloride of mercury, arsenic has a useful place in the management of dull inert acne in plethoric persons. Iron is often necessary, and can be conveniently given in one of two forms: either (*a*) as the ammonio-citrate, with an effervescing draught of citric acid and bicarbonate of potash; or (*b*) as the sulphate of iron, with dilute sulphuric acid and sulphate of magnesia. The mild aperient action of the latter combination is a distinct help; and further aid in this direction is afforded by the pill of aloes and myrrh. Residents in Bath can enjoy a regular and prolonged administration of the thermal waters. It is lucky that there are no reputed "specifics" in the treatment of acne; there is less scope for secret nostrums and remedies of doubtful fame; and the culture of the "general health" becomes not a vague and occult symbol but the expression of an axiomatic truth.[5]

Falstaff calls Bardolph's red nose "a perpetual triumph, an everlasting bonfire-light." Most people are only too glad to get rid of this uncanny illumination. The cure or alleviation of an old acne on the face is sometimes such a transfiguration from ugliness to comparative beauty as to bring credit to the medical adviser, gratitude from the patient, and a substantial addition to the historic glory of therapeutic art.

[4] Brit. Med. Journal, Jan. 17th, 1885.

THE TREATMENT OF INTUSSUSCEPTION.

By F. H. ELLIOTT, M.D.

THE condition known as intussusception is at all times so serious, and in so many cases fatal, that it is incumbent upon those who have had experiences similar to those recorded in THE LANCET of Oct. 23rd by Dr. Cheadle to place them on record. The following case occurred in private practice, and the facts are given from rough notes taken at the time.

On Sunday, Nov. 8th, 1885, I was sent for to see the child (eight months old) of a friend. The child, it appeared, had been quite well until the previous day, when it had been sick, for which a dose of castor oil had been given, after which a little blood had been passed by way of the bowels. When I saw it on the Sunday morning there was sickness with frequent straining, and the passage of small quantities of blood and mucus. The case appeared at first to be one of dysenteric diarrhœa, produced probably by improper feeding &c.; but on a second visit, however, the same day, I made a more careful examination, and, in addition to a sausage-like tumour, which could be distinctly felt in the left iliac region, I discovered the presence of the intussusception about three inches up the rectum. Most fortunately, I was able to avail myself of the advice and assistance of my friend Dr. G. V. Poore, who on arrival confirmed the diagnosis. By this time, in addition to the above symptoms, the child was much exhausted, and evidently in a critical condition. We decided to see what could be done for its relief, and in this we received great assistance from the father, who behaved throughout with much self-restraint and judgment. Chloroform being administered, the father held the child up by the legs, so that the force of gravity might be turned to account, and I gently inflated the bowel by means of an ordinary pair of bellows, whilst Dr. Poore kneaded the abdomen. After the lapse of a few minutes intestinal movement was audible, and on examination neither the sausage-like swelling in the iliac region nor the tumour in the rectum could be discovered, and in a short time after recovery from the chloroform it was evident that the general state of the child had considerably improved. By the next morning, however, all the signs and symptoms had returned, and the child was as bad as—indeed, worse than—before. Regarding it as a hopeless case, I did not propose to proceed further; but as a day or so passed without death resulting, I determined to repeat the operation. The inflation with the bellows this time had no effect. The tumour in the rectum did not move. I therefore fixed an indiarubber tubing on to an ordinary funnel, and, the child being inverted and the end of the tubing inserted in the bowel, had warm water poured from a considerable height, as recommended by Dr. Day in his work on "Diseases of Children." This had the effect of displacing the intussusception, but not really overcoming it, as a swelling could still be detected an inch or so above the left iliac region; I therefore fixed the indiarubber tubing on to the bellows, and passed it, well oiled, gently up the bowel until it met the obstruction. I then inflated, and in the course of a minute or so a sudden and general distension of the whole abdomen told me that the passage had been restored. The vomiting, tenesmus, &c., were almost at once relieved; milk with lime-water was retained by the stomach, and quiet, refreshing sleep ensued. For five days, although no motion was passed, everything went well; but on the evening of the fifth day the child suddenly began to shriek as if in great pain, and the whole of the symptoms and physical signs of intussusception returned. I at once took the same

[5] I am imagining an ideal patient who has no special diathetic tendency, as any complication of gout or of syphilis must be treated on its own merits and needs.

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steps to reduce it as before, and with success. The most minute care in diet was observed. The child was kept absolutely still on a nurse's lap night and day. No untoward symptoms appeared, and, to my delight, on the ninth day from the last operation, and the twenty-first from the original attack, a natural motion took place. I now hoped for the best, but was doomed to disappointment once more, as in four days, without any assignable cause, the intussusception had returned again. Once more I replaced it by the means previously adopted, although I began not unnaturally to regard it as a useless effort; this time, however, it kept back, although the general condition of the child was so critical that when four days later Dr. Poore again saw it with me, we both concurred in telling the parents that we thought the chances of recovery extremely small. By the gentlest and most careful nursing in all, even the minutest, details, a gradual improvement occurred, and in two or three days another natural motion took place. A good deal of distension of the abdomen with pain—both of which were relieved by painting the walls with extract of belladonna and glycerine night and morning—remained for some few days, after which an uninterrupted recovery took place. At the date of writing this, more than a year after the events recorded, the child—a fine specimen of infantile humanity—is in the best of health, the functions are regular and natural, and, above all, the action of the bowels is unimpeachable.

I think the above details show how clearly it is our duty to persevere in all such conditions, and how much we may expect from mechanical means, carefully conducted, in reducing what may appear almost hopeless cases of intussusception.

Andover.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

ON THE RELATION OF INSANITY TO EXOPHTHALMIC GOITRE.

BY M. COLMAN COLLINS, M.D., M.R.C.P. LOND.

FOR the purpose of synthesis, and to further accentuate important clinical and pyschological researches, I cull from my case-book the subjoined report, with remarks, on a patient of mine.

Miss A. B—— consulted me in 1879. Palpitation was then the most troublesome subjective symptom. The heart beats were regular, loud, and ringing. Pulse 130. The area of cardiac dulness was very slightly increased; the heart's impulse violent on exertion. There was evidently dilatation with hypertrophy. Exophthalmos tolerably well marked, and equal on both sides. The thyroid was slightly enlarged. "It never amounted to actual deformity. It simulated a bronchocele which has become stationary just at the period of its development." Its vessels and those of the neck pulsated visibly, and a hæmic murmur—the beehive hum—was heard over them. The patient was also fretful, sleepless, and dyspeptic, and suffered from amenorrhœa. Iron, digitalis, and nux vomica were prescribed, draughts of chloral and bromide were given when necessary, out-door exercise was enjoined, and the diet was attended to. Relief was so far obtained that during her sojourn at the seaside the distressing symptoms were held in abeyance, but the patient was by no means cured. On her return to her former surroundings aggravated phenomena of Graves' disease supervened. She was tried by domestic troubles, and her mind, already in a state of unstable equilibrium, gave way under the excessive strain. Physical and mental deterioration appeared to advance *pari passu* under the influence of depressing agencies. Her mind became ultimately unhinged, and she gradually lapsed into melancholia. Feelings of profound misery engendered delusions—delusions which had special reference to the necessity of joining her friends in Paradise. Consequently she "felt called upon to starve herself to death." *Per contra*, as if in still further exemplification of the morbid state of mind, she had a delusion that she was being done to death with food and physic. This amounted to a definite delusion, (*lypemenia*.) There she sat, sad, moody, and suspicious of her dearest friends. I had to feed her for a month with the stomach-pump. Obstinate constipation added to her troubles. Here I found belladonna useful; and, moreover, it appeared to mitigate occasional outbursts of maniacal excitement. (At no time did she manifest the remarkable disturbance of the affective functions, or the accompanying incessant activity, so typical of mania.) At the end of a month there was some surcease of her sorrow. A rift appeared in the cloud. The melancholic gloom was lifted, the atmosphere cleared, she no longer refused food, and she felt interested in the kind ministrations of her friends and in her comfortable surroundings. She ultimately recovered, as far as recovery was possible. I saw her lately. The palpitation, the exophthalmos, and the goitre are *in statu quo*. The melancholia has certainly left in its wake slight traces of mental weakness. She is *male sana*.

I never could elicit a clear family history or any record of insanity, epilepsy, &c. Goitre was not endemic in the district where she was born and bred. Still, it is not a work of supererogation to inquire into the obscure connexion between Graves' disease and mental alienation. Emotional disturbance, shock, and bodily and mental exertion appear to be active agents in the production of both. The cases reported by Graefe, Trousseau, Laycock, Begbie, and Friedreich may be put in evidence to support the one, and those reported by Savage and Bruck to support the other. Cretinism is, as is well known, frequently associated with bodily deformity and goitre. Dr. G. H. Savage[1] has drawn particular attention to the fact (which has previously been observed) that patients with exophthalmos sometimes become insane, and that their insanity is usually acute mania, and often proves fatal. Bruck's patient exhibited paroxysms of vertigo and mania; Geigel's was attacked by *monomania de grandeur*: mine was afflicted with melancholia, and happily so far recovered as to be able to enjoy life and earn her livelihood.

Nottingham.

EXTREME DISPLACEMENT OF THE HEART TO THE RIGHT SIDE FROM PURULENT EFFUSION INTO THE LEFT PLEURA.

BY COURTNEY NEDWILL, M.D., M.R.C.S.

THE following case seems to me to have several points of interest, and to be worthy of record:—

A little girl, aged seven years, was brought from the country to my consulting-room on May 20th for advice with regard to "shortness of breath and curvature of the spine." The history given me by the child's mother was that in November last she had had an attack of mumps, followed in February by whooping-cough, from which she was then scarcely recovered. For nearly two months, the mother stated, she had noticed that the child's breathing was very short, and that the spine was getting worse day by day. The child was of fair complexion, scrofulous-looking, and ill-nourished, had a well-marked hectic flush, was puffy over the face, and had a temperature of 100·5°. The left side was greatly distended, and the spine had an enormous lateral curve. The heart's beat was most distinctly felt at a point to the right of the right nipple.

The child was taken to a small cottage in the suburbs of the town, where I visited her the next day, accompanied by my friend Dr. Moorhouse, who administered an anæsthetic, as we found her very nervous and apprehensive of pain. A large-sized aspirating needle was thrust into the chest in the mid-axillary region between the sixth and seventh ribs, and withdrawn as soon as it was seen that pus formed the effusion, a free opening being made in the same place with a scalpel and about six inches of rubber drainage-tube inserted. Some oakum was loosely packed over the tube, which was secured to the chest by a piece of plaster. About three pints of pus escaped during the operation and on the following night. The temperature next morning was 99·2°, but fell to normal on the succeeding day, and remained so throughout the treatment, which consisted principally of milk and cod-liver oil. The child rapidly gained flesh, the discharge day by day decreased in quantity, and the tube was gradually extracted and cut off until its last piece was withdrawn on June 25th. On the 30th the fistula had healed; and on July 7th she returned to the country with the respiratory murmur clear, the heart in its normal position, and the curvature gone.

On September 1st, Dr. Moorhouse and myself had an

[1] Guy's Hospital Reports, vol. xxvi.

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opportunity of examining her, and found no departure from the normal condition save the scar where the scalpel had been introduced between the ribs.

Christchurch, New Zealand.

REMARKABLE MIDWIFERY CASE: EXTRAORDINARY THICKENING AND INDURATION OF THE OS UTERI.

By Wm. Wigmore, M.R.C.S., L.K.Q.C.P.I.

I THINK the following case is worth recording:

At 3 A.M. on Dec. 8th I was called to Mrs. H——, aged thirty-nine, in labour with her third child, the last being two years old; pains had been going on since the afternoon of the day before. On examination, I found the os dilated to about the size of a five-shilling piece, head presenting; anteriorly, the os was thickened and swollen into a mass under the pubes, the rest being quite an inch thick and tough. The liquor amnii had escaped a short time before. I tried for some time to dilate, but finding I could make no impression, and the pains getting stronger and almost incessant, I applied the long forceps, hoping that with the aid of them and the fingers I might be able to dilate; but directly I used any traction, the os came quite outside the vulva, and I found it useless to attempt it. If I had used more force I should have pulled child and uterus away together. The pains were still incessant, the patient calling out for something to be done. I saw there was nothing left but to divide the os. Before doing so I wished for another opinion, and sent for Dr. Griffith of Harrow-road. He asked me to remove the forceps and let him try to dilate; but, like myself, he found it perfectly useless, and agreed with me that nothing but division would give her a chance of being delivered. I accordingly re-applied the forceps, and, pulling the os outside the vulva, proceeded to divide it posteriorly. The procedure was like cutting cartilage or tendon, and there was no bleeding; directly it was divided the uterus split right up over the head of the child, which was immediately expelled. The child was dead. I was now fearful of the consequences, daily expecting to find symptoms of metritis, cellulitis, or peritonitis; but, on the contrary, the temperature never rose above 101°. She never had any abdominal tenderness, nor even a fetid discharge, and is now quite convalescent.

Remarks.—After the birth of her first child the patient suffered from a fall of the womb, and after that of the second it became worse, and eventually quite prolapsed. She never sought any advice for it. During the whole of her present pregnancy she was sitting on it, which gave her much pain, and her favourite seat was a cane chair with a hole in it. I suppose, by the continual exposure and friction its character was quite altered. Having had a very large midwifery experience, and never meeting with a similar case, I am anxious to know what else I could have done. Craniotomy would have been of no avail, and I do not think that dismemberment would have been successful. I should also like to know how the peritoneum escaped—whether the recto-vaginal and vesico-vaginal folds were stretched by the gradual rise of the fundus and being held down below. I may here mention that after the birth of the child the uterus contracted well, the placenta came away without difficulty or hæmorrhage, and the os was drawn well into the vagina.

Inverness-terrace, Kensington-gardens, W.

THE JUBILEE AND SANITARY IMPROVEMENT.—Mr. Mark H. Judge, as a member of the Paddington Victoria Jubilee Committee, has given notice that he will propose the following resolution: "That in the opinion of this committee the dust-collecting and other trades which are carried on in connexion with the canal basin between Warwick-crescent and Praed-street, besides being a continual nuisance to the health of the parish, are during the summer months a serious danger to the inmates of St. Mary's Hospital and a source of annoyance to the Great Western Railway Terminus, which is so often visited by Her Majesty the Queen and the Ministers of the Crown; that the committee, therefore, considers that no better memorial of the Victorian Jubilee could be devised in Paddington than for the vestry to purchase the canal basin and adjacent property, in order that this long-standing nuisance may be abolished, and the site profitably utilised for residential and other purposes."

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—Morgagni *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

A CASE OF INGUINAL AND TWO OF UMBILICAL HERNIA IN WHICH RADICAL CURE WAS PERFORMED; REMARKS.

(Under the care of Mr. Sydney Jones.)

THE following cases are of interest as illustrating the radical cure of hernia by ligature of the neck and excision of the rest of the sac. In the first case the operation was performed on a boy aged three years and a half for a large inguinal hernia which could not be controlled by a truss; in the other two cases of umbilical hernia operation was urgently called for by symptoms of strangulation.

CASE 1. *Inguinal Hernia.*—A boy, aged three years and a half, was admitted on Sept. 27th, 1886. He had a right large inguinal hernia, which had existed since he was six months old. The external abdominal ring was large and patent. The hernia was easily reducible, but it had been found impossible to keep it up with a truss. The testis could be felt below the hernia, not overlapped by the latter, and appeared to be in a distinct sac.

On Oct. 15th an operation was performed under spray. The intestine having been returned, the sac was freely laid open. A comparatively narrow communication was found between the sac containing the hernia and that containing the testis. The hernial sac was divided transversely by a few light touches of the knife; the upper part was raised and ligatured at the neck, the excess of the upper part of the sac being cut away. The lower portion of the sac was turned down, and the edges accurately adapted with catgut sutures. Thicker catgut sutures were made to connect the columns of the ring. A drainage-tube was introduced, and the edges of the wound brought together by alternate silk and catgut sutures. Iodoform, iodoform gauze, and salicylic wool were used as dressings. The wound required dressing at 9.30 P.M., as the discharges were through and there was some oozing of blood.

Oct. 16th.—The temperature at 8 A.M. was 102°. There was no pain in the abdomen, but the tonsils were congested and swollen. Urine of specific gravity 1025, with no albumen.

17th.—The temperature in the night rose to 104°. The patient was restless and had little sleep, although quieter after a dose of bromide of potassium.

18th.—Tongue foul, but moist; no sickness; no distension. Ordered a pill composed of four grains of mercury and rhubarb.

19th.—Wound dressed and stitches removed; some accumulation of sero-sanguineous fluid.

20th.—Temperature 101° this morning; 101° last night; tongue cleaner.

21st.—Dark brown semi-purulent discharge from the wound. Temperature at 8 A.M. 98·4°. Patient much better.

22nd to 24th.—Much better; wound dressed with chlorinated soda lotion. Temperature normal.

25th.—Drainage-tube left out.

Nov. 9th.—No interruption to recovery since the last note. In the course of about a week the wound was healed; very firm cicatricial tissue existed in the situation of the old hernia, and the testicle was freely movable in its own tunica vaginalis. It was not thought necessary or advisable to recommend the application of any truss.

Remarks.—The above seemed a very good case to attempt a radical cure. The hernia was a very large one; no truss could keep it up, and later in life it must have assumed a very much larger size. At no time after the operation was there any reason to suspect any abdominal irritation. The high temperature shortly after the operation was, no doubt, due to congested and swollen tonsils from exposure to spray and in the operating theatre. Later on it was evident that some collection of blood and serum had accumulated in the scrotum below the tied neck of the sac.

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CASE 2.—*Strangulated Umbilical Hernia complicated with Pregnancy; Ligature of Neck of Sac; Removal of rest of Sac and of redundant Skin; Cure.*—E. D——, aged forty-one, married, was admitted on Nov. 8th, 1886. The patient first noticed projection of the umbilicus after the birth of her fourth child, about eight years ago. Since then it has gradually grown larger and larger, and has lately increased a good deal in size. She says she has had what she calls a "slight touch of the cramp" in it before, but never anything like the present pain. She first began to feel bad yesterday (Nov. 7th), about 5 P.M., when she had severe pain and retching after going to the closet. She took two doses of castor oil, both of which were returned, and she was sick pretty constantly till she applied for admission. After the first attack she passed nothing per rectum, but she passed urine. She is five months pregnant, and says she always "has a very bad time" during gestation, being sick and troubled with diarrhœa nearly to the end.

On examination there was a large umbilical hernia about as big as an ordinary sugar-basin, and compared by Mr. Jones to a large mushroom, it having a somewhat constricted base. The skin over it was uneven, dimpled in places, and apparently adherent to the parts beneath. In parts it was of a deep reddish colour. It was very tense, and gave no impulse on coughing.

The patient was admitted about 2 A.M, Mr. Sydney Jones was sent for, and decided to operate at once. The patient, however, demurred, asking to be allowed to wait until the morrow. As the symptoms did not seem of a very urgent nature, her request was acquiesced in, and the operation was accordingly put off until the next afternoon. In the meantime a long narrow ice-bag was put on the tumour so as to encircle its base, but no ice was applied to the surface, as the red adherent patches of skin seemed inclined to slough. The patient after admission continued to be sick more or less, and to have severe pain at the umbilicus. The vomit was chiefly mucus, and not fæcal in odour.

At 4.15 P.M. on the day after admission, the woman agreed to be operated on. Accordingly Mr. Jones (the woman being under ether) made a longitudinal incision down the whole length of the tumour, cut through the sac by a similar incision, and exposed the hernia, which consisted of a large mass of omentum partially adherent to the sac walls, with a loop of intestine, about five inches long in the middle. The intestine was deeply congested, of a purplish colour, but shining and fairly healthy. The greater part of the omentum was ligatured and removed, and the sac walls cleared. The sac was then dissected away from the skin and removed, all but a short neck, the constriction having been relieved by an incision directly upwards from the umbilicus, which allowed a small piece of healthy intestine to come up. The intestine was replaced, and the neck of the sac secured by a stout green catgut ligature tied firmly twice round it. As this seemed to cut the neck of the sac, and a small quantity of fluid continued to regurgitate, three or four catgut sutures were used till the opening seemed to be completely closed. The margins of the umbilical aperture were brought together by three catgut sutures. The greater part of the skin which had covered the hernia was then cut away, leaving sufficient to allow the margins to be brought loosely together; and the incision was closed by alternate silk and catgut sutures, a drainage-tube being placed along about three-quarters of the length, and opening below. The operation was performed under spray, with antiseptic precautions, and the wound was dressed antiseptically with iodoform and salicylic wool. The patient being very stout and the abdominal walls loaded with fat made the operation more difficult.

Nov. 10th.—The patient was sick once last night after the operation. Temperature at 8 P.M. to-day is 100·4°. She slept fairly well last night, having in all seven hours' sleep. A catheter was used.

11th.—The patient has been able to pass urine since the night of operation. Last night (Nov. 10th) she was sick three times—first time at 8 P.M., then at 10 P.M., and again this morning at 4. She had not been taking any food, and the vomit is small in quantity and looks like contents of stomach. There has also been a little diarrhœa. Tongue dry, but not so dry as yesterday. Pulse 108, full, soft. She slept fairly well last night (four or five hours), and feels this morning quite comfortable. Temperature 99·4°. She takes two teaspoonfuls of milk every half-hour, also four teaspoonfuls of meat juice in the twenty-four hours, and some barley-water.

12th.—Wound dressed under spray; its edges seem to be united, and it looks very healthy. Drainage-tube left in; not much discharge.

13th.—The patient was sick two or three times during the past twenty-four hours. Some diarrhœa; bowels open four or five times. Enema of starch and opium given at 2 P.M. yesterday. Temperature this morning 99°; pulse 98.

14th.—Bowels open twice yesterday; not much diarrhœa. Temperature 99·6°; pulse 112. The patient feels weak, but otherwise well. Tongue pale and moist; no pain or tenderness in the abdomen.

15th.—Morphia injections have been used until to-day; they are now stopped. She sleeps better; she has slept about from three to five hours each night since the operation. Her sleep is not continuous.

16th.—The wound was dressed to-day under spray. It is healed except where the tubing was inserted. Tubing left out and stitches removed. Temperature 99°. Tongue brownish fur but moist. The patient was sick at 2 A.M. yesterday, and again to-day at 8 P.M.

17th.—Bowels open five times yesterday; very loose motions. Pulse 112. Three or four hours' sleep last night.

18th.—Patient had a better night; slept five hours. Pulse 80, fairly strong. Tongue moist, covered with brownish fur. Temperature 98·4°. She has had a little bread-and-butter and tea this morning. She has complained a good deal for the last day or two of being hungry.

20th.—The wound was dressed yesterday afternoon under the spray, and is now healed. She has not been sick since the 18th. Sleeps better, four or five hours a night. Pulse 92; tongue furred, but moist. Temperature 98·8°. Custard was given yesterday, besides bread-and-butter.

21st.—Bowels opened nine times yesterday and last night. An enema of starch and opium was given last night.

22nd.—Bowels moved six times yesterday. Motions loose, but not much in quantity. Pulse 108, full and strong. Temperature 98°. Fish and custard diet ordered.

23rd.—Bread-and-milk diet to-day, and chicken. Bowels not relaxed last night. She slept much better last night. Temperature 98·4°.

24th.—Wound dressed with iodoform and salicylic wool. No spray. Wound healed in greater part. Very little discharge. Temperature 97·8°. Bowels opened twice in twenty-four hours; not loose.

26th.—Patient much improved; no sickness or diarrhœa. The dressings were left off except a little iodoform gauze. The edges of the wound are strapped together, and have been from the first. An abdominal belt, with an oval stiff plate corresponding to the wound, has been applied. The patient feels much more comfortable, and got up at mid-day.

27th.—Full diet ordered.

29th.—Patient is better; no sickness or diarrhœa. She feels quite well when up, and is to go out to-morrow.

CASE 3.—*Umbilical Hernia: Operation; Removal of Omentum; Ligature of Neck and removal of rest of Sac; Removal of redundant Skin; Cure.*—A fat woman, aged thirty-five, was admitted on Dec. 4th, 1886. The first appearance of swelling was about five years ago, during a confinement. She has had two children. About ten months ago she had an attack of severe symptoms in connexion with her hernia; but the latter was then reduced, and she has worn a belt ever since. On Dec. 1st, at 7 A.M., she had sudden vomiting, preceded by pain in, and enlargement of, her hernia. The vomiting continued, becoming much worse on the 3rd, and the pain was so great about the umbilical and epigastric regions as to make her, as she said, "raving mad."

On admission there was seen a large lobulated tumour, fairly circular, about 4 in. in diameter; it was sessile, except below. The skin was soft, but not discoloured. The tumour appeared omental, but it was difficult with certainty to say. There was some impulse; the skin was puckered, and the sac evidently much pouched. An ice-bag was applied for some hours, but without relief to the pain, which seemed very great. At 2.30 P.M. she was operated on by Mr. Sydney Jones. No attempt was made to divide any structure external to the neck of the sac, but a median incision was made to lay open the whole interior of the sac. There was much fatty omentum, which had long been adherent to the interior of the sac, with, in addition, a very large piece of omentum, much congested, with large engorged vessels. No intestine

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was found in the sac. The old adherent fatty omentum was removed. The recently protruded omentum was ligatured with catgut, and the stump passed into the abdomen. The sac was dissected out, the neck was ligatured, and the excess removed. The pillars of the ring were brought together by three catgut sutures. The excess of skin was removed, and the margins of the skin wound, after the insertion of a drainage-tube, were brought together by silk and catgut sutures. Iodoform and salicylic wool were used as dressings. Her pain ceased directly after the operation. She had some sickness and restlessness, which were remedied by subcutaneous injections of morphia.

Dec. 7th.—Fairly well since the operation. No tenderness. Temperature 101° to 102°; wound disposed to suppurate.

11th.—The wound was dressed last night; much discharge; suppuration around the sutures; these were removed and strapping applied. Boracic dressings were used. The suppuration gradually diminished, and she left the hospital well, with an abdominal bandage, before Christmas.

Remarks.—The two above-described cases of umbilical hernia indicate pretty well the plan of treatment which should be adopted in cases where umbilical hernia calls for operative treatment. In these cases in former times operation had a serious result, and on this account surgeons undertook such operations with fear and trembling. No doubt the proper plan to pursue, when operation is called for, is to cut at once, under antiseptic precautions, into the sac; to divide the constricting neck of the sac and return any strangulated intestine; to remove the omentum, ligaturing it at its neck, and return the stump into the abdomen; then to dissect away the sac, ligaturing this at its neck. In this way any blood or inflammatory products are prevented getting into the peritoneal cavity. To complete the operation the margins of the umbilical aperture are brought together by catgut sutures; the redundant skin is removed, and the edges of the skin wound are brought together by alternate silk and catgut sutures, drainage under the skin wound being used, and antiseptic dressings afterwards applied. In the above two cases, after returning the hernial contents a ligature of the neck of the sac was first employed, next sutures connecting together the margins of the umbilical aperture, and lastly sutures connecting the skin wound after the excess of skin had been removed. Both cases did well, although they were, as is usually the case, bad subjects for operation. In the first case, after operation there was more or less sickness; but she was pregnant, and it was her usual condition in previous pregnancies to suffer from sickness and diarrhœa from the beginning to the end of such period. This case healed by first intention, as is usual in cases after ovariotomy. In the second case there was some suppuration during the healing of the wound. In this latter case there was no strangulated intestine in the sac, but there had been a large addition of omentum in its interior. This omentum showed signs of intense congestion, and might have exerted pressure in some way upon intestine. The patient's pain was excessive, as was her vomiting, so as to call for operative interference; and this interference has resulted in her having got rid of her hernia.

SWANSEA HOSPITAL.

HIGH ANEURYSM OF FEMORAL ARTERY; LIGATURE OF EXTERNAL ILIAC ARTERY; CURE.

(Under the care of Mr. H. A. LATIMER.)

E. A. H——, aged thirty-four, a fitter by occupation, was admitted on Sept. 7th, 1886. He had that day made the journey to Swansea from Bridgend by rail. About two years before admission he severely strained himself in his work, and on the same night he felt a pain in the groin, which was followed by swelling of the scrotum. He states that this swelling was due to a rupture, and that he was able to return the bowel into the abdomen, but he never had any advice on the subject, and a truss which he applied and wore five months before his admission was of a very primitive nature. The wearing of this truss caused great pain, extending from the hip-bone to the seat of the aneurysm. He bore with this up to two months before admission, when he consulted a medical man, who immediately ordered him to bed. He states that, "when lifting anything heavy, when I had the truss on and my bowels came down, the beating and pain was unbearable." He first noticed this pulsation one month after taking to the use of the instrument. Has always been a great walker. Has never had syphilis. Had acute rheumatism at the age of sixteen, and gonorrhœa at seventeen years of age. Is married. Is generally abstemious, and has never drank spirits. The family history is scanty. A sister died of phthisis pulmonalis.

On admission there was a tense, pulsating tumour at the upper and inner part of the right thigh, of irregular outline and well elevated; it extended from Scarpa's triangle right up to Poupart's ligament, and thence to the side of the pubis. The impulse proceeding from it was eccentric. The right leg was swollen throughout. Comparative measurements gave the following: Right thigh over tumour 23½ in., left 18½ in.; right thigh at Hunter's canal 19½ in., left 15½ in.; right knee 15½ in., left 13 in.; right calf 15½ in., left 12½ in.; right instep 11 in., left 9½ in. The patient had suffered much pain of a continuous aching character, and extending along the right thigh from the anterior superior spine of the ilium downwards to the outer side of the knee-joint. No pain at any time in the aneurysm. No albumen in the urine. The heart was free from any abnormal bruit. The temperature by the mouth on the evening of Sept. 8th was 101°.

The external iliac artery was tied on Sept. 9th under carbolic spray. The incision practised by Sir Astley Cooper was made. The artery was ligatured with a double layer of No. 4 carbolised chromicised catgut, and the dressings employed were protective and gauze. His leg was then bandaged with flannel over cotton-wool, and he was placed on a water-bed with the limb elevated and surrounded with hot-water bottles.

The after-progress of the case was one of uninterrupted recovery. No pulsation at any time again showed itself in the aneurysm, and after a day or two all pain subsided. He was allowed to rise on Oct. 26th. The swelling in the limb began to subside very quickly after the operation had been performed, but it was found later on, on removing the flannel bandage, that two ulcers had formed on the outer side of the leg, no doubt from trophic nerve disturbance. They were situated over the peronei muscles at about the middle of the limb, the upper one being half an inch in length, and the lower one an inch and a half in length. Deep-seated suppuration and limited gangrene of the muscles at that spot took place, and on Nov. 4th a rigor, with rise of temperature to 104·2°, took place; all this trouble was immediately relieved by preventing the bagging of matter by means of carefully placed drainage-tubes. He was discharged on Dec. 6th, when the aneurysm sac was still to be felt as a hard lump, absolutely devoid of impulse, and painless on handling. The larger of the ulcers was still very slightly open; the smaller ulcer had healed perfectly.

STAMFORD INFIRMARY.

CALCULUS IN A BOY; REMOVAL BY LATERAL LITHOTOMY; CURE.

(Under the care of Dr. NEWMAN.)

H. I——, aged thirteen, was admitted on Aug. 25th, 1885 A stunted, white, unhealthy lad. Is said to have had symptoms of urinary irritation for a period of seven years. Constant incontinence, always in pain after passing urine. He has a long prepuce, with minute orifice.

On Sept. 1st circumcision was performed, and the patient sounded. A calculus of some size was readily struck. On Sept. 9th lateral lithotomy was performed, using Chiene's staff and a plain scalpel. The finger following the knife at once came on the stone, lying across the wound. This position was rectified, and the vesical wound enlarged with a probe-pointed hernia knife. The stone was seized with a pair of small straight forceps (in its long diameter), and very slowly extracted. Little hæmorrhage followed. The calculus was flattened, oval, and weighed 580 grains. Had not one bad symptom. On the fourth day urine was passed per urethram. On the tenth day it was noted that all the urine passed per urethram, and on the fourteenth day the wound of the operation was perfectly healed. On Oct. 5th the lad went home quite well.

Remarks.—The case noted above seems to be worth putting on record. The points of special interest are the long duration of very severe symptoms, the size of the stone, and the rapid repair of the surgical wound.

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Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Multiple Cavernous Angiomata.—Melanotic Tumour of Breast.—(?) Recovery from Tubercular Meningitis.—Raynaud's Disease and Peripheral Neuritis.—Rupture of Syphilitic Cardiac Aneurysm.

THE annual general meeting of this Society was held on Tuesday last, Dr. J. S. Bristowe, F.R.S., president, in the chair. The list of officers and Council for the ensuing year is appended to this report. The vote of thanks to the retiring President was proposed by Dr. T. Barlow, seconded by Mr. James Black, and carried by acclamation. The vote of thanks to Mr. Butlin, proposed by Dr. Goodhart and seconded by Mr. R. W. Parker, was also warmly received.

Mr. F. S. EVE showed a specimen of Multiple Cavernous Angiomata of Leg. They were distributed along the internal and external saphenous veins, chiefly subcutaneous, but some were lying deeply in the popliteal space. On three of the digits were calcified enchondroma; exostoses were found on each end of the tibia. A sarcomatous tumour sprang from the back of the tibia and included an angioma. Spaces bound with connective tissue were seen under the microscope, and these spaces could be injected from the vein. The sarcoma was a round-celled one. The tibia was bowed backwards, and showed a defect in organisation of osseous tissue. Phleboliths were contained within the angiomata. In Billroth's last edition some mention was made of multiple angiomata. Dependence of tumours on defective development was illustrated by the present case.—Mr. C. J. SYMONDS said Mr. Howse had recorded a similar case in the Guy's Hospital reports.

Mr. H. T. BUTLIN showed a Melanotic Tumour of the Breast taken from a woman aged sixty-four, who was first operated on in 1880. The tumour was of seven months' duration. There were no adhesions, no enlargement of glands, no retraction of nipple, and no peculiar colour of skin. The breast was removed. Recurrence took place, and a fresh operation was performed in 1882; from beneath the scar the recurring tumour was removed. In 1884 a third tumour from the same situation was excised; and recently another tumour was cut away. There was no sign of disease of any internal organ. The section was brittle and rendered microscopic preparations difficult. There were many tiny, very bright nævoid spots in the skin that were considered to suggest carcinoma. He believed it was a sarcoma with a distinct alveolar structure. There was a similar case in a woman aged sixty-eight in Billroth's article on the Breast in the *Deutsch. Chirurg.* Gross allowed of melanotic carcinoma, but not sarcoma. The melanotic granules appeared to be in the intercellular substance in the fibroid bands.—Mr. A. A. BOWLBY said that there were many small pigmented spots. The growth was exceedingly friable. He did not think there was true melanosis. He concluded that it was a sarcoma from the distribution of the blood-vessels.—Mr. D'ARCY POWER said that the structure was peculiar; a base of connective tissue existed on which filaments sprouted, as happened in the growth of some fungi.—Mr. BUTLIN wished to have the specimen submitted to the Morbid Growths Committee.

Dr. CARRINGTON read a case of old Phthisis and recovery from Tubercular Meningitis. He admitted that the case was open to criticism, but, inasmuch as it must have occurred to most to have at least suspected meningitis in cases that eventually recovered, he thought that any post-mortem evidence bearing on the point was worthy of discussion by the Society. The patient was a boy aged sixteen, a clerk. Three sisters had died in infancy, but the family history was otherwise good. On July 4th he was knocked down by a tricycle, which struck him on the right knee, but he only kept his bed for a week. Still, however, the knee continued to swell, and in the course of a year movement became much impaired. Fifteen months after the accident the left knee became affected, and eventually this joint also became to a degree fixed. The boy improved under treatment, but on Jan. 26th, 1886, he was readmitted with psoas abscess on the right side. He again improved by treatment, and was discharged on April 24th, but was readmitted on Oct. 2nd with another abscess on the left side; he gradually sank and died. After death the pi-arachnoid was found to be generally thickened, and the sulci were matted together. The membranes were granular, and exhibited small yellow tubercles, as was confirmed on microscopical examination. There was meningitis, probably of more recent origin, of the lower third of the cord; the brain and cord were healthy, except that the latter was softened. At the apex of each lung there were old phthisical lesions. The fourth and fifth lumbar vertebræ were carious, and the right knee-joint completely disorganised. With the exception of lardaceous disease of the spleen and small intestine, the other viscera were healthy. As regards the tubercular nature of the old meningitis, Dr. Carrington was inclined to lay much stress upon the concomitance of old tubercular phthisis, old cerebral meningitis, caries of the spine, and chronic joint disease, as evidence of the tubercular nature of the meningitis, which he believed had been recovered from, but he thought the naked-eye and microscopical appearances were equally distinctive. The spinal meningitis was probably of more recent origin, and due directly to the cause. If the origin of the disease was claimed as due to the accident, it was curious that the second knee was not affected until fifteen months afterwards, and there certainly could not have been any cerebral meningitis at the time, for the man only kept his bed for a week, and then went to his work as a clerk. On the whole, he suggested that there was evidence of bygone tubercular meningitis, probably approaching in date the old phthisis.—Mr. S. G. SHATTOCK suggested that the meningeal appearances were somewhat like those of periarteritis, as shown by Dr. C. Turner.—Dr. J. S. BRISTOWE raised the question whether the nodules of tubercles were necessarily ancient.—Dr. CARRINGTON said that the tubercles were yellow and caseous, and adherent by fibrous tags. He felt sure that they would be found to have no connexion with the arteries.—In reply to a question, Mr. TARGETT said the intellect was unclouded.

Dr. COUPLAND showed for Dr. Wiglesworth specimens of Peripheral Neuritis in Raynaud's Disease, the subject being a female inmate of Rainhill Asylum, aged twenty-six, who suffered from chronic Bright's disease and dementia, with epilepsy. Before her admission in December, 1884, she had sustained amputation of several of the fingers and toes for gangrene, and whilst under observation she suffered from ulceration of these extremities, and in January, 1886, the terminal phalanx of the fourth left finger became gangrenous and required amputation. The patient died suddenly in May, 1886, after an epileptic fit. The kidneys were markedly granular. The spinal cord and several of the nerve trunks of the limbs were examined microscopically. In the cord the chief change was in the posterior vesicular column of Clarke, where the cells were rounded, their processes being ill-defined; and the neuroglia of the white substance appeared slightly thickened. In the nerves there was an overgrowth of the fibrous elements, with atrophy and degeneration of the nerve fibres—e.g., the left posterior tibial nerve presented thickening of the epineurium, perineurium, and endoneurium, with atrophy of the nerve tubules. Similar changes occured in other nerves, and were better marked in those of the left limbs than in those of the right. The changes were more marked at the peripheral than in the larger nerve trunks. Dr. Wiglesworth left the question open whether the change was primarily a chronic interstitial inflammation invading the nerve bundles and causing their atrophy, or whether it was a primary degeneration of nerve tubules with secondary hyperplasia of the fibrous framework; but he considered that the case removed Raynaud's disease from the category of neuroses, and showed that structural lesions of the peripheral nerves underlay it.—Mr. A. A. BOWLBY had examined the nerves, and found indentical changes. He thought it was very likely to be a disease dependent on lesions in the peripheral nerves; the stiffening of the joints pointed in the same direction. M. Pitres had recorded a similar case.—Dr. THOMAS BARLOW said similar cases had been recorded by Pitres and Mountstein of Strasburg, but the changes were not so extensive as in Dr. Wiglesworth's case. Though important contributions, they did not solve the difficulties. Raynaud's disease was divisible into several classes. There were chronic cases like Dr. Wiglesworth's, and the genuine or paroxysmal cases, which were as fit-like as a rigor in an attack of ague. The occurrence of paroxysmal hæmoglobinuria and attacks of amblyopia and jaundice seemed to show that there must be a wider pathology than a peripheral neuritis. It seemed as

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though there were vascular storms, perhaps dominated by vaso-motor centres of the cord.—Dr. HARRINGTON SAINSBURY asked whether there was any Bright's disease, and what the condition of the peripheral vessels was.—Dr. J. A. ORMEROD said that in these cases there were not the symptoms of peripheral neuritis. He had recorded in the St. Bartholomew's Hospital Reports some paroxysmal disorders that seemed to be dependent on mild neuritis: loss of power, with pains, and the backs of the hands swelled. It would be interesting to associate such conditions with other paroxysmal ones like Raynaud's disease.

Mr. WITHERS GREEN showed a specimen of Ruptured Aneurysm from a barrister, aged thirty, who had drunk hard, but there was a clear history and evidence of syphilis. The patient died suddenly. The pericardium was distended with black clot, and a soft fawn-coloured bulging of auricular shape, the sac of an aneurysm of the wall of the right ventricle. A yellowish-white gummatous-looking swelling was seen around the aneurysm. The clear dependence of the ruptured aneurysm on syphilis was the great interest of the case.

The following card specimens were shown:—Mr. Butlin for Dr. Davies: Maternal Impressions; Purpura of Hands and Face in a New-born Child, who died in three hours. The mother was said to have been strongly impressed by the sight of a case of hæmorrhagic purpura one month before her delivery. Mr. Targett: Congenital Deformity of Leg and Foot. Mr. Eve: (1) Multiple Painful Lipomata of the Arms: (2) Diffuse Unilateral Papilloma of the Tongue. Mr. Charters Symonds: Hydatid of the Breast. Mr. J. R. Lunn: Tumour of the Clavicle displacing the Larynx. Dr. Drewitt: Aneurysm of Mitral Valve. Dr. Sainsbury: Hæmatoma of Dura Mater. Dr. G. N. Pitt: Carcinoma of the Spine and Liver, with Deposit in Douglas's Pouch. (Recent specimen.)

The following is a list of office-bearers for the ensuing year:—President: Sir James Paget, Bart., D.C.L., LL.D., F.R.S. Vice-Presidents: Drs. Henry Charlton Bastian, Syer Bristowe, T. H. Green, Douglas Powell, Sir Joseph Lister, Bart., D.C.L., LL.D., F.R.S., Messrs. Morrant Baker, Sydney Jones, and T. P. Pick. Treasurer: Mr. John Wood. Honorary Secretaries: Dr. Sidney Coupland, Mr. Rickman Godlee. Council: Drs. Robert Edmund Carrington, Henry Radcliffe Crocker, David White Finlay, James Kingston Fowler, James Frederic Goodhart, Walter Baugh Hadden, Arthur Edwin Temple Longhurst, Norman Moore, Joseph Arderne Ormerod, Felix Semon, Messrs. A. A. Bowlby, H. Butlin, W. Cheyne, Frederic S. Eve, H. Golding-Bird, J. H. Morgan, S. G. Shattock, J. B. Sutton, Charters J. Symonds, Frederick Treves.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

Typho-malarial Fever.

AT a meeting held on Dec. 8th, Dr. W. Dickson, R.N., President, in the chair,

Dr. J. E. SQUIRE read a paper on the above subject, of which the following is an abstract. When observing the fever which occurred amongst the troops round Suakim during the campaign last year, Dr. Squire realised that there were two diseases present, both possessing similar symptoms, which led to their being diagnosed as enteric fever. Post-mortem examination showed the diagnosis to be correct for some of the cases, but in others, similar as to symptoms, the absence of the enteric lesions which were expected to be present proved that these latter were not enteric fever. The definition of the term "typho-malarial fever" requires to be agreed upon before proceeding, for opinions differ as to its signification. The College of Physicians, following the opinion expressed by the International Medical Congress at Philadelphia in 1876, places the name as a subdivision of enteric fever and describes it as a "combination of malarial and enteric fevers"—in other words, a compound fever resulting from the simultaneous action of two distinct poisons. A somewhat similar view was upheld before this Society in 1881 by Dr. E. G. Russell, who speaks of typho-malarial fever as an example of the parallelogram of forces, it being, as he considers, the resultant of the two poisons of malarial and enteric fevers. Dr. Woodward, who gave us the name, considers it a hybrid between these two diseases. Against these views the writer protests and gives preference to the opinion that typho-malarial fever is not a result of the enteric fever poison, but a form of malarial fever, and he gives as a definition that "typho-malarial fever is an expression of the malarial poison (or a malarial fever) in which intestinal and adynamic symptoms are prominent, causing the illness to simulate enteric fever." The College of Physicians, in saying that typho-malarial fever is a combination of malarial and enteric fevers, probably intend to signify that the one is modified by the other; not that a distinct disease—a hybrid, in fact—is produced, as would be suggested by Dr. Russell's simile of the parallelogram of forces. The belief in hybrid diseases should be passed for ever. A specific poison produces a specific disease with certain pathological results. The symptoms may be modified by a variety of causes within or external to the patient; or two poisons may enter the system at the same time, and one may then delay or modify the manifestation of the other, but no new disease is thereby produced. If the term "typho-malarial fever" expresses nothing to men's minds beyond a modification of enteric fever, or a hybrid disease, it is not worthy a place in our nomenclature. But if a poison absolutely distinct from that which produces enteric fever, and with a different pathological manifestation, may, under certain conditions, cause symptoms closely resembling enteric fever, and an illness often mistaken for this disease, then we have a morbid state of much interest and of great importance, and one which has a claim to special recognition. This would appear to be the case with regard to the subject of this paper. The term "typho-malarial fever," having at length been included in our nomenclature, should remain; but it should be transferred from its present position under "enteric fever," and be placed as a subdivision of malarial fever. The pathological signs, rather than the symptoms, serve to show the differences between typho-malarial and enteric fevers; and where the necropsies disclose the Peyerian ulceration of enteric fever, the latter disease is indicated. Dr. Squire's experience at Suakim showed that besides cases of true enteric fever, verified post-mortem, there were other cases diagnosed as such in which the necropsy showed an absence of ulceration in Peyer's glands, even after three weeks' illness, and only a general congestion of the intestinal mucous membrane. Other instances were referred to, especially an outbreak of fever in two regiments in the Bengal Presidency, recorded in the Army Medical Report for 1879, in which similar experience showed the existence of enteric fever side by side with cases closely resembling this disease, but in which the intestines were unaffected. The course of typho-malarial fever is thus described: Tonsillitis may occur as a premonitory sign. The onset is sometimes more sudden than that of enteric fever, and bilious vomiting is often an early and persistent symptom. Diarrhœa is frequently, but not invariably, present, the stools being greenish or resembling those seen in enteric fever. Congestion may extend along the whole length of the alimentary canal, causing nasal catarrh, or symptoms resembling dysentery. Later on the tongue becomes dry and brown, and sordes appear. Mental apathy gives place to low muttering delirium, with subsultus and other signs of the typhoid condition; and death may result from exhaustion, or a prolonged convalescence keeps the patient in hospital for weeks or months before the absence of diarrhœa and evening fever allows of dismissal from hospital. The temperature, though often resembling that of enteric fever, reaches a high point earlier in the illness, and the daily range is greater. The absence of rose spots is invariable. The symptoms being thus so similar to those of enteric fever, we must turn to the pathology of the disease to see the great distinction between the two, their differentiation being of importance from the differences in etiology. Speaking generally, the difference is found in this: that whereas cell-proliferation and subsequent ulceration in Peyer's patches and the solitary glands of the ileum is the pathological sign of enteric fever, such ulceration is rarely, if ever, found after death from typho-malarial fever. As in other malarial fevers, ulceration may be found in the intestines in typho-malaria, but it does not select, and is not confined to, Peyer's patches and the solitary follicles. These ulcers may be found in any part of the alimentary canal, and may be of any shape and of almost any size. The other pathological signs are those of malarial fevers: congestion and ecchymosis of the intestinal mucous membrane, especially in the duodenum and upper jejunum, enlargement of the spleen and of the mesenteric glands, and congestion of the liver. Among the complications met with, hæmor-

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rhage from the bowels, urinary organs, and other parts is not uncommon. Pulmonary congestion or pneumonia may occur. Jaundice may be present. Purpuric blotches, without scurvy, were seen in some of the cases at Suakim. Rheumatism, sometimes with effusion into the joints, has been observed. Typho-malarial fever may occur wherever malaria is found; imperfect sanitation, or the prevalence of enteric fever, may determine the intestinal symptoms. Overfatigue and excitement are predisposing causes. Typho-malarial fever is not communicable from person to person. It is probable that the fever of Gibraltar, Malta, and the Mediterranean may sometimes be of the nature of typho-malarial fever. The author's experience was gained at Suakim, where malaria in other forms is also met with. Much difference of opinion exists as to what cases should be included under the term "typho-malarial fever." Dr. Squire proposes that the term should be restricted to malarial fevers which in their symptoms closely simulate enteric fever, and that those cases should be excluded which are found post mortem to have the pathological appearances of enteric fever. Temperature charts illustrating the cases were exhibited.

In the discussion which followed, the President, Drs. Hunt, Magill Dwyer, Phillips, and Buchanan took part.

CAMBRIDGE MEDICAL SOCIETY.

A MEETING of this Society was held on Nov. 5th, Dr. J. B. Bradbury, President in the chair.

Pseudo-Hypertrophic Paralysis.—Dr. BRADBURY showed a boy, aged twelve, from Castle Hedingham. Two first cousins were said to have died with this disease. The patient was always well and active before the present illness, which was first noticed in 1881. A tendency to fall down frequently when running down hill was observed, and his legs had been gradually getting weaker, so that he was unable to get off the floor when in a sitting posture. He suffered from nocturnal incontinence of urine nine months ago. His intellect has gradually been getting weaker, and his eyesight has been failing for the last three months. He is said to have had large calves since birth. His appearance is fairly healthy, but he complains of weakness in the legs, and pain in the back on sitting up. His calves and buttocks appear large, and he walks with a swinging movement of his body from side to side. When placed on the floor he has great difficulty in getting up, and pulls himself up with his hands or climbs up his thighs in the characteristic fashion. He stands on his toes with his heels off the ground, and the abdomen arches forwards. Some of the muscles are atrophied —namely, the deltoids, erector spinæ, latissimi, and chondro-sternal portion of pectorals; and the gastrocnemii and latissimi do not react to the faradaic current. Sensation is good, but the tendon reflexes absent. Optic discs appear normal, but there is slight internal strabismus when reading. Urine normal.—Mr. MARTEN showed for Dr. MacAlister a boy, aged ten, who was suffering from the same disease.

General Sarcomatosis; Death from Acute Myelitis.—Mr. LAURENCE HUMPHRY related the case of a gardener, aged nineteen, single, who was admitted into Addenbrooke's Hospital on July 14th, 1886. He had always enjoyed good health until the present illness, and there was no history of heritable disease in the family. The present illness commenced about the beginning of June, 1886, with pain in the loins and weakness in the legs; he had to give up work, but was able to walk about. The patient on admission was pale and weak, and had evidently lost flesh; he complained of aching pains in the knees and hips. The evening temperature was 102°, the morning 98°, and there were slight sweats. In the submaxillary region on the right side was a freely movable swelling about the size of a walnut, which he had hardly noticed. The muscles of the legs were small and flabby, but there was no loss of sensation, and no swelling of the joints. The patellar reflex was normal, and slight ankle clonus could be obtained. The urine was normal, and there were no physical signs of disease in the chest. On July 17th, four days after admission, the legs became suddenly numb and all motor power in them was lost; the urine was retained, and had to be drawn off by the catheter. A few hours after he suffered from severe girdle pains at the level of the umbilicus. On July 19th the girdle pains were subsiding, there was a zone of hyperæsthesia at the umbilicus, and more or less complete loss of sensation from this downwards. Tendon reflex gone; plantar reflex absent. Cremasteric delayed; epigastric present. The bowels acted unconsciously. The symptoms now all pointed to sudden compression of the spinal cord and rapidly ascending myelitis. During the day a crop of subcutaneous sarcomatous nodules appeared on the front of the abdomen and chest, with flat tops and a surrounding zone of redness. There was copious sweating, and the temperature varied from 98° in the morning to 104° in the evening. On the 20th a bedsore developed over the sacrum and rapidly enlarged. The muscles of the lower limbs wasted rapidly, and had lost their electrical reactions. On the 22nd there was weakness in the arms, and the intercostal muscles were paralysed. The subcutaneous nodules were increasing in number, and extended to the scalp, but there were none larger than a sixpence. The tumour in the neck had increased considerably. The patient became gradually weaker and more drowsy during the next fortnight, the bedsores rapidly increased, the urine became offensive, and he died on August 18th.—Mr. J. GRIFFITHS gave the account of the necropsy. The tumour in the neck was beneath the sterno-mastoid muscle, and was sarcomatous, of the small round-celled variety. The dura mater of the brain presented on its outer surface very numerous flattened growths of small size, situated for the most part along the course of the longitudinal sinus and slightly adherent to the inner surface of the skull. There were small nodular growths also on the inner surface of the dura mater in front of the fissure of Rolando. On the inner surface of the seventh, eighth, and ninth dorsal vertebræ there was a mass of new growth extending to the outer surface of the dura mater and attached to it. This was so thick as to produce evident compression of the corresponding part of the cord. In the rest of its extent the spinal dura mater was free from growths. The spinal cord below the mid-dorsal region distended its membranes, and below the seat of compression was soft and granular-looking. In the upper dorsal region the softening only involved the central part of the cord, and there was a focus of softening in the lower cervical region. In the upper part of the dorsal region and throughout the cervical the postero-median columns and direct cerebellar tract showed commencing degeneration, and in the cervical region, in addition, the tract of Gowers showed the same change. In the medulla, just above the decussation of the pyramids, there was a small band of degeneration laterally at the external border, and tracing this upwards it gradually spread outwards into a thin band and became lost. There were small secondary nodules on the pleura and pericardium. In the kidneys were small secondary growths, chiefly in the cortex; and in the medulla were numerous small abscesses, surrounded by well-marked congestion. The ureters and pelves were thickened and inflamed. The bladder was thickened, and the inter-muscular connective tissue much increased. The small abscesses in the kidneys contained micro-organisms, and minute embolic abscesses were found commencing in the liver and wall of the heart. The vessels supplying the softened area in the cervical region were found to be plugged with the same bacteria. All the secondary growths and subcutaneous nodules had the same structure as the tumour in the neck. The thymus gland was not enlarged.

Death following soon after Washing out Dilated Stomach.—Mr. MARTEN brought forward the case of a patient who was admitted into Addenbrooke's Hospital, under Dr. Bradbury, for stricture of the pylorus. He was forty-eight years old, and seven years previously had been an in-patient, with symptoms of pyloric ulcer. His stomach was now much dilated, and he suffered from flatulence, vomiting, pain, and increasing weakness. He vomited large quantities of frothy fluid, containing sarcinæ. Ten days after admission it was decided to wash out the stomach. Soon after passing the tube into the stomach the patient became very faint, so it was withdrawn. About two hours afterwards he complained of stiffness in the jaws, with inability to open the mouth, and rigidity of the arms, which were strongly pronated and flexed, the thumbs being turned on to the palms. The patient was conscious, and sweated profusely. The rigidity spread to all the muscles of the limbs and trunk, and the temperature rose to 103·4°. He became pulseless and livid, the temperature rising to 107·2° before death, which occurred six hours and a half after washing out the stomach. Post-mortem examination showed a simple stricture of the pylorus, with the scar of an old ulcer, and a much-dilated

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stomach. There was no injury or abrasion of the mucous membrane. The other organs were healthy, and no lesion of the brain was discovered.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

A MEETING of this Society was held on Nov. 25th, 1886, Dr. Cleaver, President, in the chair.

Large Thrombus of Right Labium.—Mr. W. M. JONES reported this case, which he was called to see about six hours after labour in a young primipara. He opened it and evacuated more than a pint of clot, and applied carbolic dressings and pressure. Severe eclampsia and suppression of urine followed, but the woman made a good recovery. There was slight suppuration, but in a fortnight's time the wound had quite healed, leaving the parts in a normal state.

Poisoning by Cocaine.—Mr. KELHAM related this case. A man aged thirty took 4½ grs. of hydrochlorate of cocaine in solution by mistake. In twenty minutes he was seized with severe pain in the stomach, thobbing of heart, loss of eyesight and of power in the legs, with incoherence of speech and confusion of ideas; no unconsciousness. Severe vomiting came on with cramps in the stomach and legs, very profuse perspiration, intermittent action of the heart, cyanosis of the face, and feeling of suffocation; then severe prostration, shivering, and coldness of the skin. The severe symptoms passed off in about three hours, but the prostration and vomiting lasted all next day. Thirty-six hours after taking the cocaine he began to lose taste, and had a leathery feeling in the mouth and tingling of the fingers. The treatment consisted in emetics and stimulants.—Remarks were made by Mr. Snell, Dr. Roberts, Mr. Jones, and Mr. Pye-Smith.

At the meeting on Dec. 9th Dr. Cleaver again presided, and the following cases were narrated:—

Biliary Calculi.—Mr. PYE-SMITH exhibited the morbid specimens and related the notes of a case of biliary calculus, which had lodged in the neck of the gall-bladder of a woman aged forty-two. The right leg had become gangrenous and had been amputated, but the patient slowly sank. He also showed a facetted gall-stone, passed per anum, from a patient who had presented signs of abscess of the liver or bile passages, and who had for some days acute intestinal obstruction, and had since coughed up suddenly a quantity of pus coincidently with shrinking of the abscess and the development of a pleuritic rub on the left side. The patient, a man aged sixty-three, was now convalescing.

Locomotor Ataxy.—Mr. GWYNNE gave notes of the case of a woman aged forty-seven, in whom the patellar reflexes were exaggerated. Girdle pains were present, with frequent micturition, impaired sensation, and incoördination of movement. Dr. Gwynne explained the symptoms by supposing disease of the lateral columns to exist; and while the reflex loops in the posterior columns were more or less affected, the disease was probably mainly centred in the groups of cells, which by their connexions preside over coördination of muscular actions.

Locomotor Ataxy (Acute).—Dr. PORTER showed a patient suffering from ataxic symptoms and diminution of muscular sense in both upper and lower extremities, and affection of speech of the same character, coming on rapidly within four months. The patellar tendon reflex was diminished. There was no paresis, wasting, or sensory disorders. The early symptoms had been stiffness, rather than pain, in the knees, feet, and shoulders, with gastric irritability, nausea, and occasional vomiting. There was no history of lightning pains. The pupils were equally dilated, and irresponsive both to light and accommodation; discs atrophic. Sexual power had disappeared completely. Dr. Porter considered the case to be of the nature of locomotor ataxy as regarded the symptoms, but too acute for sclerosis, and somewhat irregular. Although he could not obtain any history or evidence of syphilis, he thought it might be of that nature, and was treating the patient with large doses of iodide.

The immediate Cause of Death in Malignant Cases of Fever.—Dr. C. H. WILLEY, of the Borough Fever Hospital, in reading this paper, said that the cases under consideration were those of scarlet fever and small-pox, in which unconsciousness and death ensued at an extremely early stage. The pathology of this condition has not been explained. The conclusions to which Dr. Willey had arrived were based on clinical observations and post-mortem examinations in twenty-five of these malignant cases. The chief factors in the investigation appeared to him to be that the fatal symptoms in each case were those of a rapidly failing circulation, and that after death the chambers of the heart, and particularly the right ones, were completely filled with white, jelly-like clot, which was, he said, clearly of ante-mortem formation. The failure of the circulation ensues (particularly in small-pox cases) with great suddenness; and the question arose, Was this failure or the thrombosis the primary condition? Evidence from the main symptoms and from such invariably accompanying ones as pulmonary œdema and copious diarrhœa, Dr. Willey said, goes to show that failure of the circulation is the primary cause of death; and, further, that not only is the heart paralysed, but also the entire arterial system; in fact, that an entire collapse of the blood-pressure throughout the vascular system is brought about with more or less suddenness by a functional failure of the sympathetic nervous system, governing as it does the cardio-motor and vaso-motor functions. The pulmonary œdema and the profuse intestinal flux are due to the same cause: they are undoubtedly associated with a greatly diminished blood-tension in the arterial system.—Remarks were made by Mr. Walker, Dr. Gwynne, Mr. Baldwin, Dr. S. White, Mr. James, Dr. S. Roberts, and Mr. Pye-Smith.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

AN ordinary meeting was held on Dec. 3rd, Dr. C. S. Smith, President, in the chair.

Supra-pubic Lithotomy.—Mr. MCGILL read a paper on three cases in which he had recently operated. In the first, the patient, aged forty, underwent lithotomy seven years before. Three stones, weighing respectively 3 oz., 2 drs., and 10 grs., were extracted. Urine passed by the urethra on the twentieth day, and recovery was complete. In the second case the stone weighed ½ oz.. The wound was healed on the tenth day. The patient was aged. In the third case there was considerable doubt as to whether a stone was really present, but eventually a calculus weighing 10 grs. was removed. The bladder wound was stitched up, but the urine escaped. Mr. McGill pointed out that there was a singular coincidence between the mortality after lithotomy in ancient and modern statistics; and this was borne out by the accounts kept in the Leeds Infirmary during the last fifty years. According to the Norwich statistics, 56 per cent. of cases when the stone was over 3 oz. proved fatal, and 25 per cent. in cases over forty. He thought the operation contrasted very favourably with the lateral operation in facility of performance, convenience in thoroughly exploring the bladder, and in the risk of hæmorrhage, and that shortly the operation would completely take the place of the older method. With regard to lithotrity, he pointed out that there was a return of the stone in one in seven cases according to Sir H. Thompson's statistics.—Mr. WHEELHOUSE pointed out that lateral lithotomy held its ground in former times because of the rapidity with which it could be performed in the pre-anæsthetic period. At one time median lithotomy threatened to monopolise the field; but he held now that with a small stone and a healthy bladder lithotrity was to be preferred, but with a large stone and an aged patient the supra-pubic incision was the best.

Experimental Researches respecting Pasteur's Anti-rabic Method.—Dr. HIME gave an account of some experimental researches he had lately conducted on this subject. (See THE LANCET, Dec. 11th, 1886.

Toxic Effects of $\frac{1}{100}$th of a grain of Sulphate of Duboisin. Dr. CHADWICK related a case where this amount of the drug, instilled for examination of a senile cataract, produced a state of delirium lasting many hours, leaving the patient totally unconscious of what had occurred. There was great muscular weakness, and many strange actions were performed. It was suggested that the susceptibility to this drug reached its maximum in old age, and that the similarity between the symptoms and those of senile atrophy, popularly known as "softening of the brain," might suggest that its action was by causing spasm of the cerebral arterioles, and might indicate a possible liability to that form of pathological change.—Dr. MAJOR said the symptoms closely resembled those he had noticed in a medical friend, who took for experimental purposes a large dose of hyoscyamine

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being characterised by strange antics, with curious unreasonableness. He attributed much of the effect to delusions of vision.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

A MEETING of this Society was held on Friday, Dec. 17th, Mr. Hatherly, President, in the chair.

Mr. E. POWELL showed a case of Cervical Rib in a woman, the patient of Dr. Handford.

Mr. PRYCE brought forward a young woman, aged twenty-three, who presented the condition of Cervical Rib on both sides of the neck.

Mr. PRYCE also exhibited the following specimen:—Pyelo-nephritis, Inflammation of Right Ureter, Cystitis and Caseous Deposit in the Prostate, probably of a tubercular origin, from a man aged twenty-four, who during life had suffered from intermittent attacks of hæmaturia, great prostration and loss of flesh; likewise a water-colour drawing of the same by Mr. Geraty.

Dr. WHITELEGGE read a paper on Disinfection. The experiments of Koch, Klein, and Parsons were summarised, and shown to disprove the efficacy of almost all the ordinary chemical disinfectants. Some were practically useless—sulphate of iron and chloride of zinc, for example; while others were mere deodorants, without any true disinfectant action. Some, again, were antiseptics only—that is, they held in check the multiplication and growth of germs for the time being; and many of the true germicides were employed in such insufficient strength or duration of exposure that their action must necessarily be *nil*. The only trustworthy chemical disinfectant or germicide at present available seemed to be mercuric chloride. Of aerial disinfectants or fumigants, chlorine was by far the most satisfactory, and, unlike sulphurous acid, could at least be relied upon to disinfect all exposed surfaces, but the practical difficulties attending its efficient use were very great. No fumigant could disinfect bedding or clothing. Articles such as blankets, which could not be boiled without injury, should be disinfected by steam, in a special apparatus. Although hot-air disinfecting stoves had been of the utmost service in the past, they would not deal with such refractory organisms as spores of bacilli, even if exposed freely, without injury to fabrics. Finally, it was pointed out that, with the exception of boiling and treatment by mercuric chloride, no real disinfection was possible by unskilled persons in private houses; and, further, that isolation must be regarded as the sheet-anchor in dealing with infection, its importance becoming more and more manifest as we realised the futility of ordinary disinfection. In private houses it was rarely possible to maintain isolation for more than the commencement of the long and tedious period of still infectious convalescence.

YORKSHIRE ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

THE annual meeting of the members of this Association was held on Dec. 21st at the Town Hall, Bradford, Mr. S. W. North (York) presiding.

Dr. J. M. Wilson (hon. secretary) read the report of the committee, which was adopted. Mr. North having intimated his desire not to seek re-election as president, Mr. Roberts moved: "That the cordial thanks of the Association be given to Mr. North for the valuable aid he has given to it during the eleven years he has been President." The resolution was seconded by Dr. Giddings, and carried. Dr. T. W. Hime (Bradford) was elected president, on the motion of Dr. Giddings, seconded by Dr. Edwards, and supported by Dr. Britton and Dr. Byles. On the proposition of Dr. Cameron, Mr. North, Dr. Giddings, and Dr. Britton were elected vice-presidents, Dr. J. M. Wilson (Doncaster) was re-elected hon. secretary, and Dr. Bruce Low hon. treasurer.

Dr. J. M. WILSON read a letter from Dr. Alfred Hill (Birmingham), who said he had felt for some time that it would be to the advantage of the whole body of the medical officers of health if they were to form themselves into one society; and Dr. BRITTON moved, and Dr. HIME seconded, the following resolution: "That this meeting, having heard the communication of Dr. Hill on the subject of the provincial Societies of Officers of Health joining the Central Association in London, desires to express its concurrence in his views, and that we appoint the president, ex-president, treasurer, and secretary as a subcommittee to arrange the details." The motion was carried.

Dr. J. M. WILSON read a paper, giving an account of an Outbreak of Diarrhœa caused by the emanation of noxious gases from tide-locked sewers.—Dr. BYLES called attention to the extra duties required of medical officers of health under the Cowsheds and Dairies Order, by which the inspection of these places has been transferred from the county constabulary to the local authorities in each district. He said he foresaw that if they were to carry out the duties imposed upon them by the new Order they would have a largely increased amount of work to perform, and a deal of it of a dirty, disagreeable, and dangerous character. It looked as if medical officers were about to be called upon to perform the duties of veterinary surgeons. Another matter for medical officers to consider was as to how they were to be remunerated for their services.—Dr. HIME said that it had been his practice in Bradford, when a person made an application for a licence, to go to the premises and see if they were suitable. The power they possessed over dairies and cowsheds was very inadequate, and they were sadly in want of stringent bye-laws for their regulation.—Dr. BRITTON said that he had received no information on the subject, either from the Local Government Board or his own board, and until he did he should not feel called upon to act in the matter. In his opinion the examination of dairies and cowsheds ought to be left in the hands of the nuisance inspector.—Dr. J. M. WILSON remarked that his inclination would be to superintend the work, which should be done by the nuisance inspector. As medical officers, they ought not to forget that they were advisers on matters of health to sanitary authorities. After they had made themselves acquainted with the requirements of the new Order they could consider the question of remuneration.—The CHAIRMAN said it was part of his duty as a medical officer to inquire into the causes of disease within the area of his local authority, and he had never hesitated to go into dairies and cowsheds to see whether they were kept in a satisfactory manner.—Dr. SCOTT believed that the new Order would involve very little extra labour upon medical officers.

Dr. HIME afterwards exhibited a Pasteur-Chamberland filter, and the Secretary a sample of peat dust for use in earth-closets.

Reviews and Notices of Books.

General Paralysis of the Insane. By JULIUS MICKLE, M.D., &c. Second Edition, enlarged and rewritten. London: H. K. Lewis.

THE second edition of this exhaustive monograph is to a large extent a new book, contains nearly double the amount of matter presented in the first edition, introduces many new points, and also treats old subjects on entirely new lines.

With regard to the nature of general paralysis of the insane, the chapter on Pathology considers this from every point of view. This chapter has been entirely rewritten, and deserves the most careful perusal by the student. It is here stated that, with regard to the essential nature of the disease, it may be a mere complication of insanity, or, what is more likely, a distinct and special form of mental disease. It may be a disease with and also without insanity; it may be of an inflammatory or of a degenerative nature; its seat may be in the brain, the cord, or the sympathetic nerves; but its point of departure appears to be almost invariably from the cerebral cortex.

Let us now briefly glance at the novelties most conspicuous in the new edition of this valuable work. Hallucinations, formerly declared not to exist in general paralysis, are found by the author to be occasionally vivid, though at other times by no means obvious. Fifty-five out of a hundred cases possessed them. The handwriting becomes illegible and shaky, Bacon's illustrations and Blandford's recognition of the omission of words being here mentioned. Athetosis and choreiform movements frequently follow epileptic attacks, and reflex activity becomes lowered later on. Anosmia, with wasting of the

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olfactory bulbs, is present in chronic cases, and here the author's experiments with onions, camphor, and pepper are quoted. This is often attended with a defect of taste, auditory hyperæsthesia, and sometimes deafness. Tactile sensibility in the last stages is abolished, yet hyperalgesia and neuralgia may coexist. Cutaneous illusions, such as blows, kicks, or lightning pains, are now complained of, and are connected probably with some spinal disorder.

The remarks on bedsores are very complete. These chiefly attack the sacrum, trochanters, heels, ankles, knees, elbows, toes, vertebræ, scapulæ, and even the occiput. Surgical measures are occasionally called for, as when pus begins to burrow internally amongst the tissues. Hæmatoma auris usually begins in the fossa of the helix, but it is not peculiar to general paralytics, as it has been seen in the ear of a prize-fighter (Sutherland), and amongst schoolboys from violence at football (Farquharson).

Dr. J. G. Davey seems to have been the first observer of bone disease in insanity (1842), and Dr. J. W. Ogle has drawn attention to experiments in which the interference with nerve-supply brought on hyperostosis. Dr. Ormerod has found the ribs in general paralytics dark, wet, greasy, and brittle, with small Haversian systems. Drs. Clouston and Williams have noted that these ribs break more easily than those of a healthy man, which Dr. J. L. Rogers considers due to the diminution of calcic salts. There are, moreover, special arthropathies in this disease, which are here illustrated by cases.

In the blood of the general paralytic there is obviously a spanæmia in the last stages. Thakrah and Hittorf observed its hydræmia; Michéa found the serum solids increased; A. J. Sutherland and Bence Jones found a diminution of albumen; and H. Sutherland believed that an absence of rouleaux, together with an increase in the colourless corpuscles, were conditions almost peculiar to general paralysis; and the researches of Voisin, Brunet, and lately of Macphail, agree with these results.

That the temperature in general paralysis is increased in the maniacal and apoplectic attacks has been remarked by the author and by Meyer; Dr. Clouston has also observed that the average evening temperature is always above that of the morning. The pulse in the early stages is full and hard, and the second sound of the heart accentuated, the author's remarks here coinciding with those of Dr. Bevan Lewis. Generally speaking, the average evening temperature, pulse, and respiration are above the normal. Sometimes the pulse goes up to 80, 90, and 100, and in other cases descends to 64 and 66. Dr. G. Thompson's able remarks on the sphygmographic tracing of the pulse in general paralysis, which he considered indicative of spasm of the arteries, are denied by the author. In 1877 the author placed on record some examples of unilateral sweating in general paralysis, affecting one side of the face and head.

The terminations of general paralysis may be death, chronic mental disease, or (?) recovery. The modes of death may be exhaustion, septicæmia, pyæmia, spinal meningitis, pulmonary or abdominal diseases, such as pneumonia, phthisis, diarrhœa, nephritis or cystitis, hæmorrhages, epileptiform convulsions, apoplectiform attacks, embolism, or choking by food. Suicide is rare, but rib fracture is sometimes a cause of death. In a large share of cases several factors are concerned.

In the chapter on Diagnosis we have these additions: The distinctions between general paralysis and acute alcoholism with agitation, delirium tremens, melancholia with stupor, chronic insanity, secondary dementia, and poisoning by strychnine, bromides, and iodide. Other diseases simulating general paralysis have also been described at greater length.

Statistics.—Dr. Mickle has computed that of the total admissions in England and Wales of insane persons during the past four years—viz., 26,658 males and 27,984 females, or a total of 54,642 persons—3374 males and 910 females were general paralytics, or a total of 4284 persons. The average proportion per cent. of the number of general paralytics of each sex admitted to the total number of patients of each sex admitted during these four years was 12·65 per cent. for the males and 3·25 per cent. for the females, or 7·8 of the total admissions of both sexes.

Under Morbid Anatomy the author has enumerated his observations most minutely. The adhesions were marked or extreme in 30 per cent. of all cases of general paralysis. The brain-weights of Crockley Clapham are here quoted, but, curiously, the average weight of the entire encephalon for all classes in society of males is 44·01 oz., whilst the military standard is 44·15 oz. Additions have been made to the remarks concerning the state of the heart, lungs, and kidneys in general paralysis.

The microscopical appearances are given fully. The brain may be first affected, the brain and cord may be attacked simultaneously, or the cord may be first affected, which is rare. We must, however, draw attention to Tunzek's work on the atrophy of the nerve-fibres of the cerebral cortex; Baillarger's and Horn's ideas that general paralysis can be caused by propagation, as from simple tabes dorsalis; Sir Crichton Browne's and Blandford's theories that general paralysis is a disease of inflammation; Boinet and Poincaré's notion that it is a vaso-motor disorder; and the author's statements that it may be viewed as a meningeal, a spinal, or a neurotic affection. Post mortem the inflammatory theory is constantly upheld, as shown by the opacities, adhesions, coloured skull-cap, and arachnoid cysts so common in general paralysis. Which part is first or mainly inflamed? Some say the meninges, some the cortex, some both, some the cord, and others, again, the cerebro-spinal nervous system.

The chapter on Therapeutics has been rearranged and expanded. The apparently new points here are the remarks upon ergot, physostigma, digitalis, and nitrate of silver. Maniacal excitement may be dealt with by quickly acting purgatives, warm baths, the bromides, veratrum viride, and ether spray to the head. Opiates and henbane are not recommended, and the ill effects of chloral, where contra-indicated, are alluded to.

The chapter on the varieties of general paralysis, and also the illustrative cases have been very wisely curtailed.

As we have said, this manual of General Paralysis is exhaustive. It is a book which must necessarily find a place upon the shelf of every medical man who desires to keep up to the standard of the time, be he physician, surgeon, obstetrician, or psychologist.

Functions of the Brain. By DAVID FERRIER, M.D., F.R.C.P. Second Edition. London: Smith, Elder, and Co. 1886.

THIS work is well known to all who take an interest in the science of neurology, of which the functions of the brain form no small part. It is needless to say anything in praise of the work, the second edition of which is brought well up to the times. No scientific medical man's library can be said to be complete without Dr. Ferrier's book, which contains the records of the author's own work, as well as those of other observers of repute.

Dr. Ferrier is careful to give the different views of authors concerning disputed anatomical and physiological matters, and in places helps the reader to discriminate between opposing or apparently antagonistic opinions. The book is abundantly illustrated, and most of the figures convey in a definite manner the points referred to in the text. The definition of some of the figures is really excellent—Figs. 28 *et seq.*—from sections of the monkey's cerebral cortex, by Bevan Lewis. That the work is well up to date is shown by frequent references to investigations of the past year.

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Beevor's observation is given that the fibres from the internal capsule and those from the corpus callosum do not interweave with each other in proceeding to the grey matter of the cortex. This is taken from the October number of *Brain* (1885). Spitzka's observations on the Comparative Anatomy of the Pyramidal Tract (Jan. 1886) are also quoted. The work is one of great and peculiar value; for, even supposing that one had at hand a record of all the recent researches into this subject, it would be an exceedingly tiresome and laborious task to cull from the various works all that had been written, say, about the functions of the cerebellum Dr. Ferrier does this for us, and arranges the matter in harmony with his own observations and experiments; so that in the space of sixty pages (174 to 234) we have a connected account showing the present state of knowledge of the subject. It is needless to say more concerning a work which no neurologist can afford to be without.

Transactions of the Society of Medical Officers of Health.

THE volume of the Transactions of the Society of Medical Officers of Health which has just been issued contains several papers of especial interest. A historical account of house sanitation formed the subject of the inaugural address of the President, Dr. W. H. Corfield, who told therein the story of house-drainage from early Roman times up to the present, and who discussed the great advance which has recently been made in legislation affecting the sanitary condition of dwelling-houses. Dr. G. A. Heron contributed an excellent paper on Koch's cholera bacillus, in which he strongly supported the view that the organism described by the German *savant* deserved the position which he attributed to it, and urged the arguments which are afforded by the effect of this bacillus on cultivating fluids. Professor G. Bischof also read a paper on Koch's gelatine-peptone water test, which appears in the same volume. As a result of much experimental work, Professor Bischof has come to the conclusion that the test is untrustworthy, and that the number of colonies ordinarily found in water has no necessary or invariable connexion with wholesomeness or pollution; but he admits that with further development the test may have a value which it does not at present possess. A very original paper by Mr. Eassie, on the waters derived from the Bagshot beds considered as drinking supplies, discusses the impurities contained in these waters and their cause. After careful investigation, Mr. Eassie concludes that although many of the Bagshot beds are capable of furnishing a supply, more or less abundant, of water for dietetic purposes, yet he says there are other strata in the same formation which secrete and supply waters unfitted in their natural state for potable use. He therefore argues that every supply of water derived from the Bagshot series, and especially from the middle and lower beds, should be carefully analysed, and the deeper the source of supply the greater the need for analysis, for the reason of want of nearness to oxidating powers. Other papers of importance to health officers are published with those to which we have referred: the recommendations of the Royal Commission on the Housing of the Working Classes as affecting the status of the medical officer of health was the text of a paper by Dr. Seaton; the suction of sewer gases into service-pipes conveying drinking-water, by Dr. Swete; the protection of milk-supplies from contamination, by Messrs. Wynter Blyth and Alfred Spencer; regulations as to lodging-houses were discussed by Mr. Lovett; and the sanitary condition of poor districts in the metropolis, by Dr. Parkes. We note with satisfaction the development of this Society and its increasing powers of usefulness to medical officers of health in all parts of the country. The appointment of Dr. Alfred Hill of Birmingham as president, following that of Dr. C. E. Saunders as one of its secretaries, is ample evidence that the work of the Society has not more relation to sanitary work in the metropolis than in other parts of the country.

Indian Veterinary Manuals. 1. The Elephant. By JOHN HENRY STEEL, V.S., A.V.D. Madras: W. H. Moore. Pp. lxiv-100. With many Illustrations. 1885.

THIS is the first of a series of manuals that promise to be of much use, being written in a semi-popular style, yet containing a large quantity of not readily accessible information. Elephants have been used in Asia and Africa from very remote periods as animals of war, as by the Carthagenians, Romans, and Persians; and in old times, when these could be protected by some sort of defensive armour from such implements as arrows, stones, and the like, they may have proved serviceable, their huge bulk and impressive appearance when in long ranks striking terror into those who were not accustomed to them, or who had, perhaps, never seen them. But Mr. Steel remarks that their use is becoming much restricted. The elephant's terror of firearms renders his great bulk and his great strength terrible rather to friends than to foes, and in the Burmese wars formidable lines of these animals have been put to rout by small bodies of cavalry. Then, again, their weight renders it difficult to transport them from one place to another. Their keep is very expensive, their original cost considerable, and they are liable to various diseases. Still, elephants are extremely useful in carrying the impedimenta of war, including not only tents and baggage, but cannon; whilst they can often free in a few minutes a gun or a waggon fixed in the mud, which would require much time if ordinary means were used. The work is divided into two parts, both of which contain much highly interesting reading. The first, or introductory part, deals with the natural history of the elephant and his use in modern armies, whilst the second part treats of his diseases. We commend the perusal of this book to all who are interested in this remarkable quadruped.

THE EFFECT OF A DIET WITHOUT LIME UPON THE TEETH.

To the Editors of THE LANCET.

SIRS,—Far be it from me to throw cold water upon any honest experimentation, especially upon the work of an observer who has won his spurs, as Dr. Miller has, by years of careful experimental work in the field of bacteriology. Still, it appears to me that more weight has been attributed to the three experiments upon the feeding of dogs on a diet deprived of lime salts than is legitimate, and, indeed, than Dr. Miller himself claims for them. He used for analysis, at intervals, two upper canines and one lower, or *vice versâ*. Dr. Galippe has shown that the specific gravities (which correspond pretty closely with the chemical composition) of corresponding teeth on the two sides of the mouth differ, as do those of the upper and lower jaws, in the same individuals. Dr. Miller's results show only small differences in the percentage compositions of the teeth during the period of his experiment, and these differences are discordant. It need hardly be pointed out that an average drawn from nine discordant analyses has not the faintest significance. If any inference as to probabilities is to be drawn from so small a number of cases, the one which suggests itself to me is that the feeding was productive of no traceable result at all upon the teeth. It is also said that it is a fact familiar to dentists that the teeth of an individual undergo alterations in character as to density &c. at various periods during life. Everyone knows, of course, that caries advances with very varying rapidity at various periods; but it is a mere begging of the question to assume that this is due to alterations in the teeth and not to alterations in their surroundings. This matter is, however, too wide a one to enter upon in this place, so I will only say that, personally, I have never seen any case lending support to this idea.—Yours faithfully,

Jan., 1887. CHARLES S. TOMES.

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THE LANCET.

LONDON: SATURDAY, JANUARY 8, 1887.

THAT there must soon be a considerable reform in all that relates to the office of coroner in this country cannot be doubted by those who have paid any attention to the subject. The office is one of the greatest antiquity, but, unlike some other ancient institutions, it does not admit of the sweeping reform of abolition. On the contrary, it is a most important office, which in the very nature of things must, reformed or unreformed, endure as long as humanity itself; for it must always happen that deaths will from time to time occur under circumstances calling for an inquiry into their cause. We cannot hope for a time when there shall be no sudden or violent deaths. It follows therefore, that there must be some official appointed to make inquiry into the cause of all those deaths which from the surrounding circumstances demand it. It is true that in cases where a charge of murder or manslaughter is made there is an investigation before the magistrate; but while this has the inconvenience of a double inquiry, it is no argument, as some contend, for abolishing the office of coroner. There are many cases in which a death has occurred the cause of which is unknown, and can only be ascertained by a searching inquiry into all the circumstances, including medical evidence and a post-mortem examination, but which do not go beyond the coroner's court. As an illustration of this, we may mention the case which occurred more than forty years ago, and was generally known as the "Hounslow flogging case." The late Mr. THOMAS WAKLEY, the founder of this journal, held an inquest and made a searching inquiry into the death of a soldier who had died soon after receiving the punishment of flogging. Although no specific charge against any individual was involved in the verdict of the jury, and though the case did not go beyond the coroner's court, the inquiry was one of the most important ever held, and led to the abolition of flogging in the army. Other instances might be given. It is plain, however, that there must be a preliminary inquiry into the cause of some deaths, and even in countries where there is no coroner's inquest there is a modification of it, to which we shall allude presently. It being clear, therefore, that the office of coroner must remain, What are the reforms needed? To answer this let us see what are the defects of the present system?

The principal one is a total want of uniformity, from the mode of election to the close of the coroner's career, whether that be with his life or with his office. Judges, recorders, and magistrates are appointed with some regard to uniformity; so are sheriffs. But town and city coroners are elected by the local municipal council, those of Oxford and Cambridge by the University, and the Admiralty coroner by the Crown or Lord High Admiral. There is still another mode [illegible]. The county coroner is elected by the freeholders. [illegible] MACDONALD, M.P., one of the candidates at the late election of coroner for the eastern division of Middlesex, intends to bring in a Bill to amend this mode of election, and will no doubt be heartily supported. Passing on to the qualifications for the office, we find still the same want of uniformity. No peculiar qualification is now required, though in HAWKINS' "Pleas of the Crown" the author seems to express an opinion that the persons chosen, though not knights, must be "of good substance and credit." Practically, however, the office is now held chiefly by barristers, solicitors, or members of the medical profession. Of a total of 286 coroners whose qualifications are stated, 238 belong to the legal and 48 to the medical profession—a disparity which cannot be justified in these days. We have always contended that, as the primary duty of a coroner is to ascertain with the aid of a jury the cause of death, such duty comes more within the province of a medical man than of a lawyer. The old objection to a medical coroner, that his duty is not so much to ascertain the cause of death as to find out who caused it, never had any real foundation, and at the present time is wholly untenable. It will not strengthen the case for legal coroners to argue, as some do, that they understand evidence and legal formalities better than medical men, for inquests held even by lawyers have been quashed for legal informalities. And that the average solicitor is by no means well posted up in the law of evidence is well known both to judges and counsel, the depositions of legal coroners having frequently been complained of as being most unsatisfactory. Besides all this, there is the most formidable objection of all to legal coroners, that the duties are extremely repulsive to the average lawyer, and the office does not attract those who are likely to be successful in their profession. On the other hand, the most repulsive part of the duties—that of viewing the bodies and taking medical evidence—is what most medical men have been well trained to, while the office has attracted and still attracts medical candidates with the highest qualifications. Nothing can be more trying or disheartening to medical witnesses than the impatience with which their evidence is too often received by legal coroners. The late CHARLES DICKENS was a severe critic of our profession and its members, but in the serio-comic narrative by the "Uncommercial Traveller," "On a Coroner's Jury," he gracefully alludes to "the Coroner who was nobly patient in receiving the evidence, and humane: he was the late Mr. WAKLEY..... for which," he adds, "I ever afterwards felt grateful to him, as I do now to his memory." Continuing the defects of the present state of the law, county coroners are appointed for life, and cannot resign, like most officials. An antiquated procedure, the writ *de coronatore exonerando*, has to be obtained, and by this means only can a county coroner be relieved from his duties, old age and infirmity notwithstanding. Again, on the death of a coroner his deputy cannot act; the duties must be performed by another coroner at considerable inconvenience both to himself and others

But where uniformity is most wanting is in the manner in which inquests are held. Coroners are paid by fees, upon a three years' average; thus there may be an inducement to multiply inquests. Some coroners hold inquests in every case of sudden death; others exercise a discretion. Some require the jury always to view the body; others have dispensed with this legal requirement in a few

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cases, thus rendering the inquest null and void. Some coroners have a beadle or officer; others depend on the police for information of deaths requiring an inquest. Some, especially medical coroners, require medical evidence at almost every inquest; legal coroners dispense with it as much as they can to save the rates. All this confusion arises partly from the very antiquated statute under which coroners still act—the 4th EDWARD I., stat. 2,—a statute passed six centuries ago; partly also because the sources whence the coroner derives his information are various. He may learn it from his beadle, from the police, from a medical practitioner, from a registrar of deaths, or from a relative or friend of the deceased.

The obvious remedy for most of these evils is to provide for greater uniformity, care being taken that the new system shall possess all other needful reforms. In Scotland, where the duties of coroner are performed by the procurator fiscal, complaints have arisen that many cases which ought to be inquired into are withheld from him, and we have had a recent instance of the defect of the Scotch system in what was known as the Carlisle poisoning case. The body of the unfortunate woman, who was poisoned by some ham which she had eaten at her own wedding breakfast, was removed from Edinburgh to Carlisle for burial without the knowledge of the fiscal authorities. Hence arose a deadlock when the full particulars were fully known. The Edinburgh Procurator Fiscal could not act, as the body had been removed out of his jurisdiction; the coroner for Carlisle could not act, because the death occurred beyond his district. It is, moreover, a source of complaint that the inquiry of the Procurator Fiscal is a secret one. A similar secret mode of inquest prevails in the Channel Islands. In the Isle of Man inquests are held by the high bailiffs of the four principal towns; the inquiry is public and with a jury. In Ireland the system is the same as in England, though the proportion of medical coroners is, we believe, greater than in England and Wales.

Coroners should be permitted to resign at a reasonable term of notice, and deputy coroners should act on the death of the coroner until his successor be appointed. The claims of medical candidates should be duly considered, since experience has shown that medical coroners have discharged their duties with the greatest satisfaction, and to the interests of all concerned. The Births and Deaths Registration Act should be further amended, so far as deaths are concerned. It should be required that notice of every death be given to the registrar within a certain interval after death, and that all violent or sudden deaths be notified directly to the coroner of the district. More stringent regulations are required as to the burial of still-born infants, as recently noticed in these columns; printed forms of certificates of still-birth should be issued to all medical practitioners, and forms of declaration to all certified midwives. The rights of general practitioners should be strictly respected; a second medical witness could be called in cases where a criminal charge is preferred against anyone; and preference should be given to skilled pathologists and medical jurists, the general practitioner first called-in making the post-mortem examination in conjunction with the former.

These reforms would ensure considerable improvements, with but little expense or inconvenience to anybody. Other improvements would suggest themselves, and by a little mutual concession, coroners and medical practitioners working together for the common weal, we should get rid of all the defects and abuses now prevalent, and coroners' inquests would become what they ought to be, solemn and searching inquiries.

THERE is a paper in the January number of the *Contemporary Review* by Mme. ADAM, who has long posed as "the enemy" of PAUL BERT, while trying to run with the hare and hunt with the hounds in relation to the movement which BERT is alleged to have inaugurated against the clerical party in France. The doctrine this lady philosopher lays down is that the two castes, the religious and the scientific, should be "equally excluded from all participation in politics." While affecting to cherish an intelligent respect for both Religion and Science, Mme. ADAM holds that the one is necessarily idealistic and the other materialistic, that they cannot possibly be reconciled, and that they must accordingly be manipulated, as elements in the national constitution and life, by statesmen who are neither priests nor scientists, but superior to both. The argument is plausible, and it is effectively stated by the advocate, but the premisses are bad; and when we come to look closely into the facts the inferences must be seen to be fallacious. "The equilibrium of a society," writes Mme. ADAM, "depends on the equal proportion of the scientific and the religious element in it. When the priests tip over the balance on their side, society suffers in its material needs, and is impoverished; when science gets ahead of religion, society grows rich, gives itself up to luxury, and soon becomes corrupt. The men of science sacrifice everything to the play of forces, the acceleration of movement. Reason and logic are the only compass they steer by, and their ideal for the individual is the facing of difficulties and the achievement of success. But in all this, goodness (which is instinctive religion), heroism, self-devotion, the love of one's neighbour, go for nothing." It is very plain that the view propounded, and the starting-point from which this conclusion is reached, are narrow and mistaken. Was there ever a grosser libel on science, particularly the science of Medicine, which is Mme. ADAM'S *bête noire*, than to say that it excludes, nay does not foster, heroism and self-devotion? It is a matter for thankfulness that the doctrine taught has not been turned to worse purposes than that to which Mme. ADAM has striven to apply it—namely, the subordination of facts to theory and the glorification of a particular sort of cleverness at the cost of depreciating the value of true knowledge. The essence of the idea is that "politics consists in government as something apart from the nation governed. It is the *reductio ad absurdum* of the Platonic notion of a bureaucratic system of administration. Mme. ADAM'S fundamental proposition embodies an idea which is at once the pride and weakness of the French system and has run through successive developments of Monarchy, Imperialism, and Republicanism. Statesmanship is regarded as a profession across the Channel. Government is the supposed work of genius. The notion of a State having its affairs administered on constitutional principles, without some constructive ulterior purpose to which

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everything else is subordinate, is one that has no place in the philosophy of the grand nation. Statesmanship is a function apart from all else, and statesmen compose a class or caste, the highest in the land, and from this order, according to Mme. ADAM, priests and men of science ought to be rigidly excluded because they represent elementary and constituent parts or principles. They may contribute plums to the pudding, but they may not be cooks, and it is for the cooks exclusively to determine how much or how little of each particular ingredient is to be compounded. Now, we directly join issue on this ground, and must take leave to characterise it as an unwarrantable assumption, based on, or excused by, a total misconception of the very first principles of self-government. The bare fact that such a notion is widely tolerated among the thinking classes in France is a proof that her people are not ripe for self-government. The truly intelligent classes among our neighbours, as among ourselves, must see that Mme. ADAM'S idea—which is unhappily the idea of a very large proportion of the more active people across the Channel—is fatal to the realisation of true *liberty*. It involves a transference of power from one section of the "governing caste" to another, the real business classes of the people being systematically denied a share in the control of public affairs. So far from its being true that priests and men of science should be excluded from the government of the State, these classes ought to be duly represented in the governing body. Although we cannot go so far as AUGUSTE COMTE, and affirm "that a State should be governed by men of science," we are very far from thinking with Mme. ADAM that no "falser theory of government ever entered a wise man's head"; and we believe that it will never be well with progressive States until the claims of science to a larger voice in the administration of public affairs is recognised, and allowed to take effect in the formation of Governments and Cabinets.

The phrase "science in politics is politics in science," on which Mme. ADAM seems to plume herself, has no precise meaning that we can discover. She contends it implies "a very bad warping of the mind twice over." Her notion seems to be that the method of inductive reasoning by which the true scientist ascertains his facts and draws and corrects his inferences is inapplicable to the system of government. A nation must not have its affairs administered on natural principles. There must be no attempt to reason from the known to the unknown, or to guide the vessel of State on a course projected on scientific principles. The statesman must, like the poet, be born, not made. He must evolve the schemes of government with which he rules the nation from his inner consciousness or gain them by inspiration. The science of political economy is to minds of the class represented by this gifted lady a crude and pitiable attempt to formulate what ought to be treated as the sublime outcome of genius. It is to the ascendancy of such ideas as these our neighbours owe the fact that there is no distinctly practical and business-like policy underlying their system. They are "a nation of shopkeepers,"—because the commercial classes, which form the backbone of other nationalities, must needs be represented adequately in their [illegible] excluded from the function of statesmanship. When we speak of the commercial classes, we include the whole composite body of producers and manufacturers, and the classes that exercise an active influence on the constitution of society. Among these classes must needs be included the "priests" and ministers, who supply the religious element to the national organisation, and conserve the morals of the people, and the "men of science" to whose enterprise and achievement every branch of industry in these modern times owes its precision and success, and without whom the body politic would be disintegrated in spite of the supreme sagacity of the most gifted order of professional statesmen. PAUL BERT was a medical scientist, and it is against the special class of workers in science he represented that the animosity of Mme. ADAM is particularly directed. Underlying her antagonism to the scientists there is, of course, the anti-vivisection idea. Mme. ADAM is especially aggrieved by the demonstration of the grafting process. She brings it in at every twist and turn in this article, and would seem to have alluded to it in nearly every conversation she had with GAMBETTA or PAUL BERT. It is a "fixed idea" with her, and obtrudes itself so frequently as to break the thread of every argument. We strongly recommend those of our readers who have not read the paper on which we are commenting to do so. It cannot fail to afford them amusement directly, and instruction indirectly. Madame ADAM'S hatred of PAUL BERT—not personally, perhaps, but as a representative man—is as GAMBETTA had the honesty to tell her, "truly feminine."

In one regard Mme. ADAM differs from some other lady agitators—namely, in favouring, or affecting to favour, the idea of religious education. The sort of "religious education" permitted under the *régime* she would establish is not, indeed, likely to be very satisfactory to those who desire religious instruction for the rising generation, but Mme. ADAM'S recoil from the Materialistic School, as represented by PAUL BERT, has been so violent that she is perforce driven back almost, if not quite, into the arms of the clerical party. This is what we mean by saying she has tried to run with the hare and hunt with the hounds in relation to the anti-clerical movement. She throws the whole responsibility of Article 7 of the decrees of March 29th upon PAUL BERT, and then taunts him with wanting "just that element in which his scientific experiments have been wanting too—success." She contends that "you cannot reckon among the assured acquisitions of science discoveries which are neither incontestable nor uncontested." This remark is in itself conclusive evidence of Mme. ADAM'S incompetency to discuss the subject of PAUL BERT'S achievements and failures, or to form an accurate estimate of his work as a whole. She is ignorant of the fact that not a few of the most priceless treasures of science have been found among the ashes of exploded ideas. The very fiascoes of the honest and earnest scientist are more productive than the chimerical dreams of the theorist. Mme. ADAM may be excused for not knowing this, for it is manifest that her acquaintance with even the history of scientific discovery is extremely limited; but she cannot so readily be pardoned for the bad taste of an article which

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seems to have been indited on the novel and, let us hope, exclusively French idea—*De mortuis nil nisi—malum.*

IT would be interesting to know the number of those who are prevented from visiting our theatres because of their unwillingness to encounter the stifling atmosphere which as a rule prevails in them; and it would, we have little doubt, much astonish theatrical managers if they could realise the amount of hard cash which is kept out of their exchequers by those absentees who weigh the pleasures of the evening against the morning's headache, and arrive at the conclusion that these few hours' pleasure is not worth the price in physical suffering which is paid for it. We are well aware that our pleadings for ventilation may be met by the objection that the theatres mostly fill well, and that this may be taken as an indication that the public is satisfied in all particulars. The success of our theatres—the long runs and the crowded houses—is due, however, in a great degree, to the extension of our railway system, and to the enormous influx of visitors from the suburbs and the distant country, who come to London for their theatrical pleasures, and are willing to brave a few nights of suffocation for the sake of witnessing performances the recollection of which serves to relieve the dulness of the country. It is notorious that many London residents, and notably the professional classes, to a large extent, keep away from the theatres because they find that after stewing in some overcrowded and heated theatre on the previous night their brains are not sufficiently clear in the morning to allow of the faithful performance of their duties. We say it with all humility, but with the certainty that we are right, that theatrical managers are thus deprived of the most intelligent and most discriminating portions of their audiences, and that the lack of patronage of theatres by the professional classes must tell against the best interests of the drama, for every educated person must admit that there are dramatic interests which are higher than pounds, shillings, and pence. We doubt if any theatre has yet been built in London in which the question of ventilation has been considered of prime importance by the architect. Theatres have been built in New York and on the Continent (notably, we believe, at Frankfort) in which the ventilation has been efficiently provided for, and in which the visitors get fresh air of a regulated temperature without draughts.

Surely the ventilation of a theatre is no very difficult matter. The Board of Works now compels every theatre to have outlets on every side, and where there are outlets for visitors there must be room for inlets of fresh air. The vertical delivery of fresh air (if the tubes be large enough and in sufficient quantity) may be managed without causing draughts, and no building lends itself better to the escape of foul air than does a theatre, provided holes be made for its escape. The central sunlight of a theatre is a most efficient outlet for foul air, and there ought to be no difficulty in providing other outlets of a similar kind in the lobbies and above the stage, and at the back of the dress circle, boxes, and galleries. Outlets, of course, are not alone sufficient; there must be inlets; and if these be provided in the proper place and proper quantity, there ought to be no draught when a door is opened, which is now one of the greatest nuisances experienced in our theatres. In our variable climate it is necessary that the temperature of the in-coming air should be regulated, and in this there ought to be no difficulty with the aid of steam coils and ice. It is needless to say that every theatre ought to have an officer whose special charge it should be to regulate the ventilation and temperature of the house. This is very necessary, because of the constant variation in the numbers present in the house and the extreme uncertainty of the outside temperature in our climate.

There is no doubt that something has been done to improve the condition of our theatres by the introduction of the electric light. This does not foul the air as does a gas light, but it does not assist—at least to the same extent as a gas light may be made to assist—in carrying off the exhalations from the 1200 or 1500 persons who are crowded into a very confined space. We feel tolerably sure that if the sum (a very large one) which is spent upon the electric lighting of a theatre were spent upon its ventilation on a rational plan, and the supervision of it, the gain in comfort and health to the public would not fail to be appreciated and would result in a gain to the manager.

THE *Liverpool Mercury* for Dec. 31st, 1886, contains the report of the committee to be submitted to the governors and subscribers to the Hospital for Women, Liverpool, upon the practice of frequent spaying in this institution. The members of the committee appear to be laymen, and when they came face to face with this question they found themselves in a very uncomfortable position. The funds fell away, subscriptions did not come in, and what appeal could be made to the public on behalf of an institution in which a noticeable part of the work done was the removal of the uterine appendages? Under these circumstances the committee appears to have lost its head, and to have sought guidance chiefly from those who either claim to be inventors of the operation, or who are regarded as adepts in its performance. The replies of several of those who were consulted are given in the report; they all, with one exception, tend in one way—that is, to justify the frequency with which spaying was performed in the hospital. The exception was the reply of Sir SPENCER WELLS, which appeared in our columns last year. He stated that he regarded the statement that 111 (it should be 169) of 347 in-patients were subjected to abdominal section as so shocking as to be almost incredible. The committee endeavours to lessen the value of this letter by the statement that the number operated upon was really taken out of 3800 patients, and that all in-patients might have had to undergo abdominal section. Hospital patients, however, in Liverpool, differ but little from those in London and elsewhere; they suffer from the same diseases, and the proportion of those requiring abdominal section is much the same in every large town. Sir SPENCER WELLS is intimately acquainted with this class of patient in a hospital for women in London and his criticism must be considered to have much weight.

As soon as the question of the too frequent resort to the operation came before the committee, it at once gave every assistance and facility for inquiry to the committee appointed by the Medical Institution, and at the same time passed a resolution calling upon the medical officers of the hospital "to keep a record of

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the operations performed, stating the circumstances of each case, the name of the medical officer asked in consultation, and the fact that the patient or her relatives have been informed of the nature of the operation performed." The committee accepted the report of the committee of the Medical Institution (which appeared in our columns on Dec. 11th), and, with a view to carry out its recommendations, resolved that "no operation of a dangerous character, or that involves abdominal section, shall be performed (except in extreme emergency), without previously summoning a consultation of the consulting and acting surgeons for in-patients."

These resolutions are good so far as they go, but they are insufficient. It is not enough to tell the relatives and friends what the operation is; the patient herself, being of adult age, should be told, and have the opportunity to consent or refuse to undergo the operation, after a full explanation of its nature has been given to her. Further, it is not enough to describe the operation in words the patient cannot understand, and the consequences of it as sterility. Women do not know what the removal of the uterine appendages, ovaries, and tubes means, or what it involves; when told it would prevent conception, many think it on that ground alone a highly desirable operation. They should be made to understand that the operation is really spaying, and thus be placed in a position to refuse or consent to it. Should this recommendation be carried out, we shall look with interest to the future records of spaying in the Hospital for Women, Liverpool.

Annotations.

"Ne quid nimis."

THE FELLOWS, MEMBERS, AND COUNCIL OF THE COLLEGE OF SURGEONS.

WE would once again draw attention to the petition now being circulated by the Association of Members of the College of Surgeons amongst the Members of the College throughout the country, and urge on them the desirability of at once sending in their signatures and their adhesion to the principle for which it contends—viz., the right of Members of a certain standing to vote in the election of Council, and to be themselves directly represented on the Council. The latest action of the present Council, in polling the Fellows on questions not actually raised by the Members, or raised by them in a different sense, looks so suspiciously like an attempt to influence their voting in a manner prejudicial to the interests of the Members, that nothing, we fear, now remains but for the latter to rely on that "self-help" which, after all, is the mainspring of every real success. It seems very improbable that the Council will make any such concessions as will satisfy the Members, or meet their just aspirations. Hence, the Members must take the matter seriously in hand and act on their own behalf. Under these circumstances, the sooner this petition is presented the better for its success; and it is important that it should be well and universally signed. We hear, with pleasure, that many of the larger towns, such as Manchester, Bradford, and Shrewsbury, have already responded with something very like unanimity. Nevertheless, many names are still required in order to get even a majority of the total number of Members at present enrolled, and this can only be done by a fairly general signature of surgeons at home, seeing that a large number of Members of the College are established in the colonies or are on foreign service. We would therefore impress diligence on all the local secretaries, as much for the purpose of securing signatures as of expedition and the saving of unnecessary expense. The statement of accounts for the past year shows a "balance deficiency" of £5, with outstanding liabilities for printing &c. of a further £20. Such a work as the present cannot be carried on without funds; and while we may congratulate the Association on the work they have already accomplished at so small an outlay, we must impress on all those who have not yet sent in their contributions, that as the advantages which will be gained by this movement are to apply to all the Members of the College, it is only fair and just to the promoters that Members should at least guarantee them against pecuniary loss in the proper carrying out of this work.

FEVER CASES IN GENERAL HOSPITALS.

AN animated meeting of the governors of the Sussex County Hospital was held on Dec. 29th, under the presidency of the Mayor of Brighton, on the question whether the hospital should be utilised in the future for the reception of cases of scarlet fever, typhus fever, and measles. A resolution for the exclusion of such cases was moved by Mr. Furner, seconded by Mr. Boxall, and supported by several governors. It was, however, somewhat strenuously opposed by other speakers, mainly on the ground that the hospital was a county one, and should be open to all classes of disease. It was pointed out that since the hospital was founded sanatoria had been established in Brighton and Hove, where such cases can be treated; and seeing that the hospital cannot afford special accommodation for fever cases, or furnish a special staff, the meeting did well to adopt the resolution, which it did by 66 votes against 22. It is needless to dwell upon the undesirability of admitting contagious fevers into a general hospital where provisions for complete isolation do not exist; and in arriving at this decision, the governors of the Sussex County Hospital have only followed, although somewhat tardily, an example which has been set them years ago by the majority of such institutions. It is, of course, another question whether a fever block could not be added to the existing buildings, so as to remove the reproach that a county hospital could not provide accommodation for all classes of disease; but this is a matter involving a considerable outlay. Moreover, in the case of Brighton there seems to be sufficient accommodation for fever patients at other institutions in the town: and if this be not the case the Corporation should not delay to make the necessary provision.

MELANOTIC SARCOMA.

THE study of pigmented new formations can hardly as yet be said to have resulted in a thoroughly clear and satisfactory explanation of the reason for their pigmentation or its source. It is admitted that such growths are almost invariably sarcomas, and that their primary seat is in connexion mostly with tissues that normally contain pigmented cells—e.g., the retina and choroid, and the rete mucosum of the skin,—although it may be remarked, in passing, that these are not invariably mesoblastic tissues. But even the source of the pigment is questioned. All body pigment comes, we suppose, from the blood; but in melanotic sarcoma this may be either direct (i.e., actual hæmatin) or indirect (i.e., melanin), due to the special operation of the cells composing the neoplasm. The subject has lately received fresh investigation at the hands of Dr. Oppenheimer of Berne (Virchow's *Archiv*, Bd. 106, Hft. 3), who proves that cases of melanotic sarcoma may be ranged in two groups. In the one, the pigmentation is

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clearly referable to local conditions of blood-supply, in the distribution of the bloodvessels and the diapedesis of red corpuscles. In the other, the formation of pigment takes place from the first within the cell protoplasm; and in one such case a chemical analysis proved an absence of iron, but the presence of a considerable quantity of sulphur, thereby excluding a direct relation of the pigment to hæmatin. Chemical analyses, however, seem to be rather defective upon the composition of melanin, and it would be well if they were repeated, with a view to determine whether the relative proportions of iron and sulphur do vary as suggested, and also with a view to the comparison of melanin and hæmatin. Upon the result of such inquiry may depend, according to Oppenheimer, whether we may have to break up the unity of melanotic sarcomas. He has no fear himself that this unity will be disturbed, considering that an explanation of varieties in chemical composition of the pigment may be found in the operation of the cell protoplasm—in the one case leading to new combinations with hæmoglobin, whereas in the other the blood pigment is left more or less unaltered, as hæmatin. In any case iron ought to be present, if not in the pigmented, at least in the non-pigmented portions of the growth, if the doctrine that the red corpuscles are the primary source of the pigment is to be retained. This, therefore, is eminently a question for pathological chemistry. Histology has done its work, but there are limits to the information it can yield, and it seems as if in the end many vexed questions will have to be solved by other methods than microscopical examination.

PROMOTION IN THE ARMY MEDICAL STAFF.

OUR attention has been called by a correspondent to the existence of a regulation, bearing date Nov. 1st, 1884, that "medical officers of any grade promoted for distinguished service will be exempt from further examination." We regret that we had overlooked this, owing to its not being included in Vol. I. of Army Regulations, published by the War Office in 1884. The promotion of Surgeon-Major Mackinnon, therefore, without undergoing an examination, would not have been against the regulations, but it would have involved an act of great injustice to the large number of officers over whose heads he would have passed. We have always advocated the system of substantial rewards to medical officers for valuable professional work, but such rewards ought not to inflict unmerited punishment upon their less fortunate brother officers. We rejoice at Surgeon-Major Mackinnon's having been granted the distinction of Companion of the "Distinguished Service Order," while we feel that his promotion to brigade surgeon over the heads of above ninety officers of his own service would have been an act of great injustice to them.

THE COTTON COMPRESS IN ORCHITIS.

IN a recent number of the *Revista Argentina de Ciencias Médicas* Señor José M. Escalier gives an account of a very successful method of treating orchitis and epididymitis by means of a cotton compress, which has been for some time in use in Dr. Montes de Oca's wards in the Hospital de Clinicas in Buenos Ayres. The idea was taken from the cotton cap or suspensory bandage of Langlebert. The apparatus is applied as follows: The neck of the scrotum is first secured by a bandage and strapping, the testicles being thus driven downwards. The scrotum is then enveloped in a silk handkerchief, outside which a thick layer of cotton-wool is applied, and the whole covered with a gutta-percha cap. Strips of plaster are now passed round in a circular manner, so that the ends can be drawn more or less tightly before being fixed, in order to exert a compressing force on the glands. In the first stage of orchitis, when there is not much epididymitis, the compress arrests the inflammation and brings about resolution rapidly. The cases in which this occurred, however, were but few, as nearly all the patients who presented themselves at the hospital had passed that stage. In some cases of acute orchitis very moderate compression was resorted to with success, but of course the pain was very great and the patients did not bear it well. In these cases the best treatment was found to consist in making a number of punctures to give exit to the liquid in the tunica vaginalis together with some blood, then to surround the scrotum with ice, and to give a purgative. After this treatment has reduced the inflammation the cotton compress can be applied with advantage. With practice the degree of tension required in each case can be adjusted to a nicety, and in twenty-four hours the swelling will generally have diminished so much that it is necessary to reapply the compress. After two or three of these reapplications the testes return to their normal size, and a slight induration of the epididymis is all that remains. The cure is usually complete in a week, or even less. The cotton compress has been used in more than a hundred cases, and is, according to the writer, far more satisfactory than any of the ordinary methods of treatment. Even in chronic cases it is astonishing to see the rapid effect that it produces. It has also been successfully employed after tapping hydroceles.

COUNTRY PRACTICE AND PRACTITIONERS.

THE duties which belong to the province of the busy practitioner of medicine are under any circumstances sufficiently arduous. The frequent difficulty of the work itself, its accidental and untimely character, and the necessity for study during snatched intervals of leisure, combine to form a whole which must fairly tax the resources of human energy. These observations apply with particular force to the lot of the general practitioner in a country district. The circumstance of position, while it increases his responsibility, usually diminishes in the same proportion his facilities for meeting it. Roads, weather, and distance are obstinate realities to him, and are apt at critical times to magnify surprisingly the meaning of emergencies. Distinctions between one department of practice and another are necessarily but nominal in his experience. In him the surgeon and physician are combined, and we are reminded that the art of healing is one whole. It is this fact mainly which gives to his life its peculiar character, and it is this, too, which constitutes its chief honour. The brilliant results of success in a limited field are not his; the emoluments of a wealthy and distinguished *clientèle* may not reach him; but it belongs to him that he may and does satisfy as fully as his most favoured brethren the needs of suffering mankind, whether incurred by injury or sickness. The man who is sufficient for such duties must be no weakling of his kind. Strong—that is robust—in frame, perhaps, he need not be, often he is not; but endurance he must have. Whatever his person, there must be in him the capacity for work, for standing wear and tear. His mind, too, must be of the right temper. It is not enough that some one or two faculties should rule his character and conduct. Courage, energy, coolness, reserve, firmness, cheerfulness, must meet in him to ensure no more than practical efficiency in the ordinary round of a well-filled day. Nor is the moral nature untried. There will be many occasions on which each man's perception of justice and humanity will become evident in the presence of doubt or provocation—times even when manhood will seem wanting without some faith in a higher wisdom. We have seen it stated that the old type of practice such as we have sketched is disappearing, and with it the old practitioners. We should much regret if it were so, and we think otherwise. Developments in

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theory and practice there have been, and facilities are more numerous than of yore, but there is, and will long remain, ample scope for the exercise of well-directed energy and friendly feeling, and we maintain that the mantle of a manly and unselfish ancestry has descended on a generation worthy to succeed it.

BISULPHIDE OF CARBON POISONING.

IN the narration of two cases of chronic poisoning by carbon bisulphide, contributed to the current issue of the *Medical Chronicle*, Dr. Ross directs public attention to the risks run by workers in indiarubber factories, where that substance is largely employed. As clinical records, also, the cases are of considerable interest. The first was that of a man, twenty-four years of age, temperate, and of previously good health, who for about eight months had been engaged in an indiarubber factory. He was employed in the "curing-room," and subjected to the fumes of the bisulphide. After a few weeks he suffered from a burning sensation in the hands and face, which were hot to the touch and of a red colour. When the hands were put into cold water they immediately became livid and cold and numb. He became restless and fidgety, and a few weeks later experienced tingling sensations and numbness in the feet and hands, with progressive weakness of the limbs. He now rested for two or three weeks, during which he recovered; but a few weeks after resuming work the old symptoms returned. He now had great difficulty in walking, and could scarcely hold anything in his hands, attempts at grasping being accompanied by much tremor. He could not get rid of the odour of the gas; his food seemed to taste of it, so that he had a loathing for food. He lost flesh, the wasting of the arms and legs being disproportionate to that of the rest of the body. His memory failed him, and he passed restless, disturbed nights. At last he became too feeble to walk, and left the factory four weeks before his admission last May into the Royal Infirmary, Manchester, where he remained a month. He there improved considerably, but was still unable to produce dorsal flexion of the feet, and the knee-jerks remained absent. After a sojourn at the Cheadle Convalescent Home he returned, showing hardly a trace of the previous paralysis. The second case, which was under observation at the same time, was also of a young man twenty-four years of age, with a good health record. He had been working for nine months in the "curing-room," but it was three months before he began to suffer any ill effects. Then he complained of the odour of the gas, and of his food tasting of it. He became unable to read, and deaf in the left ear. His legs felt heavy and weak, and he had tingling sensation and numbness in the hands and feet, the effect of cold water upon them being similar to that noticed in the first case. His sleep also was disturbed by dreams, and he became depressed and miserable, but found, as did the other patient, that inhalation of the fumes brought temporary relief to his sufferings. His memory became defective and he had delusions. It appears that other workmen employed in the factory have been similarly affected, and once or two have become insane. Dr. Ross points out that the paralysis resembles alcoholic paralysis more than any other form of progressive multiple neuritis; but the muscular hypersthesia noted in alcoholic paralysis was entirely absent in these cases. The amblyopia and loss of colour vision noted in the second case do not occur in alcoholic paralysis unless complicated with tobacco amblyopia. Sometimes inhalation of the fumes of bisulphide of carbon gives rise to symptoms resembling those of acute alcoholic poisoning, as in case mentioned by the second patient closely resembling delirium tremens. "There can be no doubt," adds Dr. Ross, that these men suffered from a severe paralysis, of which the cause was that is caused by several toxic agents after a considerable experience of the paralysis caused by both alcohol and lead—which are the usual sources of such poisoning in this country—I have no hesitation in saying that the disease from which these men suffered was not caused by either of those agents. If it be true, then, that we have in our midst certain workshops in which the process of manufacture is so deleterious to the health of the workman that a certain proportion of them is reduced in a few months to the pitiable condition of paralytic helplessness manifested by these two unfortunate men, it is hardly necessary for me to maintain, in the face of all recent factory legislation, that these workshops ought to be placed under the most stringent regulations, and be subject to the frequent visits of a Government inspector."

SIR JAMES PAGET ON SCIENCE v. CLASSICS.

THE just issued number of the *Educational Times* (edited by Mr. W. J. C. Miller, B.A., registrar of the General Medical Council) contains a speech by Sir James Paget on the occasion of delivering the prizes and certificates to the London Centre for the Oxford Local Examination in the theatre of the London University, which deserves attention. It is remarkable for the strong assertion of the claims of science in education. He speaks in a tone of warning as well as complaint. Under our present system, with only classical scholars at the head of schools, men of science have no chance. And he is not prepared to admit that the study of classics or literature is a more efficient instrument for training the minds and powers than the study of natural science. Yet men of science are wanted everywhere, and when it is asked where they come from, the answer is, "they all come from Germany." Let the schools, says Sir James, take warning in time. Nor will he agree in common education to postpone science to a late age when work has to begin and the problem of living has to be faced. Sir James was questioned by Sir Thomas Fowell Buxton on the subject of school-pressure on girls, and of the effect of higher education on women. Sir James Paget did not believe that there was need for so much fear as is felt on this question, and in the cases of the successful candidates of London he never saw any signs of physical exhaustion or any evidences of overwork, nor had he seen a single case to lead him to believe that the higher studies were detrimental to the charm or beauty of women.

THE REMOVAL OF SNOW.

THE recent heavy fall of snow, which has not yet entirely passed away in thaw, and may not soon altogether disappear in this way, has not failed to bring out suggestions as to the means best suited for its artificial removal. Spade, sand, and salt have each been freely and effectually used, and the last of these, as employed in this country, has been made by more than one observer a subject of censorious comment. The censure, indeed, is not undeserved, for there are distinct disadvantages connected with this use of salt. It has been urged, with good reason, that its effect in producing a freezing mixture must not be forgotten when we thus avail ourselves of its primary action as a snow solvent. The absorption of heat from the surrounding atmosphere, and the living bodies which inhabit it, must be considerable even in a natural thaw, but it is clearly much greater when the same effort of nature is imitated in an atmosphere already cold by means of an agent which secures its rapid and thorough accomplishment. This is what happens when salt is used for clearing snow from pavements, tramway lines, and the like, and the fear of consequent chill to man and beast while travelling thereby is not imaginary. Another objection might be urged against this use of salt. The freezing action to which we have referred must act upon surrounding snow and water, so

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that outside the area of artificial thaw there is formed a zone of artificial ice. This may not much signify in every case. In the case of pavements and footpaths it must be guarded against. For clearing all such, and assuring a firm foothold, there is nothing better, in our opinion, than the combined use of spade and sand. For frozen roadways ash or sandy gravel is, on a similar principle, deservedly esteemed, and though salt appears to be still the best means of treatment for tramway lines, it is only necessary that here, as in France, when once its work is done, the resulting chill should be obviated by sweeping the road.

ABSORPTION OF FAT IN ACUTE INTESTINAL CATARRH.

DR. VIAZHLINSKI, who has been working in Professor Ivanovski's laboratory of pathological anatomy in St. Petersburg, has published an interesting paper on the question of the absorption of fat in acute catarrh of the small intestine. The literature which he first alludes to comprises more than ninety papers &c., including those published by Goodsir Schäfer, and Watney in this country. His own observations were conducted by inducing acute intestinal catarrh in animals by means of irritant drugs, and then feeding them with milk or other fat-containing food, after which the animal was killed and the intestinal villi examined with the help of osmic acid, which he found the most satisfactory agent for making the preparations. The drugs used were colchicin and croton oil. Several animals (cats and dogs) died, so the quantity of colchicin was reduced from one-thirtieth to one-sixtieth or one-hundredth of a grain, which produced choleraic stools. Croton oil was given in repeated doses of five or six drops, producing diarrhœa with exhaustion. When the animals presented, besides diarrhœa, an inflated abdomen, constant borborygmi, and a considerable degree of exhaustion, an acute catarrh of the small intestine was considered to have been established, and the fatty food was administered. The microscopic observations showed that in catarrhal conditions, as well as in health, the fatty particles are absorbed by their inclusion within round or amœboid cells — i.e., leucocytes, — the difference in the diseased state being merely a quantitative one. No evidence could be obtained of any part being taken by the epithelial cells in the absorption of fat.

INQUESTS WITHOUT NECROPSIES.

A SHORT time since Mr. William Carter, coroner for East Surrey, held an inquest on the body of a man named Turner, aged thirty-nine years. Deceased "had always enjoyed remarkably good health," and on the day of his death left home for work apparently quite well. He was found in the street with his face downwards, and when Dr. Sterling saw him he was quite dead. There was absolutely nothing to show the cause of his decease. It might have been from rupture of an aneurysm, apoplexy, epilepsy, or other natural disease, but beyond the fact that there were no signs of violence, it might equally well have been from injury, poison, or what not. Dr. Sterling very properly refused to certify without a post-mortem examination. The coroner left it to the jury to decide whether this was necessary, and the latter returned a verdict of "Death from natural causes." If ever there was a case that called for further inquiry it was this. A man in the prime of life, who up to the time of his death was not known to be suffering from any ailment, dies suddenly and from some unknown cause, and yet his case is not deemed worthy of that particular investigation which alone could have furnished evidence to justify the verdict returned. The inquiry, if correctly reported, seems to us to have been a mere farce.

HEALTH OF CALCUTTA.

THE report on the health of the town of Calcutta for the third quarter of 1886, by the health officer Dr. Simpson shows a satisfactory reduction of the death-rate compared with the average of the preceding ten years, in only three of which it was lower. But the deaths from cholera were more numerous than in any of these years; they amounted to 230, of which 95 occurred in July, 55 in August, and 80 in September. We regret to add that this high rate of deaths from cholera has continued in Calcutta, for the weekly returns show them to have risen in October to 265, and in the four weeks of November to 326. The great increase in July was supposed to be due to "an influx of infected pilgrims. ..... The cholera of August and September must be attributed to Calcutta only." Although much has been done of late to improve the sanitary condition of the town and suburbs, there appears still to be great room for active operations in this direction. Dr. Simpson points out, as a condition unfavourable to health and favourable to cholera in the bustees, the impure water-supply. "The recourse had to polluted well and tank water is, without doubt, a very fruitful cause of disease." Their drainage also is very unsatisfactory. The huts and their surroundings are kept in a most filthy condition; they are greatly over-crowded, and it is impossible for fresh air to gain access to them. "Two of the most important factors in the health of a locality—efficient ventilation and scavenging—are wanting; and two of the most potent factors favourable to cholera are present—viz., stagnant air and filth." The measures already taken seem to have produced satisfactory results in reducing the death-rate of the town, and it is to be hoped that the extension of the supply of pure water, the adoption of an efficient system of drainage, and the introduction of building regulations into the Municipal Act may be productive of similar beneficial effects in the suburbs. During the quarter under review the deaths were in the annual ratio of 23·1 per 1000 of the population in the town of Calcutta, and 33·5 in the suburbs.

QUARANTINE AND SMALL-POX.

ON the arrival of the Norddeutscher Lloyd steamer *Preussen* at Adelaide from Southampton the occurrence of a case of small-pox was reported, the result being that the vessel was placed in quarantine. According to a telegram, however, it would appear that, in addition to twenty-four cases which subsequently occurred, thirty persons who landed at Sydney are sickening, besides several at Melbourne.

THE PREVALENCE OF SCARLET FEVER AND MEASLES.

IT would be premature to assert that the extensive local prevalences of scarlet fever and measles which are now being reported from time to time indicate a general extension of these diseases. But it is certainly noteworthy that in special localities very large outbreaks have been taking place during the past few months. At Merthyr Tydfil 95 fresh attacks from scarlet fever were reported at the December meeting of the local board, and efforts are being made to check it by an extension of the Christmas holidays and by the cleansing and disinfection of schools. At Aberdeen 107 cases were reported in September, 78 in October, and 107 in November. At Kirkcaldy both scarlet fever and measles are exceptionally prevalent. And, again, an alarming and sudden outbreak of scarlet fever is reported to have occurred at Wimbledon and Merton, some 400 cases having shown themselves since Christmas. In this latter case whole families are stated to have been attacked, and it is suggested that the epidemic has had its origin in an infected dairy. As regards measles, it was a heavy factor in the Leeds death-rate for the

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month of December, the inclement weather tending to increase its fatality. At Hexham the occurrence of 150 cases has led to the closure of both day and Sunday schools, but the type is said to be mild and non-fatal. The last quarterly return of the Registrar-General had to do with the third quarter of 1886, and it then appeared that, although the scarlet fever death-rate was exceptionally heavy in certain places, the annual rate was only one-half of that which constituted the average for the ten preceding third quarters. Measles was also very fatal in a few places, such as in Illogan, Camborne, Newcastle-under-Lyme, and Tamworth subdistricts, but the annual rate was precisely the same as that which constituted the mean for the previous ten similar quarters. When the next return is issued it will be seen how far these severe local outbreaks are associated with any general prevalence of the diseases in question, but in the meantime sanitary authorities would do well to arrange, as far as possible, for early isolation in the case of first attacks.

THE BRISTOL MEDICAL SCHOOL.

THE Principal of University College, Bristol, has recently made an urgent appeal to the wealthy inhabitants of Bristol and its neighbourhood for £5600 or £6000, in order to provide proper buildings and equipment for the Bristol Medical School, which has existed since the year 1828, and has furnished a large proportion of practitioners of the highest standing to Bristol, Clifton, and the adjacent districts. The Bristol School in times past has been a most flourishing one, and, even with the great competition which now exists, still numbers nearly a hundred students, and performs a most useful and honourable function for the west of England and South Wales. Following the example of other provincial schools, it has associated itself with the University College of Bristol for the instruction of its students in the less strictly medical branches of scientific education, and the appeal of Principal Ramsay comes therefore with much grace and weight. A medical school without adequate laboratories, class-rooms, and dissecting-room is as inefficient for the teaching of the necessary scientific subjects of a student's curriculum as is a hospital for clinical instruction, unless it possesses a fair proportion of beds to the number of its students. The tendency of the present day is evidently to congregate all schools of medicine around a University as a centre, and to secure the efficiency of the appliances and teaching of such schools under some form of University supervision; and it is therefore especially important to the Bristol teachers that they should be able to insist in every respect on their claim to a proper consideration and recognition in this University question. Feelings of gratitude for many services rendered to the citizens by medical men educated at this old provincial school should lead to such a comparatively small sum being readily subscribed by the merchants of the ancient city.

STAWELL HOSPITAL.

THE report of this institution—which is situated at Stawell, Victoria, and was formerly known as the Pleasant Creek Hospital—for the year ending July, 1886, has recently been issued; and, considering the general depression existing in mining, agricultural, and pastoral industries throughout the district, is a highly satisfactory one. The number of in-patients for the year was 281 as against 224 for the preceding twelve months, and of out-patients 283 as against 231. The year commenced with a debit balance of £224, but, we are glad to note, ended with a credit balance of £89. The fact that the private subscriptions to the hospital have considerably increased affords strong testimony to the energy and [illegible] of the secretary, Mr. C. B. Playford.

THE PROVISION OF SPECIAL HOSPITALS BY SANITARY AUTHORITIES.

THE Local Board of Health of Winsford having given a subscription of five guineas to the Manchester Eye Hospital, the members of the Board were surcharged that amount by the Government auditor on the ground that the institution in question was not one for the reception of infectious diseases, for which sanitary authorities are legally entitled to make provision. The auditor's decision has, however, been reversed by the Local Government Board, and the fact is worth noting. It is quite true that Section 131 of the Public Health Act, 1875, which gives power to local authorities to provide hospitals, is one of a group of sections included under the heading "Provisions against Infection," but it has long ago been decided that the interpretation of an Act of Parliament is to be governed by the wording of its sections, and not by headings which are merely inserted for the purposes of convenience. Now Section 131 in no way limits the class of hospital which may be provided or supported by a local authority, and hence there is no reason, in so far as the Public Health Act itself is concerned, why sanitary authorities should not provide other than infectious hospitals. Indeed, we believe there is an instance in which the Local Government Board were willing to aid an authority, by way of loan, to provide an accident hospital, and we can quite conceive that there may be districts where special trades are carried on, in which it would be a distinct gain to public health that special hospitals for other than infectious diseases should be provided at the public cost. The alternative often is the use of a workhouse infirmary for those who sicken in the performance of work on the success and amount of which the prosperity of a district and of its population depends.

"NERVI NERVORUM PERIPHERICORUM."

DR. J. PRUS of Cracow has described in the *Przeglad lekarski* a nervous network existing in the perineurium of nerve-trunks, which he calls "nervi nervorum peripheri-corum," and which, he says, must not be confounded with other nervi nervorum which have been previously described, those mentioned by Bourgery and by Hirschfeld referring to nerve centres only, and those misnamed nervi nervorum by Krause being merely nervi vasorum. Dr. Prus's observations were conducted by injecting methyl blue, according to Ehrlich's method, into the bloodvessels of living animals. By this means the nerve tissue became coloured, so that the beautiful nervous network in the perineurium became visible on microscopic examination. The endoneurium is also provided with this network, but to a much smaller extent than the perineurium.

DECOMPOSITION IN TINNED MILK.

IT would be superfluous in these days to enlarge on the utility of condensed milk and the necessity that it should be prepared and preserved in the best manner, and sold only of the best quality. Less liable to fermentative change than fresh cow's milk, and preferable, as being lighter, to the majority of prepared foods, it is practically one of the essentials of infant life. Diarrhœa is well known to be one of the commonest and most fatal illnesses of childhood. Among its known causes, probably none is so usually effective as the souring of milk, the staple diet at this age. Such an accident is unfortunately only too common when a feeding-bottle is managed by a careless nurse. Its worst consequences are assured when tinned milk actually becoming putrid from fermentation is bought and used by the poor, and that this has happened we have proof in at least one case. At the Edmonton sessions last week a grocer was convicted of selling, at a nominal cost, condensed milk in

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tins, the very appearance of which indicated the process of decay within them. On opening some of these a spurt of gas and milk escaped, and the taste and smell of the contents were very disagreeable. The poisonous trash was being rapidly sold, especially for the use of children. There was evidence enough to show that the vendor was aware of the condition of the milk, and there can be no doubt of the justice of the penalty imposed upon him. In the circumstances we may be excused for alluding to the obvious caution conveyed by this incident, that purchasers, particularly of this kind of food, should buy wisely rather than too cheaply.

ABOUT CHILDREN.

LORD YOUNG, when recently occupying the chair at a lecture delivered by Dr. Russell, the medical officer of health in Glasgow, before the Edinburgh Health Society, expressed an opinion that the views of Malthus had better be impressed on those who are responsible for the existence of children. Without doubt this is a practical view of the matter, and it is one that goes to the very root of the difficulty as to the management of children—"Don't have so many of them." As it is, we must take things as we find them, and hence the necessity for bestowing more than ordinary care on the preservation of child-life, especially in cities. We are glad to know that attention is being pointedly directed to these matters by coroners and medical officers whenever opportunity offers. Some remarks made not long ago, at an inquest held by Mr. Price, the coroner for Oldham district, are particularly worthy of note. He insisted strongly on the need of prosecuting inquiries rigorously into the causes of death in cases of infants found dead in bed with their parents, life having ceased in the early morning. Mr. Price was of opinion that these children were suffocated, and he very properly urged the expediency of having medical evidence in all cases of this class. The Society for the Prevention of Cruelty to Children have just issued a little paper entitled the *Child's Guardian*, which will be devoted to the best interests of the little ones. We heartily wish the venture success, and feel sure it has a wide sphere of usefulness before it.

THE INFLUENCE OF COCAINE ON THE ACTION OF ESERINE ON THE EYE.

IT was remarked by Wecker in the *Annales d'Oculistique* (1884, t. xcii., p. 218) that the action of eserine on a cocainised eye is greater than when no cocaine had been used. This difference he attempted to explain by suggesting that the slight cocaine-anæsthesia of the iris and ciliary body may cause a somewhat similar effect on the pupil to that of eserine. Dr. E. L. Turevich, however, who has recently published a "preliminary communication" on this subject in the *Vrach*, points out that the action of cocaine by itself on the pupil and accommodation is exactly the reverse of that due to eserine, cocaine dilating the pupil and paralysing the accommodation, while eserine contracts the pupil and causes spasm of the accommodation; besides, it has been conclusively shown that a combination of atropine and cocaine produces a more powerful dilating effect on the pupil than atropine alone; and Ad. Weber has even given the equivalents of eserine and pilocarpine as antagonists of cocaine, these being 1 : 25—30 in the case of eserine and 1 : 4 in the case of pilocarpine. The fact of eserine acting more powerfully on a cocainised eye is therefore paradoxical, and by no means easy to explain. How, writes Dr. Turevich, can the anæsthesia of the ciliary body, even if cocaine does produce such an effect, which is extremely doubtful, favour the action of eserine, as Wecker suggested? We should *a priori* expect that the contraction of the pupil by eserine in a cocainised eye would be, if anything, less than in an ordinary eye; and indeed it was shown by Weber that when a drop of a 2 per cent. solution of eserine was combined with twenty-five to thirty drops of a similar solution of cocaine, its effect on the pupil was entirely masked. In the hope of clearing up the paradox Dr. Turevich undertook a series of observations on the paralysing effects of eserine and pilocarpine on his own eyes and on those of others, both with and without the previous instillation of cocaine. The course of the accommodation-spasm was observed by measuring the refractive power of the eye every five minutes from the application of the eserine or pilocarpine to the time when the effects had passed off. Fifteen comparative observations were made, which completely confirmed Wecker's statement as to the greater effect of eserine on a cocainised eye, showing also that the same is true of pilocarpine. The explanation suggested of the apparently opposite action of cocaine when applied previously to the eserine and when combined with it is that when anæsthesia of the conjunctival sac is present—first, the surface absorbs more of the eserine than when the eye is as sensitive as usual, the introduction of a foreign liquid causing less winking with less consequent expression of the liquid between the lids; secondly, the secretion of mucus is smaller, and thus the solution is less diluted and less likely to be washed away; and thirdly, the conjunctiva and cornea are drier, and thus absorb the eserine more readily. The author convinced himself by special experiments of the difference in the behaviour of cocaine according as it was applied before or simultaneously with the eserine or pilocarpine, and the above explanation is the only one which appears to him adequate to explain the apparent paradox.

SPEECH DAY AT THE ST. PETERSBURG MEDICAL ACADEMY.

THE annual speech day of the St. Petersburg Military Medical Academy was held on Dec. 7th, when Professor Botkin gave an address on the General Bases of Clinical Medicine. The statistical report, which was read by the Secretary, Professor Pashutin, contained the following information: The present staff consists of 33 professors, 30 privat-docents, and 7 prosectors. During the year 7 privat-docents had obtained professorships, either in the Academy or in Russian universities. The number of students amounted to 935. 87 diplomas as *Vrach* were given, also 57 M.D. degrees. (The higher grade is only conferred on those who have already taken the lower.) No less than 454 of the students had scholarships from public or private sources. The Academy has during the year lost two of its staff by death—Professors Butleroff and Kolomnin. The proceedings terminated by the usual distribution of medals and prizes to the students.

LOCAL ASPHYXIA OF VISCERA.

THE coexistence in the same individual of Raynaud's disease and paroxysmal hæmoglobinuria is a well-attested and thoroughly authenticated occurrence. It is tempting to translate the renal change in the light of the nature of the local asphyxia of the peripheral parts of the body. The dependence of the skin and kidney conditions on the influence of cold, as perhaps the most important etiological factor, seems to stand in favour of this view. Dr. John Abercrombie, in a lecture on this subject delivered at the Hospital for Sick Children, and afterwards published in the *Archives of Pædiatrics*, writes as follows:—"Are we warranted in saying that paroxysmal hæmoglobinuria and Raynaud's disease are the same thing? I believe we are—i.e., I believe hæmoglobinuria is a symptom of the more general affection, and, being the one that most attracts the

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patient's attention, the other phenomena escape observation." Dr. Abercrombie also draws attention to the occurrence of slight jaundice in some cases of paroxysmal hæmoglobinuria, and the inference that this may be a kind of Raynaud's affection of the liver is suggested. Attacks of amblyopia also occur. Ague has undoubted relations to hæmoglobinuria and Raynaud's disease. Disposed as we are to agree in the main with Dr. Abercrombie, yet in the hæmoglobinuria there need not necessarily be a general affection of the whole system. The incidence of the disease may be varying, both in time and site—now this organ, now that, being the seat of local asphyxia; and occasionally there may be the wider distribution of the paroxysmal changes, as, indeed, is witnessed in the skin in different cases. To explain the special frequency with which the kidney appears to be affected, the remarkable physiological connexion, that is illustrated in many ways, between the renal and the cutaneous arteries and tissues should be remembered. An interesting contribution to the study of Raynaud's disease may be read in our report of the Pathological Society.

THE PATHOLOGICAL SOCIETY.

THE Council has decided to make some efforts to deal with the *embarras de richesse* which overwhelms the proceedings of this Society and yearly grows greater. Some kind of scrutiny is to be exercised, but the precise machinery and methods have not yet been constructed. We have for many years past urged the necessity for some action of this kind. In adoption of the principle of card specimens without publication of descriptions in the Society's Transactions may perhaps meet a part of the difficulty. This year the Society loses the services of Dr. Bristowe and Mr. Butlin. It can be no exaggeration to say that the Society was never better served by a president and a surgical secretary than by the two gentlemen named. Dr. T. Barlow certainly gave expression to a widespread feeling when proposing the vote of thanks to Dr. Bristowe. It must be regarded as one of the best traits of the past president's estimable character, that he keeps in touch with the young and hard-working members of the profession, and shows in this sympathy an earnest and successful endeavour to cope with the pathological aspirations of the times.

GOITRE AND CRETINISM IN PERU.

An interesting paper on Goitre and Cretinism in Peru was recently read to the "Union Fernandina," a Lima medical society, by Señor Antonio Loreña, who seems well acquainted with the European literature of the subject and the various theories which have been proposed to account for the endemic origin of these affections. He himself believes that no one of the suggested causes is alone sufficient to induce them, but that a most important factor in their etiology is a purely vegetable diet. He gives a detailed description of the valley of the Vilcamayo, in part of which goitre and cretinism are abundant, while in other parts they are absent, or nearly so, the general conditions remaining the same with the exception of greater civilisation and admixture of animal diet in the localities where goitre is absent. In some places, where forty years ago goitre was common enough, it has now nearly disappeared, the more intelligent inhabitants themselves attributing the change to the improved diet of the people. The author thinks the best prophylactic measures consist in opening up the districts where goitre and cretinism are rife by means of roads and stimulating the commerce of the district, which will lead to the people obtaining a more varied and palatable diet than the maize, which is now their sole article of food. Humboldt was, according to Señor Loreña, misinformed when he was told that goitre was unknown in South America before the eighteenth century, for there are preserved in many private museums wax figures with immense goitres dating from the times of the Incas, and there is now no doubt that goitre and cretinism existed during the empires of the Incas and Siris just as they do at the present time.

THE SANITARY STATE OF FOLKESTONE.

MR. CLEMENT E. PRIESTLEY, late medical officer of health for Halstead, is found fault with in the Folkestone local press for having contributed an article to THE LANCET on the subject of an outbreak of typhoid fever in his practice. He fully justifies his action in the matter, and he then goes on to state that both typhoid fever and a mild form of diphtheria are present in Folkestone, and that it is far better to acknowledge it openly and to apply the needed remedies than to make a secret about it. Folkestone suffered somewhat severely a few years ago. Between October, 1881, and June, 1882, as many as sixty fatal attacks of diphtheria took place there, and the non-fatal attacks were also very numerous. The proper ventilation of the sewers was then a matter which the sanitary authority were urged to carry out, and the reconstruction of house-drains was also found to be necessary. How far these still need attention we cannot say, but it is implied that a house-to-house inspection, proper control of slaughter-houses, dairies, and milkshops, and the prevention of overcrowding are required.

THE FOOD OF MAN.

THERE is no doubt that man can exist on a vegetable diet. He can obtain from the plant world, digest, and assimilate those materials which are needful for the repair of his own tissues. The arts concerned in the preparation of food will also undoubtedly aid him in his conversion of vegetable into animal equivalents, and will supplement his powers by shortening considerably the period required for gastric digestion. Still, after all has been said, it must be allowed that the labour of the alimentary tract is better adjusted and the formation of sound tissue more assured by the use of a mixed diet. If on the one hand we assert the proved value of hydrocarbons in organic combustion not merely as heat producers but as sources of energy, in support of our use of vegetables, we must also maintain that meat which yields us most easily the formative and stimulant proteids can hardly be discarded. Our internal physical conformation, which is intermediate between that of the carnivora and herbivora should afford at least a suggestive clue in our choice of a diet.

SPINAL DISEASE AND INSANITY.

DISEASE of the spinal cord has been frequently discovered in cases of general paralysis. Commonly enough, locomotor ataxy precedes the mental disease. The spinal disease is not, however, always of the ataxic type; other strands than the posterior are affected in general paralysis. Although familiar to some, the knowledge is not general that chronic insanity seldom spares the spinal cord. This fact is excellently illustrated by a thesis for the degree of M.D. Glas. by R. S. Stewart, M.B. Records are given of six cases of general paralysis, six of dementia, and four of melancholia, with four of imbecility, in all of which the spinal cord was examined after death. Changes were found in the brain and cord in all cases. Of the changes in vascularity little that is definite can be said, but we are disposed to pay more attention to conspicuous changes in the nerve cells of the cord. Dr. Stewart has discovered alterations in the large multipolar motor cells of the anterior horns in most of the

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cases. He is inclined to think that degenerative atrophy of cells is a constant feature of almost all cases of insanity which have lasted some time. The atrophy is not purely pigmentary, but fatty also; the cell is smaller, with rounded angles, wasting of processes, and breaking down of edges. The subject is certainly of much scientific interest. We are impressed with the carefulness of the author, so far as can be judged by a perusal of the thesis. Dr. Stewart is to be congratulated on the direction which his studies have taken, for it is, comparatively speaking, *terra incognita*, and diligent labour is sure to be rewarded with rich results.

THE GOVERNMENT EMIGRATION OFFICE.

EMIGRATION may or may not be a panacea for the evils attending the existence of a surplus population in large cities, and especially in London; but that the institution of an Emigrants' Information Office like that established by the Government in Broadway, Westminster, is a wise step in the interests of intending emigrants, as well as one contributing, indirectly, to the comfort and well-being of those who remain at home, there cannot be a reasonable doubt. We have just received copies of a "General Circular" and "Circular No. 1," which contain full information on all points in respect of which inquiry would naturally be made by those who are about to seek a home in either of the British colonies; and as among this class there will probably be some belonging to our own profession, we think it well in this place to call attention to the important work being carried on by the office in question.

METROPOLITAN CHARITIES.

THE editor of the Classified Directory of the Metropolitan Charities gives some statistics for the past financial year. The Bible and Book Societies have an approximate income of £299,460; Home and Foreign Missions, of £1,683,706; Hospitals for the Blind, Deaf and Dumb, the Incurables, and Idiots, £198,436. The next group interests us much General Hospitals receive £283,439; Special Hospitals £264,044. It will thus be seen that Special Hospitals receive only some £20,000 less than General ones. Of these the most favoured are Hospitals for Women and Children, which get £70,607; and Hospitals for Consumption, which receive £59,261. Convalescent Institutions receive £48,795. There are 158 Pensions and Institutions for the aged, representing £442,685; 98 Institutions for Education, receiving £428,529. The Institutions enumerated are 1024, and their united income is £4,680,654.

COLLECTIVE INVESTIGATION OF VERRUGA.

THE Lima Academy of Medicine has issued the following collective investigation card in the hope of clearing up the etiology and pathology of the obscure but terrible disease "verruga," with which, it will be remembered, a Peruvian student inoculated himself some months ago, with a fatal result:—(1) In what regions of Peru, and up to what limits, does verruga exist? 2. At what height above the sea does verruga commence, and to what elevation does it extend? 3. Does it exist in other localities besides Peru? 4. Did it exist before the Conquest, and can the disease described by Zárate and Herrera refer to it? 5. Climatology of places where it is rife. 6. Analytic researches on the air and water of such places. 7. Etiology and symptomatology of verruga. 8. Pathological anatomy of verruga and microscopical studies of the microbe, considered by Izquierdo to be pathogenic. 9. Transmissibility of verruga and the modes in which transmission is effected. 10. Incubation of verruga. 11. Its relation to or identity with "Oroya fever." As verruga is but little known, and is undescribed in most text-books, it may be well to add that a paragraph on the subject appeared in THE LANCET of Jan. 9th, 1886, in which it is stated that the disease is "febrile and characterised by anæmia and by the appearance of red tubercles of variable size on the cutaneous surface of the body." It is mentioned in Dr. Pye-Smith's chapter on Skin Diseases in Fagge's Principles of Medicine as probably synonymous with yaws, and with the disease known as "pian" in Java, also as being possibly related to "parangi," which is endemic in Ceylon.

AN EPIDEMIC OF PNEUMONIA.

A SOMEWHAT remarkable epidemic of pneumonia is reported as having occurred in the Hexham rural sanitary district. The outbreak mainly affected Wylam, and Dr. Foulis reported to Dr. Maclagan, the medical officer of health, that the disease was epidemic in character, and that although some adults had been affected, its incidence was mainly upon children. Already the cases have exceeded a hundred in number, but when the report was received no fatal attacks had occurred, although some of the cases were very severe. All classes, irrespective of social status, had been affected; and it has been locally suggested that the weather, which is referred to as having been remarkable, had had some influence in bringing about the epidemic. We hope to learn more of the conditions under which the disease occurred.

ABSORPTION OF CORROSIVE SUBLIMATE BY THE SKIN.

DR. KOPFF states in the *Przeglad lekarski* that, having made seven experiments with careful analyses according to the methods of Schneider, Schridde, and Lehmann, with the view of determining the power of absorption possessed by the skin for corrosive sublimate, he has found that healthy skin can absorb small quantities from aqueous solutions containing from 1 to 2 per cent. of the salt. The quantity absorbed, which, however, is never large, seems to depend mainly on the degree of concentration of the solution. The chloride of mercury is also invariably excreted very soon after it has been absorbed.

A CHEMIST CENSURED FOR MEDICAL PRACTICE.

DR. C. W. ILIFFE, coroner, at Bedworth, has just had before him and a jury a bad case of medical attendance by a chemist on a child four years old. The chemist visited the child eight or nine times, between Dec. 8th and 17th. The case was certified by him to be one of quinsy. The child finally died. At the inquest, the chemist, Mr. A. Homer, gave his opinion that the child died not from the bursting of the quinsy, but from congestion of the lungs. Half an hour before death he said he saw no danger. The case is aggravated by the fact that it was not the first of the kind, and that Mr. Homer had had several previous warnings from the coroner that in the event of another such case an inquest would be held. Nor is his conduct excused by his statement that he had sat for "medical examination, but had failed to get his diploma," or by the production of thirty testimonials. The father was a responsible tradesman in the town. It is to be regretted that he did not get proper advice. But Mr. Homer's conduct had misled him. He said he had always looked on Mr. Homer as one of the doctors of the place, "as he was constantly practising." The jury found that the deceased died from asphyxia by the bursting of a quinsy, and that Mr. Homer has committed a breach of the law by attending, prescribing, and giving a certificate of death. Here their kindness came to the rescue, and they ended the verdict by expressing a hope that the

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penalty of Mr. Homer's conduct might be waived if he gave a written undertaking that he would not in future, under any circumstances, infringe the law, which undertaking he gave. The coroner's remarks were at once severe and just, and his determination will not be misunderstood because he concurred in the lenient suggestion of the jury. Perhaps the Apothecaries' Society should be stayed by the same consideration; otherwise, the case is eminently one for their action.

"PLACES OF STUDY" AND THE CONJOINT EXAMINATION.

IT may not be inopportune to again call the attention of candidates rejected by the Conjoint Examining Board in England to a resolution passed last month by the Council of the Royal College of Surgeons of England recognising Mr. Thomas Cooke's School of Instruction in Anatomy and Physiology as a "place of study" for candidates rejected at the second examination of the board. This official recognition of Mr. Cooke's School after he has laboured for some fifteen years in the advancement of medical education is well deserved, and it cannot be too widely known amongst rejected candidates that the three or six months' additional work which they are required to do can now be performed under the tuition and supervision of Mr. Cooke, of whose services beyond doubt, many will find it convenient and advantageous to make use.

THE RECENT EXPLOSION AT PORTSMOUTH.

A SERIOUS gas explosion occurred on the evening of the 2nd inst. at Cambridge Barracks, Portsmouth, occupied by the 2nd Battalion, Worcestershire Regiment; four men being killed, and eighteen injured and admitted to Station Hospital. Both at the barracks and hospital the medical officers were engaged from 9 P.M. until 6 A.M. the following morning, and we believe that all that skill and attention could do was done for the unfortunate sufferers. There have been two deaths out of those transferred to hospital; one with internal hæmorrhage from rupture of spleen and right lung, and the other from multiple injury after amputation of leg. The remainder, with the exception of one case of extensive injury of the face and head, are doing well.

SCARLET-FEVER EPIDEMIC AT WIMBLEDON.

WE have elsewhere incidentally referred to an epidemic of scarlet fever in Wimbledon and Merton. The disease has appeared suddenly, and within the period of a few days only some 400 persons have been attacked, all classes being affected. There is reason to believe that the epidemic is due to the communication of the infection by means of milk. It is locally stated that a medical inspector from the Local Government Board is about to institute a complete inquiry into the subject.

BEGGING CHILDREN.

We have before had occasion to comment upon the barbarous custom of using young children for begging purposes during such severe weather as we have lately experienced. A practice which would be criminal under any conditions appears in its worst aspect when its helpless and miserable [illegible] so cruelly exposed. Its inhumanity is further aggravated in some cases by the fact that these children are not the offspring of those whom they accompany, but hired as objects of commiseration to impose upon the charitable. Even where the parentage is undoubted, the risk of vital injury to the child is not less. We [illegible] desire to make allowance for the distress of [illegible] destitution resulting from [illegible] the interests of the children must be regarded, and we must look to the police to find some shelter for at least the infant section of the begging poor.

CHOLERA IN CHILI.

ACCORDING to a despatch from Valparaiso, dated the 31st ult., some cases of cholera have been reported in Chili. This is not the first occasion since the commencement of the last European epidemic that the occurrence of the disease in South America has been noted.

FOREIGN UNIVERSITY INTELLIGENCE.

Kharkoff.—Dr. Shchelkoff, Professor of Physiology, has been appointed Emeritus Professor.

Kieff.—Dr. Mering, Professor of Special Therapeutics, has been reappointed for five years.

Königsberg.—Professor Madelung, of Rostock, has declined the invitation to the vacant chair.

Rostock.—The Mecklenburg Government has promised to supply Professor Madelung with adequate material for teaching purposes, and by this means induced him to decline the call to Königsberg.

St. Petersburg.—The following names are mentioned in connexion with the vacant chair of Clinical Surgery:—Dr. A. Beltsoff, Dr. E. Pavloff, Dr. Kusmin of Moscow, and Dr. Nasiloff, Professor of Operative Surgery in St. Petersburg, who is, as stated last week, temporarily fulfilling the duties.

Dorpat.—Dr. Rudolph Kobert, Extraordinary Professor of Materia Medica, Dietetics, and the History of Medicine, has been appointed Ordinary Professor. Dr. Carl Schmidt, Professor of Chemistry, has been reappointed for five years.

Zurich.—The death is announced of Dr. F. Horner, Professor of Opthalmology.

A REPORT has been presented to the Council of Health of the Seine on the subject of the water-supply of Paris. The following are the recommendations of the report:—To hasten the works for bringing in water from the new springs acquired by the city, and to impose on owners of house property the obligation of subscribing for the spring water; to dispense with the water from the Ourcq for the private service; to use Seine water, as far as possible, exclusively for cleansing purposes; to hasten the construction of appliances for purifying the Seine water; and to erect drinking fountains supplied with spring water at the entrance to all the barracks in the city, without prejudice to the negotiations in hand for supplying the interior of these buildings.

THE *London Gazette* of the 4th inst. contains an announcement of the fact that the Queen has been pleased to grant Edward Divers, M.D., F.R.S., Principal and Professor of Chemistry at the Imperial College of Engineering, Tokyo, permission to accept and wear the insignia of the Order of the Rising Sun of the Third Class, which His Majesty the Emperor of Japan has conferred upon him in recognition of his services whilst actually and entirely employed beyond Her Majesty's dominions in His Imperial Majesty's service.

ACCORDING to the *Publishers' Circular* the numbers of new books and new editions published in 1886 in the three divisions of Theology, Law, and Medicine were as follows: Theology, 616 new books and 136 new editions; Law, 18 new books and 15 new editions; Medicine, &c., 114 new books and 57 new editions. The number of novels, tales, and other works of fiction published during the twelve months was 755, exclusive of new editions of 214 works which had appeared in previous years.

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THE *Provincial Utrechtsch Genootschap van Kunsten en Wetenschapen* (Utrecht Association of Arts and Sciences) offers 300 gulden for the best research on the Action of Purgative Salts on the Intestine, compared with the Action of Senna and Calomel. The essays (which may be in English) are to be sent to the secretary, Herrn R. Melvil, Baron van Lynden, Utrecht by Dec. 1st, 1888.

THE death is announced of Deputy Surgeon-General Richard Wolseley, M.D., who was killed by a fall from his horse at Meerut a few days since. The deceased officer was a brother of Lord Wolseley.

A PIECE of sacred music has recently been composed and performed in private by one of the professors of the medical faculty of Madrid, which is highly spoken of by the press of that capital.

NEWS has been received of the death of Señor Don Dr. Sandalio Pereda, member of the Council of Public Education, and for more than twenty-five years Professor of Natural History in the Institute of San Isidro, Madrid.

THE Order of Companion of the Indian Empire has been conferred upon Brigade Surgeon Henry Elmsley Busteed, M.D., late Assay Master of the Calcutta Mint.

MR. THOMAS SALT, M.P., has been elected to be permanent chairman of the Commission in Lunacy.

STATISTICS RELATING TO MEDICAL STUDENTS DURING THE QUINQUENNIUM 1871-75.

THE facts about medical students which have been elicited by the further investigations of the Statistical Committee of the Medical Council deserve more attention than we have hitherto been able to give them. The Report of the committee is an important document, and will well repay the attention of those who take an interest in medical education. It will be understood that the statistics of this Report (the third) of the Statistical Committee refer to the quinquennium 1871-75 as a whole. The investigation includes the tracing of 6403 students who were registered in this quinquennium. The number gives an annual average for these five years of 1280·6, an average which in the corresponding five years of this decennium is exceeded by no less than 651. It is interesting to notice the chief *Places of Study* arranged according to the percentage (of the total number of medical students) registered as entering at each. They are as follows:—University of Edinburgh, 13·21 per cent.; University of Glasgow, 8·70 per cent.; University College Hospital, 5·53 per cent.; St. Bartholomew's Hospital, 5·48 per cent.; Guy's Hospital, 5·26 per cent.; University of Aberdeen, 4·39 per cent.; School of Physic, Ireland, 4·28 per cent.; Queen's College, Belfast, 4·11 per cent.; Ledwich Medical School, Dublin, 3·90 per cent.; St. Thomas's Hospital, 3·50 per cent.; Queen's College, Cork, 3·39 per cent.; Royal College of Surgeons, Ireland, 2·61 per cent.; Queen's College, Galway, 2·59 per cent.; King's College Hospital, London, 2·47 per cent.; St. George's Hospital, 2·41 per cent.; London Hospital, 2·12 per cent.; Queen's College, Birmingham, 2·00 per cent.; Liverpool Royal Infirmary, 1·89 per cent.; St. Mary's Hospital, 1·67 per cent.; Owens College, Manchester, 1·55 per cent.; the Catholic University Medical School, 1·53 per cent.; Leeds Medical School, 1·52 per cent.; University of Cambridge, 1·33 per cent.; Middlesex Hospital, 1·28 per cent.; Manchester Royal Infirmary, 1·20 per cent.; Charing-cross Hospital, 1·05 per cent.; Addenbrooke's Hospital, Cambridge, 1·03 per cent.; Bristol Medical School, 0·95 per cent. But Part II. of the Report shows that of the 6403 students registered as entering the various places of study in the quinquennium, 1871-75 no less than 1931, or 30.16 per cent had not up to 1885 registered any qualification. This is a sad history of miscarriage, and gives importance to the question of a visitation of the schools. There are tables (Table II. and Table II.A) giving the *percentages of failure to qualify* of those beginning their medical studies at the more important schools. These failures, summarily, are, in England, 27·50 per cent.; in London, 26·28 per cent.; in the provinces, 29·70; in Scotland, 30·98 per cent.; in Ireland, 34·33 per cent.; abroad, 44·12 per cent. It would be wrong to attach too much importance to these statistics of failure. The significance of them must be a complicated matter. But they will excite a wholesome criticism, out of which light and good will come. As a matter of figures, in London, for example, the largest percentage of failures to pass was in those who began their studies at St. Bartholomew's, and the smallest in those who began at Westminster. In Scotland the largest proportion of failures to qualify (34·62 per cent.) is in those who began their medical studies at Anderson's College, Glasgow; the smallest, in those who began in the University of Glasgow. In Ireland the smallest proportion of failures (25·00 per cent.) was in those beginning medical study at the City of Dublin Hospital; the largest, in those beginning at Ledwich Medical School, Dublin. Of the 6403 gentlemen whose medical education began in some year of the quinquennium 1871-75, and whose destinies have been the subject of so much attention by the Statistical Committee, 4472, or 69·54 per cent., have at some time *appeared* in the *Medical Register* as Practitioners. Of these 50 per cent. were from places of study in England; 33 per cent., or one-third of the practitioners, began in London schools. The school which has the satisfaction of having the largest proportion of its students proceed to obtain a qualification is Charing-cross, 88·06 per cent. having so succeeded. Addenbrooke's Hospital, Cambridge, has the smallest proportion (48·48).

We come next to a class of students who are regarded with much disfavour by the corporations—i.e., those who content themselves with *One Qualification*. There are 607 gentlemen who up to the end of 1885 had not registered more than one qualification. Of these, 42 per cent. took the diploma of the English College of Surgeons. Mercifully for the corporations, of the 6403 students registered in the quinquennium 60·36 per cent. have already become doubly qualified. This is characterised by the Statistical Committee as "one of the most important facts" brought out by the investigation. St. Thomas's Hospital heads the list of those getting a double qualification, and Addenbrooke's Hospital closes it. The next point elucidated by the statistics is of real interest—the *length of time* taken by students of the quinquennium to qualify. No less than 153, or 3·39 per cent., managed to shorten their curriculum. Eighteen students accomplished the feat of qualifying in the same year they began their studies; one came from London, three from Scotland, thirteen from Ireland, and one from abroad.

The Irish seem to know better than English or Scotch students how to get through in less than the prescribed time, and it is desirable that light should be thrown on their way of doing it. Thus of 151 students who accomplished this feat, 25 were from England, 21 from Scotland, and 105 from Ireland. The average interval taken to get qualified is FIVE years, and it is noticeable that those who never get more than a single qualification, take rather more than twelve months over the time taken by those who become doubly qualified. Our space being exhausted, we must pass over Part VII. of the Report, which deals with the interval between the two qualifications in those doubly qualified, and Part VIII. on the various methods of qualifying. We end by a notice of the important phenomenon described as the *Migration of students out of their own Division in search of licences to practise*. Some very interesting facts came out in Table XI. From this it is seen at a glance that of the 997 students of the *Quinquennium* who qualified at the Royal College of Physicians, Edinburgh, 502, or over 50 per cent., came from places of study in England, or, putting it differently, that, of 2262 English students of the quinquennium who became registered practitioners, 22·19, or well on to a quarter, qualified at the Royal College of Physicians of Edinburgh. From Table XI.A it appears that, of 4453 qualified practitioners, the total outcome of the students of this quinquennium, no fewer than 1227, or 27·55 per cent., went for one or other of their diplomas to another division than that in which they registered as students. This fact

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tains where geographical convenience does not explain it; thus, no less than 56·81 per cent. of the students of the Bristol school went to Scotland for their qualification. A few Scotch and Irish students qualify in England. But this is nothing to the number of English and Irish students who take one or both of their qualifications in Scotland. Of those students who qualified in Scotland, no fewer than 41·7, or 48·0 per cent., came from other divisions of the kingdom. The Scotch bodies whose examinations were most seductive to the English are, not those of the Edinburgh University, but the Royal College of Physicians of Edinburgh, the College of Surgeons, the Faculty of Glasgow, and the University of Aberdeen. We must for the present leave the Report at this point, commending it and its tables to the study of all medical educationists, and thanking the Statistical Committee for the tables, and especially for the text which explains them. The facts brought to light are of high importance in view of the discussions going on for securing for England her fair share of work in giving degrees to her own students. The Report abounds in other information, which we may give our readers at a future time.

THE FELLOWS AND MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

THE following is a copy of the petition now being circulated by the Association of Members of the Royal College of Surgeons for signature by the Members of the College throughout the kingdom:—

To the Queen's Most Excellent Majesty in Council.

The humble petition of the undersigned Members of the Royal College of Surgeons of England showeth:

That whereas a petition has been prepared for presentation by the President and Council of the Royal College of Surgeons of England, praying for a supplemental Charter, or alterations in the existing Charters previously granted to the said Royal College, your humble petitioners approach your Most Gracious Majesty respectfully to point out that by the present Charters the Members of the said College (who are in proportion to the Fellows as 14 to 1) have no status of any kind in connexion with the governing body.

Your petitioners most humbly submit that it would be both equitable and politic that the Members should have a voice in the conduct of a corporation of which they are, and always have been, numerically and financially the mainstay. At present the Council, elected by the 1200-Fellows only, deals absolutely with the interests, property, and moneys of the College, whilst 16,000 Members are wholly unrepresented.

Your petitioners do, therefore, most earnestly pray that before granting any Charter or supplemental Charter to the said Royal College, the present position of your petitioners may receive your Majesty's gracious consideration for such provisions as will create and secure for the Members (who so largely contribute to the prestige and welfare of the said College) the right of representation and other privileges which should belong to the Members of a corporate body; further, that an inquiry may be instituted into the constitution of the Council, the management of the College, the conduct of examinations, and the expenditure of the College funds.

Finally, your petitioners very humbly pray that in the event of no petition for a Supplementary Charter or otherwise being presented by the Council of your Royal College, your Majesty may be graciously pleased, in your wisdom, equity, and discretion, to sanction and provide for certain alterations being made in the present existing Charter so that it may contain such provisions as are hereinafter mentioned:—1. That all Members of a certain number of years' standing, to be determined by your Gracious Majesty, may, after having been registered, conjointly with Fellows, exercise the privilege of electing the Council. 2. That a certain proportion of the Council may consist of Members. 3. That the period of office of members of the Council be considerably shortened. 4. That Members and Fellows be permitted to vote by voting papers. 5. That no fees of any kind be paid to any College fund by Fellows or Members on their election to office. 6. That the Council prepare a yearly report, together with an account of income and expenditure of the College funds duly audited by a public accountant, which, after its submission for approval to the Fellows and Members (annually summoned for this purpose by the President of the College), shall, on adoption, be required to be published in the medical journals. 7. That enlarged power may be given to the Council to suspend or revoke the licence of any Fellow or Member on proof of discreditable conduct, whether professional or otherwise.

And your petitioners, as in duty bound, will ever pray, &c.

THE HIGH ALTITUDE TREATMENT OF PHTHISIS.

(FROM A SPECIAL CORRESPONDENT.)

The Alpine Health-Resorts—Davos, Wiesen, St. Moritz, The Maloja; Present Condition of these Sanatoria; Recent Results of Treatment there; Indications and Contra-indications for and against the adoption of the Method of Treatment.

THE high altitude treatment of phthisis—the *Altenkur* or *Luftkur* of German writers—has already attained so much popularity, and contains such promise for the future, that your readers will be interested in learning the present position of this method of practice and the nature of the results now being obtained. The following remarks are based on personal observations made in the Davos valley and the Engadine.

Among the high altitude sanatoria of the Alps Davos is still *facile princeps*. It was the reputation acquired by this little Alpine village which first gave the impetus in Europe to the mountain treatment of consumption, and it still retains its early popularity and pre-eminence over similar health-resorts. Twenty years ago Davos was one of the most secluded valleys in the Alps, with a population of barely one hundred souls, rarely or never visited by tourists, who found little or nothing to attract them in its somewhat sombre scenery. Now the valley boasts a winter population of 3000 (nearly one-half of whom are invalids), six or seven first-class hotels and numerous smaller ones, and some nine or ten resident medical practitioners. Its growth has been rapid, and in the opinion of some competent authorities it cannot proceed any longer unchecked, without the inevitable forfeit of that perfect purity of the atmosphere to which Davos undoubtedly owes no small portion of its fame.

The main features of the Davos climate, and their adaptability to certain morbid states, have lately been dwelt upon in your editorial columns. The meteorological conditions include aerial rarefaction, great purity of the atmosphere, low relative humidity, coldness of the air, with much brilliant sunshine and a high range of sun-heat, and comparative immunity from wind, fog, and miasmal emanations. These characteristics are more or less common to all the high Alpine resorts, but it is to its admirably sheltered position and the consequent stillness of the atmosphere that Davos mainly owes its indisputable pre-eminence over rival health stations. The valley, while singularly destitute of the Alpine charm of scenery, is marvellously adapted to the needs of the invalid in this regard. During his winter sojourn he must have sunshine and shelter, and it is obvious that these two indications are to a certain extent incompatible. An open valley like the Engadine is sure to be wind-swept, while a deeply secluded valley will lack the necessary *quantum* of sunshine. Davos admirably fulfils the condition of necessary mean between undue exposure and excessive shelter. The valley is protected on the north by the elevation of the Davos-Kulm, and on the south it terminates in the narrow and tortuous gorge of the Landwasser, so that any strong valley current of air is impossible. While thus protected from wind, Davos receives a large amount of sunshine, owing to the fact that the valley lies open—varying in breadth from half a mile to a mile,—and the surrounding mountains are neither very lofty nor do they form a continuous investment.

Opinions differ as to what constitutes the most important factor in the unquestionably beneficial influence which the Davos climate exercises upon consumption. Some good authorities regards the purity of the air, consequent upon the sparseness of the population (with a correlative immunity from morbific germs), as the main point, and hence they view with great apprehension the yearly increasing ingress of consumptives to the once quiet valley of Davos. Others, again, think that the main point is the aerial rarefaction, leading to increased respiratory activity and consequent expansion of the

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thorax. Under this head I may mention that Dr. Ruedi, whose name is already quite familiar to the profession in England, reports that of 600 consumptives under his care distinctive thoracic expansion took place in no less than 584 cases. Other authorities, again, attribute the beneficial results obtained at Davos to the *tout ensemble* of tonic conditions promotive of appetite, sanguification, and improved nervous tone.

The accommodation at Davos is in the main surprisingly good. The hotels most frequented by English visitors are the Belvedere, the Angleterre, the Victoria, and the Buol—all first-class; and the food-supply leaves little to be desired. In the depth of winter fresh green vegetables are somewhat scarce, but in other particulars the hotels are as well provided as in the most favoured resorts for consumptives. The rooms are fitted with double windows, and are heated by stoves. The "stove question" is one of the controversies at Davos, and the advantages and defects of this method of heating are much canvassed. On the one hand, it is unquestionable that so wasteful and inefficient a method as our open fireplaces would be powerless to cope with the extreme cold of Davos; while, on the other hand, it cannot be denied that the stoves unduly absorb the moisture of the air, and are useless for promoting ventilation. On the whole, the necessity for spending a large proportion of time in stove-heated apartments is a serious (and apparently an inevitable) drawback to the high-altitude treatment.

All information tends to prove that life under the novel climatic conditions which prevail at Davos, so far from involving serious hardship, is, on the contrary, most enjoyable. Day after day the sun shines with cloudless splendour, perfect stillness reigns in the valley, while the keen bracing air and the dry crisp snow invite to exercise and pleasurable activity. Almost all invalids, except the most prostrate and utterly hopeless cases, profess to enjoy the Davos life; and one encounters in the hotels not a few persons in perfect health, who, having once visited the high altitude resorts, return again and again to quaff fresh draughts of that subtle intoxicant, the air of the Higher Alps. Skating, tobogganning, and sleighing are among the most favourite amusements, and are freely indulged in. Whether this free participation in vigorous out-door amusement is a prudent proceeding on the part of consumptives is another point about which the visitor to Davos finds a lively controversy raging. The English invalids incline to these methods; the Germans regard them with some suspicion. It strikes the stranger to Davos that the alleged cases of mischief which are said to have followed this vigorous therapy are probably in a large measure attributable rather to dancing, theatricals, and other amusements carried on in heated and overcrowded assembly-rooms. Davos has already shared the usual fate of the popular health-resort, and advertises its concerts, theatricals, and similar meretricious attractions—as if the consumptive should seek such pleasures rather than regard them as a snare to be studiously shunned. No one can doubt that the early fame of Davos owed much to simplicity of manners and immunity from so many of the temptations of life.

There are very few days at Davos throughout the winter season upon which the invalid cannot take out-door exercise. Even during a heavy snowfall walking is possible and pleasurable, as the snow is perfectly dry and can be shaken off as it falls. During the day the sun heat is so great that invalids sit for hours without furs or other extra muffling upon the hotel balconies enjoying the grateful warmth, while at the same moment the shade temperature is far below freezing-point. In a moist atmosphere this discrepancy between sun heat and shade temperature would involve a dangerous amount of chill, but all authorities agree that chill, with its usual consequences of bronchial catarrh, pneumonia, &c., is extremely rare at Davos. The explanation is to be found in the dryness of the air, which renders it so promotive of cutaneous and mucous transpiration. As illustrating this peculiar feature of the Davos climate, the writer may cite an incident related to him by Mr. Symonds, the eminent critic and poet, who may be regarded as the parent of whatever reputation Davos possesses with the British public. Mr. Symonds was sitting one day upon his balcony engaged in literary work, and enjoying the pleasant sunshine. A cup of coffee stood on the table beside him. He chanced to stand up for a few moments in such a position as to intercept the impact of the sun's rays upon the table, and, on turning to finish his coffee, he found it frozen into a solid mass of ice. Here ar illustrated some of the essential peculiarities of the Davo climate—intense coldness of the air combined with a stillness o the atmosphere which makes that cold practically unfelt, an a powerful sun heat which makes us hesitate whether to clas the climate as hot or cold. Stranger still is the fact that i the evenings many invalids are able with impunity to leav a room heated to 60° and go out into the wintry night witl the thermometer at zero. The nights at Davos are ofte hardly less brilliant than the days. The moon rides higl through cloudless skies, the air is perfectly still, and so littl is the cold felt that one can hardly credit the low reading of the thermometer. Frost-bite occasionally occurs a Davos, but is rare, and hardly ever leads to serious results.

Davos is just now threatened with a railway, but the project, although favoured by the communal authorities is viewed with much suspicion by those who are jealous fo the preservation of the simple manners and pure air which laid the foundations of the reputation of this *altenkurort*. The railway is objected to, not merely because the smoke would add to the sources of air contamination, but because such increased facilities of communication would be likely to augment with perilous rapidity the yearly-increasing advent of consumptives. This leads us to consider the most burning of all the controversies at Davos—viz., the question of overcrowding. Mr. Symonds gave the first warning on this subject some years ago in the columns of the metropolitan daily press, and his views are shared by Dr. Ruedi, Mr. Arthur William Waters, and other competent authorities. At first sight, the visitor to Davos in inclined to be sceptical about the dangers of overcrowding in a valley twenty miles long by half a mile to a mile wide, whose population has reached only to the figure of 3000. But when he has fully appreciated the peculiarities of the Davos climate, he begins to realise that such fears are far from being groundless. The reasons why, with a comparatively scanty population, Davos is threatened with the evils of overcrowding are as follows:—

1. The stagnation of air during the winter, and the consequent accumulation of the products of combustion, putrefactive particles, &c.
2. The large amount of fuel consumed owing to the cold.
3. The nature of the invalid cases, every consumptive being a focus of air contamination.
4. The impossibility of thorough ventilation owing to the cold.
5. The pulverisation of sputum owing to the dryness of the atmosphere, and its consequent dispersion through the air.
6. The presence of numerous cattle, and the accumulation of their *dejecta*.

This last source of contamination is one which admits of ready removal, and the inhabitants of Davos would do well to give their attention to this matter.

No doubt some of the above sources of contamination are minimised by the dryness of the air and its tendency to check putrefactive change, but looking impartially at the whole question, I am decidedly of opinion that if ever Davos is transformed into a densely populated valley its virtues as a sanatorium will have become mere matters of history.

Efforts are now being made, especially by Mr. Waters, to suggest some alternative sanatorium. Of the virtues of Wiesen, St. Moritz, and the Maloja I propose to speak in a subsequent article. Mr. Waters thinks a village near Schuls in the Engadine offers special advantages, and attention has lately been drawn to the merits of the beautiful and secluded Valley of Arosa.

The sanitation of Davos, which not long ago, was most defective, has been thoroughly rectified—thanks to the vigorous protests of Mr. Symonds,—and may now be pronounced excellent.

ADULTERATION IN PARIS.—In spite of the keen watchfulness of the authorities, adulteration is still extensively practised in Paris. Out of 645 samples of wine examined in November last, 450 were declared injurious; out of 88 samples of beer 5 were bad; and of 18 samples of spirits only one was condemned. More than half the samples of water were reported to be dangerous, and 80 out of 370 specimens of milk were placed in the same category. Out of 81 loaves of bread 30 were worthless, and out of 22 specimens of wall paper only 5 were good. Coffee was very little adulterated, and the butter was also reported to be fairly satisfactory.

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"VALUE OF MEDICAL EVIDENCE IN LIFE ASSURANCE."

THE following communication has been received for publication:—

"Mr. Chisholm presents his compliments to the Editors of THE LANCET, and begs to forward to them a copy of the paper read before the Institute of Actuaries, to which reference is made on pages 1093 and 1094 of the issue of THE LANCET of December 4th. Mr. Chisholm has not seen the article in the *Scottish Banking and Insurance Magazine*, which forms the basis of the note in THE LANCET, but he thinks that the statements in that article may have misled the Editors of THE LANCET as to the object of Mr. Chisholm's paper. Mr. Chisholm does not hold the opinion imputed to him that it is either possible or desirable to dispense with the test of medical examination in the general practice of life insurance, and his paper was written rather with the opposite view of discussing measures for making medical examinations more effective. There are cases—the insurance of the lives of a great number of *employés*, for example—in which actuarial opinion is favourable to the idea of dispensing with medical examination, but these are necessarily rare in their occurrence, and Mr. Chisholm, at the outset of his paper, endeavoured to define the conditions under which alone such dispensation might be allowed. The quotation of the words embodying this opinion without qualifying conditions, and leaving it to be understood that a course which might be followed on rare occasions should be treated as of universal application, amounts not to a representation, but to a travesty of Mr. Chisholm's views. The Editors of THE LANCET will no doubt deem it right to give equal prominence to this disclaimer as to the original notice that appeared in their journal, and it is hoped that they will lend the weight of their high authority to the promotion of a common understanding (which the eminent physicians who act as the chief medical advisers of our life insurance companies, do so much to encourage) between medical examiners and actuaries as to their respective spheres in the delicate and difficult task of assessing life risks—a task which it is not possible for either the one expert or the other completely to undertake by himself."

We are glad to learn that the opinion attributed to Mr. Chisholm as to the doubtful advantage of a medical examination in cases of life assurance is incorrect. We cannot but regret, however, that he was not more clear in the statement of his views, for we find that two of the gentlemen who were present at the reading of his paper understood him to hold the opinion attributed to him in the *Scottish Banking and Insurance Magazine*. Dr. Selfe Bennett said that "Mr. Chisholm had praised past times, and looked back with regret upon the old days when the proposer simply went before the board of directors, who asked him a few questions and accepted or declined him..... They were not likely to get statistics such as the author hoped for, to an extent and sufficiently reliable to enable an actuary to step in and dispense with the doctor's services." And, again, Dr. Tirard said "that Mr. Chisholm appeared to take two opposite views: first of all, that they ought to do without medical examination at all; and secondly, that they ought to make the medical examinations much more strict in their work than they have hitherto been." It is satisfactory to be informed by Mr. Chisholm that he does not think it either possible or desirable to dispense with the medical examination in cases of life insurance.

CHRISTMAS FESTIVITIES IN THE HOSPITALS.

Great Northern Central Hospital, Caledonian-road.—The usual Christmas entertainment was given to the patients in this institution by the members of the Ladies' Association in connexion therewith, and to those inmates who were able to attend a concert of vocal and instrumental music was given. A Christmas-tree was provided for the children who were, or had been during the year, inmates of the hospital, and presents of warm clothing were also distributed.

Paddington-green Hospital for Children.—On the 29th ult. a Christmas entertainment was given to the in-patients and convalescents at this institution. The proceedings, which began with a Punch and Judy show and a magic lantern exhibition, were concluded by vocal and instrumental music, and an exhibition of dogs.

Brompton Hospital.—Christmas at this institution was inaugurated by a Confirmation held by the Bishop of London in the chapel of the hospital on the 23rd ult., at which fifteen of the patients were presented. On the 25th carols were sung, and after service in the chapel extra rations of seasonable food were provided for the inmates. In the evening an entertainment of vocal and instrumental music was given. On the 28th carols were sung by a trained choir, and on the 30th ult. a Christmas tree was provided.

London Hospital.—The annual festival of the children's Christmas-tree was celebrated in this institution on the 4th inst., when toys and other suitable presents were distributed to the juvenile patients, who number about 130 Previous to the distribution an entertainment was given.

WILLS OF MEDICAL MEN.

THE will and two codicils of Archibald Gordon, M.D., C.B. formerly Inspector-General of Hospitals at Bombay, then of Halmyre, Peeblesshire, N.B., but late of 76, Cornwall-gardens, South Kensington, who died on August 3rd last, at West Hoathley, Sussex, were proved on Dec. 8th, by Mrs. Mary Preston Gordon, the widow, and Mr. Charles Bowman Logan, the executors, the value of the personal estate in the United Kingdom amounting to over £17,000. The testator gives his household furnishing, plate, books, pictures, and plenishing of every kind to his wife absolutely; and £200 to his executor, Mr. Logan. The residue of his real and personal estate he leaves upon trust for his wife for life, she maintaining and educating children residing with her; and at her death for the whole of his children by her, share and share alike.

The will of Richard Sharpe, M.D., formerly of Cheshunt, Herts, but late of The Ferns, Oakleigh-road, Whetstone, Middlesex, who died on Nov. 9th, was proved on Nov. 27th by Mr. Henry Perceval Mackrell, and Mr. Ernest Rolls Sharpe, the son, the executors, the value of the personal estate exceeding £9000. The testator makes some specific bequests to his wife and children; and leaves the remainder of his furniture and effects and £4000 to his wife for life or widowhood. The residue of his property he gives to all his children equally.

The will of Joseph Seaton, M.D., late of Halliford House, Sunbury, Middlesex, who died on Sept. 30th last, was proved on Dec. 2nd by John Joseph Joscelyn Seaton, M.D., the son, and Mr. George Thomas Haigh, the executors, the value of the personal estate being over £4500. The testator bequeaths a picture to his said son, and a legacy to a granddaughter. As to the residue of his real and personal estate, he leaves one-fourth to or upon trust for each of his children, Ernest William Attree, Katherine Jane, and Robert Winslow; and one-fourth upon trust for his daughter, Mrs. Ellen Dickinson, until she shall succeed to certain property, and then to be divided between his three last-named children.

The will of Mr. Joseph Sampson Gamgee, Surgeon, late of 22, Broad-street, Birmingham, who died on Sept. 18th last, has been proved at the Birmingham District Registry by Mrs. Marion Gamgee, the widow, and one of the executors. The testator leaves all his real and personal estate upon trust for his wife for life or widowhood, and then for his children in equal shares.

The will of John Burke, M.D., late of Hatfield, Herts, who died on Nov. 9th, was proved on Dec. 2nd by Mr. Arthur Edmund Sharp, the sole executor. The testator gives all his real and personal estate to Mary Ann Charlotte Chiffelle

The following legacies have recently been left to hospitals and other medical institutions:—Mr. Henry Boddington, of The Cove, Silverdale, Lancashire, and of Strangeways, Manchester, brewer, £1000 to the Manchester Royal Infirmary and Dispensary, £250 each to St. Mary's Hospital and Dispensary, Manchester, and the Salford and Pendleton Royal Hospital and Dispensary; and £150 to the Stockport Infirmary.—Mrs. Elizabeth Fisher of The Avenue, Colchester, Essex, £100 to the Essex and Colchester Hospital.—Mrs.

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Mary Ann Garston, of High Pastures, Crigburth near Liverpool, £100 each to the Royal Infirmary and Children's Hospital, Liverpool.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

St. Pancras.—The annual report for 1885 is the first one submitted to the vestry by their newly-appointed medical officer of health, Dr. J. F. Sykes, and as he only held office during a portion of the year he does not profess to deal with the district in such detail as he could have wished. Making the necessary corrections, the annual death-rate from all causes was 19·89 per 1000 living, that from the zymotic group being 2·6. Small-pox caused 63 deaths in the latter group, the outbreak being a continuance of that which commenced in 1884. As to this disease, Dr. Sykes specifies how the metropolis is to be benefited by the prompt removal to a distance of London small-pox patients by the Metropolitan Asylums Board. But this will not affect the Highgate hospital, which lies on the boundary of St. Pancras, and the influence of which on this district was shown in Mr. Shirley Murphy's last report. As to water-supply, we learn that before another year elapses the whole parish will be provided with a constant water service, except a few houses supplied by the West Middlesex Water Company. The improvement is stated to be accompanied by conditions which are regarded by the inhabitants as excessively stringent, but from a sanitary point of view the gain will be considerable. A new mortuary and disinfecting buildings are being provided. The rapid steam process of disinfection is not to be supplied, apparently on the ground of expense, both the initial cost and that of retaining the services of a skilled servant being held in view. This is to be regretted, because the alternative dry-heat system is so much more slow; and since there are many articles which cannot be thoroughly penetrated by the necessary temperature, except after the lapse of from six to eight hours, there is danger of undue haste leading to imperfect results. In a district where already some 4000 articles are sent for disinfection, we should have thought that the steam-pressure system was called for on the grounds of economy of labour and of time, if not also on the score of ultimate expense.

Birkenhead Urban District.—Allowing for increase of population, the birth- and death-rates for this borough during 1885 were 34·6 and 19·5 per 1000 respectively, the zymotic rate being 2·4. Mr. Vacher discusses at considerable length the meaning of these rates from different points of view and in relation to the different portions of the district, and he then proceeds to give details concerning each group of diseases. Of small-pox there were 24 fresh cases during the year; each was isolated. When a case came under notice the public vaccinator was immediately acquainted with the fact in order that the requisite means of protection might be afforded to those who ran the risk of exposure to infection. Under the compulsory system of notification, 1580 cases were reported. The majority were cases of measles, but scarlatina accounted for 556, typhoid fever for 38, and diphtheria for 21 cases. It is noteworthy that, although the dual system of notification by householder and medical attendant is in force, there were only nine instances of notification by householders; and Mr. Vacher also points out that the allegation so often made, to the effect that in places where notification existed the proportion of deaths from the diseases notified to cases reported would show an increase, is certainly not correct in the case of Birkenhead. In short, compulsory notification has not led to cases being hidden and left without medical attendance. There has, on the contrary, been a decided diminution in the deaths in Birkenhead, and a corresponding saving of life. There is, unfortunately, a large amount of unregistered deaths among infants, and it is almost impossible not to suspect some sinister motive as influencing this failure to seek medical help in infantile diseases. The infectious hospital, now enlarged, did good service during the year; the sanitary work included the disinfection of 696 houses and 234 parcels of clothing, and the destruction of bedding, &c., in 28 cases, the arrangements for all this work being well organised. Lodging-house inspection needs reform, for there is no night-inspector, and it is well known that without such an officer efficient control of common lodging-houses and occupiers of cellar dwellings cannot be carried out. Improved arrangements have been made for slaughtering, and the report for 1885 shows, in other respects, excellent progress.

Portsmouth Urban District.—Dr. B. H. Mumby was only appointed medical officer of health for Portsmouth towards the close of 1885, and hence he is only able to deal with such facts and figures for that year as have been brought under his notice. The birth- and death-rates were 34·5 and 19·79 per 1000 respectively, in a population of 134,659. New works of sewerage are in progress; and, referring to the position which Portsmouth formerly held in the list of English towns, as quoted by the Registrar-General, Dr. Mumby expresses the hope that, with their completion, Portsmouth will regain the place which she formerly occupied. Portsmouth is a very composite borough, and this is especially marked in the case of enteric fever. Thus at Southsea, where the sanitary arrangements of the houses are mostly on an improved and modern system, with good drain ventilation, the fever death-rate is 0·39 per 1000; whereas in Kingston, where the sanitary arrangements are not nearly so good, the rate is more than double. And, amongst the causes of enteric fever, the pollution of the subsoil by cesspits and by a faulty main sewer are specially adverted to. Such pollution must also be regarded as one of the main factors in the production of fatal infantile diarrhœa. This latter disease was also twice as fatal in Kingston as in Southsea. Under a system of compulsory notification of infectious diseases the following were heard of:—Typhoid, 762; scarlet fever, 314; diphtheria, 173; small-pox, 2; puerperal fever, 2—in all 1253. And yet only 37 patients were admitted into the infectious diseases hospital, a number so small that the institution can hardly have influenced the state of infection in the borough to any noteworthy extent. Dr. Mumby hopes the buildings will come to be more used, and he goes on to show how small are the payments demanded by the sanitary authority. We expect these payments are the main hindrance to the proper use of the hospital, and it would be well for the Town Council to consider whether it is desirable, for the sake of £53 odd, to run the risk of deterring people from seeking isolation. Over and over again it has been shown that even small payments are a hindrance; and in some places it has very properly been decided that ratepayers and their households—that is to say, those who built and who maintain the hospital—should be admitted free. Masters sending servants are required to pay 10*s.* 6*d.* a week in Portsmouth. A greater inducement to pack a maid off to her own home as soon as possible could hardly be devised. What does the master in his capacity as ratepayer pay for, if it be not the right to use the hospital for the protection of his household?

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5397 births and 4374 deaths were registered during the week ending Jan. 1st. The annual death-rate in these towns, which had been equal to 20·7 and 21·5 per 1000 in the preceding two weeks, further rose last week to 25·1. During the thirteen weeks ending last Saturday the death-rate in these towns averaged 20·3 per 1000, and was 2·1 below the mean rate in the corresponding periods of the ten years 1876-85. The lowest rates in these towns last week were 16·8 in Blackburn, 17·6 in Derby, 18·4 in Sunderland, and 19·5 in Bradford. The rates in the other towns ranged upwards to 32·3 in Manchester, 32·4 in Liverpool, 35·2 in Cardiff, and 36·0 in Halifax. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 386 and 433 in the preceding two weeks, further rose last week to 537; they included 244 from measles, 90 from whooping-cough, 80 from scarlet fever, 56 from "fever" (principally enteric), 36 from diarrhœa, 30 from diphtheria, and 1 from small-pox. No death from any of these zymotic diseases was registered last week in Derby; whereas they caused the highest death-rates in Portsmouth, Halifax, Wolverhampton, and Leeds. The greatest mortality from measles occurred in Newcastle-upon-Tyne, Liverpool,

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Halifax, Leeds, and Wolverhampton; from scarlet fever in Salford, Newcastle-upon-Tyne, Bradford, and Manchester; from whooping-cough in Sunderland, Manchester, Oldham, and Huddersfield; and from "fever" in Portsmouth, Preston, Norwich, and Cardiff. The 30 deaths from diphtheria in the twenty-eight towns included 9 in London, 5 in Portsmouth, 3 in Birmingham, 3 in Birkenhead, and 2 in Newcastle-upon-Tyne. Small-pox caused one death in Portsmouth, but no death from this disease was registered in London and its outer ring, or in any of the twenty-six other large provincial towns. No case of small-pox was under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease. The deaths referred to diseases of the respiratory organs in London, which had been 494, 416, and [illegible] in the preceding three weeks, rose last week to 577, and exceeded the corrected average by 35. The causes of 129, or 2·9 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Leicester, Wolverhampton, Birkenhead, and Cardiff. The largest proportions of uncertified deaths were registered in Halifax, Sheffield, Oldham, and Sunderland.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 22·0, 22·5, and 26·2 per 1000 in the preceding three weeks, was 26·0 in the week ending Jan. 1st; this rate exceeded by 0·9 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 16·4, and 18·5 in Perth and Leith, to 24·6 in Greenock and 32·9 in Glasgow. The 641 deaths in the eight towns last week showed a decline of 7 from the numbers in the previous week, and included 21 which were referred to whooping-cough, 16 to measles, 13 to diarrhœa, 12 to scarlet fever, 10 to "fever" (typhus, enteric, or simple), 1 to diphtheria, and not one to small-pox; in all 73 deaths resulted from these principal zymotic diseases, against 75 and 63 in the preceding two weeks. These 73 deaths were equal to an annual rate of 3·0 per 1000, which was 0·1 below the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 19 and 15 in the previous two weeks, rose last week to 21, of which 18 occurred in Glasgow. The 16 deaths from measles, all of which were returned in Glasgow, also showed a further increase upon recent weekly numbers. The fatal cases of scarlet fever, which had declined in the preceding four weeks from 25 to 13, further fell last week to 12, which included 5 in Glasgow and 5 in Dundee. The 13 deaths attributed to diarrhœa somewhat exceeded the numbers in recent weeks; 6 occurred in Glasgow, 3 in Edinburgh, and 2 in Aberdeen. The 10 deaths referred to "fever," exceeded the number in the previous week by 6, and included 3 in Glasgow and 2 in Greenock. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had increased in the preceding five weeks from 125 to 188, declined last week to 179, but exceeded the number in the corresponding week of last year by 36. The causes of 88, or nearly 14 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 35·6, 29·6, and 28·5 per 1000 in the preceding three weeks, rose to 38·0 in the week ending Jan. 1st. During the thirteen weeks ending last Saturday the death-rate in the city averaged 33·7; the mean rate during the same period did not exceed 18·8 in London and 19·5 in Edinburgh. The 257 deaths in Dublin last week showed an increase of 64 upon the number in the previous week, and included 11 which were referred to scarlet fever, 4 to "fever" (typhus, enteric, or simple), 2 to diarrhœa, and not one either to small-pox, measles, diphtheria, or whooping-cough. Thus the deaths from these principal zymotic diseases, which had been 23, 22, and 21 in the previous three weeks, further declined last week to 17; they were equal to an annual rate of 2·5 per 1000, the rates from the same diseases being 2·6 in London and 1·2 in Edinburgh. The 11 fatal cases of scarlet fever exceeded the numbers returned in recent weeks; whereas those referred to "fever" and diarrhœa showed a further decline. Thirteen inquest cases and 10 deaths from violence were registered; and 84, or nearly a third, of the deaths occurred in public institutions. The deaths of infants corresponded with the number in the previous week, while those of elderly persons showed a further marked increase. The causes of 42, or more than 16 per cent., of the deaths registered during the week were not certified.

THE HIGH DEATH-RATE IN PRESTON.

A paper entitled "A Critical Inquiry into the Causes of the High Death-rate of Preston" was recently read by Dr. J. A. Rigby before the Medico-Ethical Society of that town. This subject, which is one of more than merely local interest, has recently attracted, as it undoubtedly should do, considerable interest in the town. Dr. Rigby appears to have convinced himself, on two grounds, that the true death-rate of Preston is considerably overstated in the Registrar-General's returns: in the first place, by a large under-estimate of the population; and, secondly, because, as he asserts, the high death-rate is to a large extent the natural result of the high birth-rate that prevails, and has long prevailed, in Preston. As regards the asserted under-estimate of the population of Preston, it may be pointed out that the Registrar-General's estimate of the population in the middle of this year, based upon the usual hypothesis that the rate of increase that prevailed between the last two censuses has since been maintained, is almost identical with the estimate based upon the rate of increase of inhabited houses in the borough between the middle of 1881 and the middle of 1885. It follows, therefore, that if the Registrar-General's estimate is very considerably below the actual number of the population, that the proportion of persons to a house must have largely increased since 1881. Moreover, the Registrar-General's estimate of population shows a very large decline in the birth-rate in Preston since 1881, which is scarcely consonant with the asserted recent exceptional increase of population by the immigration of 3000 dock labourers and their families, the natural effect of which would be to raise the birth-rate. We do not doubt the immigration of the dock labourers; but is it not very probable that they have merely supplied the place of other immigrants who would have been attracted to this manufacturing centre since 1881 but for the general commercial depression? In the face of these considerations, we cannot accept the assertion of a large under-estimate of the population of Preston. But that Dr. Rigby in his paper entirely ignores all that has been written and said during the last ten years upon the vexed question of the inter-relation of birth-rates and death-rates, it would appear almost necessary to apologise for asserting once more in these columns that the high birth-rate in Preston, far from explaining, only accentuates the high death-rate in that town as evidence of insanitary condition. It ought not to be necessary now, in criticising a "critical inquiry" into the causes of any high death-rate, to point out this generally exploded fallacy which has once more been asserted by Dr. Rigby. A high birth-rate in any population necessarily implies, in the first place, an exceptionally large proportion of young adults, who are liable to a low death-rate, and also implies a smaller proportion of old people, whose death-rate is high; moreover, although a high birth-rate does imply a large proportion of infants and young children, it should be borne in mind that the death-rate of children over four years of age falls below the mean age at all ages, and that the death-rate of children between the ages of seven and twenty years is lower than at any other period of life. On these accounts the age constitution of all populations having a high birth-rate is more favourable to the death-rate than is the age constitution of a population which has a low birth-rate. For instance, presuming identical death-rates at each age period in Brighton and Preston, the age constitution of the former town would produce a death-rate at all ages more than 1 per 1000 in excess of the death-rate in Preston, although, as is pointed out by Dr. Rigby, the birth-rate in 1885 was only 26·1 in Brighton, instead of 39·2, as in Preston. We hope, therefore, that those most interested in the sanitary condition of Preston will not be misled by Dr. Rigby's assertion of the over-statement of the death-rate into relaxing their efforts to arrive at the true explanation of the high rate of mortality in the town. We have seen no attempt to determine the death-rate of the town at different groups of ages, or the rates of mortality from the different classes of disease, which are both absolutely indispensable to determine the true import of a death-rate. Dr. Rigby does not attempt to controvert the existence of exceptionally high

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infant mortality in Preston, but attributes it to excessive proportions of illegitimacy, to the exceptional prevalence of venereal disease, and to the effect of the large employment of married woman in factory labour.

Correspondence.

"Audi alteram partem."

THE EFFECT ON THE FEMORAL ARTERY OF LIGATURE AT THE APEX OF SCARPA'S TRIANGLE.

To the Editors of THE LANCET.

SIRS,—My best thanks are due to Mr. Savory for his courteous reply to my inquiry with reference to the abstract of his paper on this subject. Would you allow me space for a few lines on the very interesting surgical point which that paper treats? I am wise enough not to wish to enter into controversy with Mr. Savory, but if he will do me the kindness of correcting any error into which I may have fallen in treating of the condition of this artery after ligature, or any inadequacy in the expression of my ideas, I shall be very grateful.

I have always been taught, and have always taught, that after ligature of any artery on the old plan, where the vessel is divided by the ligature as it separates, a portion of the artery is obliterated, which in many cases reaches to the first considerable branch above and below. In some cases, however (as shown in the woodcut to which I referred in my last, on page 86 of the first, or page 90 of the fourth edition of my work on the "Principles and Practice of Surgery"), the extent of artery obliterated is much less. In the case of the superficial femoral, the tract of artery obliterated is sometimes as much as two inches (as in Porta's case, referred to and figured in the "System of Surgery," third edition, vol. iii., p. 52; and also described in "Gray's Anatomy," tenth edition, p. 412), sometimes, as in the case just mentioned, not more than a quarter of an inch. In one of Hunter's cases the whole artery was found obliterated, including the aneurysm, and this is the case which was probably in the mind of the writer whom Mr. Savory quotes. But I have always regarded this as exceptional, and probably caused in that case by the fact that a larger part of the vessel was exposed than is ever done now, and numerous ligatures perhaps used. In all ordinary circumstances, the blood returns into the portion of the artery below the ligature, and therefore when the artery is tied for aneurysm there are two arches of anastomosis: one, the higher, to carry the blood round the portion of the artery obliterated by the ligature; and the other, the lower, to carry the blood round the aneurysmal part of the artery, which, I believe, has been always found obliterated in cases cured by ligature, though not always in those cured by pressure. The principal importance of these facts lies in this: that from a very early period after the operation blood must be passing through the artery below the ligature into the aneurysm. I have always endeavoured to set out these facts in the plainest possible language in the various text-books in which I have treated of them—viz., in "Gray's Anatomy," "The System of Surgery," and my "Principles and Practice of Surgery," and I confess I was surprised to hear from so great an authority as Mr. Savory that no ordinary book stated that "the artery was pervious from the ligature to the aneurysm." Construing the words quoted strictly, no book does state this, for it is not true. Some part of the vessel must be obliterated below its point of division, or hæmorrhage would take place. But I submit that the works above referred to plainly state the facts as I have just put them, and I think they are in exact accordance with the gist of Mr. Savory's paper. If, however, my words as they stand in those books do not convey my meaning, I shall be glad to be corrected. Text-book writers are peculiarly liable to faults of expression due to condensation—"brevis esse laboro, obscurus fio."

I may add that the published descriptions are necessarily taken from the dissections of cases in which the artery has been divided by the ligature. In many of those where the vessel has not been divided (as I believe is now common), the portion of artery obliterated is probably very minute—n more than a mere diaphragm across the tube,—as shown i a case figured on page 93 of my "Principles and Practice c Surgery," fourth edition; and in such cases I myself believ it to be probable, though the fact has not yet been ascer tained, that the whole artery may again become pervious.

I am, Sirs, your obedient servant,

Jan. 1887. T. HOLMES.

ARTERIAL PRESSURE.

To the Editors of THE LANCET.

SIRS,—In endeavouring to master the mysteries of arteria pressure, I have arrived at the conclusion that our physio logists are scarcely consistent in themselves or with eacl other. The text-books I have studied are Foster's Physio logy and Brunton's Pharmacology, and should I have failec to comprehend the meaning of these writers, any explana tions that may be forthcoming may benefit many others, a well as myself.

In the first place it seems to me that we have to deal with two main factors: (1) the pressure of the blood on the arteries, and (2) the pressure of the arteries on the blood but it does not seem to me that either Foster or Bruntor has kept these two factors clearly in their mind's eye, and a most puzzling confusion is the result. Thus we are told by Brunton (page 226), that arterial tension and blood pressure is one and the same thing, and that the more tensely the arteries are stretched the greater is the pressure they exert on the blood they contain; whereas Foster states (page 203) that constriction of any vascular area increases the blood pressure there; so that we may apparently have increased pressure both with overstretched arteries and with contracted arteries. It would simplify the matter if we separate the terms arterial tension and blood pressure; or, better still, if we do away with the term arterial tension and substitute arterial pressure; making arterial pressure correspond to the pressure of the arteries on the blood; and blood pressure correspond to the pressure of the blood on the arteries. Bearing this distinction in view, it is evident that the more blood there is in the arteries the more the arteries will be stretched by the pressure of the blood on them; here, it would be said, the blood pressure is high. On the other hand, were the quantity of blood in the arteries not increased but the arteries constricted, then would the arterial pressure be high. It is also evident that the manometer will not distinguish between blood pressure and arterial pressure, but will simply register the combined pressure—the action and the reaction of these two factors. Bearing in mind the separate action of the two factors mentioned, it is easy to understand the statement of Foster that moderate bleeding does not reduce blood pressure, for evidently the pressure is maintained by the arteries contracting on the diminished volume of blood in them; but this fact is not in accordance with Brunton's statement that arterial tension is synonymous with blood pressure, for here we get a similar pressure with contracted arteries. To my mind, it is a most unfortunate and confusing statement to make *tonos* and stretching one and the same thing; nor is there any proof given that the more the arteries are stretched the more pressure they exert on the blood in them. The more the blood stretches the arteries the greater is the pressure of the blood *on them;* but it is doubtful if an over-stretched artery exerts relatively higher pressure than one less stretched. On the contrary, Foster states that the tone of any vascular area may be augmented by constriction—that is, that the constriction increases the pressure.

Then, again, the statements in Foster (page 185) relative to the effects of constriction and dilatation of vascular areas, are, to my mind, far from being clear, and scarcely in accordance with his statements (page 207) that throwing more blood into the arteries does not increase the arterial pressure, nor bleeding directly diminish it; because if A (being a vascular area) be constricted, the effect of this constriction, we are told, is to increase the pressure in the remaining portion of the arterial system. But surely the effect of this constriction in A must be similar to adding blood to the circulation, which, we are told, does not raise the pressure. If, on the other hand, A be dilated, the remaining portion of the arterial system has its pressure lowered; but the effect of this dilatation in A on the remaining portion must be

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similar to bleeding, which, we are told, does not reduce pressure. Then we may get the following associations on combinations—namely, increased pressure along with an increased flow of blood into the veins, and increased pressure with a diminished flow; diminished pressure with increased flow, and diminished pressure with a diminished flow of blood into the veins. These combinations are very puzzling until the two factors are separated, when they become more easy to understand. Thus, increased pressure, the result of an increased quantity of blood, is accompanied by an increased flow into the veins; but increased pressure, the result of contraction of the artries, is accompanied by a diminished flow, and diminished pressure, the result of the arteries pressing less on the blood (i.e., dilatation) is accompanied by an increased flow; but a diminished pressure the result of less blood is accompanied by a diminished flow. Without this distinction it is somewhat difficult to see what necessary connexion there is between pressure and flow, but with this distinction it is apparent. The last point I will discuss is the effect of section of the renal nerves on pressure in the vessels of the renal glomeruli; this section causes the renal arteries to dilate, and both Foster and Brunton state that this dilatation leads to an increased pressure in the vessels of the glomeruli, and Foster further states that this occurs, although the pressure in the renal arteries is lowered. This is very difficult to follow, and where the increased pressure comes from I cannot conceive. It cannot come from the renal arteries, whose *tonos* or tension is gone; it cannot come from peripheral resistance, for that is gone with the section of the nerves; and peripheral resistance being gone, pressure from behind cannot cause it, as the renal arteries, with lowered pressure, intervenes. In my opinion section of the renal nerves does not cause increased pressure in the vessels of the glomeruli, although more blood passes through them.

Space forbids me discussing other interesting problems, and, in conclusion, if my criticisms of such eminent authorities as Foster and Brunton are radically wrong, I can only express my sorrow for it, and spend two or three months more in trying to overcome the intricacies of vascular pressure.

I remain, Sirs, your obedient servant,

Dartmouth, Nov. 23rd, 1886. W. NICHOLSON, M.D.

SUPPURATION IN THE APPENDIX VERMIFORMIS.

To the Editors of THE LANCET.

SIRS,—An instance of suppuration in the vermiform appendage of the cæcum causing enteritis and peritonitis is so rare that I hope you may deem it worthy of record in the pages of THE LANCET. A man aged forty-two, occupying the position of an in-door servant as hall-porter, was seized with severe pain in the abdomen, vomiting, and such prostration that he was scarcely able to stand. On seeing him the following morning, I found him with tenderness spread all over the abdomen and considerable tympanites. The tenderness was more marked on the right half of the abdomen than on the left, and there was one spot, about an inch to the right of the umbilicus, where the pain was intensified; here, too, there was some slight bulging of the abdominal walls, but no additional hardness. The pulse was 80, and the temperature normal. An enema was given of gruel and castor oil, which was expelled free from fæcal matter; a hot linseed poultice was placed all over the abdomen, and changed every four hours; a grain of extract of opium was administered every six hours; simple farinaceous nutriment was given in small quantities, but was ultimately all rejected. On the third day the pulse remained at 80, and the temperature continued normal; the abdomen was less tympanitic, and less tender; the vomiting continued, and there was a total inability to retain nourishment by the stomach. Nutrient enemas of an extract of beef, with port wine, were now administered every eight hours, and retained; and the opium was continued, though less frequently. On the fourth day the pulse had risen a little, but the temperature remained normal; the bowels acted freely, the excretion consisting of yeast-like semi-solid material; the tympanites and tenderness both lessened, and the bulging to the right of the umbilicus had disappeared; but the skin had become bedewed with a cold clammy perspiration, and there was great prostration. On the fifth day the abdominal symptoms had somewhat abated; the bowels acted again, but violent retching continued, and the vomit had become distinctly stercoraceous; the pulse rose to over 100, and the temperature to 101°; the nutrient enemas and opium were continued; but the cold and clammy perspiration did not abate. On the sixth day the abdominal symptoms were less severe; the bowels acted again, with evident relief to the abdomen; but the retching continued, and the vomited matter was still stercoraceous. The chief distress was now referred to the epigastrium, apparently caused by the violent retching. Cotton-wool was substituted for the poultice; the nutrient enemas and opium were continued. On the evening of the sixth day symptoms of collapse set in, and death ensued in the night.

An examination of the abdominal cavity was made twenty-four hours after death; there was subacute inflammation of the peritoneum and of the intestines, increasing in degree towards the cæcum, but was more marked in the small than in the large intestines. The discolouration was most marked around the vermiform appendix. The appendix was very discoloured at its base, as if it had been constricted, but no band could be detected. The body of the appendix was distended, which, on being laid open, was found to contain a small quantity of sanguineous pus, but no other foreign material could be detected. A gooseberry-pip, a cherry-stone, a mustard-seed, the small pips of a fig, and a piece of hard fæcal matter have been known to intrude into the vermiform appendix, and set up fatal enteritis and peritonitis, but I cannot find any case of suppuration recorded. As the appendix exists only in human beings, in the ourang-outang, and in the wombat, but, as far as is known, in no other animal, its presence is probably not essential to life. The question naturally arises, would removal by operative interference afford relief in cases similar to the one recorded when the symptoms pointed sufficiently to the seat of mischief?

I am, Sirs, yours obediently,

Wokingham, Jan. 1887. J. G. BARFORD.

THE GENERAL PRACTITIONERS OF ENGLAND: THEIR COLLEGIATE RIGHTS AND DUTIES.

To the Editors of THE LANCET.

SIRS,—The announcement which you have made of the proceedings about to be taken by the College of Surgeons and the College of Physicians of England respectively indicate an important crisis in the affairs of the profession. It is one which avowedly concerns the general practitioners of England above all others. The steps about to be taken by the Colleges will affect for good or for evil the position, the status, the rights, and the privileges of the general practitioners now and in the future. Avowedly, and as we are well disposed to believe, in fact, many of the changes about to be introduced will give increased facilities for graduation in London, and will thus bring the title of M.D. within the reach of London students on reasonable terms. This is much to be desired. On the other hand, corporations continue to treat the great mass of the profession as though they were persons without any right to a voice in their own affairs and without any capacity for controlling them. The indignity with which the College of Surgeons treats its Members and the calm contempt with which the College of Physicians utterly ignores its Members and Licentiates are likely to be perpetuated, so far as can be gathered from their present proceedings, in the conditions under which they will endeavour to frame the new Charters which they are about to send from the Privy Council. It will be in the power of the general practitioners of England, Members of the College of Surgeons, and Licentiates of the College of Physicians to determine whether they choose to be thus completely ignored in the medical republic of the future. We use here incidentally and involuntarily a phrase common enough in the mouths of all, but which is in itself under existing circumstances a bitter satire. We talk of the republic of letters and of the republic of medicine, because it is a self-evident axiom that the educated members of a profession stand for all the great purposes of fraternity, of progress, and of self-government upon an equal basis; but, in point of fact, the existing government of the profession by the London corporations is an oligarchy, consolidated by self-assertion, and based upon the survival of mediæval anachronisms.

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The College of Surgeons and the College of Physicians are alike mediæval guilds, which bring to the administration of modern affairs a framework of effete guilds of which the *raison d'être* has long ceased to exist. If anyone were now seriously to propose, in framing a government for the profession of medicine, that the whole power should be concentrated in the hands of a self-nominated and self-elected clique of hospital surgeons and physicians constituting less than 5 per cent. of the whole body, that the whole funds, buildings, powers, and accumulated surplus of fees should be vested in their hands, such a scheme would stand self-condemned. It has no basis in reason or justice or any similitude in any constitution framed in this century. This, however, is what the Colleges of Surgeons and Physicians are now striving to create anew by the favour of the Crown in the new Charters for which they are asking. Sir Henry Pitman evidently saw at once with his veteran acuteness the weakness and the strength of the renewed effort of despotism which the College of Physicians is making, when he jubilantly reminded the comitia that they would not have to go to Parliament for their Charter, but that they would be able to obtain it by influence with the Crown. No doubt some of the most eminent of the present governors of the two Colleges are very near the Crown, they are close to the steps of the Throne, and they are well acquainted with the avenues and staircases of the Privy Council. What can be said, however, of a scheme with which the promoters fear to face Parliament? In fact, this fear is the strength of, and should give courage to, the practitioners of England. Nor need it even be feared that the Privy Council will allow itself to be approached exclusively by the Councils of the Corporations, and will be deaf to the representations of the many thousands who constitute the commonalty of both Colleges, and on whose support, and by whose existence, these Corporations live, move, and have their being. The Association of General Practitioners will claim for that order, to which the State is indebted for its medical work in all the great towns, throughout the rural districts, in the Army, in the Navy, and in the Poor-law service, that they shall be represented in the constitution of the Colleges and of the new University. They will claim that their voice shall be heard, and that their influence shall be felt, and, unless these just concessions be made, they will ask that no new Charters or additional privileges be granted until a Royal Commission has been appointed to inquire into the constitution of the Colleges, into their relations to the whole profession, and into the wishes and rights of the profession in the constitution of the new University. To support this scheme, we invite those of your readers who agree with us to shake off the apathy which long years of submission to the Councils have bred, and to claim for themselves a universal interest and an individual power in the government of the body to which they belong. We ask those who agree with us to favour us by a post-card. We invite your support as having always been the advocates of the rights of the general practitioners. The traditions of THE LANCET, to which you have with justice lately proudly referred, are on the side of the profession at large, and opposed to the sole possession of exclusive privileges by small bodies of self-elected persons. We confidently count upon your aid in this great matter.—We are, Sirs, yours faithfully,

H. WALTER VERDON, 410, Brixton-road, S.W. } Hon. Secs., Assoc. Gen. Pract.
W. GIBSON BOTT, 414, Clapham-road, S.W. }

Jan., 1887.

"DEGREES FOR LONDON MEDICAL STUDENTS."

To the Editors of THE LANCET.

SIRS,—It must be a matter of great gratification to all those who take an interest in the matter that the Royal College of Physicians of London and the Royal College of Surgeons of England have now finally settled that it is "desirable and practicable to grant degrees in medicine and surgery to persons who have passed the Conjoint Examination of the two Colleges." Yet, I am afraid the whole object will be defeated if Sir William Gull's suggestion be adopted—"That a further examination in Clinical Medicine and Surgery be instituted for the M.D. and M.S. degrees respectively." Why cut up the degree thus, after the fashion of the London University, for this would be doing the very thing that is not wanted? The London student requires that he can obtain the degree of M.D. on a par with the Scotch and Provincial Universities. It is already acknowledged that the Conjoint Examination is equal to that for their degree, and in their case the only thing required in proceeding to the M.D. degree after the M.B. is the writing and reading of a thesis. Should Sir William Gull's suggestion be adopted, the new University will be thereby defeating its primary object. I am interested to know upon what terms those holding the two qualifications during past years would obtain the new degree? Having obtained the double qualification, would the University confer the degree upon them? if not, unfairness might be complained of.

I am, Sirs, yours faithfully,

R. W. SUTTON BARRACLOUGH, M.D. Brux., L.R.C.P. Lond., M.R.C.S. Eng.

Dulwich-road, Herne-hill, S.E., Jan. 3rd, 1887.

THE FILARIA SANGUINIS HOMINIS.

To the Editors of THE LANCET.

SIRS,—It may interest many to know that I have at the present time under my care at the London Hospital a patient suffering from chyluria, whose blood and urine contain living embryos of the filaria sanguinis hominis. The number of embryos found in the blood are not so numerous in this as in a previous case under my care at the hospital. The "periodicity of filarial migration," however, is equally characteristic, the embryo filariæ swarming into the blood at night and disappearing from the general circulation during the day-time. The patient, who contracted the disease in India, was sent to me by Dr. Clay of Plymouth. I propose to exhibit "living specimens" of the embryo filaria sanguinis hominis at the Clinical Society on Jan. 14th.

I am, Sirs, faithfully yours,

Finsbury-square, Jan. 4th, 1887. STEPHEN MACKENZIE.

THE BATH WATERS AND ARSENIOUS ACID.

To the Editors of THE LANCET.

SIRS,—The marvellous efficacy of a course of Bath waters in anæmia, nodular rheumatism, and chronic skin disease has long been an established fact; but to what special therapeutic agency this efficacy was due has, so far at least as written evidence proves, been hitherto inadequately accounted for. Indeed, had not the generally accepted analyses of these waters utterly failed in my mind to account for their undisputed curative action in the diseases referred to, the experiments leading to the demonstration of the fact hereafter detailed would never have been initiated by me, and the publication of what, I trust, my professional brethren may consider a useful contribution to thermal-water therapeutics might have been reserved to another. In endeavouring to account for the apparent specific action of the Bath waters, I mentally passed in review those therapeutical agents which, while exercising distinct action in the diseases referred to, might at the same time be reasonably expected to be held in solution in natural mineral waters. Arsenic in some form took immediate prominence, and the fact which I subsequently ascertained, that its presence would account for the tardy precipitation of the iron after the escape of the excess of CO_2[1]—a peculiarity in the behaviour of these waters, otherwise inexplicable—tended to confirm me in the opinion that in spite of no allusion to the presence of arsenic in the region of analyses of the Bath waters, it must be there. I immediately sought the analytical aid of my friend, Mr. Gatehouse, the well-known and much-respected public analyst of Bath, and after very careful and reliable tests, the particulars of which I shall be glad to furnish on application, we have demonstrated the presence of arsenic in minute quantities in the Bath waters; thus I hope rescuing one more of nature's own cures from the Cimerian darkness of empiricism.

I am, Sirs, yours truly,

Bath, Jan. 2nd, 1887. T. P. LOWE, M.R.C.S., L.R.C.P.ED.

[1] A most important fact when transmission of the waters for use at a distance is considered. Precipitation of the iron does not take place for several hours after the escape of CO_2, which is of course contrary to the behaviour of carbonate of iron held in solution by excess of CO_2, which falls to the bottom almost directly the CO_2 has escaped.

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LIVERPOOL.

(From our own Correspondent.)

HOSPITAL SUNDAY.

NEXT Sunday is the seventeenth anniversary of Hospital Sunday in Liverpool, and the result will be awaited with considerable interest. It is hoped that additional evidence will be afforded as to the real improvement in trade and commerce by the increased amounts deposited in the collecting plates. Efforts have been made to bring about a change in the date of Hospital Sunday from the second Sunday in the year to a Sunday in May. Much is to be said both for and against the change, and the amount collected next Sunday will no doubt guide those who will have to decide whether the change shall be made or the date remain as at present. Great efforts are being made to ensure the co-operation of all clergy and ministers this year, there having been in past years several who have failed to make a collection for the medical charities either on Hospital Sunday or on any other Sunday. It is only just that every congregation should have the opportunity afforded them of giving substantial proof of their appreciation of the medical charities.

THE CHRISTMAS SEASON AND THE POOR.

In Liverpool, as elsewhere, Christmas was accompanied with seasonable—that is to say, very severe—weather. It is very pleasing to notice the liberality with which the public responded to the appeals made to them for aid in providing Christmas breakfasts as well as Christmas dinners. Thousands of hungry men, women, and children have been fed with substantial food, as well as supplied with coals—a most acceptable gift.

THE ROYAL INFIRMARY.

For many years past the present buildings of the Royal Infirmary have been found to be wholly inadequate for their purpose, and recently a large sum was raised by public subscription towards erecting a new one. A building committee was appointed, and the greatest care has been taken to ensure that the new infirmary shall comprise every real modern improvement. Satisfactory progress has been made with the plans, which are now nearly complete. Contracts, it is expected, will shortly be entered into, and the work commenced early in the spring.

THE ROYAL SOUTHERN HOSPITAL.

On Tuesday night a gigantic Christmas tree covered with articles of general usefulness—viz., petticoats, shirts, socks, warm muffs, caps, and flannels of all descriptions—was stripped of all its ornaments, which were distributed to the patients throughout the house and to everybody within the hospital without distinction. Accompanying this was a musical entertainment, with songs. Mrs. Geo. H. Horsfall, the wife of the chairman of the hospital, attended and presented the gifts with a few kindly words. Not the least gratifying circumstance was that some of the patients, hearing of the coming event, voluntarily knitted an embroidered fancy work, which they desired should be given to the physician or surgeon under whose care they were—a delicate attention which the latter were not slow to appreciate. Mr. G. W. Moss has offered to present to the hospital an ambulance, complete and free of cost. The offer has been accepted, it being understood that the management of the ambulance, which will be about £300 a year, shall not encroach on the general funds of the institution.

THE RESULTS TO PLYMOUTH AND DEVONPORT OF THE REPEAL OF THE CONTAGIOUS DISEASES ACTS.

Before the Royal Commission, which sat in 1870 to inquire into the Contagious Diseases Acts, a witness from Devonport expressed an opinion that the total repeal of these Acts would be "disastrous"; and a memorial, which was signed by magistrates, clergy, medical practitioners, and others in the boroughs of Plymouth and Devonport and township of Stonehouse, was forwarded in 1882 to the Commissioners for executing the office of the Lord High Admiral of the United Kingdom. Its concluding paragraph is: "We cannot too strongly express our opinion that the repeal of these Acts would be a great misfortune to this district, and to any other community where they exist at present." How thoroughly these predictions have been fulfilled is shown by what is stated in a contemporary of the 1st inst., under the heading Plymouth: "To-day the whole of the patients in the lock wards of the Royal Albert Hospital, Devonport, have been discharged into the streets uncured, and the wards are closed. This is in pursuance of the operation of the Act for the Repeal of the Contagious Diseases Acts passed last session, and no ameliorative substitute of any kind has been provided. Prominent agitators against the Acts deplore this result, the disastrous effects of which have become lamentably conspicuous; and almost every public body here and in Devonport has expressed an opinion strongly against the present condition of affairs." Mr. Stansfeld, speaking in the House of Commons in 1876, expressed his conviction that if the Acts were repealed voluntary lock hospitals would be established and supported wherever they were required. The Acts have now been repealed for some months, the Royal Albert Hospital is closed, and we shall very likely soon hear of the closing of all the Government lock hospitals in Portsmouth, Chatham, Colchester, Cork, Kildare, and the Government wards of the London Lock Hospital. The opponents of the Acts succeeded in raising thousands of pounds every year towards their repeal, but nothing whatever has been done towards providing lock hospitals for the women who were cared for by the Government, and who are now "literally out in the cold." That the Acts will have to be re-enacted goes without saying, and even before this can be brought about some aid will probably be afforded by the State to enable the above-named hospitals to be kept open for such patients as may apply voluntarily. Meanwhile the public will have leisure to observe the unscrupulous nature of the opposition to these Acts. Those who raised and persisted in it have incurred a fearful responsibility, for which they will most certainly have to answer. They have sown the wind, and must reap the whirlwind. The Acts are repealed, the Government hospitals are closed, the unfortunate women who were in them are deprived not only of all means of cure but also of reclamation. Venereal diseases have enormously increased in the army and navy, and—although this cannot be shown by statistics—among the civil population. And as a set off against all these evils what good has been accomplished?—simply nothing.

COLDS CAUGHT AT FUNERALS.

It is always an ungracious task to write in disparaging terms of any good old custom, whatever inconveniences it may involve. This is enhanced when the custom is founded upon good motives; but, as guardians of the public health, it becomes necessary to speak plainly of the custom of standing bareheaded at funerals round the grave, while no small portion of the burial service is being read. Some clergymen curtail this by reading in the church or chapel all except what is known as the prayer of committal to the ground. But the truth is that the average Englishman is incapable of standing bareheaded in the open air, even for the shortest interval, without incurring a serious risk. It is to the colds caught in such weather as we are now experiencing that I would wish to call serious attention. Even country doctors, whose constitutions have become well seasoned to rides and drives in all weathers, feel it trying to attend funerals on this account. The remedy is simple and obvious. There is all the difference in the world between the slightest covering to the head and no covering at all, more especially to those who are partly or entirely bald. Many clergymen and chaplains of cemeteries have adopted the sensible practice of wearing skull-caps of black velvet or silk, and laymen would soon follow the example had they some definite authority to do so. But till then respect for the dead and reverence to the solemn words being read deter them from adopting a precaution which might save many a severe cold, if not a more serious illness. Medical attendants can surely speak authoritatively upon this point, for health is much too precious to be sacrificed either to reverence or respect for the dead. But it is desirable to have ecclesiastical authority as well, and I would respectfully suggest to the archbishops, bishops, and clergy generally, that a few words from them would inspire the laity with more confidence, and save many a mourner, pall-bearer, or other attendant at funerals, from what are mildly designated colds, but which in not a few instances have passed on to even fatal illnesses.

Liverpool, Jan. 1887.

AN anonymous donor has contributed £200 to the funds of the Hastings and St. Leonards and East Sussex Hospital.

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NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

THE CARRIAGE TAX AND DISINFECTANTS.

A CURIOUS case bearing on the carriage tax was tried and decided at the North Shields Police-court last week. An inland revenue officer summoned Mr. Harbottle, sanitary inspector, Tynemouth, for using two carriages while he held a licence for one only. Mr. Harbottle showed that in his public capacity as sanitary inspector he was obliged to use a conveyance for the purpose of carrying disinfectants to the various townships in the district. On a certain occasion the ordinary conveyance broke down, and, as he had to go to the railway station for some disinfectants, he was compelled to use a four-wheeled vehicle, of which the inland revenue officer now complained, and which he had been absolutely compelled to do for the public safety. The magistrates held that there was no evidence on the part of Mr. Harbottle to act contrary to the law, and dismissed the case. The carriage tax is very unpopular in the north, and prosecutions of this nature are not calculated to raise it in public esteem.

A VACCINATION CASE.

An inquest was held last week on a child aged three years, in the Byker district of Newcastle. The mother said that when it was three months old it was vaccinated by the public officer. Afterwards an eruption broke out on its head, and finally it suffered from a discharge from the ears, for which it was duly attended by a medical man, and also by the dispensary visiting assistant. There was no medical evidence adduced at the inquest. The jury returned a verdict to the effect that "the deceased died from natural causes, apparently accelerated by foul vaccination." It is to be regretted there is so often no medical evidence called in these cases, as these verdicts have a mischievous tendency when published, and may some day be the indirect cause of great loss of life, as creating a prejudice against the only known preventive of small-pox.

TYPHOID AND WATER HYDRANTS.

Dr. H. Ward, medical officer of Blyth and Tynemouth rural sanitary districts, points out a cause of typhoid which he believes has been hitherto overlooked in connexion with water hydrants. He alludes to the apparatus known as the self-acting ball hydrant, which he believes is defective when applied to under-ground pipes. The self-acting ball is the simplest of all hydrants; it consists of a ball of gutta-percha placed within a pipe projecting within the main. When the water is turned on, it is forced up against the aperture, which is smaller than the ball, and so prevents the water from escaping; but as soon as the water is turned off at the main, the ball falls and allows air to pass into the pipes, this being the object of the invention. Dr. Ward states that when the hydrants are placed above ground the apparatus is admirable, but the effect is totally different when they are sunk under ground. The hydrants, he says, in his district are sunk under the ground in the middle and towards the end of back streets, at a distance of about seventy yards apart, and are covered over by iron lids loose in an iron socket. They are also placed in many instances close to an ashpit door, so that when the scavengers are at work the hydrants are frequently covered by the contents of the ashpit, the liquid filth of which must frequently drain into and accumulate in the hydrant box, and contaminate the water. That such is the case Dr. Ward is satisfied from close observation, and points out that, in connexion with a recent epidemic of typhoid, the people living in close proximity to the hydrants suffered most, the disease being more virulent and fatal than in other localities in the district. Dr. Ward's remarks apply to the Cowper sanitary district, and are of much importance in connexion with water-supply and sanitation.

Newcastle-on-Tyne, Jan. 4th.

THE CLIMATE OF THE LAKE DISTRICT.—A clergyman residing at Keswick, writing to a daily contemporary, states that on the day (Sunday, the 26th ult.) when the midland district, and, indeed, almost the whole of England, was suffering from all the horrors of an arctic winter, the residents of the English Lake district were enjoying a day of exceptional calmness and genial temperature.

DUBLIN.

(From our own Correspondent.)

ROYAL UNIVERSITY OF IRELAND.

ON the 30th ult. an election for a member of the Senate took place, and a statement in THE LANCET of last week, in which I remarked that most probably Professor O'Sullivan would be successful, has turned out correct. The voting was as follows: Professor O'Sullivan, 316; Dr. McMordie, 231; Mr. O'Connor, M.P., 166. The majority Professor O'Sullivan obtained was far beyond the expectation of his most sanguine supporter. It is stated that the following resolution, which was passed at a meeting of the executive committee, was sent to the graduates previous to the election by "The Graduates' Reform Association of the Royal University of Ireland": "That, inasmuch as it has come to our knowledge that a considerable number of electors of the University pledged their support to Dr. O'Sullivan while unaware of the candidature of Mr. T. P. O'Connor, M.A., M.P., and inasmuch as such pledges, given under a misapprehension of the facts, cannot be binding, the committee trust that the electors from whom promises to support Dr. O'Sullivan were obtained under a misapprehension and before they were aware that Mr. O'Connor was in the field, will not consider themselves bound thereby, and will use their influence to secure Mr. O'Connor's election." At the meeting of Convocation a resolution was adopted, by a narrow majority, to the effect that a special committee should be appointed to frame new standing orders of Convocation and discharge the duties hitherto assigned to the Annual Committee. Prof. Pye's motion (see p. 49), in reference to medical degrees, was amended by calling the attention of the Senate to the matter, and was then adopted. The following resolution was also passed:—"That Convocation is of opinion that hitherto honorary degrees have been conferred much too liberally, and that the Senate be requested henceforth to examine carefully the special claims of all upon whom it is about to confer such honours."

ROYAL COLLEGE OF SURGEONS IN IRELAND.

The question of the College conferring a diploma in Sanitary Science has, I believe, been under the consideration of the Council, and a committee has been appointed to confer as to the necessary details. As the College of Physicians, the University of Dublin, and the Royal University of Ireland grant these diplomas, there appears no valid reason why the College of Surgeons should not do likewise. If the Council determine to grant the diploma, four examiners will be appointed to examine candidates in the required subjects of examination.

THE CROWN SEAT FOR IRELAND IN THE GENERAL MEDICAL COUNCIL.

I am informed that the Government have appointed Mr. E. H. Bennett, Professor of Surgery in the University of Dublin and an ex-President of the Royal College of Surgeons in Ireland, to be a representative on the General Medical Council in the room of the late Dr. Robert Dyer Lyons. Mr. Bennett has also been appointed a Medical Visitor in Lunacy under the Court of Chancery.

REPORTS AND PAPERS RELATING TO PUBLIC HEALTH.

Sir Charles Cameron, medical officer of health for Dublin, has recently published a volume consisting of nearly five hundred pages, whose contents are chiefly reprints of papers contributed at various periods to the *Dublin Journal of Medical Science*. It would be impossible to refer to the various articles, all on subjects of considerable interest to the community, which Sir Charles Cameron has collected into a single volume; but I may mention particularly the following as examples: "Cremation or Burial?" "Insanitary Condition of Canal Boats"; "Contagion and Bacteria"; "How Typhoid is Spread"; "Etiology of Diphtheria"; "Colour Blindness"; "Sewage in Oysters"; "Lead Poisoning among Workmen"; "The Germ Theory of Phthisis"; "Hospital Construction and Management," &c. Sir C. Cameron has a facile pen, his style is remarkably good, and his communications are eagerly read by all classes of the community, both lay and professional. Considering the various offices and appointments the author of these reports holds, and the duties of which he discharges in a thoroughly efficient manner, it is a mystery to many how he can find time for

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the enormous amount of literary work he accomplishes. Last year he finished his "History of the College of Surgeons," a work which was reviewed in THE LANCET and other medical journals, and which was on all sides spoken of in the highest terms.

THE RICHMOND HOSPITAL, DUBLIN.

The appointment of a physician to this Hospital, in the room of the late Dr. Lyons, will take place on the 13th inst. I was under the impression that the physicians were paid by the Government at the rate of £100 per annum, but if so a change has taken place in the arrangements, as the gentleman who succeeds Dr. Lyons will not receive any salary. Whether he may be allowed a share of the students' fees is a matter of which I am ignorant; but as one of the medical staff he certainly would be entitled to it.

NATIONAL EYE AND EAR INFIRMARY, DUBLIN.

A children's amateur theatrical entertainment, in aid of the funds of this institution, will take place on the 6th inst. The performance will be the "Sleeping Beauty," and the various parts will be filled by juveniles between the ages of four and thirteen years.

Samuel Connor, M.D., of Newry, has been placed on the Commission of the Peace for the county of Down.

Dublin, Jan. 4th.

BELFAST.

(From our own Correspondent.)

CHRISTMAS AT THE HOSPITALS.

THE inmates of the various hospitals in town enjoyed a very pleasant Christmas Day, thanks to the exertions of the ladies and gentlemen who assembled at these local institutions, and who used every effort to secure to the patients some of the comforts of the season. At the Royal Hospital the Board of Management and the resident staff paid every attention to the patients, while at the Hospital for Sick Children and at the Ulster Hospital the wards were most beautifully decorated, and in each Christmas-trees, covered with every form and variety of toy suitable to the age and sex of the little patients, occupied prominent positions. At the Throne Hospital, the Asylum, and the Union Workhouse the inmates were treated most sumptuously.

BELFAST DISPENSARY COMMITTEE.

At a meeting of this committee held on Monday, it appears from the reports handed in that the health of Belfast is in a satisfactory condition. There have been a large number of chest cases owing to the intense cold and damp weather, and some cases of scarlatina and enteric fever have occurred in one of the subdistricts. It was stated that there has been a slight decrease in the cost of maintaining the various Belfast dispensaries during the past year. It was agreed to grant Dr. Mehany, one of the apothecaries, an increase of £5 per annum, subject to the approval of the Local Government Board.

ARMAGH LUNATIC ASYLUM.

I learn that Dr. Graham, who for nearly three years has been assistant medical officer at the Belfast District Lunatic Asylum, where he discharged his duties to the entire satisfaction of the governors, has been appointed to the important post of resident medical superintendent of the Armagh Lunatic Asylum. Owing to Dr. Graham's promotion there is a vacant post, and for it I hear that Dr. Graham (a brother of the former assistant), Dr. Collier, and Dr. Thompson are candidates.

Belfast, January 4th.

PARIS.

(From our own Correspondent.)

M. PETER ON THE INTENSIVE METHOD.

A GRAND discussion has taken place at the Academy on a case of hydrophobia communicated by M. Peter. The subject of the observation had been bitten six weeks before, and had undergone the intensive treatment within forty-eight hours. Four days before his death he was seized with pains, which radiated, not from the cicatrix of the bite, but from the points where the inoculations had been practised. He then fell into a state of stupor and prostration, and died in a paralytic condition, foaming at the mouth. M. Dujardin-Beaumetz contested the value of the observation on two grounds: in the first place, because the existence of rabies had not been confirmed by experimental transmission to the animals by inoculation with diseased medulla; and, secondly, because most of the symptoms usually seen, more particularly the spitting, had not been mentioned by M. Peter, and because the paralytic form of rabies, of which the patient was said to have died, was extremely exceptional in man. M. Verneuil begged the Academy not to be influenced by communications such as that of M. Peter. Let M. Pasteur's work be disproved, if such is its fate, said the speaker, by scientific argument, and not by gossiping tales. M. Peter, in reply, remarked that no one could contest the fact that the man was dead. That he had been bitten and had undergone the intensive treatment were equally sure. These circumstances formed a "natural series," and had the inoculations not been performed, no one would have doubted that the case was one of rabies. M. Dujardin-Beaumetz had pointed out that the paralytic form of rabies—that which follows, as a rule, laboratory inoculations—is excessively rare after a dog-bite. But, said M. Peter, this is a point of great importance. The man had been subjected to inoculations, and had died with symptoms of rabies such as are not usually met with in hydrophobia, but which are those that do occur in experimental rabies, and that have already been observed in England in those dying of the disease after Pasteur's treatment.

PANEGYRIC OF FLOURENS.

At the annual meeting of the Academy of Sciences it is customary for one of the perpetual secretaries to pronounce the panegyric of an eminent predecessor. This year the duty devolved upon M. Vulpian, who selected as his subject the life and scientific work of Flourens. The *éloge* is an analytical study of the most remarkable works left by the illustrious perpetual secretary, whose place M. Vulpian now occupies, and the fullest justice is done to his memory as a physiologist—a title with which it was Flourens' desire to pass down to posterity. Allusions were made to his opposition to the doctrine of cerebral localisation when first proposed by Gall, and his adverse "Examination of the book on the Origin of Species"—a work which justified, said M. Vulpian, the bitter criticisms bestowed upon it by Darwin. M. Vulpian seems to me less remarkable for impartiality when he assigns to Flourens the credit of the discovery of the anæsthetic properties of chloroform on the strength of his experiments with it in the physiological laboratory. The discovery of the value of chloroform in medicine undoubtedly belongs to Sir James Y. Simpson, and is too well established to admit of any such posthumous claims.

ELECTROLYSIS.

The introduction of a medicinal agent into the body by means of electrolysis is a possibility that has been entertained by competent authorities, amongst whom I may mention MM. Onimus, Courserant, and Spellmann of Nancy. I may confess, then, that upon reading the annotation in THE LANCET of Dec. 18th, "On a New Method of Employing Electricity in Neuralgia," in which it is stated that Dr. Adamkiewicz had found the passage of galvanic current through a cathode saturated with chloroform exceedingly effective in various kinds of neuralgia, I remembered that a communication had been made some time back at the Academy of Sciences on the Introduction of Medicines through the Skin by Electrolysis, and it occurred to me that the efficacy of the Dr. Adamkiewicz treatment might be due to the same cause. In the communication I allude to Dr. Brondel of Algiers stated that when certain salts were placed upon the skin under the cathode, the passage of the current producing their decomposition caused the acid element, or rather the metalloid playing the part of an acid, to dialyse through the tissues to the anode, where its presence was easily demonstrated by ordinary chemical tests. By this process he had been able to apply iodine and bromine to any internal organ selected, and had iodised the lung, the uterus, and the joints, and "brominised" the brain, &c. In proof of his assertions, M. Brondel adduced the following facts:—(1) The patients, being submitted to the electrical introduction of iodine, taste it; (2) its action is shown by the cures following the treatment; (3) when the iodine salt (KI) is placed under the cathode the starch at the positive electrode quickly becomes blue from the passage of the iodine. These experi-

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ments were repeated at the Cochin Hospital by M. Dujardin-Beaumetz, whose therapeutic experience led him to set aside M. Brondel's first two reasons as susceptible of fallacious deductions, *post hoc ergo propter hoc* being but a poor argument, especially in medicine. Taking for granted the exactitude of M. Onimus's conclusions with respect to animal electrolysis, and admitting *a priori* the possibility of the penetration of chemical substances into the body by this means, M. Dujardin-Beaumetz wished to ascertain if one element of a salt decomposed under one electrode could really pass as far as the opposite pole, and, if so, what were the conditions of success? The manipulations were made by MM. Brondel and Dujardin-Beaumetz, and everything turned out as was expected. But when the electrodes were applied by other persons, the iodine refused to pass and the starch at the positive pole would not turn blue. Had this perplexing result occurred at the Paris Société de Biologie in the month of December, 1886, I entertain no doubt whatever as to the explanation that would have been afforded. We should have had an interesting discussion upon "the effects of suggestion upon inorganic matter," and the most curious, complicated, and unexpected discoveries would have been made. As it was, the experiments were repeated with renewed care again and again, until it became evident that the blue colouration was caused by decomposition at the positive pole itself whenever a small quantity of iodide was accidentally deposited there by insufficient care in manipulation. When the two electrodes were held by different persons, and perfectly free from iodide, no discolouration of the starch took place. The whole question has been studied afresh by M. G. Bardet, and, after repeated and careful experimentation, he concludes that dielectrolysis through organic tissues is impossible.

THE REMOVAL OF THE OVARIES IN HYSTERIA.

After meeting with considerable opposition here when first made known, Battey's operation is gradually coming into favour, and though we cannot as yet compete in surgical activity with Liverpool, a number of speakers were able to give their experience of the operation at the recent discussion at the Société de Chirurgie. M. Terrier mentioned the case of a woman who, manifestly hysterical, suffered from intolerable pains in the ovaries at the menstrual periods. No relief being obtained by ordinary means, and life being a misery, these organs were removed last February. The right ovary caused no difficulty, but the left was so bound down by adhesions that it could only be extracted piecemeal. Since the operation there has been but insignificant malaise at the catamenial periods, which are perfectly normal. The hysterical condition, although it remains, appears amended; there are no longer any abdominal pains, and the general health is good. This is the second success of the kind obtained by M. Terrier. M. Lucas-Championnière has also performed the operation in two cases: one of his patients died three days after the operation; the other was relieved of her symptoms, and at the same time cured of bad temper. Before the operation she easily became angry at trifles, whereas she is now quite calm. M. Monod said that he also had been successful in two instances, and M. Pozzi was able to endorse the treatment by one operation.

WATER IN INANITION.

The fallibility of authority is amusingly exemplified in the utterances of the *princes de la science*, as it is the custom here to style our leading physicians, concerning prolonged abstinence. A couple of months since the flat went forth that to attempt to live upon water for fifty days was so insensate that no respectable member of the profession should countenance such an experiment. The attempt was made, however, and proved successful, whereupon, after a great deal of big talk about hysterical anorexia and auto-suggestion, our teachers referred to their books, and made the discovery that there was nothing new in the matter, and the profession was urged not to lend themselves to another experiment of the same kind, because they already knew all about it. It is quite possible that the experiments recently made upon animals would have been sufficient by themselves to allow of therapeutical deductions, but it is equally certain that the re-examination of this question, which is not unlikely to lead to some important practical deductions, is the direct consequence of the experiments submitted to by the much-abused Succi, Merlatti, and others. The *Gazette Hebdomadaire* reminds its readers of the case of Viterbi, who to escape the guillotine allowed himself to die of hunger, an end which he achieved after seventeen days of total abstinence both from food and drink. After a few days without food the desire left him entirely, and the only difficulty was in refraining from drink, which he managed, however, by strength of will, only giving way to the terrible requirement of thirst upon two occasions whilst delirious. The author of this article concludes that it is a prejudice to think that hunger is a sensation. We eat by habit, and, as the saying is, *l'appétit vient en mangeant*. To conquer the feeling of hunger it is simply necessary (1) not to eat, (2) to drink. For my own part, I am convinced that abstinence from food will become a recognised therapeutic agent in a near future for the treatment of various diseases, such as those of the stomach in which functional repose is required, and in certain fevers where it may be indicated by anorexia, and possibly also for the absorption of neoplasms. In his interesting code of health and longevity, Sir John Sinclair says that the French surgeon, M. Pouteau, alleviated the pain of cancer, and in several cases even effected a complete cure, by an exclusive diet of water cooled by ice. Pouteau, who was a follower of our Cheselden, was an original worker, and his energy in attacking disease was happily illustrated in the inscription accompanying the portrait facing the title-page of his posthumous works. *Igne et ferro sanabat*, said his editor. Now that the treatment by over-feeding or *gavage* seems to be on the wane, the natural reflux of scientific thought should bring about a movement in favour of abstinence.

ANTIFEBRINE.

The use of antifebrine or acetanilide as a "nervine" was discussed at the last meeting of the Société de Thérapeutique. M. Dujardin-Beaumetz said that it acted as a moderator of the spinal excitability, particularly of the upper portion of the cord. In doses of from 15 grs. to 30 grs. daily no appreciable physiological effect is observed. It cannot be detected in the urine. In three cases of ataxia the "lightning" pains were greatly relieved. In one case of epilepsy the attacks have entirely ceased since its administration. Being insoluble in water, it should be administered either in wine or some other alcoholic vehicle. M. Constantin Paul said that he had tried antifebrine in doses of from 4 grs. to 8 grs. per day, as recommended by Lépine, but without result. A slight improvement was, it is true, observed during the first few days, but this was due, no doubt, to the "moral effect," as exactly similar results were obtained with bread-pills administered under a high-sounding name.

GASEOUS ENEMATA.

M. Blachez testified to the utility of gaseous injections of sulphuretted hydrogen in two cases out of three in which he had recently used them. In the third case some gastro-intestinal irritation was produced, and the improvement of the lung symptoms was not quite satisfactory. M. Paul has devised an apparatus for the administration of these injections, in which the gas is contained in a metallic recipient under pressure, and a manometer registers the quantity which is allowed to pass out.

VIENNA.

(From our own Correspondent.)

TWO NEW SUGAR TESTS.

AT a recent meeting of the Vienna Chemico-Physical Society, Dr. Hans Molisch, assistant at the Phyto-Physiological Institute of Vienna University, described two very delicate tests for detecting sugar in liquids. The reactions employed are the following: A half-cubic centimetre of the liquid containing sugar is mixed with two drops of an alcoholic (15 to 20 per cent.) solution of α-naphthol; then concentrated sulphuric acid is added in excess. In presence of sugar, the liquid if shaken, assumes immediately a deep violet colour, and by adding water to the liquid a blue-violet precipitate is formed. In the other reaction thymol is employed instead of α-naphthol, and the liquid containing sugar assumes a carmine-red colour. These reactions are more delicate (as was shown by experiments) than our common sugar tests, and are successful with most kinds of sugar; they can be also used for proving the presence of sugar in the tissues under the microscope. It was shown also that normal urine of man without any preparation gives

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the reaction, even if diluted with water to the extent of from 100 to 300 times its volume, and therefore the suggestion that normal urine contains sugar seems to be proved. If normal human urine is diluted with water to more than 300 times, it fails to give the reaction, while urine of diabetic persons can be diluted to a higher degree to exhibit the reaction with α-naphthol.

PREVENTIVE INOCULATIONS IN HYDROPHOBIA.

Dr. Ullmann, assistant of Professor Albert, who has spent some weeks in Paris studying Pasteur's method of preventive inoculations for hydrophobia, has recently established here a station for preventive inoculations. From June 28th till now eighty-five persons bitten by rabid animals were inoculated with the best success. The rabid condition of the animals by which the patients had been attacked was stated in all these cases. According to the reports received, all the patients are in good health.

A NEW HYPNOTIC.

Dr. Ghillany, pharmacologist to the Vienna General Hospital, has succeeded in preparing an alcoholic extract from the roots of Piper methysticum (kava-kava), which is called "extractum kava depuratum." Experiments made with this drug by some physicians of the hospital proved it to be a valuable hypnotic. In all the cases where it was administered sleep was produced, without any disagreeable consequence; even headache, following generally the exhibition of hypnotics, did not occur. It was given, as a powder, from 2 to 5 centigrammes being a dose; or as a suppository containing 2 centigrammes.

SURGICAL DRESSINGS.

In the clinical wards of Professor Albert, experiments are made now with fossil meal (Kieselguhr) as a surgical dressing. The fossil meal is sterilised and mixed with the antiseptic solutions of carbolic acid, sublimate, &c. The cavities of the wounds are stuffed with the paste prepared in this way. The results obtained with this dressing are very good; the wounds show fair granulations, and the process of healing seems to be very much promoted by the mechanical action of the minute particles of the meal.

Vienna, December 23rd.

THE SERVICES.

WITH the approval of the Commander-in-Chief the services of Surgeon A. M. Kavanagh, Army Medical Department, now at Woolwich, and Surgeon J. R. Morse, at Netley, have been placed at the disposal of the Egyptian Government for employment with the Khedive's troops. The former will take up army duties at Abbasiyeh, and the latter will inspect the recruits who are being enlisted in consequence of the reduction of the British garrison.

WAR OFFICE.—Army Medical Staff: Deputy Surgeon-General Herbert Taylor Reade, V.C., to be Surgeon-General, vice Sir Anthony Dickson Home, K.C.B., V.C., granted retired pay; Brigade Surgeon James Landale, M.D., to be Deputy Surgeon-General, vice H. T. Reade, V.C.; Surgeon-Major Alexander Francis Preston, M.B., to be Brigade Surgeon, vice J. Landale, M.D.; Surgeon Herbert Cotton, from half-pay, has been granted retired pay.

ADMIRALTY.—Deputy Inspector-General of Hospitals and Fleets John Breakey, M.D., has been promoted to the rank of Inspector-General of Hospitals and Fleets in Her Majesty's Fleet.

The following appointments have been made:—Fleet Surgeon Charles Strickland, to the Plymouth division of Royal Marines, and Fleet Surgeon Maxwell Rogers, to the *Monarch*.

DEVONSHIRE HOSPITAL AND BUXTON BATH CHARITY.—The Committee of Management of this hospital have issued their annual report for 1886, from which it appears that of the 2449 in-patients admitted during the year no fewer than 2325 were discharged as improved, and only 48 as no better. The number of out-patients admitted during the year was 248, or twelve fewer than the number admitted during the preceding year. Of these 218 were discharged as improved, and only four as no better. The total receipts from all sources were £276 less than in the previous year, and the average cost per day of each patient has been fractionally under 2*s.* 2*d.*, or nearly one farthing per day more than that of 1885.

Obituary.

WALTER FERGUS, M.D., M.R.C.S.,

LATE MEDICAL OFFICER OF MARLBOROUGH COLLEGE.

THE vast amount of good work done, the untiring energy, and unremitting care bestowed on many, call for more than a passing notice of the death of the late Dr. Fergus, for thirty-seven years the valued and trusted medical officer of Marlborough College. Dr. Fergus was born at Newcastle-on-Tyne in 1819. Educated at King's College, London, and at the University of Edinburgh, he took his M.D. of that University in 1842, and his M.R.C.S. Eng. and L.S.A. in 1843. He became house-surgeon of the Staffordshire General Hospital in 1844, and only resigned this post on being appointed to Marlborough College in 1849. The appointment of Dr. Fergus to Marlborough College was practically the first of its kind, no other public school possessing a resident medical officer. The value of the appointment was soon apparent. Scrupulously punctual and methodical to a degree, he gave his undivided attention to the whole establishment. Boys and staff alike, and all who sought his aid, found a kind and sympathetic friend and adviser. During the thirty-seven years he held the post of medical officer he enjoyed the perfect confidence of the Council of Marlborough College and the successive head masters. Failing health compelled him reluctantly to resign the office in the early part of last year. The uniform work of medical officer, even to a large school, naturally somewhat restricted general practice, but he always kept himself well read in the scientific work of the day, and was a not infrequent contributor to THE LANCET, and his opinion on the subject of public school life in its sanitary relations was highly valued. In the sick-room he was best known: here the patient had not only the competent medical adviser, but the kind and tender nurse; for vast numbers can testify how, night after night, individual cases of gravity received his constant presence and care. It would be impossible in a notice like this to tell of the extraordinary sympathy that existed between the College and Dr. Fergus, and also between him and the town of Marlborough, to many of the residents of which he had endeared himself by acts of kindness and by the interest he took in the parish of St. Peter and Marlborough generally. He was pre-eminently a Christian man, and devoted himself to every good work, was very good and kind to the poor, and he has passed away regretted alike by all.

He died almost suddenly at Ryton-on-Tyne on Dec. 8th. His death, though sudden, was evidently not unexpected by himself, for he had expressed an opinion a short time before that he would not live long. For him death had no terror; he was fully prepared to go forth to meet the shadowy future without fear and with a manly heart. Doubtless, for one like him, who, in his life as a medical man, must have seen many lingering and painful cases, a sudden death may have had its charms. His body was brought to Marlborough on Tuesday, Dec. 14th. An imposing service was held in the new chapel, and by 12 o'clock all that remained of the "good Doctor," as he was familiarly called, was laid to rest in the quiet and beautiful churchyard of Preshute. There it rests close to many old friends, and by the side of some few whose bright young lives had sped—lives which his care and constant watching had failed to save. An immense number of persons attended, testifying to the respect in which he was held.

LAUCHLAN AITKEN, M.D. EDIN.

FOR a wide circle of personal friends and former patients the death of this able and benevolent practitioner invested the closing year with peculiar sadness. Dr. Aitken went to Rome about fourteen years ago—himself an invalid from the sequelæ of a severe attack of scarlatina,—and in that genial climate he soon recovered strength enough to resume the professional career which had become impossible in "the grey metropolis of the north." He brought with him many qualifications for the success he rapidly achieved. Having graduated at Edinburgh with much distinction both in surgery and in medicine in 1865, he took the "summi in medicinâ honores" in 1868. Prolonged visits to

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the chief continental schools, such as Berlin, Vienna, and Paris, extended and deepened the medical proficiency which had already attracted the attention of Sir J. Y. Simpson, to whom he became assistant both in the class-room and at his private residence. A brilliant career was now before him, until the malady above referred to compelled a complete change of plan, and induced him to settle in Rome in 1872. He then applied himself with characteristic energy and decision to master the climatic conditions of the place, and his studies on the local fever fructified in more than one able and instructive paper in the London and Edinburgh journals. He was a trenchant vindicator of the sanitary credit of Rome, particularly as to her water-supply and (till lately) as to her immunity from typhoid, and as soon as the growth of the city, the increase of the population, and the altered conditions of the water-supply and the drainage appeared to invite that scourge, he endeavoured by interviews with the hotel proprietors, and by letters in the local journals, to minimise the evil at its source. A reprint of his papers on the Climate, the Malaria, the Water-supply, and the Health Statistics of Rome would be welcomed not only by English-speaking practitioners, but by those of the many different nationalities domiciled in the Eternal City.

About three years ago the cares of an extensive and laborious practice—involving much mounting of hotel stairs—began to tell on his imperfectly nourished heart, and threatenings of asystole admonished him to relax the strain. Intimate professional friends, indeed, urged him strongly to withdraw from practice entirely, at least for a few seasons; but nothing would shake his resolution to die at his post. He lived for ministration at the bedside; it was his mental resource and predilection, and all appeals to spare himself were answered with a

Propter vitam vivendi perdere causas?

The result soon became manifest in an increasing recourse to substitutes, until his return to Rome at the commencement of the season, with "the wheels of life run down," convinced him that his professional career was at its close. He lingered for a few weeks under the sedulous care of Dr. Edmonston Charles, sometime of the Bengal Army and late of Cannes, to whom he had transferred his practice, and on Sunday, the 19th ult., he sank, conscious to the last.

Dr. Aitken was but forty-three years of age when he died, but he lived long enough to impress a wide *clientèle* with his admirable skill and success as a physician, and a still wider circle of friends with his manly integrity, his catholic tastes, and his benevolent heart. He was buried on the 24th ult. in the Protestant cemetery between the Tiber and the Gate of St. Paul.

W. A. N. CATTLIN, F.R.C.S.

ON the 13th ult. there passed away from our ranks one whose name will long be held in honour for his scientific attainments and his skill in dental surgery. No less durable will be the memory of his single-hearted and unselfish generosity, for he was ever ready to lend a helping hand whenever a claim commended itself to his judgment.

Mr. Cattlin was born at Southend in the year 1814. He was apprenticed to the late Mr. Porter, of Bishopsgate-street, London, received his medical education at the London Hospital, where he gained prizes in medicine, and was highly esteemed for his acumen and sagacity by the late Dr. Billing. He became a Licentiate of the Apothecaries' Company in 1836, a Member of the College of Surgeons in 1841, and a Fellow in 1856. He commenced practice in the City-road, London, but, on account of ill health, was compelled to abandon it and take a voyage. After his return, with renewed health and energies, Mr. Cattlin became resident medical officer at the Holloway and North Islington Dispensary, and soon afterwards, in Islington, entered upon the practice of dental surgery, of which he had previously obtained good practical knowledge. In this branch of the profession he soon attained to eminence. He was one of the founders, and sometime president, of the Odontological Society. It was mainly to the untiring exertions of Mr. Cattlin that the Medical Benevolent College owes its present satisfactory basis.

In 1863 Mr. Cattlin removed to Brighton, where his great success followed him, but his health broke down under stress of work, and he retired to Bournemouth in 1880, but never recovered from the effects of an attack of paralysis, to the later effects of which, indeed, he ultimately succumbed. Mr. Cattlin's quick intelligence and decision in acting inspired confidence in his professional opinion, whilst his genial and kindly disposition gained him countless friends. He was attended, at various periods of his illness, by Mr. Jonathan Hutchinson, Dr. Hughlings Jackson, Dr. Wilks, Mr. Power, and others. He leaves a widow and several children, one of whom, Mr. Wm. Cattlin, follows his late father's profession.

Medical News.

THE Gresham Lectures on Physic will be delivered by Dr. Symes-Thompson, on Feb. 8th, 9th, 10th, and 11th.

DR. A. FRASER has been appointed Deputy-Coroner for the Totnes district, South Devon, vice Mr. Jelley, resigned.

THE Hospital for Women, Soho-square, has petitioned Her Majesty in Council for a charter of incorporation.

ON the 31st ult. a very successful fancy dress ball was held at Faversham, in aid of the proposed local cottage hospital.

A SPECIAL service was held on the 26th ult. at the Hope-place Synagogue, Liverpool, on behalf of the local medical charities. The offertory amounted to £21.

MR. THOMAS MOORE, F.L.S., who for thirty-eight years was curator of the Botanic Garden of the Society of Apothecaries at Chelsea, died there on New Year's Day, in his 66th year.

"HOSPITAL SATURDAY" has been transplanted to New York, and it is expected that by next year the work will, by the aid of women's auxiliary societies, be thoroughly systematised.

ON the 28th ult. Mr. Peter White, surgeon, of Yetholm, near Kelso, suddenly fell down dead in the village. It is noteworthy that Mr. White's wife also expired suddenly on the previous Saturday.

AT a largely attended meeting of the Great Yarmouth Jubilee Committee on the 4th inst., it was agreed that the local commemoration should consist of a jubilee wing for the Yarmouth Hospital.

ACTION FOR LIBELING SCIENTIFIC MEN.—An action has been brought by order of the German Chancellor against Dr. Oidtmann, editor of the *Impfzwanggegner* (Anti-compulsory vaccinationist) for libeling Prof. Koch and Privy Councillor Köhler.

THE Canadian correspondent of the *Liverpool Journal of Commerce* says, "Dr. Dodd has been making tests of the mineral waters found near Regina, with the most satisfactory results. He has now established beyond doubt the fact of their strength and general curative purposes."

THE Birmingham Hospital Sunday Collection Committee have handed over to the treasurer of the General Hospital £4231 as the result of the last collection. The total sum realised was £4662. The balance, after payment of expenses, has been given to other charities.

OPEN SPACES IN MANCHESTER.—The committee for securing open spaces for recreation are just now making increased efforts to obtain public support on behalf of the work they are carrying on, and ask for £1500 to furnish and lay out several spaces and gymnasia that they have in hand.

BRITISH HOSPITAL AT PORT SAID.—Sir John Stokes, who is chairman of the London committee for building a British hospital at Port Said, has, it is stated, obtained an excellent site near the sea in exchange for the site formerly granted. The hospital will now be begun at once, and, it is hoped, will be opened in April.

SANITATION IN KIDDERMINSTER.—During the past year the improvements in the sewerage system of Kidderminster have been completed and the new covered reservoir opened. The provision of a sufficient water-supply from a source free from sewage still, however, demands attention. The lower well, the condition of which at the beginning of last year caused much anxiety, is still being used, but we trust that the Town Council is alive to its responsibility, and that the provision of another source for the water-supply may only be a question of weeks or months.

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HOSPITAL FOR INCURABLES, MANCHESTER.—Temperance reformers will be pleased to note a statement made at the recent annual meeting of the Manchester Hospital for Incurables, that though the patients had numbered upwards of eighty during the past twelve months, only £13 had been expended upon wine and spirits.

INFIRMARY ACCOMMODATION AT CAMBERWELL.—The Camberwell Board of Guardians have adopted a report from a committee, recommending that additional infirmary accommodation should be provided for about 350 adults and fifty children. The present infirmary, which is completely filled, contains 230 beds.

THE St. Marylebone Infirmary, Rackham-street, Notting-hill, was, on the 30th ult., thrown open for inspection by the ratepayers of the parish and others interested in the management of such institutions. At the close of the visit entire satisfaction with the management of the building was expressed.

PRESENTATION.—On the 30th ult., at West Hartlepool, James Atkinson, M.D., was presented by the brethren of the Good Intent Lodge of the Manchester Unity of Oddfellows with an address in recognition of his services to the lodge during the thirty-four years he acted as its medical officer, a post which he has recently resigned.

SOCIETY FOR THE STUDY AND CURE OF INEBRIETY.—A quarterly general meeting was held at 11, Chandos-street, on Tuesday last, the president, Dr. Norman Kerr, in the chair. Mr. Tudor Trevor read a paper on the Prevailing Indifference to Inebriety. Dr. H. W. Williams, Mr. Hilton, Mr. Raper, Mr. Gustafson, and Mr. Frederick Trevor took part in the discussion.

A HOSPITAL AS A THANK-OFFERING.—The Nursery Hospital, the Jubilee gift to Buckingham of Mr. J. G. Hubbard, M.P., and Mrs. Hubbard, and which has cost about £4000, will be ready for opening in a few weeks. It bears an inscription to the effect that it is offered in thankful remembrance of the preservation from sudden death by an accident to Mr. Egerton Hubbard, M.P., in 1874.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BARRETT, W. A. H., L.R.C.P.Lond., L. & M.S.A., has been appointed Medical Officer and Public Vaccinator for the Littleport District of the Ely Union, and the South Welney District of the Downham Union.

BLACKETT, W. CUTHBERT, M.R.C.S., L.S.A., has been reappointed Medical Officer of Health for the Durham Rural Sanitary District.

BOYS, ARTHUR H., M.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer and Public Vaccinator for the Second District of the St. Alban's Union.

CAMPBELL, DONALD, M.D., C.M.Glas., has been reappointed Medical Officer of Health for the Calne Rural and Urban Sanitary Districts.

CLARKE, A. B., L.R.C.S.Ed., L.S.A., has been appointed Medical Officer and Public Vaccinator for the Shebbear District of the Torrington Union, Devon.

COLLENETTE, F. DE B., M.R.C.S., L.R.C.P.Lond., has been appointed Medical Officer of Health for the Wolstanton and Burslem Rural Sanitary District.

DA'ATH, GEORGE H., M.R.C.S., has been reappointed Medical Officer of Health for the Buckingham Rural Sanitary District.

DUNCAN, DAVID, M.B., C.M.Aber., S.Sc.Dur., has been appointed Medical Officer of Health for the Chester-le-Street Rural Sanitary District.

FENWICK, CHARLES, L.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer for the Dunsford District of the Exeter Union.

GRAHAM, WM., M.D.Roy.Univ.Irel., L.R.C.S.Ed., has been appointed Resident Medical Superintendent of Armagh District Lunatic Asylum.

HARDY, ALBERT E., M.R.C.S., L.S.A., has been appointed Senior House-Surgeon to Charing-cross Hospital.

HAWKINS, FRANCIS, M.B., has been appointed Physician to the North London Hospital for Consumption and Diseases of the Chest.

HAYNES, CHARLES, L.S.A., has been appointed Electrical Assistant to Charing-cross Hospital.

HOCKEN, J. PRESTON, L.S.A., has been appointed Resident Obstetrical Officer to Charing-cross Hospital.

HUDSMITH, POWELL, L.K.Q.C.P.I., has been appointed Medical Officer of Health for the St. Anne-on-the-Sea Urban Sanitary District.

LAKIN, CHARLES, L.F.P.S.Glas., L.R.C.P.Ed., has been appointed Medical Officer for the First District of the Leicester Union.

LITTLEWOOD, JOHN OSCROFT, M.R.C.S., L.R.C.P.Lond., has been appointed Medical Officer for the Borough of Walsall.

LUCY, REGINALD H., M.B., C.M.Edin., M.R.C.S., has been appointed House-Surgeon to the South Devon and East Cornwall Hospital, Plymouth, vice W. A. Buchan, M.B., C.M.Edin., L.S.A., resigned.

MACDONALD, P. WM., M.D., C.M.Aber., has been appointed Medical Superintendent to the Dorset County Asylums, vice J. G. Symes, M.R.C.S., &c., resigned.

MAKINS, G. H., F.R.C.S., Assistant Surgeon to St. Thomas's Hospital, has been appointed Demonstrator of Anatomy to that Institution.

MASON, SAMUEL BUTLER, M.R.C.P.Ed., L.F.P.S.Glas., has been re-appointed Medical Officer of Health for the Pontypool Urban Sanitary District.

MEAD, H. T. HARVEY, M.R.C.S., L.S.A., has been appointed Medical Officer of Health for the Christchurch, Hants, Urban Sanitary District.

MOORE, CHARLES ARTHUR, M.D.Aber., has been reappointed Medical Officer of Health for the Barrow-on-Soar, Billesdon, Blaby, Hinckley, Lutterworth, Market-Bosworth, Oakham, and Uppingham Rural Sanitary Districts; and the Melton-Mowbray and Thurmaston Urban Sanitary Districts combined.

NELHAM, ALBERT E., M.R.C.S., L.S.A., has been appointed Junior House-Surgeon to Charing-cross Hospital.

NORRIS, EDWIN J., M.R.C.S., L.R.C.P., L.S.A., has been appointed Senior House-Physician to Charing-cross Hospital.

OLIVER, W. PYE, L.S.A., has been appointed Junior House-Physician to Charing-cross Hospital.

STARLING, EDWIN A., M.B., M.Ch., &c., has been appointed Honorary Medical Referee for the District of Tunbridge Wells, and to the National Hospital for Consumption at Ventnor.

TURNER, FREDERICK, M.R.C.S., L.S.A., has been reappointed Medical Officer of Health for the Buxton Urban Sanitary District.

WILSON, ROBERT A., M.D., C.M.Glas., has been reappointed Medical Officer of Health for the Lunesdale Rural Sanitary District.

Births, Marriages, and Deaths.

BIRTHS.

HANLEY.—On the 31st ult., at 3, Upper Phillimore-gardens, Kensington, W., the wife of Edward Hanley, M.D., M.Ch., of a son.

HERRON.—On the 3rd inst., at Southwark-bridge-road, the wife of J. Herron, M.D., of a son.

HETLEY.—On the 30th ult., at Church-road, Upper Norwood, the wife of Henry Hetley, M.D., of a son.

MARTIN.—On the 29th ult., at Brunswick-street, Sheffield, the wife of J. W. Martin, M.D., of a son.

RICE.—On the 25th ult., at Sutton, Surrey, the wife of Geo. Rice, M.B., of a son.

MARRIAGES.

ANDERSON—KITCHING.—On Nov. 30th, at Cape Town, G. E. C. Anderson, M.D.Lond., late House-Physician, Guy's Hospital, to Alice, eldest daughter of C. W. Kitching, M.B.Lond., of Cape Town.

DWIGHT-MORRIS — NOAKS. — On New Year's Day, at St. Stephen's, Hornsey, by the Rev. Joseph Kahn, M.A., Colin Dwight-Morris, L.R.C.P.Lond., M.R.C.S.Eng., L.S.A.Lond., of Feltham, Middlesex, to Nellie, eldest daughter of the late George Noaks, retired Captain, B.M.P.S., Calcutta.

ERSKINE-RISK — FADDY. — On the 13th ult., at St. Luke's Church, Juliadhar Cantonment, Punjab, Surgeon E. J. Erskine-Risk, Army Medical Staff, to Ellie Mary, youngest daughter of Maj. L. P. Faddy, late 29th Regiment, Bengal, N.I.

FOX—DANGER.—On the 30th ult., at the Parish Church, Brislington, near Bristol, Bonville Bradley Fox, M.A., M.D., to Annie, youngest daughter of the late Thomas Danger, Esq., of Gotley Lodge, Brislington.

PORTER—COWAN.—On the 7th ult., at Paget Parish Church, Bermuda, James Porter, M.A., M.B., Surgeon, R.N. Hospital, Bermuda, to Emma Louisa Kay, eldest surviving daughter of Deputy Inspector-General M. W. Cowan, M.D., R.N.

WHITE—FRIPP.—On the 30th ult., at the Parish Church, Tarrant Rushton, Dorsetshire, by the Rev. James Penny, Rector, uncle of the Bride, William Hale White, M.D., of 65, Harley-street, W., eldest son of Wm. Hale White, of Carshalton, to Edith Jane Spencer, youngest daughter of Alfred Downing Fripp, Esq., R.W.S., of Hampstead.

DEATHS.

ANDREWS.—On the 3rd inst., at New Barnet, Charles Andrews, M.D., of Hammersmith-road, W., aged 59.

BARON.—On the 27th ult., at Woodland-terrace, Plymouth, Edward George Baron, M.R.C.S., late of Ulceby, Lincolnshire.

BOMPAS.—On Nov. 3rd, at Busselton, Western Australia, Charles Smith Bompas, M.R.C.S., formerly of Bristol and Manchester, aged 68.

BROWNE.—On the 20th ult., at Rhyl, North Wales, after a brief illness, Harry Duncan Bouchier Browne, M.B., of University College, Glasgow, and House-Surgeon to the Flintshire Dispensary, in his 24th year.

CURME.—On the 2nd inst., at Dorchester, George Curme, M.R.C.S., L.S.A., in the 80th year of his age.

HOLMES.—On the 31st ult., at San Remo, Surgeon-Major A. P. Holmes, 1st Sikhs Infantry, aged 51.

JACKSON.—On the 23rd ult., William Jackson, M.D., late of Kingsland-road, aged 75.

LINTON.—On the 29th ult., at Ashley-court-villas, Ashley-hill, Bristol, Cornelius Clarke Linton, Inspector-General of Hospitals, late Indian Medical Service, in his 84th year.

MACKENZIE.—On the 18th ult., at Eileanach, Inverness, N.B., John MacKenzie, M.D., aged 83.

MOORE.—On the 1st inst., at Much Hadham, Herts, Francis Moore, M.D., aged 80.

RANGER.—On the 27th ult., at Bexley-heath, Kent, Frederick Ranger, M.R.C.S., late of Cranbrook, Kent, aged 67.

SELLERS.—On the 28th ult., at John-street, Rochdale, William Burdett Sellers, M.R.C.S., L.S.A., aged 67.

SMART.—On the 26th ult., suddenly, at Queen's-crescent, Glasgow, Robert Smart, M.D.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

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Medical Diary for the ensuing Week.

Monday, January 10.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesdays, same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—8 P.M. Communications by Messrs. L. Matheson, C. D. Davies, W. St. George Elliott, A. S. Underwood, S. J. Hutchinson, Morton Smale, and Joseph Walker. President's valedictory address.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Ralfe: Phosphatic Diabetes.—Mr. A. Pearce Gould: A Case of Wound of the Common Femoral Artery.

Tuesday, January 11.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 1.30 P.M. Skin Department, Mondays and Thursdays, 9.30 A.M.

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8.30 P.M. Mr. George Watt: A Brief Account of the Aboriginal Races of Manipur and the Naga Hills.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. Bland Sutton: Suture of the Median Nerve Ten Weeks after Division, with Recovery of Function.—Dr. Eccles: Observations on the Physiological Effects of Massage (communicated by Dr. Lauder Brunton).—Mr. Barwell: On Widely Incising by a Two-stage Method Hydatids of the Liver.

Wednesday, January 12.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesdays and Thursdays, 1.30 P.M.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; and on Friday, 2 P.M.; and Saturday, 1 P.M.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M.; Saturday, same hour.

HUNTERIAN SOCIETY.—8 P.M. The President: Cases of Lead Poisoning terminating rapidly with Cerebral Symptoms.—Dr. Fox: The Nature of Asthma.—Dr. Turner: Actinomycosis of the Liver.—Mr. Symonds: Further History of a case of Intestinal Obstruction.

EPIDEMIOLOGICAL SOCIETY OF LONDON.—8 P.M. Mr. Edward F. Willoughby: Preventive Inoculations.

OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Dr. Amand Routh and others. Dr. Pedley: Midwifery among the Burmese.—Dr. Herman: Stricture of the Female Urethra.—Dr. Gibbons: Case of Unilateral Galactorrhœa.

ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Mr. A. W. Bennett: Freshwater Algæ (including Chlorophyllaceous Protophytæ of North Cornwall), with Descriptions of Six New Species.—Mr. J. Mayall, jun.: A Visit to Jena.

BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Annual Meeting. Presidential Address.

Thursday, January 13.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

Friday, January 14.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

CLINICAL SOCIETY OF LONDON.—8.30 P.M. Annual General Meeting for the Election of Officers and Council.—Dr. Samuel West: Right Hemiplegia with Aphasia occurring during a paroxysm of Whooping-cough, with slight rigidity, subsequently passing into a condition of Athetosis.—Mr. Mayo Robson (Leeds): (1) A Method of Treating Thyroid Cysts; (2) A Suggested Method of Operating on a Uniform Principle in the Treatment of Imperforate Anus. Living Specimens:—Dr. Radcliffe Crocker: A case of Athetosis after Hemiplegia.—Dr. Stephen Mackenzie: Living Embryo Filariæ Sanguinis Hominis from a case of Chyluria.

Saturday, January 15.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, January 6th, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Dec. 31	30·58	N.E.	34	34	...	38	32	...	Foggy
Jan. 1	30·56	N.W.	24	...	...	29	22	...	Foggy
,, 2	30·35	W.	22	...	...	30	20	...	Foggy
,, 3	29·87	S.W.	39	38	...	40	23	1·07	Overcast
,, 4	29·36	E.	32	...	...	36	30	·23	Snowing
,, 5	28·82	W.	35	35	...	41	30	·11	Snowing
,, 6	28·89	W.	35	33	...	...	32	·08	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

THE QUEEN'S JUBILEE.

How shall we honour, as we honour should,
A Queen whose reign has been so long, so good?
By statue; portrait; eulogistic verse?
We might do better, hardly could do worse.
Let's build a hospital in every town;
Endow it well, though carping niggards frown.
On every town impose a trifling tax,
That help, in time of need, be never lax.
Let all creeds, needing, share the nation's love;
So shall this Jubilee a blessing prove
To all on England's soil in time to come,
When England's Queen rests in a royal tomb.
Then millions, yet unborn, shall thank kind heaven—
Our Queen was loved in eighteen eighty-seven.

Christmas Day, 1886. BART. ROUS.

Mr. A. F. Harrison.—Since the well-known works of Bazin and Hardy, French dermatological literature has, with the exception of a few manuals and volumes of lectures, been almost entirely limited to monographs and contributions to periodicals. Hillairet's work was not completed. French translations of Neumann's well-known work from the 4th edition (13 fr.), and of Kaposi's writings, have appeared. Lailler's "Leçons sur les Teignes," 1878; Bazin's "Leçons sur les Affections Cutanées Parantaires" (5 fr.), and the articles in the large French dictionaries are valuable. Any work required, or information, could be obtained of the foreign booksellers.

G. B.—The report is noticed on another page in our current issue.

DR. GOTO'S METHOD OF TREATING LEPROSY.

To the Editors of THE LANCET.

SIRS,—In your last issue reference is made to Dr. Goto's method of treating lepers. The remedies he gave to a patient of mine I have brought to England for analysis, and I hope shortly to place them in the hands of the College of Physicians, with a few remarks on the case of the boy to whom he gave them.

I remain, Sirs, yours truly,

G. W. PARKER, M.R.C.P.L., F.L.S.
(Late of the Hawaiian Board of Health Service.)

Christchurch, Hampshire, Jan. 1st, 1887.

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THE RUSSELL FUND.

THE following additional subscriptions to the above fund have been received. Mr. J. Wickham Barnes, 3, Bolt-court, Fleet-street, wishes us to inform intending subscribers that the list will close on the 15th of January:—

Already acknowledged ...	£23	14	6	Dr. R. Walker	£1	0	0
S. T. Davison, Esq. ...	1	1	0	The Earl of Devon ...	1	0	0
Dr. C. T. Brookhouse ...	1	1	0	A. Steele Perkins, Esq. ...	1	0	0
Thacher, Esq., F.R.C.S.Ed.	1	1	0	The Hon. and Rev. H. H. Courtenay (Chairman of St. Thomas' Board of Guardians)	1	0	0
Dr. W. Collier	1	0	0	A Lady	1	0	0
H. W. Furnivall, Esq. ...	0	10	0	Jno. Mortimer, Esq., M.B.	0	10	6
Per Dr. Woodman:—				P. A....	0	10	0
A. H. A. Hamilton, Esq., J.P.	2	0	0	Mrs. Henry Ward ...	0	10	0
[illegible]	1	1	0	T. F. M.	0	2	6
G. Foster, Esq.	1	1	0				
John Eliot, Esq.	1	1	0				

Dentists.—It is common enough and right enough for different members of a family to have different medical men. It is neither right nor common for medical men to allow or encourage touting on their behalf.

Odours.—Yes. Two American physicians, Drs. Nichols and Bailey, have recently conducted experiments which, they believe, prove that the sense of smell is more acute in men than in women.

IMPERFORATE HYMEN.

To the Editors of THE LANCET.

SIRS,—Having read recently in your journal some cases of imperforate hymen with menstrual retention, I send you the following case that occurred to me whilst surgeon to the Panulcillo Copper Companies' Mines in Chili.

B—— P——, aged eighteen, had never menstruated. For twelve months she had experienced acute pain in the abdomen at variable periods. I was called in on Nov. 25th, 1882, by the father, who stated that his daughter was in great pain, and that something soft was protruding from the vulva. The patient refused examination; so an opiate was given, and relief obtained. On Dec. 18th I was called again, when the pain was so severe that an examination was readily consented to. In the hypogastrium I found a hard rounded tumour, the size of a small melon, extending from the pelvis to within an inch of the umbilicus. From the left side of the upper extremity of this tumour was a protrusion, an inch in diameter, extending at right angles for about three inches. Per vulvam a tough red membrane projected from between the lips, which was tense but fluctuated. A catheter was used, and the bladder emptied. A small exploring trocar was introduced into the centre of the tumour, a flow of thick, almost black, retained menstrual fluid resulting. This fluid was allowed to flow from the trocar until relief from pain was obtained. On Dec. 19th a crucial incision was made in the membrane, and an injection of Condy's fluid, one drachm to the pint of water, freely used. No clots passed. From this date the patient made an uninterrupted recovery, and I found her up and about on Dec. 27th. She has since menstruated regularly and without trouble of any sort, and married on March 26th, 1886.

I am, Sirs, yours faithfully,

ARTHUR GRAYLING, M.R.C.S., L.R.C.P. Lond.

Forest-hill, S.E., Dec. 27th, 1886.

ROYAL MEDICAL BENEVOLENT COLLEGE, EPSOM.

To the Editors of THE LANCET.

SIRS,—I am desired by the Council to send you a copy of a letter written by the master of the science class at Epsom College to the headmaster, and to say that they will be extremely obliged to you if you will find room in THE LANCET for the communication, in the hope that in this way the want may be supplied.

I am, Sirs, your faithful servant,

Jan. 3rd, 1887. ROBERT FREEMAN, Secretary.

"DEAR MR. WOOD,—We are greatly hampered in the study of zoology by the want of a number of skeletons. It has occurred to me that if this want were known to the medical profession in London, say by means of a letter in the medical papers, or by the intervention of a Member of the Council, it might be remedied. I think it is not unlikely that at some of the hospitals there may be extra specimens that they would be willing to present to Epsom College. If asked what particular skeletons wanted, I should say those mentioned in the honours list for intermediate B.Sc. and in the B.Sc. list for the University of London. These would also cover the work for scholarships at Oxford or Cambridge. I should be very glad if you would represent this matter in the proper quarter. "I remain, yours very truly,

The Rev. W. Cecil Wood." "J. S. JACKSON."

COCAINE.

To the Editors of THE LANCET.

SIRS,—With reference to the letter in your last issue relative to cocaine, my experience is that if absolute insensibility of the part is required a 20 per cent. solution is necessary. I have on two occasions removed a sebaceous cyst, measuring two inches in diameter, from the neck, and on each occasion the patient calmly smoked a cigarette during the operation.

I am, Sirs, yours faithfully,

Southsea, Jan. 1st 1887. ALBERT BENTHALL.

FRENCH LUNATIC ASYLUMS.

THE supervision of French lunatic asylums appears, if recent accounts be true, to be exceedingly lax. It will be remembered that a short time ago a man was released from an asylum, having been forty years previously confined by his relatives in order to secure his wealth. The escape of another man is now reported, who, although sane, was confined for a year in an ill-lit room, bound hand and foot. Such treatment is strictly forbidden by law, and the matron and two keepers of the establishment have been fined, and the medical superintendent condemned to a fortnight's imprisonment. Such regrettable and scandalous incidents would be impossible if any control were exercised by the authorities; and although our Gallic neighbours may manage things in general better than we do in England, their most ardent admirers will be compelled to admit that the protection of lunatics and the supervision of asylums do not redound to their credit.

Mr. Barnes Nowell writes us in explanation of his action as described by "Verax." We are of opinion that it was due to the gentleman in attendance to have sought his concurrence in the step taken, or to have communicated with him immediately in explanation of the urgent circumstances.

A Subscriber.—Such a place as St. Mary Church, near Torquay, would meet most of our correspondent's requirements.

SUICIDE AFTER TAKING A DOSE OF CHLORAL.

To the Editors of THE LANCET.

SIRS,—Perhaps you may be able to find a corner for the following case.

On Nov. 17th I visited P. D——, a somewhat anæmic man, about thirty years of age, who was suffering from bronchitis. There was a history of an acute, painful, spasmodic disease of the chest, which the patient believed to be asthma, but which I thought was angina pectoris. He was treated for the bronchitis, and all went fairly well until the morning of Nov. 22nd, when, being in acute pain, he persuaded a friend, an apothecary, to give him fifteen grains of chloral hydrate. Almost immediately after taking the chloral he procured about six ounces of French brandy, which he imbibed in three doses during the space of about an hour. After the third dose of brandy a friend who was with him left, observing before leaving that the patient's face was flushed in patches. After the departure of his friend the patient shot himself through the brain with a revolver, and was found dead in bed by myself. He was poor, but not in any difficulty of any consequence, and beyond slight despondency had not shown any symptoms of insanity either to myself or to his friends.

I see that Dr. C. Browne mentions "deep flushing of the face," and Dr. Fuller "violent delirium," after the administration of chloral. Perhaps some of your readers would inform me, first, whether any case of suicide following the administration of chloral has been recorded, and, secondly, whether it is their opinion that the chloral, or the mixture of chloral and brandy, was responsible for the suicidal action.

I am, Sirs, yours obediently,

South Africa, Nov. 25th, 1886. A. P. G.

Student will not be able to register the M.R.C.S. *alone* after June next. He must show that he has passed a qualifying examination in medicine, surgery, and midwifery, as defined by the Act; and this requires the co-operation of corporations.

Mr. Habgood and *Mr. Cooper.*—An ounce powder was intended.

EXPLORATORY INCISIONS.

To the Editors of THE LANCET.

SIRS,—In your issue of Nov. 13th, page 910, second column, forty-second line, Mr. Bryant, in his admirable address on the value of exploratory incisions, is represented as saying, "The cavity was washed out with iodine water and packed with strips of iodoform gauze, so as to promote suppuration." He certainly did not mean to say this, as iodoform gauze is used to *prevent*, not "promote," suppuration; and this is corroborated a few lines lower down, where it is stated that no pus was found when the packing was removed.

I am, Sirs, yours very truly,

Chicago, Dec. 23rd, 1886. D. A. K. STEELE.

Mr. Thos. Lafan.—The University of Oxford recognises for its diploma no medical examinations other than those conducted by itself.

MEDICAL DEFENCE.

To the Editors of THE LANCET.

SIRS,—In order to prevent possible misunderstanding, will you kindly permit me to inform your readers that the Medical Defence Union, whose circulars are being sent to members of the profession, has no connexion whatever with the Medical Defence Association, of which Dr. B. W. Richardson, F.R.S., is president.

I am, Sirs, yours faithfully,

GEORGE BROWN,

Hon. Sec., Medical Defence Association.

King William-street, E.C., Jan. 3rd, 1887.

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MORPHIA HABITUÉS.

To the Editors of THE LANCET.

SIRS,—I am desirous of collecting as much information as possible concerning the after history of cured morphia habitués, particularly (1) any special hygiene adopted by those who have passed some time without relapse, (2) evidence of the necessity (or the contrary) of subsequent total abstinence from alcohol, (3) any special tendency to relapse in gouty subjects in consequence of some particular distress or restlessness, (4) the value of valerian and its preparations, and (5) cases where opiates have subsequently been given with benefit and impunity. I should be greatly obliged to those interested in this question who will favour me by communicating their experience. Any information sent to me personally would, of course, be acknowledged if used for publication.

I am, Sirs, yours very truly,

Paris, Dec. 20th, 1886. OSCAR JENNINGS, M.D.

Mr. G. W. Parker.—We fear our space will not permit of the publication of the notes and statistics.

P. H. W.—There does not seem to be anything novel in our correspondent's suggestions.

Dr. C. F. Knight's paper is marked for insertion.

"ABSCESS OF THE LIVER IN INDIA."

To the Editors of THE LANCET.

SIRS,—I have just seen Mr. Curran's letter in your issue of Nov. 6th, and I hasten to acknowledge that I have derived much valuable information from his exhaustive treatise on Hepatitis in India, a work to which I have on more than one occasion referred in print. As regards the case in question of seven abscesses found at the post-mortem examination in the liver of an infant six months old, from the description published in the *Indian Medical Gazette* it was a case of general peritonitis; and it appears to me that the multiple abscesses must have been either tubercular or pyæmic, not true tropical abscesses, of which class alone my paper treated.

I am, Sirs, yours truly,

A. TOMES, M.D., Surgeon, I.M.S.

Midrapore, Bengal, Dec. 8th, 1886.

Voyageur.—Montreal is not exempt from enteric fever, which usually begins to assume an epidemic form in October.

X. Y. Z.—We believe the evidence available is insufficient to warrant a conclusion in the affirmative.

M.D. is referred to announcements in our advertising columns for information on the subject.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Sydney Jones, London; Dr. Maclagan, London; Mr. W. Curran; Dr. Stephen Mackenzie, London; Dr. Savage, London; Dr. Norman Kerr, London; Mr. Banstone, Torrington; Dr. Luca, Chelsea; Messrs. Lorimer and Co., London; Mr. Pollard, Fulham; Dr. Hearne; Messrs. Armfield and Sons, London; Mr. Birchall, Liverpool; Messrs. Newbery and Sons, London; Mr. Scatchard, Boston; Dr. Greenwell; Messrs. Cooke and Co., London; Dr. Levermore, Accrington; Messrs. Reynolds and Co., Leeds; Mr. Cook, London; Mr. Dow, Finchley; Mr. Maw, Bradford; Mr. Shirmey, Coventry; Mr. Scraggs, London; Messrs. Harris and Co., Birmingham; Mr. Brazier, Clerkenwell; Messrs. Richardson and Co., Leicester; Mr. Shiels, Edinburgh; Messrs. Burroughs and Wellcome, London; Dr. Bell Taylor, Nottingham; Mr. E. de Vere Mathew, London; Mr. Vincent Jackson, Wolverhampton; Mr. T. P. Lowe, Bath; Mr. R. Jeffries, Chesterfield; Mr. Collis Barry, Castle Eden; Mr. W. Parker, Bath; Mr. Hovell, Sunbury; Messrs. Bromley and Co., Lincoln; Mr. McKinney, Nunhead; Mr. G. Moseley; Mr. A. Benthall, Southsea; Dr. Steele, Chicago; Dr. Ward, Blyth; Mr. G. Brown, London; Dr. Tomes, Midrapore; Miss Byron; Messrs. Austin and Son, Clifton; Mr. Hagley, London; Mr. Stellard; Messrs. J. and H. Grace, Bristol; Mr. G. E. Douglas, London; Messrs. Radcliffe and Co., Liverpool; Mr. Bickerton, Liverpool; Dr. Hawkes, Northampton; Mr. Freeman, London; Mr. Habgood, Banstead; Messrs. Maggs and Son, Yeovil; Dr. Barraclough, Dulwich; Mr. Telford, Bury; Dr. H. White, London; Mr. Weymouth, Brondesbury; Messrs. Boulton and Paul, Norwich; Mr. Thorpe, Brisbane; Mr. Plummer; Messrs. Hooper and Co., London; Mr. Tumner, Harrogate; Messrs. Hopkinson and Co., Notts; Mr. Milne, Lewisham; Dr. Magner, Rathkeale; Dr. Ward, Ilford; Mr. Brooks, Hull; Dr. Hewer, Hornsey; Messrs. Pratt and Co., London; Dr. Carre, Omagh; Mr. Berthier, Paris; Dr. Delebez, Brussels; Dr. Johnston, Sheffield; Mr. Walsh, Oxford; Dr. Trentler, Uckfield; Messrs. Churchill, London; Mr. Newsholme, Clapham; Mr. Teague, Manchester; Dr. Hardwick, Sheffield; Messrs. Street and Co., London; Dr. R. B. Carrington, London; Messrs. Bennett and Co., London; Mr. Bastes, London; Dr. Bruce, London; Mr. Wickham Barnes, London; Mr. Evans, Wolverhampton; Messrs. Bailey and Son, London; Dr. Gray, Dalton-in-Furness; Dr. Sullivan, South Kirkby; Mr. Kneebone, Bedford; Mr. L. Propert, London; Mr. H. F. White, Norwich; Mr. W. T. Brooks, Oxford; Messrs. Ascher and Co., London; Mr. C. Keetley, London; Mr. Hughes, Denbigh; Mr. T. Holmes, London; Mr. Wheeler, Manchester; Mr. Maw; Mr. Scott, Manchester; Mr. Woodrow, London; Mr. Lloyd, Lampeter; Mons. F. Alcan, Paris; Mr. W. C. Bull, London; Mr. Balgarnie, Scarboro'; Medical Staff; M.B., Dawlish; G. G. G.; Medicus, Clapham; Lady Superintendent, Cambridge; Gamma; A Subscriber; A. B. C., Sandwich; M.D., Gateshead-on-Tyne; L.R.C.P. Lond.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Wilson, Bath; Miss Terrill, Virginia, U.S.A.; Mr. Tett, London; Mr. Guest, Darlington; Mr. Davies, Cardigan; Mr. Sell, London; Mr. Knightley, London; Mr. Jones, Conway; Dr. Abraham, Aughnacloy; Dr. Aubin, Jersey; Mr. Roundtree, Islington; Mr. Hayward, Corby; Mr. Dow, Kensington; Miss Harris, Leeds; Miss Hunt, Dublin; Mr. Bates, New York; Mr. Robinson, Manchester; Mr. Pirkis; Mr. Rawlins, Great Crosby; Mr. Warters, Alfreton; Mr. Robbins, Jersey; Dr. Lion, Fence House; Mr. Thomas, Ripley; Mr. Geddes, London; Messrs. Wheatley and Co., Huddersfield; Mr. Somerville, Edinburgh; Mr. Stillard, Birmingham; Mr. Somerville, Lenham; Mr. Fenton, Colchester; Col. Maurice, Feltham; Miss Guinness, Maidstone; Mr. Weymouth, Kilburn; Dr. Boswell, Faversham; Mr. Bloxham, Truro; Mr. Cole, Holywell; Dr. Smith, Kinnetty; Mr. Masefield, Ledbury; Mr. Brett, Bridlington; Mr. Jones, Darwen; Mr. Whitford; Messrs. Thomson and Co., Liverpool; Dr. Sutherland, Salford; Messrs. Maclachlan and Co., Edinburgh; Mr. Appleby, Knutsford; Mr. Leggatt, Wood Green; Mr. Coltman, Leicester; Dr. Redwood, Rhymney; Dr. Jones, Pontardawe; Mr. Utting, Liverpool; Miss Payne, Leeds; Mr. Hand, Macclesfield; Mr. Marsh, Hindley; Mr. Davies, London; Mr. Laird, Birkenhead; Mr. Scattling, Clapham; C. E. H.; G. P., Newport; Medicus, London; M.D., Ulceby; W. H. M., Sydenham; Army; M., Chelsea; Dispenser; Medicus; A. L. S., Wimbledon; C. W., Cape Town; A. B., Lynn; R. N., Birmingham; Stanton; W., Ashton-under-Lyne; X. Y. Z.; Dual.

Kilmarnock Standard, Sussex Daily News, Newcastle Evening Chronicle, City Press, Tenby Observer, South Wales Echo, Kidderminster Times, Croydon Times, Liverpool Daily Post, Newcastle Daily Journal, &c., have been received.

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Clinical Lecture
ON
SOME FORMS OF DEFECTIVE SPEECH.

Delivered at St. George's Hospital,

BY WARRINGTON HAWARD, F.R.C.S., &c.,
SURGEON TO THE HOSPITAL.

GENTLEMEN,—You have lately seen two children operated upon by me for cleft palate, when I devoted a clinical lecture to explaining to you the character of that defect and the method which I proposed to adopt for its cure. I had not time then to do more than very briefly allude to the management and instruction of these children which are necessary when the operative treatment is complete. To-day, therefore, I wish to call your attention to the measures which should be used for improving the speech after the cure of a cleft palate, and also to say something about the treatment of some other defects of speech in children.

Now you will frequently have occasion to observe, where an erroneous habit is acquired in consequence of some defect, deformity, or disease, that even when the cause of such habit is removed, some pains are needful to overcome the persistence of the habit itself. For instance, a child who has been accustomed to wet the bed at night, in consequence of the irritation of an adherent prepuce, may be cured at once by circumcision if the condition is but of recent occurrence; but if the incontinence of urine is of long duration, the immediate effect of the operation is not always a complete cure; the habit of emptying the bladder early in the night may still to some extent show itself, and not until a few weeks have passed, and some trouble has been taken, is the habit overcome. So, again, the awkward gait in some forms of paralytic talipes, due to the distorted position of the foot, is not instantly remedied by bringing the foot into the normal position. Some education is needed of the muscles, which have long been acting under disadvantageous mechanical conditions.

So, then, you will observe that a child with cleft palate uses its tongue and palatal muscles in a manner quite different from one with the natural condition of palate, and that even after a complete closure of the cleft there is still some awkwardness of speech. This varies greatly in different individuals, partly because of differences in the shape of the part, and partly because of variations in the intelligence of the learner; but all of them will be greatly assisted by proper instruction. This instruction must be directed towards unlearning the manner of using the tongue and palate which has been resorted to by the child in consequence of its cleft palate, and acquiring the right method of using these parts. It must be carried on by means of systematic lessons and practice regularly gone through day by day for months or even years; and is usually, therefore, among intelligent persons, best managed by one or other of the parents. But the parent must be taught how to proceed; and it is often of great advantage, especially in bad cases, to obtain at the commencement the help of one of the teachers specially trained for teaching deaf-mutes to speak.

The plan I recommend for this, and for other defects of speech to which I shall presently allude, is as follows:—The instructor should sit directly facing the pupil; the pupil is made to fix his attention thoroughly upon the face of the teacher, and to copy slowly his method of articulation. This should be displayed by the teacher in an exaggerated degree, every movement of the lips and tongue being made as obvious as possible to the pupil, and the more difficult sounds or movements prolonged for the purpose. Thus, for instance, suppose the word "sister" were to be practised, the teacher, having filled his chest by a long inspiration, would open his lips and draw back the angles of the mouth, so that the pupil could see well the position of the tongue against the teeth; he could then prolong the hissing sound of the "s," and finally, separating the teeth as the sound of the "t" in the second syllable issues, allows the pupil again to see the position of the tongue as the word is ended. Or, for another example, take the word "lily." Here the teacher would separate the lips and teeth, so that the tongue would be seen curved upwards, with its tip touching the hard palate; the word would then be pronounced with a prolongation of each syllable, the teeth and lips being kept open so that the uncurling of the tongue and its downward movement are clearly seen. So again, in teaching the proper method of sounding such words as "ning" or "youth," much aid is given by keeping the lips somewhat separated, so that the relation of the tongue and palate can be made manifest. The pupil must be made to fill his chest, and then to imitate as closely as possible every movement and sound of the teacher, and this may sometimes be assisted by making the pupil feel with the finger, as well as observe with the eye, the relative movement and position of the teacher's tongue and palate. There should be no other person in the room to distract the attention of the pupil. It is best to continue the exercise for a short time only, and to repeat it frequently, rather than to fatigue the child by a long lesson; and it is a good plan to take an ordinary elementary spelling-book, and to mark the words which the pupil finds most difficult to pronounce, so that these may be specially practised. I wish especially to insist upon the importance of making the pupil fix his entire attention upon the face of the teacher in all attempts to remedy defective speech, for this does not seem sufficiently understood. Yet, if you will take an ordinary child of three years old, and tell it to repeat a difficult word after you while you stand behind it, and then make the child say the same word while it looks at your face, you will see at once the great advantage of the latter method. And this applies to adults as well as children.

Instances are occasionally met with of children with very highly arched palates who speak very much like those with cleft palates. The speech of these children may be very greatly improved by such teaching as I have described; but if they are allowed to grow up without any such aid, it becomes very difficult to make them speak plainly. In one such case—a girl seventeen years of age—it was almost impossible for one not accustomed to the speech of those with cleft palate to understand what she said; so that at shops, railway stations, and with strangers generally, she was obliged to write down what she wished to say. She was very anxious to know if anything could be done for her by surgery; and so, after explaining to her that the operation was an experimental one, I decided to try the effect of lowering the arch of the palate by bringing down the soft parts from the hard palate (as in the operation for closing a cleft), cutting away a piece from the middle line, and then sewing the edges together again. The incision healed well, and the result of the operation was that her palate was reduced to the ordinary level. When the tenderness resulting from the operation had subsided, she was found to speak somewhat more distinctly. The alteration, however, was not great at first; but after a few weeks of practice the girl's speech very much improved; and when I saw her some months afterwards she gratefully told me that everyone could now understand her quite well, and that her friends, as well as herself, were much pleased with the improvement. Her speech was still, however, far from perfect.

I have also seen a few cases in which, besides the palate being highly arched and narrow, the inter-maxillary bone has been thrust forward, as though squeezed out of place by the approximation of the two halves of the upper jaw-bone. This condition is accompanied by indistinct speech of the kind above described. In these cases great improvement may be effected by gradually pushing back the projecting process of bone by means of an apparatus adapted by the dentist and constantly worn by the child, care being taken at the same time to educate the child in the proper method of speech.

Then there is another class of children who exhibit defects of speech dependent upon cerebral causes. It is a not uncommon occurrence to have children brought to one because the mother has noticed with anxiety their extreme backwardness in beginning to speak. The mother thinks or hopes that there is something wrong about the mouth or palate to account for this. But one finds on examination that the parts concerned in speech are quite natural,[1] and that the backwardness in speaking is only the more obvious part of the general intellectual deficiency, of which other signs are discoverable on investigation. Very often the

[1] The teeth of such children are usually late in their eruption, and defective, and the jaw often narrow and ill-developed; but this is only a concomitant, not a cause, of defective speech.

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expression of the child's face is in itself sufficient to indicate to the practised eye the imbecility which is the real cause of the deficient powers of speech. Even for these children something may be done as they grow older by careful teaching; but of course the education of their speaking powers is in such cases only part of the systematic efforts required for the development and strengthening of their intellectual faculties as a whole.

There is yet another class of children who are backward and awkward in their speech, but whose cerebral development is in all other respects complete. These children are bright and intelligent; but it seems as if the power of that part of the brain concerned with speech was ill-developed or latent. Some speak with an exaggerated lisp; others very much like those with cleft palate, having special difficulties with the letters *s* and *l;* while others, again, simply speak like younger children, a child of four talking in the babyish manner of one of two years. All the children of this class feel their difficulty, and avoid speaking as much as possible, making signs and noises rather than facing the trouble of articulate speech. These children all speak eventually quite well, though some slight peculiarity of speech may remain through life. They all improve greatly, and are much helped, by the method of education by imitation which I have described.

Let me just remind you, in passing, of the necessity in all cases of backwardness of speech to ascertain the condition of the hearing. And remember that a child who has even begun to speak may become dumb in consequence of losing its hearing.

Another kind of defective speech is met with in persons with nasal polypi, and in those with adenoid growths in the naso-pharynx. This is recognised by the characteristic want of resonance and the dull "stuffiness" of the voice, this being especially noticed in words involving the sounding of the letters *m*, *n*, or the terminal *ng;* thus "morning" would be sounded "bordig." In these cases the removal of the growths is the obvious treatment. Somewhat similar to this is the thick articulation of persons with enlarged tonsils.

I now pass on to another sort of difficulty of speech—stammering. You all know what I mean by stammering speech. That peculiar spasmodic affection in which the utterance is suddenly checked by the want of coördination of, and control over, the varied movements concerned; so that either the speaker suddenly becomes voiceless, or his efforts result in the rapid repetition of one sound from which he cannot pass on, or in the production of an inarticulate sound of considerable duration, after which come fresh and still ineffectual efforts, or the attempted word is at last pronounced. After this the speech may run smoothly for a time until another spasm occurs. I need hardly tell you that stammering is extremely variable in kind, degree, and frequency of occurrence. But that which is common to all cases is a want of coördination in the muscles concerned. Let me read to you Sir James Paget's description of stammering in his suggestive lecture "On Stammering with other Organs than those of Speech." It gives in bis usual admirable manner the gist of the matter in a few lines:—"Stammering, in whatever organs, appears due to a want of concord between certain muscles that must contract for the expulsion of something, and others that must at the same time relax to permit the thing to be expelled. Ordinary stammerers cannot at the same time regulate the contraction of the muscles of expiration for the proper expulsion of air, and the relaxation of those of the glottis or (in different cases) of the tongue or lips for permitting the expulsion of the air while it is being made vocal and articulate. Numerous as are the varieties and modes of speech-stammering, this discord of muscles is in them all."[2] This gives you the keynote of the difficulty. In some cases it is the muscles of the glottis which are at fault; in others those of respiration; while in another class, and this is by far the most common, it is the muscles of articulation which are insubordinate. Or all these different sets of muscles may be to some extent concerned; and in some very bad cases the spasm may spread to muscles not concerned in speech at all, so that in the efforts at articulation the person is thrown into all sorts of distressing contortions.

Now in the treatment of stammering, it will be necessary to observe in what manner, and under what conditions, it occurs. Some people stammer chiefly or only when they are nervous or in a hurry, or under some excitement, or are fatigued. Others halt only at the sound of certain letters; occasionally, but I do not think often, a sore tongue or mouth will give rise to stammering. I have seen a case also in which its occurrence was quite certainly connected with dyspepsia. Children and young persons are the chief sufferers; and you will find in a large proportion of cases that they come of nervous families, and have been overworked or have in some way been subjected to nervous stress. Thus, intelligent boys anxious to satisfy an exacting schoolmaster, or stupid ones nervous at not being able when called upon to formulate their ideas, or even the impatient, in too much of a hurry to express their rapid thoughts, all furnish us with examples of stammering, which often commences on their first going to school. I have said "boys," because, for some reason which I cannot explain, stammering is much more common in boys than in girls. I ought to mention that in a considerable number of cases it seems to be connected with the habit of masturbation.

In the treatment of stammering, therefore, the first necessity is to discover, and if possible remedy, any obvious cause—especially any cause of nervous debility. And remember that many young people are ill-nourished and dyspeptic from being hurried over their meals; that the same hurried mode of life often leads to irregularity and constipation of the bowels; and that these are also just the people who are apt to be over-studious, too much in-doors, and to lack appetite; often, also, they have bad teeth. So it comes that you will notice many stammerers to be thin, pale, and excitable. For these you will do well to diminish their studies, to enforce out-door recreation and gymnastics, especially such as expand the chest; to attend to their bowels, and to see that they have plenty of nutritious food. And, as in most nervous people, cod-liver oil often does them good. You must also look to the state of the teeth, the tongue, and the digestion, and remedy any defects in these. So, again, any bad habits must be overcome, and the existence of phimosis ascertained and attended to. Iron and other tonics may be useful, and I have certainly seen benefit in cases with other indications of chorea, from the administration of large doses of sulphate of zinc and belladonna. But whatever else you do, you must subject the stammerers to the sort of education which I have described in connexion with some of the other speech defects. That is to say, you must teach them to speak deliberately and with careful enunciation, practising by imitation the difficult words or sounds, and following all the muscular movements of the teacher. Above all, you must teach them to avoid speaking with an empty chest (which, as Charles Kingsley pointed out, is so commonly the habit of stammerers), and to fill their lungs well at every stop. All such treatment will be chiefly useful to those beginning to stammer, and to those whose stammering is variable in degree and frequency of occurrence. But there are some habitual and confirmed stammerers for whom I must confess I know of no cure.

[2] Clin. Lect. and Essays, p. 77.

SCHOOL-MADE CHOREA.

A RETROSPECT OF THE PAST YEAR.

By OCTAVIUS STURGES, M.D., F.R.C.P.,
PHYSICIAN TO THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET.

FOR the last two years, and at this season, I have been permitted to make use of the columns of THE LANCET for the purpose of signalising certain sources of chorea very common amongst the children of our London poor, which by the exercise of a little care and circumspection, less on the part of the poor themselves than of the class set over them, might be altogether done away. There is little new to be said, yet the circumstances may justify some repetition. *Gutta cavat saxum, non vi sed saepe cadendo.* The closing year is not without promise that the public mind is becoming impressed by subjects akin to this. The use and abuse of home lessons, penny dinners, and corporal punishment have been much discussed of late in the interest of school children, and in a calmer and more judicial spirit than that which reigned some while ago when the word "over-pressure" was in everybody's mouth and made two camps.

I know full well that in the long run exaggeration of

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statement does but defeat its object. Let it be admitted at the outset that St. Vitus's dance is neither a dangerous nor a painful affection with school children, and that such nice adjustment as shall prevent over-strain on the one hand and over-indulgence on the other is practically unattainable; still, it must be insisted that chorea, so long as it remains undiscovered, is a source of injury to the child in many ways, while the obtuseness of observation which so often delays this discovery is nothing short of marvellous. I wish to show in few words—first, that a large and fairly constant proportion of chorea is due directly to what may be called injudicious schooling; secondly, that the chorea which owns this exciting cause may be easily classified both as to its precise modes of origin and as to the temperament of its subjects; and, thirdly, that the rules for preventing chorea in school children are simple and obvious.

During the past year twenty-three cases of chorea (sixteen girls and seven boys) have passed through my ward at Great Ormond-street, not reckoning readmissions, the number being very nearly the same as for the preceding two years. Nine at least have a school cause. For example, a boy of eleven, who some weeks before had been much shaken by a fall, was noticed just before his attack to "bother about his lessons," and "got much caned at school." Another boy of eight, lean and delicate, was "caned at school for some trifling offence. He was much frightened at the time and had restless nights, talking in his sleep about school work." He then developed chorea. A third boy was of the age of twelve. (I take boys by preference, owing to their far less liability to the disorder.) There had been family reverses, and he had fallen with the rest into poverty. "Complaints came from school that his handwriting had deteriorated, and that he was inattentive." It presently appeared that these offences had their origin in chorea. A girl of eleven got her first attack (soon followed by a second) "after a blow on the hand." A child of five, described by her mother "as always excitable," got chorea on being removed to a higher form and having more difficult lessons. A girl of eleven, not very quick, "became irritable in temper during preparation for school examination," and then choreic.

It must be understood that these several statements, and others like them, are put down as "causes" of the chorea that followed only in the absence of any other explanation. No example is included of selection from among several possible causes. And for further proof that such descriptions tend to repeat themselves, and that they fall readily into groups, let me quote from another hospital and a different reporter.[1] In the year 1885, nineteen cases of chorea were admitted into the Westminster Hospital (part only into my own wards). Five at least have a school cause described by the medical registrar in the following terms. A boy of ten was "frightened by being struck at school." A girl of twelve was "kept in after hours every day for a week for bad writing." A girl of thirteen, admitted for a second attack, contracted "the first from hard work at school." A boy of nine (a very severe and prolonged attack) was "excited about school examination just before." Another boy of the same age (also a severe attack), described as "always very nervous," had been much distressed and puzzled with his home lessons, and "would lie awake thinking of sums." The attack of chorea which shortly ensued followed a caning. The two series taken together (i.e., Westminster and Great Ormond-street) give an annual yield of forty-two cases, fourteen of them being of school origin.

The example just quoted reminds me of a child in hospital at the present moment who, like the girl described last year, who "could not get the sums right," affords an excellent specimen of the manner in which the factors are combined that produce chorea. The patient comes from a neighbouring Church school; she is eleven years old, thin and pale, and with a London aspect. There are six others at home as well as the mother, who is a widow and does charing. This child used to help to support the family by going out after school hours to nurse a neighbour's baby. She was so employed sometimes until past eleven at night. Lessons had then to be prepared for the morrow's school, so that it was midnight by the time she got to bed. In the morning she had to wash, dress, and despatch to school two younger children, and thus sometimes reached her own school late, to incur the displeasure of her mistress and occasional punishment. So beset, and being probably ill-fed and by nature weak and delicate, this child contracts chorea in a form which, without being severe, is very intractable.

And even while I write there comes into my ward a small boy, aged fourteen, with very severe chorea, which he has been caned into. He was represented by his parents as "very nervous and unable to sleep without a light." He also suffered much from headache, but had never had rheumatism, nor had his family. At a London School Board school he was charged with speaking to another boy, and for this alleged offence was cut four times across the right hand, one of the strokes catching his thumb and giving acute pain. He came home in a state of high excitement, protesting that the caning was undeserved. The next day chorea seized his right hand and arm, and soon invaded the whole body. The movements are now violent and distressing. He is just able to jerk out a word or two, has wasted much, and is fed with great difficulty.

Speaking from the evidence, not only of the cases I am now quoting, but of very many others precisely similar, it is perfectly certain that for a large proportion of chorea, a proportion that would be under-estimated at one-fourth, school is responsible; and the mode of injury may be classified pretty much as follows:—(1) Over-schooling, where the hours are too long or the lessons (especially *sums*) too hard; (2) excitement in schooling, especially at examination; (3) home lessons where there is no home to speak of or no home leisure; (4) "caning" and other modes of punishment, particularly when unmerited. Such causes will be rendered more or less efficient in individual cases from the feebleness of resistance that comes of insufficient food, natural sensitiveness, previous attacks of the same disorder, tender age or sex. So it goes on from year to year without variety or shadow of change, and but for one reason it would be worse than useless to dwell upon the subject at Christmas time. That reason is, as I have said, that, unlike most of the suffering with which poor London children are over-burdened, it is remediable. There are other sources of chorea besides these: family rows, drunken violence, home cruelty, semi-starvation, the perils of the streets; and we can but total them up at the close of each year and remark upon the wonderful sameness of statistics. But in this school-made chorea it is the friends and would-be helpers of the children, teachers who are responsible for their moral and physical welfare, and anxious to promote both, who are, in fact, active agents in their suffering, and all for want of a little thought.

The evil comes, I am persuaded, from the fact that *teachers do not differentiate their material* in respect of temperament, ability, bodily health, and home circumstances. Their rule of conduct is too rigid and uniform. They might with advantage, and in a literal sense, take a leaf out of the doctor's book, setting down the family and personal history of their pupils just as we do with our patients. Were that done, children would not be put to home lessons which their circumstances make impossible; those that err from disease would not be confounded with those that err from wickedness; and the timid and sensitive would not be struck. Masters tell us that no school can be kept in order without some caning. That may be or not; but it is not the caning that is complained of (although I believe the practice is more common in school and more often injurious than is supposed), it is that they cane the wrong boys, and are not sufficiently alive to the vast difference of temperament, even with near relatives, which makes the very same punishment tolerable, and even salutary, in one case, and detrimental in another. I think it is Marryat who describes two brothers so differently affected by the same incident—parting from home,—that while the one has his handkerchief saturated with tears and is of no further use, the other turns to him with, "Take mine, it's as dry as a bone." Such contrasts are common enough, but there is ample proof that school teachers too often ignore them. What is most to be desired is that those who can speak with authority upon educational questions should concern themselves with this matter of injurious schooling and its nervous consequences. There is at this season, as I have good reason to know, a vast sympathy for poor sick children; it finds expression in many ways, and would be ready to respond to any suggestion for making their lives less miserable. The children I am speaking of should enlist that sympathy to the utmost in their easy forgiveness of the injury that has upset them: cheerfulness under troubles that are apt to make their elders

[1] Report on Chorea, by Dr. Sykes, medical registrar, p. 248, vol. ii., Westminster Hospital Reports.

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irritable, and persevering, but abortive, efforts to utter words, to handle toys, or to smile their thanks. And if, not a doctor, but some prominent educationist would take up their cause and teach the teachers, the sum total of St. Vitus's dance would soon be sensibly lessened, and no more Christmas jeremiads would be needed on school-made chorea.

Wimpole-street, W.

CASE OF EXTIRPATION OF THE LARYNX WITHOUT PRELIMINARY TRACHEOTOMY.

By JORDAN LLOYD, F.R.C.S., M.B.,
SURGEON TO THE QUEEN'S HOSPITAL, BIRMINGHAM.

JAMES B——, aged fifty-one, brass-worker, was admitted into the Queen's Hospital, Birmingham, under my care, on Nov. 13th, 1884, having been sent to me by Mr. R. A. Fitch, of Camp Hill Dispensary.

History.—Difficulty of breathing began twelve months ago; stridor also noticed about the same period. No cause assigned for commencement of illness. Cough and expectoration during great part of the time. For three or four months he has had attacks of difficulty of breathing, sometimes very alarming to himself and his friends. Has lost flesh rapidly during the last two months. Has been under treatment at several hospitals. He has worked amongst brass for forty years, and has become so weak and emaciated that he can work no longer. His habits have always been regular and temperate. Had typhoid fever four years ago; no syphilis. No consumption or cancer in his family. Father and mother both died in their seventy-first year.

Present state.—Inspiratory laryngeal stridor and cough; expectoration varying in quantity, never profuse, and occasionally streaked with blood; harsh voice; inability to lie down; paroxysmal attacks of urgent dyspnœa. External examination shows nothing; no enlarged glands. The laryngoscope reveals a cauliflower-like growth of the size of half a walnut springing from the left side of the larynx and below the false cords. No adjacent œdema. Immediately after admission the house-surgeon was summoned hurriedly to him on account of laryngeal spasm to an alarming extent. The difficulty yielded to ether administration. The chest was examined by a medical colleague, and, with the exception of a few bronchial râles, was pronounced to be quite healthy. The man's condition was so distressing that he was eager to have anything done which would relieve him, and on Nov. 22nd I performed the following operation.

Operation.—Chloroform was given on a towel as he sat upright in bed; he was then carried to the operating theatre, and laid on the table. A three-inch median incision was made, with its centre opposite the middle of the thyroid cartilage, and extending at once down to the walls of the larynx. The exposed thyroid isthmus was tied with two ligatures, and divided between. All structures were now freed from both sides of the larynx with scissors, without opening its cavity. There was no trouble with the bleeding or with the breathing. A loop of stout wire was passed through the top of the thyroid cartilage to enable the operator to have full control over the larynx. The patient was then drawn up the table so as to allow his head to hang pendent over the end. The trachea was next divided just below the cricoid cartilage with Paquelin's cautery, and no bleeding took place. Into the cut trachea the end of a large curved glass tube, very much like an old-fashioned vaginal syringe, about five-eighths of an inch in diameter and eight inches long, was introduced for about two inches, completely filling the air-tube. This arrangement prevented blood from entering the trachea, and enabled the anæsthetiser to administer chloroform without interfering with subsequent manipulations. The thyroid cartilage was next split in the middle line, and the lateral halves rapidly removed with scissors. The cricoid was cut out, also with scissors, in a single piece. Bleeding was not severe. The blood flowed into the dependent part of the wound (pharynx and nares), scarcely a spot being drawn past the glass tube up into the air-passages. The superior laryngeal were the only vessels requiring ligature. The trachea was sutured to the skin at the lower angle of the wound, and a large-sized tracheotomy tube substituted for that of glass. The operation lasted about forty minutes. The patient was put in a covered bed, and ordered to be fed on nutrient enemata every three hours. When seen at night he had completely recovered from a slight amount of shock, and was breathing quietly, and wrote on a slate that he was quite comfortable.

Nov. 23rd.—Slept several hours during the night. Retains enemata. Was fed with an elastic tube into the stomach this morning.

24th.—Cough, restlessness, coarse râles and rhonchi over both lungs. Broncho-pneumonia set in, and, gradually increasing, he died on the 28th, six days after the operation.

Examination of the larynx showed a large intra-laryngeal outgrowth on the left side, probably of tubercular origin, and the necropsy revealed a condition of purulent bronchitis extending into the smallest bronchioles, infundibula, and pulmonary acini. Both lungs were everywhere studded with small miliary tubercles. There was no cellulitis about the wound.

Remarks.—I am led to publish the above as an additional case to those referred to at the meeting of the Clinical Society, held on Nov. 12th. I think it is interesting from the fact that no preliminary tracheotomy was performed, the course of proceedings above practised rendering it unnecessary. The larynx was freed from all lateral attachments before the air-tube was opened. The trachea was cut across with the cautery and plugged with a large bent glass tube. The patient's head hung over the end of the table, and allowed all blood &c. to escape from the lungs rather than into them. The removal with scissors expedited the operation and reduced the blood loss to a minimum. The broncho-pneumonia would have followed any other method of procedure. The case was originally thought to be one of laryngeal epithelioma; it presented all the signs of this condition, and the report on the state of the lungs supported this diagnosis. The operation of extirpation of the larynx I regard as a serious surgical experiment, and whether it will ultimately establish itself as a surgical desideratum in any case, time and further experience alone will enable us to decide.

Birmingham.

CASE OF GASTROSTOMY WITH TRACHEOTOMY FOR CANCER OF THE ŒSOPHAGUS AND LARYNX.

By JOHN PENNEFATHER RYAN, L.R.C.S.I., &c.

As a means of prolonging life in impassable stricture of the œsophagus the operation of gastrostomy had up to 1872 been performed (according to "Gross's Surgery," published in that year, only ten times—twice each by Sédillot, Forster, and Sydney Jones, and once by Fenger, Curling, Durham, and Maury. In none of these cases was the result encouraging, as all the patients died within a short time after operation, either from exhaustion or peritonitis. Since 1872 I am aware that there have been several cases in which life has been prolonged for some months occurring in the practice of Mr. Bryant and other surgeons, but of these I possess no record to which I can readily refer. In Gant's work on Surgery (1878), the most recent I possess, the author states, in writing of the operation (vol. ii., p. 368), that "it has hitherto always proved rapidly fatal." Possessing this meagre and not very encouraging information, it was with great reluctance that I recently undertook the operation, and then only at the urgent request of the patient (an elderly lady) and her near relatives.

Mrs. L——, aged sixty-one, a lady in good circumstances, first consulted me at the beginning of 1885 for a difficulty in swallowing, which was gradually increasing, and attributed by her to "spasm of the gullet." It was now impossible to swallow solid food, and liquids slowly and with considerable difficulty. Having made a careful examination and failed in passing even a small-sized catheter, I diagnosed a tumour of, or pressing on, the œsophagus, probably malignant, but possibly fibrous. Some weeks afterwards I again saw the case in consultation with my friend, Dr. Power of Brisbane, who concurred with the view I had taken, and we then discussed the propriety of an operation, but decided against it on the supposition that the disease was of a malignant nature. No hope of ultimate recovery

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being held out to the relatives, they consulted a German homœopath, who, although not understanding the case, said he could cure it. Having failed, an equally sanguine alopath undertook the cure, so that for several months I heard but little of the progress of events. On Oct. 24th Dr. Power, who had come to help me at an ovariotomy, again saw the patient, who was in an extreme state of emaciation and debility, not having been able to swallow even one drop of liquid for more than a week, life being sustained entirely by nutrient enemata. Dr. Power suggested a gastrostomy, and advised the friends to ask me to operate. I consented, and on the 26th, assisted by Dr. Power and Dr. Small (now practising in Geelong), performed the operation. The condition of the patient was one of extreme distress, as not only had emaciation advanced to the last degree, but respiration was rendered extremely difficult by pressure on, or invasion of, the larynx by the growth. Thirty minims of æther. sulph. having been injected hypodermically as a precaution against syncope, chloroform was administered, and, as the breathing became easier under its influence, it was decided to proceed with the gastrostomy without tracheotomy. The incision was what is known as the oblique, commencing about an inch below and to the left side of the tip of the ensiform cartilage, and extending downwards and outwards parallel to the border of the costal cartilages, about two inches distant from them. The peritoneum being reached was hooked upon a tenaculum, and then divided on a director with a suitably shaped scissors. The left edge of the liver being exposed, a finger was passed along it, and the stomach felt and seized with an ordinary polypus forceps; it was drawn into the wound and firmly held while it was carefully stitched with silver wire to the edges of the incision, care being taken to include the parietal peritoneum in each suture, the lowest of which was passed about half an inch below the inferior angle of the wound, thus effectually preventing any downward leak into the peritoneal cavity. At this stage of the operation, the heart's action becoming weak, a second hypodermic injection of ether was administered, with an immediately beneficial effect. As death seemed imminent from starvation, it was determined to open the stomach at once, which was accordingly done in the manner recommended by Mr. Fagan.[1] A narrow sharp bistoury was passed obliquely into the stomach, and along it a probe bent at a right angle about an inch from the point; the knife being then withdrawn, another probe similarly bent was introduced, and the two being gently pulled in opposite directions at right angles to the muscular fibres of the viscus, a No. 9 catheter was introduced, and the operation thus completed. During the entire proceeding little blood was lost, no vessel requiring ligature or torsion. At first it appeared as if the incision in the stomach would bleed freely, but it soon ceased, and was never alarming. A glass syringe, deprived of its piston, was now introduced as a funnel into the catheter, and about four ounces of warm milk allowed to gravitate into the stomach in this way effectually guarding against regurgitation, care being also taken to mop up with absorbent wool the few drops which escaped when the catheter was withdrawn. I may say that this plan of feeding was rigidly adhered to until union was firm and complete. The wound was dressed with soft absorbent wool, and a pad of the same applied over and secured by a flannel bandage. After the third dressing a piece of lint freely smeared with vaseline was applied directly to the wound, pad, and bandage as before. On recovering consciousness the patient complained of acute pain at the seat of operation. This was soon stopped by twenty drops of laudanum given with the usual nutrient enema. As it seemed advisable not to tax the stomach at first, the nutrient enemata were continued at intervals of six hours, and only warm milk in gradually increasing quantities, given by the stomach, till on the fourth day a pint and a half was thus taken, and the same quantity on the fifth, after which beef peptonoids were mixed with the milk, and other articles of diet, such as beef-tea, eggs, &c., allowed. For three days it was necessary to use the probes in the manner before described, in order that the catheter might be passed; but after that it was introduced with comparative ease, though at no time did any but slight regurgitation occur. On the fourth day the enemata were finally discontinued, the patient expressing herself as feeling stronger and experiencing a comforting sensation after being fed. The dyspnœa, however, which at first seemed much relieved, was gradually increasing, and on Sunday, Nov. 1st, its urgency compelled me to perform tracheotomy, which gave immediate relief. On the twelfth day I removed all the sutures (eight securing the stomach and two uniting the upper part of the abdominal wound), as union was then perfect and firm.

During the progress of the case there had been no symptom of peritonitis, nor since the first few hours had there been any pain. The patient was gaining flesh rapidly, and was able to sit up in bed. It would now have taken some force to dislodge her wedding-ring, which before the first operation was constantly falling off the shrivelled finger which had worn it for about forty years. On the seventeenth day she was able to walk from the bedroom to the dining-room and was improving rapidly in every respect. She expressed herself (on slate) as feeling perfectly comfortable and at rest. It was now reasonable to suppose that life might be prolonged for some time to come. In any case the two operations seemed justified by the result up to date, and my only regret is that both were not performed earlier, my excuse for not doing so being that, owing to circumstances before mentioned, I lost sight of the case for more than six months. The pulse was now 80, the tongue clean and moist and otherwise normal in appearance, although before the tracheotomy it most resembled a piece of petrified raw beef. To the admirable paper by Mr. Fagan, F.R.C.S.I., surgeon to the Royal Hospital, Belfast,[2] I am indebted for the useful practical hints as to the incision and the mode of opening the stomach. To the careful and intelligent nursing by her daughters, and to the wonderful vitality and pluck of my patient, the success of both operations must in great measure be ascribed.

The foregoing notes were written on the seventeenth day after the operation, and express all I then knew of gastrostomy and its statistics. Since then I have naturally taken some interest in acquiring all the information attainable on the subject, which I have found condensed in THE LANCET of Dec. 5th, 1885, in the report of a discussion at the London Clinical Society on Nov. 27th. I will merely quote the remarks made at this meeting by Mr. B. Jessett, and then proceed to give a short account of my case from the seventeenth day to June 5th, 1886, when death took place, seven months and eleven days after the gastrostomy, which was followed by tracheotomy on the sixth day.

"Mr. B. Jessett asked the question whether gastrostomy was justifiable. He thought, as the result of examination of several series of statistics, that it was not. Gross of Philadelphia had collected 167 cases, and 117 died within one month. Mr. Jessett had collected sixty cases of œsophageal cancer; in thirty-five gastrostomy had been performed, the average duration of life after operation was twenty-six days, and the longest duration was five months. This was the case that Mr. Charles Stonham had shown before the Clinical Society last session."

My patient quickly regained flesh and strength, and for more than five months her second life was free from pain and as enjoyable as possible, considering the artificial means which had been adopted to secure it. The swelling in the throat slowly but surely increased, until it became too evident that the larynx and trachea were extensively invaded by the disease. About the beginning of the sixth month distressing and frequent attacks of spasmodic dyspnœa occurred. These were greatly relieved by steam inhalations medicated with chloroform and hyoscyamus, to which, after a while, was added acid. hydrocyanic. dil. (two or three drops in each inhalation), with excellent effect. There was little or no pain until about a fortnight before death, when she was allowed to take occasional doses of laudanum, with, however, but little relief. During the latter two months hæmorrhage occurred on several occasions from the tracheal wound, and once in alarming quantity from the mouth and nose. Towards the end she took but little food, as it seemed to cause "pain in the chest." There was no fetor from the expectorated matter or saliva, both of which were considerable.

The post-mortem examination, made six hours after death, revealed a cancerous mass extending from the spine forwards, completely obliterating every trace of the œsophagus for several inches, and involving the larynx and trachea to such a degree that the tube was embedded in the neoplasm, which had also extensively infiltrated the skin and

[1] British Medical Journal, Oct. 4th, 1884.

[2] Ibid.

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other tissues in front. The stomach was firmly adherent to the abdominal wall, in which was seen the small fistulous opening through which life had been solely sustained for more than seven months.

At the Clinical Society of London, on Nov. 27th last, Mr. Barwell read notes of a very similar case, in which a gastrostomy performed on April 25th was followed by a tracheotomy on July 21st, the patient surviving the former operation nearly five months, and the latter nearly two. The necropsy demonstrated the existence of a cancerous mass which "extended back to the spine, and all but filled the œsophagus from a little below the cricoid cartilage to a level with the tracheal bifurcation; it had also grown into the trachea opposite the fourth cervical vertebra." Dr. T. F. Chavasse of Birmingham, in an excellent clinical lecture on Gastrostomy for Œsophageal Cancer,[3] reports a case where the patient survived the operation nearly six months. In this case the obstruction was six inches from the upper dental arch, but not impassable, as on Dec. 7th, more than four months after the operation, we read "the patient's swallowing has much improved, and now nourishment passes freely into the stomach after 'sticking a bit.'" There is no account of the necropsy. Comparing these cases with Mr. Dent's (the notes of which were read on the same occasion as Mr. Barwell's), it seems to me that the higher the seat of disease the better is the chance of prolonging life by operation, and this consideration should greatly influence the surgeon when deciding whether to operate or leave nature to take its course. The operation is neither a very difficult one nor nearly so trying to the pluck and resources of the surgeon as an average ovariotomy. The incision should be kept well away from the costal cartilages, or trouble will be caused by retraction of the upper flap. The stomach should be seized above the lower border of the great curve and drawn into the wound in such a way that the point of seizure may be that at which the final opening is made. It is of importance that a considerable area (say about the size of a five-shilling piece or larger, though of course not the same shape) of stomach should be within the ring of sutures in order to allow for subsequent contraction, which is considerable and rapid (in my case at the end of three weeks the portion exposed was not the size of a sixpence), and to permit of firm stitching. The opening should be a narrow slit made as described. Only small quantities of food (milk) should be given by the stomach and at considerable intervals (say six or eight hours) for several days, during which time the nutrient enemata must be continued. Any regurgitation must be instantly mopped up with absorbent wool laid round the opening where the catheter is introduced. Until union is firm and complete the milk should not be forced into the stomach, but allowed to gravitate in a manner like that which I adopted.

Gympie, Queensland.

A CASE OF

APHASIA FOLLOWING A DEPRESSED FRACTURE OF THE LEFT SIDE OF THE HEAD.

BY GEORGE R. TURNER, F.R.C.S.,
VISITING SURGEON TO THE SEAMEN'S HOSPITAL, GREENWICH.

ALEXANDER F——, aged twenty, was admitted into the Seamen's Hospital, Greenwich, on June 7th, 1883. He was in a drowsy, sleepy condition, requiring to be roused and shouted at before he would answer, and then did not apparently understand what was said to him. To every question asked he answered, "No," and this was the only word he could articulate. There was a granulating scalp wound in the left parietal region, which was nearly healed. Around this, to the extent shown in Figs. 1 and 2, was a depression of the subjacent bone. At the fore and upper part of the margin of this there was some little elevation, which made the neighbouring depression appear deeper than it really was. The whole depression was bowl-like; it had a curved lower border, extending from some two inches behind the external angular process upwards and backwards nearly to the sagittal suture, an inch or more above the summit of the occiput. The greatest depression was perhaps less than half an inch. The patient lay in bed on his side, curled up, with the legs flexed on the thighs and the thighs flexed on the abdomen. The pupils were equal, and responded to light; the bowels constipated; the pulse slow. The scalp-wound rapidly healed, and he became more intelligent. It was then found that he was deaf on the affected side, and that there was some slight loss of

FIG. 1.



grasping power on the right side; otherwise there was no evident paralysis.

The correct history of the case could not be obtained at the time of the patient's admission. Except that the injury was three weeks old, and that he had been in a hospital at Flushing, nothing could be ascertained. The Flushing authorities, on being written to, reported that he was admitted in a state of unconsciousness, but recovered his senses and power of speech in a few days, though only for a

FIG. 2.



while, as he remained in a state of heaviness till he left, eighteen days after the accident and four days before admission into the Seamen's Hospital. This report, given only from memory, as no written notes were taken, differs somewhat from the account subsequently obtained from the man. The injury was inflicted by a windlass striking his head during a gale at sea.

In a week or ten days after his admission into the hospital he could say the word "yes," and used both it and the negative appropriately. In a month or so his il-

[3] THE LANCET, Feb. 20th, 1886.

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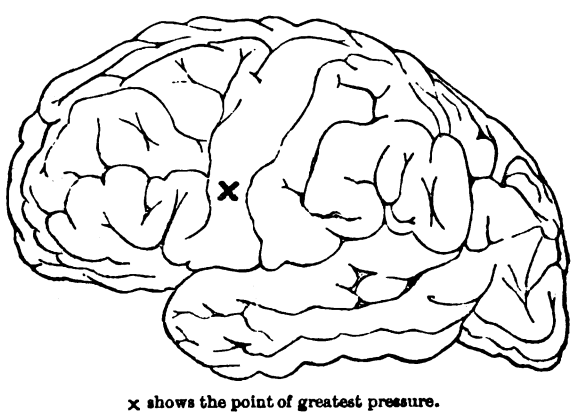
telligence appeared to be perfect or nearly so, though he could still say but few words. He collected some money and bought himself some boots, explaining to me by signs what he wanted to do. On my telling him that I wanted him photographed he at first objected, and when I asked him if he understood me he replied by putting himself into an attitude as if he were being taken, and imitated the camera. About this time, on being told to write, he made "pothooks" and "hangers." After this came a time when he wrote "yes" and "no" (the first words he could say), sometimes misplacing letters or running the words into each other. He could play draughts and dominoes, and corrected the mistakes of other players. His use of words gradually increased. He required teaching like a child to pronounce them distinctly, and sometimes misplaced them—saying, for example, "scissors" instead of "sister." He could soon write words that he could not speak or apparently remember—e.g., his name and birthplace. He was very emphatic in his utterance and annoyed at his mistakes. There was a want of grammar in the construction of his sentences, and he used only the important words. At first he was unable to count more than "one" and "two." On being taught, he acquired this with facility, but could not say "seven," "eleven," or "fifteen." He got over his difficulty by saying "six one," "ten one," "ten five." Occasionally in counting he put the numerals in the wrong order, but was aware of and annoyed at his mistake. When he saw figures written, he knew what they meant; for instance, on one occasion he told the sister that I was in "ten five" ward. He could read, and understand what he could not say. One day, whilst out of the hospital, he was given some port wine, which "got to his head." On being asked what he had had, he went to a notice, "that no wine, beer, spirit, or porter, &c., was allowed to the patients without permission," and covered up the last syllable of porter. He was easily taught to say the word, and could repeat it after one. It was about this time (Oct. 26th, 1883) that I showed him as a living specimen at the Clinical Society. Mr. Adams Frost was kind enough to examine his eyes, and reported as follows: "As far as I can ascertain, your patient's vision is $\frac{6}{6}$ in each eye. The visual field is good in each, and the ophthalmoscopic appearances are normal." Sir William Dalby kindly examined him as to his deafness on the left side, and reported that its cause was central, "such as you meet with in concussion." He had an attack of scarlet fever, and was in the Fever Hospital, Stockwell, from Nov. 9th, 1883, to Jan. 16th, 1884. His aphasia slightly improved during this time. On his return he used to make himself useful about the hospital. He was often sent by the patients outside the hospital to buy tobacco, and was perfectly well aware of the value of money; as proof of this, it may be mentioned that he found a post-office order in one of the corridors and brought it to the house-surgeon.

March, 1884.—Shown a shilling, he calls it a "bob"; writes the word "shilling," but is incapable of pronouncing it. When words are repeated to him with a view of teaching him, there seems to be actual inability to regulate the requisite movements of the vocal muscles for articulation. (This was occasionally the case in November, 1885.) Learns new words imperfectly, and on returning to them after an interval the same process has to be repeated. (In Nov. 1885 there was great improvement in this particular.) When told to copy two verses of a song in which such words as "fascinating," "misfortune," "consequently," and "panorama" occurred, he did so with the exception of two mistakes, which he was afterwards able to correct. He cannot repeat the alphabet beyond *f*. When letters of the alphabet were placed in order, he could repeat and give their names, with the exception of *h*, *l*, *m*, and *z*, and it was found that he was incapable of pronouncing any word in which any of these letters formed a prominent element. (His condition was the same in November, 1885, but he could pronounce words containing these letters better.) When letters were placed before him indiscriminately he could only pick them out in order up to *g*, but knew the names of several others. (Nov. 1885: He can now pick them all out, and name them all, except *h*, *l*, *m*, and *z*.) Can count up to "ten," with the exception of "seven." (Nov. 1885: Can count up to "one hundred.") He can do a simple sum in addition, but has some little difficulty when he has to carry a number. (Nov. 1885: Just the same.)

November, 1885.—His memory appears now to be quite natural, whereas about a year ago he could give no details as to his early history, the accident, or admission into the hospital. He says now he ran away to sea on account of ill treatment from an aunt at home, and gives details of this. He is able to give a clear account of his accident: that a heavy sea came overboard, washed a companion away, and took him off his legs; that he was whirled round by the winch until the handle broke. He has no memory of Flushing, but remembers coming to Greenwich on board ship; vomiting after taking tea, &c.; being carried from the river to the Seamen's Hospital by the captain, mate, and two other men; his reception at the hospital by a gentleman whose person he accurately describes, and who, it happened, was doing house-surgeon's duty for the day; he remembers also being asked his name by Mr. Johnson Smith, and being unable to answer, although he knew it perfectly. He still uses a few signs and occasionally comes across words which he can write down but cannot say—e.g., "*Village Belle*" (the name of his ship), "knife," "blotter." When told to spell the latter word, he spelt "biotter," yet wrote it down "blotter." Is able to name common objects about the room. His vocabulary is altogether more extensive. His left hand is now his best; formerly he was right-handed. Writes from dictation and copies much better than he did. In copying, he looks at the words and writes them straight off. He does not copy each letter. He can hear every note in the chromatic scale, and can sing every note within his compass which ranges from C below the treble stave to F on the fifth line. He can sing several airs—such, for instance, as the favourite tunes he has learned from hearing them sung in the streets. He has a tolerably good ear for music.

Present condition.—There is still paresis of the muscles of the right upper extremity, lower part of right side of face, and right side of tongue. The ring finger of the right hand is also colder than the other fingers. Since he left the hospital some months ago his speech does not appear to have improved. Mr. Victor Horsley was kind enough to examine the patient for me, and satisfied himself that "pressure is still exerted on the centres for speech, face, and arm." The point of severest pressure (just under the overhanging edge of the upper border of the bowl-like depression) is in the ascending frontal convolution nearly at the point of junction of the face and speech centres. The lower border of the depression follows the Sylvian fissure as nearly as possible.

FIG. 3.



x shows the point of greatest pressure.

This case was no doubt originally one of compound depressed fracture of the skull. When the patient was admitted into the Seamen's Hospital the aphasic condition was not at once recognised; he seemed to be in a state of slight cerebral irritation and semi-drowsiness, and this for a short time masked the aphasia and paresis of the right upper limb. Any want of intelligence or consciousness of what was passing around him was more apparent than real, as proved by his subsequent accurate description of the details of his admission. He began very soon to regain his speaking power. The depression of the skull was not very deep, and extended over so large an area that trephining did not seem to be urgently indicated as long as he continued to improve. (See Fig. 3.) The patient, too, has throughout been adverse to any operation, and it was three weeks after the accident that I first saw the case. Now that he is no

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longer taught to speak new words his condition remains the same, and all improvement seems to have ceased. He still, however, refuses operation.

I have been able to obtain the following cases of aphasia resulting from injury. The case of Mr. Jalland and that of Surgeon Basu most nearly resemble mine:—H. Campbell Pope, M.D., and Rickman Godlee, M.S.: "A case of punctured wound of the left orbit, followed by aphasia; recovery." (THE LANCET, June 19th, 1886.) Professor Fraser: "Aphasia from injury; subsequent hemiplegia; trephining; death; necropsy." (THE LANCET, Feb. 27th, 1886.) Mr. Morgan: "Compound depressed fracture of skull, with loss of cerebral substance; aphasia." (*British Medical Journal*, vol. i. 1885, p. 1155.) Mr. Verrall: "Aphasia after injury." Read at the Brighton and Sussex Medico-Chirurgical Society. (*British Medical Journal*, Sept. 1884.) Kast: "Aphasia, with loss of ear for music." (Mentioned in THE LANCET of Nov. 6th, 1886, p. 878.) Basu: "Compound depressed fracture of skull; aphasia; right hemiplegia." (*Indian Medical Gazette*, Calcutta, 1880, vol. xv., p. 99.) Mr. Jalland: "Compound fracture of skull; elevation; aphasia." (*British Medical Journal*, vol. ii. 1881, p. 706.) Rex: "Fracture of skull; hernia cerebri; aphasia; hemiplegia" (Oregon Medical Society, Portland, 1882, vol. ix., p. 40.) Lloyd: "Compound depressed fracture of skull; eight square inches of bone removed; wound of longitudinal sinus; secondary aphasia; embolic pneumonia; complete recovery." (THE LANCET, vol. ii. 1885, p. 892.)

Mr. Verrall's case was one of several attacks of aphasia, lasting for twenty-four hours and upwards, following a blow on the occiput. There was some slight right hemiplegia. Complete recovery took place in five weeks' time.

The case of Mr. Morgan of Sunderland was one of aphasia following a compound depressed fracture of the left parietal bone, in which elevation was practised. A wound of the superior longitudinal sinus occurred, and hernia cerebri followed. The aphasia came on thirteen days after the operation, and was permanent. There was also permanent right hemiplegia.

In Professor Fraser's case, although the aphasia followed a blow on the left side of the forehead, it was found on post-mortem examination to be due to a glioma involving the temporo-sphenoidal lobe and Broca's convolution.

In Mr. Jalland's case there was a compound comminuted depressed fracture a little above the left ear and temple; dura mater uninjured. Elevation of depressed portion of bone was practised. Subsequent aphasia was discovered on the patient recovering consciousness; slight left facial paralysis; deafness for ten days; unable to repeat from memory; broke down at fifth letter of alphabet, fourth word of Lord's Prayer, &c.; could not write from dictation, &c. Recovered completely in all respects in less than two months. This case more closely resembles the one I have related than any of the others.

In Mr. Lloyd's case the patient was conscious, but could not speak, Broca's convolutions being compressed by blood-clot, which was subsequently removed. There was an almost complete disappearance the following morning of the hemiplegia and aphasia, pointing to absence of gross lesion of the brain tissue itself. These symptoms returned, however, on the fourth day, and subsequently somewhat rapidly disappeared.

Surgeon Basu's case was that of a Hindoo struck on the head with a "lathi." Insensible for two days. Right upper limb completely paralysed. On recovering his senses he was found to be aphasic, answering "Yaam" to all questions. He understood fairly, and expressed his desires by hints and gestures. He had a contused wound in front of, and internal to, the left parietal protuberance; at the bottom of this was a depressed fracture of the skull, said to be one-fifth of an inch deep. The aphasia got well first, and then the paralysis of the arm. It should have been mentioned that on admission his tongue pointed to the left when protruded.

Dr. Charlton Bastian, who saw my case at the Clinical Society, kindly showed me a photograph of a man who had a depression on the right side of his head. "This man was not aphasic at all, though he was partially hemiplegic on the left, and subject to unilateral convulsions on this side; the depression in his case was more uniform, and, I think, a trifle deeper than in yours." The above is an extract from a letter of Dr. Bastian to me.

THE SURGICAL TREATMENT OF ACUTE ABDOMINAL DISEASE.

BY WILLIAM COATES, M.R.C.S. ENG., L.R.C.P. ED.

THE contributions that have recently appeared in THE LANCET on the above subject are full of interest and information, especially those by Mr. Lawson Tait and Dr. Wade, which must engage the particular attention of the profession. As it is suggested that some diseases which have hitherto been left to the resources of medicine can be more successfully treated by the surgeon, it is clearly a duty that any case which bears at all upon the subject should be placed upon record. Such being so, perhaps the narrative of the following two cases may be considered worthy of perusal.

CASE 1.[1]—*Perforation of a small stone through the vermiform appendix, followed by acute fæcal abscess and general peritonitis; operation; death.*—H. F——, aged eighteen, a young woman, came under observation on Jan. 11th. She was a member of a healthy family, and had never been seriously ill. Five days before coming under my care, whilst in service, she was suddenly seized with acute general abdominal pains, which were the most severe on the right side, and continued for about six hours. She was free from pain and slept well during the night, and, though feeling a little soreness, resumed her duties on the following morning. During the afternoon the pain returned in the right side of the abdomen; it gradually spread all over the bowels, which became constipated, and she began to vomit. Purgatives were administered, but, becoming worse day by day, she was sent home in a cab, a distance of several miles. When first seen on the evening of the above date she was exhausted after the journey and very ill. Her face was pinched and expression anxious; tongue dry and furred; temperature 103°; pulse 130, small, quick, and thready; chest healthy; knees drawn up; and she complained of acute abdominal pain and vomiting. The abdomen was distended, tympanitic, and painful. The pain was severest in the cæcal region, but no swelling or resistance was detected. The rectum, loaded with fæces, was relieved by simple enema, opium administered, and poultices locally employed. On the 12th her condition was unaltered. On the 13th there was abdominal distension, and the pain on pressure over the cæcal region and the general signs of peritonitis were decidedly increased. On the 14th the temperature was 103·2°, the pulse 120, and the vomiting and abdominal pain more severe. There was a decided sense of deep-seated resistance in the cæcal region, where pressure produced much pain. No swelling could be felt per rectum. There was retention of urine. On the 15th the temperature remained high, the pulse rapid and small, and the vomiting was exhausting her. The abdomen was more distended, and in the cæcal region, covered by tympanitic bowel, in a position where pressure was most resisted, an obscure swelling could be felt. Under chloroform the swelling was more defined, apparently deep seated in the iliac region. It could not be felt per vaginam. On introducing the aspirating cannula into the swelling a few drops of offensive pus oozed out, but nothing was drawn into the aspirator. An exploratory incision about three inches in length was made, beginning a quarter of an inch above the middle of Poupart's ligament and extending obliquely upwards and outwards above the anterior iliac spine, and a dissection made upon the swelling. Out of it about five ounces of offensive fæcal pus were evacuated. On introducing a finger, it entered into a large irregular cavity around the cæcum, from which a small stone about a quarter of an inch in length was removed. This was oval in shape, and composed of fæcal matter arranged in a laminated manner, and surrounded by a hard, dense phosphatic layer. There was a small opening into the peritoneal cavity, which possibly was made during the dissection upon the swelling. As no post-mortem examination was allowed, the exact condition was never determined, but the distended bowel immediately over the swelling appeared to greatly increase the risks of wounding the peritoneum. The patient's condition appeared too critical to permit any extension of the operation, so the cavity was washed out with carbolic solution, drainage-tubes intro-

[1] This case was mentioned before the Manchester Medical Society on Feb. 3rd.

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duced, and the wound dressed. After the operation the patient rallied, her symptoms having been decidedly relieved; but after a time the vomiting returned, and she gradually sank, dying in twenty-four hours.

CASE 2. *Obscure abdominal symptoms and death, caused by localised enteritis set up by a fish-bone.*—M. W——, aged seventy-one, the subject of chronic bronchitis, was as well as usual until Feb. 5th, when she complained of indefinite pains. These becoming worse, she was first seen on the 7th. Defective articulation made it difficult for her to describe her symptoms; but she was suffering from pains in the abdomen, which region, however, was neither distended nor very tender. The temperature was 98·4°, the pulse 100, and the tongue a little furred. A calomel purge, sedative mixture, and hot fomentations were employed. On the following day the bowels were relieved, but there was slight abdominal distension, with some tenderness. The temperature was normal, but the pulse was 110. On the 9th the abdomen was more painful, vomiting set in, and she died rather suddenly, probably from syncope, ninety hours after the first onset of symptoms. On opening the abdomen post mortem, a discoloured portion of bowel eight inches in length was found at the junction of the jejunum and ileum. The central four inches of this were acutely inflamed and somewhat indurated, but not at all gangrenous. The sharp end of a small fish-bone (¾ in.) was projecting through the wall of the bowel into the peritoneal cavity, and this had originated the mischief. The large intestine was occupied by hard fæces, and in the descending colon a large fish-bone (2½ in.) was discovered travelling safely. The small intestine contained a large quantity of a chymous fluid, which looked very much like pus, but under the microscope it showed vegetable débris—starch granules and stray phosphates. There was no fluid or lymph in the peritoneal cavity, nor other sign of peritonitis, except slight hyperæmia in the immediate neighbourhood of the inflammation.

The age of this patient and the existence of subacute bronchitis precluded the advisability of resorting to operation; but if in a similar case in a younger subject an exploratory operation were performed, the foreign body irritating the bowel might readily be detected and removed, the bowel itself dealt with, and a chance of recovery afforded. It is interesting to note that the fish-bones had escaped digestion, and that the larger bone was travelling safely in the midst of a mass of faces, whereas the smaller one, happening to be in a portion of the bowels where the contents were fluid, was arrested by contact with the wall of the bowel, exciting local inflammation in and penetrating through it. This fact favours the administration of astringent rather than purgative medicines after the accidental swallowing of foreign bodies.

Referring to Case 1, it is reasonable to suppose that, had its nature been clearly recognised at an early stage, before the occurrence of acute peritonitis, an operation such as the one performed might have been accomplished without further injury to the peritoneum, and with a fair prospect of success; or even at the later stage, when first she came under my care, before the iliac swelling was detected, if the abdomen had been boldly opened, the pus might have been evacuated, the abdomen thoroughly cleansed, free drainage established, and recovery hopefully looked for. But, on the other hand, what would have happened had the surgical treatment been left alone? Could not life have been sustained long enough by nutrient enemata &c. until the near approach of the abscess to the surface allowed a safe incision? Cases of perityphlitis are readily recalled to mind where, after patient waiting, the swelling has made its way to the surface, and a simple incision has ended in recovery. But in these cases the peritoneal complication is usually of a milder type, and so they compare unfairly with the above.

The treatment of acute abdominal disease, now that surgery claims a part in it, is surrounded by difficulties, especially to the general practitioner. The consequence of an unsuccessful operation to him is of much importance; but still no operation must be shirked which promises to relieve suffering and prolong life, and still more should he avoid operation where such is not necessary to recovery. Modern surgery lessens the risks of these great operations, but how must the cases be decided in which it is justifiable to perform them? If an operation be delayed until after the failure of medicine the prospects of successful surgical interference are greatly minimised, whereas if a much larger proportion of the cases are treated surgically many will have to submit to an operation which would have recovered without. Every week cases of acute abdominal disease come under notice—some mild, others most severe,—and the larger proportion by far recover. Even the most violent case is not without hope. That being so, the responsibility of advising an exploratory operation is indeed very great, and the practitioner at present looks in vain for some standard rules to guide him. More accurate and detailed observation of the course and symptoms of these diseases, and the cultivation of the art of more minute diagnosis, must eventually make it possible to differentiate between those cases which will yield to medicine alone and those which demand the assistance of surgery. Meanwhile, it might be a good rule for guidance to imagine ourselves to be the patient, and to operate accordingly. It is hoped that the above cases may be of use to those who are working at the subject.

Manchester.

NOTES ON

ENTERIC AND TYPHO-MALARIAL FEVER.

BY SURGEON-MAJOR H. JAGOE, M.S.

THE discussion at the Medical and Chirurgical Society on enteric fever at Suakim, reported in THE LANCET of Feb. 13th, 1886, induces me to forward this communication, with the hope that it may prove interesting.

The cases and necropsies which I give are from notes taken in Zululand, Afghanistan, and India, and the temperature charts attached to elucidate the cases are two out of a very large number that I took to try to clear up the distinction between enteric and what is called typho-malarial fever. I agree with Dr. Squire that the large majority are as clear and distinct cases of enteric fever as those seen in this country, but I doubt very much the advantage of the term "typho-malarial" to express a fever which, to my thinking, is far more fairly expressed by the name "bilious-remittent." As Dr. Broadbent stated, there is nothing typhoid about it, "nothing in common with enteric fever, if we except the fact of a protracted high fever with some intermissions." There is a protracted fever of about forty-six days, with an interval of eleven days, during which there is a total absence of any rise of temperature; or in its course there may be two intermissions. It has been suggested that these are mild cases of typhoid with relapses, but there is not a single symptom of enteric fever about them; on the contrary, they seem to be more of a bilious-remittent type. There is frequently yellow tinging of the skin and conjunctivæ, often vomiting, and the tongue pale, clean, sometimes coated with a yellow fur, and frequently large and indented by the teeth; at no time is there any degree of the red irritable, and contracted tongue of enteric fever, or any other mild characteristic symptom of the disease. These are the class of cases that I understand it is proposed to call, or have been called, "typho-malarial." I have never seen a death caused by them, if I except one patient who died during the last march into Candahar on Sept. 18th, 1879. Chart 1 shows the last nine days of the fever; the previous eight days had been spent under the care of the regimental surgeon. The patient was very much in the condition described above when admitted into the field hospital. There was diarrhœa; the upper surfaces of the conjunctivæ were slightly jaundiced; there had been some vomiting; and the pulse was small and weak (about 86); the tongue was moist, large, and indented by the teeth. The man was perfectly sensible and intelligent up to half an hour before his death. In Candahar I could only make a very hurried necropsy, but I found the lower part of the ileum perfectly healthy, not even congested; the liver and spleen were enlarged, but I had no means of weighing them.

The cases above referred to are very different from that shown in Chart 2, which may appropriately be termed "typho-malarial," or, without using this compound, is fully accounted for by Trousseau when he states that enteric fever in its early stage may simulate malarial fever. Here, at all events, was a case of enteric fever in which the morning temperature was normal on the ninth, tenth, and eleventh days of the disease, while in the second week the variation between the morning and evening temperature ran from three to four degrees. The stools were not considered to be like those of typhoid, but on the fifteenth day spots, both rose and blue,

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were noticed; the tongue was dry, brown, and cracked, and the nervous stage was well developed; on the twenty-fifth day the man died from intestinal hæmorrhage. The necropsy, contrary to what one might expect from Surgeon-Major Meyer's suggestion, showed Peyer's patches and solitary glands ulcerated for a distance of six feet above the valve; the hæmorrhage came from a patch a few inches above the valve. But I presume this last type of case is not the kind that is called "typho-malarial"; it seems to me that one meets few of them, and the fact that they have been noted renders it almost unnecessary to introduce a new term for them. Surgeon-Major Meyer's remarks are those held by many medical officers in the Army, and are, I believe, to the effect that because some important symptom or symptoms are absent the case cannot be one of enteric fever, and the lesion after death, because it is confined to the lower six inches or so of the ileum, which is thickened and extensively ulcerated, is asserted not to be the ulceration of typhoid. I cannot explain why the ulceration should be so limited; but undoubtedly in some cases it is so, and there is nothing beyond but some degree of congestion.

The conclusions I am inclined to arrive at, after twelve years' experience and notes in tropical and subtropical climates, are: (1) That enteric fever is in the very large majority of cases as readily recognised abroad as at home. That some cases of enteric fever are masked by malaria, chiefly at the onset, but that some enteric fever symptoms will become prominent at some stage of the disease, and when death occurs the character of the gut lesion will, I believe, disappoint those who expect it to differ from that in the most easily recognised case. I have notes of a case that was not returned as enteric fever, though to my thinking some symptoms of the disease were present; during a relapse on the forty-seventh day of the disease phlegmasia dolens of the left leg occurred, which strengthened and verified the belief that it was a case of enteric fever. (2) That what is called "typho-malarial fever" would be more aptly expressed by "bilious remittent." (3) That what I understand by the affection termed "typho-malarial fever" causes almost no mortality; I never saw a death from it in nine years' Indian service.

Londonderry.

CHART 1.

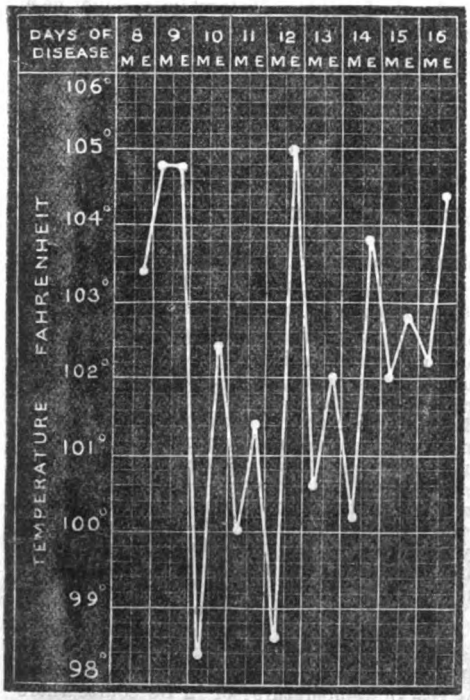
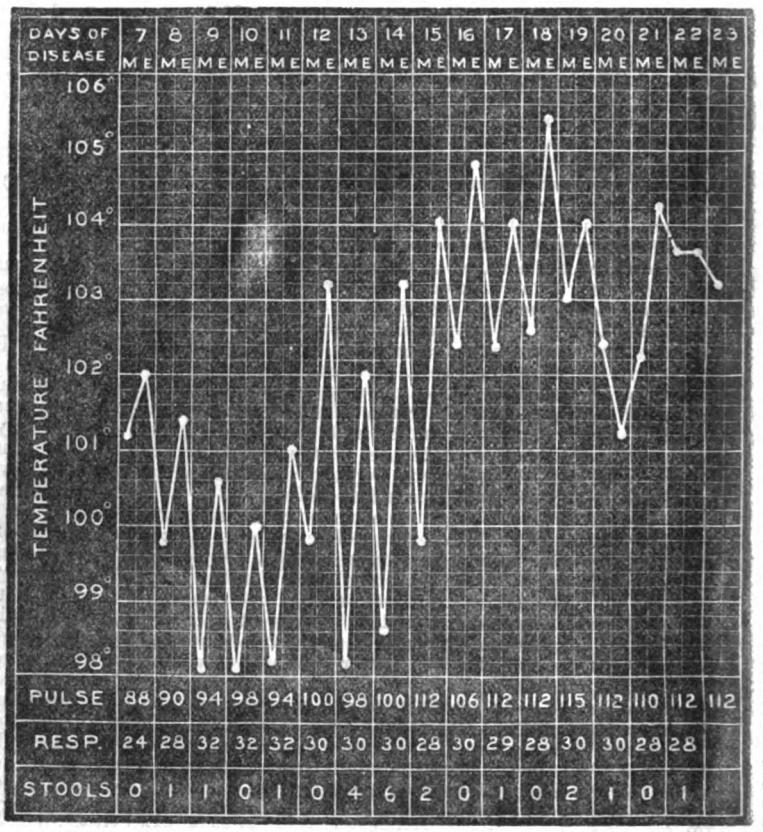


CHART 2.



AN INQUIRY INTO THE SEVERE SYMPTOMS OCCASIONALLY FOLLOWING PUNCTURE OF HYDATID CYSTS OF THE LIVER.

BY LAURENCE HUMPHRY, M.B.,
ASSISTANT-PHYSICIAN TO ADDENBROOKE'S HOSPITAL, CAMBRIDGE.

IT is a familiar fact that an outbreak of urticaria or an erythematous rash not uncommonly appears on the skin of patients a few hours after puncture or tapping of a hepatic hydatid cyst. This may be the only discomfort experienced, but occasionally symptoms of an urgent nature, or even fatal, occur within a few minutes after the most simple operation on these cysts. An instance in which the symptoms were very alarming, occurred in a patient lately under my care in Addenbrooke's Hospital.

G. S——, a tailor, aged twenty-three, living at Newmarket, was admitted on July 14th, suffering from well-marked jaundice, and with a painless enlargement of the liver. The upper limit of dulness was at the fourth rib, and the lower border of the liver could be felt a hand's breadth below the ribs. In order to clear up the diagnosis, a hypodermic needle was inserted at the eighth interspace in the mid-axillary line, and half a drachm of clear hydatid fluid drawn off. The patient hardly felt the puncture, but a few minutes after he was seized with extreme faintness and dyspnœa, his face became livid and pale, and his lips blue; he vomited two or three times, and the pulse failed at the wrist; his extremities became cold, and the heart sounds were almost inaudible. Stimulants were given and a sinapism applied over the heart, but he remained in this collapsed condition for nearly half an hour. A profuse irritable urticaria then appeared on the abdomen and legs, and on the extensor aspect of the arms. The chest and face were free from eruption, but were covered with a copious sweat. The rash persisted for a few hours, then gradually subsided, and the

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patient had fairly recovered by the next morning. Rather more than a fortnight afterwards, there being no alteration in the size of the cyst, I was anxious to aspirate; but being apprehensive of a recurrence of the previous urgent symptoms, it was decided, with the hope of averting them, to inject subcutaneously a small dose of atropine before the operation. A fiftieth of a grain was given hypodermically, and fifteen minutes afterwards the aspirator needle was introduced and nineteen ounces of clear hydatid fluid drawn off. The patient had no bad symptoms, although he was in great alarm, and soon afterwards the jaundice disappeared, the cyst contracted, and he left the hospital well.

It occasionally happens that puncture of a hydatid cyst of the liver is immediately fatal, and I remember once to have witnessed such an unfortunate accident. A fatal case was recorded by Mr. Bryant in the Clinical Society's Transactions, vol. xi., in which sudden death occurred five minutes after the operation of tapping a hepatic hydatid. Three cases are mentioned in Dieulafoy's treatise on Medical Aspiration, in which the patient was seized with intense dyspnœa, and urticaria soon after tapping these followed by the appearance of an erythematous rash or urticaria the following day, with rise of temperature and sore-throat, were observed. I am not aware that these complications have occurred after puncturing other tumours of the liver or in suppurating hepatic abscesses, and the assemblage of symptoms closely resembling those sometimes met with after eating shell-fish would point to the conclusion that the contents of a hydatid cyst contains some poisonous substance which obtains entrance to the system at the time the cyst is punctured. In the hope of determining this, I presented some of the fluid from the cyst after aspirating my patient, and asked Professor Roy the same day to inject it into the peritoneal cavity and veins of some animals. This he kindly did with me, with the following results:—

1.—An injection of 6 cc. of hydatid fluid was made into the jugular vein of a guinea-pig, previously chloroformed. This was followed by some increased frequency of respiration, and the heart's beats were observed to be slowed. A further dose of 8 cc. was given, with the same result. Very slow recovery ensued from the narcosis. The animal was killed within about one hour.

2.—An injection of 6 cc. of the fluid was made into the peritoneal cavity of two guinea-pigs, but no obvious effect followed within the half-hour during which they were watched. Both died during the night.

3.—Fairly large dog (cross from a Colley). Chloroform narcosis was continued during the whole of the experiment. Cannulæ were fastened in the jugular and carotid, the latter being connected with the kymograph. Blood-pressure equal to 140 mm., mercury. Pulse 68; respiration 24 per minute. 12 cc. of fresh hydatid fluid were slowly injected into the vein. In about five minutes the blood-pressure, which showed variations in height, after the injection, was found to be 135 mm. (hydrarg.). Pulse 70; respiration 37. Ten minutes later 14 cc. of hydatid fluid were injected into the jugular. No marked change resulted. Twenty minutes after the first injection 20 cc. of hydatid fluid were injected into the jugular, causing the blood-pressure to sink gradually during the five minutes following the injection from 137 mm. to 63 mm. (hydrarg.). Pulse slowed to 33; respiration slowing down to 17 per minute. As the animal appeared to be dying, a small dose of sulphate of atropine was injected into its vein, which was followed by a gradual but continual rise of blood-pressure until it remained at about 125 mm. (hydrarg.), although during the rise 40 cc. of hydatid fluid were injected at an interval of about five minutes between the injections. The pulse rose to 72 and respiration to 28. The animal was killed. The chief characteristics of the necropsy were the enormous congestion of the liver and the free flow of urine from the cut surfaces of the kidneys.

Professor Roy remarks: "It may be concluded from this experiment, so far as is possible from a single experiment, that there is in hydatid fluid some substance which has a powerful effect on both the heart and the respiratory mechanism. From the first two doses but little effect on the rate of the heart beat was produced, but on giving a larger dose the slowing of the heart from 70 to 33 per minute is very striking. The acceleration of the respiration by the first dose and its great slowing by the dose of 20 cc. of hydatid fluid are also remarkable. The great fall of the blood-pressure after the third dose shows that the fluid from hydatid cysts contains some substance which can affect the blood-pressure in the systemic arteries to a very serious extent. The marked change in the rate of heart beat, the respiration, and the blood-pressure after atropine seems of much interest as well as of practical importance." The hydatid fluid may enter a wounded vein at the time of puncture, or escape into the peritoneal cavity and be subsequently absorbed, and the rapidity of onset and urgency of the symptoms would be the indication. In the post-mortem account of the fatal case recorded by Mr. Bryant, it was found that immediately inside the hydatid capsule the trocar had transfixed a very large vein, which on subsequent dissection was found to be the trunk of the portal vein, and it was supposed that, after withdrawal of the trocar, hydatid fluid escaped into the portal vein and acted as a fatal poison. It may be questioned whether there is not a greater liability, where the close method of tapping is employed, for the fluid to find entrance into one of the dilated veins, which are sometimes found in the fibrous atrophied liver tissue round the cyst, should one happen to be wounded; and whether the treatment by incision advocated by some may not be found safer.

Cambridge.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

INDIARUBBER TUBING IN THE BLADDER; SUCCESSFUL REMOVAL.

By WALTER FOWLER, M.A., M.B., F.R.C.S.,
LATE CASUALTY SURGEON, QUEEN'S HOSPITAL, BIRMINGHAM.

THE case published by Dr. Henry O'Neill in THE LANCET of Oct. 30th, 1886, reminds me of a somewhat similar one that came under my care in the Queen's Hospital, Birmingham.

J. G——, aged thirty-two, was admitted on Oct. 17th, 1885, with the following history:—For the last nine months he had been in the habit of passing about six inches of indiarubber tubing from a baby's feeding bottle down his urethra. Three days before admission, while indulging in this habit, the tube slipped from his grasp and disappeared from view. Since then he had complained of pain in the hypogastrium, painful micturition, very red urine, and diarrhœa, and had also had several shivering fits.

On admission there was evidence of severe cystitis. A No. 9 catheter was easily passed into the bladder.

October 18th.—Under chloroform I introduced a No. 12 steel sound, and then a No. 14 after incising the meatus. I then passed a small flat-bladed lithotrite; and, after three or four unsuccessful attempts, I managed, by reversing the blades of the lithotrite, to pick the tubing up off the floor of the bladder, and extracted 8½ in. of tubing such as the patient had described. In the evening he had a rigor and a temperature of 106°, which speedily yielded to ten grains of quinine.

On the 19th and 20th he only complained of a slight discomfort on passing urine, and on the 21st was discharged well.

Old Burlington-street, W.

MENORRHAGIA A FREQUENT SYMPTOM OF PYONEPHROSIS.

By JAMES OLIVER, M.B., F.R.S. EDIN.

IN the human female the reproductive and urinary organs are evolved from the same fœtal structures—the Wolffian bodies. When fully formed, these bodies occupy nearly the whole extent of the abdominal cavity of the fœtus, and constitute a pair of symmetrical organs in structure closely analogous with that of the permanent kidney. Whenever in the animal economy we find organs developed from a common primordial structure, we can invariably prove the perpetuation of a direct nerve communication, whereby impressions originating in one may be forthwith transmitted to the others of a like structural evolution. By acute irritation of the renal and uterine nerves we are able to produce experimentally, through an existing nerve anasto-

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mosis, a temporary paralysis in the lower limbs—a so-called reflex paraplegia. In the Planaria the primordial liver consists of nothing more than a few cells scattered along a tract of the intestinal surface, which secrete efficiently for the requirements of the organism. As we ascend the scale of animal life, however, we find these cells by agglomeration and multiplication forming a distinctly projecting nodule from the perivisceral wall of the bowel into the perivisceral cavity, and eventually culminating in the production of that large and apparently independant organ—the liver. It is therefore a gland which, secreting into the intestinal canal, is developed from the coats of the gut. The existence here of a free nerve inter-communication is evidenced by the fact that the passage of a slightly acid fluid into the duodenum determines forthwith a copious secretion of bile, whilst that of an alkaline fluid produces little or no effect. Menorrhagia is a symptom frequently associated with pyonephrosis in the early days, and more especially when this disease appears on the left side of the body. It is the manifestation of a mere augmented and prolonged functional activity of the uterus and Fallopian tube, determined in some occult manner by the condition of the renal organ, whilst the periodicity of the flow itself is undisturbed. In such cases I have failed during life to detect any evidence of disease in the generative tract, and have twice verified this fact by a careful examination of the body after death, the uterus, Fallopian tubes, and ovaries being perfectly healthy.

Montague-street, Russell-square, W.C.

PREGNANCY COMPLICATED WITH OVARIAN TUMOURS; TAPPING, DELIVERY, AND SUBSEQUENT REMOVAL OF CYSTS.

By H. F. BAILEY, M.R.C.S., L.S.A.

ON June 5th last I was called to a lady, aged twenty-nine, whom I was to attend in her first confinement. This was about a fortnight before term. I found the abdomen excessively large, and both legs œdematous, blue, and mottled. Palpation revealed fluctuation with distinct thrill, and percussion resonant flanks, with dulness over the rest of the abdomen.

The diagnosis was left ovarian cyst, and, as the tumour was very tense and the patient evidently in imminent danger from rupture of cyst, I tapped about two inches above the umbilicus and removed two gallons of ovarian fluid. Five days later labour came on, and with forceps a healthy female child was born. Lactation was permitted for three months, but the tumour again filling rapidly, the child was weaned.

On Sept. 14th I operated, aided by my partner, Dr. J. N. Miller, Mr. Cooper giving methylene. On opening the abdomen by a four-inch incision, not only was there the left cyst as diagnosed, but the right ovary was the seat of a second tumour, a very dense-walled dermoid cyst weighing 2 lb. I removed the left cyst in the usual way, tying the pedicle by transfixion with Chinese twist and returning it. The tumour of the right ovary was next removed in like manner, and its pedicle also returned. Only one adhesion of omentum required ligature and division. After thorough sponging of the cavity, the incision was closed with silk sutures passing through the whole thickness of the abdominal wall, a Keith's tube inserted, and the wound dusted with iodoform and dressed with Gamgee pads and strapping. The tube was emptied of coloured serum every six or eight hours for a couple of days, and then removed. The dermoid cyst contained epithelial matter and much hair, the whole mass having the appearance and consistence of mortar; the cysts and contents weighed over 25 lb. Recovery was uninterrupted; the evening temperature on the day of operation was 100°; pulse 88. The next day the pulse and temperature were normal, and remained so.

Dr. Fenwick begs for information as to the relation of pulmonary phthisis to ovarian disease. In this case careful inquiry failed to elicit any family history of phthisis, but the patient's parents were first cousins. I suppose the right cyst had remained nearly stationary in size for years, and that gestation determined the rapid growth of the left.

Blackheath.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum propias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. GEORGE'S HOSPITAL.

COMPOUND DEPRESSED FRACTURE OF THE VAULT OF THE SKULL; PARALYSIS OF THE RIGHT ARM; TREPHINING; RECOVERY.

(Under the care of Mr. PICK.)

THE following belongs to the class of head injuries about which the rule as to operating is simple. The exact locality of the cerebral hemisphere on which there was pressure was doubtful, owing to the large area of bone depressed; but the centre of this area was easily ascertained by reference to Reid's base line. For the notes we are indebted to Mr. Bull, surgical registrar.

G. W——, aged sixteen, a milk-carrier, while delivering milk at some area steps was struck on the head by a falling ladder. He was picked up insensible. On admission (April 7th, 1886) he was unconscious, and bleeding from the nose and mouth. There was a semicircular scalp wound about two inches long over the left parietal bone, and at the bottom of this there was a ridge of bone and a depression about a quarter of an inch in depth. The extent of this depression could not be ascertained, as it passed beyond the full length of the scalp wound. There was slight twitching of the right arm. He vomited some blood, and became conscious four hours after admission. Next day he was restless and irritable. He answered questions, but was drowsy at times. There was slight paresis of the right arm, but no marked paralysis. He was able to move his legs, and had entire control over his sphincters. The bleeding from the nose and mouth had ceased. The wound was dressed and was looking quiet. Next day, forty-eight hours after the accident, the lad was more drowsy, and unless roused he lay quietly on his back. There was marked paralysis of the arm, and the grasp of the hand was very feeble.

After consultation, Mr. Pick (ether having been administered) made an incision across the wound, and reflected the soft tissues. A piece of bone measuring about 3 in. by 2 in. was depressed and wedged below the non-depressed part. The centre of this area was 2½ in. behind the left external auditory meatus, and 3 in. above Reid's base line. A crown of trephine was removed, and after a ridge of bone had been sawn off by a Hey's saw Mr. Pick was able to prise up the depressed bone to its proper level. There was no injury to the dura mater. No ligature was required. A drainage-tube was inserted, the flaps united with silver sutures, and wet carbolised gauze dressings applied.

The patient passed a good night, and was cheerful and conscious next day. His temperature was irregular for a few days, and the wound was foul for four days. At the end of the first week the paralysis began to diminish, and from this time he slowly improved. The wound did well, and in five weeks the lad was sent to a convalescent hospital, on May 12th. At this time there was slight paresis of the arm and hand. He remained in the country five weeks, and on returning was found to have completely recovered the use of his hand and arm.

GENERAL LYING-IN HOSPITAL.

CASE OF CERVICAL EMPHYSEMA FOLLOWING PARTURITION; REMARKS.

(Under the care of Dr. R. BOXALL.)

FOR the following notes we are indebted to Dr. W. G. Holloway, house-physician.

Mrs. S——, aged nineteen, a well-developed but somewhat delicate-looking primipara, was admitted towards the end of the first stage of labour on August 26th, 1886. Full dilatation of the cervix was reached at 10.20 A.M., and the head passed slowly through the pelvis in the first cranial position. It remained two hours on the perineum, and was eventually

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expelled without artificial aid at 1.50 P.M. The labour pains were very strong, and towards the end became almost continuous. The patient meanwhile screamed violently. The child, when born, weighed 6¼ lb. The placenta was expressed a quarter of an hour after the birth of the child. The uterus subsequently contracted well.

About three hours after delivery the patient herself was aware of a soreness in the neck and upper part of the chest. It began about the left sterno-clavicular articulation, and thence spread upwards and to the opposite side of the neck. Next morning (27th) a puffy swelling was observed at the root of the neck over the manubrium sterni; it was a little tender on pressure. The skin retained its natural colour. At the apex of both lungs, and especially the left, the percussion note was hyper-resonant and the breath sounds feeble. The patient had a slight cough, but no disturbance of breathing. The heart sounds were normal, but at the base were masked by crackling.

On Aug. 29th, during the physician's visit, the following notes were made:—Slight fulness is apparent about the lower part of the neck on either side, but especially the left. The respiratory movements are rather less marked at the left than at the right apex. Over the puffy area emphysematous crackling is easily distinguished by the finger. It is most marked over the manubrium sterni, but does not extend below its junction with the body of the sternum. It can be felt on either side immediately below the clavicle, extending as low as the upper border of the second rib and outwards as far as the coracoid process. It is more prominent on the left side, extending backwards as far as the edge of the trapezius (where it appears to end abruptly) and upwards to within an inch of the mastoid process, but is less distinct and only brought out by deep palpation. In the anterior triangle it again becomes distinct, extending upwards quite as far as the ramus of the jaw and across the middle line to the opposite side. On the right side of the neck it is as distinctly felt in the anterior triangle as on the left side, but cannot be felt in the posterior triangle. No crepitation can be felt under the trapezius, over the mammæ, or down the front of the sternum below the junction of the manubrium and body. Over both anterior and posterior triangles on the left side, and over the anterior on the right, a high-pitched hyper-resonant note is readily produced. The percussion note below the clavicle on the left is slightly higher pitched than on the opposite side. Over the whole area above described superficial crepitation sounds are audible. These are especially numerous on first applying the stethoscope to the surface, and are readily brought out by shifting its position, and are produced, though to a less degree, by the inspiratory movements. In addition, over the pulmonary cartilage they accompany each systole of the heart. No corresponding sound is heard over the aortic cartilage, though no emphysematous crackling can be felt; nor can any sounds be produced by pressure of the stethoscope below the junction of the manubrium with the body of the sternum; crepitation sounds are audible, synchronous both with each inspiration and with each systole of the heart, and extending as far down as the xiphi-sternal articulation, on the right side to the border of the sternum, and on the left a finger's breadth beyond it. In the neck, over the whole area affected, slight pectoriloquy is audible, and the voice assumes somewhat an ægophonic character. The skin still preserves its natural colour. The soreness is diminishing.

Aug. 31st.—No emphysematous crackling can now be felt below the right clavicle, and only very little above it. Over the manubrium and in the supra-sternal notch it is still distinct, and also in the left supra- and infra-clavicular depressions. It is disappearing from below the ramus of the jaw on the left side.

Sept. 1st.—The fulness about the neck has subsided; the hollows are more apparent. Slight emphysematous crackling is still present on the left side in the posterior triangle, and very little over the situation of the sterno-mastoid, but is still distinct at the sterno-clavicular articulation, in the supra-sternal notch, and immediately below the clavicle. On the right side it has disappeared from below the clavicle and from the anterior triangle of the neck, but can be indistinctly felt over the middle of the sterno-mastoid and along the anterior border of the trapezius.

2nd.—The emphysematous crackling has entirely disappeared from the right side, and on the left is limited to the situation of the sterno-clavicular joint and infra-clavicular depression. The crackling sounds accompanying the systole of the heart have also disappeared. The soreness has gone.

3rd.—No trace of emphysema can be detected.

8th.—Mother and child discharged well.

No special treatment was adopted. The temperature remained normal throughout; the pulse varied from 72 to 80, and the respirations from 20 to 24 per minute.

Remarks by Dr. R. BOXALL.—Few cases of cervical emphysema, the result of bearing down during labour, though not very rare (about 1 in 2000 deliverances), have been fully reported. Dr. F. H. Champneys, in an elaborate scientific inquiry on this subject,[1] refers to some twenty cases or more reported by various observers. As the result of experiments made on still-born fœtuses, the same observer concludes that "the cause of emphysema of the neck during labour is rupture of the lung tissue—the air escaping near the root of the lung, passing beneath the pulmonary pleura into the anterior mediastinum, and so beneath the deep cervical fascia into the neck"; and further, that "the air emerges from the thorax along the great vessels, but may not become superficial till it has travelled higher up." The clinical facts of the case quoted above are entirely in accordance with Dr. Champneys' observations. It seems highly probable that air escaping at the root of the lung found its way into the anterior mediastinum; hence the crepitation sounds, synchronous with both inspiration and with the heart's systole, audible over the front of the sternum, where no air had escaped into the tissues superficial to the bone. The air travelling upwards along the pulmonary artery would give rise to similar sounds, heard over the pulmonary cartilage with each systole of the heart; thence travelling onwards and directed upwards by the deep cervical fascia, the air entered both anterior triangles of the neck, and on the left side (where it commenced, and which throughout was more affected than the right), passing beneath the sterno-mastoid, inflated the posterior triangle, and on either side passed over the clavicle as low as the upper border of the second rib and corresponding part of the sternum. Subsequently a little air appears to have found its way also beneath the right sterno-mastoid into the posterior triangle of the same side. In the primiparity of the patient, the severe expulsive pains, the onset of the emphysema soon after labour (often during the second stage), its proclivity for the region of the supra-sternal notch, the absence of disturbance to the respiratory function and of the other serious symptoms beyond the disfigurement, together with the invariable tendency to absorption of the air by the end of a week or ten days, this case, though much less severe in character than many, agrees with the majority of those previously recorded.

NEWCASTLE-ON-TYNE INFIRMARY.

TWO CASES OF SUPRA-PUBIC LITHOTOMY; REMARKS.

(Under the care of Dr. HUME).

THE following are reported on the ground that the position of the supra-pubic as an alternative to lateral lithotomy, as well as some of the details of procedure in the first operation, being still unsettled, it is desirable that the record of cases should be as full as possible.

CASE 1.—T. M——, aged thirty, was admitted on Sept. 4th, 1886, suffering from the usual symptoms of stone in the bladder. These symptoms had been present for twelve months; during the last two months the urine had been turbid and micturition very frequent. At the time of admission the urine was alkaline and muco-purulent. The stone was readily detected by the sound, and seemed to give a hard ring. Measured with the lithotrite it was found to be an inch and a quarter in what was thought to be its shorter diameter; but on account of the sensitiveness of the bladder some little difficulty attended this examination. It was determined not to crush but to remove the stone by the supra-pubic method as an alternative to lateral lithotomy. The operation was performed on Sept. 9th. The rectum was first distended by Petersen's bag, into which were thrown twelve ounces of water. A like quantity of corrosive sublimate solution (1 in 2000) was then injected into the bladder, causing it to rise half way to the umbilicus. An incision three inches long was made above and over the margin of the pubic bone and the dissection carried down to the bladder wall. The plexus of veins in the overlying

[1] Med. Chir. Trans., vol. lxvii., 1884.

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fat and in the wall of the bladder was large, and required careful separation with the finger-nail and a director. A sufficient surface being cleared, a sharp hook was fixed in the wall and a puncture made. Into this the right index finger was insinuated, and by the side of it the index of the other hand. The stone was then caught with ease between the two fingers and lifted out. On the collapse of the bladder the peritoneal reflection came into view. A drainage-tube was placed in the bladder, and the opening into the viscus was not sutured. Two stitches were placed in the upper part of the wound in the abdominal wall. The after-treatment consisted in retaining the patient alternately on one side and the other, and in the use of salicylic wool to absorb the urine. The patient's progress was satisfactory. The temperature on the evening of the operation was 101°; on the following day it was 99° in the morning and 101° in the evening, from which time it fell, and continued a little above normal. The tube was removed from the bladder on the fourth day, and a soft catheter in the urethra, which had proved quite useless, was discontinued. Urine was passed by the urethra on the fourteenth day. The quantity so passed gradually increased as the wound closed. This, however, proceeded slowly, and was not complete till Oct. 21st. The stone was a uric acid calculus, with phosphatic coating, measuring an inch and a half in its long diameter.

CASE 2.—J. G——, aged sixty-four, was admitted on Oct. 28th, 1886. Had symptoms of stone for four years. With the sound an irregular stone, giving a very clear metallic ring, was detected. It was thought to be an oxalate of lime calculus of considerable size. The patient's prostate was markedly enlarged, and on account of this fact, as well as the character of the stone, the supra-pubic operation was chosen. The operation was done on Nov. 2nd, the details being precisely the same as in the former case. But the veins in front of the bladder were larger and more engorged, as was to be expected; and their walls seemed friable, so that they were torn even with the gentlest handling. Bleeding was thus a troublesome feature of the operation, and some time had to be spent in arresting it. The peritoneum was not seen. The after-progress was satisfactory; but the wound granulated slowly, and till its complete closure on the thirty-seventh day after the operation no urine was passed by the urethra. A few days afterwards the patient returned home in good health, with the wound soundly healed, and entirely free from urinary symptoms. The stone was a mulberry calculus, weighing 6 drs.

Remarks by Dr. HUME.—In the first of these cases a mistake was made as to the character of the stone. It might have been dealt with readily by lithotrity. But, looked at in comparison with an ordinary case of lithotomy by the lateral method, the point which it chiefly offers in contrast is the length of time taken in healing. The supra-pubic wound is at a great disadvantage for healing, in point of position and drainage, compared with the wound in perineal lithotomy. Several cases of primary union after the supra-pubic operation have now been recorded, but these, I believe, have all been in children. In them the abdominal position of the bladder, leaving it even when collapsed in direct relation to the wound in the external parts, and also the natural rapidity of the healing process in early life, render union by first intention probable, and therefore to be aimed at. But in the adult, the bladder, when its contents have all escaped, lies at the bottom of a deep hole, and it is difficult to suppose that in such a wound primary union can be other than the rarest event. And when the attempt to secure it fails the accurate suturing of the external wound will tend, as Sir H. Thompson has pointed out, to increase the risk of urinary infiltration. One may therefore look on it as probable that in the adult the supra-pubic wound will continue to be treated as an open wound, and that slowness in healing will be an unimportant drawback—but still a drawback—to the operation. The second case was typically one in which, according to the views now gaining acceptance, the high operation would be selected. The stone was a hard one, large for lithotrity, in an elderly patient with enlarged prostate. In this condition of the prostate the risk of hæmorrhage in the lateral operation is considerable, and there is a tendency in these cases for cystitis or other chronic urinary trouble to be left behind. The first of these dangers is certainly smaller in the high operation, and it may prove also that the tendency to after-troubles is less marked.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Suture of Divided Nerves.—Physiological Effects of Massage.

AN ordinary meeting of this Society was held on Tuesday last, Mr. G. D. Pollock, F.R.C.S., President, in the chair. The discussions on both papers were lengthy, and the meeting was prolonged till 10.30.

Mr. J. BLAND SUTTON read a case of Suture of the Median Nerve ten weeks after division, with recovery of function. This paper contained the details of the case of a porter, who through the bursting of a soda-water bottle sustained a deep wound of the wrist. The median nerve had been completely divided, and the parts supplied by it were deprived of motion and sensation below the point of section. Ten weeks after the accident the ends were found by dissection, the cut ends vivified and united by suture. Sensation began to return in five days. The most important feature in the case was the ease with which the ends of the severed nerve were found by following the rules which had been gained by studying the effects of neurotomy in horses. A list of previous cases of secondary nerve suture accompanied the paper. The time taken in the restoration of function may vary from one day to a year.—Mr. HOWARD MARSH said that the operation indicated by the author had been practised a great many times with success at St. Bartholomew's Hospital, both by himself and colleagues. — Mr. T. HOLMES said that it was doubtful whether the fibrous band alluded to by Mr. Sutton was even generally present. In cases where there had been considerable laceration the operation proposed would be very difficult, and any such guide in human subjects would probably be absent. It was only in a few cases that the nerve could be clearly defined. But the operation was urgently needed in any case of division of nerves. In a case of division of the musculo-spiral nerve, in which many months had elapsed before the secondary suture was performed, complete restoration of function ultimately took place. Where the division had been recent, perhaps the function of the nerve would be restored soon. The simplicity of the injury that divided the nerve would certainly have some influence on the rapidity of restoration of function.—Mr. BOWLBY said that he agreed with Mr. Holmes that as a rule there was no definite band of fibrous tissue uniting the nerve ends, and this was especially the case when there had been much suppuration following the original accident. The operation was comparatively easy in some cases, but in others the difficulty in finding the lower end of the nerve was very great. In order to arrive at any conclusion as to the result of an operation it was necessary to follow cases for a sufficient length of time, even for years. If there was no sloughing or suppuration the final result was generally satisfactory. In Mr. Sutton's case there was not enough information to decide whether the success was complete. He would like to hear more about the state of the muscles. It was evident that in cases where the injury was an old one not only the nerve but muscle had to be remade. The first sign of restoration was a return of voluntary power, and this might precede the return of electrical reaction by months, even a year. He was convinced that the lower end of the nerve could be regenerated without being brought into contact with the upper end of the divided nerve. Thus it might happen that union of divided ends, even after a long time had elapsed, would be followed by very rapid restoration of function. There was no danger of tetanus following primary or secondary sutures of nerves, and as cases of improvement after secondary suture had been recorded as long as fourteen years after injury, the operation should never be refused.—Mr. R. BARWELL related a case of division of the ulnar nerve in a girl aged sixteen, in whom he sewed the two ends together with strict antiseptic precautions, and with the result of rapid and finally complete restoration of function.—Dr. W. H. MURRAY said that in Mr. Barwell's case there was the reaction of degeneration in the muscles supplied by the divided nerve, but the abductor indicis retained faradaic irritability.—Mr. J. W. HULKE referred to a point of practice which had not been touched upon. If there were so wide a separation that it was difficult, if not impossible, to bring the two ends together, what should be done? Foreign surgeons had united them by

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sheep's sciatic and dogs' sciatic nerves, and apparently with success. A method of side-splicing the divided nerve, and bringing down this so as to join the two ends, had also been practised. Cylindrical decalcified bird's bone had also been used. The Germans reported successful results in such cases.—Mr. W. HAWARD remarked on the great variation in the time that elapsed between operation and restoration of function. This variation was doubtless due to many circumstances, some of which he considered. Considerable suppuration about the original wound might cause the central end to undergo an inflammatory change, and interfere with restoration when secondary nerve suture was attempted. Again, suppuration attending the operation for union would also interfere with the result. In a case of neuroma of the median nerve, requiring removal of an inch of the nerve, function was restored in five days. This was doubtless due to accurate apposition, but soon after erysipelas set in, and the function of the nerve was gradually lost again, and two months elapsed ere it was re-established. The value of shampooing, friction, and exercise in promoting restoration to health was referred to.—Mr. B. SUTTON, in reply, said that his patient could perform the delicate operation of writing. He considered this a sufficient test of restoration of muscular function.

Mr. SYMONS ECCLES contributed a paper on the Physiological Effects of Massage (communicated by Dr. Lauder Brunton, F.R.S.). Four distinct manipulations are briefly described, and their immediate effects on the human tissues and functions, as observed by the writer in a series of experiments on healthy persons, are noted: *Effleurage* stimulates the skin muscles, produces dilatation of the superficial vessels and insensible perspiration, excites the skin reflexes, and, acting through the cutaneous nerves, increases the rapidity of the circulation and heart's beat. *Pétrissage* forces the lymph out of the muscles, increases the velocity of the blood-current through the part, temporarily decreases the size of a limb, and increases its muscular power. The pulse-rate is reduced, especially in abdominal kneading. *Massage à friction* produces the same local effects as *pétrissage*, and is peculiarly applicable to joints. *Tapotement* excites muscular contractions. The immediate and remote effects of massage as a combination of the above-named manipulations are: that the texture of the skin is improved, the sense of locality is increased, the general body temperature is raised, and the free surface temperature of a part under massage is higher than that of the rest of the body, while abdominal massage decreases the surface temperature of the extremities. A course of massage of one month's duration increases the body weight, the appetite, muscular strength, and ability to sleep and work well.—Dr. HERMANN WEBER thought the paper of great value. Medical men should themselves superintend and instruct in the treatment, which has often been wrongly used, as in cases of rheumatic fever, acute joint inflammation, acute sciatica, and other affections.—Dr. W. S. PLAYFAIR said that the paper was one of great value. He had taken, however, more interest in the forms of the disease in which massage could be used than in massage itself. As one remedial agent in a certain class of cases—neurasthenia—it was most important, but not more important than other methods of treatment, such as removal of unwholesome domestic surroundings. He fully recognised the importance of scientifically studying the physiological effects of massage. Many patients put on several pounds a week. In many cases the total weight of the body has been doubled in six or eight weeks. The proper selection of cases for massage was very necessary. In a few uterine cases he had seen good, but not very remarkable, results. Reference was made to a case of destructive disease of one lung regarded as hopeless, in which 6 st. weight was put on in the course of some weeks. This hyper-feeding in phthisical cases was well worth further investigation. He believed that any hysterical apeptic could by this treatment be made in the course of two weeks to eat, assimilate, and digest more than a private in the Life Guards could in a similar space of time. It was perfectly ridiculous to suppose that two years were necessary to acquire the masseur's art. One who has not the aptitude never would learn it. But it may be learnt in a month.—Mr. W. HAWARD thought that Dr. Weber's suggestion that medical men should have charge of cases was highly necessary. In lateral curvature of the spine and infantile palsy massage was most valuable.—Dr. DOUGLAS POWER said the patient referred to by Dr. Playfair showed evidences of extensive disease in the lung. Cases in which such a treatment could prove valuable were few in number. The phthisis must be one-sided and past the stage of active process, and in that of "elimination" with hectic, not continued fever. The patient was unable to take sufficient food, and suffered in consequence. It would be extremely valuable in bringing a patient through this eliminative period of disease. Writer's cramp was another affection favourably benefited by massage. Medical supervision was most necessary. He had known a nurse to induce hæmaturia by rubbing, contrary to instructions, an abdominal tumour.—Dr. ARTHUR GAMGEE said that there was a difficulty in acquiring all the methods of application of massage. A thorough anatomical education was necessary in treating infantile paralysis by massage, in which disease no method of treatment was so valuable. In Scrivener's palsy it was of great value. Massage could modify the condition of internal organs. A case of severe gastric symptoms was related, following on consolidation of lung, which had subsided under treatment at the Riviera. The gastric dilatation and functional albuminuria disappeared, and the patient gained three stone in weight. In many cases of phthisis massage and attempted hyper-feeding would fail.—Mr. ECCLES, in reply, said his observations dealt with healthy persons alone.

MEDICAL SOCIETY OF LONDON.

Phosphatic Diabetes.—Wound of Common Femoral Vein.

AN ordinary meeting of this Society was held on Monday last, Mr. R. Brudenell Carter, F.R.C.S., President, in the chair.

Dr. RALFE introduced to the notice of the Society a patient suffering from Phosphatic Diabetes, and read particulars of twelve others. These he arranged in groups according to the classification of Professor Teissier, who first gave a systematic account of the affection. Group 1. Excessive elimination of phosphoric acid associated with nervous derangements; three cases. Group 2. Excessive elimination of phosphoric acid associated with phthisis; three cases. Group 3. Excessive elimination of phosphoric acid alternating with saccharine diabetes; three cases. Group 4. Excessive elimination of phosphoric acid running a distinct course, like saccharine diabetes, only without the sugar; five cases. All the cases, with the exception of two, were young adult males. The symptoms common to all were great emaciation, aching rheumatic pains in loins and pelvic regions, dry, harsh skin, with tendency to boils, and ravenous appetite; in some cases cataract develops. In the majority there was polyuria; in others the urine was normal in quantity, with a high specific gravity. The urea was increased in some cases slightly, in others to a greater extent; but the great feature of all the cases was the very considerable and constant elimination of phosphoric acid, with or without increase of the other constituents of the urine—a feature which distinguishes it from insipid diabetes on the one hand and azoturia on the other, with both of which it has been improperly confounded. The pathology, Dr. Ralfe thinks, depends not so much on increased metabolism of nervous matter as on defective nutrition, so that the tissues are not able to utilise the phosphorus brought to them, and consequently a greater amount passes through the system daily. In those cases, in which an excessive excretion of phosphoric acid replaces saccharine diabetes, it is probable that acids like oxy-butyric-glycollic, &c., formed by imperfect oxidation of the sugar, dissolve out the earthy phosphates from the tissues, which appear in excess in the urine. As regards the prognosis in these cases, it is most unfavourable in the first two groups; country air, massage, cod-liver oil, may for a time do good, but the patients rapidly fall back, and either are carried off by some acute attack proving fatal in their exhausted condition, or drift on into phthisis, or into diabetes mellitus. The prognosis of the last two groups is much more favourable: of the three cases recorded in Group 3, two got completely well; the third still suffers from saccharine diabetes, but it remains in a mild form.—Mr. W. A. MERREDITH and Mr. A. P. GOULD made some remarks. In reply to Mr. B. Carter, Dr. RALFE said that there was only the volumetric method, uranium nitrate being the agent used to precipitate the phosphates. Care must be taken that a specimen of the mixed twenty-four

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hours' urine is used to estimate the daily discharge of phosphates.

Mr. A. P. GOULD read a paper on Wound of the Common Femoral Vein, which will appear in full in a future number of THE LANCET.—Mr. J. H. MORGAN spoke of a case of perforating bullet wound of the sternum, that led to thrombosis of the left innominate vein and pyæmia.—Mr. MARMADUKE SHEILD doubted whether the septic processes were directly due to the wound of the vein with the cat's-meat knife. He thought iodoform should have been freely used.—Mr. GOULD, in reply, said the wound went right across the front of the vein and admitted the finger easily. Iodoform had been dusted around the wound, but not on it. He could not help thinking that the septic poison was introduced at the time of the infliction of the wound.

CAMBRIDGE MEDICAL SOCIETY.

AT the meeting on Dec. 3rd, James Carter, F.R.C.S., in the chair, the following communications were made:—

Abortion.—Dr. BOXALL read a paper on this subject, and exhibited the fœtus and appendages from a complicated case of miscarriage. During the tenth week of gestation, and as the result of over-exertion on the part of the patient, hæmorrhage set in and miscarriage threatened. The patient kept about for six weeks, but during the succeeding five weeks she was laid up, and ergot was given persistently. The hæmorrhage, however, continued, and her general health suffered. Meanwhile neither the patient nor her medical attendant had suspected the persistence of pregnancy, especially as the menstrual periods had continued regularly during the early months of gestation. An early miscarriage was supposed to have occurred at the onset of the bleeding, and the patient was thought to be suffering from subinvolution consequent upon it. Careful examination, however, detected a feebly-acting fœtal heart, and the uterus was found to reach as high as the umbilicus, and to be partially distended with blood-clot. Two days after this examination the fœtus appears to have succumbed. The product of conception with a great quantity of clots was expelled within the week—i.e., at the end of the fifth month of gestation. It was then apparent that the placenta, though normally situated, had become partially detached; the lower portion had consequently atrophied, while the upper half had undergone a compensating hypertrophy. As regards the causation of miscarriage, the author, referring to the action of ergot on the pregnant uterus, pointed out that, though under certain conditions ergot is a powerful oxytoxic, the drug, being incapable of initiating uterine contractions, is in itself unable to produce premature labour or miscarriage; moreover, that, apart from the various affections peculiar to the pelvic organs of the female, the cause of miscarriage is far more frequently the result of accident than is generally admitted; but, on the other hand, with respect to the syphilitic taint, miscarriage, and especially early miscarriage, is not so generally the direct effect of the syphilitic virus as is supposed, and certainly not to such an extent as to warrant a diagnosis of syphilis from one or more miscarriages when other evidence is not forthcoming.—Dr. W. DUNCAN thought the case reported was a good illustration of the importance of making a careful abdominal examination. He agreed with Dr. Boxall in thinking that early abortions were not nearly so frequently the result of syphilis as is stated in books; but at the same time he had seen cases in which the systematic employment of anti-syphilitic remedies, both before impregnation and during the whole period of gestation, had been attended by the happiest results. Dr. Duncan considered that absolute rest in the horizontal posture, with exhibition of opium provided there were pains, was the best treatment for threatened abortion; but if there were no pains whatever, and hæmorrhage only, he had found that the administration of five or ten drops of the liquid extract of ergot every three hours was of the greatest service.

Cystic Ovaries removed for Dysmenorrhœa.—Dr. WILLIAM DUNCAN showed the ovaries, studded with cysts, which he had removed from a young woman, aged twenty-three, on account of intense dysmenorrhœa, from which she had suffered ever since the onset of the catamenia. She had been subjected to various treatment in different hospitals—viz., blisters to ovarian regions, division of the cervix, introduction of stem pessaries, puncturing the cervix, &c.,—and all to no effect. Dr. Duncan kept her in the hospital for a couple of months, with the daily use of the hot douche; but at the end of that time he recommended abdominal section, having first carefully explained to the patient and her mother what it was proposed to do. Six months subsequently she was perfectly well and absolutely free from any pain. The various conditions which demanded the operation (removal of ovaries and tubes) were then discussed. Dr. Duncan considered that it was perfectly justifiable in (*a*) chronic disease of the ovaries and tubes, especially where there is a history of antecedent pelvic inflammation and a prolonged course of other treatment has proved of no avail, and (*b*) in excessive metrorrhagia due to uterine myoma which is threatening the patient's life, and where the menopause is not likely to ensue for some years. Dr. Duncan disapproved of the operation in hysterical epilepsy.

Hæmatocele from a Ruptured Graafian Follicle.—Dr. WM. DUNCAN showed a specimen consisting of a left ovary with a hæmatocele due to a ruptured Graafian follicle and limited by a piece of omentum. The right ovary contained a cyst about the size of a walnut, which had been ruptured. The patient from whom they were removed had been under Dr. Duncan's care in the out-patient department of the Middlesex Hospital for about a year. She was a married woman, aged twenty-six, with three children, the last two years old. Since last confinement she had suffered from pelvic pains of the usual kind, accompanied by menorrhagia and much dysmenorrhœa. On examination, an elastic, elongated swelling, about the size of a tangerine orange was felt to the left of the uterus, and it was thought to be probably a dilated Fallopian tube. The condition locally remained exactly the same during the whole time the patient attended the hospital, but her general health was much deteriorated. She was advised to submit to operation, to which she consented. Abdominal section was performed by Mr. Bland Sutton, who had no difficulty in removing both ovaries and tubes, together with the hæmatocele and surrounding omentum. The patient made an uninterrupted recovery.

ACADEMY OF MEDICINE IN IRELAND.

Placenta Prævia.

A MEETING of the Obstetrical Section was held on Nov. 26th, 1886.

Dr. FLEMING read a paper on the Etiology of Placenta Prævia, and then went on to enumerate the various ideas as to the source of the blood, giving as the most feasible that of Schroeder—namely: 1. That uterine contractions impel the blood from the place from whence the placenta has been separated. 2. That from the separated portion blood circulating through the chorion villi becomes lost. 3. That unguarded examination may lacerate the placental tissue and so cause fœtal hæmorrhage. The separation of the placenta is most satisfactorily explained as follows:—1. Owing to its formation the placenta cannot adapt itself to the extension of the organ. 2. It is unable to retract with the cervical zone during labour, the membranes being still intact. With regard to the treatment, until within recent years the obstetrician's choice was limited in the early stage, before the os was much dilated, to the following methods:—1. Plugging the vagina, which is ineffectual, and increases the risk of sepsis. 2. Forcible dilatation, version, and immediate extraction—fraught with extreme danger to the mother, as it increases tenfold the risk of post-partum hæmorrhage, owing to laceration of the soft parts. 3. Forcible dilatation and extraction by instruments; this method is, of course, open to the same objection as the last. 4. Separation of the entire placenta; this certainly controlled the hæmorrhage, but inevitably destroyed the child. Dr. Fleming then drew attention to the methods adopted in the Rotunda Hospital for several years past. 1. The membranes are ruptured if the presentation is normal. This acts by allowing the placenta to retract within the lower segment, and by causing the presenting part of the fœtus to act as a plug. This is sufficient in a large number of cases. 2. Intero-external version is performed, a leg is brought down to act as a plug, and expulsion by natural efforts is waited for or aided very cautiously when the os is sufficiently dilated. Expulsion may not take place for a considerable time. The advantages claimed for this treatment are—(*a*) it abolishes the use of the tampon and lessens the risk of sepsis; (*b*) it allows early operation before much blood has been lost; (*c*) it arrests hæmorrhage; (*d*) it enables the patient to rally, gives the os time to dilate, and lessens the risk of post-partum

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hæmorrhage from lacerating the cervix or vaginal soft parts. 3. In some cases—when everything favours extraction, such as a well-dilated os, and head low down—delivery is sometimes practised with forceps; and, in other cases, it is found necessary to diminish the calibre of the head by perforation and extract rapidly. With reference to the statistics of the cases occurring in the Rotunda Hospital for the past three years, ending Nov. 3rd, 1886, 4514 cases were delivered during this period, and in this collection twenty-three cases of placenta prævia were observed in which there was a maternal mortality of four deaths, three of which were complicated with other serious affections, such as pleuro-pneumonia, sloughing fibroid tumour, and multiple fibroid, preventing contraction subsequently; and one patient was in a collapsed state when admitted. Out of these twenty-three cases eleven infants were lost.

A short discussion, in which Drs. More Madden, Byrne, Kidd, and Mason joined, followed the reading of the paper.

WOLVERHAMPTON AND DISTRICT MEDICAL SOCIETY.

AT the meeting on Thursday, Dec. 2nd, 1886, Dr. S. A. Smith, in the chair,

Dr. EVANS showed the spleen and kidneys from a case of typhoid fever characterised during life by extremely high temperature and treated by cold packing. The organs contained numerous infarcts of various ages. The spleen contained an abscess with ill-defined walls.

Mr. GOUGH read a paper on the Use of Axis-traction Forceps in Midwifery. He described the object, mechanism, method of application, and special advantages of these forceps, and showed that their superiority was not merely confined to the simpler forceps cases, but was of the greatest value in face, brow, and occipito-posterior cases, and occasionally where the after-coming head is arrested at the brim in breech cases. He felt sure that as the old-fashioned straight forceps gave way to the double-curved instruments, so would these eventually be superseded by axis-traction forceps.

Reviews and Notices of Books.

Lectures on Medical Pathology. By H. GAWEN SUTTON, M.B., F.R.C.P. London: Baillière, Tindall, and Cox. 1886.

WE must be grateful for any contribution that tends to present our conceptions of disease in a new light, for there is no denying that our pathological ideas are much restricted by the habit of dwelling upon the proved facts of morbid lesions rather than on the functional derangements which underlie them. Therefore a book like the present is of great value both for what it contains and for what it suggests, awakening thoughts upon trite subjects and presenting familiar facts in a new guise. These lectures, moreover, which have been published from stenographic reports, possess a freshness and a spontaneity which distinguish them very agreeably from the cold formalism of the set treatise. Dr. Sutton is not only a physician, but a philosopher, and, if such a combination be allowed, a poet also. At any rate he exercises freely the imagination of the one mingled with the reasoning of the other. And the whole is welded by the practical mind of the physician, who deduces from the facts of pathology the lines of sound treatment in disease. The lectures traverse a wide field, but they form a connected whole; the same thought runs through them of the nature of disease, and the student is constantly reminded of the influences which act on the organism from without as potent factors in the derangement of health. There is not a page that is not readable, and often one meets with a phrase or sentence that deserves to be recorded as an aphorism, embodying in a few words the sum and substance of a pathological idea. It seems to us that such a work is not one to be dealt with by the captious pen of the critic. It is rather to be accepted with gratitude for the thoughts it contains and the facts on which they are based; and he would be bold who would venture to dispute the latter, however he might differ from the former. The simplest and best course, then, for us to take will be to select, almost at random, a few passages, so that our readers may judge for themselves of the style and matter here presented:—

"By pathology is meant 'a knowledge of suffering and disease.' Then comes the question: 'What is disease?' The great power of nature, unhindered by human ignorance, is always acting 'easy'; this is seen beyond dispute as we study the human body in the construction of the joints, serous surfaces, the heart and vessels; but we in our ignorance hinder the working, and bring about uneasiness, disease, incapacity—and that is the origin of pain." (Page 1.)

"There are many causes of disease; we can never say there is one cause of disease; therefore it is exact to say 'This disease has arisen in these conditions.' As much as possible in thinking about pathology, endeavour to get rid of the word 'cause.'" (Page 3.)

A striking statement in these days of etiological research!

"Blood-circulation is carried on by light and heat, and both are rhythmical." (Page 6.)

"Experience has shown beyond all question that acute inflammation does not supervene in the healthy body. What are the facts which have led to this conclusion? It has been noticed for many years that when death results from acute inflammation there has been antecedent disease, and the exceptions are so few that we cannot but consider that in these we have overlooked the antecedent disease." (Page 10.)

Again, in a few words—but the whole passage is too long to quote—the author sketches the nature of phthisis, and brings into prominence the contending views of its pneumonic or tubercular basis. "The best way," he says, "of regarding phthisis is to recognise that there are external and internal morbid actions taking away the health and substance of the body." (Page 38.)

Here is a remark on bronchitis which illustrates the doctrine held by Dr. Sutton upon inflammation, as quoted above:—

"I know nothing about bronchitis produced by cold in healthy people. Some would say, 'Don't you find primary bronchitis in children?' When I have found bronchitis in children, I have usually been able to trace rickets, struma, or tubercle. Idiopathic bronchitis I know nothing about. Further, 'Does not bronchitis usually prevail in the wet and cold weather of spring and autumn, and is it not produced by those conditions?' Yes, no doubt that is so; but it is in persons who have clear evidence of other disease." (Page 71.)

And many will confirm the truth of this statement—viz.: "Usually persons recover from acute pneumonia, if there be no antecedent tissue degeneration of the lung, extreme blood-poisoning, or violence." (Page 82.)

The lecture on Heart Disease opens with some good advice as to the dealing with persons who have valvular mischief, but in whom the heart is acting with perfect ease and regularity. "So long as the heart is able to carry on the circulation and breathing, whatever sign of damage we may find in the heart, we must avoid discouraging the patient." (Page 84.) Elsewhere, too, we are constantly meeting with shrewd practical remarks which are well worth bearing in mind. Take, for instance, the following, with reference to dietetics and dyspepsia:—

"I used to be in the habit of saying people ought to 'eat properly'; that they should only eat every three or four hours; they should not eat between meals; they should eat and live by rule. But year by year many poor creatures complained dreadfully of their stomachs, of its sinking, and they became so miserable that their days were almost unbearable. The big bell of Westminster tolled hourly on—that is, properly, and their times for eating were regulated accordingly. But as I grew older I looked at the animals, and they were eating and eating, and evidently whenever they could. I learnt at last to thank Heaven that I and others had been made as animals, and with use of reason. Let people eat when it is necessary, let them take food when they want it.

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The stomach proceeding with healthy digestion is an immense encouragement to the human mind." (Page 123).

We could multiply quotations from this truly fascinating book, but must for obvious reasons bring them to a close in the hope that those we have given may send many to peruse and think over the pages of the work themselves. To show, however, the poetic side of the author's teaching, we may conclude by a quotation from the lectures on Kidney Disease, when, after speaking of œdema and its association with impoverished blood, he goes on to say:—

"Again, let us recall that removing œdema by heat, when œdema was most extreme, has demonstrably on the whole been a failure ending in death. So we have been brought to see that colour in the human circulation, as in the vegetable circulation, is significant of power, simply speaking, of immense power; and we have to recall that colour is due to light, and that the blood owes its colour to light; and that the activity of blood, and the greatest activity of respiration, with its influence on serous circulation and general nutrition, prevail and are manifested when light-energy is most powerful on the earth—in daytime and in spring. And it is beyond question that in anæmia there is failure of respiration in consequence of the corpuscles of the blood being deprived of colour (light) energy." (Page 170.)

And he goes on to point out how plant and animal life is dependent upon light, in passages of much power and beauty, so that one is tempted to say if this be fancy it is fancy controlled and founded on actual scientific fact.

The Refraction and Accommodation of the Eye and their Anomalies. By E. LANDOLT, M.D. Paris. Translated under the Author's supervision by C. M. CULVER, M.A., M.D. With 147 Illustrations. Pp. 600. Edinburgh: Young J. Pentland. 1886.

THIS is undoubtedly the most exact and the most complete treatise on the difficult subject of the refraction and accommodation of the eye that has hitherto appeared. We have every reason for commending the efforts of Mr. Hartridge and others to familiarise students with this branch of ophthalmic practice, but their works are at most rudimentary and are intended only as introductions to its fuller study; but in the work before us we have as precise and complete an exposition as it is possible to give in the present state of science, and there are probably few amongst those who are regarded as professed ophthalmologists who will not derive advantage from a careful perusal of Professor Landolt's well-written and thoroughly practical work.

In bygone times it has been sufficient to enable a man to take a high, if not the highest, rank as an ophthalmic surgeon that he should have had, and should have availed himself of, the large opportunities afforded by a special hospital to acquire a practical knowledge of the principal diseases of the eye, and some degree of expertness in the performance of the ordinary operations. In future something more than this will be demanded of the accomplished ophthalmologist. He should be well grounded in mathematics, and especially in that branch which deals with optics; and he should be perfectly familiar with all that physiology has to teach, which, as the last edition of Funke's Physiology shows, is not a little. He may then hope to deal successfully with some of those forms of defective vision which otherwise present insuperable difficulties to the mere empiric. If there were any additional reason to be assigned for the special study of physiological optics, it would be found in the statement made by Professor Landolt, that at least two-thirds of the patients who consult an oculist suffer from optical disturbances.

The volume before us is divided into three parts: (1) the physical portion; (2) the theoretical portion; and (3) the clinical portion. The first portion deals with refraction, the nature and action of lenses, the formulæ for their refraction, and the dioptrics of the eye. The second portion treats of the mechanism of accommodation, its measure and amplitude, the nature of the chief defects of refraction, and the methods in use of determining the refraction and accommodation of the eye, a special chapter being devoted to astigmatism. The last part is occupied with the more practical side of the subject, with the therapeutics of the chief defects of vision, and the physical means by which they may be corrected. The large number of illustrations, which are excellently drawn, adds greatly to the value of the work. As might be expected, all recent physiological data recorded in the Archives of Ophthalmology and the various ophthalmic journals are well and accurately given, and the author has specially dwelt upon the relations existing between accommodation and convergence.

In conclusion, it is only requisite to state that the translator—Dr. C. M. Culver, of Albany, U.S.A.—has performed the work of translation in a very creditable manner, and that the English presents few or no indications of French peculiarities or idioms, though, from the time that has been occupied in the accomplishment of his task, Dr. Culver must have worked with remarkable assiduity.

OUR LIBRARY TABLE.

Experimental Chemistry. By Dr. STÖCKHARDT and C. W. HEATON. New Edition, revised. London: G. Bell and Sons. 1886.—This book is intended as a guide in the study of experimental chemistry under difficulties. The difficulties consist in the student's not having elaborate and expensive apparatus. The work has been for many years before the public, and has unquestionably proved of service to those students who, in spite of limited means and opportunities, are anxious to acquire some experimental knowledge of chemical science. Mr. Heaton, in producing a new edition, has retained the old methods of Dr. Stöckhardt's principles. Many new details have been introduced in the revised edition. Although written in a popular style, there is nothing that is not in harmony with orthodox chemistry. The first two chapters give a good outline of chemical physics freely illustrated by simple well-described experiments. The third chapter gives an account of the fundamental laws of chemistry, and explains clearly the atomic and molecular hypotheses. The other three-fourths of the book deal with chemical elements—non-metallic, metallic, and organic. The book is neatly got up, and is of convenient size for holding in the hand. It has been carefully edited.

Outlines of Lectures on Physiology, with an introductory chapter on General Biology, and an appendix containing Laboratory Exercises in Practical Physiology. By T. WESLEY MILLS, M.D., L.R.C.P. Pp. 200. Montreal: W. Drysdale and Co. 1886.—This work contains the headings of the lectures delivered by the author for the five past years in the M'Gill College, and will prove serviceable to the students attending Dr. Mills' lectures, but are of comparatively little service to others. We give an example which will allow our readers to judge for themselves. Under the head of gastric secretion Dr. Mills has the following:—"How obtained. Fistulæ. Flow only during digestion. Physical and chemical properties of the secretion. The ferment is pepsin. The acid reaction is owing to HCl present to the extent of 0·2 per cent. The HCl is free. The presence of butyric, lactic, and other acids is traceable to fermentation. Quantity of gastric juice; variations during digestion.

St. Thomas's Hospital Reports. New Series. Edited by Dr. GULLIVER and Mr. CLUTTON. Vol. XV.—The longest and perhaps the most intesting article in this volume is an outline of the history of Art in its relation to medical science, the substance of an introductory address delivered at the Medical and Physical Society of St. Thomas's Hospital, in Oct., 1885, by Mr. William Anderson. There are also further records of surgical experience by Mr. Le Gros Clark; medical cases in which two or more aneurysms were present, by Dr. Sharkey; some cases of neuroraphy or nerve-suture, by

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Sir William Mac Cormac; osteotomy of the femur for the relief of deformity caused by ankylosis of the hip, by the same surgeon; obscure nervous affections in children, by Dr. Hadden; sanitary science, by Dr. Ed. Seaton; cocaine in dental practice, by Mr. C. E. Truman; some aspects of the vaccination question, by Dr. Robert Cory; results of pre-prostatic puncture of the urethra in forty-six cases in which the operation has been performed in the hospital during the past few years, by Mr. G. H. Makins; cases of perforation of the vermiform appendix, by Dr. W. H. G. Mackenzie; surgical cases, by Mr. Charles Ballance; nerve-stretching for neuralgia, by Mr. Bernard Pitts; neurectomy of second division of fifth nerve, by Mr. H. H. Clutton; museum report, by Mr. Shattock; and reports of the obstetrical, medical, surgical, and ophthalmic departments, by Drs. Cory and Hadden, and Messrs. W. H. Battle and G. D. Johnston.

Alpine Winter in its Medical Aspects: with Notes on Davos Platz, Wiesen, St. Moritz, and the Maloja. By A. TUCKER WISE, M.D. Third Edition. Pp. 138. London: Churchill. 1886.—This appears to be merely a reprint of the second edition, published last year, with the addition of the meteorological observations taken in the Maloja by Dr. Wise from the 7th November, 1885, to the 27th March, 1886, and a few unimportant alterations in the description of the summer attractions in the neighbourhood of the Maloja. We cannot commend the insertion at the end of the book of four pages of laudatory notices of the previous editions, culled from the newspapers.

Illustrated Lectures on Ambulance Work. By R. LAWTON ROBERTS, M.D. Second Edition, with Illustrations, pp. 179. London: Lewis. 1886.—This is a new edition of Dr. Roberts' excellent work. He has added to it a brief sketch of Military Ambulance Organisation, based on materials furnished to him by Dr. Evatt and the Army Medical Regulations. We regret to say that we do not think this has in any degree added to the value of the book, which was originally drawn up as a practical handbook for the use of the working classes, to enable them efficiently to give immediate help to the injured in cases of accident. If all the extraneous matter were cut out and a cheap edition published for the use of the working portion of the population, for whom the lectures were originally prepared, it would form a valuable addition to the works on the subject of first aid to the wounded.

Ambulance Lectures, to which is added a Nursing Lecture. By JOHN W. H. MARTIN, M.D. With Illustrations. Pp. 120. London: Churchill. 1886.—This addition to the list of published lectures on ambulance work seems fairly adapted to the purpose for which it was originally intended, of providing "a reference book of immediate aid to the injured," but we would scarcely accept it also "as a guide to those intending to give such lectures." The lecture on Nursing might be improved without much trouble. In describing the method of changing the upper sheet in a bed, instructions are given how to slip in the clean sheet, but not a word as to the removal of the dirty one. Nor is anything said as to the noiseless method of putting coals on the fire by means of small paper bags. We wonder where the author found the statement that the ancients "named from 4 to 5 A.M. the 'Horæ Fatæ,' or hours of fate."

Dictionary of National Biography. Edited by LESLIE STEPHEN. Vol. IX. London: Smith, Elder, and Co.—This volume contains biographical notices extending from Canute to Chalmer. Its contents show no falling off in accuracy and completeness, so far as by a critical examination we have been able to discover, from those of the previous volumes, of which we have on all occasions spoken with praise. When completed the Dictionary will be well-nigh invaluable.

"Our Young Ladies," by Miss LILLIE HARRIS (London, Walter Scott), contains much useful and pertinent advice to the class of readers for whom it is intended. There is much sound sense in the suggestions offered to young persons of the gentler sex, who would do well to take to heart the somewhat sharp, though not unkindly, criticism which pervades the pamphlet.

POST-MORTEM IRRITABILITY OF MUSCLE.

To the Editors of THE LANCET.

SIRS,—Perhaps the following short account of post-mortem irritability of muscle, observed in a young Hindoo two hours after death, might be of sufficient interest to merit insertion in your columns.

A young Hindoo, aged twenty, was admitted into our wards on Feb. 28th, 1886, and died on Oct. 31st of phthisis pulmonalis. He was a remarkably thin and weakly-looking individual; but although he had a decidedly phthisical aspect, and suffered from cough, general emaciation, and diarrhœa, no dulness was perceptible on percussion of the chest walls. The post-mortem examination revealed a large vomica with infiltrated edges, situated at the root of the left lung, which sufficiently accounted for our inability in detecting any marked alteration on percussion. Numerous small abscesses were also found throughout the substance of the left lung. The intestinal walls were of a dull clay colour. A most peculiar phenomenon in connexion with the voluntary muscles, however, more especially attracted our attention. About two hours after death had taken place, one of our students, who was inspecting the body, percussed the pectoral region, and, to his great astonishment, noticed that the muscles responded most energetically to the stimulus conveyed by the percussing finger, and contracted very promptly. On examining the muscles, I was able to produce most vigorous contractions of the biceps and flexor muscles of the arms, the pectorals, the sterno-cleido-mastoids, the masseters and temporals, and also of the rectus femoris and other muscles of the lower extremity. The biceps and pectorals, especially, responded very promptly, and the contracting muscular fibres of the biceps in some instances rose to certainly half an inch above the level of the quiescent portion. The muscular substance itself was very soft and doughy to the feel, and of a pink colour. Although I have very frequently seen a stimulus call forth fibrillary muscular contractions in emaciated persons suffering from phthisis, I have never before observed the same phenomenon in such a remarkable degree of intensity on the body of a person in whom life had already been extinct for two hours, and I should be much interested to know if this post-mortem phenomenon is common in cases in which the patient has very gradually succumbed to a chronic exhausting disease. Perhaps I should also add that the temperature at the time these observations were made was 90° F., and that the time of the year was what is here called the "dry season."

I am, Sirs, yours truly,

JOHN H. SPITZLY, L.R.C.P., M.R.C.S. Eng.

Military Hospital, Paramaribo, Surinam, Nov. 30th, 1886.

"UNUSUAL CASE OF ORBITAL TUMOUR."

To the Editors of THE LANCET.

SIRS,—Under this heading Mr. T. H. Bickerton in your issue of Dec. 11th, publishes a very interesting case of orbital tumour, much resembling one fully described in "Erichsen's Surgery" (last edition). The tumour, however, a malignant sarcoma, was removed by Mr. Heath, and again enormously developed, penetrating the ethmoid, frontal cells of frontal bone, nares, and pharynx, the patient (a relative of my own) dying at the age of twenty-one, having suffered from the age of four years when several polypi were removed from the nose. Previously to death, proptosis of the right eye amounted to about three inches, and of the left about five inches, having the appearance of an eye fixed on a tumour the size of a cricket-ball. Sight was perfect in the right and fairly normal in the left—a remarkable feature, considering the necessary enormous amount of lengthening of the optic nerve. The brain was clear even at her death.

I remain, Sirs, yours truly,

W. C. ROCKLIFFE,

January, 1887. Ophthalmic Surgeon, Hull Royal Infirmary.

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THE LANCET.

LONDON: SATURDAY, JANUARY 15, 1887.

ANY complete or accurate account of the cholera epidemic of 1886 will be impracticable until official reports on the subject have been issued by the Governments of the countries concerned. But the statistics issued from time to time from official Italian sources have proved during the two previous years to be in the main correct, and, in so far as they have erred, it has not been in the direction of exaggerating the extent of the previous prevalences. The 1886 returns, which we are now able to summarise, may therefore be taken as affording a fairly true account of the diffusion of cholera in Italy. As regards Austria-Hungary the matter is different, for whilst reasonably regular returns were received from some parts of the empire, only the vaguest rumours were made public as to the extent of the disease in many large provinces. Subject to the limitations here indicated, it will, however, now be possible to give some general account of the diffusion of cholera in Europe during the third year of the epidemic of 1884–86.

During the close of 1885 and at the commencement of 1886 cholera was lingering about the southern portion of Spain and the north of France, but in neither of these countries did it exhibit any tendency to spread as the spring and summer advanced. From Italy there was no cholera news during the early months of last year, and it was not until the middle of April that the public learnt for the first time that fifteen deaths had occurred in the important port of Brindisi, and that the disease was rapidly extending. Bari, a neighbouring port town, was next attacked, and very soon it was found that cholera was also prevailing in the city and province of Venice, and that it was extending towards the Austrian frontier. Including the province and the city of Venice, 235 cholera deaths had occurred before the end of May. With the months of June and July the disease steadily spread, a number of additional places were attacked in the south; and in the north, whilst the infection was persistently maintained in the province of Venice, it had also become widely diffused in the provinces of Ferrara, Padua, Bologna, Vicenza, and Ravenna; it also clung with special tenacity to a number of places lying on the low lands near and to the south of the mouths of the Po. In these districts the disease gave evidence of further extension during the month of August, although to the south, at Bari, Brindisi, and in the province of Leece, there were signs of abatement. But at the same time extension also took place in the south, and at Barletta, San Marco in Lamis, and Acquaviva the disease prevailed with great virulence. The disease also made its way into the vicinity of the Bay of Naples, but its progress there was fortunately not great. Even its extension into the city of Naples was each time controlled, and it is to be hoped that the Neapolitans may be led to see how even one great sanitary improvement, such as the provision of a fine service of water, probably saved the southern city from renewed disaster. In all there had by this time been about 546 cholera deaths in Italy.

Then came the beginnings of a general abatement of th disease throughout the kingdom, and in the main it may b said that the epidemic still remained confined to the sam northern and southern districts which had been invade earlier in the year. As October set in a further diminutio became evident, and this continued into November, excep in so far as a sudden and somewhat violent outbreak a Genoa is concerned. The movement of troops from infecte localities into the northern port is alleged to have brough about this extension, which caused nearly 115 deaths befor it ceased. Forming a rough estimate of the total extent o the disaster in Italy during 1886, it may be stated that no less than 15,700 persons were attacked with cholera, an that nearly 6500 died.

In Austria-Hungary cholera appeared in the province o Trieste very soon after the disease had established itself i the province of Venice, and during the month of July th malady had already caused a very considerable mortality in Trieste and its neighbourhood, and at Fiume. In th provinces of Trieste and Istria the disease was maintaine throughout the whole course of the epidemic, the principa places attacked being Trieste city, Fiume, Pola, Isola Rovigno, Grado, Gradisca, and Gorizia. But the disease als made its way into Croatia and Dalmatia, and a continuou mortality was for a long time maintained in the Croatia villages, the only available statistics as to which were statements of total deaths during specified periods. During the month of September the important town of Raab became infected, and owing to its situation fears were at one time expressed for the safety of Vienna on the one hand and Buda-Pesth on the other. The outbreak at Raab ceased with a total of 24 deaths, but Pesth was very soon invaded, the mortality being steadily maintained there from the middle of September to the third week in November, when over 1200 persons had been attacked, and nearly 500 had died. The extensions to Vienna were fortunately quite unimportant, and they were in each instance at once checked. Whilst the disease was still in progress in the provinces in the north-east of the Adriatic, the province of Carniola was attacked; and at Szegedin, in the heart of the empire, a serious outbreak involving some 200 lives took place. Later on, and quite into the month of November, scattered outbreaks were occurring, and the disease spread into Galicia to the north and across the Servian and Roumanian boundaries to the south and east. Accurate statistics as to this epidemic are at present quite unobtainable. It may, however, be stated that in the city and province of Trieste nearly 700 fatal attacks occurred, and that it was in this neighbourhood that the disease most persistently maintained itself. Quite up to the close of the year cholera was still heard of in various parts of Austria-Hungary, and its reappearance there next summer is by no means improbable.

It only remains for us to refer to a statement made that during the later portion of the epidemic in Venetia the disease, as then observed, bore little or no resemblance to true Asiatic cholera, although it was so regarded in official places, all deaths being included under the heading of cholera. How far this may have been due to the fact that with an abatement of cholera another fatal

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disease, having a diarrhœal character, had occurred in the province, or that during the final stages of an epidemic which had prevailed in Italy during portions of three successive years true cholera had lost its essential characteristics, and was, under the circumstances of Europe, lapsing into an ill-marked form of disease, we cannot as yet say. We believe that a report on the subject will soon be forthcoming, and it will be looked for with considerable interest by those who desire to learn all that can be ascertained concerning the etiology of cholera in Europe.

A GREAT many circumstances conspire to make the question of medical providence on the part of the working classes one of unusual interest at the present time. The question is always one of deep interest to our profession. Other professions can be largely dispensed with by the poorer classes. Not so with ours. Poverty only increases the medical wants of its victims, rendering them more liable to many infectious diseases, as well as to many seasonal ones, than those who are more comfortably situated. As medical men, we are sought for by the poor, by night and day. And, for love or for money, we have to obey the summons. And there is no fear of getting so much money for our services by any scheme yet propounded, that we shall be able to dispense with that great kindliness which has hitherto done so much gratuitously for the poor. But there are special reasons why we should at present consider the question deeply. Our gratuitous services are not appreciated as much as if they were the subject of a proper contract. The poor themselves are said to be demoralised by not being required to pay what they can for medical services. The hospitals are said to be impoverished, directly and indirectly, by doing for the poor what medical practitioners should be paid for doing. Medical practitioners complain bitterly of their patients and their occupation being taken away by the abuse of the Out-patient Department of hospitals, special hospitals, and dispensaries. There are ample reasons for believing that the working classes can and should pay much more to the medical profession than they do. One of these reasons is to be found in the fact that many working men make excellent private patients—reasonable in their demands, grateful for attention, and honest and prompt in the payment of their bills. They pay with cheerfulness bills which mock the pittance with which industrial medical societies have lately starved rather than paid their medical officers. Another proof of the ability to pay is the readiness with which the working classes will expend large sums for quack medicines which take their fancy or excite their faith, to say nothing of the enormous sums they waste, and worse than waste, on drink. All these considerations and many more unite to give this question an urgency which it has not had for years. It is receiving a corresponding amount of attention. As our readers know, a committee was lately appointed to study it in all its bearings, and it has already had one or two sittings (the last on Tuesday) under the presidency of Sir SPENCER WELLS. Two or three papers on the subject are before us as we write. One, on the "Wants of the General Practitioners of the Day," an abstract of an address to the West London Medico-Chirurgical Society by its president, Dr. F. H. ALDERSON, may be read in THE LANCET of Oct 30th, 1886; another, the Sturge Prize Essay, on the "Causes of the Financial Depression in London Hospitals, &c.," by Mr. NELSON HARDY, will be found in the *Philanthropist* for January. A third paper is by Dr. MAUNSELL, whose experience of Friendly Societies' provident medical institutions has been great, and whose paper is entitled "Summary Views on Medical Aid." DR. MAUNSELL found it difficult to work under the hard and exacting conditions now popular with such societies; but, to his credit be it said, he has not allowed his experience to embitter him, or abate a most kindly interest in the reasonable settlement of this question.

We wish we could see in any of these papers a sign of the settlement of the questions now agitating the profession. Mr. HARDY looks chiefly to a better understanding between hospitals and provident dispensaries, in virtue of which hospitals shall decline most of their out-patients, relegating them to one or other of a list of provident dispensaries that is to be kept on the premises. There is something to be said for this recommendation, and it would tend to help the dispensaries. In acting in this direction, though perhaps not to the extent indicated by Mr. HARDY, the hospitals would excite much public gratitude and create a claim for more liberal support. But we do not see that it would greatly diminish their financial depression. It is notorious that hospitals do not spend much money on out-patients. Mr. HARDY himself does not estimate the direct expenditure in this way as more than £15,000 a year, which would not go far to meet the deficiency which so harasses their treasurers. He despairs of any adequate attention to this great question from Governments which are influenced mainly by what will bring parties into office and keep them there. But he has hopes that the Royal Family, especially in the Jubilee year, may bring their great influence to bear on the problem, and relieve the hospitals of an incubus that cripples them sadly Her Majesty the QUEEN has never been insensible to suffering, especially among the poor, and if hospitals have not had so much direct help from her as they sorely need, it is probably largely because their wants have not been brought adequately under her notice. We should be sorry to see the Jubilee misused or abused to endless indirect purposes, but of metropolitan charities that deserve to profit by it in this glorious year we place hospitals far above all the rest. One of the best features in Dr. MAUNSELL'S treatment of the subject is his clear recognition of the unsatisfactory working of many so-called provident experiments, notably those by the great Friendly Societies acting in combination and exacting enormous labour for the lowest possible remuneration, with the result of having to appoint chiefly young men in urgent want of employment, who generally resign before long, exhausted or offended by the nature of their work and the ungenerous treatment of their employers. It is fairly to be doubted whether the medical profession on the whole was not better off before any of the provident experiments were in vogue than at the present moment, when providence seems another name for shabbiness.

IT is singular and not without instruction to note how the pathological ideas of one generation, after being discarded and rejected, are often revived and flourish under a new guise. The progress of discovery seems to bring to light these older notions, and to prove how near the truth

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they were in spite of the disadvantages under which their promulgators laboured. It has been reserved for these latter days to restore the Hunterian doctrine of inflammation, allowance being made for wider knowledge of morbid processes, to its pristine condition. That doctrine for a time dominated pathology, but it came to be modified and ultimately replaced by ideas based upon the facts of cell life and nutrition. An approximation to the teaching of JOHN HUNTER was made when COHNHEIM dwelt on the share taken by changes in the bloodvessels as the essential feature of the inflammatory process; but it was not until the full force of the presence of micro-organisms in relation to inflammation was appreciated that the real truth underlying HUNTER'S views came to be again recognised. Dr. KARL ROSER of Marburg has drawn attention to the bearings of the new teaching upon the old in a monograph which is devoted to a clear and concise criticism of the teachings of JOHN HUNTER and of subsequent pathologists (*Entzündung und Heilung*, Leipzig, 1886). His essay forms a complete vindication of HUNTER'S prescience, and it is gratifying to note how thoroughly the German surgeon has familiarised himself with the teaching of our great countryman. The keynote of the essay is to show that HUNTER was correct in asserting that repair by primary union runs its course without inflammation, and that inflammation is not only totally distinct from the reparative process, but is to be regarded as a secondary complication—a disease which retards rather than promotes repair. For a century, says ROSER, has HUNTER'S teaching upon these subjects been misunderstood or wholly forgotten [with, it must be added, one notable exception—Sir J. PAGET], even by those who have claimed to be his exponents; and the doctrine of inflammation has been by so much confused and perverted. The result has been the greatest diversity of view upon the subject. Some hold that callus is the result of inflammation; others that inflammation is absent in the repair of simple fractures, but occurs in compound fractures from the infection of the wound. Even COHNHEIM, who discriminates between infective and traumatic inflammations, does not detach "repair" from "inflammation." The reason for this confusion lies, it is held, in the neglect of the study of the etiology of inflammation. Too much attention has been bestowed upon the *process*—too little upon its *cause*. It would seem that a mere anatomical definition is inadequate. To attribute the whole series of phenomena to changes in the vessel wall, as COHNHEIM and SAMUEL did, tends to both unnecessarily limit the process and to unnecessarily widen it. It confines it within the limits of vascular supply; it extends it beyond the limits of actual inflammatory change. VIRCHOW was nearer the truth in rejecting the lesion as the essential factor, and replacing it by the "irritant." If by "irritant" we mean "microbe," we get the key to the etiological definition, and the solution, according to ROSER, of the disordered action known to us as inflammation. Practically, the acceptance of this view, which draws a sharp line of demarcation between the reparative process and the inflammatory, is of considerable value. It introduces into inflammation, as its essence, the principle of infectiveness, and of destructive processes dependent on the action of external living agents. It leaves the healing process as the natural outcome of the nutrition of the tissues—a restorative process to be fostered and guarded from the invasion of those external agents which would excite inflammation in the healing wound and derange the normal course of its repair. Union by first intention occurs in the protected clean wound; it is non-infective and non-inflammatory. Healing by second intention is complicated by the intervention of inflammation; the wound has become infected. This is the modern interpretation of HUNTER'S doctrine, and the standpoint which must be assumed in regard to repair and inflammation. The old terms have lost their former significance, but the facts they described, when considered by the light of modern discovery, seem naturally to fall into place. Fifteen years ago HÜTER and KLEBS were the first to point out the importance of infectiveness—i.e., the intervention of micro-organisms in the inflammatory process; but naturally such teaching could not conform with views like COHNHEIM'S.

In pursuing the subject further, Dr. ROSER shows that HUNTER does not say much regarding the causes of inflammation. He refers to local or constitutional tendencies as altering the blood and interfering with primary union, and does not consider that air itself could excite inflammation. And we now know that he was right; for if air be thoroughly aseptic, it is innocuous (ZAHN). Again HUNTER distinguished between inflammation and suppuration. We now know that both are due to the presence of micro-organisms. OGSTON found that all acute abscesses contained micro-organisms, but did not detect them in cold abscesses; but since KOCH'S discovery of the bacillus tuberculosis, renewed investigations have resulted in the detection of micro-organisms in the walls of cold abscesses (SCHUCHARDT and KRAUSE). It was pointed out by COHNHEIM that inflammation and suppuration can be excited by irritants injected into bloodvessels; but it is a question whether such results can be regarded as inflammatory apart from the presence of micro-organisms. HUNTER even conceived of pus being of vascular origin, and was in this sense as much a precursor of COHNHEIM as he is of LISTER; for ROSER points out that the Hunterian distinction between inflammation and repair is precisely that which governs the Listerian methods. As regards other points in the inflammatory process in which HUNTER'S observations and opinions have been verified by the germ theory, reference is made to the fact of inflammatory œdema and the allied process of serous inflammatory effusions. It is doubted whether in either case it is essential for the micro-organism to be present at the actual seat of effusion; but we confess to a difficulty in accounting on this view for the inception of, say, a simple pleurisy. The progress of bacteriology, which has demonstrated the presence of microbes in the pneumonic lung and in the valvular vegetations of endocarditis, will doubtless in time clear up this and similar difficulties; but the essential principle that inflammation owes its origin to micro-organisms is likely to prevail. Another question of interest is the fact of heightened temperature of an inflamed part. Without entering into this question, which has been much debated, and is discussed with tolerable fulness by ROSER, it may suffice to mention that according to this writer the phenomenon depends upon two factors. The one is the old and generally accepted fact of the increased vascularity of

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the inflamed area; the other is that it is due to the vital activity of the microbes themselves. Here, however, we are in the presence of theoretical considerations, which are of less importance than the recognition of the essential facts which the practice of antiseptic surgery has done so much to demonstrate—viz., that repair is *not* inflammation.

THE report of the Statistical Committee of the General Medical Council, to which we referred in our last week's issue, contains some tables which are peculiarly interesting just now in reference to the movement for granting degrees to the London medical student. The figures given therein trace most accurately the career of those who commenced their professional education on their registration as medical students during the period 1871-75. We regret that there can be no statistics for the next quinquennium, although comparatively few of those who began in 1875-80 will still be without a registrable qualification, if they can ever expect to enter our ranks. The report deals with 6403 students who were placed on the Students' Register during the five years 1871-75, and classed as follows: England (London 2009, or 31·38 per cent.; provinces 1111, or 17·35 per cent.), 3120, or 48·73 per cent.; Scotland 1717, or 26·82 per cent.; Ireland 1532, or 23·93 per cent.; abroad 34, or 0·53 per cent. It thus appears that one-half of the medical students of those years began their education in England. Of the 3120 English students, 349 began in other places of study and pupilage than the large metropolitan and provincial schools, or, in other words, 1 in every 9 was placed on the register either as a pupil at a provincial hospital or as being with a general practitioner. In Scotland only 7, and in Ireland 73, thus began their medical education, and in this respect the English student would have no mean advantage. Commencing professional education in the country and not at a university is practically unknown in Scotland. Out of the total 6403 students, 4472 have registered one or more qualifications, whilst 1931 (30·16 per cent.) have failed to find a place on the Medical Register. The failures are thus distributed: England 858, or 27·50 per cent.—viz., London 528, or 26·28 per cent.; provinces 330, or 29·70 per cent.; Scotland 532, or 30·98 per cent.; Ireland 526, or 34·33 per cent.; abroad 15, or 44·12 per cent. The largest percentage of medical students has qualified who commenced in London, those who commenced in the provinces come next, then Scotland, then Ireland, and lastly those who begin abroad, of whom less than one-half ever obtain a British diploma. Of the 4472 registered practitioners 607 only took a single qualification, and of these no less than 256 became M.R.C.S. Eng. and 99 L.S.A. Lond., and are now presumably practising on one of these qualifications only. Single qualifications are very much less common among Scotch and Irish students. Recognising that the education of the student is practically completed when he obtains a double qualification, we are next told in what division of the kingdom each of the 3865 doubly qualified practitioners began their education, and what proportion migrated into another division for one or both qualifications. The 3865 began thus:—London, 1250; provinces, 603; Scotland, 1099; Ireland, 896; abroad, 17; of these only 7 per cent. in Scotland and 11 per cent. in Ireland remain with a single qualification. The migrations are very clearly placed before us by the following statistics—viz., to England, 20 out of 1185 Scotch students, and 53 out of 1006 Irish students; to Scotland, 464 out of 1481 London students, 419 out of 781 provincial, and 494 out of 1006 Irish students; whilst to Ireland there only crossed 21 from London, 58 from the provinces, and 12 from Scotland who obtained a qualification. If the analysis be carried still further, it will be seen that of these students of 1871-75, 45 from Scotland and 31 from Ireland have become M.R.C.S.Eng.; 41 from Scotland and 19 from Ireland, L.S.A.Lond.; whilst only 4 from Scotland and 3 from Ireland have taken the L.R.C.P. Lond. Of those who went to Scotland for qualifications, 275 from London, 227 from the provinces, and 232 from Ireland became L.R.C.P. Ed. (against 257 Scotchmen); 98 from London, 119 from the provinces, and 228 from Ireland became L.R.C.S.Ed.; whilst 40 from London, 35 from the provinces, and 27 from Ireland qualified at the Faculty of Physicians and Surgeons of Glasgow. The only real attraction in Ireland to those on this side of St. George's Channel is the L.K.Q.C.P.I., which was obtained by 64 English students (Liverpool and then Manchester being the only schools practically represented), and by 10 Scotch students, chiefly from Edinburgh. Of English students 354 qualified at the London College of Physicians, and 502 at the Edinburgh College.

In addition to the question of relative difficulty of examination, we cannot lose sight of the fact that the use of the title of "Doctor" by the licentiates, although not really claimed, was tacitly permitted of the Scotch and Irish Colleges, and is used to-day by very many of these practitioners of 1871-75 on their visiting-cards and door-plates. The feeling of the authorities of the London College against this unfair appropriation of a title was very strong, and most explicitly laid down. The recent combination of the Colleges both in England and Scotland has made a marked difference in the number of London students who now seek the L.R.C.P. Edin., and it will still further affect it.

With regard to the migration for a degree, the figures are no less instructive. The students who entered during the quinquennium 1871-75, and obtained a double qualification, have moved from one place of study to another to gain an M.D. degree as follows:—From London to Durham, 11; to Edinburgh, 8; to Aberdeen, 17; to Ireland, 10. From the provinces to Durham, 3; to Edinburgh, 14; to Aberdeen, 2; to Ireland, 4. From Scotland to the University of London, 2; to other English or Irish Universities, 0. From Ireland to English or Scotch Universities, 0. The only students, therefore, who migrated in search of a degree were English students, and these, with the exception of those going from provincial schools to Edinburgh, were mainly from London. The Aberdeen degree of M.B. could then be taken after one year's residence, and this explains why so many students took a long journey into the north. Aberdeen now demands two years' residence, as do Edinburgh and Glasgow, and the number of London students who now go there, as to Glasgow, is practically *nil*. Durham has come to the rescue, and a year at Newcastle-on-Tyne is for the students of the past decennium a sufficient residential qualification for its degree. The last calendar of this University shows that this short period is an efficient attraction to our average London students, for out of 52 graduates at the M.B. examination in December, 1885,

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and June, 1886, 34 hailed from London and 2 from Birmingham, whilst only 16 were trained at home. Only 36 candidates passed at the recent M.B. examination at the University of London; so that practically Durham now guarantees the efficiency of as many London men in a year as does the University of London itself. Students from every medical school in London are included in the Durham list, whilst only seven schools are represented at their own University. The uselessness of the University of London to the majority of London medical students could not be more conclusively shown.

DR. STURGES has made out a good case. He strikes hard against the medical ignorance of teachers, guardians, and friends of children. A year or two ago a book was published by a schoolmaster who advocated the appointment of doctors to head-masterships. This no doubt was going too far in the right direction. To all our public schools there are attached medical officers. The Association of Medical Officers of Schools has already done much to place before its members certain codes of rules for uniform observance, especially in the matter of infectious diseases. A not unimportant part of the duties of medical officers of schools should be, and doubtless is, care for and consideration of the hygiology of the nervous system.

We do not suppose that Dr. STURGES' arguments are founded on statistics favourable to the view of the pathology of chorea of which he has been a consistent and ardent advocate. Our contributor cannot be suspected of having so grouped his statistics as to defend his own positions. Yet we might urge that the school, far from being a cause of chorea, was really a preventive of it. We might quote many authorities to show that schooling secured immunity from chorea, or rather that mental training was conducive to the health and nutrition of the cerebral cortex—which last-mentioned organ would certainly not be objected to by Dr. STURGES as the primary focus of the "fidgets and restlessness." We have conceded that there is truth in the author's arguments. The whole fault, however, does not lie in the schooling any more than the whole truth lies in the notion of *school-made* chorea. Eight of the twenty-one cases of chorea attributed to schooling may have been at least partly due to insufficient ingestion of food. The brain may have been forced on inadequate diet, and, likely enough, defective supply of fresh air, or, what is the same thing, overcrowding either at home or at school. Again, we must take account of the family and personal history of each case. In the eight cases inherent instability of the nervous tissues may have been derived from ancestors or acquired from actual disease. Even if all this be granted, still the schooling may have been a not inconsiderable item in the actual production of the affection. The whole causation, so far as external environment goes, is indeed fully familiar to and rightly recognised by Dr. STURGES. Family rows, drunken violence, home cruelty, semi-starvation, the perils of the street, may undoubtedly cause chorea in the presence of the predisposing physiological (or is it pathological?) condition of the cerebral cortex.

The evil comes, as is wisely remarked, from the fact that teachers do not differentiate their material in respect of temperament, mental activity, bodily health, and home circumstances. Mental dulness and wayward behaviour are mostly ascribed to wilfulness and wickedness. Perhaps in nine cases out of ten the teacher thinks that "caning" may arouse mental activity and abate abnormal irritability of temper. When dulness and irritability supervene suddenly about the period of examination, it may not seem unlikely, from the teacher's point of view, that a boy or girl may shirk work and prove troublesome from simple idleness and wilful dislike. The teacher ought to remember that the examination may pervert temper and increase dulness, and this altogether apart from the child's control. The necessity for proper food, clothing, and air being admitted, surely the remedy lies not in teaching the teachers, who have already enough to learn, but in providing competent medical officers to inspect the children from time to time, or to be called in consultation whenever any case of irritability and fidgetiness attracts attention.

Annotations.

"Ne quid nimis."

THE WIMBLEDON SCARLATINA EPIDEMIC.

IN accordance with the announcement which we made last week, the Local Government Board have instituted an inquiry into the epidemic of scarlet fever at Wimbledon and Merton, and it is satisfactory to find that the inspector appointed to this duty is Mr. W. H. Power, who is so well known in connexion with similar investigations. It is now believed that the first announcements somewhat exaggerated the actual number of persons attacked; but since the inquiries, which will show what was the actual amount of disease, have only just been properly organised by the sanitary authority, it would be premature to express any opinion on this point. In the meantime we would point to the fact that the incidence of the disease has been shown to be directly connected with a local milk distribution, the milk coming from a dairy-farm, and being distributed by a tradesman whose only connexion with the farm was that he procured his supply of milk there. The actual means by which the milk became infected is not yet quite cleared up. At first sight, it appeared that it might have been due to an actual case of scarlet fever, for the disease appeared in the families both of the dairy-farmer and of the milk-vendor. The precautions which were taken at the dairy-farm seem to have made it all but impossible that the infection could have emanated from the lad who lay ill there under the closest isolation; and as regards the case in the milk-vendor's family, it appears that milk which was delivered by his men without ever having come near to his premises conveyed infection just as much as that which passed through his premises. Probably the actual dates of these two cases of scarlet fever will go to show whether there is any chance of their being regarded as causes of the epidemic, or whether they were merely two attacks having the same cause as the epidemic as a whole. And this consideration leads us to say that suspicion already attaches to the cows themselves. True, they were examined and declared to be healthy, but examination such as that which sufficed to detect the disease which some time since led to the distribution of scarlet fever from the Hendon dairy will be wanted in order to set this question at rest. It is, however, noteworthy that the epidemic is an exceptionally mild one. Now, this mildness of attack will probably prove to be one of the leading characteristics of scarlatina passing directly from the cow to the human subject by means of milk. When Dr. Buchanan, in his report for 1882, first drew attention to the fact that

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evidence was gradually accumulating to show that milk carrying scarlatina actually possessed the power of propagating that disease at the very moment when it was received into the pail, and that the cow herself suffered from a disease having strong analogy with scarlatina in the human subject, it was the occurrence of certain mild epidemics of that disease which had led to this conclusion. The fact that there is a cow disease having the effect foretold has since been proved, and the mild epidemic at Wimbledon and Merton may be another example of it.

THE LATE LORD IDDESLEIGH.

THE sudden death from syncope of Lord Iddesleigh, which occurred on the 12th inst. at the official residence of the Prime Minister in Downing-street, under, we may say, dramatic circumstances, although startling to those around his lordship, had not been unforeseen by his immediate friends, and had been anticipated by his medical attendants. The incidence of symptoms pointing to such a termination of the life of so eminent a statesman and so distinguished a public servant may be dated from 1882, on Nov. 23rd of which year the following reference to the matter was made in our columns:—"We regret to learn that Sir Stafford Northcote and Mr. Childers have both broken down in health, and have been ordered abroad for change and complete rest. We are not surprised at it. The work which has devolved upon the former as leader of his party during the last session, and the late hours which were the rule of the House, the very short intervals of relaxation, and the renewed work and worry of the autumn session, would be sufficient to use up the physical strength of even a younger man." The circumstances attending Lord Iddesleigh's decease will doubtless, ere these words are read, be known to our readers, but may be briefly summarised as follows. Lord Iddesleigh left his residence near Exeter on the 11th inst. and came to London, first to make final arrangements with Lord Salisbury with respect to the transfer of the seals of the Foreign Secretaryship and afterwards to attend a meeting at the Mansion House. During his visit to town he was the guest of Earl Fortescue, and on the evening of his arrival appeared to be in good health and spirits, and talked with his usual animation. On the following day (the 12th) he visited the Foreign Office to take leave of the permanent officials, and spoke most cheerfully to his late colleagues in that department. His lordship afterwards crossed to 10, Downing-street, and while waiting to see Lord Salisbury he became faint and fell into the arms of Mr. Henry Manners, Lord Salisbury's private secretary, who had hastened into the room at the first alarm. Medical assistance was at once summoned, and Mr. Langston was early in attendance, being closely followed by Mr. Hebbert. On their arrival the case was at once seen to be hopeless. The beating of the patient's heart was imperceptible; he was indeed completely pulseless. He was lying on his back, absolutely pallid, and just breathing. At the suggestion of Mr. Langston, hot-water stupes were applied over the heart and ether was injected into the forearm. There were no evidences of cerebral disturbance, and an entire absence of convulsive movement. The restoratives administered were absolutely without effect, and after two feeble gasps his lordship passed away peacefully and without a struggle. Lord Salisbury was in the room. Dr. Mortimer Granville, who had previously been consulted by Lord Iddesleigh, was also summoned, but did not arrive until death had occurred. An inquest will not be necessary, as Dr. Granville has given a certificate attributing death to gout, cardiac disease, and syncope. The existence of advanced mitral disease with aortic valvular complication had been clearly recognised. The aortic trouble was the immediate cause of death. Few statesmen have been so sincerely honoured and respected by the people of England; and for uprightness of character, candour, and all the virtues which combine to make, in the highest sense of the word, a man, Lord Iddesleigh has left a name which will not soon be forgotten.

A TRIBUTE TO ENGLISH SURGERY.

MR. TEALE'S "Dangers to Health" has long ago reached a fourth edition, and has been translated into several continental languages—Spanish, French, and German. In the matter of the German edition Mr. Teale has been highly honoured. The book so interested Prof. Esmarch on his visit to England that he determined to translate it. But soon after, he tells us in his preface to the German edition he had the honour of an interview with H.R.H. Princess Christian of Schleswig-Holstein on this subject, and she at once offered to translate the work into German, which she speaks as well as she does English. Esmarch's preface gives an interesting account of the difficulties which arose in getting any German publisher to undertake its publication owing to the cost of the pictures, and from the fact that Germans buy fewer books than the English and French, and thateven German doctors take small interest in these questions, German architects still less, and German landlords least of all. He was wellnigh in despair, till on going to the last International Medical Congress in Copenhagen, and being the guest of a noble Danish merchant, Herr Augt. Gamél, he and his brother, Herr Arnold Gamél, on hearing from Esmarch the difficulties of getting the book published, undertook to place the necessary sum at Esmarch's disposal. This is a very pleasant illustration of the uses of an International Medical Congress. We congratulate Mr. Teale on the honour conferred on his book, by having a Princess for translator, a preface by Esmarch, and such enlightened co-operators as the brothers Gamél. The sound commonsense of English surgery is thus seen to be appreciated and will find imitators, as the antisepticism of Lister has in every country where men wish to advance in health and civilisation.

LONDON MORTALITY IN 1886.

A SUMMARY of the facts published in the Registrar-General's fifty-two weekly returns for 1886 shows that the rate of mortality in London during the year was equal to 19·9 per 1000 of the estimated population in the middle of the year. This rate slightly exceeded the rate in 1885 (which was 19·6, and lower than that recorded in any previous year), but was 1·8 below the mean annual rate in the ten years 1876-85. In the twenty-seven large provincial towns dealt with in these weekly returns, having an aggregate population rather greater than that of London, the mean death-rate last year was 21·8, and 1·9 higher than the rate in London. Previously to 1883 the London death-rate had never fallen below 21 per 1000, whereas in the four years 1883-86 the rate was successively 20·5, 20·4, 19·6, and 19·9. The death-rate in London last year from the principal zymotic diseases was 2·7 per 1000, and was almost identical with that which prevailed in the preceding year. The two most striking features in the mortality statistics of London in 1886 were the comparative immunity from fatal small-pox, and the further considerable decline in the mortality from scarlet fever. Only 5 deaths from small-pox were registered in London during last year, against 893 and 890 in the years 1884 and 1885. Only twice previously since the Registrar-General's Returns were first issued in 1838 have the annual deaths from small-pox fallen below 100; they were 57 in 1874 and 46 in 1875. The deaths from scarlet fever last year were 688, and lower than in any previous year on record, excepting 1841 and 1873, when they were 663 and 645

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respectively. Allowing for increase of population, however, the mortality from this disease was lower both in 1885 and 1886 than in any previous year of which we have record. The marked decline in the death-rate from this disease in recent years is especially noteworthy; it was 1·13 per 1000 in the ten years 1861–70, fell to 0·60 in the following ten years 1871–80, and during the first six years of the current decennium it further fell to 0·42 per 1000. It may be pointed out that this fall in scarlet fever mortality has been coincident with the existence and increasing use of the isolation hospitals of the Metropolitan Asylums Board. With regard to the other zymotic diseases, it may be stated that the fatal cases of measles and diphtheria last year had declined, while those of whooping-cough and diarrhœa showed an increase upon the numbers in 1885. The 701 deaths referred to fever included 618 from enteric fever, 13 from typhus, and 70 from ill-defined forms of fever; these numbers did not materially differ from those in 1885, but the deaths from typhus were fewer than in any year on record. Infantile mortality, owing to the greater fatality of infantile diarrhœa, showed an increase last year, and rose from 156 and 148 per 1000 registered births in 1884 and 1885 to 159, which was higher than the recorded rate in any year since 1878, when the hot summer raised it to 164. On the whole, the mortality statistics of London last year afforded renewed evidence of constantly improving sanitary condition, and bear most favourable comparison with those of any of the other large European cities.

NASAL TREATMENT OF WHOOPING-COUGH.

A DEFINITE idea has of late gained ground as to the nature and origin of whooping-cough. The idea may or may not be pathologicallly correct; but the treatment founded on it is decidedly of a rational description. What is more to the practitioner, this treatment is said to prove remarkably successful. Correctly speaking, the idea is compounded of at least two factors. One of these is fully as familiar as whooping-cough is common. Micro-organisms are the cause of the affection. The microbe effects an entrance into the economy from a special site, and that site of entrance is the soft tissues of the nasal fossæ. The rational therapeusis is founded on formulæ of an equally explicit character. Antiseptics or germicides will destroy the living germs. They should be used early, and their sites of action are the nasal fossæ. The number of remedies already recommended is sufficiently striking. The method at present in greatest favour appears to be insufflation. Convenient contrivances of different designs for effecting the insufflation may be met with in great variety at the surgical instrument makers. A clumsy but successful insufflator may be contrived by rolling a spill of paper, inserting a little of the powder to be employed at the end that enters the nostril, and supplying the motive force by the parent's or operator's puff of breath. But the puff-balls or regular insufflators are effective and not costly. Iodoform, salicylic acid, and boracic acid are the three antiseptics that appears to be most in vogue. They should all be very fine, almost impalpable powders. Nasal douches are very effective if they can be managed, as in older and not too nervous children. The most effectual douche of antiseptic kind appears to be the 1 in 500 corrosive sublimate. Care is to be taken that no appreciable quantity of this solution is swallowed. Some practitioners employ simple nasal douches in the earliest stages—say, a drachm of Condy's fluid or of common salt to the pint of water. And this is done as much to mechanically wash away secretions with contained contagia as to destroy the germs. Weak solutions of tincture of iodine and of alum are also used. These lotions may be syringed into the nasal passages, or the children may be induced to snuff the lotion up from the palm of the hand. Older children may be taught to take the powders as "snuff." Repeated applications of any of these methods are necessary to ensure thorough topical treatment in the early stages of the catarrh. The antiseptic agents may also be applied, as in young infants, by means of camel-hair brushes charged with ointments, lotions, or glyceroles. It is necessary to clear away all secretions and scabs first, by syringing or anointing with oil. The agent is then directly applied to the bare congested surface of the mucous membrane. An ointment of half a drachm each of iodoform and eucalyptol to an ounce of vaseline is highly commended by some. The boroglyceride may be used in similar fashion, also lotions of corrosive sublimate. Any of the antiseptic solutions may be atomised by the steam- or hand-spray, and inhalations effected through the nostrils. It is doubtful whether the theory of this fashionable method is correct; but supposing it should be, it is equally dubious whether the good that results may not be from the mere treatment of the catarrh as such, apart from its supposed cause. A pledget of cotton-wool or a chamomile flower placed in the nostril to prevent the access of air alleviates the symptoms of an ordinary rhinitis. So it may be with the various applications, the principal of which we have mentioned. Cocaine is now widely used as a 4 or 5 per cent. solution painted on to the nasal and pharyngeal mucous membranes, not only in whooping-cough, but in simple or severe catarrhs.

THE DEGREE FOR LONDON MEDICAL STUDENTS.

AT the last meeting of the Medical Society of St. Mary's Hospital, Mr. A. J. Pepper, M.S., President, being in the chair, the following resolution was proposed by Mr. Edmund Owen, and seconded by Mr. J. J. Clarke: "That, in the opinion of the Medical Society of St. Mary's Hospital, it is expedient that a Degree in Medicine be placed within the reach of the general run of London medical students; and that this Society ventures to express the hope that this may be accomplished through the conjoint influence of the Royal Colleges of Physicians and Surgeons." To this several amendments were proposed, and fully discussed by members of the hospital staff and by the students, but at the conclusion of the debate, which had to be adjourned to a second meeting, the original resolution was carried at a late hour, amidst much enthusiasm, by an overwhelming majority. This is probably the first occasion on which the London medical students have collectively expressed their opinion on this question.

LONDON HOUSE DRAINAGE.

A COMPLAINT has been made by Mr. D. J. Ebbetts against the Commissioners of Sewers of the City of London, to which, no doubt, the attention of this body will be directed. Mr. Ebbetts, in a paper which he styles "a protest," while giving credit to the Commissioners for the efficiency with which the roadways are scavenged and the sewers constructed, says they neglect to exercise any supervision over the manner of construction of house drains, that the builders of new houses are required to deposit at the City office a plan of the proposed house drains, but that the Commissioners limit their action to determining the size of that part of the drain which enters the sewer, and to constructing it as far as the wall of the house; but beyond this they do not concern themselves. The interior drainage and its ventilation, the use of proper fittings, the avoidance of pan-closets and D traps, are not deemed matters for supervision; and hence the City is wanting in one of the most important details of sanitary administration. In the rest of London, as distinct from the City, ample powers are given to the sani-

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tary authorities to enforce all regulations which they may think fit to make, but, with very few exceptions, the subject is generally neglected, and certainly the principles embodied in the Model Regulations of the Local Government Board, which are largely recognised by provincial sanitary authorities, are disregarded. London so far as house drainage is concerned is deplorably careless, and Mr. Ebbetts' allegation shows that the City cannot claim any exemption from this condemnation. It is, however, only fair to note that building operations in the City are so costly and so well executed, that probably in new houses nearly all that is necessary is done voluntarily by the owners. Much difficulty stands in the way of any London improvement owing to the numerous authorities in whom are vested the right to control house drainage. The Society of Medical Officers of Health have always endeavoured, so far as the duties of health officers are concerned, to reduce to a minimum the disadvantages attendant upon this division, by taking counsel of each other, and we would gladly see a conference held between Metropolitan surveyors with the object of determining a uniform plan which would be accepted by all the local authorities. There appears to be no other method of attaining this object except that of transferring to the Metropolitan Board of Works the duty of regulating and supervising the planning and arrangement of the drainage of newly-built houses.

THE INEQUALITY OF THE PUPILS IN VARIOUS DISEASES.

DR. PASTERNATSKI, who has been working in Professor Chudnovski's clinic in St. Petersburg, has published in the *Vrach* an account of a number of observations he has been making on the inequality of the pupils in various diseases, thus carrying out a suggestion made by his chief in a work on the methods of examining medical patients, published in 1883, in which he expressed an opinion that careful examination of the pupils would lead to interesting results. Dr. Pasternatski examined a number of methods which have been proposed, but did not find any of them suitable for his purpose, and ultimately a much simpler plan, suggested by M. Follin, was adopted. This consists in bringing a catheter gauge card close to the eye, and comparing the size of the pupil with the apertures in the card. By this means the size of the pupil in millimetres can be ascertained with a degree of accuracy sufficient for the purpose. It is important to make the observations in the shade, for the difference, when there is any, between the diameters of the pupils increases as the light is diminished. The best method of conducting the examination is to close the eye which is not being observed, for this causes a slight increase in the diameter of the pupil of the latter, as was indeed remarked by Hippocrates. It was found, for example, in a case in which this was tested, that when both eyes (being in the shade) were fixed on an object at a distance, the diameter of the right pupil was 5½ mm., and that of the left 6 mm.; when, however, the eye not under examination was covered up, the diameters increased to 6 mm. and 6½ mm. respectively. As to the diseases in which inequality of pupils has been observed, Dr. Pasternatski quotes a number of cases mentioned by continental physicians; also one of aneurysm shown by Professor Gairdner to the Edinburgh Medical Society; as well as two reported by Professor Finlayson in THE LANCET of January 3rd, 1885, in both of which aneurysms were found at the necropsy. His own observations gave the percentage of cases in which inequality was found in various diseases as follows: Croupous pneumonia 85, heart diseases and aortic aneurysm 61, pleurisy 52, chronic catarrhal pneumonia 33, acute articular rheumatism 25, catarrh of the respiratory passages 18, scurvy 16, typhus 16, recurrent typhus (relapsing fever) 15, abdominal typhus (enteric fever) 13. Inequality of pupils was also found in half the cases of catarrhal and hepatic jaundice and renal colic. The largest percentage occurred in croupous pneumonia, and study of the cases showed that the position and stage of development of the disease has a remarkable effect upon the pupils. At the very commencement the pupil on the same side as the affected lung is, as a rule, larger than the other. The difference generally increases with the lung inflammation, reaching its height on the third, fourth, or fifth day; before the crisis the difference decreases, sometimes even disappearing. Afterwards, during the stage of resolution, a difference is again manifest, the pupil on the affected side being now contracted. Not only do the pupils in pneumonia differ in size, but also in sensibility to light. Speaking generally, the author's observations lead him to believe that inequality of pupils is most frequently met with in those internal diseases which not only affect the system generally, but which, like pneumonia, pleurisy, and hepatic and renal colic, are definitely localised as well. It is also very usual in heart diseases and aneurysm, but comparatively rare in scurvy and infectious diseases such as typhus, and when it does occur in these it is generally consequent on some complication.

UNREASONABLE CHARGES AGAINST POOR-LAW MEDICAL OFFICERS.

WHEN a Poor-law medical officer has to go nine miles to see a patient, and goes as often as is necessary, it is hard to be found fault with. This was Mr. Gordon Laing's case at Barnstaple. Fortunately, he was able to satisfy the Board that he had been very attentive, and that both the patient and his wife had thanked him for being so. The case of Mr. A. B. Munro of Bradford is similar. He is a district medical officer of many years' standing, and makes "a hobby," as all good Poor-law medical officers do, of having their parish patients attended to as well as their private ones. Mr. Munro complains that the guardians have taken for granted depositions in the coroner's court forwarded to them which "would have been denied on oath and disproved." This is a short way for guardians in dealing with their medical officers, but it is a very unjust one. The Caistor Board of Guardians have had what one of their number characterised as a "storm in a teapot" over the great question whether their medical officer, Dr. Cameron, should "initial on Wednesday or Saturday each alternate week, or after the expiration of Saturday as the close of the week." Surely this is a question which a body of gentlemen could discuss quietly, even if the officer in question be, as one of them said, a "dogged Scotchman" with his own notions of the time for initialing books.

SANITARY CONDITION OF FLORENCE.

The Times has recently given publicity to a number of statements seriously reflecting on the sanitary condition of Florence. It is impossible in the midst of much which is contradictory to discuss this subject, but certainly English people will be slow to visit this city until a thorough inspection has shown that the alarm is groundless or that a remedy has been found for the alleged insufficiencies. The outcome of the discussion is that Dr. Baldwin of Florence is raising a fund to provide Florence with the advice and assistance of an English expert, and has himself liberally contributed to the expenses which would be thus incurred. We trust that those who are interested in its welfare will not relax their efforts, and that through an impartial statement of facts the municipal authorities may be enabled either to acquit their city of the reproach which now attaches to it, or to render it a safe resort for the many who desire to enjoy its beauties.

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PREMATURE BURIAL.

MUCH has been said and written concerning the danger of premature burial, and the subject has even become to some nervous persons the persistent horror of their lives. That a few authenticated cases have occurred in which the still living body has been by some strange oversight consigned to the grave we are not disposed to deny. It is probable, however, that the number of such cases has been exaggerated. Too much has possibly been made of the evidence of movement in corpses which have been exhumed. A critic writing on this subject throws the whole responsibility for live burials on our professional brethren. This is a sweeping and certainly an unfair judgment. He accuses them solely on the ground that in many cases they do not, in order to certify death, proceed to make an examination of the supposed corpse, and suggests that certificates of death might be fraudulently obtained by unprincipled attendants on the sick as a preparatory step to murder. Now, this is one of those arguments which, however they may sound in theory, have little, if any, practical meaning. Medical men, we admit, do not always think it necessary to view the body of a deceased patient before certification. In many instances there is no need that they should do so. They have been in regular attendance; have ascertained the nature of disease; have gauged its probable issue; and, finally, have seen the actual approach of death, which in a few hours' time has occurred, and of this they are assured on the testimony of persons whom they know to be well principled and judicious. Surely they are entitled in all the circumstances to accept the statement as true. Where there is doubt either as to the signs apparent or the character of informants, it is the duty of every practitioner to inspect the body of his patient, and any departure from this rule must, we are sure, at all events in this country, be very exceptional.

DEAF-MUTE CHILDREN.

IN August, 1885, Lord Salisbury addressed a circular despatch to Her Majesty's representatives at Paris, Berlin, Rome, Vienna, Brussels, Berne, the Hague, and Washington, requesting them to procure a return showing the number of deaf-mute children in the countries where they resided, and the nature and amount of public aid given towards their education, distinguishing between the sums contributed in each case by the State, province, and commune. From the returns which have been received and recently issued as a Parliamentary paper it appears that in France there are sixty institutions for such instruction, and information was obtained respecting thirty-six. Three of the institutions—at Paris, Bordeaux, and Chambéry—are under the immediate authority of the Minister of the Interior; one is for the benefit of Protestant children, seven are styled "institutions régionales," seven are departmental institutions, one is communal, eighteen are private enterprises, but the majority possess departmental or communal scholarships. In Germany, at the last census in December, 1880, there were 2906 deaf-mutes between five and ten years of age, and 4469 between ten and fifteen years of age. At that date Prussia possessed twenty-four deaf and dumb asylums. There appears to be no uniform system adopted throughout the country for the support and management of its deaf and dumb institutions, but it is left to the provinces to manage their own establishments in the most advantageous manner. The Royal Deaf and Dumb Institution in Berlin is the only one to which the State contributes directly. It receives pupils from all parts of the empire, and trains teachers for the provincial institutions, this last being a duty which devolves upon the State. In Italy, the greatest number of deaf-mutes are between twenty and fifty years of age. Up to the present time thirty-four establishments for their education have been opened. Half of them are charitable institutions under Government supervision, three are State institutes, and the remainder private ones. Eleven of them receive aid from the Treasury, and others are pecuniarily assisted by the provincial and communal administrations, as well as from private sources. According to the returns furnished by the Ministry of Public Instruction, there were in Austria at the census in 1880, 637 deaf-mutes under five years of age, 3390 from six to ten years, 3939 from eleven to fifteen years, and 3489 from sixteen to twenty years of age. The institutions, which number sixteen, receive considerable grants from provincial funds, while several are, moreover, assisted directly by the State. In Belgium, the proportion of deaf-mutes to the rest of the population appears to be increasing. In 1876 only 2070 were returned as deaf-mutes, while on Jan. 1st, 1883, there were 2934 so afflicted. There are ten private institutions under Government inspection and control, and the expenses are, generally speaking, shared between the provincial common fund, the commune the province, and the State, the latter contributing a sum equal to that granted by the provincial authorities. In the United States, as ascertained by the census of 1880, the number of deaf-mutes was 33,878, 18,567 males and 15,311 females, or 0·067 per cent. of the whole population. In the fifty-three public and eleven denominational and private schools for the education of the deaf, tuition is free or practically free, to rich and poor alike, and in general the only expense incurred by the parents is for clothing and cost of removal.

LORD FRASER ON MEDICAL EXPERTS.

ON January 7th a case was tried in the Court of Session, Glasgow, before Lord Fraser and a jury, in which a horse-dealer claimed damages for injuries sustained by an accident on the Caledonian Railway. The defenders admitted their liability, and the only question to be determined by the court was the nature and extent of the disability the pursuer was suffering from. The arm was injured, and was further affected by crutch-paralysis, but the medical witnesses agreed that the lesions were only of a temporary character. The point on which there was so wide a discrepancy of opinion referred to the leg. Drs. Littlejohn, Joseph Bell, and Cameron contended that "the leg was permanently injured through rupture of a muscle, and that the muscle had in consequence lost its contractility." On the other side, Drs. Dunlop, Heron Watson, and Macleod asserted that the injury was of a temporary character, and that the loss of continuity of the muscular fibres would be restored by the natural reparative process. Dr. Dunlop, surgeon to the company, went further, and, in face of the contention that the man could not get his foot to the ground, submitted that the best thing the pursuer could do would be to ride at a gallop on horseback. It is not altogether surprising that to a lay individual the difference exhibited by the medical men on the two sides as regards their respective views of the merits of the case should appear greater than warranted by the apparently simple nature of the injury, and Lord Fraser must be held quite within his rights in passing the strictures he did upon what he termed "extraordinary contradictions and statements." But the practical surgeon knows it is often difficult to determine the exact nature and the extent of an injury to a muscle. Of course, there are some cases in which the signs are too obvious to be misunderstood—e.g., where there is extensive or complete rupture of a muscle, such as the biceps brachii. The mere fact of considerable muscular wasting is not of itself necessarily of great import. Injured muscles waste from disease, as well as from traumatic disturbance of their innervation. The case under discussion reminds us of Sir James Paget's lecture

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"On Cases which Bone-setters Cure." It is well known that a man may be a helpless cripple from lesion or displacement of a muscle or tendon, and that forcible passive movement and vigorous exercise may, in a surprisingly short period, restore the function of the part. We are not calling into question the *bona fides* of the medical witnesses on either side, but we wish to explain that the divergence of their evidence may have arisen—and probably did arise—from the fact that they could not accurately tell the amount of laceration the muscle had undergone. It certainly was an unfortunate incident that the opinions should have been grouped as they were, those of the surgeons appearing for the pursuer being arrayed against those of the witnesses for the defenders. We have frequently asserted that in all cases of criminal action the medical experts should be appointed by the court of assessors; and we believe that it would be of unmixed good to the community and to the medical profession if the same practice obtained in civil trials.

THE FINANCIAL POSITION OF THE UNIVERSITY OF CAMBRIDGE.

IN his address made to the Senate of the University of Cambridge on resigning his office on Monday last, the Vice-Chancellor, alluding to the financial difficulties of the University, remarked: "We need that it should be proclaimed through the length of England that instead of our University being a wealthy body we are hampered on every side by the want of funds. We want money for our library; we want money to build museums; we want money to build lecture rooms; we want money for laboratories; money to build examination-halls. The increased numbers of our students show the estimate in which our teaching staff is held; surely we may appeal to the wealth of England to enable us to accommodate these numbers suitably, to enable them to partake, in the, to them, most convenient fashion, of the instruction which our professors convey. I conceive that we want at present at least £100,000 placed at the disposal of the University to carry on our work. Judge, then, of the sorrow with which I mentioned that our income falls short by nearly £25,000 a year of that which it was calculated it would be in 1886."

THE FRENCH CENSUS.

THE first official publication of the results of the French census taken on May 30th last has just been issued, and shows the population of France to be 38,218,903. The previous census in France was taken in December, 1881, when the number was returned as 37,672,048; the increase, therefore, during the four years and five months intervening between the two censuses did not exceed 546,855, whereas in the five years of the preceding intercensal period the increase had been 766,000. It is worthy of note with regard to the small increase of population in France in recent years that the recorded excess of births over deaths in the four years 1882-85, with due correction for the additional five months of 1886, was only 395,568, implying that between the last two censuses the balance of immigration over emigration was no less than 151,287. It is known that in recent years the annual number of emigrants from France does not exceed 5000, but it is now apparent that the immigrants to France in recent years must have averaged nearly 40,000 per annum. It appears that the population of Paris has increased but 75,000, whereas from the increase of the population of the Seine department it is evident that the suburbs of the city have grown far more than the city itself. The increase in the population of Lyons, Marseilles, Bordeaux, and Lille, was in each case proportionately larger than in Paris; and in the 53 towns having a population exceeding 30,000 the aggregate increase exceeded 300,000. As in England, the towns in France have mainly increased at the expense of the rural districts; but in France this has caused (which is not the case in England) an actual decrease in the population of the rural districts. In 32 agricultural departments of France the recent census shows a decrease of 110,000 in the population. Of the 87 departments, 58 now show an increasing and 29 a decreasing population, the numbers at the previous census having been 53 and 34 respectively. The increase of population in Brittany (mainly rural), which has a birth-rate considerably exceeding the general rate in France, stands out in conspicuous contrast with the marked decrease of population in the rural portion of Normandy. In still greater contrast is the rate of increase of population from excess of births and deaths in England and France. In the year 1885 the excess of births over deaths in England was equal to 13·5 per 1000 of the population, while in France in the same year it was but 2·1 per 1000.

CHANGE OF COLOUR OF THE SKIN.

A CONTEMPORARY recently drew attention to the decease of a coloured woman at Michigan, whose case seemed to have strangely perplexed the public, and was believed to be without a parallel. When well advanced in years a white patch appeared on the leg; others followed, increased and coalesced until most of her body became white, the face being the last to change colour. From the accounts, it is evident that the case was one of leucoderma, a disease well known amongst whites, but peculiarly frequent in the dark-skinned races, though the relative frequency has been doubted by distinguished authorities, and the impression attributed to the more striking character of the affection. Erasmus Wilson gave its frequency in London as 1 in 400 cases of skin disease, and in another place as 1 in 294; according to Kaposi, it is in Vienna 1 in 500; but Garden, in India, met with 1 in 362 cases of skin disease, and the Bombay inquiries into leprosy disclosed a great number of these cases.

TOTAL ABSTINENCE LODGES AND MEDICAL PRESCRIPTION.

THE public has been very much shocked by a recent County Court trial in which a certain benefit society, bearing the concise name of the "Benjamin Hatfield Lodge of the Original Grand Order of the Total Abstinent Sons of the Phœnix," appeared as refusing the representatives of one of its deceased members the sum due to them on his account, on the ground that he had in his last illness, arising from cancer of the bowels, on the advice of all his medical attendants, taken medicinal quantities of alcohol. The judge, who spoke very strongly against the Lodge, was compelled to yield to the defence on a legal point, the deceased having taken back his subscription. It is behaviour like this that constitutes the intemperance of teetotalers, and estranges so many reasonable people from them and the cause they advocate. We are glad to find that even good teetotalers like Dr. Kerr, whose letter we insert elsewhere, feel as indignant at this Lodge as does the public. In the last extremities of cancer and exhaustion, to deny a poor creature the advantage of a little wine or brandy, ordered by a medical man, is a piece of senseless cruelty, and the sooner all total abstinent benefit societies disown such views absolutely and entirely, the better for them and the cause of temperance. There has been far too much interference of late with the functions of medical men. We shall never fail to point out that their responsibilities are very great. But they are theirs, and must be left with them, not shared by every teetotal prophet who thinks himself an equal authority in medicine and morals.

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REMARKABLE MAGISTERIAL DECISIONS UNDER THE FOOD AND DRUGS ACT.

AT the Sheffield Town Hall a druggist was recently summoned under the Sale of Food and Drugs Act, at the instance of the Health Committee, for selling tincture of opium which was not of the nature, substance, and quality of the article demanded. The deputy town clerk conducted the prosecution. Dr. Sinclair White, medical officer of health, proved that he personally purchased at the defendant's shop three ounces of tincture of opium. The sample was duly divided, and a portion submitted to the borough analyst, Mr. A. H. Allen, who certified that "the proportion of opium in the sample was less than one-third of that contained in the tincture of opium of the British Pharmacopœia, while the proportion of alcohol was somewhat more than one-half the proper quantity." The stipendiary magistrate said that no doubt the action of the Health Committee was very laudable, but he was of opinion that if a preparation *contained any opium and any alcohol whatever* it could be legally sold as tincture of opium, and he accordingly dismissed the case. At the same time and place a shopkeeper was summoned under the Act for selling paregoric elixir, which, according to the certificate of the analyst, was "wholly destitute of opium, the most important ingredient of paregoric elixir." Mr. Allen, Dr. White, and Mr. G. E. Newsholme, President of the Sheffield Pharmaceutical and Chemical Society, gave evidence in support of the prosecution, and adduced various authorities to show that opium was an essential ingredient of paregoric elixir. Mr. Allen stated that the existence of paregoric without opium was as impossible as that of whisky without alcohol. If the preparation had no opium in it, it had no right to be called or sold as paregoric. For the defence a druggist was called, who said that he supplied "paregoric elixir guaranteed free from opium" to shopkeepers, so that they might not infringe the Pharmacy Act, they having no licence to sell poisons. He could not name any ingredient of a medicinal value that the paregoric supplied by him contained. The stipendiary said that the name "paregoric" failed to give him any definite impression, any more than "soothing syrup." The prosecutor pointed out that, for all the defence amounted to, they might simply sell coloured water and call it paregoric. The magistrate said he did not see that the law prevented it, and dismissed the case. Mr. J. F. Burnett, F.C.S., in a letter to the *Pharmaceutical Journal*, states that he was present in court during the hearing of these cases, and can testify that the reports are not in the least exaggerated, but are, on the contrary, somewhat underdrawn. These decisions seem to us to be so extraordinary that an application will doubtless be made for a case for the higher court, and we accordingly reserve our comments.

THE MEDICAL HISTORY OF CEYLON.

AN interesting paper, giving a sketch of the medical history of Ceylon, has been communicated to the Ceylon branch of the Royal Asiatic Society by Dr. Vanderstraaten, the sketch being divided into a review of the Singalese, the Portuguese, the Dutch, and the British periods. The Buddhist doctrines early led the rich and wealthy to make some provision for the destitute and the maimed, and thus hospitals and medicine-houses came to be established. Native practitioners of medicine also sprang up, and the system received impetus from the example of some of the kings of Ceylon who, by practising medicine, made it a noble calling. Portuguese priests and others brought in more modern notions, and during the Portuguese period some considerable progress was made. The habit of betel-chewing is spoken of by the author as wholesome, and the Singalese at that time attributed their long and healthy lives to its use; men and women could also be seen who had not lost a single tooth. But small-pox was an invincible disease, and was regarded as an "affair of God." During the Dutch period the Leper Asylum at Hendda was established in 1708, but the medical records of this period are very scanty in their information. During the British period 221,082 persons were vaccinated between 1802 and 1812, and this effort was so successful that for eleven years no small-pox occurred in the island. A striking contrast is shown between the state of the island in 1803, and at the present time. At the earlier date, of seventy-five men, together with the usual complement of officers, all fell victims to the climate except three, during a march from Colombo to Cattadina; whereas Dr. Kynsey is now able to report that the average annual mortality for the whole army is only 9 per 1000. Dr. Kynsey has published some very valuable information as to the sanitary condition and mortality in Ceylon, which taken together with Dr. Vanderstraaten's review of the earlier conditions affecting the island form an interesting chapter in the medical history of Ceylon.

THE WALTER MOXON MEMORIAL.

A GENERAL MEETING of the friends of the late Dr. Moxon will be held at the Royal College of Physicians on Tuesday, Feb. 1st, at 5 P.M., to determine the form of memorial best suited to perpetuate his memory. At this meeting Sir William Jenner, who has consented to act as president of the fund, will take the chair. Among those who have already given their names in support of this object are the President of the Royal College of Surgeons, Sir William Gull, Sir James Paget, Sir Andrew Clark, Sir Thomas Acland, Sir Henry Acland, the Registrar and Treasurer of the Royal College of Physicians, the President and Treasurer of Guy's Hospital, Professor Humphry, Sir William M'Arthur, Dr. Pavy, and Mr. Bryant. We understand that upwards of a hundred gentlemen have already expressed their wish to join in this memorial, and we have been requested to state that previously to the meeting Mr. Clement Lucas will receive the names of those desiring to contribute.

HOSPITAL WANTS AND THE QUEEN'S JUBILEE.

IF the Jubilee of the Queen is to bear all the burden that is proposed to be put upon it, it will be heavily weighted. The editor of the *Hospital* supports the suggestion of *The Times* that the occasion be used for raising a million, to yield £40,000 a year, to meet the deficiency in the income of the metropolitan hospitals. We certainly think that this suggestion is much more to the point than many which have been made. But Her Majesty's own views have yet to be ascertained. She herself and her own personal claims are entitled to first consideration. But it is to be hoped that she will show her sympathy at a time of unprecedented trial for these admirable institutions, which receive no State aid, and which do for the sick poor what in nearly all other countries is done for them by the State.

SYPHILITIC BONE AFFECTIONS AND PRECOCIOUS GUMMATA.

THE Transactions of the American Dermatological Association for 1886 contain some interesting discussions on syphilis. Dr. R. W. Taylor finds that, like certain osseous and nervous lesions, malignant syphilides in general, and many other affections, the gummatous syphilide may occur as early as the second month of infection, but usually in the third or fourth month and beyond that time; that there are three clearly marked forms of these precocious gummata: first, an early general and quite copious form; secondly, a more localised form, which may invade several regions of the body,

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and is usually symmetrically distributed, but sometimes is confined to one region, particularly one side of the face or scalp and the roof of the mouth; and thirdly, a form in which more or less severe neuralgiæ precede and accompany the eruption, which in many particulars possesses points of resemblance to simple erythema nodosum, but is a direct outcome of the syphilitic diathesis. In a further discussion, Dr. Taylor stated that he believed, from a careful gathering of the paternal history, that dactylitis occurs in about an equal number of syphilitic and non-syphilitic children. With regard to "syphilitic Pott's disease," he did not think it would prove to be so rare as would appear from hitherto published evidence.

THE FOOCHOW HOSPITAL FOR WOMEN AND CHILDREN.

THE first annual report of this institution, which is in connexion with the Woman's Foreign Missionary Society of the Methodist Episcopal Church, has just been published. Although the report now before us is the first one that has been published, the hospital was founded so far back as 1877. It comprises on the first floor a drug-room, dispensary, waiting-room for patients, four small rooms for native assistants and medical students, and a surgery; and on the second floor three wards, affording accommodation for about twenty patients. The number of out-door patients treated from September, 1885, to July, 1886, the period dealt with in the report, was 4832, and of in-patients 218, this last number being an increase of almost 100 per cent. on the figures for any previous year. More accommodation is greatly needed, especially for patients who are able and willing to pay for their treatment, and the executive contemplate the purchase of additional land and the erection of another building. Instruction has been given to four native women in medical subjects, and the establishment of a training school for nurses is contemplated at an early date. The report contains a careful analysis of the cases, medical and surgical, which have come under notice, and gives evidence that satisfactory work is being, and has for nine years past been, carried on by the promoters and active officials of this hospital.

THE TYPHOID BACILLUS.

MM. Widal and Chantemesse have succeeded in carrying researches on the bacillus of typhoid rather further than Gaffky, who described it. The centre clear space is not, they say, characteristic, as Artaud supposed, for it is found in other bacilli, especially in those of old cultures; and it is, they believe, the beginning of the death of the microbe. Spores are produced between 37° and 38° C. It does not liquefy gelatine, and is easily cultivated on potato. Gaffky was unable to find the bacillus in the living subject, or to inoculate it. MM. Widal and Chantemesse have found it during life by making a capillary puncture of the spleen, and they have been able to inoculate both mice and guinea-pigs so as to find the bacillus in the abdominal viscera and lungs. In a case where a typhoid patient aborted in the fourth month the bacillus was found in the placenta.

A CORONER ON THE MEDICAL PROFESSION.

ON the 6th inst. Mr. W. Muller, coroner, concluded an inquest at the Town Hall, Glastonbury, on the body of a man who had died somewhat suddenly and in connexion with whose illness the parish doctor, Mr. J. A. Bright, had been accused of neglect. After the evidence of deceased's friends had been taken, the coroner expressed the opinion that there was not the slightest justification for reflection on Mr. Bright's action, although it was very important to have rumours of this kind thoroughly sifted. Medical men were, he remarked, looked upon as "beasts of burden," and he frequently found that people were most exacting as to the work required of a medical man. The jury returned a verdict of "Death from natural causes, probably syncope, or failure of the heart's action."

REMEDIES FOR PROFESSIONAL OVERCROWDING IN BELGIUM.

OUR Belgian *confrères* keep lamenting the overcrowding and the consequent poverty of the profession, and various propositions are brought forward in the medical journals for improving matters. The scheme for obtaining colonial surgeoncies in Algeria having been shown to be impossible, it is now suggested that Belgian practitioners should emigrate to Canada, the United States, Brazil, Australia, the north of Italy, and especially to the Dutch Indies, about which last colony some information is given. It appears that in order to obtain an appointment from the Dutch Government it is not necessary to be a Dutchman. Candidates must be qualified to practise in their own country; they must be under thirty-five years of age and unmarried, and must know German, Flemish, or Dutch. They must be physically suitable for military service in the Indies, and must pass a very short *vivâ voce* examination. Applications have to be addressed to the Colonial Department, the Hague. The emoluments are a bonus of £320 and an allowance at the rate of £112 a year until embarkation; after landing the salary is £288, with an allowance of £29 for forage. On return to Europe after an absence of five years a bonus of £160 is given. In addition to Government pay, private practice is allowed. In Batavia, where new-comers are usually sent, the medical men and lawyers are said always to try to establish themselves near the Chinese quarter, the Celestials paying good fees; the Arabs having, on the other hand, the character of being very parsimonious, while the Europeans, it is reported, scarcely ever pay at all! Another writer, looking to the condition of the profession in Belgium, suggests three main reforms as imperatively required in order to save practitioners from impending destitution: (1) that pharmacists should be forbidden to supply medicines, except on a prescription from a medical man; (2) that proprietary and patent medicines should no longer be sold; and (3) that quacks should be put down. He also thinks that the examinations should be made more stringent, so as to reduce the number of men entering the profession in the future. It is thought by some persons in this country that all our own professional troubles and difficulties would disappear as if by magic if we were to adopt the continental system of non-dispensing practice; but this and a good deal more which is constantly appearing in foreign journals show pretty plainly that our low fees and other troubles are not due merely to the system of practitioners dispensing their own medicines.

INTESTINAL DISPLACEMENT A CAUSE OF DYSPEPSIA.

M. GLÉNARD, a Vichy physician, believing that displacements of the intestine or "enteroptoses" are a good deal more frequent than is generally supposed, and that they are, indeed, a common cause of dyspepsia, has been in the habit of examining the dyspeptic and neurotic patients who consult him by making them stand up, and then going behind them and pressing on the abdominal wall when in a relaxed condition. If this produces a distinct alleviation of the discomfort he considers that enteroptosis is present, and orders a binder, which in these cases gives great relief, only lasting, however, while it is actually worn. A discussion on this subject has just taken place at a meeting of a Paris Medical Society, but M. Glénard did not find many of his colleagues prepared to accept his views.

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AN ANTIDOTE FOR ARSENIC AND ACONITE.

IN a recent number of the *Indian Statesman* there appears a communication from Syed Walayet Ali Khan, of Patna, Bengal, on a specific antidote for poisoning by arsenic and aconite. It is described as being the bark of the common goolar tree, generally known to Europeans as the Indian fig. It is administered in doses of from ten to twelve drachms, ground fine, and mixed with water. In severe cases it may be necessary to repeat it at short intervals three or four times, but it is said never to fail. It has been found successful, according to the author of this statement, in every case in which it has been tried. We have consulted Dymock's "Vegetable Materia Medica of Western India," Waring's "Bibliotheca Therapeutica," and other works, but can find no reference to its use for this purpose. It seems strange that it should be an antidote both for arsenic and aconite, as these drugs do not produce the same symptoms, and are not allied physiologically. The matter requires further investigation, and we must admit that we are at present sceptical as to its value.

EXISTENCE OF THE CANAL OF PETIT QUESTIONED.

M. CLAEYS has communicated to the Royal Academy of Medicine of Belgium an account of some elaborate researches he has been making, with the help of all the most improved methods of microscopical manipulation, on the anatomy of the eye, and especially on the construction and attachments of the ciliary ligament. The canal of Petit, he believes, does not exist.

"UNMUZZLED."

SIR CHARLES WARREN'S well-written article on "Dogs in London" must have chagrined the hysterical and depressed the sentimental. We have already doubted the advisability of abrogating the police order just now; but we are pleased to read that Sir Charles recognises the possibility of the necessity for an early renewal of the really merciful and not seriously inconvenient muzzle. We go a step further, and urge its immediate replacement, not only on all London but all provincial dogs. Evidence is forthcoming to show that rabies is rife in the immediate and remote environments of the metropolis. Why should London wait until more dogs and other human victims are sacrificed to the dire disease?

THE QUEEN'S JUBILEE HOSPITAL.

WE are actually threatened with another hospital, as if we had not too many already, and the existing ones had a superfluity of support. As we have said elsewhere, the Jubilee of the Queen may not be without bearing on our hospitals. But we respectfully advise Her Gracious Majesty and all her subjects to have regard to existing institutions, and to those great general Hospitals which have so nobly earned a claim to generosity and consideration.

VACCINE SHIELDS.

WE have been asked to call attention to a new form of vaccine shield. It consists of a piece of spongio-piline, in which is cut a circular hole covered over with transparent goldbeater's skin; to one side of the spongio-piline is added a layer of adhesive mixture, to enable it to be fixed to the arm, so that the vesicles are situated in the central hole, and are surrounded by the spongio-piline. We are unable to recommend its use. In the first place, shields are not required; and in the second, they readily become soiled, and thus potent for septic mischief. Shields, however cheap, in the hands of the poor are frequently lent from one to another, and it is a common experience that they are a constant source of mischief. We may remind our readers that not long since the medical officer of the Local Government Board directed public attention to the dangers attendant upon their use.

SCHOOL SANITATION.

A GENERAL MEETING of the Medical Officers of Schools Association was held in the rooms of the Medical Society on Tuesday, Jan. 11th. The President (W. S. Savory, Esq., F.R.S.) occupied the chair. A paper was read by Mr. Charles E. Paget, medical officer of health for Westmoreland, on the "Arrangement and Construction of School Sanatoria for Infectious Diseases." The paper, which dealt clearly and exhaustively with the subject, and which included a description of some novel and ingenious details of construction, gave rise to a full discussion; and a general opinion was expressed that the public, no less than school authorities, would derive benefit from a more intimate acquaintance with the necessities and the claims of this important branch of school sanitation.

UNIVERSITY OF LONDON.

CONVOCATION will meet on Tuesday next, the 18th inst. at 5 P.M., when Sir Philip Magnus will present a report from the sub-committee for reconstituting the University, and will move its adoption. The Annual Committee will suggest to Convocation the acceptance of "Spiritus intus alit" as the motto for the University. There is no further matter affecting the medical graduates on the agenda paper.

NEW MEDICAL CORPORATION IN SPAIN.

A NEW "college" or medical corporation for the promotion of the study of the medical sciences, from both a practical and a theoretical point of view, as well as for the promotion and protection of professional interests, has been established at Lerida in Spain. It is entitled El Colegio Médico Quirurgico de Lérida.

GENERAL MEDICAL COUNCIL.

PROFESSOR BELL PETTIGREW, LL.D., F.R.S., Dean of the Medical Faculty, has been appointed by the Senatus Academicus to represent the University of St. Andrews at the General Council of Medical Education and Registration of the United Kingdom for a period of five years.

Our Dublin correspondent telegraphs that Sir George Porter, Surgeon-in-Ordinary to Her Majesty in Ireland, has been offered and has declined the post of Crown Nominee for Ireland on the General Medical Council.

THE PATHOLOGICAL SOCIETY.

AT the meeting of the Society on Tuesday next the newly elected President, Sir James Paget, Bart., will deliver an address on taking the chair.

FOREIGN UNIVERSITY INTELLIGENCE.

Lyons.—M. Berne, professor of external pathology, has been obliged by ill health to obtain leave of absence during the present academical year.

Paris.—The candidates for the Chair of Internal Pathology vacated by M. Peter on his appointment to the Professorship of Clinical Medicine at the Hôpital Necker, were MM. Debove, Dieulafoy, Duguet, Joffroy, Lancereaux, Landouzy, Quinquand and Strauss. From these the faculty has selected (1st) M. Dieulafoy, (2nd) M. Strauss, and (3rd) M. Dugu

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The selections for the Professorship of Anatomy are (1st) M. Farabeuf and (2nd) M. Rémy; and those for the Chair of Physics are (1st) M. Gariel and (2nd) M. Desplats. A new professorship, the chair of which will be filled by Dr. Dubuisson, is about to be established at the School of Law. He will treat of "Mental Maladies" from the point of view of the legal responsibility of criminals affected in their mind.

St. Petersburg.—Prof. Sorokin's term of office has been prolonged for a period of five years.

Odessa.—After a good deal of delay and uncertainty about the establishment of a medical faculty, the Town Council has decided to grant the sum of £900, which is required to enable the university architect to visit and inspect foreign buildings of a similar nature, and to prepare the plans, on the express condition, however, that the Russian Government will promise definitely to authorise the establishment of the proposed medical faculty.

On the 5th inst. the death occurred at Bournemouth of Colonel Sir Francis Bolton, who since 1871 had been the examiner under the Board of Trade of the water-supply of the metropolis. The deceased, who was born in 1831, had for some time past suffered acutely and undergone several operations, which, however, unfortunately proved unavailing to prolong what was undoubtedly a useful life.

THE total number of students in the medical faculties of the German universities is about 300 in excess of what it was last winter session, the largest increase (seventy-six) being at Würzburg. Berlin shows a decrease of eight, and Königsberg a decrease of four.

ANOTHER extensive outbreak of measles is reported. The village affected is called Sebastopol, Monmouthshire, and over 100 children have already sickened. Efforts are being made to stay the spread of the infection by means of school-closing and other precautions.

THE Faculty of Medicine of Paris has conferred the Lacaze Prize of 10,000 fr., awarded every four years for the best work on the treatment of fevers, typhoid in particular, to M. Albert Robin, for his "Leçons de Clinique et de Thérapeutique Médicales."

AT a recent open competition for two colonial surgeoncies in the Phillipines held in Madrid, more than thirty practitioners presented themselves as candidates, several of them evincing, as the Spanish medical press states, proofs of exceptional merit.

A MEETING of the delegates appointed by the Boards of the various Medical Schools to confer on the question of degrees for London medical students will be held to-day (Saturday), at 4 P.M., in the Board-room of the Middlesex Hospital.

CHOLERA is evidently extending in Chili, the disease having appeared at several points in the coast province of Valparaiso, where within the past few days seventy cases and twenty deaths have been recorded.

PROFESSOR ARTHUR GAMGEE, M.D., F.R.S., will begin a course of eleven lecture, on the Function of Respiration on Tuesday, the 18th inst., at the Royal Institution.

THE Commissioners of Sewers have resolved to expend £2300 in sinking wells to supply artisans' dwellings at the east-end of the city with water.

The Lancet Sanitary Commission.

THE SANITARY CONDITION OF ROCHESTER.

No. II.

OTHER local improvements than those we have enumerated deserve recognition. A considerable expense has been incurred to prevent the inundation of that part of Strood which is below high water spring-tide; a well-constructed embankment now protects this part of the district from the flood which had previously detracted from its healthiness. Again, a hospital for infectious disease has been erected, and accommodation thereby provided for the isolation of persons suffering from infectious disease, as well as an ambulance for their removal. But Dr. de Chaumont recently reported the hospital accommodation to be insufficient. At this institution also is the necessary apparatus for the disinfection of clothing and bedding which require this treatment. If the Sanitary Authority of Rochester may therefore claim in several respects to have shown some diligence in protecting the inhabitants of their district against disease, in other respects they have been grievously negligent; and the chief failing, as already pointed out, relates to the existence of cesspools for the retention of excremental filth throughout practically the whole of the district. We have thought it would be well to consider this subject more in detail, and have therefore directed our attention to certain special localities. In these places, we regret to say, we have found houses the condition of which is simply deplorable, and where the cesspool system gives rise to nuisance which should not be tolerated by any authority claiming to do its duty.

Turning out of King-street is Benster-court, in which are situated nine houses; the court is unpaved, and, as a result, the ground is more or less sodden at times of rainfall. Four are small brick houses, each consisting of two rooms of a cubic capacity of 630 ft. In one of these houses live a father, mother, and five children. In this house the family complained of the dampness, and the plaster and floor are broken in places. Opposite these houses, a little over twenty feet distant, is an offensive privy in connexion with a cesspool, and adjoining is a washhouse, the roof and walls of which are broken in, rendering it absolutely unusable. In only one of these four houses are the windows not broken. Another house in the court is in a condition absolutely unfit for human habitation; it appears to have been originally simply a wooden structure; the walls have, however, been partially covered with cement, as if with the object of keeping out the wet, but the cement is broken, and the interior of the house presents a melancholy spectacle. The house is dirty to a degree, and the plaster crumbling; holes in the walls admit but too freely the cold air and wet, in spite of the efforts made to stuff them with flock. The window-sashes have perished, the windows are broken, and the interior woodwork generally rotten. The remaining houses are in better condition, but two of them are but eleven feet distant from another offensive privy, which further serves to pollute the air. Adjoining is a house in King-street, having an unpaved and apparently undrained yard, for the rain percolates beneath the house, and renders it so damp that the inmates complain bitterly of its condition. There is no dustbin; the household refuse is thrown on the ground; and, again, a similar offensive privy and cesspool only ten feet from the house send their emanations into its open windows.

In close proximity to this court is Kettle-court. This place is very imperfectly paved, and the damp easily finds access to the houses. One of them is in wretched repair; the plaster is crumbling, the floor broken, and the paper on the walls hanging in shreds. This is indeed no wonder, for the windows are broken, and the window-sashes so rotten that it is almost impossible to make them hold the glass. The inhabitants complain strongly of the offensive odours which emanate from a privy and cesspool only eleven feet distant, and evidently not without cause. The inmates of another house complain of the offensive cesspool and privy at the rear of a house in King-street, from which they are but ten feet distant. The mother of the family in the King-

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street house describes the smells as terrible; she states that her husband and children have never been well since they entered the house, suffering from sore-throat, headache, and loss of appetite; moreover, she told the story how on one occasion the wainscoting of the back room of the house gave way, and how through the opening they could see into the cesspool, from which swarms of flies entered the house.

In another part of the town is Ironmonger-lane, where the same arrangements for the retention of filth exist. In an unpaved yard is a large cesspool, which the inhabitants state contains two large cart-loads of filth; this cesspool is in communication with some privies, which stink abominably, and which are almost choked with excreta. Ineffectually covering it is a paving-stone, but the stone is loose and the odours freely mingle with the air. The residents in the court state they can scarcely live here at all in the summer, one woman remarking that at night she was frequently compelled to get out of bed on account of the stench which found its way into her house. For the whole of this court there is no dustbin, the refuse lies piled in a corner, and the washings add to the offensiveness of the soil.

In another court—Nye's Cottages—where there are ten two-roomed houses, the ground is unpaved, the rain-water from the roofs has to traverse a considerable distance before it can find its way to a gully, there is no dustbin, and the house ashes are used for filling up holes in the yard. In the centre is a large cesspool, in connexion with which are four privies, two of which at the time of our visit were almost choked with excreta. The stench from these places can be better imagined than described. As one woman said, "they smell wonderful; in summer, if you only go inside, you come out and retch your very inside out." The cottages are more or less damp; in one which was entered the paper was separating from the walls, although we were told it had only been renewed last April. Here, too, the flooring was broken and the window-sashes were decayed.

Other houses in King-street must be equally condemned. Of four we inspected, in one the plaster in the basement was found to be dropping, and, owing to the flooring being lower than the level of the court behind, the surface water freely entered. Behind it, and but a few feet distant, is a privy, which we were told "smells very badly; smells come in horrid at back windows." In another, owing to a defective roof, the water simply pours into the back room at the top of the house; thence it runs to the back room on the ground floor, and then to the corresponding room in the basement, where the plaster of the ceiling is crumbling. These rooms are not occupied by the family living in the house, nor could they be occupied, for they are unfit for human habitation. The family here also complain of the stink from a privy and surface drain in the rear of the house. This drain apparently empties itself into an adjoining cesspool, and its mouth is merely protected by an ordinary bell-trap. In a fourth house the inmates receive their water from a private well situated in the back yard, which also supplies water to an adjoining house. Within a few feet of it is a cesspool receiving washing water and the water used for the boiling of tripe. At the time of our visit the cesspool was overflowing, and its liquid contents had reached to within seven feet of the edge of the well.

It is needless to multiply these instances further, but they serve well to show the deplorable condition to which a town is brought that does not provide itself with adequate means of drainage. There is obviously but one effectual remedy—the adoption of a sewerage system and the abolition of all cesspools. But this is not all. The sanitary authority are armed with ample means for compelling landlords to maintain houses in habitable condition, and no possible excuse can be found for the state in which many houses in the Rochester urban district are at the present time. For many of the defects such as we have described, the Artisans and Labourers' Dwellings Act, 1868, alone will afford sufficient remedy, and there is no reason why the provisions of this Act should not be duly enforced.

Rochester evidently possesses a medical officer and a surveyor who are warmly interested in the sanitary condition of the town; but the estimation in which sanitary services are held by the local authority may be understood from the fact that the former of these gentlemen receives but fifty pounds a year for duties which relate to the whole urban district. There is, moreover, but one sanitary inspector, and it is obvious that his energies would be sorely taxed in any serious attempt to maintain Rochester houses and localities in proper sanitary condition. Can surprise be felt that Dr. de Chaumont has reported the administration of the Sanitary Authority to be "unsatisfactory and inefficient"? Probably the influence that is most wanted is public opinion, for officers can do little without the support of those among whom they work; but Rochester is a cathedral town, possessing a dean and resident clergy, besides many influential inhabitants. We have had experience elsewhere of the good that may come from such influences being brought to bear upon local authorities, and we would venture to submit that the conditions under which the poor and indeed all classes live have an intimate relation with their moral as well as their physical welfare, and that the neglect we have described reflects upon every resident. We would fain hope that our inspection and the sad story we are compelled to tell of Rochester may awaken a wider interest in matters which so deeply concern its population.

ABSTRACT OF ADDRESS ON

TRANSFUSION FOR HÆMORRHAGE IN MILITARY SURGERY.

Delivered at Woolwich, before the Medical Officers of the Army Medical Department, Oct. 28th, 1886.

BY CHARLES E. JENNINGS, F.R.C.S. ENG., M.S.,
ASSISTANT-SURGEON TO THE CANCER AND NORTH-WEST LONDON HOSPITALS.

GENTLEMEN,—When I accepted the kind promise of Sir Thomas Crawford to arrange for my addressing you this evening, I did so to learn rather than to teach, feeling convinced that what little information I may impart on the subject of transfusion for hæmorrhage will be more than counterbalanced by what I shall learn from you as to the applicability of the operation to the exigencies of military practice. By means of demonstrating a reliable method of transfusing blood and of proving that the simple injection into the veins of other fluids—notably saline fluid, or even water—may be safely trusted as an efficient substitute for the more complex operation, I shall be able to remove from your minds that prejudice against these therapeutic measures, which doubtless exists on account of the defective instruments, which in the past rendered the operation uncertain in its results and almost useless.

It is scarcely necessary to point out that in all cases where either transfusion of blood or intravenous injections of saline fluids is resorted to as a means of combating acute anæmia, the simultaneous or previous arrest of the hæmorrhage must be regarded as a *sine qud non*. There seems no question that saline fluids may be substituted for blood in the human subject with impunity, such substitutions not exceeding an amount which bears a definite ratio to the body weight; but if the loss of blood by hæmorrhage have exceeded this quantity (probably about one-fifth of the entire amount in the body) the transfusion of blood to restore and maintain re-animation becomes indispensable. The important fact remains that life may be jeopardised by hæmorrhage and successfully restored if fluid be injected into the veins *even after the heart has ceased to beat*, in illustration whereof I can refer to a series of experiments which I performed with a view of ascertaining the best plan of procuring resuscitation after chloroform and narcotic poisoning.[1]

The idea of endeavouring to resuscitate animals by establishing an artificial circulation after apparent death was suggested to me by the fact that in 1848,[2] at the St. Giles's Workhouse, Sir Spencer Wells (then Mr. Wells) injected saline solutions into the veins of some cholera patients there, with Mr. Bennett, who was at that time resident surgeon. Sir Spencer Wells has informed me that in one case the injection was performed with considerable difficulty upon a man apparently dead some few minutes after the heart had ceased to beat, but it was followed by a return of pulsation, warmth, and consciousness, and the patient lived for a few hours afterwards.

On Aug. 20th, 1882,[3] I injected 16 oz. of saline fluid with

[1] THE LANCET, 1885, vol. i., pp. 245, 289.
[2] Jennings: On Transfusion of Blood and Saline Fluids, second edition, p. 34.
[3] Ibid., p. 26.

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a 3 oz. metal syringe into the veins of a patient about to die from the effects of ante-partum hæmorrhage. The cylinder of the syringe had to be detached from the nozzle and refilled several times during the procedure, the nozzle being ligatured within the median basilic vein. In this case reanimation speedily followed the saline infusion. The woman was happily delivered an hour and a half later, and recovered perfectly. The lesson here taught was that 16 oz. of saline fluid proved to be the minimum quantity necessary to restore reanimation.

On Sept. 29th, 1885, I saw a case of uterine hæmorrhage in consultation with my colleague, Mr. Elam, at Forest-gate. The patient was almost moribund, when about 22 oz. of saline fluid were injected into a vein of the arm, and reanimation immediately followed. This lady has recovered completely, and the quantity of saline fluid injected was the minimum amount necessary to effect its purpose.

Another case [4] may be cited where "22 oz. of *simple water* at a temperature of about 100° F." were injected into the veins of a woman moribund from the effects of severe uterine hæmorrhage, which occurred nine days after delivery. Mr. Coates performed the trifling operation, and reports that the result was marvellous. This patient also recovered.

I think, therefore, we are justified in maintaining that the injection into the veins of a fair quantity of fluid will satisfactorily restore reanimation in cases of very acute anæmia where other restoratives have failed, for potent restoratives had been tried and had failed in the cases quoted. The apparatus, whether syringe, irrigating-can, or syphon, designed for intravenous injection, should be one by which *more than a pint of fluid* at least can be expeditiously injected.

Though a description of my method of transfusing blood mixed with saline fluid and of replenishing the veins of the blood-giver with saline fluid, with the results of experiments upon animals, which have clearly shown the safety and utility of the method, has been published long ago, it was only in 1885 that this operation was actually performed upon the human subject.

In December, 1884, J. B——, a widower, manifested the signs and symptoms of progressive pernicious anæmia. Mr. Wm. Wickham, of Tetbury, finding his patient's condition was not ameliorated by a careful trial of the various forms of treatment ordinarily recommended for this disease, sent the patient to me at the Cancer Hospital, in the hope that benefit would accrue from the transfusion of blood. The diagnosis being carefully and accurately established, transfusion was performed on April 17th, the patient and his friends having been previously informed that only transient improvement could be expected from the introduction into the system of fresh blood in the case under consideration. About 14 oz. of blood, drawn from the giver by the apparatus illustrated in THE LANCET (1883, vol. ii., p. 365), were transfused into the left cephalic vein of the receiver, mixed with about 10 oz. of ammoniated saline fluid. About 14 oz. of saline fluid (temperature 75-80° F.) were infused into the right median basilic vein of the donor, this being the vein from which the blood was drawn. The actual transfusion and infusion of saline fluid were entirely painless both to the giver and receiver. No coagula formed in the instrument, no air was injected into the veins, and there were no signs of dyspnœa or cardiac embarrassment. The operation being completed, the man who gave the blood arose, drank a cup of tea, and walked home, a distance of four miles, without inconvenience. The wound in his arm healed quickly, and no bad effects attended the substitution of saline fluid for his blood. With regard to the receiver of the blood, a marked improvement followed the operation; but, a relapse occurring, the man died on April 24th. A necropsy made on the following day disclosed that the morbid changes were consistent with those of oligocythæmia rubra.

In conclusion, I would submit that the cases are rare where it becomes necessary to transfuse blood for acute anæmia, the intra-venous injection of a simple saline fluid, with or without the addition of ammonia or alcohol, according to circumstances, being usually sufficient to restore reanimation. The value of the addition of fresh blood lies merely in its nutritive properties, and if it be considered necessary to transfuse blood, the operation can readily be performed in the manner indicated by any surgeon with the aid of skilled assistants, as in the case, already related, of pernicious anæmia.

[We regret we are unable from lack of space to publish the discussion which followed the reading of the above paper.]

[4] *Ibid.*, p. 67.

CLERICAL, MEDICAL, AND GENERAL LIFE ASSURANCE SOCIETY.

WE have received the report of the Directors read at an extraordinary general meeting of proprietors and assured, held at the Society's office, Jan. 6th, 1887, on the occasion of the twelfth division of profits. The present prosperous financial position of the Clerical, Medical, and General Life Office must be very gratifying, not only to the shareholders and policyholders, but also to the directors, their actuary and secretary, Mr. Newbatt, and the staff generally. The elaborate and comprehensive report relative to its growth and successful progress is most interesting, and will help to maintain the general confidence in the Society which has lead to these exceptionally favourable results.

The Directors presented to this meeting the report of the quinquennial period which terminated on the 30th June, 1886, and the result of the investigation into the financial condition of the Society at that date.

Dealing with the transactions of the five years, the following facts present themselves: The new assurances—2706 in number, assuring £1,759,771 and yielding £59,280 in annual premiums—were larger by £157,903 in amount assured, and produced £4415 more in premiums, than those of any former period. The yearly revenue progressed in an increased ratio, and reached £316,164 in 1886, as against £286,512 in 1881. Of the total increase of £29,652 here shown, £16,825 arose from premiums and £12,827 from interest. The interest earned during the quinquennium on the whole of the funds, whether invested or uninvested, was at the average rate of £4 2*s.* 2*d.* per cent. per annum, as compared with £4 3*s.* 11*d.* per cent. in the previous five years. Having regard to the continuous decline in the value of money during the period under review, and to the fact that the integrity of the Society's calculations will be maintained by a net earning of 3 per cent., the rate thus actually realised is highly satisfactory. The claims by death were 947 in number and £812,127 in amount. Though both larger and more numerous than in the previous five years, when they amounted to £739,684 on 886 lives, they fell short of those expected by 268 in number and £283,441 in amount. They were, moreover, exceptionally profitable in character, owing to their having fallen on older policies held on older lives. The total expenses, in spite of the growing cost of obtaining new business and of the much larger new business which was secured, were again moderate and well within the provision made for them in the premiums. They were practically identical with those of the last quinquennium when compared with the total revenue, and were but fractionally higher—11·75 per cent., against 11·49 per cent.—when taken as a percentage on the premium income alone. The Assurance Fund, thus favourably affected both by income and expenditure, rose from £2,433,398 in 1881 to £2,715,760 in 1886.

It is stated that the total assurances subsisting on June 30th last were 10,531 in number, assuring, with their bonus additions, the sum of £6,849,646, as compared with 9925 policies, for £6,345,374, in 1881. These assurances, and annuities for £2650 per annum, constituting together the whole of the engagements of the Society, have been the subject of the present investigation.

The value of the assets of the Society being a matter of no less importance than that of the obligations which they have to meet, the securities have all undergone the usual careful examination by the directors. As has been seen, the Assurance Fund on the 30th June amounted to £2,715,760.

Particulars of the valuation, as well as of the various assets of the Society, are set out in detail in annexed schedules, prepared for the Board of Trade pursuant to the

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Life Assurance Companies Act 1870. From these it will be seen that

The Assurance Fund on June 30th having been	£2,715,759 13 6
And the calculated liability at the same date	2,232,586 8 8
There was a surplus of	£483,173 4 10

Deducting from the last-named sum the Permanent Reserve of £50,000 required to be set aside by Section 32 of the Society's special Act of Parliament, the net surplus becomes £433,173 4*s.* 10*d.*

This surplus is larger by £66,479 5*s.* 5*d.* than any heretofore exhibited.

In furtherance of this policy, which will at once protect the interests of existing members and render the Society additionally attractive to future assurers, the directors propose now to divide £375,000, a sum larger by £30,000 than that divided in 1882 and sufficient to give to the proprietors £12 10*s.* a share, and to the assured the largest cash distribution ever allotted to them, leaving the balance of £58,173 4*s.* 10*d.* to fall back into the Assurance Fund as undivided surplus. This amount thus divided, £312,500, will fall to the assured, yielding a cash bonus averaging 33⅓ per cent.

POOR-LAW INFIRMARIES.

AT the adjourned meeting of the medical superintendents of Poor-law infirmaries held at St. George's Union Infirmary, Fulham-road, on Dec. 18th, 1886, Dr. Lloyd in the chair, the following resolutions were adopted:—

Moved by Dr. Spicer and seconded by Dr. Neal: 1. That it is desirable that the medical superintendents of the metropolitan infirmaries be authorised to call into consultation a specialist of eminence, when the circumstances of any case under their charge may be deemed by them to render such a course advisable. 2. That it is desirable such consultant should receive a fee in each case. 3. That any such consultant called in should be on the permanent staff of a London hospital. 4. To advise in the treatment of cases, and only when they have been called upon to; do so by the medical superintendents.—Moved by Dr. Webster and seconded by Mr. Lunn: 5. That it is desirable, in view of the large amount of clinical material in the metropolitan infirmaries, both in the interests of the patients and of medical science, that one or more qualified clinical assistants be appointed in each infirmary, in addition to the present medical staff.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 6090 births and 4690 deaths were registered during the week ending Jan. 8th. The annual death-rate in these towns, which had been equal to 20·7, 21·5, and 25·1 per 1000 in the preceding three weeks, further rose last week to 26·5. During the thirteen weeks of last quarter the death-rate in these towns averaged 20·3 per 1000, and was 2·1 below the mean rate in the corresponding periods of the ten years 1876-85. The lowest rates in these towns last week were 15·7 in Sunderland, 17·2 in Derby, 18·4 in Nottingham, and 18·5 in Brighton. The rates in the other towns ranged upwards to 33·2 in Newcastle-upon-Tyne, 34·0 in Leeds, 36·4 in Manchester, and 40·6 in Plymouth. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 386, 433, and 537 in the preceding three weeks, declined again last week to 475; they included 235 from measles, 81 from whooping-cough, 63 from scarlet fever, 47 from "fever" (principally enteric), 28 from diarrhœa, 21 from diphtheria, and not one from small-pox. These zymotic diseases caused the lowest death-rates last week in Nottingham, Brighton, and Leicester; and the highest death-rates in Manchester, Bristol, Leeds, and Newcastle-upon-Tyne. The greatest mortality from measles occurred in Liverpool, Manchester, Newcastle-upon-Tyne, and Leeds; from scarlet fever in Norwich, Liverpool, and Bristol; from whooping-cough in Bristol, Manchester, Oldham, and Plymouth; and from "fever" in Liverpool and Preston. The 21 deaths from diphtheria in the twenty-eight towns included 9 in London, 2 in Bristol, 2 in Manchester, and 2 in Preston. Small-pox caused no death in London and its outer ring, or in any of the twenty-seven large provincial towns. Only 2 cases of small-pox were under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease. The deaths referred to diseases of the respiratory organs in London, which had been 416, 436, and 573 in the preceding three weeks, further rose last week to 731, and exceeded the corrected average by 221. The causes of 120, or 2·5 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Sunderland, Portsmouth, and Derby. The largest proportions of uncertified deaths were registered in Oldham, Preston, Sheffield and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 26·2 and 25·1 per 1000 in the preceding two weeks, rose to 29·9 in the week ending Jan. 8th; this rate exceeded by 3·4 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 18·7 and 21·1 in Leith and Perth, to 35·0 in Glasgow and 40·2 in Paisley. The 746 deaths in the eight towns last week showed an increase of 111 upon the number in the previous week, and included 27 which were referred to whooping-cough, 18 to diarrhœa, 17 to measles, 13 to scarlet fever, 12 to diphtheria, 7 to "fever" (typhus, enteric, or simple), and not one to small-pox; in all 94 deaths resulted from these principal zymotic diseases, against 63 and 73 in the preceding two weeks. These 94 deaths were equal to an annual rate of 3·8 per 1000, which was 1·1 below the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 15 and 21 in the preceding two weeks, further rose last week to 27, which included 18 in Glasgow, 3 in Edinburgh, and 3 in Paisley. The 18 deaths attributed to diarrhœa showed a further increase upon recent weekly numbers; 10 occurred in Glasgow and 3 in Edinburgh. The 17 fatal cases of measles also showed an increase upon the numbers in recent weeks, 16 being recorded in Glasgow. The deaths from scarlet fever, which had been 13 and 12 in the previous two weeks, rose again last week to 13, of which 9 occurred in Glasgow and 3 in Edinburgh. The 12 fatal cases of diphtheria (only one had been returned in the previous week) included 7 in Glasgow and 4 in Edinburgh. The 7 deaths referred to "fever" showed a decline of 3 from the number in the previous week; 3 were returned in Aberdeen and 2 in Glasgow. The deaths from acute diseases of the respiratory organs in the eight towns, which had been 188 and 179 in the preceding two weeks, rose last week to 213, and exceeded the number in the corresponding week of last year by 81. The causes of 98, or more than 13 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 29·6, 28·5, and 38·0 in the preceding three weeks, declined again to 31·3 in the week ending Jan. 8th. During the thirteen weeks of last quarter the death-rate in the city averaged 26·7; the mean rate during the same period did not exceed 18·8 in London and 19·5 in Edinburgh. The 212 deaths in Dublin last week showed a decline of 45 from the number in the preceding week, and included 6 which were referred to scarlet fever, 4 to "fever" (typhus, enteric, or simple), 3 to diarrhœa, and not one either to small-pox, measles, diphtheria, or whooping-cough. Thus the deaths from these principal zymotic diseases, which had declined in the preceding four weeks from 23 to 17, further fell last week the to 13; they were equal to an annual rate of 1·9 per 1000, the rates from the same diseases being 2·1 in London and 2·8 in Edinburgh. The fatal cases of scarlet fever, which had been 6 and 11 in the preceding two weeks, declined again last week to 6; while the 4 deaths referred to "fever" corresponded with the number in the previous week. Nine inquest cases and 6 deaths from violence were registered; and 54, or rather more than a quarter, of the deaths occurred in public institutions. The deaths both of infants and of

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elderly persons showed a considerable decline from the numbers returned in the previous week. The causes of 36, or nearly 17 per cent., of the deaths registered during the week were not certified.

Correspondence.

"Audi alteram partem."

"ARTERIAL PRESSURE."

To the Editors of THE LANCET.

SIRS,—If no other correspondent replies to Dr. Nicholson's letter on the above subject, you will perhaps allow me in a few sentences to suggest to him that the solution of the difficulty which he feels in reconciling the statements which he quotes from Drs. Brunton and Foster is to be found in the distinction between the *large elastic arteries* and the *terminal muscular arterioles*. The blood-pressure with tension referred to in the passage from Dr. Brunton is that which exists in the larger arteries; while, on the other hand, the constriction in the vascular area of which Dr. Foster speaks is the contraction of the muscular arterioles, the effect of which is to lessen the flow of blood through the capillaries of the particular area, and in the same degree to heighten the pressure and tension in the larger arteries which convey the blood to the contracted and resisting arterioles. It would doubtless tend to prevent misunderstanding if, in referring to parts of the vascular system, in most respects so diverse in structure and so opposed in function as the larger arteries and the arterioles, they were always designated—the first "the elastic arteries," and the latter "the muscular arterioles." The large arteries, by their elastic resiliency, aid the heart in propelling the blood onwards; while, on the other hand, the muscular arterioles, in the exercise of their regulating and so-called "stopcock" function, often antagonise the heart and the elastic arteries, and, in proportion to the degree of their contraction, resist the onward movement of the blood. The result, of course, is, as I have before said, that the contraction of the arterioles increases the fulness, tension, and pressure in the associated larger elastic arteries.

I am, Sirs, yours faithfully,

Savile-row, Jan. 8th, 1887. GEORGE JOHNSON.

THE EFFECT OF LIGATURE OF THE FEMORAL ARTERY.

To the Editors of THE LANCET.

SIRS,—I am bound to repeat that the facts, as I find them, do not appear to me to be in accordance with the views set forth by Mr. Holmes; and, further, that the difference is not an insignificant one, for it bears upon a point of practice which is suggested in the paper. Of course the artery is obliterated at the place where it is tied, and Mr. Holmes makes it clear that blood finds its way again into the artery between the ligature and the sac, and therefore that a part of that portion of the artery must remain pervious. But I submit that his description does not convey the idea that in the majority of cases the portion of artery between the clot of the ligature and the sac remains pervious throughout its whole length. This and other facts in regard to the condition of the portion of artery in question, are, I believe, made evident in the paper, to which I hope Mr. Holmes will allow me to refer him instead of taking up your space by repeating much of it here. And if I am silent on other questions raised by him in his last letter, let me assure him that it is not because I am insensible to their interest. My admiration of Mr. Holmes's surgical works, especially of his articles on aneurysm, is so great that this kind of criticism is very distasteful to me. But Mr. Holmes insists on it. I must be allowed, however, with this letter to close my part of the correspondence.

I am, Sirs, yours truly,

Brook-street, W., Jan. 10th, 1887. WM. S. SAVORY.

THE LATE PREVALENCE OF SHINGLES.

To the Editors of THE LANCET.

SIRS,—The following cases of herpes, which have lately come under my notice, present, I think, some features of interest, and may help to furnish some material towards elucidating the etiology of this disease.

A. K., male, aged forty, has been subject to herpes preputialis for the last twelve years. For about eight years previously to the year 1884 the attacks were frequent. Sometimes they occurred at intervals of only a few months, and he does not think that a year ever passed without his having one. The crop of vesicles always occurred, so far as he is aware, on the same spot on the outer aspect of the prepuce. In February of 1886 he had an outbreak of herpes on the back of his left forearm, which was preceded for several days by neuralgic pains felt in the back of the hand. In the beginning of December, 1886, he had an attack of herpes preputialis, which had not occurred for more than three years, and about ten days after this he had also an outbreak of herpes on the left forearm, the crop of vesicles being in the same place as, and resembling in every respect, the eruption which occurred the previous February.

C. K., age about sixty-seven, aunt to A. K., had an attack of herpes in November, 1886, the eruption being over the shoulder-blade and under the arm, followed by much neuralgic pain and general prostration.

The mother of C. K., when about seventy years of age, had a severe attack of herpes zoster.

In considering these cases with reference to the etiology of the disease, the following points may be noticed:—1. The manifest hereditary predisposition to this complaint, in the mother and daughter the attacks assuming the same form at about the same age. 2. The apparent influence of some causes which determine the occurrence of a number of cases at about the same time. At a time when herpes is particularly prevalent C. K. has an attack, while A. K., who may be said to be subject to this form of eruption, has a *double* attack, a thing which has never happened with him before. 3. Connexion with other diseases. Gout: No case of gout on either side of A. K.'s family. Rheumatism: There seems to be almost as little tendency to this complaint, the only case in the family being that of a sister of C. K., a lady of seventy years of age, who has been troubled with rheumatism for the last few years. Scrofula. On the other hand, there is a distinct connexion with this disease. A. K. has had glandular abscesses in the neck. C. K. has had diseased bone in the foot, and suffers from lupus. 4. As to the immediate predisposing cause: A. K. has not been able to connect his attacks with a chill, although he has taken notice of this, his attention having been drawn to this point. He has always connected an attack of herpes with some change in his general state of health, always feeling in better health and spirits after the attack than immediately before. 5. The case of A. K. shows the tendency of herpes, in those instances in which it recurs, to appear in the same situations.

I am, Sirs, yours obediently,

A. W. HARDING, B.A., M.B. Lond.

Ealing, W., Jan. 11th, 1887.

A "NEW" METHOD OF EXCISING THE KNEE-JOINT.

To the Editors of THE LANCET.

SIRS,—Mr. Allingham, in saying that he "was fully aware that Professor Ollier suggested" the operation, scarcely does that surgeon complete justice. He had minutely described it and definitely given his views of the indications for its use. Even in 1883 he had evidently practised it on the dead subject. His description of it is most precise and detailed, and occupies two pages, one of them small print, of the *Revue de Chirurgie*. If, in spite of his great opportunities, he has really not yet done it on the living, it must be because he considers it suitable for only a very narrow range of cases. It is not quite clear whether Mr. Allingham mentions his inability to find a report of my case as a defence for himself or as a reproach to me. If the former, I do not grudge him any defence; if the latter, I reply that when I found I had been anticipated by Ollier, whose article on the subject had even been noticed in your own columns, and that I had nothing to add to his remarks, I was content

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to exhibit my patient without writing about him. But the third edition of my Index of Surgery contained the following sentence: "Ollier, when resecting for injury, makes a longitudinal incision and saws longitudinally through the patella." When I confess to this reticence, I feel more as if I were boasting than acknowledging anything to be ashamed of. My operation was done on a boy, aged sixteen, on Sept. 11th, 1883, and the following extract is from the notes of Mr. H. H. Taylor, then house surgeon at the West London, now at Brompton Hospital: "Under ether, and antiseptically, a longitudinal incision was made over the joint. The patella was sawn through in the same direction. ..... The patella was wired." I thought at the time that I had done something new, and I should be the last person to reproach Mr. Herbert Allingham for making the same mistake. I have made it a rule to avoid wasting my time in contesting claims of priority, and should perhaps have not begun this correspondence if I did not strongly disagree with Mr. Allingham's estimate of the value of the procedure, which it would now be a graceful act of his to join me in naming "Ollier's." The mistake of crediting your journal with a report which did appear in a contemporary is surely of no significance. With your kind permission, I will, at an early date, publish in your columns a briefly reported series of erasions and excisions of the knee-joint, including the case just mentioned, and then state more fully than I can in this correspondence what experience has taught me about the choice of methods. I remain, Sirs, yours obediently,

Jan. 1887. C. B. KEETLEY.

REMOVAL OF THE UTERINE APPENDAGES.

To the Editors of THE LANCET.

SIRS,—It is only just now that I have seen the report published in THE LANCET for Jan. 1st, of the Leeds and West Riding Medico-Chirurgical Society's November meeting, in which Mr. W. H. Brown is stated to have read notes of a case of removal of the uterine appendages under circumstances calling forth the unanimous condemnation of subsequent speakers. Had I noticed the record sooner I should have lost no time in asking to be allowed to remove the responsibility from Mr. Brown's shoulders to my own, inasmuch as the operation was mine, and Mr. Brown had obtained my full permission to relate the case at the Society's meeting. Unfortunately I was not present that evening, or the remarks which I should have had the opportunity of making might possibly have materially modified the criticisms and consequently the report, which, as it stands in your columns, must convey the impression that Mr. Brown has been guilty of performing an unnecessary and an unjustifiable operation. Moreover—although I am sure Mr. Mayo Robson, who, as secretary, is, I believe, responsible for the published abstract, had no desire to suggest that the operation had been undertaken without consultation—the stress he lays upon his own practice of always having a full consultation (whatever that may mean) before operating will lead many to the erroneous conclusion that in this case so necessary a precautionary measure had been omitted.

I am not concerned at present to discuss the ethics of pelvic surgery. I will only say on that point that, under precisely similar conditions, I should again act exactly as I did in this particular instance; and it may not be superfluous to add that in the case related by Mr. Brown, although as the operator I am prepared to assume my full share of responsibility, no fewer than three unanimous consultations were held with my colleagues, among whom are Mr. Wheelhouse and Mr. Mayo Robson, as well as Mr. Brown.

I am, Sirs, very faithfully yours,

Leeds, Jan. 8th, 1887. T. R. JESSOP.

ALCOHOL AS MEDICINE.

To the Editors of THE LANCET.

SIRS,—A recent remarkable County Court trial has attained a wide publicity. The widow of a member of a Phœnix total abstinence society brought an action against the society for the amount of death claim due on her late husband's decease. The society's defence was that the man had broken his total abstinence pledge (the Phœnix insisting on absolute abstinence without medical exception) by taking some intoxicating wine ordered by his medical attendant. The judge was most righteously indignant at this truly infamous defence, but was compelled to yield to the defence on the ground that the man himself on his sick bed had accepted the return of his subscription and his exclusion from benefit.

On inquiry I am happy to find that this is an isolated society, and is not one of the great Phœnix orders, leaders of which general bodies assure me that their action in such *bonâ-fide* circumstances would have been to pay the widow's claim. We all know the false medical pretences on which people are apt to father their teetotal pledge breaking, and also the loose way in which alcoholic intoxicants are sometimes ordered; but it ought to be thoroughly understood that the temperance cause is not responsible for such shocking, disgraceful, and unjust treatment of a man on his death-bed and his widow in her sorrow.

I am, Sirs, your obedient servant,

Grove-road, N.W., Jan. 8th, 1887. NORMAN KERR, M.D.

*** For the correct name of the particular "Lodge" see an Annotation on p. 139.—ED. L.

PROMOTION IN THE ARMY MEDICAL SERVICE.

To the Editors of THE LANCET.

SIRS,—Referring to your remarks regarding the Army Medical Service, will you permit me to say that your original comment, to the effect that a medical officer could not, by regulation, be promoted to the rank of Brigade Surgeon without having passed the required examination, was, in my opinion, perfectly correct, and your correspondent who took exception thereto wrong. If you will turn to those regulations, you will find that he has, notwithstanding the use of inverted commas, made an important omission. The words are not "promoted for distinguished service," but "medical officers of any grade promoted for distinguished professional service will be exempt from further examination." Moreover, paragraph 8 of the same regulations is that which is applicable to such a case, and it seems clear and specific enough. It runs: "He must, before he can be selected for promotion to the grade of Brigade Surgeon, establish before an examining board, appointed for the purpose by the Director-General, his efficiency in the following subjects"—viz., those of the examination.

I am, Sirs, yours truly,

Jan. 10th, 1887. A MEDICAL OFFICER.

FRIENDLY SOCIETIES' MEDICAL ASSOCIATIONS AND THEIR INJURY TO MEDICAL PRACTICE.

To the Editors of THE LANCET.

SIRS,—Having seen several letters in your valuable paper, complaining of the difficulty of qualified men getting work to do, and the replies stating that it was greatly owing to the employment of unqualified assistants, I must in justice say that I consider it is more due to the springing up of late years of amalgamations of clubs called "friendly societies' associations," and on which head I have a right to speak, having unfortunately for many years been connected myself with one until lately, where the payments of the members and their wives are four shillings, and of children under eighteen two shillings a year, for which small amount visits and medicine are included, and patients seen within a radius of three miles. I do not believe there are any provident dispensaries conducted at so low a rate of payment. We certainly had the honour to have two town councillors, and I do not believe I shall be wrong if I say three belonging to us, also some of their wives and children, all of whom derived the benefits of the association at the same magnificent scale of payment. There were numerous other members in good stations of life in the like category. The secretary, a paid official, an officer under the Local Government Board, also allowed his family to partake of the benefits of the society. The association numbered nearly 4000 members, and to visit, dispense, and attend midwifery there was the large staff of two medical officers, who did not get half the annual receipts or any augmentation of income from increase of members.

All I can say in conclusion is, that I warn young medical men from taking up such appointments, as they lower the

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status of the profession; and if the salary seems good, it is more than counterbalanced by the enormous amount of work expected and by the insults received.

I am, Sirs, yours faithfully,

Dec. 28th, 1886. SURGEON.

SUPPURATION IN THE APPENDIX VERMIFORMIS.

To the Editors of THE LANCET.

SIRS,—With regard to the query contained in the last sentence of Mr. Barford's communication to you on his most interesting case, I think there can be only one answer, and that is to remove by abdominal section the purulent appendix, and drain the abdominal cavity. Sufficient cases have been put on record to attest the wisdom of trusting to timely and bold surgery such as I suggest, rather than to opium or other medicaments.

I am, Sirs, yours truly,

Nottingham, Jan. 9th, 1887. GEORGE ELDER.

NORTHERN COUNTIES NOTES.

(*From our own Correspondent.*)

NEWCASTLE THROAT AND EAR HOSPITAL.

THE annual meeting of this charity was held to-day, the Sheriff of Newcastle, W. H. Stephenson, Esq., presiding. The number of patients entered for the first time was 1482, while 546 remained on the books from 1885, making in all 2028 cases treated during the year. A most gratifying feature in the past year's work has been the important amount contributed by the patients, the financial statement showing that £233 10*s.* 9*d.* had been handed in by the patients to the dispenser in this way. Advice and medicine had been given 912 times free. No case is refused aid, however poor. The medical report presented the usual features of a special hospital of this nature, but the staff complain of want of room, and it has been decided to appeal to the public for aid to erect a new building. Plans, which have been prepared by Mr. J. C. Parsons, architect of this city, have been approved by the Committee, and immediate steps are to be taken to carry them into effect.

NEWCASTLE HOSPITAL SUNDAY FUND.

The final lists of the Hospital Sunday collections have been published, and show that the total amount collected at places of worship is £2119 12*s.* 5*d.*, as against £1437 5*s.* 3*d.* last year. The amount subscribed at the factories and workshops was £1770 7*s.* 1*d.*, as against £1437 5*s.* 9*d.* The amount raised is £3889 19*s.* 6*d.*, the largest figure ever reached in any year's collection. *The Newcastle Journal*, in commenting on the collection, says, "It is a satisfactory result, no doubt; but in view of the greatly enhanced requirements of the hospital charities, we cannot but feel that more will have to be done. The church and chapel collections are not likely to prove very much more elastic. They have now again very nearly touched the highest amount they have ever reached, and from which they had subsided in former years. If they can be kept up to the amount subscribed last year it will be very well, but we must trust to more liberal and better organised efforts amongst the working classes to expand the fund."

ACCIDENT TO DR. SHERWOOD OF WHITBY.

Dr. Sherwood of Whitby, well known to many in North Yorkshire and beyond as a genial and successful practitioner, had the misfortune, on Dec. 27th, to fall on leaving his surgery, and, his leg being bent under his body, he sustained a fracture of the tibia and fibula. He did not lose his presence of mind, but at once requested the attendance of the Ambulance Corps, which he had himself trained while surgeon to the local Artillery Volunteers, the members of whom, under the guidance of Dr. Tinley, removed him to his private residence, a considerable distance from the surgery where the accident befel him. It required no little care to prevent the bone in transit coming through the skin, the fracture being oblique; but so far, under the care of his friend, Dr. Tinley, he has been saved the trouble of a compound fracture, and is, I hear, doing well.

Newcastle-on-Tyne, Jan. 10th.

EDINBURGH.

(*From our own Correspondent.*)

THE ROYAL SOCIETY.

A PLEBISCITE of the Fellows was recently taken in regard to a proposal to change the hour of meeting from 8 P.M. to 4 P.M. The proposal was negatived, but the minority was so numerous that a compromise has been effected, and a series of interim meetings arranged for the afternoon hour. The first of these was held last week, and Sir Douglas Maclagan, one of the vice-presidents, presided over a gathering of some fifty of the Fellows, the numbers showing that the afternoon hour is not an impossible one, and demonstrating how wide an interest was felt in Mr. Coleman's address upon Processes of Refrigeration. In his address, Mr. Coleman covered a wide area; he dealt first with the purely scientific aspects of the subject, describing the various processes employed and quoting results obtained. Recent French and Russian observers find that atmospheric air liquefies at a temperature of −242° F.; they have also fixed the boiling points of liquid air and liquid nitrogen. Turning to the economic aspects of refrigeration, the lecturer described apparatus for continuous freezing, ether freezing machines, ammonia freezing machines, and compressed air machines. The last are in general use for the conveyance of fresh meat on board ship; they depend for their efficiency on the fact that a great fall of temperature occurs in air that is suddenly allowed to expand after compression. These machines maintain a temperature of from 10° to 20° below freezing point, at which meat can be kept good for an indefinite period. Over two million frozen carcases of sheep have been brought to this country, chiefly from New Zealand and South America. Interesting results, which are quite new, also accrued to some experiments made by Mr. Coleman and Prof. McKendrick as to the influence of cold upon the vitality of micro-organisms. They found that vitality was retained and activity regained by organisms that had been exposed to a temperature of −120° F. for 100 hours. Prof. McKendrick, speaking at the end of the address, said that, much as had been done in developing refrigerating processes, there was still great room for further important advances fraught with great scientific interest and practical benefit.

POLICE CASES AND THE DUTY OF MEDICAL MEN.

A recent homicide by stabbing in a public street in Edinburgh has created some discussion as to medical responsibility in police cases. A week ago, a man was severely stabbed in the region of the chest, whilst quarrelling, in the presence of several bystanders. He was found by his friends to be seriously injured. It is stated that they applied for aid at the houses of two medical men in the neighbourhood. In each case they were told to take the sufferer to the Royal Infirmary. They did so, and upon arriving there he was found to be dead. Some important letters on the subject have appeared in the local newspapers. On the one hand, it is urged that the doctors have been guilty of inhumane conduct in declining to attend the case; on the other, that, leaving out of account the extreme ambiguity of the term "doctor" in the district in question, where herbalists and others receive that courtesy title, the public have only themselves to blame if they find a medical man unwilling to hasten at their call to patch up the victims of riotous and drunken brawls. As a rule in such cases, unless he be requested to attend by the police authorities, a medical man is not only justified, but almost bound in self-defence, to let the injured combatants receive treatment at the police-station or the infirmary, to which they naturally gravitate. In this case the police do not seem to have made any such application, and there is no reason to believe that the medical men in question received any more urgent summons than an indistinct statement from an irresponsible individual. This occurrence has opened another important question, whether there ought not to be district police surgeons in the various wards of the city, to whom application for assistance in street accidents or emergencies might be made, without any risk of attendance being refused. This course is urged upon the city authorities in an able letter by Dr. Peel Ritchie, who agitated in the same direction some years ago, and he

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is supported by the opinion of several local medical men. There is cause to regret that the discussion of this proposal by the Public Health Committee has not ended in some modification of the present system, which is, that in an emergency the nearest medical man is called by the police authorities, who remunerate him for his services in accordance with a definite scale of payment. The defect in this system is that upon the police devolves the onus of deciding as to the urgency of the case, and they are naturally prone to take the view least at variance with the strict notion of economy that is very properly instilled into the force, and, as a result, mistakes are apt to occur occasionally of the nature of that now described.

EDINBURGH VITAL STATISTICS.

Dr. Littlejohn's annual report for the year 1886 has just been published. It shows a total of 4555 deaths in the year, or at the rate of 17·89 per 1000 of the estimated population. The births numbered 7457, giving a rate of 29·26 per 1000. Of infectious diseases 7623 cases had occurred, classified thus:—Measles, 5843; scarlatina, 1306; typhoid, 224; diphtheria, 212; small-pox, 26; and typhus, 12. Of these 7623 cases 380 proved fatal.

PRESENTATION.

Mr. A. G. Miller, F.R.C.S.E., Honorary Surgeon to the Royal Infirmary, and Lecturer on Surgery in the Extra-academical School, has been presented by his students with an address expressing their respect for him personally, and the high esteem in which they hold him as a teacher.

Edinburgh, Jan. 11th.

DUBLIN.

(From our own Correspondent.)

THE DUBLIN HOSPITALS COMMISSION REPORT.

ALTHOUGH the report of the Commission appointed to inquire into the condition and working of the Dublin hospitals has not yet been published, it is understood that the following recommendations are included in the report. It is suggested that the sum of money hitherto granted by the Government to the House of Industry and other hospitals in the city of Dublin should in future be distributed *pro rata* among the principal hospitals, according to their general public usefulness and the extent of their accommodation for patients. A portion of the report will refer to the system of clinical instruction and the necessity of having special wards set apart in the large hospitals for the treatment of special diseases. The Commissioners do not recommend an amalgamation of the medical staffs of certain hospitals, as was proposed by some of those examined during the inquiry. These are the chief items of interest in the report, and in addition it is believed that an effort will be made to induce the Treasury to increase the Government grant in consequence of the larger number of institutions it is proposed to have the money allocated to in future.

THE SANITARY STATE OF CORK.

A special meeting of the Public Health Committee was held last week, to consider the report lately furnished by Dr. O'Farrell, Local Government Board Inspector, in relation to the sanitary condition of the city. The first recommendation in the report was: "That the street cleansing be improved, and that a complete system of domestic scavenging be undertaken by the Corporation." It was resolved that the executive sanitary officer and other officers should prepare a report as to the best means of undertaking the domestic scavenging to its fullest extent. The next recommendation was: "That the sewers of the city be completed and modernised, and that a map be provided in accordance with the 22nd section of the Public Health Act; that all the main sewers be ventilated at their highest levels, and that they be provided with side entrances, manholes, and not less than twenty ventilators for each mile of sewer." No action was taken on this, it being understood that the map referred to would soon be completed. The third recommendation was in reference to lodging-houses and tenement-yards being kept in a sanitary condition. The fourth recommendation was that a public abattoir should be erected, but this the Committee considered to be unworkable. The other suggestions referred to the disposal of sewage, and the protection of the water-supply from contamination. The seventh and last recommendation was: "That the medical staff officer of health should devote his whole time to the duties of his office." This the Committee unanimously declined to adopt.

CORK WORKHOUSE.

Colonel Spaight (Local Government Board Inspector) in his half-yearly report on the condition of this workhouse, draws attention to the breaches of the rules, and the absence of strict discipline in the management of the institution. In reference to the system of admissions, Colonel Spaight remarks:—"I believe a very great number are admitted for treatment in the hospitals who might well pay for their maintenance. Not only are the ratepayers loudly complaining, but the accommodation in the male hospital is limited, and in such cases the beds are occupied by those who could be provided for elsewhere, to the discomfort and exclusion of those for whom they were intended. As far as I could ascertain, no question is asked or inquiry made as to the means or condition of those admitted." This is a condition of affairs which certainly should not exist, and the special committee to whom the report has been referred will, it is to be hoped, take prompt measures to rectify any irregularities which may be found to prevail.

MERCER'S HOSPITAL, DUBLIN.

I recently referred to Mr. Newcomen's exclusion from this hospital, and have now to add, in reference to the subject, that the Board of Governors, in consequence of a public investigation having been suggested by the press, lately passed a resolution requesting the Corporation to nominate three members to investigate the charges in which Mr. Newcomen is interested. This request of the governors was under the consideration of the Hospital Committee of the Corporation last week, and three members, one of whom is a medical man, were nominated to act.

NORTH DUBLIN UNION.

At a meeting of the guardians of this union last week, applications were received from the medical officers for an increase of salary. After some discussion the following resolution was passed by a large majority: "That all applications for increase of salary by the officers of this union be postponed for twelve months, in consequence of the very distressed circumstances of the union."

Dublin, Jan. 11th.

PARIS.

(From our own Correspondent.)

THE ALLEGED FAILURE IN M. PASTEUR'S INTENSIVE METHOD.

To judge by the crowded state of the public gallery at the Academy of Medicine at a recent meeting, an unusual amount of interest was taken in the discussion on the case of death from hydrophobia recently communicated by M. Peter, and mentioned in my last letter. Although the debate did not degenerate into a positive quarrel, M. Peter was interrupted frequently by protestations from more than one learned academician, and the gallery was all the time against him. Murmurs of disapprobation were heard when he hinted that the *suppressio veri* was not unknown to the directors of the anti-rabic laboratory, and the contradictions of MM. Grancher, Brouardel, and Dujardin-Beaumetz were received with applause. The discussion commenced by a statement from M. Grancher concerning the patient whose case had formed the subject of M. Peter's communication. M. Grancher said that it was affirmed by M. Peter that the patient had received thirty-six inoculations in twelve days; this was not correct, the register of the laboratory showing that nineteen inoculations only had been made, a treatment much less thorough than was necessary in bites about the face. M. Peter had insinuated that the intensive method might give rise to accidents, a possibility which the partisans of the inoculations were perfectly prepared to accept, and with which every new therapeutic method is obliged to reckon. Each of the rare failures brings its lesson, and it would seem that alcoholism, the nervous temperament, and epilepsy are unfavourable, whereas youth is a favourable condition for the treatment. The treatment was now graduated for each patient by taking into consideration the special risks resulting from the bite, and the special susceptibility of the individual. M. Brouardel

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said that allusion had been made in M. Peter's communication to a child who was said to have died of hydrophobia. This child had been bitten on Oct. 8th by a stray dog. Inoculations were made from the 20th and lasted twelve days. On Nov. 23rd the child was struck by one of his playmates in the loins. He fell ill thirty-six hours later, and died the following day in collapse, with diaphragmatic spasms; there had been no "hydrophobia," but there had been an impossibility to swallow liquids. In this case, the post-mortem examination showed symmetrical ecchymoses at the back of the kidneys, and the urine contained albumen. The inoculation of two rabbits with the child's medulla did not give rise to rabies. The child had, no doubt, died of uræmic poisoning due to albuminuria. M. Dujardin-Beaumetz related his investigation into the case under dispute. His communication threw no light upon the subject. M. Peter's facts do not seem to have been contested, and it is of no interest to record the opposite judgments passed upon them by different observers. M. Peter, in reply, said that he had felt compelled to make known the case related by him to the Academy on account of the danger of the new intensive method, and of the secrecy with which all the deaths following upon it were concealed by the persons concerned. As long as M. Pasteur had confined himself to his first method of treatment, he (M. Peter) had merely looked upon it as inefficacious; but since the modified plan had been adopted the inoculations had become dangerous. A new form of rabies occurred after the so-called preventive inoculations, a form which he would call "canino-experimental," and according to the predominance of action of the canine or Pasteurian virus the predominating symptoms were either those of ordinary or of laboratory rabies. It was precisely because a new, and as yet unknown, paralytic form of the disease was usually met with that the difficulty of diagnosis was so great, and that death was generally attributed to some grave affection of the nervous centres. As regarded the presence of albumen in the urine of the patient examined by M. Brouardel, it was perfectly well known, as had been shown by M. Robin, that albumen is always found in the urine of the dead subject. Since the last sitting of the Academy, notwithstanding the attempt made by the authorities to conceal the facts, M. Peter had, he said, become acquainted with three new cases of "cure" by the intensive method that had terminated fatally. The first was a man forty-seven years of age, at Dunkirk, who was bitten by a mad dog on the 18th of August. He had not been cauterised, an operation which, observed the speaker, thanks to the false security inspired by the inoculations, is at present too often neglected. On the 21st he went to the laboratory, and was submitted to the intensive treatment. On the 29th of December, 112 days after the bite, he first fell ill, and was unable either to eat or drink. In the course of the night he was seized with violent attacks of suffocation. On the 30th there were hydrophobia and convulsions, and the following day he died. The post-mortem examination showed the usual evidence of asphyxia. This, M. Peter considered, was a typical case of ordinary rabies. The second case was at Constantine. A man, forty-six years of age, was bitten on Oct. 12th. From the 20th he was treated by the intensive method. On Nov. 20th pains appeared at the seat of the bite; on the 23rd, pain was felt where the inoculations had been made, and there was sleeplessness. Breathing was impeded by the accumulation of mucus, difficult to expectorate, in the bronchi. There was aversion to fluids. The urine was albuminous. The patient died next morning. The post-mortem revealed intense congestion of the brain, including the cerebellum, and softening. Sections presented a nutmeg appearance. There was serous effusion into the ventricles. The lungs were congested. Here was a case of modified rabies of the canino-experimental kind, showing the inefficacy of the treatment, and the combined effect of the two viruses. The third death occurred at Arras, and a veterinary surgeon had said that the dog in question was not rabid. (M. Vulpian corrected this statement. Further investigation, he said, had proved that the animal really had had rabies.) The sufferer was forty-two years old, and was bitten on Nov. 12th, and underwent the intensive treatment on the 17th. On Dec. 10th he felt great pain at the seats of the inoculations, which extended from the loins up the spinal column. He was nervous and depressed, saying that he felt the same symptoms as at the time of inoculation, and felt very tired. No pain at the seat of the bite or in the corresponding limb. A doctor called in on the 13th thought he was suffering from lumbago, and a few days later changed this diagnosis for myelitis. The symptoms were accompanied later by difficulty of breathing, a feeling of weight in the front of the chest, and spitting. Speech became short and jerky, and was interrupted by involuntary respiratory movements. Convulsions occurred in the face, trunk, and upper extremities, but there were no general convulsions or hydrophobia. Paralytic symptoms set in, and the patient died on the 17th. Although there was no "hydrophobia," M. Peter considered that the case was one of rabies; and from an analysis of the symptoms that it was extremely probable that the onset of the disease was caused by rabbit-derived virus. The *séance* ended after a protest from MM. Trélat and Brouardel against M. Peter's inaccuracies, which, they said, he might have guarded against by consulting the records of the Pasteur Institute.

THE PASTEUR INSTITUTE.

The public subscription for this Institut now amounts to more than 1,500,000 fr., the seventy-fourth, seventy-fifth, and seventy-sixth lists published by the *Journal Officiel* having made up 25,946 fr. The Conseil d'Etat, which had been asked to decree the institute as one of public utility, had adjourned its decision for further inquiry.

Paris, Jan. 11th.

SANITATION AT TOULON.

(From our Special Correspondent).

THE authorities of Toulon have made some slight improvement in the sanitary condition of this most unhealthy town. They profess to have spent £16,000 during the last year in sanitary work. A very large proportion, however, of this sum has been used to defray the cost of filling up a ditch called the "Rode" and in destroying the old fortification which stood close by. The foul deposits at the bottom of this ditch are in many places two yards deep, and the ditch itself measures four yards in width and about 300 yards in length. No attempt has been made to remove the foulness accumulated here in the course of ages. It was thought sufficient to cover it all up with some three feet of earth. Even this would have cost about £20,000 had the earth been brought into the town expressly for the purpose. But by simply tumbling the fortifications into the ditch the work was accomplished for the comparatively small outlay of £5000, or 10*d.* the cubic metre of earth removed. The town of Toulon can now enlarge itself in this direction, and a better current of air is established in the streets that were formerly blocked up at one end by the city wall. But it is to be hoped that trees only will be planted on this covered ditch. They might help to purify the subsoil; houses, on the contrary, if resting on such foundations, would expose the health of their inhabitants to the gravest danger.

This work was hardly terminated before its disadvantage became painfully evident. In times of heavy rainfall the ditch served to carry some of the water away. Now the only remaining ditch in the neighbourhood empties into the port by a covered way and therefore can only carry off a limited amount of water. This brook consequently overflowed, the Rode ditch could no longer relieve the pressure, and extensive floods in the suburbs of Toulon resulted. It is even said that the damage done by these floods equals the cost of filling up the Rode.

Another ditch, called the Égoutier, is now being canalised, and this work will be finished by next April. The earthern banks will be walled up, and the bottom cemented and made concave, so that the water will be able to flow easily and leave little or no deposits. This is the only way of treating these brooks, which remain nearly dry the greater part of the year, and yet at certain times have to bear the pressure of an enormous quantity of water. Most of the towns on the Riviera, Nice and Cannes, for instance, are traversed by several of these small watercourses, and they have always been a source of nuisance. Dirt of all sorts is thrown into the river bed, and there is not water enough to carry it away. With cemented walls and a sharp invert the case is different, and the subsoil is also protected from contamination.

Though less costly, a more important improvement has been achieved with regard to the general cleanliness of the town. It is well known that many houses at Toulon have no closet accommodation whatever. The night-soil is allowed

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to accumulate in deep earthenware jars, and these were generally emptied in the street gutter, whence the water, which flows plentifully, carried the sewage into the harbour. Now, however, a cart goes round every street of Toulon three times a day. This cart, or rather metallic tank on wheels, receives all the soil from the houses, and anyone now found befouling the gutter is prosecuted. I was assured by the local authorities that before the population could be taught to avail themselves of these tanks it was necessary to prosecute fifty people in a week, and still there are summonses issued daily for infraction of the law.

Again, it is worth noting that the scavenging of the town is now done by men in the employ of the municipality, and is no longer entrusted to contractors. The latter it was found were more apt to think of their profits than of the health of the town. As a result of these changes the water of the gutters falls into the port in a much purer state. As each street reaches the old port it will be noticed that the gutters fall into a sort of tank covered over with a grating or with wooden boards. Here leaves and refuse of all sorts are retained, for the water passes out into the port through iron bars, which act as a sieve. Formerly the water of the gutters was so heavily charged with refuse that from fifteen to sixteen cubic metres were withdrawn daily from these filtering tanks. Now, however, that the scavenging within the town is so much better managed, the amount of solid deposit made by the gutters as they reach the tanks close to the port only amounts to about two cubic metres per day.

In spite, however, of these slight improvements, the town of Toulon remains in an extremely unhealthy condition. Typhoid fever, always present, is more than usually prevalent at this moment. Some of the best quarters are often the most affected. Considerable fear is also entertained lest epidemics should arise from the careless treatment of the soil collected in the town and deposited a little way out in the country, where it is given to farmers for manure. This manure, consisting in part of the dejections of typhoid patients, may, if spread about on fields, contaminate neighbouring wells or watercourses. The depôt is managed in so primitive a manner that not unnatural fears are entertained as to the possible consequence.

Toulon, Jan. 2nd.

THE SERVICES.

WAR OFFICE.—Army Medical Staff: Surgeon-Major F. A. Turton, from half-pay, to be Surgeon-Major, vice Duke Parke, retired. G. Burnett Currie (Insch, Aberdeenshire) has been appointed District Medical Examiner of Recruits for the Regular Army and Militia, vice Geo. Mackie, M.D., deceased.

INDIA OFFICE.—The Queen has approved of the retirement from the Service of the undermentioned officers:—Deputy Surgeon-General Charles Planck, Deputy Surgeon-General John Brake, and Brigade Surgeon James Fairweather, M.D., all of the Bengal Medical Establishment. The Queen has also approved of the following transfer from the temporary Half-Pay List to the Retired List:—Surgeon Ernest Lawrie Robinson, Bengal Medical Establishment. The undermentioned officer has been granted a step of honorary rank on retirement:—Brigade Surgeon Charles Kelway Colston, of the Bombay Medical Establishment, to to be Deputy Surgeon-General.

ADMIRALTY.—The following appointments have been made:—Deputy Inspector-General Edward T. Mortimer, to the Hong Kong Hospital; and Deputy Inspector-General Charles H. Slaughter, to the Haslar Hospital.

ARTILLERY VOLUNTEERS.—3rd Volunteer (Lincolnshire) Brigade, Eastern Division, Royal Artillery: Edward Sharpley, Gent., to be Acting Surgeon.

RIFLE VOLUNTEERS.—1st Battalion, the King's Own (Royal Lancaster Regiment): Surgeon J. Robinson is granted the honorary rank of Surgeon-Major.

BEQUESTS.—Mr. Crowther Smith of Newbridge House, who died on the 26th ult., has bequeathed £1000, free of duty, to the Wolverhampton and Staffordshire General Hospital, and the same amount, also free of duty, to the Wolverhampton Orphan Asylum.—By the will of the late Mr. George Fielder £500 is, on the deaths of certain relatives, left to each of the following hospitals: Charing-cross Hospital, Middlesex Hospital, Surrey County Hospital, and Seamen's Hospital (late *Dreadnought*), Greenwich.

NOTES ON THE CASE OF THE LATE LORD IDDESLEIGH.

DR. J. MORTIMER GRANVILLE, who was first consulted by the late Lord Iddesleigh on Feb. 23rd, 1886, has allowed us to make the following extracts from the notes taken by him whilst acting as his Lordship's medical adviser:—

Feb. 23rd.—Gouty history on father's side; agitation of right arm resembling paralysis agitans; he is able to hold his hand perfectly still for six or eight minutes. Left arm and right leg tremble very slightly; some deafness, left ear the best. Hears 28,000 vibrations per second with left. Stands well with eyes shut. Patellar-tendon reflex normal. ..... Cardiac dulness nearly normal; mitral also aortic bruits. Breathing rather rough, but free. Pulse characteristic. Two sphygmographic tracings taken decidedly mitral. Manometer: left hand, 44 lb.; right, 40 lb. Extremities cold. Urine passed at same time contains no albumen. Has been living somewhat low, and is mentally and physically depressed. Falls asleep quickly, but starts a great deal, and has once or twice jumped out of bed while half conscious. Never had epileptiform disturbances.

27th.—Sphygmographic tracing shows improvement.

March 15th.—Much better generally, and hand trembling less, assuming more the character of a choreic movement, but much less frequent. Manometer: right hand, 67 lb.; left hand, 55 lb.

May 14th.—Better considerably. Urine of twenty-four hours: sp. gr. 1020; acidity, 3·465; urea, 10 grs. per oz.; uric acid, ·3600 gr. per oz.; no albumen; no sugar.

Notes of case from this point show steady improvement until Oct. 8th, when he had slight attacks of giddiness, but never involving loss of consciousness, and apparently anæmic in character. At this time the physical signs were found to have improved, the heart's action being regular, less laboured, and the bruits less strongly marked. Sphygmograms of this date are less of the mitral type. Urine of twenty-four hours: sp. gr. 1023; acidity, 3·780; urea, 12 grs.; uric acid, ·3087 gr. per oz.; no sugar; no albumen; no excess of phosphates.

Dec. 1st.—Was sent for to see his Lordship after his return from Windsor. Believes himself to be suffering from a slight chill. Much wearied, and complains of undefined pains in abdomen. Heart sounds as before. Not sleeping well the last few nights. Has sensation of cold water running down the back.

2nd.—Much better.

8th.—Slight giddiness when going upstairs after breakfast. Did not lose consciousness or stagger, and expressed his belief that it was owing to the pressure of his cravat. Heart sounds as usual; no irregularity or intermission. Has at no time while under observation had either irregularity or intermission. No albuminuria at any time; no swelling or œdema, and no enlargement of any of the viscera.

This was the last occasion on which Dr. Granville saw his Lordship alive. On the 12th inst., at about ten minutes to three in the afternoon, he was summoned to Downing-street, and found him dead. Mr. Langston, of Broadway, Westminster, had seen him just before he died, and communicated the following statement to Dr. Granville:—"On my arrival Lord Iddesleigh was lying on a sofa, perfectly straight; extremities not drawn; no turning in of the thumbs; no distortion of the features; pupils dilated and fixed; no stertor; skin pallid, cold, and clammy; lips very slightly blue tinged; no venous engorgement; quite pulseless; no cardiac sounds discernible. He gave a gasp, and with an expiratory effort died. Hot flannel stupes were laid over region of the heart, and sulphuric ether in water was applied to the nose and mouth. It was found that he could not swallow." Mr. Hebbert, of the Westminster Hospital, arrived in a short time, after which, at Mr. Langston's suggestion, ether was injected into the left forearm, and Silvester's method of artificial respiration tried, but none of these remedies had the slightest effect. Dr. Granville, on his arrival, applied nitrite of amyl to the nose, but without result. His Lordship evidently died from the aortic valvular complication.

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ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT a quarterly meeting of the Council held on Thursday, Jan. 13th, the Council agreed to purchase the Cobbold Collection of Entozoa, with the accompanying manuscript. This collection was made by the late Professor Spencer Cobbold. One essay has been received for the Jacksonian Prize on the Pathology &c. of the Thyroid Gland.

The following is the result in reply to the questions contained in the Circular addressed by the Council to the Fellows of the College:—

Analysis of the Answers.

Number of circulars sent out	987
Answers received	706
Difference	281
Returned through post for various reasons ...	21
Unanswered	260

From the 706 answers 6 must be deducted as giving no decision one way or the other.

Of the remaining 700 answers, it appears that in reference to Question A—In your opinion should Members of the College be allowed to Vote for Fellows as Members of the Council?

Fellows voting "No"		419
Fellows voting "Yes":		
Answers unqualified	181	
Answers qualified	95	
Total Fellows voting "Yes"		276
Majority of "Noes"		143

And that in regard to Question B—In your opinion should Members of the College be eligible for seats on the Council?

Fellows voting "No"		526
Fellows voting "Yes":		
Answers unqualified	84	
Answers qualified	88	
Total Fellows voting "Yes"		172
Majority of "Noes"		354

It was resolved that the Committee of Charters and Bye-laws be requested to send a further report as soon as possible in reference to the proposed changes in the Charter and Bye-laws.

The resignation of Professor Humphry as a Member of the Court of Examiners was accepted, and the election of a successor will take place at the next ordinary meeting of the Council.

The Council of the Metropolitan Central Branch of the British Medical Association was informed that their letter and accompanying resolutions had been laid before the Council.

A memorial signed by several medical men and men of science, referring to the disposal of the funds received by the Council under the will of Sir Erasmus Wilson, was brought forward and referred to the Committee on the question as to the disposal of such funds.

The following resolution, proposed by Sir T. Spencer Wells and seconded by Mr. J. Hutchinson, was passed by 11 to 8, subject to confirmation at the next meeting: "That—although the Council are not prepared to give effect to the recommendation contained in the first resolution carried at the meeting of the Fellows and Members held at the College on the 4th of November, 1886—the Council are prepared to act upon the second resolution, so far as to appoint a small committee to confer on the subjects of the first resolution with representatives appointed by the Association of Fellows and the Association of Members.

From the above report it appears that 706 Fellows have responded to the questions propounded by the Council in their recently-issued circular: 1. In your opinion should Members of the College be allowed to vote for Fellows as Members of the Council? 2. In your opinion should Members of the College be eligible for seats on the Council? This may, under the circumstances, be considered as a very full poll. The first question has been answered in the negative by a majority of 143. The second, also in the negative, by a majority of 354. We have from the first anticipated what the result would be; but we find cause for considerable satisfaction in the figures actually before us, especially when we consider the very misleading terms of the interrogations. That of a poll of 987 of the Fellows, only a majority of 143 were unfavourable to an extension of the voting franchise to Members of the College, whilst of the 276 Fellows who voted "Yes" 181 answers gave an "unqualified" affirmative reply, affords a remarkable indication of the growth of a liberal and enlightened spirit. This testimony is emphasised by the fact that, in reply to the second question, 172 Fellows (84 of whom returned "*unqualified*" answers) expressed an opinion that Members should be eligible to sit on the Council. Bearing in mind the restrictions as to standing which the Members themselves would impose, and which the Council in polling the Fellows left out of consideration, we cannot but regard the result of this appeal to the Fellows as eminently satisfactory, and as proof beyond all cavil of the sympathy of the Fellows in the reasonable aspirations of the Members.

Medical News.

SOCIETY OF APOTHECARIES.—The following gentleman passed the examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received a certificate to practise, on Jan. 6th:—

Strickland, Percy Charles Hutchison, M.R.C.S., Ildersly-grove, West Dulwich.

THE annual ball in aid of the funds of the Scarborough Hospital and Dispensary was held on the 4th inst.

A DEATH from eating tinned salmon is reported from Dent, near Sedbergh, in the North Riding of Yorkshire.

THE distribution of prizes at the Imperial School of Medicine, Constantinople, took place in the presence of a large assembly on the 2nd ult.

HOSPITAL SATURDAY FUND.—Lord Brabazon has consented to preside at the thirteenth annual meeting of this fund, to be held at the Memorial Hall on Feb. 8th.

SUPERANNUATION GRANT.—The Poplar Board of Guardians have decided to grant Dr. S. Gray a superannuation allowance of £67 per annum for life.

ON the 8th inst., at the City and Guilds Technical Institute, Finsbury, a practical examination was held of plumbers from different parts of the country, who desired to qualify themselves for registration.

THE JAFFRAY SUBURBAN HOSPITAL.—Mr Jaffray, of Birmingham, has received from an anonymous donor the sum of £1000 towards the endowment fund of the Jaffray suburban branch of the Birmingham General Hospital.

THE HARVEIAN SOCIETY OF LONDON.—The annual general meeting of this Society will be held on Thursday, Jan. 20th, at 8 P.M., at the Stafford Rooms, Titchborne-street, Edgware-road, on which occasion an address will be delivered by the retiring president, Dr. Hughlings Jackson, F.R.S., after which a *conversazione* will be held.

SEWAGE IRRIGATION.—At a meeting of the members of the Association of Public Sanitary Inspectors at the offices of the Society on the 1st inst., Mr. James Bateman read a paper on "Sewage Irrigation Applicable to Small Areas." A short discussion followed, and the proceedings closed with a vote of thanks to Mr. Bateman.

SMALL-POX AT WALSALL.—At a meeting of the Walsall rural sanitary authority on the 7th inst., it was reported that small-pox had again broken out in the locality. An arrangement has been made with the Town Council to treat non-pauper cases in the borough epidemic hospital at the rate of £1 a week.

A MEDICAL MAGISTRATE.—At the last quarter sessions for Carlisle, Dr. Henry Barnes qualified as a justice appointed by the Lord Chancellor. Dr. Barnes has long occupied a prominent position as a physician in the north of England, and has interested himself in all medical and many public movements. His medical brethren in the north feel pleased at this recognition of his work.

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ON the 6th inst. a complimentary dinner was given at Manchester to Mr. Malcolm Webb on the occasion of his resigning the post of resident medical officer at the Manchester Royal Infirmary, a position which he has occupied for upwards of two years.

ST. MARY'S HOSPITAL.—On the 12th inst. the annual Christmas entertainment was given to the convalescent patients of this hospital. The dimensions of the board-room proved scarcely adequate to accommodate the large and appreciative audience.

MANCHESTER MEDICAL SOCIETY.—The following gentlemen have been elected office-bearers for 1887:—President: Dr. James Hardie. Vice-Presidents: Drs. C. J. Cullingworth, Julius Dreschfeld, James Ross, and Mr. A. W. Stocks. Treasurer: Dr. C. E. Glascott. Secretary: Mr. F. Armitage Southam.

THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.—The Lord Chancellor will preside at a festival dinner at the Holborn Restaurant, on Wednesday, Feb. 9th, in aid of a jubilee fund for opening the whole of the wards in the new building of the National Hospital for the Paralysed and Epileptic (Albany Memorial).

WHOLESALE POISONING.—A large number of people—nearly one hundred in all—are stated to have suffered from food poisoning near Carlisle. After a dinner given at a sale of farming stock last week, all the guests who partook of peas-pudding, served with boiled beef, were seized with pain, vomiting, and other symptoms of irritant poisoning. The poison has, it is said, been traced to washing-soda used in cooking to soften the peas. All the patients are recovering.

TREATMENT OF THE METROPOLITAN SEWAGE.—The Duke of Westminster, in reply to an invitation to attend a meeting of the ratepayers of the metropolis to protest against the expenditure contemplated by the Metropolitan Board of Works for the treatment of the sewage at Barking, has expressed his opinion that the costly scheme of the Board requires a more searching examination than it has yet received. His Grace advises that memorials should be presented to the Board calling attention to the objections which have been urged against the scheme.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—The following constitute the members of the Council for the year 1887:—President: Charles S. Tomes, F.R.S. Vice-Presidents: Henry Sewill, S. J. Hutchinson, J. H. Mummery, Andrew Wilson (Edinburgh), Richard Rogers (Cheltenham), and G. C. McAdam (Hereford). Treasurer: James Parkinson. Librarian: Felix Weiss. Curator: Storer Bennett. Editor of the Transactions: Frederick Canton. Hon. Secretaries: R. H. Woodhouse (Council), Willoughby Weiss (Society), and C. J. Boyd Wallis.

THE Royal Colonial Institute held a meeting at Princes' Hall, Piccadilly, on Tuesday evening, when a very interesting paper on New Guinea was read by the Rev. James Chalmers, missionary and explorer. Dr. Doyle Glanville, who was medical officer on the staff of the Royal Commission for New Guinea, and whose pictures and writings in the *Graphic* have from time to time long been familiar to the public, addressed the meeting at some length. After describing the object of the expedition and giving a general outline of its proceedings, he spoke of the London missionary labours in New Guinea in terms of the warmest praise, and concluded his remarks by alluding in feeling terms to the memory of the late Sir Peter Scratchley, who died out there.

THE VIENNA HOSPITAL.—From a statistical report of the great Vienna Hospital, which has just been published, we learn that during 1885, 26,448 patients were treated there. Of these, 13,000 were discharged cured and 4000 improved. Some were removed to other institutions, as many as 1000 being sent to lunatic asylums and more than 500 to the small-pox hospital. There were 2898 deaths. The total number of patients during the last hundred years was 1,654,729, amongst whom the mortality was 237,218, or 14·33 per cent. In 1885, which was the first year of the second century of the hospital's existence, the number of admissions was 8000 in excess of the annual average for the preceding hundred years, and 3300 in excess of that of the preceding ten years, the mortality being 0·95 less than that of the century, and 0·63 less than that of the last ten years.

CANTERBURY DISPENSARY.—On the 5th inst., the fiftieth annual meeting of subscribers to this institution was held, when the report showed that during the existence of the dispensary 76,210 persons had been attended, a proportion of nearly 90 per cent. of that number having been visited at their homes. In consideration of the fifty years' services of the medical officer, Mr. George Rigden, it was recommended by the Committee that he should be presented with £50. The report was adopted unanimously.

SANITARY REGISTRATION OF BUILDINGS BILL.—At the monthly meeting of the Council of the Sanitary Assurance Association on January 10th, a report on the draft Bill was submitted with several clauses redrawn. The Bill was further amended, and ordered to be printed for final consideration at the next meeting of the Council. The new Bill is proposed to be compulsory with regard to schools, hotels, asylums, hospitals, and lodging-houses, while Clause 6 has been made much more stringent in the matter of qualification of persons entitled to give sanitary certificates.

BOOKS ETC. RECEIVED.

BAILLIERE, TINDALL, & COX, King William-street, Strand, London.
- On Irritable Brain in Children. By W. H. Day, M.D. pp. 32.
- Some Remarks on the Classification and Nomenclature of Diseases. By A. Rabagliata, M.D. pp. 60.
- Brief Statement of the So-called "Salisbury Plans" of Treating Diseases produced by Indiscreet Feeding. By J. H. Salisbury, M.D. pp. 64.
- The Bovine Prescriber. By J. B. and A. Gresswell. pp. 77.

CASSELL & Co., London, Paris, New York, & Melbourne.
- Health at School considered in its Mental, Moral, and Physical Aspects. By Clement Dukes, M.D.Lond. New and Enlarged Edition. pp. 324.

CHURCHILL, J. & A., New Burlington-street, London.
- Transactions of the Ophthalmological Society of the United Kingdom. Vol. VI. pp. 531, with Illustrations.
- Diseases of Bones and Joints. By C. N. Macnamara, F.R.C.S.Eng. Third Edition. pp. 535, with Plates (some coloured) and Wood Engravings.
- St. Thomas's Hospital Reports. Edited by Dr. Gulliver and Mr. Clutton. Vol. XV. pp. 360.
- Mental Disorders and Nervous Affections treated by a new Method. By George Moseley, F.R.C.S.Eng. pp. 63.
- A Treatise on the Principles and Practice of Medicine. By Austin Flint, M.D., LL.D. Sixth Edition, Revised and largely Rewritten by the Author, assisted by Profs. Welch and Austin Flint. pp. 1160.
- A Manual of Obstetrics. By A. F. A. King, A.M., M.D. Third Edition. pp. 379, with 102 Illustrations.

DELAHAYE & CROSNIER, Paris.
- Sœur Jeanne des Anges. Autobiographie d'une Hystérique Possédée. Annoté et publié par les Drs. G. Legue et G. de la Tourette; Préface par M. le Prof. Charcot. pp. 321.

FANNIN & Co., Grafton-street, Dublin.
- Transactions of the Academy of Medicine in Ireland. Vol. IV. Edited by W. Thomson, M.A., F.R.C.S. pp. 463, with Illustrations.

KEENE & ASHWELL, New Bond-street, London.
- The Prescriber; a Dictionary of the New Therapeutics. By John H. Clarke, M.D.Edin. Second Edition. pp. 207.
- The Revolution in Medicine. By J. H. Clarke, M.D. pp. 88.

KEGAN PAUL, TRENCH, & Co., Paternoster-square, London.
- Anatomy and Physiology in Character. By Furneaux Jordon, F.R.C.S. pp. 185.

LEWIS, H. K., Gower-street, London.
- Gout and its Relations to Diseases of the Liver and Kidneys. By Robson Roose, M.D., F.C.S. Third Edition. pp. 164.
- On Fevers, their History, Etiology, Diagnosis, Prognosis, and Treatment. By Alex. Collie, M.D.Aber. pp. 288 with Coloured Plates.

LONGMANS, GREEN, & Co., Paternoster-row, London.
- Thomson's Conspectus, adapted to the British Pharmacopœia of 1885. Edited by Nestor Tirard, M.D.Lond., F.R.C.P. New Edition. pp. 251.

MACMILLAN & Co., London and New York.
- A Text-book of Pathological Anatomy and Pathogenesis. By Prof. Ernst Zeigler. Translated and Edited by Donald Macalister, M.A., M.D. Part II: Special Pathological Anatomy. pp. 391, with Illustrations.
- A Treatise on Chemistry. By Sir H. E. Roscoe, F.R.S., and C. Schorlemmer, F.R.S. Vol. III; Organic Chemistry. pp. 388.

MACNIVEN & WALLACE, Edinburgh.
- Alexander Wood, M.D., F.R.C.P.E., &c.: a Sketch of his Life and Work. By the Rev. Thos. Brown, F.R.S.E. pp. 201.

OLIVER & BOYD, Edinburgh.
- The Transactions of the Edinburgh Obstetrical Society. Vol. XI. pp. 138, with Illustrations.

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KENSHAW, HENRY, Strand; CHURCHILLS, New Burlington-street.
Druitt's Surgeon's Vade-Mecum. Edited by Stanley Boyd, M.B., B.S.Lond., F.R.C.S.Eng. Twelfth Edition. pp. 1000, with 373 Wood Engravings.

SMITH, ELDER & Co., Waterloo-place, London.
Transactions of the Pathological Society of London. Vol. 37. pp. 617, with Illustrations.
Dictionary of National Biography. Edited by Leslie Stephen. Vol. IX. Canute—Chalouer. pp. 460.
A Junior Course of Practical Zoology. By A. Milnes Marshall, M.D. &c., assisted by C. Herbert Hurst. pp. 440, Illustrated.

STANFORD, E., Charing-cross.
Transactions of the Sanitary Institute of Great Britain. Vol. VII., 1885-6. pp. 460.

SWAN SONNENSCHEIN, LOWREY & Co., Paternoster-square, London.
An Elementary Text-book of British Fungi. By W. Delisle Hay, F.R.G.S. pp. 238, with 59 Plates.

THIEME, G., Leipzig.
Dr. Paul Boerner's Reichs-Medicinal-Kalender für Deutschland auf das Jahr 1887. Herausgegeben von Dr. S. Guttmann. Theil II.

WILLIAMS & NORGATE, Henrietta-street, Covent-garden, London.
New Theory and Old Practice in Relation to Medicine and Certain Industries. By Surg.-Gen. C. A. Gordon, M.D., C.B. pp. 151.

WOOD, WM. & Co., New York.
The Healing of Arteries after Ligature in Man and Animals. By J. Collins Warren, M.D. pp. 184, with Plates.

Observations on the Spinal Cord of the Insane; by R. S. Stewart, M.B., and A.M. (Macdougall, Glasgow).—Spiritualism; by J. McLean.—The Moloch of Paraffin; by Charles Marvin.—Scribner's Magazine for January, 1887.—Journal of the Scottish Meteorological Society for 1885 (Blackwood and Sons, Edinburgh).—Some Phases of Cerebral Syphilis.—On Tinnitus Aurium and its Treatment by Electricity; by Julius Althaus, M.D. (Longmans).—Doctor Johann Meyer, ein rheinischer Arzt, der erste Bekämpfer des Hexenwahns; von Prof. Carl Binz (Marcus, Bonn).—The Bronchial Catarrh of Children; by Jas. Carmichael, M.D. (Oliver and Boyd, Edinburgh).—Home Rule Wrinkles for Ladies; by Aunt Betsy (Swan Sonnenschein).—Le Kephir—Boisson Médicinale du Lait de Vache; par Dr. V. Dmitrieff.—Prescriptions; by M. Charteris, M.D.—The Microbic Revolution in Surgery; by Dr. Dr. A. K. Steele, M.D.—Magazines for January, 1887: Good Words, Sunday Magazine, Leisure Hour, Sunday at Home, Boys' Own Paper, Girls' Own Paper.—Observations with the Sphygmograph on Asylum Patients; by T. D. Greenlees, M.B.Edin.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ARBUCKLE, HUGH WIGHT, M.D.Aber., L.F.P.S.Glas., has been reappointed Medical Officer for the Stainforth District of the Thorne Union; and also Medical Officer of Health for the whole Union District.

BAKER, JAMES, M.D.Glas., has been appointed Honorary Physician to the Liverpool Northern Hospital.

BERNARD, A. G. F., M.R.C.S., L.S.A., has been appointed Medical Officer of Health for the Mere Union.

BLUETT, GEORGE MALLACK, M.R.C.S., L.R.C.P.Lond., has been appointed House-Physician to the General Lying-in Hospital, York-road, Lambeth, vice W. G. Holloway, M.B.Cantab., resigned.

BRAYSON, JOHN, L.R.C.S., M.R.C.P.Ed., has been appointed Medical Officer for the Laughton District of the Rotherham Union, vice Ward, resigned.

DAMIAN, F. G. C., L.R.C.P.Lond., M.R.C.S., has been appointed House-Surgeon to the Grimsby and District Hospital.

DAY, THOMAS, M.D.St.And., M.R.C.S., has been reappointed Medical Officer of Health for the Burnley Rural Sanitary District.

HACKETT, HARRY EUGENE, L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer and Public Vaccinator to the Gordon District of the Chorlton Union, Manchester, vice R. E. Hammond, resigned.

HOPKINS, THOMAS, M.B., B.Ch. Univ. Dub., has been appointed House-Surgeon to Sir Patrick Dun's Hospital, Dublin.

JAMESON, GEORGE A., M.D., M.R.C.P., has been appointed Physician to the Spanish Mutual Benevolent Society of Viedma, Patagones, Argentine Republic, South America.

MERCHANT, SPENCER, L.R.C.P.Lond., M.R.C.S., has been appointed Assistant Medical Superintendent of the Fulham Union Infirmary.

PARKER, HERBERT, M.R.C.S., L.S.A., Assistant Medical Officer to the Marylebone Infirmary, Notting-hill, has been appointed Medical Superintendent of the Whitechapel Infirmary, Baker's-row, E.

PEARSE, WELLINGTON, M.R.C.S., L.S.A., has been appointed Divisional Police-Surgeon to Walthamstow and Leyton, vice Mr. Henry Gould, retired.

POWER, C. PYE, has been appointed House-Physician to Charing-cross Hospital.

PRILLAN, HENRY W., M.R.C.S., L.S.A., has been reappointed Medical Officer for the Belton District of the Thorne Union.

TWEEDIE, ARTHUR WALTON, M.S., M.B.Dur., M.R.C.S., has been appointed Surgeon to the Royal Sea-bathing Infirmary, Margate, vice W. H. Thornton, appointed Consulting Surgeon.

THOMSON, D. G., M.D.Ed., Senior Assistant Medical Officer at the Surrey County Asylum, Cane-hill, Coulsdon, has been appointed Medical Superintendent of the Norfolk County Asylum.

THORNTON, BERTRAM, M.R.C.S., L.R.C.P.Lond., has been appointed Surgeon to the Royal Sea-bathing Infirmary, Margate, vice Dr. T. Smith Rowe, appointed Consulting Surgeon.

WALTERS, C. ASTLEY, M.R.C.S., L.S.A., has been reappointed Medical Officer for the Second District of the Cheltenham Union.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head, of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road.—Assistant-Physician.

CHORLEY DISPENSARY.—House Surgeon (for term of three years). Salary £130 per annum, with house, rates and taxes, but not coal and gas.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST.—Resident Clinical Assistant. Salary £20 for six months.

EAST SUFFOLK HOSPITAL.—House Surgeon. Salary £100 per annum, with board, lodging, and washing.

ESSEX AND COLCHESTER GENERAL HOSPITAL.—A Physician.

FLINTSHIRE DISPENSARY.—House Surgeon. Salary £100 per annum, with furnished house, &c.

GREAT NORTHERN CENTRAL HOSPITAL, Caledonian-road, N.—Surgeon to the Out-patients.

HUCKNALL, HUTHWAITE, near Mansfield, Notts.—A Qualified Medical Man.

JAFFRAY SUBURBAN BRANCH OF THE GENERAL HOSPITAL, Gravelly-hill, near Birmingham.—Resident Medical Officer. Salary £150 per annum, with board, residence, and washing.

LAMPETER UNION, LLANYBYTHER DISTRICT OF.—Medical Officer. Salary £30 per annum, exclusive of extra medical fees.

LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W.—Junior House Surgeon. Board and residence in the hospital.

NEWCASTLE-ON-TYNE DISPENSARY.—Resident Medical Officer (for term of not less than three years). Salary £250 per annum, with furnished house.

RETFORD DISPENSARY.—Resident Surgeon. Salary £150 per annum, with rooms, coals, gas, and attendance.

SEAMEN'S HOSPITAL (late DREADNOUGHT), Greenwich, S.E.—House Surgeon. Salary £60 per annum, with board, furnished rooms, and attendance.

WORCESTER GENERAL INFIRMARY.—House Surgeon. Salary £100 per annum with board and residence.

Births, Marriages, and Deaths.

BIRTHS.

CHURCH.—On the 11th inst., at Harley-street, the wife of W. S. Church, M.D., of a son.

GREATHEAD.—On the 6th ult., at Graham's Town, South Africa, the wife of J. B. Greathead, M.B.Ed., M.R.C.S., of a son.

HILLS.—On the 27th ult., at Carlton House, Prince of Wales Road, Battersea-park, S.W., the wife of A. Phillips Hills, M.R.C.S.E., F.S.Sc., of a daughter (Lorna).

SCULLY.—On the 9th inst., at Calcutta, the wife of Surgeon-Major J. Scully, of a daughter.

SILK.—On the 31st ult., at Pemberton-road, Upper Holloway, the wife of Fredk. Silk, M.D., of a son.

MARRIAGES.

CAHILL—KEITH.—On the 5th inst., at St. Mary of the Angels, Bayswater, John Cahill, F.R.C.S., to Lucy, youngest daughter of Thos. W. Keith, of Ladbroke-gardens, Kensington-park, W.

CREERY—STIRLING.—On the 6th inst., at St. John's Church, Killowen, Coleraine, John Tate Creery, M.B., to Julia Mary, only child of the late Major Thomas Stirling, H.M. 64th Regiment.

HARRIS—BURROWES.—On May 11th, at Rondebosch, South Africa, by the Rev. Dr. Rooney, David Harris, M.R.C.S.Eng., of Beaconsfield, Diamond Fields (late of Leeds, Yorkshire), to Cecilia Mary, daughter of Thomas Burrowes, Esq., Solicitor, of Downpatrick, Ireland, and niece of F. W. Burrowes, Esq., J.P., Collector of Customs for this colony.

POLDEN—ANGELO.—On Nov. 23rd, at Christ Church, Rawul-Pindee, Punjaub, Upper India, Robert James Polden, M.B., Surgeon, Indian Medical Staff, to Lilian Evelyn, youngest daughter of Major John Angelo, late Bengal Staff Corps, retired.

WAGHORN—HALE.—On the 30th ult., at the Memorial Church, Colaba, Bombay, Henry Waghorn, Surgeon-Major, Army Medical Staff, to Florence Isabel, youngest daughter of the late John Hinde Hale, of Chesham, Bucks.

DEATHS.

CÆSAR.—On the 9th inst., at Tottenham, Charles Augustus Cæsar, L.R.C.P.Ed., L.F.P.S.Glas., aged 41.

DOWELL.—On the 6th inst., suddenly, Robert Dowell, M.R.C.S., L.S.A., aged 73.

REE.—On the 4th inst., Fredk. George Ree, L.R.C.P., M.R.C.S.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births Marriages, and Deaths.

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Medical Diary for the ensuing Week.

Monday, January 17.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesdays, same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. J. Langdon Down: On some of the Mental Affections of Childhood and Youth (Lettsomian Lecture).

Tuesday, January 18.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 1.30 P.M. Skin Department, Mondays and Thursdays, 9.30 A.M.
ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Prof. Arthur Gamgee: The Function of Respiration.
PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Address by the President. Mr. Fenwick: Section of Hypertrophied Bladder from a case of Stricture.—Dr. Handford: Fatty Tumour of Heart.—Dr. Ord: Spontaneous Disintegration of Vesical Calculus.—Dr. Sharkey: Infantile Paralysis of Long Standing.—Mr. Bland Sutton: Diseases of Genito-urinary Organs of Animals.—Mr. D'Arcy Power: A Neglected point in the Pathology of Colles' Fracture. Card Specimens:—Dr. Handford: Specimens of Œsophageal Disease.—Dr. Sharkey: Syphilitic Arteritis.—Dr. Maudsley: Ulceration of Trachea with Perforation of Aorta.—Dr. B. O'Connor: Mediastinal Tumour.

Wednesday, January 19.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesdays and Thursdays, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; and on Friday, 2 P.M.; and Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M.; Saturday, same hour.
SOCIETY OF ARTS.—8 P.M. Mr. J. B. Marsh: Cameo-cutting as an Occupation.

Thursday, January 20.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Prof. A. W. Rücker: Molecular Forces.
PARKES MUSEUM OF HYGIENE.—5 P.M. Mr. M. Ogle Tarbotton: Engineering and Architecture in relation to Sanitary Science.
HARVEIAN SOCIETY OF LONDON.—8 P.M. Annual General Meeting. Election of Officers; President's Address; Conversazione.

Friday, January 21.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
SOCIETY OF MEDICAL OFFICERS OF HEALTH.—7.30 P.M. Dr. C. E. Saunders: Legislation for the Purification of Rivers, and its Failure.
ROYAL INSTITUTION OF GREAT BRITAIN.—9 P.M. Sir Wm. Thomson: The Probable Origin, the Total Amount, and the Possible Duration of the Sun's Heat.
SOCIETY OF ARTS.—8 P.M. Mr. Trelawney Saunders: The Upper Oxus.

Saturday, January 22.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Mr. Carl Armbruster: Modern Composers of Classical Song—Liszt (with Vocal Illustrations).

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, January 13th, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Jan. 7	29·03	S.W.	36	35	...	40	32	...	Overcast
,, 8	29·07	W.	36	35	...	39	34	·14	Overcast
,, 9	29·33	W.	37	36	...	38	35	·02	Overcast
,, 10	29·79	W.	35	34	...	39	33	·07	Overcast
,, 11	29·91	S.	38	37	...	45	35	...	Overcast
,, 12	30·25	N.	40	40	...	42	40	·09	Raining
,, 13	30·45	N.E.	34	34	...	...	33	·01	Foggy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

THE USE OF COCOA.

THE total consumption of cocoa is 80,000,000 lb. per annum, supplied mainly by the West Indies and South America. France heads the list with 26,000,000 lb.; Spain comes next with 16,000,000 lb.; then follows England, 14,000,000 lb.; and the United States, 8,500,000 lb. In this last country the use of cocoa has increased more than sixfold since 1860, while that of tea and coffee within the same period has not quite doubled.

Mr. Gillett (Paris) will see from a general notice published above that we do not undertake to return MSS. not used.

Mr. Arthur Matthey.—We regret we are unable at present to answer the question.

R. S. W. has not enclosed his card.

"SUICIDE AFTER TAKING CHLORAL."

To the Editors of THE LANCET.

SIRS,—Your correspondent, "A. P. G.," asks, in your last issue, two questions about suicide after chloral, in reply to which I submit the following.

All narcotics, including alcohol, may predispose to suicide, and I presume most practitioners could instance cases tending to prove the fact. I will record one in recent experience. On Dec. 24th, 1886, I was called to see a young Japanese gentleman, aged twenty-one, who had shot himself with a pistol, and who died two hours and a half after my arrival from the wound in the brain with compression. I had never attended him before, but he had been seen by Sir Andrew Clark, and also by another practitioner. Although the symptoms might be accounted for only by cerebral hæmorrhage, I thought it probable that there was the complication of some narcotic, and as the condition of the pupils negatived opium I inquired particularly about chloral. No satisfactory evidence could be obtained at the time, but after death when examining prescriptions that were found, I saw that chloral had been given. As no reasonable cause for suicide could be discovered save occasional depression, but, on the contrary, with position, wealth, &c., there were many things calculated to make life desirable, it seems likely that the narcotics lessened self-control, and the publication of such cases may do some good by cautioning all of us to be careful in their administration. I am, Sirs, yours faithfully,

Philbeach gardens, S.W., Jan. 8th, 1887. J. A. OWLES.

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FURNEAUX JORDAN TESTIMONIAL FUND.

THE following is a list of subscriptions already promised to the above fund. Subscriptions may be forwarded to the hon. treasurer, Mr. T. H. Bartleet, 27, Newhall-street, Birmingham; or to the hon. secretaries, Mr. Bennett May, 81, Edmund-st., and Mr. Jordan Lloyd, 22, Broad-st.

Bartleet, T. H., J.P., F.R.C.S.	£10	10	0	Clarke, W. J., M.B. ...	£1	1	0
Carter, Harold, J.P. ...	10	10	0	Clay, Langsford, Esq. ...	1	1	0
Chavasse, T. F., M.D. ...	10	10	0	Clay, A. F., Esq.	1	1	0
Tangye, Richard, Esq. ...	10	10	0	Clarke, J. Fenn, Esq. ...	1	1	0
Bassett, John, M.D. ...	5	5	0	Duncalfe, Henry, M.D.	1	1	0
Hunt, G. V., M.D. ...	5	5	0	Ellis, Fredk., Esq. ...	1	1	0
Bradford, Cordley, Esq...	5	5	0	Fairley, S. B., Esq. ...	1	1	0
Lloyd, Jordan, F.R.C.S.	5	5	0	Haslam, Mr. F., F.R.C.S..	1	1	0
May, Bennett, F.R.C.S.	5	5	0	Hollinshead, F., Esq. ...	1	1	0
Middlemore, Wm., J.P.	5	5	0	Holloway, G., Esq. ...	1	1	0
Newton, R. A., Esq. ...	5	5	0	Jones, Thos., Esq. (Ruthin)	1	1	0
Oakes, Arthur, Esq. ...	5	5	0	Ker, H. R., Esq. (Halesowen)	1	1	0
Thompson, Thos., Esq....	5	5	0	Marsh, F., F.R.C.S. ...	1	1	0
Wilders, J. St. S., Esq....	5	5	0	Middlemore, Thomas, Esq.	1	1	0
Bracey, C. J., M.S. ...	3	3	0	Norris, R., M.D.	1	1	0
Evans, T. C., Esq. (Liverpl)	3	3	0	Nason, John, M.B. (Stratford)	1	1	0
Hawkins, Alex., Esq. ...	3	3	0	Nicholls, Gordon, Esq. ...	1	1	0
Hallwright, M., Esq. ...	3	3	0	Prosser, R. A. S., Esq. ...	1	1	0
Sawyer, Sir James ...	3	3	0	Payton, Thomas, Esq. (Smethwick)	1	1	0
Smith, Priestley, Esq. ...	3	3	0	Riley, T. W., Esq., (Pontesbury)	1	1	0
"A Friend" (per J. P. Badley, Esq.)	2	2	0	Richards, T., M.D. ...	1	1	0
Blissard, Rev. J. C., M.A.	2	2	0	Sims, Chas., Esq.... ...	1	1	0
Badley, J.P., Esq. (Dudley)	2	2	0	Sansome, Thomas, Esq. (West Bromwich) ...	1	1	0
Brown, Jas., Esq. (Tipton)	2	2	0	Swann, A., M.D.... ...	1	1	0
Carter, A. H., M.D. ...	2	2	0	Thomas, William, F.R.C.S.	1	1	0
Clayton, Councillor ...	2	2	0	Turner, Edwin, Esq. (Wordesley)	1	1	0
Harvey, Alfred, M.B. ...	2	2	0	Underhill, A. S., M.D. (Great Bridge)... ...	1	1	0
Harrison, A. J., M.B. (Clifton)...	2	2	0	Webb, T. Law, Esq. (Ironbridge)	1	1	0
Hunt, Joseph, Esq. ...	2	2	0	Woodcock, J. R., M.D....	1	1	0
Marriott, C. W., M.D. (Leamington)	2	2	0	Cant, W. J. Esq. (Lincoln)	0	10	6
Moxon, W., Esq.	2	2	0	Harvey, John, M.D. ...	0	10	6
Suckling, C. W., M.D. ...	2	2	0	Hall, T. Lambert, Esq. ...	0	10	6
Williams, Joshua, Esq....	2	2	0	Horton, Henry, Esq. (Bromyard)	0	10	6
Allen, R. G., Esq. ...	1	1	0	Oldacres, C.E., Esq. ...	0	10	6
Baines, John, Esq. ...	1	1	0				
Barling, Gilbert, F.R.C.S.	1	1	0				
Bradley, Daniel (Dudley)	1	1	0				
Cornbill, John, Esq. (Ilfracombe)	1	1	0				

Gemma can claim one guinea for making the post-mortem examination, and one guinea for giving evidence. The number of attendances at the inquest does not affect the fee.

Mr. Lawson Tait.—The Editors are alone responsible for all that appears in the editorial columns of THE LANCET.

"COCAINE IN DENTAL SURGERY."

To the Editors of THE LANCET.

SIRS,—Having seen in your issue of Dec. 18th that M. Georges Vian has only just established cocaine as an anæsthetic in dental extraction, I think it perhaps fair to state that some six months ago I had a tooth extracted in Plymouth, cocaine being injected, with no pain. Since then I have used it frequently, and only in one case were there any toxic effects—viz., in the case of a stoker who had previously, on one or two occasions, fainted in the coal bunkers. A draught of ether and ammonia quickly brought him round. Whether syncope was due in this case to the drug, or to slight shock, the result of the operation, I could not say. Anæsthesia appears to be complete, unless there is much inflammation at the root of the tooth.

In some forms of neuralgia, depending on a local lesion, it seems to be a valuable drug. I just quote one case where its success was very marked. J. M—— complained of intense pain in the lower jaw. The face was suffused on the same side, with injected conjunctiva and swollen lids. He appeared in great pain. I examined his teeth, which were perfect, except for one which had been removed a few weeks previously on shore. As it was just possible that the pain was due to some irritation at the site of the removed tooth, I injected a grain of cocaine into the gum. Visiting him about half an hour afterwards, he said he was quite free from pain. There was no recurrence of it. The following morning the congestion of face, &c. had passed off.

I am, Sirs, yours obediently,
G. F. DEAN, Surgeon, R.N.

H.M.S. *Polyphemus*, Malta, Jan. 4th, 1887.

LIMITS OF THE CHILD-BEARING PERIOD.

To the Editors of THE LANCET.

SIRS,—I shall be obliged if any brother practitioners can give me any definite information on the following question, either from books or personal knowledge. Is there any infallible sign that a woman is past child-bearing? Here is a case in point. A patient forty-seven years of age; last child eight years ago; irregular menstruation for some time past; nothing seen for five months, then scarcely anything, only lasting a few hours. She wishes to marry, but has the greatest objection to another young family.

I am, Sirs, yours faithfully,
December 29th, 1886. M.D.

THE PHYLLOXERA.

THE average yield of the French vintage for the four years from 1875 to 1878, inclusive, was 1,275,000,000 gallons. The last three vintages have decreased at a greater rate than 100,000,000 gallons per year, and now it is reported that in the vintage of 1886 more than one-fifth of the yield was produced from dry raisins and dregs of the first and second press. Although it is beginning to be the fashion to ascribe this decrease chiefly to mildew and other causes, the presence of the phylloxera must be regarded as one of its principal causes. After a variety of researches only one method has been found to effectually kill this insect, and that is by inundation, begun in November and continued for forty days. The vineyard on which this experiment was tried was one of the first to be attacked. In 1867 the wine produced was 925 hectolitres; in 1868, 40; in 1869, 35; in 1870, the first year of submersion, 120 hectolitres. Since that year the quantity produced has gradually increased, until it has nearly reached its normal figures, and the vines have regained their vigour. The Commission appointed in France, which publish every year such a heavy report, have chiefly studied methods for killing the insect underground, and but little practical benefit has attended their action. Had they directed their energies to a policy of extermination above ground very different results might have been attained.

A Member.—Our correspondent, having been suspended on Jan. 1st and having resigned office on the 6th, cannot claim payment of his salary beyond the 6th for deprivation of office which he did not feel disposed to resist. The only case to which the rule applies is where the guardians have suspended the officer and it is referred to the Department for their decision, when it is competent for the Department to allow payment of salary up to the time of removal, of suspension, or confirmation of the same.

Dr. Fraser.—The case seems hard, and the decision is probably wrong, but we fear our correspondent is without redress.

PERSISTENT DIARRHŒA.

To the Editors of THE LANCET.

SIRS,—I should feel greatly obliged if some of your readers who have treated similar cases successfully would give me a few suggestions to help me out of my trouble.

I am suffering from diarrhœa, with griping and flatus, the result, I believe, of superfluous bile from an enlarged and unusually active liver. I cannot say that I have any other symptom specially worthy of note. In 1873 I went to the West Indies, and remained there till January, 1877, faring somewhat hardly as regards food, and in consequence drinking brandy pretty freely, though never to intoxication. During this period I had several attacks of the ordinary intermittent fever of the island, but none of any noteworthy severity. On my return to England in January, 1877, I was suffering from atonic dyspepsia and congestion of the liver. Shortly after my return I got a severe chill, and this brought on a violent attack of ague, which recurred at intervals with gradually decreasing force for upwards of a year. I remained in England until June, 1881, when I returned to the West Indies, apparently in perfect health, the congestion of the liver having disappeared in deference to podophyllin when indicated. I remained in the West Indies until June of last year, living very temperately but working very hard, both mentally and bodily, having many irons in the fire requiring my personal supervision. In November, 1885, I had a severe attack of bilious remittent fever, and in April last an equally severe attack of obstruction of the bowels, followed by a less severe attack of obstruction on my passage home in June. Since that time the diarrhœa has been almost constant. I am unable to take opium in any of its ordinary forms; but from time to time I have had relief from small doses of akolethe, of which I can speak in the highest terms. Still, I do not care to be dependent on any opiate, and I should like to get something more than temporary relief.

I am, Sirs, your obedient servant,
January, 1887. L.R.C.P.

To the Editors of THE LANCET.

SIRS,—I have just seen a letter in your issue of the 18th ult., signed "A. H.," asking advice as to the treatment of an obstinate case of diarrhœa. I would advise your correspondent to examine the rectum, as I have known several instances in which obstinate diarrhœa was caused by ulcers, fissures, or even very slight abrasions of the mucous membrance of this gut, and which at once got well when the rectal ailment was cured.

I am, Sirs, yours truly,
January 10th, 1887. J. I.

BRITISH MEDICAL BENEVOLENT FUND.

To the Editors of THE LANCET.

SIRS,—The annual general meeting of subscribers to this fund, which was held yesterday, commissioned me to offer you an expression of thanks for the services you have rendered to the fund during the past year, by so freely and generously opening the columns of your valuable journal to the communications addressed to you with regard to the fund, and to express a hope that so useful an indulgence may be continued.

I am, Sirs, yours truly,
Upper Berkeley-st., W., Jan 11th, 1887. EDWARD HAST, Hon. Sec.

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RIDDELL FUND.

THE following additional subscriptions have been received:—Amount already acknowledged, £50 3s. 6d.; D. P. (per Dr. Dolan), £1 1s.; Dr. Whitwell, £1 1s.; Dr. Fegan, £1 1s.; M.D., 10s.; H. T., 3s. 6d. The list will close on Jan. 19th.

Mr. Easterbrook.—We are not in a position to give a reply. Perhaps a letter to the Rev. Dr. Forrest, of St. Jude's, South Kensington, would elicit the information desired.

J. R. P.—Allen's Commercial Organic Analysis, published by J. and A. Churchill, would probably answer the purpose.

PARISH PRACTICE AND ITS REMUNERATION.

To the Editors of THE LANCET.

SIRS,—I would direct the attention of the profession to the advertisement of the Lampeter Union in your issue of Jan. 8th. No doubt there will be a great rush of the unemployed to secure such a lucrative and easily-worked appointment. For the privilege of physicking the paupers of the parish of Llanfihangelrhosycorn and the adjoining parishes the guardians offer, forsooth, a salary of no less a sum than £30 per annum, and at the same time gently announce the acreage of the district. The area of the combined parishes is stated to be 34,700 acres. The advertisement calls to mind some lines of Albert Smith:—

> "The parish is small—ten miles by sixteen,
> With some commons and gravel-pits scattered between;
> And respecting the cases, to state 'tis p'r'aps right,
> That they always occur at the dead of the night."

I am, Sirs, yours very truly,

Pangbourne, Reading, Jan. 10th, 1887. W. T. FREEMAN.

TOOTH POWDERS.

IN reply to several correspondents, we may say that the amount of precipitated chalk implied in the formula which we gave in our issue of the 1st inst. was 2 oz. (not 1 oz. as was erroneously printed in our last, in answer to Messrs. Habgood and Cooper).

M. J. Knight.—Reynolds' System of Medicine, Pepper's System, Hirsch's Practical Pathology, Dr. D. Friere's Monograph.

EMASCULATION OF FOWLS.

To the Editors of THE LANCET.

SIRS,—I would be very much obliged if any of your readers could give me some information about the emasculation of fowls, and if there is any book which gives directions as to how the operation is performed.

I am, Sirs, yours faithfully,

January, 1887. B. L. T.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Lawson Tait, Birmingham; Sir W. MacCormac, London; Dr. George Johnson, London; Dr. Bristowe; Mr. Jessop, Leeds; Dr. Goodhart, London; Dr. C. W. Dulles, Philadelphia; Mr. F. Easterbrook; Messrs. Arnold and Sons, London; Mr. Rockliffe, Hull; Mr. Hussey, Oxford; Mr. J. Bell, Suez; Mr. Benthall, Southsea; Dr. Campbell, Carlisle; Mr. S. Snell, Sheffield; Dr. F. A. Smith, Cheltenham; Messrs. Burgoyne and Co., London; Rev. W. Homfray, Retford; Messrs. Hopkinson and Co., London; Mrs. Learmonth, Kentish-town; Messrs. Brin and Co., London; Dr. Elder, Nottingham; Mr. Mudge, Hale; Mr. J. E. Lane, London; Dr. Sagons, Philadelphia; Messrs. Smith, Elder, and Co., London; Mr. Hardman, Birmingham; Mr. Tennant, Matlock Bridge; Dr. Lindsey, Belfast; Mrs. Smith, Caistor; Messrs. Deighton and Co., Cambridge; Mr. W. T. Grant, London; Messrs. Wyley and Co., Coventry; Mr. Buck, Sutton-in-Ashfield; Dr. Collins, Regent's-park; Dr. Macnab, Stirling; Mr. Dale, Scarboro'; Messrs. Wallace and Co., Glasgow; Mr. Newsholme, Clapham; Dr. Penny, Marlborough; Mr. Thwaites, Bristol; Mr. Fuge, Taunton; Mr. Douglas, Handsworth; Mr. Weymouth, Brondesbury; Mr. Newham, London; Mr. Brooks, Kensington; Mr. Godfrey, Northampton; Mr. Hardman, Handsworth; Dr. Owles, London; Mr. Gillett, Paris; Dr. Norman Kerr, London; Mr. C. S. Jeaffreson, Newcastle-on-Tyne; Mr. Marcus Beck, London; Dr. Pasteur, London; Mr. Godwin; Messrs. Lee and Martin, Birmingham; Mr. K. Benham, London; Messrs. Bromley and Co., Lincoln; Mr. Holloway, Worcester; Messrs. Simpson and Co., London; Mr. Wyer, Hanley; Mr. Moore, Coventry; Messrs. Lee and Nightingale, Liverpool; Mr. Martindale, London; Messrs. Austin and Son, Clifton; Mr. Hitch, St. Leonards-on-Sea; Messrs. Hearon and Co.; Mr. Bornebrook, London; Mr. Lyster; Messrs. Shanks and Co., London; Mr. Fox, Birmingham; Mr. East, London; Mr. C. S. Shelley, Hertford; Dr. Cullingworth, Manchester; Messrs. Bennett Bros., Salisbury; Dr. T. K. Clarke, Huddersfield; Messrs. Christy and Co., London; Mr. F. A. Southam, Manchester; Mr. D. Freeman, London; Dr. Sloan, Edinburgh; Surgeon-Major Jagoe; Mr. Bennett May, Birmingham; Mr. A. W. Harding, Ealing; Messrs. Reynolds and Co., Leeds; Mr. J. A. Gaven, London; Dr. F. Page, Newcastle-on-Tyne; Mr. W. Weiss, London; Dr. Hadden, London; Mr. Lee, London; Mr. Woodland, London; Mr. Mayhew, Ipswich; Mr. Scott, Manchester; Mr. Munday, Hampstead; Mr. Griffith; Messrs. Wilson and Son, Manchester; Mr. Greenish Wolverhampton; Messrs. Down and Co., London; Mr. Yeldon, Ilfracombe; Messrs. Hopkinson and Co., Nottingham; Mr. Blore, Leeds; Mr. J. Furley; Messrs. Trübner and Co., London; Dr. Hughes, Carmarthen; Mr. Kneebone, Bedford; Mr. Hadley, London; Mr. Oldham; Good; J. I.; B. J. M., Clay-cross; Trocar, Leicester; M.D., Bristol; Surgeon M.S.; A Student; M.D., F.R.C.S.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Bolton Godalming; Mr. Grime, Blackpool; Mr. Patten, Ealing; Mr. Scott, Victoria; Mr. Buckle, Storrington; Mr. Hain; Messrs. Maclachlan and Co., Edinburgh; Mr. Young, Newcastle; Mr. Williams, Bury Port; Mr. Spencer, Retford; Mr. Gray, Dalton-in-Furness; Mr. Low, Workington; Dr. Horton, Exeter; Dr. Henderson; Mr. Clarke, Farnworth; Dr. Dubreuil, Bordeaux; Mr. Lilley, Leicester; Mrs. Lay, Northampton; Dr. Maclaren, Cannes; Dr. Leeson, Brighton; Mr. H. Mason, London; Mr. Phillips, Notting-hill; Mr. Affleck, Manchester; Mr. Johnston, Sheffield; Dr. Kennedy, Malvern; Messrs. Read and Co., Bristol; Mr. Harris, Leeds; Miss Payne, Leeds; Messrs. Drake and Co., Stratford; Mr. Crossley, Halifax; Mr. Young, Manchester; Mr. Davies, Pontypridd; Mr. White, Bayswater; Messrs. Maw and Co., London; Mr. Fraser, Middlesbro'; Mr. Buck, Notts; Dr. Gurner, London; Mr. Lombe, Torquay; Mr. Davies, Gateshead-on-Lyne; Mr. Ellis, Lincoln; F. S. A., Wye; V., Leicester; A. B., Carnarvon; Radix; Surgeon, Minchinhampton; M.B., Notts; S., Sheffield; Lady Superintendent, Cambridge; C. P.; Immediate; Micro; R.N.; Sister Elizabeth, Woolwich; Medicus, Holloway; P.W.; T. P. S.; Chemicus, Birmingham; Cheltenham; Obstetrics.

Leamington Chronicle, Central Somerset Gazette, Warrington Observer, Newbury Weekly News, Manchester Examiner, Liverpool Daily Post, South Manchester Gazette, Stock-keeper, Women's Suffrage Journal, Bucks Herald, Brighouse Gazette, Wellingborough News, Malvern Advertiser, St. Stephen's Review, Burton Chronicle, Railway Supplies' Journal, &c., have been received.

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Address

DELIVERED AT THE

PATHOLOGICAL SOCIETY OF LONDON

On Tuesday, January 18th,

BY SIR JAMES PAGET, BART., F.R.S.,

PRESIDENT OF THE SOCIETY.

GENTLEMEN,—I thank you heartily for the honour you have conferred on me by electing me to be your president. It is a great compliment that I should still be thought fit to be president of a Society of which the most active members are much younger scientific men, some of whom are studying pathology in subjects and with methods almost unknown to me. If I can be at all fit for the office, it may be because, in my very imperfect knowledge of many of the numerous methods in which pathology is now studied, I can look with full respect upon them all; and, indeed, there are few things in relation to our science of which I am more sure than of this, that every possible method of studying it should be by all possible means promoted. And while I am your president this shall be my object, so far as I may have power.

I hope I shall not prove myself unwise if I do not take for the subject of my address that kind of knowledge in which alone I might claim superiority over my hearers—namely, the personal memories of the far distant past. It would be very pleasant to me to tell some of them, and might be amusing and flattering to those who can compare the best modern knowledge with that which it has displaced. But it may be more useful to think and speak of what may next be done, and how to do it. For every increase of knowledge brings before us a larger and clearer view of the immeasurable quantity which is still to be gained. The more we know, the more can we see, if we will, how much more there is that we do not know.

I wish I could indicate all or many of the ways in which new knowledge is to be gained; but I cannot. It is characteristic of modern pathology that, as it certainly surpasses all other sciences in the variety and complexity of its problems, so it offers work sufficient for the employment of nearly every variety and opportunity of the scientific mind. Pathology, as distinguished from practical medicine, used to be regarded as scarcely more than morbid anatomy; but now there is in it work not only for the anatomist and physiologist, but for the clinical observer, the experimentalist, the minutest microscopist, the statistician, the chemist, the naturalist, the historian, the psychologist, and yet more. I cannot pretend to be all these; and I will not pretend to decide who has done the best work or is most likely to do it in the future. Only, it is certain that complete pathology must be constructed from the works of all these; they are all mutually dependent, mutually corrective; none can alone suffice, and none can safely be neglected.

But, of all the methods of study, there are only two with which I have been much occupied—those, namely, of pathological anatomy and of clinical pathology in active practice. I can therefore speak of the future employment of only these two. But I will hope they may suffice, especially as the greater part of the members of the Society are engaged in them, and because we may justly believe that practice and pathological anatomy, if they be studied with the scientific mind and methods, will still contribute largely to the progress of the whole science of pathology.

I say practice studied with the scientific mind, because practice is often spoken of as if it were altogether distinct from science and inconsistent with it. We hear science and practice spoken of as in opposition, and sometimes as if they were mutually distrustful. I will not deny that strange contrasts of the practical and the scientific may be found among us; but these contrasts are constantly becoming more rare; and it is an excellent influence of this Society that it tends to cultivate the scientific mind and to maintain it in the practical life. For what practice may be depends, in all respects, much more on the person engaged in it than on its own subject-matter. It may be for one a noble profession, for another a vile trade; and in equal contrast it may be a mere useful art practised by one who has neither love nor knowledge of any science, or to the man of scientific mind it may be a thoroughly scientific study as well as an applied science. I could name many living in active practice of whose work a great part is as definitely scientinc as is that done in any other section of biology. And so are the works of many who are gone. For example, I know no reasonable definition of science which would exclude the researches by which Bright attained the knowledge of the disease which bears his name; or which, in a just history of pathology, would separate, as if they were of different merits, the clinical and the experimental researches from which we have our knowledge of the diseases of arteries and veins. Surely, it would be hard to name a discovery in biology which more deserves the name of scientific than does Jenner's discovery of vaccination; and yet it was made in the plainest practical manner while he was a country practitioner. But, observe, Jenner was a thorough naturalist, trained by John Hunter; and I suspect it will be found that all the best advances in clinical pathology, the best not only in their utility but in their fitness for adjustment among the largest principles of our science, have been made by practitioners who were either by nature or by cultivation men of scientific mind. And it is as sure as anything of the kind can be that similar studies by men of similar mind will still attain as good results.

Practice is full of opportunities for science. Let me suggest only one group of them. Reflection on any day's work in practice may convince us that we have been using a good deal of knowledge or belief which we cannot explain by its relation with other knowledge, whether in pathology or any other branch of science. We may have given what are called specific medicines, or have advised some one in the belief that he was predisposed to some disease, or may have talked of functional diseases. Yet I doubt whether in any of these things there are more than unexplained facts; and if there are not, then we may be sure that the facts are very hopeful beginnings for scientific study by those engaged in practice. I may illustrate this by the example of the use of some of the specific medicines, such as that of quinine in malarial diseases, of mercury and of iodide of potassium in syphilis, of arsenic in many cases of psoriasis, or of bromide of potassium in some cases of epilepsy. Here are sure facts, practical and useful, as sure as anything in therapeutics. I would not call them scientific, for, so far as I know, they are isolated facts, and separate from what may be called general laws in biology. They are, indeed, the chief of those facts which, in some minds, bring our clinical pathology into discredit; for, being only useful and not scientific, they are cited as examples of unscientific practice. They are called empirical, and the empiric is deemed equivalent with the quack. Let me say, as in parenthesis, that I think we have here an example of the common fate of words in our language—that if a word acquires a discreditable meaning, its better meaning is gradually lost, and only the worse remains with it. For the empiric and the experimentalist are, I think, synonymous; and yet in pathology the one, having a degraded name, is now deemed a hopeless hindrance to progress, and the other is its hero.

But, however this may be, among these empirical facts modern scientific work in practice may win great riches for pathology. For the medicines I have named are not only remedies, but diagnostic tests; they prove differences among diseased conditions that in other things appear alike. The epilepsy which is averted by the habitual use of bromide of potassium cannot depend on the very same conditions as that which is not so averted; the ulcer which heals under the influence of mercury cannot be of the same kind as that which looks like it but does not so heal. Thus, as we all know, these medicines are tests; and we may guess that each of them detects the presence of some material belonging only to the disease which it cures. Here, then, is work for the scientific practitioner; he may find the material and more, if he will observe the facts in practice much more minutely, and record and collect them, and bring to bear on them as much light as possible from other sections of pathological science. They will yield more knowledge, and his practice will be promoted to a better title than "empirical."

Let me again refer to some facts which I have already mentioned, and which are now accepted in the largest principles of pathology. I remember that during my apprenticeship, more than fifty years ago, in a post-mortem exami-

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nation of one who had died with dropsy, a young Guy's man cut across one of the kidneys, and said "Dr. Bright, of Guy's, says there is a form of dropsy which is always associated with disease of the kidneys." This was accepted by the practitioners standing by as a singular fact, and nothing more. I should find it difficult to tell now into what, with fifty years of scientific culture, that singular fact has grown. Or, again, could any fact stand more alone than did that of the use of vaccination as first observed by Jenner? And now it may be honoured as the first knowledge attained in all that wide range of pathology in which Pasteur's great work has been done, and to which Power and Klein have lately annexed their admirable discovery of the true source of the milk scarlatina.

There are many more of this group of the facts of which we have better knowledge in practice than we have in morbid anatomy or any other section of pathology. We are sure, for instance, that there are certain conditions which are justly called predispositions to disease; but in what many of these consist we are, I suppose, quite ignorant. There are diseases or disorders which we must be content to call functional, though I suppose none of us would hold that there can be any change in the working of a part without a change in its structure or composition. We know that certain disorders, such as typhoid and scarlet fever, are apt to be followed by certain other disorders, which we call their sequels; but we have not yet shown the changes of which the sequence is a necessary consequence. We know that different morbid conditions may be combined, as in diseases which we may call hybrid or mongrel; we can recognise many of these combinations during life; they are things to be "attended to," as we say, in treating cases; but of the allied varieties of morbid changes of structure or composition, and of the lessons they would teach, we know, I think, at present very little.

How may these defects be remedied? Surely, the best way will be by study and minute scientific work in practice. I say emphatically minute work, for I think it can be proved by the example of other sciences that the more minute the inquiries and the facts obtained by them, the more sure and complete will the fusion of pathology become with the whole body of biological science, and the more will it thence gain.

Now, these more minute investigations may be made not only in the records of clinical observation, which may be far more minute than they are now, but, I venture to think, even in microscopic examinations, especially if these be made whenever it is possible on the living as well as on the dead morbid structures. I would not, in any degree, depreciate the value of the knowledge gained by examining the well-defined structures which are shown in microscopic specimens prepared with hardening and staining and other fixing processes. They ensure a more exact diagnosis, and they may be studied deliberately and with comparison; but while they have all the value, they have also some of the defects, of botanical specimens dried and flattened in an herbarium. These are essential to accuracy in descriptive botany, and to the diagnosis of species and varieties, but the vegetable physiologist must study living things. The herbarium tells little of the true plant-life, and of many processes in which that life is expressed, such as the minute intra-cellular movements and others of the like kind. Things of this kind, and important differences among them, may be found if the method of examining still living tissues can be improved, and if it be the rule to examine each morbid growth or product both directly after its removal from the living body while it may be deemed still alive, and after it has been prepared for repeated examining by staining or other like processes. I venture to expect that by methods such as these, and with improving microscopic power, the sight may often reach far beyond the boundary of what has yet been seen, and will detect differences of structure or of movement in what we are at present obliged to call structureless. And, even beyond this, I would hope that the microscope, with microscopic chemical tests, will detect differences which must be referred to differences of composition rather than of anything that can be called structure, and yet not less decisive of distinctive properties.

But I will not go on thus hoping, and perhaps only guessing. Let me only add one warning suggested by that word "structureless." It suggests the recollection that we are all apt at times to submit to the fascination of promises of finality; to find comfort in believing that we have really reached a boundary; that something is really structureless; or that there is a protoplasm which is the same always and everywhere, at least in the same species; or that in apparently similar substances there may be differences of potentiality; as if in things material there could be differences of power or property without differences of structure or of composition. We should get rid of these idle-making fallacies. The protoplasm in every structure, or of every embryo, must be as essentially different from that of every other as is the structure or the creature which in due time it may become; and these differences will be discovered by our successors if we—I mean you—do not discover them. And for one caution more. Let us never be content with present utility. Glad of it we may well be, and even proud, for science cannot be degraded by being useful in good things, and I suppose that of all utilities none can minister more happiness to those who most need it than ours may; but we must not be content with it as it is; it will be increased by every increase of our real knowledge.

Let me, before I end, again express my regret that I have been obliged to limit myself thus narrowly in speaking of pathology. Let me repeat that it is only because I have too little knowledge of other methods of study to speak of them definitely or even safely. But I earnestly hope that in our meetings we shall have contributions from them all, for all are essential to the progress of our science, and it will be a singular pleasure to me if, in my office as president, I can promote them. To do so will make my office very happy and very useful to me in helping me to avert that sad defect of old age, the indifference or dislike to the changes which come of the increase of knowledge. One sees that, as men grow old and wish for rest, they are prone to ask, Where are we to stop? I do not know more than this: that we must not stop where we are; we must go on and on, and we may be sure that they who work to find the truth will not work in vain—sure that with true work true good will come. So I will hope that it may be here during my presidency.

Harveian Lectures
ON
CANCER OF THE UTERUS.

By J. WILLIAMS, M.D. LOND., F.R.C.P.,
OBSTETRIC PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL, LONDON.

LECTURE II.
CANCER OF THE CERVIX.

GENTLEMEN,—We now pass on to the consideration of cancer of the cervix proper, but before entering upon this part of our subject we must take a rapid glance at a condition which has received a great deal of attention from time to time, and for which many kinds of treatment have been practised, but whose nature remained quite unknown until revealed recently by the investigations of Ruge and Veit. I mean so-called ulceration, abrasion, or erosion of the os uteri. This is situated on the lips of the uterus, on one or on both. It is of a red colour, and in some cases forms a narrow ring around the os; in others it is limited to one lip; in others, again, it covers an area as large as a florin, and involves apparently the entire surface of the lips. The surface is soft and often covered by papillæ, which bleed readily. The condition is neither an ulcer, an abrasion, nor an erosion. There is no loss of tissue, and the surface is covered by epithelium, but it is epithelium of the columnar kind. The columnar epithelium has encroached upon the territory of the squamous and displaced it.

An erosion may present an appearance very like that of cancer, and, on the other hand, cancer may appear very like an erosion. In such cases it is not possible to recognise the real character of the morbid process at once except by the microscope. Clinical observation fails here unless ample time be given, and sometimes this is done and the consequences are disastrous in those cases which prove to be malignant, for when time has solved the difficulty it is too late to have recourse to any curative treatment with any chance of success.

What is an erosion? and in what does it differ from cancer

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and adenoma? I cannot describe it better than by saying that it is like an extension of the mucous membrane of the cervical canal through the external orifice on to the lips, which are in health covered by stratified epithelium. In some cases an appearance like that of an erosion is caused by a hypertrophy of the mucous membrane of the cervical canal, bulging downwards through a more or less patulous os with soft lips, as is sometimes seen in pregnancy. In cases of this kind the transitional epithelium is retained, and it can be easily seen in the space between the squamous and columnar epitheliums. A true erosion, however, consists of a structure like that of the mucous membrane of the cervix placed on a surface which in health is covered by squamous epithelium. It may be, and often is, associated with a hypertrophy of the mucous membrane of the lower part of the canal. It contains glands lined by columnar epithelium, and its surface is covered by epithelium of the same character. An erosion differs from cancer in that the epithelium on its surface and lining its glands consists of a single layer and assumes no aberrant forms, and from adenoma of the cervix in that the glands are comparatively superficial, as well as in some other respects which I shall refer to later.

Ruge and Veit state that the glands of an erosion arise from a change in the deeper layer of the stratified epithelium which dips into the substance beneath and forms glandular processes. I have not been able to trace this mode of gland formation in erosions, and the process appears to be somewhat improbable. There are two ways in which erosions may arise, and one in which they are certainly produced. On examining a cervix upon which an erosion is seated, you will see little red points on the surface of the squamous epithelium near the edge of the erosion, and sometimes small islets of pale squamous epithelium in the midst of a red erosion. These points and these islets clearly indicate the manner in which the erosion has been formed. The little red points are small glandular processes from the cervical glands growing into the superficial layers of the cervix, and making their way to the surface. In speaking of cancer of the vaginal portion, I said that the squamous epithelium falls off at the points where papillæ grow through the surface and protrude. They do not carry a layer of the horny epithelium with them as a covering. The same thing happens when a glandular process in the cervix abuts against the epithelium; the epithelium becomes thinner and thinner, and ultimately disappears.

In cases of erosion the glands of the lower part of the cervix are greatly enlarged and multiplied. They enter deeper into the cervical wall, and their interior is frequently covered by papillary processes. Although these glandular processes penetrate into the wall of the cervix, their line of penetration appears to be superficial, for they run downwards and outwards, and invade the layer of tissue immediately beneath the squamous epithelium covering the portio. They burrow, as it were, in the tissue beneath the epithelium, and send processes through it to the surface. This manner of growing gives to the border of the erosion an irregular outline, and, moreover, occasions the presence of the red points on the squamous surface, where the epithelium is thinned or wanting, as well as of the islets of squamous epithelium in the midst of erosions where the original squamous epithelium has missed transfixion by the glandular growth. When the squamous epithelium has fallen off, its place is taken by columnar epithelium. The glands are lined by columnar epithelium, which is usually like the epithelium of the cervical follicles; its cells are often oblong, but frequently they are elongated and apparently pointed, with their points a little separated, and the prominence of a papilla on the inner surface of a gland then looks like the end of a brush with radiating hairs.

Another way in which an erosion may be produced is by direct extension downwards of the epithelium of the cervical canal—a direct encroachment upon the territory of the squamous by the columnar epithelium, followed by the growth of villi and the formation of glands. This mode of production, however, I have not observed, but I think it by no means an improbable method.

The wealth of glands in an erosion is usually great; they branch and divide and form clusters of follicles having one tubular outlet. Some appear to remain simple. Their interior is often, however, divided by papillary processes in such a manner that their lumen forms a very complex labyrinth. While the glands are thus rapidly growing the stroma around is not inactive, and takes not an inconsiderable part in the formation of the erosion, for it is infiltrated with nuclei and small cells, and from it are formed the basis of the numerous papillæ which contribute to the complexity of the glandular structures. But besides the common glandular erosion there is occasionally found around the os externum and in the lower part of the cervical canal a villous growth. It is believed that such growths have a great tendency to take on a malignant character, though they are benign at the outset. Scientific evidence establishing this view I am not acquainted with. I have seen three cases of villous growths at the os externum, and one in which the whole of the cervical canal was affected. The two in which the parts around the os only were affected presented no malignant structures; the other in which the whole canal was diseased showed early cancer in the glands. These cases supply no evidence for or against the view in question, and I have therefore formed no opinion about it.

CASE 9.—The first case was a married woman twenty-eight years of age, who complained of having had bearing-down pains for eighteen months; they came on every fortnight; for two weeks before admission she had had continuous aching pain in the bottom of the stomach. The catamenia were regular, and the patient had no other discharge. She was married at nineteen, had had three children, with good gettings up, and had nursed all her children. She had had a tumour as large as a nut removed from the forehead and another from a toe when a child. The area of the lips of the cervix was as large as a florin. The enlargement was limited to the lips. It was of a red colour and granular to the touch. This looked like hypertrophy of the mucous membrane of the lower part of the cervical canal. Posteriorly the growth was sharply defined, but anteriorly it gradually shaded off into the healthy surface covered with squamous epithelium. The uterus was of normal size and freely movable. The cervix was amputated: an inch was removed. The part removed was laid open by section of the anterior lip in the middle line. The disease was limited to the surface around the os and about a third of an inch up the canal. It was of a villous character, and grew from the whole circumference of the canal except the left side, which had been lacerated. Near the edge of the growth there were islets of mucous membrane covered by squamous epithelium; through some of these the growing papillæ were seen beneath.

CASE 10.—This patient was sent up to University College Hospital by Mr. Pratt, of Leighton Buzzard. She was twenty-three years of age, and not married. Her illness began three years before, when severe pain began to accompany menstruation, seated chiefly in the hypogastrium, but extending into the iliac regions also. It was of a sharp, shooting, burning character, lasting for five or six hours, after which shooting pains continued for two or three days after the period had ceased. Menstruation first began in her sixteenth year; it was irregular for twelve months, moderate in quantity, and painless. She was in service until three years ago, but owing to her present illness she had to give up work. There was a great deal of viscid mucus in the vagina. The lips of the cervix looked like a red vascular growth, not unlike a malignant growth. The os was a long transverse slit in its centre. It bled on being touched. The cervix was amputated half an inch above the disease. After removal the disease was seen to be formed by an exuberant growth of mucous folds, which grew from all the circumference of the os, and extended up the canal for a third of an inch. Its limit towards the vaginal portion was abrupt, and the folds in this situation were smaller than at the os externum.

In both these cases microscopic examination revealed nothing but rapidly growing papillæ and glands. There was no cancerous change in any part.

Glandular growths limited to superficial tissues lead us naturally to glandular growths which are not thus limited, and which involve deep structures, affect the whole thickness of the cervix, and invade the connective tissue beyond. These are adenomata, and possess malignant properties. They appear to be rare; for with the exception of Schroeder, Ruge, and Veit, who have described a case, I know of no other author who has referred to them. I have seen two cases of this affection, and both were taken for cancer. Indeed, I know of no means by which they can be diagnosed clinically, though the diagnosis can readily be made with the help of the microscope.

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CASE 11.—The first case I saw was a married woman, forty-nine years of age, who had had eight children and five miscarriages. Menstruation had ceased two years before she came to the hospital, and she had "seen nothing" since until May, 1885—four months before admission. Since May she had lost a great deal of blood and suffered much pain. She had had a white discharge from the beginning of the year, and lately this had become offensive. When admitted she complained of pain in the bottom of the stomach, back, and thighs, of a dull aching character; it was sometimes severe. The duration of the attack varied; the pain always ceased on lying down. She had lost flesh lately. Micturition was very frequent and painful. She began to menstruate in her sixteenth year; she was regular every twenty-eight days; the flow lasted a week, and was moderate in quantity. She had suffered from leucorrhœa all her life. She was married at twenty-two. All her labours were good. There was no history of tumour or cancer in the family.

There was much purulent discharge in the vagina, and the mucous membrane was red and injected. The upper part of the vagina was occupied by a large mass, which was the diseased cervix of the uterus. The disease involved most of the posterior lip and a part of the anterior, and had invaded the insertion of the vagina both anteriorly and posteriorly. The vaginal surface of the cervix was intact—that is, the stratified epithelium was still retained, but it was generally thinner than it is in the absence of disease. The degree of thinning varied; in some places it had almost disappeared, while in others it was nearly of normal thickness. Immediately subjacent to it was a layer of tissue of irregular thickness, which appeared to be the tissue of the cervix infiltrated with small cells. This layer was everywhere thin, though not everywhere of uniform thinness. The rest of the tissue was formed of innumerable glands, with a scanty framework between them of fibrous tissue full of round cells. In fact, the cervix had been changed into a glandular mass. These glands were of every shape and form. Their cavities were often of great size; some were like great collapsed sacs lined with columnar epithelium. They differed in a marked degree from the glands in an erosion by the absence of papillæ on their inner surface. They were lined by a single layer of columnar epithelium, the cells of which were regularly oblong. The cells generally presented no cancerous change. This appears structurally to be a pure adenoma, but it possessed distinct malignant properties. The whole thickness of the cervix and the connective tissue beyond it had been invaded.

CASE 12.—The second patient was forty-four years of age, married, and was admitted into University College Hospital in August, 1886. She had been regular until eighteen months before, when she had a flooding; since that time she has had a profuse flooding every ten or fourteen days. She has suffered from a thick, yellow discharge for the same period, but it has not been offensive. She has had no pain. Micturition has been normal, as well as defecation, but the bowels have been confined. She has lost a stone in weight during the last two years, and has frequent nausea. Menstruation commenced at thirteen; it was regular every month, lasting two or three days; the flow was not much, and was painless. She had continuous leucorrhœa. She was married at twenty-three, has had three children, the last twenty years ago; she has had one miscarriage since. Her labours were good, but she regained her strength slowly. She nursed her children for about eight months. Two brothers and one sister died of consumption, but there was no history of cancer in her family. Pulse 99; temperature 99·2°.

She was fairly nourished. There was a thin watery discharge from the vagina. The cervix was represented by a mass which felt rough, like the head of a cauliflower. It was half as big as a man's fist, and grew from the whole of the cervix. It nowhere invaded the vagina, but on the sides posteriorly it extended as far as the vaginal insertion. The body of the uterus was anteflexed and slightly enlarged. There was no induration to be felt around the uterus on examination by the vagina and by the rectum. The obturator glands could not be felt, and the glands in the groins were not enlarged. The mass was scraped away, and it was found that the whole of the cervix up to the inner orifice was diseased. The microscopic appearances presented by the growth were similar to those in the previous case; but the stratified epithelium was everywhere thinner, though in part retained.

We now proceed to the study of true cancer of the cervix, distinguishing it from malignant adenoma by characters which I shall describe. It may begin in almost any part of the cervix, and we will begin with an account of it as it is met with in the lower part of this structure.

CASE 13.—For notes of the first case I am indebted to Dr. George Bird, with whom I saw the patient. Previously to her marriage, at twenty-two, she had enjoyed good health. The cervix was divided bilaterally in 1876. She went to India. In 1877 menstruation recurred every three weeks. In 1885 menstruation was excessive, lasting seven days. The cervix was ulcerated, with stringy discharge issuing from the os. She had no bearing down, but much aching pain in the vagina. The os bled on being touched. She first noticed excessive menstruation in 1883. She had a discharge which was slightly tinged with blood escaping during micturition. A sojourn at Malvern improved her condition, and in February, 1886, it was noted that the periods lasted five days, the intermenstrual interval being twenty-one days. She was losing flesh. When I saw her there was an erosion on the cervix, and the canal was filled with a soft dark-red growth, which bled freely on examination with the finger.

The cervix was amputated at the inner orifice. On cutting open the part removed, it was seen to be covered with villi almost three-fourths of an inch long and of a dark-red colour. They were in the main simple, and not branched—in fact, not unlike the simple tentacles of an actinia. The squamous epithelium of the portio was intact, but there was an erosion at the os with numerous large glands. Just within the external orifice were some superficial glands undergoing cancerous degeneration. The upper and more superficial part of the gland was lined by healthy columnar epithelium. In the deeper part it was many-layered, and filled the lumen so that the fundus of the gland appeared like the end of a club. This little mass was nodular, and short processes of fibrous tissue projected into its interior like imperfect septa, the alveoli formed by them being filled by cancer cells. It seemed as if a gland, in the fundus of which were many papillæ, had become cancerous. The transition from the columnar epithelium into cancer was well seen. The cells became many-layered and, losing their columnar form, became many-shaped. In many places there were vacuoles containing several small cells or nuclei, generally closely aggregated together; in others more loosely. The cancer in this instance began in the superficial glands or in the deep recesses between the villi, and not on the villi themselves. The cervix was removed because the villous growth was suspected to be malignant. The villi were not cancerous, however, although cancer was present at their bases, and it was present at such an early stage that it would have been impossible to discover it except by the aid of the microscope, for it gave rise to no physical signs which would lead to a suspicion of its presence. It is, I think, certain that in this case the growth of villi preceded the growth of the cancer; but this does not prove the tendency of villous growths of the cervix to become carcinomatous, for the cancer attacked structures which are present in every healthy cervix—namely, the glands, not the villi.

CASE 14.—In the next case cancer had attacked the lower two-thirds of the cervical wall and formed a kind of nodule in it. The patient was admitted into University College Hospital on Jan. 23rd, 1884. She was forty-two years of age and married. She had always been a strong healthy woman previously to her present illness. About Christmas, 1882, she noticed that she was growing stouter and fancied that she was pregnant; at the same time there was milk in her breasts. At the beginning of her illness she had a discharge of blood from the vagina during micturition; this discharge would last for a week or a fortnight, and then cease for a time; it only appeared during micturition. For a long time—she does not remember how long—she has been subject to bleeding after coitus, but in August, 1883, connexion was followed by a large flooding; since that time the hæmorrhage has been almost continuous and liable to be greatly aggravated by exertion of any kind. Previously to August the discharge was almost pure blood, but during the last four or five months a yellow discharge appears whenever the bleeding ceases. The discharge has been offensive throughout. She has had a dull aching across the loins, but no pain in the stomach. There has been no difficulty in micturition or defecation. She has lost flesh lately. Menstruation began at fifteen, and has always been regular, and never painful. It returned at intervals varying between three and four weeks, and lasted three days each time until four years ago; but from that time on, the flow lasted for not more than a day. The loss was not excessive.

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The patient was married at thirty-four, and has had one child; her labour was easy and natural; she has had no miscarriages. Her father died of cancer of the stomach, and her mother (at fifty) of "effusion on the brain"; brothers and sisters healthy.

The whole uterus was extirpated. The following description is by Mr. Victor Horsley, M.S.:—The parts removed consist of the uterus and parts of the vaginal wall. The body of the uterus was healthy. The cervical wall is occupied for its lower two thirds by a whitish mass of new growth which apparently ceases above by a well-defined margin. The rest of the cervical wall is pale almost as far as the internal os. The new growth has infiltrated the lips of the external os, so as to form a large bulbous swelling around that orifice, especially anteriorly, where the growth is about one-fourth of an inch in thickness. At the upper part, where this growth appears to finish, the muscular wall is pressed upon so as to form a sort of capsule. The under surface of the lips is exteriorly ulcerated, and this condition extends upwards along the right side of the cervix as far as the middle. On the front wall are still present remains of the arbor vitæ. The surface of the vagina posteriorly is encroached upon for a distance of half an inch. The margins of the ulcer are thin, but raised.

This was a typical case of cancer growing from the cervical glands. The patient died, and the lymphatic glands along the iliac vessels and one gland at the bifurcation of the aorta were considerably enlarged and infiltrated by creamy white new growths.

(To be concluded.)

ABSTRACT OF THE

Lettsomian Lectures

ON SOME OF THE

MENTAL AFFECTIONS OF CHILDHOOD AND YOUTH.

Delivered before the Medical Society of London, January, 1887,

BY J. LANGDON DOWN, M.D. LOND., F.R.C.P.,
PHYSICIAN TO THE LONDON HOSPITAL.

LECTURE II.

Causes of Idiocy: Causation of Accidental Cases.—The history of the "accidental" cases usually elucidates the cause. Necessary instrumental interference at birth was the cause of a few cases only. During the later years of Dr. Ramsbotham's life the lecturer took great pains to investigate the subject, and he found among the great number of feeble-minded children about whom he could get thoroughly reliable accounts that in only 3 per cent., including members of the three great classes, had the forceps or any other instruments been employed. It is probable that in 9 per cent. of purely "accidental" cases instrumental interference might have been the principal factor. Prolonged labour was far more important in the production of accidental cases. In the paper read before the Obstetrical Society of London, Dr. Down found that in as large a proportion as 20 per cent. of all idiots there was an undoubted history of suspended animation at birth requiring active efforts to bring about resuscitation. He believed that many surgeons could testify to the frequency of association of contractures and other lesions with suspended animation at birth. First labours being longer than later ones, first-born children more often owe their idiocy to prolonged parturition. It was "not proven" that ergot of rye given during labour was a cause of accidental idiocy. Insolation in infancy is certainly a cause. Opium was regarded as an infrequent cause. "Much more tangible as a cause is morbid sexual erethism, too often induced by nurses, who procure the quietness of their charge by means which, even if mental health is not sacrificed, lead eventually to grave moral delinquencies." Traumatic injury to the cranium from falls is a cause, though not a frequent one, of accidental idiocy. Meningitis very frequently leads to it. So also do epileptiform convulsions, whether eclamptic or not. Hydrocephalus and paralysis from cerebral hæmorrhage are occasional causes.

Causation of Developmental Variety.—Deterioration of mother's health, especially during the sixth or seventh month of pregnancy, is a potent cause. Causes of congenital idiocy operating during the later part of pregnancy produce the "developmental" variety. Vomiting, uterine hæmorrhage, great emotional disturbance, and grave febrile disease, were the most important causes of deterioration of the maternal health.

Causation of Congenital Variety.—In a large number of cases Dr. Down is convinced that several factors have been in operation. Heredity was an important factor. In the investigation of 2000 cases, 36 per cent. of the fathers and 38 per cent. of the mothers showed no history of neurotic disease. But only in 16 per cent. did Dr. Down fail to obtain a grave history of physical or psychical decadence from either progenitor. It might be necessary to examine the physical conformation of parents and grandparents. Disparity in the age of the parents might be a cause in some cases. Dr. Down has found that seven is the average number of living children born to those who have had an idiot child; prolific child-bearing appears to be a characteristic of people begetting feeble-minded children. Twin-births do not act as appreciable factors in the causation of idiocy. Dr. Down attaches immense importance to the emotional life of the mother during the period of gestation. The *physical health* of the mother also has an appreciable influence. One cannot fail to be struck with the nature of the stock from which idiots have sprung. "With fathers phthisical and irascible, with mothers feeble in judgment and so emotional that everything is a cause of fright, one is astonished that they should have procreated any sane child at all." Dr. Down has found it very difficult to get at reliable statements with regard to the influence of *alcoholic intemperance*. In the members of the upper ranks of the social scale it was an insignificant factor, but in the lower social classes a factor of great importance. Some cases are the result of deterioration of the father's mental and physical powers, others of procreation having taken place during a debauch. As to *malignant disease*, 3 per cent. of the fathers and 5 per cent. of the mothers, in all 8 per cent. of the progenitors, died from cancer. Goitre occurred in 2 per cent. of the mothers, but not once in a father. Syphilis is not an important factor in the production of idiocy. Dr. Down met with a history of epilepsy in 3 per cent. of the fathers and in 6 per cent. of the mothers. *Phthisis*, amongst progenitors, also exercises an important influence. This was most evident in the Mongolian type. In 23 per cent. of the cases there was a history of idiocy, mental feebleness, insanity, or other grave neurosis, in one or several of the brothers and sisters. The lecturer had known several instances of the father begetting healthy children except when suffering from recurrent mania, idiocy resulting to the children conceived at that time. In like manner Dr. Down knew of examples of healthy children being produced except when the merchant's business speculations have been hazardous, when the clergyman's parish has been disturbed, or the dissenting minister's church meetings have been stormy.

Although Dr. Down's patients came from every variety of social rank, he could not draw any safe deductions as to the influence of various occupations of the parents on the causation of idiocy. He had collected 400 cases with fair social antecedents, and had found that 75 per cent. were the children of merchants, county gentlemen, officers in the army and navy, gentlemen of independent means and liberal education, and members of the titled aristocracy. No less a proportion than 25 per cent. were the children of members of one or other of the three *learned professions*. Of these, 18 per cent. were the children of members of the clerical profession. Mr. Galton finds that the legal profession (which procreates fewest idiots) gives birth to 11 per cent. of the foremost men of eminence; that the medical profession (which procreates 1 per cent. more of idiots than the legal) gives origin to 9 per cent. of scientific men; while the clerical profession, which procreates the maximum amount of idiocy, gives birth to only 6 per cent. of men of science. These statistics illustrated the process of natural selection.

Dr. Down discussed at great length the subject of *consanguinity* in relation to idiocy. He is convinced that frequently the other possible factors have been neglected,

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and this has led to very contradictory opinions. "Although, looked at superficially, my statistics are rather less favourable to the marriage of first cousins than are those of many other observers, I am strongly of opinion that, having regard to the remarkable antecedent neurotic history of the first cousins who have married and procreated feeble-minded children, the evil apparently resulting is, that where there is hereditary predisposition, the intermarriage of relations determines the concurrence of two morbid factors, and this may account for the undoubted greater frequency of feeble-minded children among the progeny of cousins than among those of mixed marriages."

Illegitimacy might be a potent factor in the causation if it entailed emotional disturbance in the mother during pregnancy. Attempted abortion might also have an influence. Idiocy is occasionally induced by deprivation of the senses. The case of a boy who was born only with the sense of smell and that of touch was narrated. The boy could "smell out" his friends, and manifested by a smile his consciousness of their proximity.

Cretinism might be caused by malarial poison. Some cases under Dr. Down's care were procreated during the intemperance of the father. Three of Dr. Down's cases of cretinism were males, and nine were females. He gave a *résumé* of the work of Billarger (1857), Dr. Hilton Fagge, Sir William Gull, Dr. Ord, Professor Kocher, and Victor Horsley on the relationship of cretinism to myxœdema and the thyroid gland.

Dr. Down entertains positive opinions as to the *higher culture of women*. He says: "If there is one thing more certain than another about the production of idiocy, it is the danger which arises from the culture of only one side of woman's nature. ..... There can be no reason why the faculties which they possess should not be cultivated so as to make them not only fit to be 'mothers of men,' but also companions and helpers. My statistics point to the importance of training our sons to be temperate, and our daughters to be self-possessed."

THE WHITE CORPUSCLE OF THE BLOOD.

A SUPPLEMENT TO MY REMONSTRANCE ADDRESSED TO PROFESSORS OF PHYSIOLOGY AND PATHOLOGY AGAINST TEACHING, IN THEIR WRITINGS, LECTURES, OR OCCASIONAL ORATIONS, THAT WHITE CORPUSCLES OF THE BLOOD EMIGRATE FROM THE INTERIOR OF SMALL VESSELS, UNTIL THEY HAVE VERIFIED IT BY ACTUAL OBSERVATION OF THEIR OWN AS A FACT IN NATURE.

BY T. WHARTON JONES, F.R.C.S., F.R.S.

THOUGH he still held that white corpuscles do emigrate through the walls of small vessels from the blood therein contained, Cohnheim latterly came to the conclusion that the escape depends on a passive filtration merely, and not, as he first supposed, on an active boring by means of processes which he alleged the white corpuscles shoot out even while the blood is still within the living vessels, in the amœboid manner they are seen to do in blood displayed under the microscope immediately that it is drawn.

Dr. Binz of Bonn,[1] however, maintains the validity of Cohnheim's first teaching, and, in support of it, adduces an experiment by which he thinks the white corpuscles of the blood within the vessels of the living part under observation can be rendered incapable of undergoing amœboid change of shape, and incapable therefore, according to him, of boring a passage through the vascular walls, so that emigration is prevented. This seems to be an inconclusive experiment, seeing that a reagent which could extinguish the irritability of white corpuscles is not likely to leave unscathed the other constituents of the blood and the integrity of the vascular walls. Suspension of the alleged capacity of white corpuscles to shoot out processes in an amœboid manner while the blood is still within the vessels might thus be owing to a change in the condition of their surroundings, as much as to change in that of the white corpuscles themselves. But, let it be asked, did Dr. Binz ever really see white corpuscles of blood, while still within the living vessels, shoot out processes in an amœboid manner under any circumstances, and by a teredinous action therewith make their way through the vascular walls?

Even if white corpuscles of the blood while still within the living vessels did undergo amœboid change of shape, what grounds are there for the supposition that the diverticular processes they shoot out do or could exert any boring action? The idea of a boring action, in fact, betrays an imperfect study of the nature of the amœboid phenomenon exhibited by the white corpuscles in blood newly drawn. The amœboid change of shape which the white corpuscles commence to undergo in blood immediately on being drawn seems to be really the result of partial contraction or collapse of the cell wall around the nucleus and contained protoplasm on one side, whilst on another side the wall is protruded here and there in diverticula. This takes place with a more or less evident jerk, and has been mistaken for an actual bursting of the corpuscle with evacuation of its contained protoplasm. There is, however, no such bursting of the corpuscle nor evacuation of the protoplasm.[2] Continuing to watch the corpuscle in its supposed burst state, we may see a diverticular process become more or less retracted in concurrence with a supervening diverticular protrusion of some other part of the cell wall which had been previously collapsed around the nucleus and protoplasm. Of the nucleus any defined view is prevented by the protoplasm.

The protrusion of a diverticular process is thus certainly not an active movement with force, like that of a proboscis fitted for a boring operation, as supposed. The phenomenon appears to be a last manifestation of the vital irritability inherent in the substance of the white corpuscles, excited by the altered condition in which the blood comes to be placed by abstraction from the living body. After the fibrin of the blood under examination is seen to have become deposited on the slide by coagulation from the plasma, the serum that is left seems to be received into the interior of the collapsed white corpuscles by endosmotic imbibition through their wall into the more consistent protoplasm, and distends them so far that they recover in some degree their round form.

In the course of our observations of the flow of blood in the vessels of a frog's web displayed under the microscope, a white corpuscle may often be seen to become adherent by a point of its surface to the wall of a vessel, and to be pressed into a pear shape, in consequence of the bearing of the passing stream on it while thus anchored. When the adhesion gives way, the white corpuscle, on becoming free, recovers its previous round form, and is carried along in the stream. This phenomenon, which is of well-known occurrence and obviously passive, has actually been described as a manifestation of an *active nibbling* on the part of the corpuscle by means of a process which it shoots out as a feeler for the purpose of finding a pore in the wall of the vessel through which to commence a boring operation in order to emigrate.

It is well known that when the white corpuscles of the blood are acted on by much diluted acetic acid, the protoplasm is dissolved out, and an object like several small nuclei adhering together brought into view. This object is commonly accepted as the *vera effigies* of what actually exists in nature before the abstraction of the protoplasm permits it to be seen. In my paper on the "Blood-corpuscle," in the Philosophical Transactions for 1846, it was, however, shown that the white corpuscle possesses in reality only one large nucleus, and that the appearance of several small ones aggregated together is owing to a corrugation of the cell wall of this single large nucleus by the action of the acetic acid of the dilution commonly employed. To prove that such is the fact, let water acidulated in the slightest degree only be used. Under the action of this, solution of the protoplasm will go on, though very slowly; but if we patiently watch its progress, a nucleus—single and large—will at last come into view.[3]

[1] Virchow's Archiv, vol. lxxiii.

[2] The protoplasm evacuated, as alleged, from the burst corpuscle was supposed to act as a ferment whereby coagulation of the blood was induced, but in disproof of this opinion there stands the fact that in the course of our observation fibrin is deposited by coagulation on the glass slide, though no such bursting of the corpuscles or evacuation of their contents is seen to take place.

[3] In histological research, reagents applied to the object under microscopical examination are often of great assistance by bringing into view details of structure and indicating chemical composition. As above shown, however, acetic acid corrugates the single large nucleus of the white corpuscle so as to make it appear as an aggregation of several small ones. From this example, a caution must be interposed against accepting the appearances disclosed by the action of reagents on tissues

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In the course of my researches, I observed that the single nucleus of the white corpuscle of horse's and elephant's blood in particular was less susceptible of becoming corrugated under the action of acetic acid. Here I would particularly remark that the single nucleus of the white corpuscle of the blood of man and the mammifera corresponds in size and structure with the red corpuscle of the same blood; being, for example, very large in the elephant, in the blood of which the red corpuscles are very large; and, on the other hand, very small in the goat, in the blood of which the red corpuscles are very small; furthermore, inclining to an oval form in the alpaca, the red corpuscles in the blood of which are oval. It was for this reason, among others, that in my papers on the "Blood-corpuscle," in the Philosophical Transactions for 1846, I enunciated the view that the red corpuscles of the blood of the mammifera are homologous with the single nucleus of their white corpuscles.[4]

To return to the question of "emigratio." Although Cohnheim latterly abandoned the idea that emigration of white corpuscles from the blood is an active process, I do not know whether he continued to hold that white corpuscles, having passively escaped by filtration, do then commence to undergo amœboid movements, and thereby wander in the interstices of the tissues. If a minute section of the cornea be displayed under a microscope with a one-eighth of an inch object-glass, and attentively examined, no corneal corpuscles are at first seen at the cut edge. After a brief interval of time, however, corpuscles are observed to protrude as if filtering through interstices. Are these corneal corpuscles the objects which Cohnheim considered to be white corpuscles of the blood which had emigrated through the walls of vessels in the adjacent part of the conjunctiva and sclerotica, and which had, as he supposed, made their way by means of amœboid movements into the interstices of the cornea?

The gist of Cohnheim's doctrine, we have above seen, is that "emigratio" of white blood-corpuscles constitutes the first real characteristic step of the inflammatory process. The question, therefore, latterly agitated between Cohnheim and Linz as to whether emigration be a passive filtration or an active boring would be so far of secondary import in the pathology of inflammation, even if emigration pure and simple could be demonstrated. We have seen that "emigratio" has been accepted and taught as a fact by professors who seem never to have made any observation of their own relating to the subject. In the Hunterian oration at the Royal College of Surgeons some two years ago, the orator, in referring to John Hunter's sketch of the phenomena of inflammation, observed that if his hero had flourished in the present day he would have dwelt in a particular manner on the emigration of white blood-corpuscles, by virtue of their amœbiform endowments, through the softened walls of the small vessels and their further action on the tissues. Hunter, I am sure, would have done no such thing, but would have first said: "Let us see whether it be a fact that white corpuscles do emigrate at all, as alleged." Had the orator himself ever done this? Pity that some guardian angel had not roused him from the musings by which he was led to make such a suggestion, and whispered into his ear: *nil fingendum, nil excogitandum, sed inveniendum quod natura faciat—quod natura ferat.* That the walls of the vessels through which emigration is alleged to take place first become softened by inflammation, so that the white corpuscles are enabled readily to bore their way through, is an assertion in which the sequence of the steps formulated by Cohnheim is inverted, so that the gist of his doctrine of the inflammatory process is misrepresented; whilst his relinquishment of the idea of an active boring operation which he originally entertained is not mentioned.

"Softening by inflammation," which Mr. Marshall, in his Hunterian Oration under notice, alleged to be a state of the walls of the vessels which permits of a boring of the white corpuscles therethrough, is a mere gratuitous assumption, and, as we see, inconsistent with Cohnheim's teaching. The expression "softened by inflammation" might, however, be admitted as applicable to the softening and disintegration of structure to actual disappearance of the vascular walls, as originally observed and described by myself in cases of intense inflammation of the frog's web, whereby white corpuscles were left free and unenclosed in any wall, but forming, by their aggregation, succedaneous walls of a venous channel, through which the blood was seen still flowing. This observation was quoted in my "Remonstrance" from my essay in Guy's Hospital Reports for October, 1850. Had Mr. Marshall read this?

The characteristic which especially distinguished John Hunter as a scientific man was his subjecting the physiological and pathological questions that came before him to the test of observation and experiment. The suggestion, therefore, that he would have dwelt on "emigratio" in elucidation of the question of the pathology of inflammation on the mere assumption that it was a fact, made by Mr. Marshall in his oration, was like putting in a plea for Cohnheim's doctrine (though at the same time misrepresenting it) under the sanction of John Hunter's name. Such a suggestion, however, was disparaging rather than eulogistic of the hero of the day, and may be compared, conversely, to the divided eulogy of Harvey on the occasion of the unveiling of his statue at Folkestone in 1880, when Mr. (now Sir Richard) Owen, taking advantage of his position as inaugural orator, virtually claimed a place on Harvey's pedestal for the glorification of John Hunter also—a proceeding something like the cunning manœuvre of Richie Moniplies (subsequently dubbed "Sir Richard") in Sir Walter Scott's novel of the "Fortunes of Nigel," who enclosed in his master's petition to King James I., which he had been sent to deliver, a "sifflication" of his own.

The scepticism as to "emigratio" being a fact in nature evinced in my "Remonstrance" on the question has been called "comical"; perhaps the strictures now made may be accounted "pragmatical," though (to adopt Bishop Bedell's aspiration) I hope good men will not so account them. Hereto may be added, now I think of it, that my volume containing two lectures against the Darwinian hypothesis of evolution,[5] which had been delivered in the botanical theatre of University College to large audiences of ladies and gentlemen, was noticed in the *Saturday Review* at the time of publication in the following words, and no more: "The author is angry, and it is not very scientific to be angry." This short and easy criticism—this shirking the question under review and levelling a flippant personality against the author—was an *ignoratio elenchi*, aggravated in its meanness and dishonesty by being anonymous.

Ventnor, Isle of Wight.

ON A CASE OF EMPYEMA,

WITH REMARKS ON THE MANNER IN WHICH PERFORATION OF A BRONCHUS IS BROUGHT ABOUT.

By C. J. BOND, F.R.C.S.,
HONORARY SURGEON TO THE LEICESTER INFIRMARY.

IN making a post-mortem examination some time ago in the case of a young man who had died suddenly with symptoms of empyema discharging through the lung, the condition found was sufficiently interesting to suggest the following remarks.

A. B——, a previously healthy lad, aged fourteen, was admitted into the hospital with a history of an attack of pleurisy, with effusion, of sudden onset, and of a month's duration. Some ounces of clear fluid were drawn off by aspiration. A week later, however, the patient was seized with dyspnœa, during which he coughed up a quantity of thin, purulent fluid. The pleural effusion had, in fact,

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as an exact representation of the details of structure actually existing in nature. Prepared structures mounted on slides—such as sections, vascular injections, &c.—are for the most part mere toys. It must always be borne in mind that the dissection of minute objects by manipulating under the simple microscope, whether for further examination with a higher power under the compound microscope or not, can never be superseded by the examination of ready-made specimens mounted on slides.

[4] It is to be remembered that the large nucleated red corpuscles of the early mammiferous embryo are homologous with the nucleated red corpuscles of the oviparous vertebrata. See my papers referred to for details in regard to this and my discovery of large nucleated corpuscles in the blood of grown mammifera, especially the horse and elephant, some with the cell wall slightly tinged red, and some with the cell wall wholly uncoloured, and as pale nearly as the almost invisible cell wall of certain oval nucleated corpuscles (the nuclei very strongly marked), observable in the blood of the frog, which I described and delineated forty years ago in the Philosophical Transactions, but which have of late years been "rediscovered"—to adopt a euphemism.

[5] Evolution of the Human Race from Apes, and of Apes from Lower Animals—a Doctrine unsanctioned by Science. London, 1876.

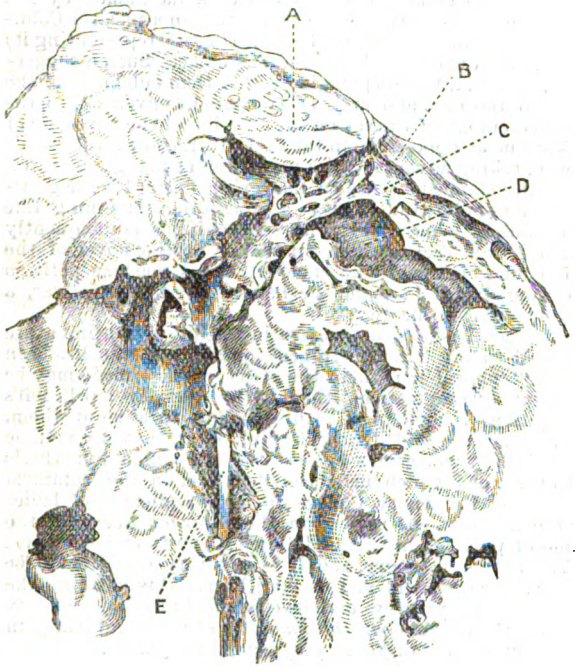
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become purulent, and had perforated a bronchus. The patient died shortly afterwards.

Necropsy.—The right pleural cavity contained some ounces of thin offensive pus. The lung was collapsed—in fact, compressed from apex to base against the spine, the heart, and opposite mediastinum. Below the level of its root, just at the rounded and compressed posterior border, and close to the spine, was a depressed area the size of a penny, which contained numerous depressed openings. A section of the lung at right angles to the surface over a part of this area (Fig. 1) showed that several wedge-shaped portions of lung tissue had necrosed, partially and irregularly filling corresponding cavities (D) in the lung parenchyma. These necrosed portions of tissue (C) were still in continuity with the pleura (B) covering them, but in several places that membrane had also given way, thus leaving the depressed openings mentioned above; in other places the lung tissue had sloughed under the pleura, so that this latter alone remained, forming a thin septum between the pus of the empyema and the cavities in the lung. Finally, the cavities communicated at their central or narrower ends with several small bronchi (E).

Something more than mere perforation of an air vesicle and

FIG. 1

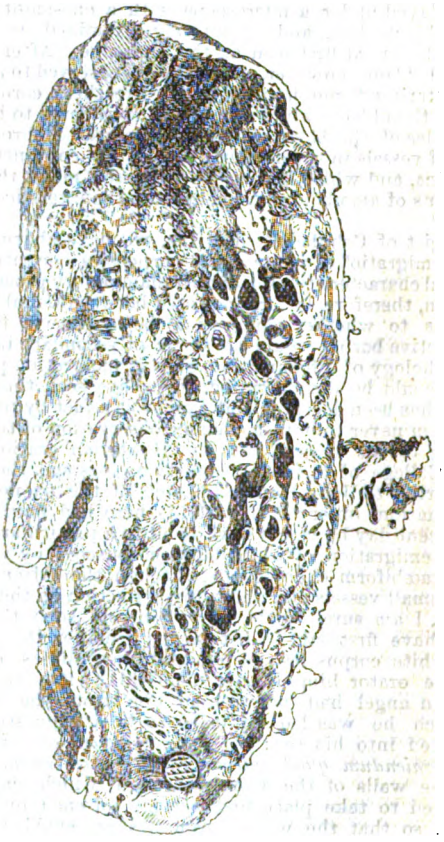


Section of lung at area of perforation (from photograph). A, Compressed lung. B, Pleura. C, Necrosed lung. D, Cavity. E, Piece of string through bronchus, communicating with cavity.

bronchus by the fluid had evidently occurred. A portion of lung tissue, owing to the pressure upon it, or to plugging of its vessels and arrest of its vascular supply, or possibly to inflammatory changes, had sloughed. Further, the fact that the pleura remained intact in several places, although the lung tissue beneath it had necrosed so thoroughly as to leave a cavity, suggested that the necrotic change preceded the perforation of the serous membrane, and the entrance of the pus; in fact, it seemed as though the necrotic change itself determined the site of the perforation. If, on the other hand, the perforation of the air vesicle occurred first, subsequent inflammatory and destructive changes in the lung, might be caused by the filling of the alveoli with pus; but it has always seemed difficult to understand why a collection of fluid pressing equally on the lung surface should cause perforation, unless there be also some primary change in the lung tissue itself, which would allow of its more easy destruction and so determine the site of the opening. It appears to me that the condition here described strongly suggests such a preliminary change in the lung tissue. Microscopical examination of the lung tissue immediately around this area showed a marked pneumonic change, while at a distance of a quarter of an inch the lung appeared healthy, though compressed.

A further very important point for consideration is the situation of the perforation in the lung. Mr. Marshall has shown that when an empyema perforates the chest wall, the tendency is for it to do so in front—namely, between the fifth and sixth costal cartilages, where the muscular interspaces are thinnest and weakest. Now in cases of empyema which I have observed, in which perforation of a bronchus has occurred, the collection of pus has been chiefly at the posterior part of the chest, and often limited to that area by pleural adhesions—being shut off, of course, from the anterior part of the thorax, where the chest wall is thin. In fact, it would appear that the seat of election for perforation is, in front, in the case of the chest wall, and in the case of the lung, at the back, somewhere near the posterior border and below the level of the root. The following observation may suggest an explanation of this fact. If a vertical antero-posterior section be made of a lung compressed by pleural effusion (Fig. 2), it will be seen that the larger tubes, both bronchi and pulmonary vessels, are arranged in a closely packed semicircle, with its convexity towards the spine; further, that this line

FIG. 2.



Vertical section, from before back, of lung compressed by pleural effusion (from photograph). Section passes at right angles to entrance of bronchus, and shows openings of bronchi and vessels arranged in a semicircle, with its convexity backwards towards spine.

of the openings of the tubes, is considerably nearer the posterior than the anterior border of the lung, and also that the tubes are more closely packed below than above. Any pressure therefore exerted on the lung tissue from without, as in the case of an empyema, would act most powerfully on this portion of the lung, compressing it against the rigid bronchi, which lie at this spot just beneath the surface, while, in addition, the thickness of the elastic cushion is less, and the distance between the surface of the lung and an air-tube of any size is shorter here than in other parts of the lung. In confirmation of this belief, I would observe that if, on the contrary, pressure be exerted on the lung tissue from within, as by the forcible injection

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of water into a bronchus, perforation or rupture generally occurs near the anterior or thinner margin, probably owing to the fact that at this part, in most adult lungs, there is more or less emphysema, with consequent weakening of the walls of the alveoli. Speaking generally, then, an empyema situated at, or having access to, the front of the chest, will, if left alone, discharge by perforation of the chest wall; whereas one occupying the back part of the pleura will probably under similar conditions perforate the lung.

There is one other point in connexion with these cases to which I should like to draw attention. In many or most of the cases of empyema in which an opportunity has occurred of tracing the disease from beginning to end, the affection evidently commences in pleurisy with serous effusion, the fluid gradually becoming more and more turbid, until in a few weeks perhaps the purulent stage, or true empyema, results. The cause of this change would appear to be as follows, at any rate in some cases. The thick deposit of exudation composed of leucocytes and fibrin which occurs on the surface of the lung becomes partially or wholly detached owing to the shrinking and movements of the lung, and remains as shreds or sheets of loose membrane in the serous fluid in the pleural cavity, as may be found if the contents of the cavity be evacuated by an early incision and the interior explored with the finger. It seems probable, then, that these flakes act as foreign bodies, and by constant irritation bring about the conversion of a serous into a purulent effusion. Moreover, as these membranes take a long time to break up and disintegrate, they constitute one of the difficulties in the after-treatment of the case, often lying as they do below the level of the incision. In children, on the other hand, it is far more common to find the effusion purulent at an early stage in the history of the illness; it is thicker, more like the pus of an ordinary abscess, and is generally present soon after the onset of the inflammatory symptoms.

ON THE USE OF CHLORIDE OF AMMONIUM AS AN INHALATION IN DISEASES OF THE RESPIRATORY TRACT.

BY KENDAL FRANKS, M.D., F.R.C.S.I.,
SURGEON TO THE ADELAIDE AND THE THROAT AND EAR HOSPITALS, DUBLIN.

CHLORIDE OF AMMONIUM has been extensively used as a therapeutic agent, and its value in many affections of the mucous membrane of the throat has been very widely recognised. That such is the case is amply proved by the many forms of lozenges or so-called compressed "tablets" containing the salt which are more or less in vogue. In this form it has been found most useful in catarrhal conditions of the fauces and pharynx; but its use in posterior nasal catarrh, rhinitis, and catarrh of the Eustachian tubes and of the middle ear, as also in affections of the larynx, trachea, and bronchial tubes, has not been so encouraging, and the reason of this no doubt is that in the form of the powder, dry or in solution, or made into lozenges and given by the mouth, the salt cannot act locally on these regions, but only through the general system, and under such circumstances the benefit to be derived from its administration is more than doubtful. In order to overcome these difficulties and to extend the local use of the chloride to these less favoured regions, advantage has been taken of the fact, long since recognised, that the combination of the fumes of hydrochloric acid with ammonia gas at once forms a white smoke, which consists of chloride of ammonium in a finely divided state. This forms the basis upon which all chloride of ammonium inhalers are framed. The great therapeutical advantages to be derived from the chloride in this state has been long known and valued by throat and aural specialists; but general practitioners, as a rule, do not seem to have appreciated the good results which may be looked for by the judicious and regular use of the inhalation of chloride of ammonium. The cause of this probably has been the complicated nature of the apparatus often used to develop the vapour, the liability of its getting out of order or of its breaking, and the uncertainty as to the vapour containing the neutral salt alone, or perhaps also containing free hydrochloric fumes or free ammonia. The vapour (I employ this term here to express the white clouds formed by the junction of the fumes and the gas) when neutral is almost tasteless and perfectly unirritating, and it is in this form that it is of greatest use. Free acid I consider is always bad; a little free ammonia is not of much consequence, and is often of use. The method of detecting either the acid or the ammonia in the vapour I shall allude to again. Add to these objections the trouble of charging the inhaler with fresh acid and ammonia each time it is used, and we shall have a sufficient explanation of the reason why the inhalation of chloride of ammonium is not more popular among the members of the profession generally. For many years I have used this salt in this form extensively both in hospital and private practice, and have at different times tried most of the inhalers designed for developing it. I therefore venture to call attention to that form of inhaler which I believe will be found most simple and the most easily and satisfactorily managed, and also to point out the various classes of cases in which its use is most indicated.

I have found the best results to follow the inhalation of chloride of ammonium in chronic catarrhal conditions. In acute catarrh it does little good—at least, when the disease is once fully established; but in the beginning of an acute catarrh I believe it will be found often to check its further progress. I have known it to be so in my own case, and have been greatly gratified to find the symptoms of a cold in the head disappear after an hour's intermittent use of the inhaler. In chronic catarrh of the post-nasal region, so frequently associated with deafness, due either to chronic otitis media or to obstruction of the Eustachian tubes—a condition sometimes very intractable to ordinary means—I have found the regular use of the inhaler for weeks or even months give the most satisfactory results. The best method of using it in nasal catarrh, or in chronic inflammation of the mucous membrane lining the nasal or post-nasal regions, is to inhale freely by the mouth and to exhale by the nose. In this way the chloride of ammonium comes directly in contact with the affected parts. In catarrhal conditions of the middle ear or of the Eustachian tube the salt can be brought directly to bear upon these parts by having recourse to Valsalva's method of inflating the ear. A deep inhalation is made by the mouth; then exhalation through the nose is begun, and as soon as the white cloud is observed to emerge from the nostrils they are closed by suddenly compressing them between the thumb and forefinger. The mouth is firmly closed, and the patient makes an effort, as it were, to force the air through the nostrils. The apertures being closed, the distending power of the exhaled air forces open the Eustachian tubes, and the vapour enters through them into the tympana. This may be done two or three times at a sitting without any evil effect. I have met with many cases where this plan of treatment has alone sufficed to effect a cure where other methods had failed. When the Eustachian tubes are obstructed, so that air cannot be forced through them by Valsalva's method, the occasional use of Politzer's bag during the earlier part of the treatment will usually suffice. In chronic laryngitis, especially of the catarrhal form, chloride of ammonium inhaled is of great value. In the early stages of that form of laryngitis which so often accompanies phthisis, when there is erosion of the mucous membrane covering the inter-arytenoid fold, or when there is chronic inflammation of the vocal cords themselves, I have seen good results follow from this vapour, more especially when combined with some volatile oil, such as oil of eucalyptus or pine oil, in a manner I shall immediately describe.

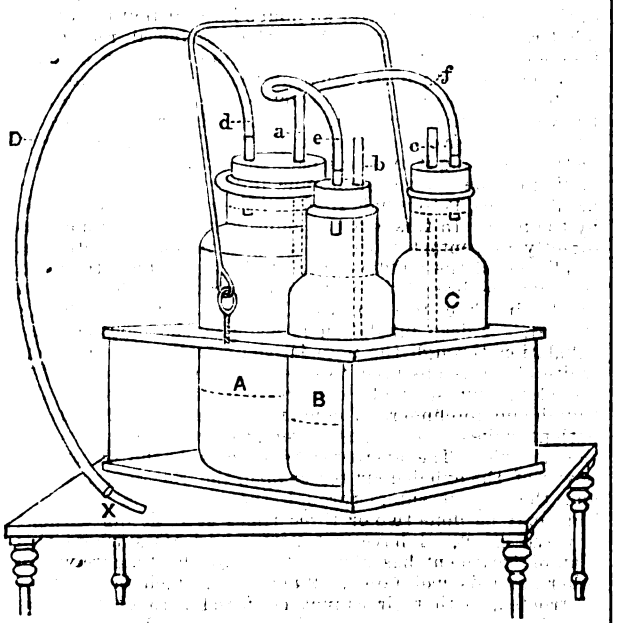
Again, much benefit may be derived from its use in affections of the trachea and bronchial tubes. Some years ago I prescribed it for an elderly gentlemen who was confined to his room in the beginning of winter for a chronic cough. He had been liable to chronic bronchitis every winter, which kept him in-doors for several months. Most of the usual remedies had failed with him, so at last I determined to try the effect of chloride of ammonium as an inhalation. He was directed to use it three times a day for fifteen minutes at a time. In a fortnight he was sufficiently well to go out, and the use of the inhalation during the winter prevented the return of his bronchial trouble.

The best method of inhaling in laryngeal or bronchial cases is much the same as is used by smokers in inhaling from cigarettes. A mouthful of the vapour is first taken, followed at once by a deep inspiration of ordinary air; this

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carries the chloride well down into the bronchial tubes. If this is not done, the vapour may perhaps not travel beyond the pharynx.

The apparatus for developing the chloride of ammonium which I prefer to all others is the Burroughs Improved Chloride of Ammonium Inhaler (Vereker's patent), a drawing of which is annexed. As it is comparatively of recent date, I may be excused for shortly describing its *modus operandi*. It is essentially composed of three bottles connected together by tubing. The two smaller bottles (B and C) contain respectively solutions of ammonia and of fuming hydrochloric acid. I have found that the pure commercial acid acts the best. The pure acid of the British Pharmacopœia is scarcely fuming enough, and is much more expensive. Each of these bottles is provided with an india-rubber cork, with two perforations each. Through one of these holes passes down in each case a glass tube (*b* and *c*), open at each end. This should dip down well into the fluid in the bottle. Two short tubes pass through the other holes. These should only reach to just below the cork. The outer end of each of these short tubes is connected by means of indiarubber tubing (*e* and *f*) with a glass tube (*a*). This glass tube reaches down nearly to the bottom of the bottle A, and its upper extremity terminates in a cross tube open at both ends, to which are attached the ends of the tubes *e* and *f*. The bottle A contains water, which should



fill about one-third of it. A short glass tube also passes through the rubber cork of the bottle A, but does not extend beyond it into the bottle. To the outer end of it is attached a long rubber tube (D), with a mouthpiece (X) attached to its free end. This tube (D) is usually made too short for convenience, and I generally advise patients to procure a long piece of tubing. When the tube is short the patient has to hold up the inhaler, and is incapable of doing anything else during the time of inhalation; but with a long tube the inhaler can be placed on a table beside him, and the patient can read or write all the time, and thus a more regular use of the inhaler is probable. From the foregoing description it will be seen that when the patient inhales through the tube D, a vacuum is formed in the bottle A, and the air in the bottles B and C rushes in to take its place through the tubes *f*, *e*, and *a*. These bottles are again replenished with air through the tubes *b* and *c*. As the air passes down through the tubes *b* and *c*, it bubbles up through the ammonia and acid in B and C respectively, and consequently becomes charged with their vapours. These vapours meet in the tube *a*, and at once form chloride of ammonium. The air charged with this salt bubbles up through the water in A, and is thus washed before it is inhaled through D. When exhaled it is seen to emerge as a dense white smoke. Now, in order that this should be neutral—that is, that the vapour should contain no free acid or ammonia—it is essential that the bottles B and C should contain the proper proportions of their respective fluids in equal volumes. Suppose C contains half an ounce of pure commercial hydrochloric acid, B should contain half an ounce of equal proportions of the ordinary solution of ammonia and water. Should this be found too strong, a little of it may be poured out and the same quantity of water added. If it be too weak, less water and more ammonia should be used. A little practice will make the patient expert in regulating the proportions. The acid bottle should not be interfered with unless the acid has become so weak as to require to be changed for a fresh charge. I have generally found that the acid will not require to be changed oftener than once in two months. On the other hand, the ammonia is so volatile that it will require strengthening, perhaps once a week, sometimes more frequently. The plan I adopt myself is simple. When I have found that the charge of ammonia has become disproportionately weak, I add two or three or five drops of strong solution of ammonia to it, until I find the vapour has become quite neutral. I have already said that the vapour inhaled should be perfectly unirritating. I have found from experience that when the ammonia is too strong it causes a smarting sensation at the back of the *pharynx*. When, however, the acid is in excess—that is, when the ammonia is too weak—the vapour chiefly affects the *larynx*, when a burning feeling accompanied by *coughing* and sometimes a sensation of choking is experienced. This affords, then, a good guide as to whether the ammonia should be strengthened or weakened. Another point deserves attention, and that is that the ammonia, being so much more volatile than the acid, has a tendency to pass over through the tube E into the water in the bottle A, and thus the vapour when passing through the water may take up an excess of ammonia gas. This is easily obviated by changing the water in A every second or third day. When it is considered desirable to add any other substance, such as oil of eucalyptus, to the vapour to be inhaled, the simplest and best plan is to add every day, say, five drops of the oil to the water in the bottle A. As the vapour bubbles up through this water, the oil globules become agitated and broken up, and the vapour carries with it a very sensible amount of the volatile oil. I have found this extremely useful. A great advantage which this form of inhaling these oils possesses is that they are inhaled cold, and therefore the patient is not exposed to the risk of catching cold, if obliged to leave the house shortly after inhaling.

I believe that if this inhaler be more largely tried in general practice, it will be found that all I have said in its favour, more particularly as to the results of its use, will be found to be borne out by individual experience.

Dublin.

VENEREAL DISEASES IN GIRLS OF TENDER AGE.

BY FREDERICK W. LOWNDES, M.R.C.S. ENG.,
SURGEON TO THE LIVERPOOL LOCK HOSPITAL AND LIVERPOOL POLICE.

OF all the cases in which medical evidence is required, few, if any, are less inviting than those in which men are charged with criminal assaults on females of tender age. To a conscientious medical witness who has carefully perused the chapters on rape in the various medico-legal works of Casper, Taylor, Ogston, Guy, and Tidy, the responsibility appears to be very great; for any remissness on his part to state every circumstance which may be favourable to the accused on the one hand, or to strengthen the case for the Crown on the other, may be productive of the most serious consequences. In the former case it may lead to the conviction of a man who is perfectly innocent of the crime with which he is charged, and his sentence to penal servitude for a considerable portion of his future life; while in the latter case it may assist in the acquittal of a guilty man—guilty of as vile an offence as a man can be guilty of. In addition to this grave responsibility, the details and surroundings of these cases are of so gross a nature that, as a learned judge (Justice Wills) recently remarked in his address to a grand jury, "men of mature life could hardly wade through the mass of iniquity which he had to struggle through in these matters without feeling himself degraded and poisoned by their perusal."

If any apology were needed for this paper, I trust that its heading will be sufficient. The subject was brought to my

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notice in a very prominent manner immediately after my election (more than eleven years ago) as surgeon to the Lock Hospital. The very first female patient admitted under my care was a diminutive girl whose age was stated to be twelve years, who looked even younger, but who was really just over thirteen. Since then other cases of infected children have been brought to the hospital, making up to the present date a total of twelve cases. There are two points to which I would wish to direct special attention. The first is that under existing circumstances we can hardly expect a reduction in the number of these offences. For as the recently passed Criminal Law Amendment Act now makes carnal knowledge of a female under thirteen years of age a felony, and under sixteen years a misdemeanor, even with her consent, it naturally follows that this Act has created a new class of felonies and misdemeanors. The other point is that in all these cases there was some evidence of infection with gonorrhœa or syphilis, and in at least three of them it was clearly proved that the accused persons who were suffering from a similar disease hoped to effect a cure by having sexual intercourse with their victims. This horrible superstition still prevails largely in Lancashire as in other parts of England, and as it must from the very first have proved to be as false as it is filthy, it is lamentable to observe how long it has prevailed. So far back as 1827 the late Dr. Gordon Smith alluded to it in his Principles of Forensic Medicine (3rd edition, page 413), and most writers on forensic medicine allude to this superstition more or less briefly. Thus Casper says: "It is well known that among the lower classes there prevails an absurd and horrible opinion that a venereal complaint is most certainly and quickly cured by coitus with a pure virgin, and most indubitably with a child, and this explains the very numerous cases observed by us."[1] Taylor says: "There is a vulgar error prevalent that gonorrhœa in the male is cured by sexual intercourse with a female virgin; and this error is said to be the cause of the frequency of the crime of rape on children in England."[2] Tidy says: "In a very large proportion of the cases sent for trial the victims are young children. There are several reasons for this. One is the popular superstition that if a man suffering from gonorrhœa have intercourse with a virgin he will be cured. Disgusting as it may seem, it is no less a fact that old women doctresses not unfrequently prescribe this criminal attempt to young men who consult them for urethral discharges. Many cases recorded show this to be the fact."[3]

The following is a summary of the cases which have been seen in the Lock Hospital within the last eleven years:—

No.	Date.	Name.	Age.
			Years.
1	May 20th, 1875	M. McD——	13
2	August 11th, 1876	M. E. S——	11
3	August 24th, 1881	S. A——	12
4	August 24th, 1881	G. S——	9
5	December 14th, 1881	H. S——	12
6	March 20th, 1884	A. C——	14
7	July 24th, 1884	E. R——	11
8	September 11th, 1884	M. E. M——	7
9	September 18th, 1884	E. A. Y——	12
10	September 14th, 1885	M. H——	5½
11	February 16th, 1886	J. A. G——	9
12	March 30th, 1886	A. H——	14½

At the present date (Oct. 18th) we have in the female wards a girl aged thirteen suffering from ulcers of the labia under Dr. Bernard's care. There are also two imbecile females in my ward, one suffering from syphilis, the other from vaginal discharge. In none of these cases can the offenders be prosecuted.

Besides these, I have seen other cases in private practice. In one which was brought to me by the late Mr. Higginson, a girl was infected with syphilis by, as was stated, a lad whom she met in the street one Saturday afternoon. Mr. Higginson had informed a police-inspector of the case, but the lad was wholly unknown to the girl, and she could give no satisfactory description of him.

In all the cases of syphilitic infection the disease was most amenable to treatment, a mild mercurial course, and soothing applications to the primary ulcers producing a most marked improvement in a very short time. For condylomata yellow wash acted extremely well after a previous application of lead and opium lotion. The vaginal discharges readily yielded to cleanliness and alum injections carefully applied by the nurse.

There remains to be noticed a very important matter upon which much difference of opinion still exists. I refer to the right of a medical practitioner to examine an accused person at the request of a magistrate or police official. I have never done this without the permission of the person charged, given in the presence of at least one witness. Moreover, I have always, in addition to obtaining his consent, fully explained that the result might be in his favour or against him, but that whatever it might be I was bound to state it. If after this full explanation he consents, I have no hesitation in examining him. Although the consent of the accused is mentioned as requisite in both Taylor's[4] and Tidy's[5] works, there are members of our profession, barristers, and police officials, who appear to hold a contrary opinion. In view of the almost epidemic form of actions against medical practitioners, which we are still experiencing, it appears to me to be of paramount importance not only to decline to make any compulsory examination, but to be absolutely certain that consent is given, not in ignorance, but in full knowledge of all the consequences.

In conclusion, I would wish to say that, while the experience of all the foregoing cases shows how little reliance could be placed upon the statements of at least some of these girls, it is perfectly clear that what is now considered a misdemeanour was committed upon all of them, while in nine cases they were under the age of thirteen, which makes it a felony under the existing law. I fear that there are many other cases (where fortunately for the females there has been no infection with disease) which do not come to light. In this city all such cases are most severely scrutinised before they are sent to trial. Then the grand jury, acting under the direction of the judge, are quite prepared to throw out the bill in any case which appears to them to be a weak one. Lastly comes the trial itself. The judge, the counsel on both sides, and the men who compose the common jury are all fully aware how easy these charges are to make and how difficult to disprove. A calm dispassionate review of our judicial system as regards these cases will, I think, convince most medical observers that it is admirably adapted to fulfil its purpose: to prevent, on the one hand, any man from being put upon his trial for a groundless or weakly supported charge: and, on the other hand, to punish severely those men who commit such cruel outrages on children of tender age.

Liverpool.

[1] Handbook of the Practice of Forensic Medicine, Balfour's translation, vol. iii., p. 201. [2] Medical Jurisprudence, 3rd ed., vol. ii., p. 427. [3] Legal Medicine, part ii., p. 184.

[4] Op. cit., vol. ii., p. 461. [5] Op. cit., p. ii., footnote on page 205.

PURULENT ENCEPHALITIS WITH OBSCURE SYMPTOMS OCCURRING IN A PREGNANT WOMAN AT FULL TERM;

CHILD SAVED BY ABDOMINAL SECTION (PORRO'S OPERATION).

BY W. ALEXANDER, M.D., F.R.C.S.,

VISITING SURGEON, LIVERPOOL WORKHOUSE HOSPITAL.

ELIZABETH W——, aged twenty, was admitted to the division for pregnant women of the Liverpool Workhouse on Oct. 14th, 1886. She did not complain of anything on admission, but was regarded by the other women in the division as "distant and snappish," and when spoken to would tell the speaker to "mind her own business" and "not to bother her." She complained to the doctor on duty on the 16th of headache, but she said it was not much, and probably owing, she thought, to the onset of labour. On Oct. 18th she was taken to the lying-in wards on the suspicion of labour having commenced, but it was found to be a "false alarm." Next morning she went again, but no signs of labour presented themselves. She then seemed to the midwife to be quite well. On the evening of the 19th she looked restless before retiring to bed, but did not complain, and during the night she got up several times to drink water. Towards the morning, on returning from the water-bottle, she fell three times across the beds that intervened. The nurses from the lying-in wards were then sent for, and found the patient in a "hysterical" convulsion, confused in her manner, but quite conscious except when "working" in her fits.

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On Oct. 20th, as I was going through the lying-wards of the hospital on my usual rounds, my attention was called to this patient, who was still in the pregnant women's division. Her face was somewhat congested, she was slightly unconscious, and was suffering from irregular convulsive movements that seemed partly voluntary and partly involuntary. No signs of labour were to be found, but she seemed to be at full term and the fœtal movements were very distinct. The substance of the history just given was then told to me. The case was diagnosed as one of puerperal convulsions occurring during pregnancy, and probably caused by a debauch. As her bowels had been already moved, and as she could not swallow, a rectal injection of thirty grains each of chloral and bromide of potassium was prescribed, to be repeated according to necessity.

I visited the hospital again in the afternoon, at 6.30 P.M., and found that the coma had deepened very much during the last half-hour; the convulsions had become more decided and epileptiform, affecting chiefly and primarily the face and arm centres for the left side, but extending often into a storm that involved the whole body. The eyes gave the faintest response to pressure, and the pulse was scarcely perceptible. Mustard to the legs, frictions, &c., had been tried without effect, and Dr. McMurray, who had watched the case carefully during the day, had already come to the conclusion that the patient was dying. A short examination convinced me that he was right, and that the "status epilepticus" into which the patient had fallen was one from which she was not likely to recover. The child was still moving, but less vigorously than at midday, and it was evident that whatever was to be done would have to be done quickly. An examination per vaginam showed that the os uteri was still firmly closed, that the vagina was dry and undilated, and that there was an entire absence of any signs of labour. The removal of the child *per vias naturales* would, it seemed to me, be too slow to save the child and relieve the mother. Abdominal section offered the best chance, especially as I am quite familiar with and very successful in the performance of this operation for various diseases. Nurses were immediately detailed to wash the woman with warm soap-and-water and with corrosive sublimate solution; the spray was got in readiness, and the sponges that are always kept at hand for an "emergency" abdominal section were brought to the lying-in ward, as this ward is very clean and was then fortunately empty of any case in labour.

The uterus was exposed by an incision four inches long. Through the uterine walls the placenta could be seen adherent to the part just beneath, and over the placenta some large veins were distinctly visible. Dr. McMurray kept the abdominal wall closely applied to the uterus, and surrounded the opening I was about to make into the uterus with sponges. This opening I made in a longitudinal direction for two inches in a spot free from large veins. A gush of venous blood was the result of the incision. This was immediately stopped by the insertion of two fingers into the uterine wound. By means of these two fingers the placenta was stripped off the uterus, and on their withdrawal the hæmorrhage had ceased. The opening was now enlarged upwards and downwards until a sufficient opening was made to enable the placenta and afterwards the child to be removed. As the child was removed Dr. McMurray expressed the womb outside the abdomen, thus closing the abdominal walls around the organ, so as to completely shut the abdominal cavity and protect the intestine. All this had been done without chloroform and without a movement of the patient. The midwife now took charge of the child and placenta, and the question was what was to be done for the mother. The screaming of the child that we now heard showed that *one* life was saved. I was disappointed that the operation had not roused the patient, which I had hoped it would, and Dr. Blackwood had been standing by ready with chloroform and watching for any sign of consciousness. As the woman was young, and all the internal organs healthy, I would have liked to have stitched the womb up and left her undeprived of any organ; but this operation would have taken time, and would have allowed some risk from hæmorrhage, which might have destroyed any remaining chance of life, and the chance seemed already a very desperate one. I therefore quickly performed a "Porro," and, covering the abdominal wound with antiseptic sponges, endeavoured to resuscitate the patient. Stimulants per rectum, subcutaneous injections of ammonia and ether, artificial respiration, galvanism, &c., were tried for about an hour, but the failing pulse gradually disappeared and death ensued.

Next morning a sister of the deceased told us that the latter had led an intemperate and profligate life, and had been beaten just before admission.

An examination of the body showed slight contusions, but none greater than she might have obtained during the convulsions. On opening the skull, a thin layer of pus was found beneath the dura mater, covering the whole of the encephalon, and extending down to the base of the skull. There were no signs of any injury to the brain or skull; the lungs were congested, and all the organs showed signs of excessive indulgence in drink, but otherwise they were healthy.

The baby is a plump healthy girl, who takes to her bottle with avidity, and seems to enjoy the life into which she was so tragically ushered.

When I was house-surgeon at the Workhouse Hospital in 1873, a woman was brought in suffering from convulsions. Just as my colleague, the late Dr. A. M. S. Hamilton, saw her, for the purpose of locating her, she had a sharp convulsion, and died in the cab. We immediately took her into the nearest room and performed Cæsarean section. A fine, well-formed, well-matured infant was removed, but quite dead. In my last case the result has been better, although I was disappointed that the coma did not yield to the stimulation of the operation. Had the coma depended merely upon essential puerperal eclampsia, the operation, the gush of blood, and the emptying of the uterus might have done good, and saved mother as well as child. The imperfect history of the case obtained before death, and the latency of the symptoms before convalescence set in, did not prepare us for the startling lesion found at the necropsy. Altogether, I do not think any improvement could have been made either in the time of the operation or the kind of operation, and a fuller knowledge of the case would not have secured any better results.

ON A CASE OF

TRAUMATIC TETANUS SUCCESSFULLY TREATED BY THE SUBCUTANEOUS INJECTION OF MORPHIA.

BY J. FALCONER MURISON, M.B., C.M. ABERD.

ONE of the most appalling and fatal maladies to which man is liable is traumatic tetanus. The following case, which came under my care nearly twelve months ago, will, I think, be of some interest to the profession.

On Jan. 29th, 1886, I was sent for to visit a young man whose "jaws were stiff and would not open." I found him in bed, complaining of great stiffness in his jaws, and a peculiar feeling when he attempted to swallow food or drink. He was twenty-six years of age, over six feet in height, and powerfully built. On questioning his parents I elicited the following facts: On Jan. 15th he was engaged, along with a servant lad, carting manure from the farmyard to the fields. He asked the lad to hand him a spade, which he (the lad) at once took up and threw towards the patient. The distance between them was only six yards, and the spade struck the patient severely on the inside of the left knee-joint, causing at the time excruciating pain. The part was badly bruised, but although in severe pain the patient continued at his work all that day. In the evening the pain increased and the knee-joint became swollen and stiff. For the following ten days he was confined to bed, during which time he constantly applied fomentations and poultices to the knee. The swelling and pain disappeared, and he resumed his ordinary duties, feeling nothing whatever the matter with him, until the 29th, when the first symptoms of tetanus made their appearance.

When I first saw this young man he was suffering intensely. The jaws were firmly clenched, and he experienced some difficulty in swallowing. The muscles of the temples, jaws, and neck were stiff and rigid, the features were fixed, and the countenance expressive of acute pain. Risus sardonicus was well marked, giving a comical expression to the face. I saw at once that I had to deal with a very serious case, and, as the patient was lying on a bed in the farm kitchen, I had him removed at once to a cool, quiet, and airy bedroom, a screen being drawn round his bed and perfect quietness enjoined. His temperature was 104°, his pulse 90, and his body covered with free perspiration.

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The treatment consisted of thirty grains of hydrate of chloral, with twenty grains of bromide of potassium, given every four hours. This was continued for three days, at the end of which time the patient was in no way benefited; he did not even sleep. The symptoms increased; the muscles of the back and legs became involved; and during the paroxysms opisthotonos was well marked and excruciating pain felt at the pit of the stomach. Tincture of cannabis Indica was then tried, the dose being fifteen minims at first, gradually increased to half a drachm, with inhalation of nitrite of amyl. This was also given every four hours and continued for three days, at the end of which time there was still no improvement visible to the patient. Ice was applied to the spine, and he was put under the influence of chloroform twice a day for an hour at a time. Still the paroxysms continued as bad as ever, if not worse, and as the patient had got little or no sleep for the previous week, I determined to try the effects of morphia. I therefore injected subcutaneously one grain and a half into the muscles of the right thigh, and awaited the result. In about half an hour he was dozing, and continued so for about two hours. On awaking he felt himself greatly relieved, and begged hard to have the injection repeated, as he was unable to suffer such severe pain. The medicines were now all discontinued and the subcutaneous injections of morphia thereafter solely relied on. For four days one grain was injected every four hours, for the next two days every six hours, and the next two days every eight hours. Then, as the symptoms gradually disappeared, the injections were used less frequently, until at the end of the third week only one grain was injected at night, with an occasional half-grain through the day. During the fourth week only half a grain was injected at night, and during the fifth week only every alternate night. At the end of the sixth week the patient was convalescent, and was able to be out of bed and to do without the morphia. During the whole time of his illness, which extended over a period of six weeks, his nourishment consisted of beef-tea in a concentrated form, milk, switched eggs, soups, wine, and brandy, all being given freely.

I think this case will interest not a few, owing to the marked benefit the patient derived from the subcutaneous injections of morphia, after the usual remedies—chloral hydrate, bromide of potassium, cannabis Indica, ice, &c.—had been thoroughly tried and completely failed to relieve him of a single symptom of this terrible disease. So much am I convinced of the benefit accruing from the use of morphia in this particular case that, were I called upon again to treat another case of a similar nature, I should have no hesitation whatever in beginning the treatment at once with a full dose of the solution of morphia injected hypodermically.

Glasgow.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

MIDDLESEX HOSPITAL.

PYLORECTOMY FOR CARCINOMA; DEATH; NECROPSY.

(Under the care of Mr. HENRY MORRIS.)

THE following instance of operation for carcinoma of the stomach, in which the growth was situated at the pylorus, appears to have been performed in one of those cases which are especially adapted for the operation of pylorectomy. The growth was limited in extent, free from adhesions to the surrounding parts, there was no affection of the glands in secondary deposits, and the patient was comparatively young, being only thirty-nine years of age. The progress after operation was for a time satisfactory, and although the patient died, few surgeons of experience would hesitate to adopt the same line of treatment in a similar case in preference to the alternative operations of gastro-enterostomy, duodenostomy or jejunostomy, which are only palliative. For the report of the case we are indebted to Mr. W. Roger Williams, surgical registrar.

The patient, a very emaciated woman of dark complexion, aged thirty-nine, was admitted under the care of Dr. Finlay on July 9th, 1885, with the following history:—She has suffered from dyspepsia since youth. Symptoms of the present disease began nine weeks ago with an attack of jaundice, which lasted for a month. During this illness constipation, nausea, and vomiting were marked symptoms, and have continued so ever since. A month ago she first noticed a "lump" in the upper part of the abdomen, which was much the same size then as now. During the last five weeks she has lost much flesh. She has never had good health. In addition to dyspepsia, she has frequently been subject to a hacking cough, with much expectoration, and shortness of breath. Twenty years ago she had rheumatic fever. She married at twenty-six, and has had seven children, four of whom died in infancy, and of the others one has a "weak chest."

On admission she complained of a sinking feeling at the pit of the stomach, constipation, and flatulence, with nausea and vomiting after taking food. The bowels had not acted for a week. The conjunctivæ were slightly yellow, but there were no other signs of jaundice. On examination of the abdomen, a freely movable, hard, nodulated mass, the size of a hen's egg, was felt a little above and to the left of the umbilicus; sometimes its position shifted to the right of the umbilicus. There was dulness on percussion over the tumour, to which all her pain was referred. The tumour was not affected by movements of the chest. The liver dulness extended from the sixth rib to the costal margin; the splenic area was normal. The urine was free from albumen, and its specific gravity 1016. A loud blowing bruit, which replaced the first sound of the heart, was heard at the apex and at the angle of the scapula. A loud systolic bruit was also heard over the second right costal cartilage. After admission the vomiting continued, and on July 20th she ceased to retain nutrient enemata. Death from starvation seemed imminent.

At a consultation on July 24th it was decided to make an exploratory abdominal section, with a view to pylorectomy, in the event of the tumour being free from important adhesions, and the adjacent glands &c. uninvolved; otherwise gastro-enterostomy or jejunostomy was to be done.

On July 26th and 27th the stomach was washed out with a warm weak solution of boracic acid. This was repeated on the morning of the 28th, shortly before commencing the operation. At 9.30 A.M., assisted by Mr. Gould and Mr. Paul (the house-surgeon), Mr. Morris proceeded to open the abdomen by a longitudinal incision, four inches long, made a little to the right of the umbilicus and having its centre over the tumour. On opening the peritoneal cavity, the enlarged and hard pylorus was at once reached. It was quite free from adhesions, and was readily withdrawn through the wound. No enlarged glands could be felt, and the adjacent parts seemed normal. The omentum above and below the diseased part was ligatured with two rows of catgut sutures, and then divided between the rows. The pylorus and the adjacent parts of the stomach and duodenum being thus completely freed from their omental connexions, a flat sponge was placed beneath the diseased area, and the division of the stomach was then commenced at the small curvature and carried obliquely downwards and to the right, just along the anterior and then along the posterior surface for about half the distance between the great and small curvatures. All bleeding points on the cut surface being stopped by pressure forceps, the incisions were extended by a succession of short snips. As soon as the stomach was sufficiently laid open, its contents were removed by the introduction of sponges on long forceps; thus extravasation of its contents into the peritoneal cavity was avoided. Before completing the section of the stomach some occlusion sutures were introduced. As soon as the separation of the stomach from the diseased mass had been completed, a couple of silk loops were passed through its sero-muscular coats, and the cut edges were retained outside the abdomen whilst the separation from the duodenum was being effected. Finally, the divided duodenum was united to the stomach by numerous sutures, the posterior ones being introduced first. Part of the duodenum, through which the section passed, was devoid of peritoneal investment; so that in effecting the union of the divided viscera, for a certain extent, the apposition of serous surfaces was interfered with. This

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was a circumstance of importance, because it was in this situation that the sutures subsequently ulcerated through and allowed extravasation into the peritoneal cavity. Lembert's method was alone employed for the first ring sutures, and Lembert's alternating every three or four with Gussenbauer's suture for the occlusion suturing. The operation lasted nearly two hours and a half.

The patient was a little sick after returning to bed. Enemata of port wine (three ounces) and peptonised beef-tea (three ounces) were given alternately, the first port-wine enema being administered two hours after the operation. During the afternoon and evening she complained of intense thirst, and a teaspoonful of iced water was allowed by the mouth at intervals. There was a slight motion of the bowels at 6.30 A.M., one hour after a port-wine enema, and again slightly at 8 P.M., when she passed eight ounces of urine. Evening temperature 100·4°; pulse 120. During the night she slept for about six hours and a half.

On the morning of July 29th she still complained of intense thirst, for which a teaspoonful of iced barley-water was given from time to time. This she retained. The enemata were continued every four hours, and five minims of liquid extract of opium were added to the beef-tea injections to assist their retention. There was a slight motion of the bowels; no sickness. Morning temperature 98·6°. She passed another fairly good night.

July 30th.—She still complained of great thirst. Temperature 99°. Six ounces and a half of urine passed during the last twenty-four hours. Enemata retained; no vomiting. At 9 P.M. the bowels acted freely, the motion being of a dark-grey colour. Rectum irritable, and the enemata but partially retained. During the day she slept for about six hours. At 10.30 P.M. she vomited about half a pint of dark-brown odourless fluid, and again at 1 A.M. She slept for about six hours and a half during the night.

31st.—Morning temperature 98·6°. She has passed seven ounces of urine during the last twenty-four hours. Most of the enemata are retained. At 11.30 A.M. she complained of a sharp pain in the epigastric region, screamed loudly, and then vomited several times. At 1.30 P.M. the wound was dressed for the first time; it looked normal; the sutures were not disturbed. During the afternoon the patient continued to complain of pain in the abdomen; she was sick at intervals, and the enemata were not retained. At 9.30 P.M. she was very weak and much changed for the worst. She still vomited occasionally. Temperature 101°. During the night she had no sleep, was very restless, and died in a state of collapse at 4 A.M. on August 1st.

Necropsy, ten hours after death.—Body exceedingly emaciated. The peritoneal cavity contained about eight ounces of sero-purulent fluid. There was recent acute general peritonitis, the intestines being injected and glued together by recent lymph. The left lobe of the liver was adherent to the anterior surface of the stomach. The stomach occupied a position that was almost vertical; it was small and contained some fluid. On close examination of the operation lesion, it was found that all the occlusion sutures and all the ring sutures that were on the peritoneal aspect were quite secure and well embedded in lymph. It was at the posterior and upper part of the wound, near where the occlusion sutures joined the ring sutures, that some of the latter had ulcerated through and allowed the gastric contents to escape. These were found occupying a small pouch immediately behind the gap. There were no cancerous glands adjacent, and no secondary deposits in other parts of the body. The lungs were small and emphysematous. There were old pericardial adhesions. Both auriculo-ventricular valves were competent, but they presented much old thickening. The aortic valves were thickened, calcareous, and incompetent. The heart was rather large. Both kidneys were small and granular.

WEST LONDON HOSPITAL.

CASE OF PARTIAL PARAPLEGIA, PROBABLY DUE TO SYPHILITIC MENINGITIS; RECOVERY; REMARKS.

(Under the care of Dr. DONALD W. C. HOOD.)

C. H——, aged twenty-eight, a stonemason, was admitted on Jan. 18th, 1886. He complained only of great weakness in both legs. He was unable to walk more than a few yards. He dated his illness from the evening of the 24th ult., when he had felt much fatigue after a short walk, and had stiffness and cramps in the calves of both legs. During the preceding week he had had seminal emissions every night, and irritability of the bladder night and day. From the morning of the 25th up to the day of admission the weakness in his legs rapidly became more and more marked. He was unable to retain his urine longer than an hour at a time. The patient was a strong, muscular, healthy-looking man. He had had no previous illness of moment, but had suffered from a chancre some seven years before. The chancre was not followed by sore-throat or by any constitutional trouble. There was great loss of power, equally distributed in both lower extremities. He could barely move his legs as he lay in bed, and could only stand or struggle along a few yards with the greatest effort and fatigue. There was complete loss of all reflexes below the abdominal; if anything, these were in excess. The cremasteric were entirely absent. The limbs were muscular, and there was no wasting. Sensation appeared perfectly normal, and the patient made no complaint of pain. The spine was carefully examined, but no trace of bone disease could be discovered. The muscular power of the upper limbs and trunk appeared natural. On the supposition that the patient was suffering from syphilitic inflammatory mischief he was at once placed on iodide of potassium and perchloride of mercury. Under this treatment the patient made rapid progress towards recovery, recovery being, however, impeded by a sharp attack of tonsillitis, which at that time was almost endemic in the hospital. The first indication of improvement was the lessened irritability of the bladder; then muscular power returned by degrees, the patient being able to move and turn in bed without effort. A month after admission there was some return of plantar reflex, the patellar and cremasteric being still absent. The patient could now stand without difficulty, and could walk across the ward. A month later the muscle power was noted as being fairly normal, and within a few days the patient was discharged as well.

Six weeks subsequently the patient reported himself as well as he had ever been, and able to walk any reasonable distance without fatigue. At this time there was still no patellar reflex.

Remarks by Dr. HOOD.—There can be but little doubt that the lesion in the above interesting case was a circumscribed inflammation of the spinal meninges, lying somewhat above the lumbar enlargement of the cord. The inflammatory mischief was probably gummatous in character, and must have been limited to the anterior portion of the cord, the substance of which could scarcely have been affected, looking at the rapid and perfect restoration of muscular power. I conclude that the inflammatory products involving the internal surface of the dura mater compressed the anterior surface of the cord and implicated the motor roots.

BURTON-ON-TRENT INFIRMARY.

CRUSHED PELVIS; RUPTURE OF THE BLADDER; NECROPSY; REMARKS.

(Under the care of Mr. MASON.)

FOR the following notes we are indebted to Mr. A. P. Trinder, house-surgeon.

Thos. P——, aged thirty-six, was admitted on Nov. 1st, 1886, at 6.30 P.M. The patient, a powerful man, a shunter in one of the yards, was riding on the spring of a waggon, when passing some points, on which he had himself placed some trucks without allowing proper space between them and the main line, he was caught by the buffer of the nearest one on the left hip, twisted round by it, and so crushed that his hips passed transversely through a ten-inch space. Having passed the obstacle he fell, and was immediately brought to the infirmary by his mate, who, being behind him on the same waggon, saw what occurred and saved himself. The patient was never unconscious.

On admission, the hands and feet were slightly cold; body warm; pulse regular, and of fair volume; temperature 98·4°. The man complained of great pain in the hypogastrium. The perineum and left hip were slightly bruised and painful, but not much swollen. He could not lift his thighs without assistance, especially the left. He asserted positively that he had passed urine within an hour of the accident. Mr. Mason saw him, and on account of the pain passed a No. 8 silver catheter, which entered the bladder easily, but, to his surprise, drew off bright-red blood. The catheter was kept in. An ice-bag was applied over the

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pubes, and beef-tea and ice were given by the mouth. He was also ordered twenty minims of liquor morphiæ, which was repeated later on.

Nov. 2nd.—Very little sleep last night; body warm; pulse quiet, of fair volume; temperature 99°. Taking iced milk and beef-tea pretty well. Pain diminished; no pain in the abdomen on pressure, except over the pubes; no dulness on percussion anywhere except over the bladder, which reached two inches up. The catheter has drawn off a considerable quantity of bright blood and urine. A consultation was held as to operating, but delay was advised, as the hæmorrhage had abated and his condition was good.

3rd.—Slept well; temperature last night 101°; to-day 100°. Catheter blocked with clot, and exchanged for a soft red rubber instrument; very little blood, and of a blacker colour. Bowels cleared out by enema.

6th.—Doing well; sleeps and eats fairly. Catheter drawing nearly clear urine, but has been often blocked by clots. Bladder repeatedly washed out with 1 in 300 carbolic solution, as the urine smells very foul. Temperature 101·2°; pulse 120.

8th.—Doing well, except that he had another smart hæmorrhage from the bladder to-day. Perineum rather more swollen and discoloured, but not prominent as in ruptured urethra. Temperature 100°; pulse 120, steady. At 3 P.M. another consultation was held, but the hæmorrhage having again ceased, it was considered advisable to leave him alone, as it would probably be impossible to control the bleeding vessel, which was supposed to be the internal pudic artery ruptured by a fracture of the pelvic ramus. Very foul gas escapes along the catheter.

9th.—Slept all night. Takes food better. Catheter drains well; no more hæmorrhage. Temperature last night 101°; to-day 99°. On pressure over the right side of the pubes emphysematous crackling can be plainly felt, and foul gas is expelled from the urethra. For fear of infecting the ward, he was carried, mattress and all, into a small special ward, without experiencing any pain or producing any hæmorrhage. At 9 P.M. he had a rigor, and the temperature was 102·5°. Mr. Mason made two small incisions—one in the perineum, which led nowhere, the other over the crepitating region to the right of the pubes, the latter incision giving vent to horribly offensive gas and urine, which dribbled slowly on syringing through the catheter. At 3 A.M. the temperature was 103·6°, and the pulse 160, weaker, slightly irregular. Two ounces of brandy ordered.

From this time the patient lost ground in spite of a large amount of fluid food and from two to four ounces of brandy daily. The temperature ranged from 101° to 103·8°, and the pulse from 120 to 150, and becoming smaller and weaker. Two small hæmorrhages occurred, and diarrhœa ensued, followed by death on Nov. 17th. The smell during the last week was overpowering, in spite of sanitas and carbolic sprays.

No regular post-mortem examination was made, but the pubic wound was enlarged to admit two fingers, when it was discovered that the pelvis was fractured in three places—viz., the symphysis pubis and the right and left body and descending rami of the pubes. The triangular fragment on the right side was found pushed backwards and downwards into a rent in the bladder wall as large as an egg. The silver catheter could be felt lying against the bare bone of the pubic arch, the soft parts of the neck of the bladder being destroyed. The right triangular fragment was easily removed through the wound and carefully examined. The fracture through the body of the pubes ran right through the obturator notch, so that in all probability it was the obturator artery which was ruptured and caused the hæmorrhage, and not the internal pudic, the more so that the fracture of the descending ramus ran in a slanting direction through it, coming out at the arch of the pubes, and leaving the lower or perineal border attached to the ischium.

Remarks by Mr. TRINDER.—The points of interest in this case seem to be that the patient should with such a severe injury (1) show so little sign of shock, (2) live seventeen days, (3) have his bladder ruptured in an empty condition, and (4) bear carrying from one room to another without pain or hæmorrhage. A median or right lateral cystotomy (which was several times proposed and postponed) would have allowed freer drainage and cleansing, but at the same time would have tended to increase the hæmorrhage by removing the beneficial pressure exercised, in all probability, on the ruptured vessel by the large body of clot which was known to be present. The operation could not have enabled us to control the hæmorrhage effectually.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Hypertrophy of Bladder.—Lipoma of Heart.—Spontaneous Disintegration of Vesical Calculi.—Infantile Palsy.

AT the ordinary meeting of this Society held on Tuesday last, Sir James Paget, F.R.S., President, delivered his presidential address on taking the chair. This will be found *in extenso* at page 159. The meeting was a very large one. Sir Joseph Lister proposed, and Dr. Samuel Wilks seconded, the vote of thanks for the address.

Mr. E. HURRY FENWICK showed a frozen section of a Hypertrophied Bladder, removed from a patient suffering from stricture of the urethra, who died of intercurrent disease. The specimen demonstrated the greater thickness of the anterior wall as compared with the posterior. In this case the anterior wall was twice the thickness of the posterior. He believed this condition, which obtained in hypertrophied bladders, had been overlooked, and the reason for its want of recognition was due to wasting of the muscular wall after the stricture had been relieved, and cases of unrelieved stricture were rarely found on the post-mortem table. He adduced anatomical proofs to support the theory that it is the anterior wall which possesses the greater power of hypertrophying, and he submitted that the comparatively greater strength, elasticity, and resistance to pressure of the anterior wall was one of the reasons for its acknowledged greater immunity in ruptures of the urinary bladder.—Sir JAMES PAGET said that, so far as he knew, the communication supplied a new fact.—Mr. JAMES BLACK suggested that the anterior wall became hypertrophied because it offered more resistance to muscular contraction than the posterior.

Dr. HANDFORD showed a specimen of Fatty Tumour of the Heart, and said there was no satisfactory example of a true lipoma of the heart in any of the nineteen principal museums in the kingdom. There are, however, three doubtful specimens, two of which are probably examples of fatty overloading, and the third is classed among "tumours of uncertain origin." They are in the museums of the College of Surgeons of England, St. Bartholomew's Hospital, and Queen's College, Birmingham. So far as he could ascertain no such specimen has been shown at the Pathological Society of London. The recorded cases only number three, one of which (Gernet's) is doubtful. The three cases are: 1. By Albers, in Virchow's *Archiv*, Bd. 10, p. 215. (1856.) 2. By Gernet, in Virchow's *Archiv*, Bd. 42, p. 534. (1867.) 3. By Banti, in *Lo Sperimentali*, tom. lviii. (Sept. 1886.) He was indebted to Mr. Evan Powell, medical superintendent of the Nottingham Borough Asylum, for the specimen, as also for the notes of the case and of the necropsy. Unfortunately, only the tumour and the inter-auricular septum in which it was embedded have been preserved. The patient was a woman aged seventy-six, who died during sleep. At the necropsy there was found a fair, but not excessive, amount of subcutaneous fat. There was no fatty tumour or excess of fat anywhere, except around the heart, which weighed 14 oz. The muscular substance of the heart was very pale, and of a yellowish colour; it felt greasy and looked streaky to the naked eye. In the inter-auricular septum was a hard round substance about the size of a small pigeon's egg. It was distinctly limited, but had no definite capsule. When cut it had all the appearance of an ordinary fatty tumour. The liver was fatty, but the other organs were apparently healthy. There could be no doubt of the distinctness of the growth, or of its fatty nature. From the appearance of the tumour, from its position in the septum between the auricles, and from the observations of Mr. Power at the necropsy, he entertained no doubt that it was not an instance of the burrowing inwards of the subpericardial fat. A microscopic examination showed that the tumour consists of fat cells with a few degenerating muscular fibres scattered here and there. The probable origin of the tumour was in the inter-muscular connective tissue.

Dr. W. ORD showed fragments of Vesical Calculus, which had resulted from spontaneous disintegration, and had been passed the last few months by a gentleman, aged seventy-five, who for six years had had sugar in varying quantity in his urine, and albumen also. Free uric acid in large crystals were also passed. Six months ago the left femoral artery became blocked, and sloughing of the skin of

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the left leg was observed. And three months ago he began to pass calculous fragments without pain and with but little bleeding. A soft catheter had to be introduced as much for enlargement of prostate as for calculous obstruction. The detached fragments evidently came from an ovoid calculus one inch in length. Some fragments had rounded margins, having been chipped off some time before being ejected. Dr. Ord had shown five specimens of spontaneous disintegration of calculi, so it was doubtful whether this process was of rare occurrence. There were two ways in which disintegration could occur: either from within or from without, as in the present specimen. The chemical composition was uric acid and urate of ammonia, and the parts were probably not originally firmly put together; the remarkable alterations in specific gravity of urine might be compared in their effects to alternations of comparative drying and moistening. This was the best explanation he could offer.—Sir JAMES PAGET had seen similar specimens.

Dr. SEYMOUR SHARKEY read a paper on Infantile Palsy, dealing chiefly with the final stage. The specimens were removed from an old man aged sixty, who died of epithelioma of the œsophagus. The legs had been paralysed for fifty-eight years. All the muscles of both legs were represented by masses of fat showing numerous pinkish streaks running longitudinally. The lumbar part of the spinal cord was much wasted. The microscope showed innumerable corpora amylacea. The large nerve cells were reduced in size and number; there were a great many nuclei, and the groundwork of the anterior horns had a finely fibrillar texture. The walls of the vessels had a hyaline appearance, with abnormally large perivascular spaces. All the white columns were shrunken, but the antero-lateral strands seemed to have undergone greater diminution than the others. The larger nerves, shown in transverse sections, presented a great number of healthy nerves intermixed with islands of atrophied axis cylinders surrounded by the sheath. The muscles consisted chiefly of fat, but here and there a few perfectly healthy fibres, well striated, were seen. Other sections were shown from an earlier stage of infantile palsy; in some of these there were to be seen parallel wavy rows of sarcolemma nuclei.—Dr. SAMUEL WILKS said that the case corroborated the views he had always held.—Mr. W. ADAMS spoke of the value of the communication.—In reply to Mr. R. W. PARKER, Dr. SHARKEY said there were no obvious secondary changes in the cortical motor centres.

The following card specimens were exhibited:—Dr. Handford: Œsophageal Malformations, Fistulæ, and Carcinoma. Dr. Sharkey: Syphilitic Arteritis. Dr. H. Maudsley: Ulceration of Trachea, with Perforation of Aorta. Dr. B. O'Connor: Mediastinal Tumour. Mr. F. Treves: Melanotic Sarcoma.

CLINICAL SOCIETY OF LONDON.

Athetosis and Aphasia in a Child—Treatment of Cysts of Thyroid.—Treatment of Imperforate Anus.

THE annual general meeting of this Society was held on the 14th inst., Mr. Thomas Bryant, F.R.C.S., president, in the chair. The list of officers for the ensuing year is appended to this report. The scrutineers of the ballot were Dr. S. Phillips and Mr. G. R. Turner. The votes of thanks to the retiring president (Mr. Bryant) and surgical secretary (Mr. R. J. Godlee) were warmly accorded. Mr. Christopher Heath, the treasurer, read the report of the finances of the Society.

Dr. SAMUEL WEST read notes of a case of Right-sided Hemiplegia with Aphasia, occurring in a female child. The hemiplegia came on suddenly during a paroxysm of whooping-cough. Slight rigidity developed in the weakened limbs, which had recovered some power, but of late athetosis as described by Dr. Gowers had developed. Hæmorrhage was the probable cause of the hemiplegia, but the locality of the lesion could only be surmised.—Dr. RADCLIFFE CROCKER related the case of a girl, aged ten, in whom there was a condition of athetosis and spasm of the right hand. There was a history of right-sided fits, three in number, and lasting over twelve hours. Hemiplegia followed, and about six weeks later the athetosis developed. The child had mitral disease, and the hemiplegia was probably of embolic origin.—Dr. BROADBENT thought that the fact that athetosis had been associated with lesions about the great ganglia should not outweigh certain considerations pointing to a cortical lesion. The remarkable difference in the limbs at rest during sleep and during waking without permanent contractures seemed to point to functional activity of the cerebral cortex. If paralysis had had more the type of a monoplegia, the cortical origin would be still more probable.—Dr. S. WEST had preferred not to suggest the pathology, but thought that the seat of the lesion would rather be in the internal capsule than cortex, considering the sudden onset of hemiplegia and subsequent spasm.

Mr. MAYO ROBSON (Leeds) read a paper on a Method of Treating Thyroid Cysts, in which he advocated antiseptic incision and stitching the edge of the cyst to the skin, draining for a short time under an antiseptic dressing, and then packing with zinc lotion and lint. He read notes of two cases thus treated, the first in a young woman, aged twenty-two, who had a cyst the size of a Tangerine orange over the trachea, which occasionally produced dyspnœa; the second in a woman, aged twenty-four, in whom the right lobe of the thyroid was forming one large cyst. In both the above treatment was perfectly successful, and produced no constitutional or local disturbance. When seen some time afterwards there was very little trace of scar, and no tumour in either case. He quoted from several standard surgical works to prove that the usual operations for thyroid cysts, such as injection, seton, &c., are either dangerous or unsatisfactory, and thought that the advantages of this method were its simplicity, safety, and certainty.—Mr. CHRISTOPHER HEATH said that the contributor had said nothing about hæmorrhage, which he knew from personal experience could be pretty severe from the interior of the sac. He did not know the reason for this; but the injection of perchloride of iron and plugging with strips of lint soaked in the perchloride succeeded very well in arresting the hæmorrhage. Perhaps in Mr. Robson's cases the cysts were so small that no hæmorrhage occurred.—Mr. GANT said that under no circumstances would he interfere with the interior of the cyst. Tearing or scraping of the same should be considered dangerous.—Dr. S. MACKENZIE had examined many microscopical preparations of these cysts, and the thin-walled vessels were remarkably numerous. Doubtless this anatomical fact accounted for the hæmorrhage, and perhaps for the beneficial effect of the perchloride, as testified by Mr. C. Heath. Iron was better than iodine to stanch bleeding.—Mr. H. H. CLUTTON corroborated Mr. Heath's remarks as to the liability to abundant hæmorrhage. He never thought it necessary to suture the skin to the cyst wall. In some cases of plugging the opened cyst high fever developed; the use of iodoform gauze obviated this tendency. The suture to the skin had an objection, in that it might cause the sinus to remain open, as in one case which continued three years. He would prefer complete excision of the cyst to scraping its walls.—Mr. T. BRYANT supposed that Mr. Robson did not claim that free incision was a new treatment, but that stitching the capsule of a cyst to the skin was. If this were not adequately done, septic matters might escape into the subcutaneous tissues. The fear of hæmorrhage would be an argument in favour of laying the cyst open, and making a sinus. In a case of puncture of a cyst, free incision and plugging were required to control the bleeding. In another case, in which Mr. Bryant injected a mixture of tincture of iodine, iron, and alcohol four times without untoward results, the fifth injection was followed by the development of a tumour that pulsated like an aneurysm. Fortunately, however, the application of an ice-bag reduced the swelling without further trouble; but a large artery had probably been tapped. With regard to Mr. Robson's operation, he considered that scraping the interior of such cysts was a bold form of practice.—Mr. MAYO ROBSON advised the suture to the skin as shutting off all the surrounding cellular tissue and preventing inflammatory extension. He would not practise complete excision again; in one case asphyxia, and in another hæmorrhage caused great anxiety. Further, the surgeon could not know how much of the gland would have to be removed, and in view of the functions of the thyroid, as expounded by Horsley, its removal was not advisable. He practised sufficient scraping to separate all colloid material, but not to extend deeply into the wall of the cyst.

Mr. MAYO ROBSON also read a paper on a Suggested Method of Operating on a Uniform Principle in the Treatment of Imperforate Anus, with example, and gave extracts from several authors to prove that the recognised treatment

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of cases where the bowel is not soon reached is to perform either Littré's operation or colotomy, although the mortality of the operation, judging by published statistics, is extremely heavy—e.g., M. Guersant having operated in this manner twelve times without saving a patient. He advocated an incision from the central point of the perineum to the coccyx, and then a careful dissection, until either the bowel is reached or the peritoneum is opened, when the upper end of the rectum or the sigmoid flexure of the colon can be brought down and sutured to the skin in the anal region. He described a case in a child one day old, on whom, in March, 1866, he had performed this operation with a very good result, the child recovering without a bad symptom, either local or general, and when seen last the infant had what appeared to be a normal anus, through which a motion was passed about once a day. He considered the operation ought not to be very difficult if a catheter were introduced into the bladder and a good horizontal light were available; that it should not be very dangerous either from shock, peritonitis, inflammation, or hæmorrhage; and that the result, if successful, was infinitely preferable to that of Littré or a colotomy.—Mr. R. J. GODLEE related a case of imperforate anus which seemed to show that the meconium was by no means so irritating to the peritoneum as ordinary fæces were. The trocar in this case, it was found, had passed through the peritoneal cavity before puncturing the rectal cul-de-sac. Colotomy was successfully performed. The child died some time later from disease unconnected with the surgical operations.—Mr. HARRISON CRIPPS remarked that he had listened with much interest to Mr. Robson's paper, for he himself had collected and published in the St. Bartholomew's Hospital Reports the results of operation in over a hundred cases of imperforate anus. With regard to the statement quoted by Mr. Robson, on the authority of a foreign author, that there was only one case on record of recovery after Littré's operation for imperforate anus, the statement was entirely erroneous, Mr. Cripps mentioning that in his own paper five cases of recovery were described. He remarked that there were two chief varieties of imperforate bowel—the one in which there was no sign of an anus, the skin stretching unbroken from the perineum to the coccyx; the other in which the anus existed, but terminated in the cul-de-sac. In the former the rectum was generally near the skin, and much more likely to be found than in the latter class of cases. By making the dissection well backwards, and even, if necessary, following Verneuil's practice of resecting the coccyx, the bowel could generally be found and opened without cutting through the peritoneum. Mr. Cripps considered the dragging down of the rectum and stitching it to the skin a great mistake, for it hardly ever united, while the pus and discharge became pent up behind the stitches, and then set up the cellulitis and peritonitis which were the chief causes of death in these cases.

The following living specimens were shown:—Dr. Radcliffe Crocker: Athetosis after Hemiplegia in a Child. Dr. Stephen Mackenzie: A case of Chyluria with Filariæ Sanguinis. Dr. Angel Money: Hemiplegia with Spasm in a Syphilitic Idiot.

The following is a list of officers for the ensuing year:—President: W. H. Broadbent, M.D. Vice-Presidents: Sir Dyce Duckworth, J. Hughlings Jackson, Samuel Wilks, Sydney Jones, Howard Marsh, and Sir Henry Thompson. Treasurer: Christopher Heath. Council: R. E. Carrington, S. Coupland, F. G. D. Drewitt, J. K. Fowler, W. B. Hadden, F. de Havilland Hall, Felix Semon, F. C. Turner, W. J. Tyson, S. West, H. H. Clutton, W. H. Cripps, H. T. Butlin, A. Pearce Gould, R. J. Godlee, C. H. Golding-Bird, W. A. Meredith, W. Rivington, and John Wood, F.R.S. Honorary Secretaries: Stephen Mackenzie and R. W. Parker.

HARVEIAN SOCIETY.

A MEETING of this Society was held on Thursday, Jan. 6th, Dr. J. Hughlings Jackson, F.R.S., President, in the chair.

The Analogy between Croup and Asthma.—Dr. MORTON read a paper on this subject, the object of which was to compare stridulous laryngitis—to which he gave reasons for thinking the name of croup should be confined—and "spasmodic" asthma, with a view to their mutual elucidation. He called attention to the resemblance in the sudden nocturnal invasion; the diurnal remissions and recurrences for two, three, or more nights; the liability to repeated attacks; the greater prevalence in the male sex; the dry, early, and moist later stages; the cessation of the liability to croup, as well as to asthma, beginning at about six years of age; the frequent origin of both in slight catarrhal or peptic disorder; the common occurrence of both in summer as well as winter. All these peculiarities showed that croup could not be a real laryngitis with paralysis according to the commonly accepted pathology, but a paroxysmal dyspnœa from disturbed innervation of the larynx, as asthma was of the bronchi. This left it open whether the disturbance was motor or trophic. Sir Andrew Clark's hypothesis of fugitive quasi-erectile swellings of the mucous membrane afforded as complete and adequate an explanation of croup as it did of asthma. It was further suggested for inquiry whether hay fever, croup, and asthma might not be different expressions of the same state forming really one and the same disease.—Dr. CHARLES WEST observed that children who had been the subjects of croup or stridulous laryngitis in their earlier years were more prone to suffer from true asthma in later life. The child asthma, as a rule, ceased almost entirely before puberty, and this point should be especially borne in mind by practitioners, since it was possible that the rule might not hold good in cases where the general health of the child was not carefully maintained. Croup was essentially spasmodic in its nature, but was frequently caused by sudden variations of temperature, by attacks of slight catarrh, and by errors in diet. In croup the phenomena were those of spasm and something else; in laryngismus stridulus the spasm was the principal feature, a distinctive difference being formed by the catarrhal signs in the former. He thought that for the present it would be advisable to retain the term "stridulous laryngitis" as he could not altogether renounce the view that some form of congestion or inflammation of the larynx was generally associated with it.—Dr. GOODHART referred to the replacement of croup and stridulous laryngitis by asthma in later life, and inquired whether any corresponding replacement occurred in the case of child asthma after its subsidence at the period of puberty.—Dr. HUGHLINGS JACKSON, after remarking on the great value of Dr. Morton's paper, spoke of laryngismus stridulus and also of convulsions in cases of spasmodic laryngitis. He believed that these fits, and probably those occurring in pneumonia and other acute diseases of children, were owing to discharges beginning in parts of the medulla oblongata or pons Varolii; in other words, they were dependent on discharges beginning in parts on the lowest level of evolution, which was pretty much the "true spinal system" of Marshall Hall. He thought it a matter of great importance to note the mode of onset, the march of the convulsions, in these cases, as carefully as most people now do in cases of epileptiform seizures originating from the middle level of evolution (the so-called motor regions), and as we ought to do in cases of epilepsy proper, dependent, as Dr. Jackson believes, upon discharges from the highest level of evolution. Bearing in mind Victor Horsley's researches, we should, among other things, carefully note the nature, tonic or clonic, of the spasm in the different regions convulsed in the convulsions of children. He stated again a hypothesis he had put forward regarding the convulsions of laryngismus stridulus.[1] He thought they were owing to discharges beginning in the respiratory centres determined by supervenosity of the blood by an excess of their natural stimulus. That convulsions could be produced in some lower animals by inducing supervenosity and by rapid bleeding was well known; in these cases the convulsion is respiratory, and is probably owing to absence of oxygen. According to Kussmaul and Tenner, convulsions in rabbits are produced by rapid bleeding when the cerebrum proper is taken away. Laryngismus stridulus occurs in children at an age when the respiratory apparatus is imperfectly developed, and most often in those who, from rickets, have soft ribs; moreover, the attacks usually come on during sleep, when respiration is less active; these are conditions favouring supervenosity. The good effects of fresh air, country air, and cold sponging are in favour of this hypothesis; moreover, some authorities highly praise musk and belladonna, which drugs are respiratory stimulants; spasmodic asthma in the child and adult was, he supposed, a respiratory convulsion owing to the discharge of imperfect (? small) respiratory centres from supervenosity.—Dr. WEST added that both asthma and croup appeared to affect males more fre-

[1] Brain, April, 1886.

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quently than females, while in other nervous affections, such as chorea, the frequency was exactly reversed. He did not recollect any instance of neurosis in after-life succeeding to child asthma. Nor could he remember any case in which general convulsions occurred during stridulous laryngitis. In laryngismus stridulus the convulsive movements were almost always confined to the limbs.

Suppurative Peritonitis.—Dr. GOODHART read a paper on this subject, of which the following is an abstract. The author related several cases illustrative of the resemblance of the symptoms of suppurative peritonitis to those of intestinal obstruction, in each of which, however, there had been subsequent diarrhœa. A remarkable feature of these cases was the absence of high temperature, and much stress was laid upon the uncertainty of this symptom, as in a considerable proportion of such cases the temperature was not raised at all. The degree and position of pain were also shown to be indefinite in their indications. Diarrhœa, in the presence of other symptoms of peritonitis, must be regarded as a most serious symptom; the bowel in ordinary peritonitis was more or less paralysed, and constipation resulted as a very general rule, but this rule did not hold good for the suppurative form of the disease. The fact that peritonitis, and especially suppurative peritonitis, frequently spread to the pleura by direct extension was insisted upon, and the necessity for closer observation of this point was maintained, apart from the ordinary treatment of peritonitis by opium, belladonna, and the administration of food by nutrient enemata or suppositories. No positive rules of treatment could be laid down. Surgical interference in some cases might save life, but its use could only be determined by close study of the particulars of each individual case; the cases, however, most generally suitable for such interference are those in which the disease shows a tendency to localise itself, or, at any rate, has given some indication of having originated in an accessible situation.—Dr. WALTER PEARSE mentioned a case in which, after resection of the knee, excessive vomiting with diarrhœa, but no rise of temperature, had supervened with fatal result. Suppurative peritonitis had been diagnosed, but none was discovered after death. Enormous dilatation of the stomach was the only abnormal condition.

Cancer and its Treatment.—Dr. BLENKINSOP made a passing reference to the pathology and causation of cancer, and then dealt with the purely medical aspect of the question, both in regard to internal forms of the disease and its general constitutional treatment. He leaned to the belief of a cancerous diathesis, and argued in favour of preventive measures in suspected constitutions. He thought that effort should be made to test the value of all remedies which presented a reasonable prospect of success, and related details of four cases in which lime salts appeared to have had a beneficial effect. He assumed that the deposit of lime salts in the vessels gave rise to atheromatous and calcareous degeneration, and so lessened the supply of blood to the cancerous tissues. Cretaceous preparations derived from the animal kingdom—e.g., from oyster-shells—appeared to derange the stomach less, and to be more readily absorbed.

OBSTETRICAL SOCIETY OF LONDON.

A MEETING of this Society was held on Jan. 12th, Dr. J. B. Potter, President, in the chair.

Dr. AMAND ROUTH showed a Uterus, with what appeared to be a fibro-myoma attached to the left cornu of a "uterus bicornuate." Early in 1885 there was a history of extra-uterine fœtation.—Dr. W. GRIFFITH and Mr. DORAN remarked on the case, and the specimen was referred to a committee for report.

Midwifery among the Burmese.—Dr. T. F. PEDLEY of Rangoon read a paper which described the occupation, dress, and physique of Burman women. The knowledge of the native doctors is handed down by tradition, and takes origin from fable, horology, astrology, &c, and dieting is followed according to a certain letter, date, name, good or evil spirit. The midwives are of the poorest and lowest class, their chief qualification being ago and being the mothers of large families. The more decrepit, the more they are respected. All new methods are resisted. Nature is kind as a rule to the mother, and carries her safely through. In lower Burmah there is little real poverty, and the women lay by for the event from 5 to 50 rupees. A large store of firewood is laid in. If she cannot buy it, she collects it before her delivery. A room is set apart, where the mother remains till convalescent. Regardless of all sanitary laws, every effort is made to keep out air, and especially the smell of cooking, which is supposed to be particularly injurious. A fire is made of wood, no chimney being provided, and the smoke renders the air stifling. The patient, when in labour, is surrounded by female friends, and a crowd of men and women squat behind the curtain which divides the apartment, and smoke or chew betel. When the pains become severe the patient squats on the floor, supported by a woman sitting behind her. The midwife assists in front by pushing with her hands on the abdomen, using more and more violence as the pains increase. A silk scarf or cloth is tied tightly round the body above the umbilicus, which is drawn tighter as the case proceeds, not with any idea of restraining hæmorrhage or supporting the uterus, but to prevent its rising into the chest. As the head progresses the woman is laid on her back on the floor with her knees drawn up. Her attendants press on the abdomen with all their might. When the head of the child presses on the perineum the midwife leaves the pushing to others, and in all first cases tears the perineum, either with her thumb-nail, which is grown sharp and long for the purpose, or with her great toe-nail. In other cases the perineum is retracted, and, as soon as the head is born, the child is rapidly extracted. If the placenta does not follow quickly the cord is dragged on, and this failing, it is removed by the hand or torn away piece by piece. The mother is washed, and the whole body rubbed with turmeric, and saffron is plastered over the vulva. The fire is kept up, and hot bricks wrapped in rags, or bags of hot sand, are placed on the abdomen, and twice a day the patient has to squat over smouldering embers upon which tumeric has been thrown, or over steam arising from hot bricks. The skin is often blistered by the application of heat, but heat is supposed to permeate the parts and heal them. The food is hot water, hot broth, with fish and rice. The poor get upon the fourth or fifth day, but the better classes scarcely move for a fortnight, except for the daily steaming process and the calls of nature. On the seventh day a hot "pack" is used for some hours, which produces free perspiration. When the blankets are removed the patient is bathed freely in cold water. The constant sweating during the first week brings out a miliary rash, which is considered a good sign. Shampooing or massage is used for hours together, often so excessive over the abdomen that displacements of the uterus are produced. Though Burman women are clean when in health, washing is avoided during sickness, and their habits are dirty. When delivery is not rapid, various barbarous methods are followed, such as standing on the patient's abdomen and pressing or kneading it with the feet, or a bamboo or plank is placed across the abdomen, while the attendants endeavour to expel the child by using all their force at the two ends. This method is very usually fatal to mother and child, and often causes rupture of the liver or bladder. Cases of tetanus often follow lacerations of the perineum, cervix, or rectum; one case of recovery was recorded under the use of chloral. In cross births the part presented is torn or cut off, and the child removed piece by piece, the head being extracted by means of a large fish-hook. In all cases the object is to remove the child as quickly as possible and regardless of risk to the mother, owing to the superstition that if a woman dies undelivered the spirit of the mother and child haunt and bring misfortune to the relatives ever after. Burman women really need little assistance if nature is left to herself. Their pelves are roomy and expulsive efforts strong. The native system leaves little for perverted ingenuity to devise towards preventing recovery, and is about the most severe and fatal in the world. The only remedy is a supply of properly trained Burmese midwives, which the Burman branch of the "Countess of Dufferin's Fund" has determined to undertake. The paper was illustrated with coloured drawings by native artists of the most characteristic points mentioned.—Dr. BOXALL mentioned many points of similarity between the Burmese and Chinese as regards sophistry and superstition in the practice of all the branches of medicine, and the description of the practice of Dr. Hua during the Han Dynasty about a thousand years ago taken from the "Story of the three States" puts modern abdominal surgery back several hundreds of years.—Mr. DORAN asked Dr. Boxall if he knew whether women in the East suffered from disorders incidental to menstruation and pregnancy in consequence of the habit of

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tobacco-smoking, to which it is said they are addicted from an early age?—Dr. BOXALL was not aware of any.—Dr. W. GRIFFITH thought the paper of great interest as a record of most barbarous midwifery in the nineteenth century, which would be still more interesting at some future time. There was a field open for gentlemen who had the opportunity of studying midwifery amongst various races to investigate the modifications of the process due to different conditions present which are peculiar and normal to these races. Sir W. Turner and others are investigating their crania and pelvis, and have shown such differences in them as to indicate the probability that the mechanism of labour, including the position of the head at the brim, must be altered accordingly.

On Stricture of the Female Urethra, by Dr. HERMAN.—The author had measured the female urethra in fifty-five cases in which no urinary trouble was complained of. He found that in the majority No. 17 catheter would pass, and in all but two No. 14. He related six cases of stricture of the female urethra under his own care. He had collected and arranged in tabular form twenty-three others, which were all that he had been able to find reported. He drew a parallel between the two sexes as to the etiology of urethral stricture, and showed that while it was much commoner in males, its causes were much the same in the two sexes. In both it might be the result of injury (these cases being proportionately commoner in females on account of child-bearing), or of the cicatrisation of chancres. In the female it was sometimes due to growths of so-called lupus of the vulva. In both sexes the chief cause in young and middle-aged subjects was gonorrhœa. In the aged of the male sex enlargement of the prostate was the common form of stricture. In old women there was found stricture due to general fibrous thickening and induration of the urethra, occurring without any history of gonorrhœa or other discoverable local cause. The author suggested that, as in women the homologue of the prostate gland was the urethro-vaginal cellular tissue, these cases were possibly analogous to enlarged prostate in the male. As to treatment, he found that rapid dilatation was so simple and successful that it was preferable to any other method.—Dr. HORROCKS related two cases under his own care, both of which he considered were congenital. He approved of the treatment by dilatation.—Dr. AUST LAWRENCE (Clifton) considered stricture of the female urethra rare. He had only met with two cases in the last fifteen years. One was in an old woman, and appeared to be due to cicatricial bands; the other was in a young woman, probably the result of specific urethritis. Both were cured by dilatation.—Dr. AMAND ROUTH mentioned a case of inflammatory urethritis which appeared to have commenced with anterior parametritis and spread downwards along the cellular tissues of the vagina, a double urethral stricture eventually resulting.—Dr. W. GRIFFITH had that day seen a case at the Samaritan Hospital in a married multipara aged thirty. She had probably suffered from gonorrhœa. The stricture was an inch and a quarter from the meatus, and only just admitted a uterine probe. It was dilated in a few minutes with bougies to No. 13.—Dr. GALABIN related a case, and Dr. HERMAN replied.

ACADEMY OF MEDICINE IN IRELAND.

Parasitic Disease of Lungs of Sheep.—Stricture of the Œsophagus.—Adenoma from the Mammary Gland of a Rat.—Simultaneous Fracture of both Clavicles.—Cerebral Meningitis and Abscess.

A MEETING of the Pathological Section was held on Dec. 3rd, 1886.

Dr. HENRY BEWLEY said that in the lungs of several sheep which were examined lately in the Physiological Laboratory of Trinity College, Dublin, a number of whitish or greyish nodules were found scattered through them, varying in size from $\frac{1}{16}$ in. to $\frac{1}{4}$ in. in diameter. On microscopic examination these nodules proved to be caused by a small nematode worm, from 15 mm. to 17 mm. long, and extremely slender. The worm lay coiled up in the interior of a mass of apparently dried purulent matter. This mass was surrounded by a zone of elongated epithelioid cells, arranged in a radiating manner round the central mass. The epithelioid cells were embedded in a delicate fibrous reticulum; and here and there large giant cells were seen. Around these radiating cells was a zone of small lymphoid cells, embedded in fibrous tissue, and arranged in concentric layers. Outside these cells, in some of the specimens, was healthy lung tissue. In others the nodules were surrounded by catarrhal pneumonia. The worms in these nodules have no reproductive organs, and are apparently immature forms of strongylus filaria—a nematode worm that inhabits the bronchi and trachea of sheep and goats. Leuckart ("Die menschlichen Parasiten," 1867, Bd. ii., p. 107) and Baillet, in a Dictionary of Veterinary Medicine, mention the existence of nodules in the lungs of sheep similar to those in the cases described above, caused by the embryos of strongylus filaria; but they give no account of the histological changes in the lung produced by these parasites.—Dr. MACSWINEY asked if Dr. Bewley looked for this parasite in any other part of the tissue of the sheep. It would be interesting to know whether its habitat was confined to the pulmonary organs, or the parasite was ubiquitous.—Dr. BEWLEY, in reply, said he did not examine any other part of the sheep's body for parasites. He would have liked to examine its trachea, and he hoped to be able to do so at some future time.

Mr. EDGAR FLINN exhibited the Œsophagus and Stomach of a man who died in St. Michael's Hospital, Kingstown, from stricture of the œsophagus, due to malignant disease. The history of the stricture dated back four years, the act of deglutition becoming more and more difficult during the last three months of the patient's life. The stricture became very much contracted during the last three weeks of his existence—so much so that he became unable even to swallow fluid, and had to be fed by nutrient enemata. A post-mortem examination was made, and it was found that the left lung was very much atrophied and collapsed. The walls of the œsophagus were greatly thickened and surrounded by a hardened mass matted together, which implicated the neighbouring structures. The œsophagus was very much narrowed at its lower fourth, and the most contracted part of the stricture was found to be about three-quarters of an inch from the cardiac orifice of the stomach, and would hardly admit of a small-sized penhandle being passed through it. The stomach was enormously dilated, so much so that when the abdomen was opened it appeared to fill up the entire cavity, and was full of a brownish fluid, very offensive in odour. A large fruit-stone was found immediately contiguous, and somewhat beneath the pyloric orifice, embedded in a diverticulum. This fruit-stone must have lain in this diverticulum for a long time, the post-mortem appearances showing that its passage through the œsophagus would have been well-nigh impossible during the last two years of the patient's life; from its position near the pylorus, it exercised a considerable deal of pressure on the pyloric orifice, and thus, in great measure, the great dilatation of the stomach was to be accounted for. The liver was likewise very much enlarged. Dr. M'Kee, the curator of the Royal College of Surgeons in Ireland, had made a microscopic examination of the parts, and had reported that the disease implicating the œsophagus was epithelioma.—Mr. DOYLE asked if the patient showed any symptoms of old pleuritis.—Dr. BALL said one of the most interesting features in the case was the presence of the diverticulum in the pylorus. True diverticula were exceedingly rare. Mr. Moore, one or two years ago, brought before the Pathological Society of London a case of several true diverticula in the neighbourhood of the pylorus; and he suggested that they might be analogues of the multiple diverticula which were present in fishes.—Dr. PURSER said the most interesting point in the case was the dilatation of the stomach. In stricture of the œsophagus the stomach was usually contracted. There must have been some disease in this patient long before the carcinoma of the œsophagus, which produced the dilatation of the stomach. It appeared to him that the pylorus was extraordinarily small. The stricture of the pylorus must have been either produced by disease or congenital. The pouch in the stomach was, he thought, not an abnormality, but the product of the fruit-stone in its ineffectual efforts to get through the narrow pylorus.—Mr. FLINN, in reply, said he was not aware that the patient had had pleuritis or any affection of the chest at a previous date. He did not think there were any diverticula except the one where the fruit-stone was.

Mr. J. A. SCOTT exhibited a specimen of Adenoma from the Mammary Gland of a Rat. At the Carmichael College of Medicine a number of rats were kept. The animals were in the habit of gnawing through their cages and escaping.

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and others had to be got in their places; and the result was that from 100 to 200 rats had passed through their hands during the last two or three years. The rat from which the specimen was taken was brought to him by the porter. It had a big tumour in its abdomen, into which its legs seemed to be drawn up, very much in the way in which a penis sometimes was into a large hydrocele. Nevertheless, the animal had been several times pregnant, and was able to suckle its young. The rat was killed, and on opening it he found the large tumour that was before them. A section of the tumour showed it to be an ordinary adenoma. A part of the specimen showed the ordinary excretory mammary gland, with a quantity of fat; in other parts there was the gland tissue, and elsewhere a large quantity of fibrous tissue. Dr. Scott said he had invariably opened the dead rats, particularly the females, in order to secure the embryos, but he had never before met with a tumour of the mammary gland in any of them. He did meet with an ovarian tumour, and he hoped to bring it before the Section.

Dr. E. H. BENNETT submitted a cast exhibiting Simultaneous Fracture of both Clavicles, taken from a man who was treated in Sir P. Dun's Hospital, and also the clavicles of a little girl, aged six, who had sustained a complete fracture of one clavicle, and an incomplete fracture of the opposite, by being run over by a tram-car. Having detailed the history and mechanism of the injuries, Dr. Bennett directed attention to the fact that in the first case perfect union had been obtained in both fractures, with but little deformity—a fact of importance, seeing that out of eighteen cases collected by Gurlt, no less than eight had resulted in non-union of the fractures, which was clearly attributable to the difficulty of maintaining the parts at rest in such an injury without the most careful nursing. Dr. Bennett exhibited at the same time a series of injuries of the costal cartilages taken from the body of the child who had had the collar-bone broken. On the right side, the second, third, and fourth cartilages were broken transversely, while the first was dislocated from its rib. On the opposite side one of the lower cartilages had also been dislocated from its rib, and one had sustained a partial fracture. Dr. Bennett directed particular attention to the dislocation of the cartilages from the ribs, as the occurrence of such dislocation had been denied by Malgaigne. He also directed special attention to the incomplete fracture of one of the cartilages, not on account of any great practical importance attaching to the injury, but as serving to complete the analogy between these injuries and fractures of bone.—Dr. MACSWINEY asked, Did Malgaigne, in his criticism, or rather dogmatic statement, that dislocation of the cartilage never occurred, refer to adults or children?—Mr. FLINN mentioned that about eight years ago a case came under his notice of a coal-miner in Staffordshire. While engaged in a lying position in what was called "holing," a very large piece of coal fell upon him and fractured both his clavicles—the one at the sternal end and the other at the acromial end. The lower third of his femur was also fractured.—Dr. MACSWINEY: Did the fractures of the clavicle unite?—Mr. FLINN: Yes.—Dr. BENNETT, in reply, said that Malgaigne gave four cases of this fracture at the age of seventeen, which was the earliest age that he recorded. It was an eminently difficult thing to keep it reduced, for, although after the individual had made a full breath the parts would slip into their places, when the chest collapsed they would slip out again.

Dr. QUINLAN exhibited a case of Cerebral Meningitis and Abscess. He said it was taken from the body of a scrofulous, starved-looking young man, aged twenty-three, who was admitted into St. Vincent's Hospital on Nov. 23rd. He had for many months had an offensive purulent discharge from his right ear, and was on admission suffering from the most agonising pain, radiating from the ear to the frontal, parietal, and occipital regions. His pulse and temperature were above normal, but he was quite clear in his mind, and had no convulsions or muscular stiffness. On the morning of Nov. 25th, about 8.30 A.M., he became suddenly stupid and heavy, and the right pupil became dilated and insensible to light, the left pupil remaining normal. He gradually got comatose, and died at 2 P.M. A post-mortem examination was made twenty hours after death by Mr. Coen, the house-surgeon. The dura mater was firmly attached to the upper part of the brain, the general surface of which was rather congested. On removing the brain, a dark discolouration was perceived on the side of the right middle lobe, and on the back part of the cerebellum and on the medulla oblongata a large patch of recent meningitis with sub[illegible]noid effusion. On opening the right ventricle, it was found full of sero-purulent fluid; and on making a section of the right middle lobe, a large abscess, full of offensive pus, was discovered, corresponding to the dark spot already mentioned. The petrous portion of the temporal bone was extensively diseased; and the cause of the sudden coma on the day of death was, no doubt, the bursting of the cerebral abscess into the right ventricle.—Dr. MACSWINEY said the pathological symptoms in the case were those of chronic purulent inflammation of the middle ear. He wished to ask, What was the condition of the temporal bone and the bones of the ear on the side affected? Was the disease obviously extended from inflammation of the middle ear?—The PRESIDENT: Was an examination made of the petrous bone?—Dr. QUINLAN, in reply, said there was an opening into the petrous bone, from which matter was flowing. He probed it and found the bone quite diseased and disorganised, but he did not cut the bone out. There was the same smell from the pus that came out of the ear as from the pus that came out of the abscess.

Reviews and Notices of Books.

The Life of Sir Robert Christison, Bart., M.D., D.C.L. Oxon., LL.D. Edin., Professor of Materia Medica in the University of Edinburgh, Physician to the Queen in Scotland. Edited by his Sons. In two volumes. Vol. II.: Memoirs. Edinburgh and London: William Blackwood and Sons. 1886.

IN the first volume, already noticed, of this remarkable book Sir Robert Christison is allowed to tell the story of his own life. In the second, which is now before us, the story is largely told by others, though free insertion is given to Sir Robert's own letters. There is, of course, some overlapping and some repetition of subjects; but when the length of Sir Robert's life is considered, and the fruitfulness of it in work and honour and influence and example, this is not only forgiven, but becomes a cause of gratitude to the editors. Chapters 7 and 8 in this volume deserve very special notice. The first is written by Professor Gairdner, and treats of Christison as a physician; the second gives an account of his other scientific work. Christison followed Bright powerfully in his researches in renal disease before the true significance of Bright's discoveries were generally accepted, and he gained from Rayer, the greatest of continental authorities, high praise. His accounts of Fevers and Inflammations will remain very valuable parts of medical literature for their vigour and accuracy. True, he did not accept the modern doctrines of fever, and he persisted in believing that inflammation fifty years ago was of a different type and required a different treatment from that of later years. This is only an interesting proof of the fact that there is a conservative element in the most intelligent minds. And who does not know that Sir Robert was a Conservative?—broad enough to vote for his friend Sir Lyon Playfair so long as he thought him a representative of science and learning rather than of mere political *shibboleths*, but capable at eighty of making a political speech of an hour's length against his friend when he thought he had exchanged the academic mind for the political one. But, his conservative views notwithstanding, his account of the fevers which he saw and the six or seven fevers which he passed through—of which most interesting notes are to be found in this volume, one describing eloquently a personal experience of hyperpyrexia (temperature 107°)—are of permanent interest. Professor Fraser's account of what Christison did in dietetics, toxicology, and materia medica, and still more of what was in his mind to do in the matter of therapeutics by studying first the action of medicines in the healthy body, shows that Christison was on the true scent of the recent great advances in the medical art. His investigations into the action of oxalic acid, of Calabar bean, and of digitaline were original.

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Christison's knowledge of poisons and his sound common sense made his evidence in all the chief medico-legal cases of his time indispensable. As with Sir Benjamin Brodie in England, the Government sought his opinion on all subjects of medical interest—not only those affecting Scotland and the Scottish Universities, but having wider relations, such as that of vivisection. Of all such subjects, and a hundred more, this volume contains notices that are extremely readable and instructive. For what the volume shows is the many-sidedness and manliness of this Professor, who ruled the University of Edinburgh probably more than any other man for more than half a century, who was absolutely without cant, whom many thought cold and haughty, and yet who was so loved as to be nursed in one of his illnesses, at the age of eighty, by four old pupils, and who was followed to his grave by all that was worthy and reputable in Edinburgh. If the fame he achieved has no charm for some of our readers, perhaps the feats he performed—his rapid ascent of mountains, his walking tours, his captaincy of the Volunteers when over sixty, and his indomitable pluck and hopefulness under illness—may secure their admiration. The study of these volumes, however, cannot but leave the impression of a true leader of men.

Handbook of Diseases of the Ear. By URBAN PRITCHARD, M.D. Edin., F.R.C.S. Eng., Professor of Aural Surgery at King's College, London, Aural Surgeon to King's College Hospital, Senior Surgeon to the Royal Ear Hospital, London: H. K. Lewis. 1886.

THIS manual of Diseases of the Ear, intended "for the use of students and practitioners," commences with a description of the anatomy of the three divisions of the ear, that of the inner ear being especially good. The account of the examination of the ear and the diseases to which it is liable, is given in a short and methodical manner, and, for the most part, is in accordance with what may be found in other text-books on the subject. Some points, however, call for remark.

In making mention of the force-pump (which we believed is now seldom if ever used) as a means of inflation of the middle ear, Dr. Pritchard says that "it requires to be used with the utmost caution, and although it may in certain cases be applied with advantage, there is some risk in doing so"; but the reader is left in doubt as to the selection of these cases. In speaking of an operation for imperforate meatus in cases when some hearing power is present, he recommends the use of a tube to prevent the surfaces uniting, but he does not say whether by this means he has ever succeeded in establishing a lasting meatus. The removal of foreign bodies is carefully considered, and useful cautions, as well as advice, are given. The author regards multiple and rounded exostoses of the meatus as "the result of gouty, or, in some cases, perhaps rheumatic, irritation of the periosteum"; and he is careful to explain why the removal of any exostosis, except to allow a freer outlet for discharge, is rarely advisable, and should never be undertaken lightly.

It is much to be hoped that in another edition of this manual the author will be more definite in his directions in one or two particulars. For instance, in recommending puncture of the membrana tympani in cases of acute inflammation, he says "the operation ought to be performed, if possible, by a practised hand." Surely if this were not possible it were better left unperformed. Again, when suggesting that in cases where an opening into the mastoid process is required the perforator that was figured in Hinton's article in Holmes' Surgery be used, so that it cannot penetrate further than a quarter of an inch, and that if then, by the help of a dentist's elevator and strong nasal probe, pus is not reached, he continues, "and there [illegible] or no advantage in perforating the inner table of the skull, while there must be considerable danger in attempting to do so, for the bone in this position varies much in thickness, and the lateral sinus may be very close." The words "little or no advantage" so applied appear very inadequately to express the results to be expected if the inner table of the skull were perforated. Dr. Pritchard thinks the late Dr. Harvey was correct when he considered that gout and rheumatism affected the middle ear through their action on the joints of the ossicles, and the treatment to be relied upon for this condition is mainly constitutional. The illustrations are well executed and there is a very complete index.

Lehrbuch der Vergleichenden Anatomie der Wirbelthiere. Bearbeitet von Prof. Dr. ROBERT WIEDERSHEIM. Zweite Auflage. Jena: Verlag von Gustav Fischer. 1886.

No better evidence of the excellence of this handbook can be adduced than the fact that the first edition has been rapidly exhausted and that a second edition has been called for. Considerable additions have been made to the old material, especially in regard to palæontological discoveries, the development and morphology of the mammalian skull and of the hard parts of the extremities, the brain and the cerebral nerves, the suprarenal bodies, the cutaneous sense organs, and the thymus and thyroid bodies; and the introductory sections on the development of the urino-genital apparatus have been extended. The account of the respiratory apparatus of birds has received large additions, and the author expresses his obligations to his colleague Dr. Sclater (who is recognised as one of the first authorities) for assistance in this section. In passing, we would call the attention of Prof. Wiedersheim to the indifferent way in which the index has been compiled, for, desiring to read that section, we naturally turned to "Vogel," but that word does not occur. Disappointed in this, we turned to "Respirations organe," and found we were referred to "Athmungs organe," when again no reference to those of birds is made. The word we should have looked for is "Luftwege"; but why not save the time of the reader by giving under the head of "Respirations organe" the reference to those of birds at once, without the annoying proceeding of referring to something else? Surely it would have been easier to have put it after "Respirations organe der Vogel" (p. 735) than "v. Athmungs organe." The bibliography, on the other hand, is drawn up in first-rate style, and occupies sixty pages. The page is larger than in the former edition, and the lines are longer, so that, although the volume is not increased in thickness, it contains considerably more matter. A few additional woodcuts have been introduced.

Our Temperaments; their Study and Teaching. A Popular Outline. By ALEXANDER STEWART, F.R.C.S. Edin. London: Crosby Lockwood and Co. 1887.

THE author very justly draws attention to the importance of temperament throughout life, more especially during the educational period and illness, and to the general neglect of the subject, and the frequent misuse of the word. He makes suggestions for classifying the triple and quadruple combinations of temperaments so common in our mixture of races, the extreme complication of which must often invalidate any sweeping judgments passed on first appearances. From his own observations the author has added the possession of a long neck to the other signs of the nervous, formerly the bilious, temperament. Altogether the book is suggestive, and not less so because, owing to the absence of authorities on the subject, it is rather a collection from every quarter of such materials as have any passing relation to the theory than a treatise of final authority. The volume leaves no luxury of type or paper to be desired, and in addition to other illustrations some thirty faces from Lodge's Historical Collection of Portraits are reproduced as an Appendix.

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THE LANCET.

LONDON: SATURDAY, JANUARY 22, 1887.

AT the quarterly meeting of the Council of the Royal College of Surgeons, held on the 13th inst., the result of polling the Fellows on the question of extending the franchise to the Members of the College was duly announced. As will have been seen in our last issue, the Fellows have replied in the *negative* to both the questions put before them—viz., (1) whether Members should be allowed to vote for Fellows as members of the Council? and (2) whether Members should be eligible for seats on the Council? An answer other than negative to these questions was hardly to be expected—could, indeed, hardly have been expected even if the qualification of a certain standing at the College, which is insisted on by the Association of Members acting for the body at large as a *sine quâ non*, had been prominently put forward, instead of having been ignored, by the Council when framing the questions. There is, however, much to encourage the Members in the result of the poll, if this be carefully analysed. In the first place, the total number of available Fellows is 987, and not 1140, as recently estimated by a past President of the College—a fact which still further emphasises the impropriety of so small a part of the body corporate having the exclusive management of a scientific College numbering not less than 17,000 Members. Moreover, from the 987 Fellows to whom circulars were posted only 706 answers were received, and of these six gave no decision one way or another; thus the number of Fellows who have voted on this occasion is actually 700. Of the balance, 21 Fellows failed to get their circular, which was accordingly returned to the College through the dead letter office, leaving 260 circulars unanswered. Of these 260 Fellows it may certainly be said that they are *neutral* in their views; it would not be unfair even to claim them as favourable to the views of the Members. Had they been strongly opposed to the proposed changes, they would certainly have voted against them. On this line of argument, if we count the 260 unanswered circulars as favourable, and deduct them from the majority of "noes" to the first question, we convert these "noes" into a solid majority of "ayes"; while the 354 "noes" to the second question would be reduced to 94.

But even as the figures actually stand the majorities of "noes" are decidedly small, and cannot therefore in any sense be considered final or binding. To the first question, as to whether Members shall be allowed to vote, the Fellows have responded in the negative. Allowing these "noes" and "ayes" to equalise themselves as far as they will, we have a majority of only 143 Fellows to deal with. It cannot for a moment be supposed that the constituency of the College, numbering 17,000 educated men, will consider the question settled by such a vote. We cannot but think that under these circumstances the Council of the College of Surgeons should regard themselves as called upon at once to take steps to give effect to the desires of the constituency at large. As regards the second question, whether Members shall be eligible to sit on the Council, there is a larger majority voting "no"—the "noes" to the "ayes" being as three to one. Even this, however, on such a question, is not the overwhelming majority which might have been expected. To ask the Fellows to give up their cherished privilege of alone being eligible to sit on the Council of the College is to test them very severely, and they hesitate to relinquish their present position. It would be most interesting to know something more about the votes. We incline to think that the "noes" will be found chiefly among the older London Fellows, who are either enjoying a seat on the Council or other office at the College, or are looking forward shortly to do so; and among the younger men, recently admitted Fellows, who have little else to rely upon, and would keep themselves, at any cost, as select as possible. Those who regard the Fellowship as an academic distinction, instituted and kept up for the purpose of promoting a high surgical standard among teachers and hospital surgeons, will rely upon something more than mere title, and will seek to distinguish themselves by their attainments, rather than by the mere exercise of a voting franchise which is denied to the majority of their fellow Members.

If we now look at these figures from the standpoint of the "noes," the Council must themselves see how small and unsatisfactory the majorities are. Fellows voting "no" to the first question number only 419—a minority as judged by the number of circulars sent out; Fellows voting "no" to the second question number only 526—that is to say, a majority of 65 as judged by the circulars issued. Finally, the Council must not lose sight of the fact that 260 Fellows have declined to vote at all. Of course we cannot pretend to forecast what will be the action of the Council under these circumstances. They have never before, we believe, appealed to the Fellows at large for assistance in the settlement of an admittedly difficult problem, and we have therefore no precedents to guide us in forming conclusions as to what their action is likely to be at the present juncture. This we may say in all truth, that the Council of a body corporate have rarely had such an admirable opportunity placed in their hands for gracefully putting an end to an unwise and unconstitutional rule by which about sixteen-seventeenths of the entire body are excluded from all participation in its affairs, and for the introduction of a much needed and greatly desired reform, which cannot but consolidate the College, improve the status of its Members, and raise the profession in the esteem of the public.

The Council of the College of Surgeons have, however, consistently opposed all reforms, and will doubtless in this as in other matters only move when some higher authority absolutely compels them to do so. We must refuse to find any sign of concession even in the resolution proposed by Sir SPENCER WELLS, which was only passed by eleven votes to eight, and still requires confirmation at the next Council meeting—viz., "That although the Council are not prepared to give effect to the recommendation contained in the first resolution carried at the meeting of the Fellows and Members held at the College on the 4th of November, 1886, the Council are prepared to act upon the second resolution, so far as to appoint a small committee to confer on the

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subject of the first resolution with representatives appointed by the Association of Fellows and the Association of Members. The terms of this resolution are peculiar. If the Council are *not* prepared to give the Members the privileges they seek, what purpose will a conference with the two Associations serve? This determination on their part might just as well be conveyed in a letter. The petitions have been so long, so persistently, and so temperately put before the Council, that a conference on the lines laid down in the above resolution seems unnecessary. In the interests of the Members such a conference is even undesirable, for it simply means delay and procrastination. Meanwhile the Members must notice that the Committee of Charters and Bye-laws are "requested to report further as soon as possible in reference to the proposed changes in the Charter and Bye-laws." Members, therefore, should lose no time in making known their grievances. The official analysis of the recent polling of the Fellows should be placed in the hands of an actuary, and its lessons and indications be thoroughly worked out and forwarded to Her Majesty's advisers along with the formal petition now in course of signature. We can only hope that many new signatures have been added during the present year. If the officials of the Association of Members still want others, we would recommend a house-to-house visitation, with a view to expedite matters, and in order that the petition may be presented with the least possible delay.

No practitioner who has had a lengthened experience in any department of the medical profession can question the existence of a class of *difficult patients*. We do not speak of difficult cases, nor are we alluding to difficulty of the sort which arises out of the necessity of adapting drugs and methods of treatment to the idiosyncrasies of constitution and susceptibility. The perplexities caused by this particular need are often more than sufficiently embarrassing; but it is not of these we are now thinking. Changes which are made gradually, whether in the organism or in the habits of life, do not commonly challenge attention, but are not the less, on that account, effective in their consequences. We are apt to forget that a really great change has come over the spirit of the popular dream of the physician and surgeon and their respective arts during the century which is now hastening towards its close; and one of the most notable and potential features of this change has been the complete breaking down of the fence of mystery which once surrounded the practice of medicine, and which, however intangible and groundless in itself, did most certainly confer this mutual advantage on doctor and patient, that while the former gave his advice with an authority, perhaps fictitious or exaggerated, which has now disappeared, the latter rendered more or less unquestioning obedience, and reaped his reward by having both mind and body brought under the sway of the physician who essayed to relieve him. A great deal of very short-sighted nonsense is spoken and written by well-meaning but narrow-minded people on the subject of mental influence. In the realistic honesty of this enlightened age, it is too commonly held to be a measure of truthfulness that the effects of treatment shall be counted only in proportion as they are physically apparent. In a word, things must be material, either as chemical or directly realistic, in some immediately appreciable manner and degree. All else is disregarded or declared to be worthless and useless, because "imaginary." It is forgotten that the brain is not only the organ of the mind, but in a very potent way the centre of the nervous system, and consequently what may be *imaginary* in its inception may so react on the nervous system as to be fully as real as any other agent in producing material changes and effects, productive of good or evil results, as regards first, the function, and, second, the structure of the organism. Physiology compels us to give weight to what may be termed dynamic, as well as to directly chemical powers and processes. Moreover, it teaches us that the one class of phenomena are as real as the other. It is a strangely perverse "materialism" that seeks to exclude the large class of mental, or, in other words, cerebral, influences from the category of forces operating within the area of the organic life. The bearing of this general proposition on the subject immediately before us may be briefly stated thus: It is not less *unscientific* than it is practically inexpedient to treat patients as though they were simply apparatus for the carrying out of chemico-physical processes. It is not with masses of solid and fluid materials we have to deal, but with living beings like ourselves, with moods and tempers, and susceptibilities and caprices, mental as well as bodily, every one of which must count for something in the totality of disease. It is not with bodily maladies only, but also with mental states, we are required to cope in the endeavour to arrest, or limit, or remedy the effects of morbid action.

The most troublesome class of difficult patients is, we are convinced, composed of individuals who are not treated, as it were, personally. The exigencies of a professional life compel the majority of busy practitioners to form a habit of work which does not readily admit of their bestowing sufficient attention on the question of mental idiosyncrasy. The condition rather than the men are to blame for this defect, but it is a fault of clinical method, and we believe a very serious one. Thus there are difficult patients who would cease to be difficult if it were only perceived that their mental, and collaterally their nervous, conformation and habit of life, require that the processes which are to be wrought out in their organisms in the medication of disease, shall be brought directly under the domain of the consciousness. To take a familiar example of this; cases are not uncommonly met with in which a moderate dose of sedative will not produce quietness, still less induce sleep, or even exert a soothing influence on the nervous system, unless the effect which it is desired to cause by the drug is explained. It is easy to turn this into a jest, and to recall that hackneyed story of the bread pill; but such a line of remark is notable only for its stupidity and ignorance. The true explanation of the effect produced is not that "imagination" puts the patient to sleep, but that the fretful state of unrest which prevents natural sleep is quieted by the perfectly physiological process of removing a source of worry about expected wakefulness, and substituting for it an expectancy of sleep. Even if it were that much-abused agent "imagination" which sent the patient to sleep, without any or with only a minimum of some stupefying poison such as bromide or chloral, it would be

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better to get the result by simply removing the mental or cerebral obstacles to repose, than by setting up a state of drug-induced stupor. The explanation given to the patient is as much part of the physical process of medication as the administration of an opiate. We merely mention this matter as illustrative of the principle. Precisely the same mental method applies to the relaxation of muscular spasm in the case of a dislocated joint or a troublesome case of fracture, and to the induction of vermicular movement of the intestines in a stubborn case of constipation, and in many other forms of disease. There are patients whose consciousness must be made party, so to say, to the treatment. On the other hand, there are patients who cannot possibly be thus treated, and who must be helped on the way back to health by authority and mystery. To explain processes to patients of this last-mentioned class is to jeopardise success in every respect. In short, the confidence and co-operation of the patient should be secured as aids to cure; and these can only be enlisted on the side of the practitioner by a skilful management of the patient not less than of the disease.

The point on which we are anxious to insist is that *patients* ought to be studied not less than *diseases*, and that, to ensure the largest measure of success in his work, the physician or surgeon needs to be not only versed in the lore of the schools, but to be a man of the world and a close student of men and manners. The class of difficult patients might be more correctly described as a class of persons whom it may be difficult to understand. Difficulty in managing cases generally means difficulty in dealing on the best terms with the individuals who form the subjects of disease. Practitioners too commonly form *habits* of manner and method. We venture to suggest that the medical adviser should approach each patient with an entirely open mind, and study the person as closely and promptly as he studies the disease. The treatment should be adapted equally to the patient and to the disease. Plans of treatment, even particular drugs, may be contra-indicated or rendered specially desirable by the idiosyncrasies of a patient. Difficult patients are nearly always simply misunderstood.

THE occurrence of small-pox on board the North German Lloyd steamer *Preussen*, and the resulting importation of the disease into several of the Australasian provinces, is a matter of grave importance, and it gives interest to the attitude of the Australian Governments towards this disease. The possibility of serious results ensuing from such importation was evidently one of the grounds which led to the assembling at Sydney in New South Wales of the Australasian Sanitary Conference of 1884, when it was unanimously held to be necessary to endeavour to cope with small-pox introductions by means of quarantine; the several adjoining territories which go to make up the mainland and the adjacent islands to be regarded as one state for this purpose, with one Federal Quarantine Act to control the importation of infectious diseases.

The report of that Conference deals in the most candid manner with the quarantine question. It admits that such measure must deal with individuals in an opposite way to that in which the criminal law affects them—that is to say, every person, however free from infection, must be assumed capable of spreading disease until his incapacity to do so has been proved, the period of proof extending at least as long as the period of incubation of the disease. At the same time it is frankly admitted that there is a limit to the period for which a quarantine system will be possible, and it is stated that as the Australasian commerce increases, the possibility of continuing the system will become less and less, and hence that internal sanitation must be proceeded with, because it is such sanitation that is, after all, the true defence of all nations against disease, and the real guarantee of national prosperity. The application of the system as heretofore in force is admittedly accompanied by great hardships. Nothing worthy of the name of quarantine could be done until the terminal port was reached, and then, even if all sickness had ceased on board for even as long as a fortnight, all the passengers and crew were supposed to spend three weeks in seclusion in the quarantine ground, besides restrictions as to the vessel, the cargo, and the process of unlading. These processes, apart from loss to individual passengers, may be estimated in the case of a steam-vessel to cost from £120 to £300 per diem. Without relaxing the stringency of the process, in so far as detention is necessary to prevent importation of small-pox, it was proposed that two quarantine stations should be established, one at King George's Sound for vessels approaching Australasia from the westward, and another at Lizard Point for those coming from the north. The sick and their immediate attendants would be disembarked at once, and, if need be, all passengers would be landed so as to ensure proper disinfection of the vessel. It is also stated that "those persons most likely" to be incubating the disease would also be detained at the first quarantine ground touched at; but what this means it is difficult to say. Indeed, herein lies the main weakness of the system, for although, after the elimination of these sick and suspected ones, whoever the latter may be, the vessel would resume her journey, and the length of that journey would be deducted from the total quarantine detention which would otherwise have become necessary at the port of arrival, yet success would, we imagine, be almost entirely dependent on the complete elimination of persons "apparently well" but who nevertheless had already contracted the infection.

In many cases the process would be facilitated by the vaccination or revaccination, whichever it may be, of all persons on board. Indeed, for all practical purposes a compulsory system of vaccination would be brought to bear upon the passengers and crew. Thus, one of the conclusions of the Conference is to the effect that all persons arriving in an infected ship, and not being themselves affected, "shall be revaccinated," unless they can afford proof of having recently undergone the operation. If the vaccination succeeds, a fifteen days' detention at the quarantine grounds will be required, or its equivalent on board ship; but if any persons refuse to be vaccinated, then the health officer is to have the wide power of detaining them until "he is satisfied of their inability to spread small-pox," and in no case is the detention to be of less duration than twenty-one days. To what extent such a measure could succeed it is impossible to foretell. Its justification appears to lie in the belief that in Australasia the population are not protected by vaccination

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When contrasting the system with that obtaining in England, the Conference is under the belief that in this country the performance of vaccination is so efficient that small-pox "very properly is not feared." We wish it were so; but so long as years like 1881 give us 2371 small-pox deaths in London alone, we cannot claim the position which efficient vaccination would afford us. In short, it is not the fact of the existence of a compulsory power to vaccinate every child once in its life, and this as imperfectly as the operator may choose, that leads us to deal with small-pox otherwise than by quarantine; but because, as the Australasian Conference very properly puts it, "quarantine against small-pox is at this date an anachronism." The absence of a system of compulsory vaccination must place Australasia at an immense disadvantage in dealing with small-pox, and hence the Conference demands that vaccination shall be enforced. There, as here, a principal trust must be placed on the enlightenment of the population, and it is possible that only in so far as the quarantine system fails will the Australian people as a whole see the necessity for universal vaccination. How far quarantine protections are likely to postpone adequate national protection by means of vaccination remains to be seen, but the Australian Governments are admittedly in a difficulty with regard to the subject.

In the meantime the *Preussen* affair has led to twenty-two attacks amongst the passengers in quarantine at Melbourne; thirty passengers were landed at Sydney, and, the disease spreading, seventy-one cases resulted; and several attacks are reported at Adelaide. We sincerely trust that the disease will be held in check, and we shall look with interest for a report of the actual proceedings adopted with a view to this, and of the results attained.

THE English language is rich in words descriptive of the operation for the removal of procreative organs, such as to spay, geld, cut, and castrate. One of these words only is, however, applicable to the operation in the female alone. The male appendages have been removed in the young of animals, for economic reasons, from time immemorial, and the operation is then called gelding, castrating, or cutting. They have been removed in the human subject, also, for domestic reasons, and the operation is called "castrating" or "gelding." They have, again, been removed in man for disease, and here also the operation has been called castrating by surgeons at all times—castrating for cancer, sarcoma, &c., as the case may be. Within the last twenty years removal of the uterine appendages has been practised for disease of those organs, for epilepsy, nervous disorders, &c.; and the operation has been called "spaying," Battey's operation, oöphorectomy, removal of the uterine appendages, &c.; but objection has been taken to the word "spaying" in this connexion for more than one reason. It is said that spaying means the removal of the uterine appendages in young animals for economic reasons, and that the removal of these organs for disease is not spaying. If this be the case, it follows that removal of the testicles for disease is not castration, and it must be concluded that all the learned men who have written on surgery have been wrong in their use of the word. In the next place, it is said that a kind of reproach or opprobrium is attached to the word spaying. If this be the case, greater is the reproach attached to castration, for the operation has been practised upon the human subject for the purpose of maiming simply—the making of eunuchs. No analogous use of spaying can be proved. It follows clearly from this that if the present use of the term castration in surgery be correct, it is also correct to designate the operation for removal of the uterine appendages in women as "spaying." These reasons for the use of the word, however, hardly deserve mention but for the objections taken to the word, and mentioned above. The real reasons for the use of the word are two—namely, that it is the only English word for the operation, and that it alone, and no other word or words, conveys to English people the meaning of an operation which has been lately not unfrequently performed. It is true that there are other words by which the operation can be explained to persons conversant with anatomy, physiology, and surgery; but all the women who are subjected to the operation of spaying are not versed in these branches of science, and it is not possible to make the operation intelligible to them, and to place them in a position to give consent or refusal to undergo it, except by the use of the word "spaying." But after this word has been given in explanation, there will remain a certain number of young girls under twenty—for it should be borne in mind that such have been made the subjects of removal of the uterine appendages—who do not understand the meaning of the operation. Under such circumstances—if the operation be necessary—the parents and friends should be made to understand what the operation proposed really is, and we know of no other way of doing this, as a rule, than by the use of the expression "spaying." That a certain reproach is attached to barrenness in women is well known, and this reproach is all the greater when all hope of becoming a mother is destroyed by the removal of the uterine appendages; but the reproach is not in the word, but in the condition secured beyond hope by the operation. We would be the last to use the term "spaying" or "castration" in any way offensively or as a term of reproach, but we advise its use in justice to those who are about to be subjected to the operation, and to their friends.

Annotations.

"Ne quid nimis."

THE ERASMUS WILSON BEQUEST.

A VERY influentially signed memorial (see page 193) has recently been addressed to the President, Vice-Presidents, and Council of the Royal College of Surgeons of England referring to the disposal of the Sir Erasmus Wilson bequest, and directing their special attention to the need of support of certain collateral branches of medicine, "which can only flourish by liberal pecuniary aid." The memorialists suggest to the Council the great desirability of founding an institution under the direction of the College, having for its object "Physiological and Pathological Research." They deplore the absence of any such institution in England, and that English students should have to look to continental schools for the elucidation of such questions, for instance, as tubercle or hydrophobia. They draw attention to the splendid laboratories which exist not only in the other capital cities of Europe, but in comparatively small towns,

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such as Leipzig or Bonn; and while pointing out that there is little or no prospect of such an institution being founded by the Government, they urge its national importance, and the value of the scientific work and training which could be carried on under the auspices of such a body as the College of Surgeons. This memorial was at the last Council meeting referred to the committee appointed to consider as to the disposal of the Erasmus Wilson legacy. We can only hope that such an evident hiatus in our higher educational establishments will appeal to their judgment and good sense, the more so as the memorial is signed by some of the foremost scientific men of the day. Rumours have been published that extensive pulling-down and rebuilding schemes are contemplated, and that enlargement of existing departments rather than the foundation of new ones finds most favour with those whose voices command the greatest attention at the Council table. Scientific men will await the deliberations of this committee with considerable interest; should they decide to devote some of the funds at their disposal to the above purpose, it is not unreasonable to hope that other funds in process of time may be placed at the disposal of the College to enlarge, amplify, and further endow this kind of work. It is not a little curious that, of all European capitals, London alone should be entirely without a physiological and pathological institution, open to its scientific men, for the elucidation of such questions of public health as those just mentioned, among many others. The Council of the College of Surgeons have now a magnificent opportunity to make good this great want. We sincerely hope that they will not fail to avail themselves of it, and of the occasion it affords of consulting the opinions of the great body of Fellows and Members, whose voice should unquestionably be heard in a matter of such public no less than professional importance.

THE VENTILATION OF CHURCHES.

A PROVINCIAL contemporary relates a serious accident which occurred at Staplegrove Church, near Taunton. About the middle of the service it is said, many of the congregation felt a peculiar faintness, which by the time the sermon was drawing to a close caused several to fall "like ninepins about the church." The lady organist is reported to have fallen on her face in the aisle, while several others followed her example, the rest of the congregation escaping through the doors, faint and overcome. Probably it will be found that the disaster was caused by the accidental introduction of carbonic acid gas from a coke furnace into the interior of the church; but, however this may be, we hope it will lead to a thorough investigation into the ventilation of churches. It is often pleaded, we cannot help feeling unjustly, that other influences than those of ventilation are sometimes the occasion of the drowsiness of congregations. The clergy are therefore perhaps interested in the subject not less than those who attend their churches; but we would beg to remind medical officers of health that their duties include the recommendation of proper ventilation of places where large assemblies are held, and that this is so far recognised by the Legislature that metropolitan medical officers are required by the Metropolis Local Management Act "to point out the most efficient modes for the ventilation of churches, chapels, &c." It would be an instructive piece of work for any health officer to give an account of the various methods of warming and ventilating the churches and chapels in his district, and by comparing one with another to show the reasons of their failure to keep the congregation warm without contributing to the drowsiness which is not infrequent in these buildings. He would undoubtedly find that in many instances no serious attempt is made to warm the church until very shortly before the service commences; the walls are necessarily cold, and thus a higher temperature is required for the air which is admitted to compensate for this disadvantage. The hot air is almost invariably admitted from the floor alone; and as insufficient ventilation is provided in the roof, the hot column of air, which rises as high as possible, presses down until all the colder air beneath is excluded. At this period the congregation are warm, but the air they breathe has become more or less polluted, and the effects of carbonic acid become in corresponding degree evident. The use of flues or shafts for carrying off the heated air would not accord with the notions of ecclesiastical architecture, and thus it cannot be expected that the atmosphere of a church can be exchanged as rapidly as that of a dwelling-room, although proportionately it may contain ten or twenty times the number of occupants. There are probably no badly ventilated churches which could be satisfactorily improved without material alteration in the existing arrangements, but certainly much could be done by thoroughly warming the structure before it is used, instead of leaving it for days together at a temperature which must approximate somewhat closely to that of the outside air.

A CALCULUS IN THE BRONCHUS.

La Enciclopedia publishes an account, by Dr. Don Luis Montané, of a case communicated by him to the Havana Academy of Sciences. The patient was a young lady from the United States, who up to 1884, when she was first seen, had enjoyed good health. In that year she had an attack of pleurisy on the right side, for which parathoracentesis was performed, which removed 930 grammes of fluid. After this she completely recovered. In the early part of 1886 she was again seen for a persistent dry cough, which was considered to be due to pharyngitis, but which did not yield to the remedies prescribed. A painful spot was complained of at the base of the neck a little above the left sterno-clavicular articulation. Up to May 13th there had been no elevation of temperature; for some days after this, however, there was a slight degree of fever, which was quite unaffected by quinine. The cough afterwards became more spasmodic—somewhat resembling whooping-cough; some streaks of blood also appeared in the sputum. On auscultation occasional dry rhonchi were heard over the left apex, and a slight roughness in the breath sounds; there was, moreover, a want of percussion resonance in the left infra-clavicular region. An active counter-irritant was applied, and digitalis ordered, but no good effect was produced. On the morning of May 20th it was noticed that the respiratory sounds over the left apex had become weaker, and in the afternoon the whole of the left lung was almost impermeable to air, only some very slight rhonchi being perceptible at the apex; the percussion resonance was also highly exaggerated, showing the existence of an emphysematous condition of the entire lung. A consultation was now held with Dr. Jover, who suggested that there might be pneumonia of the apex, and that a pseudo-membranous plug, due to the inflammation, was obstructing the left bronchus. He proposed to order an emetic in the hope of dislodging this plug. After ipecacuanha had been given, the cough became less violent, the fever diminished, and the air entered more freely into the obstructed lung. The next morning, however, all the previous symptoms returned with as much severity as before, and this condition continued till May 24th, when the patient, during a violent fit of coughing, expectorated a hard substance, which proved to be a calculus. It measured one centimetre by seven millimetres, and was irregular, ovoid, and hollow, with a rough surface. Its weight was twenty centigrammes. On analysis it was found to be composed of carbonate and phosphate of calcium. Immediately after the expulsion of this body the

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air penetrated freely into every part of the left lung, the cough disappeared as if by magic, and the fever gradually diminished, till in three days' time the patient was perfectly well. The author states that this is the first case of the kind which has been reported in Cuba. Indeed, such a case as this is of extreme rarity everywhere.

THE LONDON UNIVERSITY.

THE House of Convocation of the University of London met on the 18th inst., the chairman of the body, Mr. Frederic John Wood, LL.D., presiding. After the report of the annual committee had been presented and adopted, a long and animated discussion took place respecting the selection of an appropriate motto for use in connexion with the University arms. Several mottoes and proverbs were submitted, but ultimately it was resolved, on the motion of Sir Albert Kaye Rollit, LL.D., that the whole subject be referred back to the annual committee, with power in conjunction with the Senate to select a motto, and that the members of Convocation be invited to send in appropriate mottoes. Sir Philip Magnus presented the report of the special committee on the constitution of the University. He referred to the conference that had taken place between the committee and the Senate, and the desire of the Senate to meet the wishes of Convocation as to the reconstitution of the University. He noted the scheme proposed by the Association and that of the Royal Colleges of Physicians and Surgeons, and concluded by expressing his conviction that the grievance of the medical schools was a real one, which he hoped the Senate would find some way of removing. The questions of the establishment of a Doctorate either of Literature or Philosophy and the regulation of expenses were referred to the Annual Committee, and the meeting was adjourned.

VACCINATION IN PERU.

IT is satisfactory to learn, from a recent number of *El Monitor Médico* (Lima), that some steps are being taken to persuade the Government of Peru to establish compulsory vaccination in the Republic. At present the only place where the compulsory system is in force is in Lima itself, where it has been established as a local enactment by the municipality. Provincial vaccinators find the greatest difficulty in keeping up supplies of lymph, and are frequently obliged to apply to the Lima authorities, who, at the desire of the Government, assist them as far as possible. The Free Academy of Medicine has recently caused the whole matter to be looked into, and a report to be drawn up by a committee of its members. They say that the frequent epidemics of small-pox and the numerous cases that are constantly occurring in most of the towns of Peru are accountable for a large part of the present high rate of mortality; that the experience of all other countries shows that the only way to make vaccination really effective is to render it universal by compulsion, which cannot be carried out without arrangements for supplying lymph to all requiring it; and that the best way of doing this is to confide the charge of a central establishment to a scientific body—that is to say, to the Academy of Medicine. It is remarked that the neighbouring republic, Chili, established compulsory vaccination in 1884, and has an institute of animal vaccination in Santiago which is subsidised by the Government to the extent of 3500 dollars a year. In the case of Lima, the municipality seems disposed to take the burden of establishing a national animal vaccine institute upon itself. The Academy suggests that all parents should be compelled to have their children vaccinated before they are three months old, and that all persons should be revaccinated every ten years. The authorities of all penal and charitable institutions should be obliged to see to the carrying out of the vaccination law, which of course would be rigidly enforced in the army. It is also suggested that the local boards of health should be authorised to give two prizes annually to the most successful vaccinators in the district. The distribution of lymph and the instructions for vaccinators the Academy would wish to have left in its own hands.

PATHOLOGICAL SOCIETY.

THE crowded benches on Tuesday last testified strongly to the popularity of the movement that caused Sir James Paget to accept the presidential chair of the Pathological Society. The acceptance of this office will prove of great value not only to the Society, but to the cause of pathology at large. It is well known that Sir James Paget is disposed to sympathise with every extension of pathological science likely to conduce to the advancement of this important branch of medicine. We were particularly gratified with that portion of his address pointing out that there need be no inconsistency between practice and science. The scientific mind may place all things in a scientific light. The illustrations from clinical medicine by the new President were full of significance and meaning to those who look below the surface of things. Excellent indeed was the recommendation to examine all morbid tissues whilst they are yet living. That there is no exaggeration in the notion that tissues just removed from the body might be regarded as still vital will be conceded all the more when the facts of skin, tendon, and nerve grafting are borne in mind. The occasion was, indeed, an exceptional one for the Pathological Society. The actual combination of the faculties of the pathologist and the orator is necessarily rare, and the audience of last Tuesday signified their appreciation of the presidential appointment by according to Sir James the warmest possible reception of his address. Sir Joseph Lister proposed the vote of thanks for the "beautiful and instructive" address; and Dr. Samuel Wilks, in seconding the vote, echoed the conviction of everyone in his allusion to the youthful vigour of the President's intellect.

THE ETIOLOGY OF PULMONARY GANGRENE.

DR. BONOME of Turin contributes (*Deutsch. Med. Woch.*, 1886, No. 52) some new facts upon the intimate pathology of gangrene of the lung, a condition which supervenes under most varied circumstances, being sometimes the outcome of acute lobar pneumonia in cachectic subjects, or the result of inhalation of putrid matters, or of the embolic impaction of thrombi from infective centres. The gangrene may be limited and circumscribed, or diffuse and widespread; it may be confined to a single area or disseminated in multiple foci—variations depending largely upon the antecedent condition. Dr. Bonome's investigation refers to circumscribed gangrene, and would apparently include the metastatic pulmonary abscesses of pyæmic infection. He describes the focus as divisible into four zones, which, *mutatis mutandis*, could stand also for those of a pyæmic abscess. Thus in the centre, he says, is a necrotic zone made up of the débris of dead leucocytes and of micro-organisms, to which the necrosis is due, this necrotic change including a fibrinous metamorphosis of the protoplasm of the alveolar epithelium (coagulative necrosis) and destruction of the inter-alveolar septa. Then comes a zone of a granular appearance, composed of broken-up leucocytes, which stain deeply with carmine. Around this is a zone of hæmorrhage, whilst outside all is a zone of catarrhal inflammation. Examination of the necrotic focus in fresh specimens revealed, in addition to putrefactive bacteria, masses of micrococci; and cultures in agar-agar and peptone-gelatine enabled the determination of the variety of micro-organism. This

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proved to be the staphylococcus pyogenes aureus and albus, and its special necrotising power was proved by inoculation of pure cultures both directly into the lung and indirectly through embolism. In this way pulmonary gangrene can be artificially induced in rabbits, control experiments with other microbes—as the pneumococcus and microsporon septicum—failing to produce the same effect. The staphylococcus is the micro-organism which has been proved to excite infective osteomyelitis, furuncle, paranitium, inflammation of subcutaneous tissue, and ulcerative endocarditis,—so that its action upon lung-tissue is not singular. It may be introduced into the lung either directly through the air-passages or metastatically conveyed by the blood-stream (embolic gangrene). Wounds of the lung by instruments infected by the staphylococcus pyogenes rapidly produce necrosis and inflammation. The putrefactive process is caused by the free entrance of saprophytes by the bronchi; the peculiar odour of gangrenous foci being due to this secondary change induced by contact of the necrotic patch with atmospheric air.

DEATH OF A CADET AT WOOLWICH.

THE recent death of one of the cadets of the Royal Military Academy, Woolwich, from a fall while sliding on an extemporised slide, is the first that has occurred in the hospital since it was attached to the Academy some forty years ago. The case from a medical point of view is instructive, as showing what serious results may follow a blow on the head which at first is thought but little of. In this case the patient was able to walk about and take his meals after his fall, and it was not till the middle of the night that the surgeon was called to him on account of severe pain referred to the zygoma, which was the part struck. He was then removed to the hospital, which is distant two or three hundred yards, and walked there without difficulty. The patient slept and took his breakfast. In a few hours, however, coma came on, preceded by sudden accession of acute agonising pain in the head, death occurring in the afternoon. At the necropsy an immense clot was found between the base of the skull and the dura mater, the blood having come from a small puncture in the middle meningeal artery, caused by a minute spicula of bone which had been detached from the suture between the orbital plate of the frontal and the left wing of the sphenoid.

THE DARENTH HOSPITAL DISPUTE.

THE question whether the hospital at Darenth should be constructed with wood or brick—that is to say, whether it should be temporary or permanent—came again before the Metropolitan Asylums Board at their meeting on Saturday. The occasion for the further consideration of this subject was the receipt of a letter from the Local Government Board agreeing to the proposal of the managers that the material to be used should be brick, but that the managers should modify their former proposals as to the manner in which the institution should be constructed so as materially to reduce the cost. The opposition to a brick building which has been shown by various district authorities is evidently due to the belief that, inasmuch as wood is a less expensive material than brick, it is more economical to use the former. The determination of the managers to persist in their intentions is based upon the fact that in the course of time wooden structures cost more money than those which are of a more permanent nature. The objection of the Local Government Board is founded upon the uncertainty of medical knowledge as to the proper method of construction of small-pox hospitals. It is matter for regret that the Central Board have not freely placed before the managers the whole of the information available with regard to this point; they would undoubtedly have carried the managers with them. But, as we have already pointed out, the use of wood or brick is merely incidental to the real question which underlies the whole—viz., the means which must be taken to prevent the small-pox hospital being a source of danger to the neighbourhood in which it is placed. There is much reason for believing that the aggregation of persons convalescent from small-pox is in its effects very different from that of persons in the acute stage of the disease. But although the Darenth Hospital is intended for convalescents, it may be accepted that it will, in the course of epidemic pressure, eventually receive a much larger number of acute cases than Mr. W. H. Power found to be necessary for the dissemination of the disease. There is no economy in building even a temporary hospital upon principles which do not include a full recognition of this fact; and the authorities who fail to be guided by the experience of past epidemics or to take measures for adding to the knowledge which already exists are incurring a serious responsibility, and will find eventually it will be no easy matter to justify their procedure when the influence of small-pox hospitals is more fully known.

"ON SOUL AND CONSCIENCE!"

THE medical certificate constitutes one very useful safety-valve for educational over-pressure. Were its just influence ignored, the effect on the public health would be far from satisfactory. Were the same influence pushed into abuse or indiscriminately applied, it would certainly come into contempt, with a like result. According to the School Board of St. Cyrus, the medical profession in that parish is not guiltless in this particular; but the remedy suggested at a recent meeting is certainly a novel one. A member proposed with all gravity, as a possible solution of the difficulty, that absentees must be excused on the ground of illness, which would not in future be admitted on the mere assertion of a medical practitioner, but must be certified by him "on soul and conscience." This proposal, it seems, was not intended for burlesque. Whatever it means, it is not likely, we fear, to improve materially the school attendance at St. Cyrus. Probably the most practical means of correcting the truant tendency, if it is really to be so described, would be to issue a form requiring certifying practitioners to state precisely the fact of a personal examination and the nature of the illness for which a certificate is granted. We need hardly again impress on our medical brethren the need of due care in examination, as malingering is by no means unknown among children.

MORPHINE IN DIABETES.

THE good effect in certain cases of diabetes of administering morphia has seldom received better illustration than is afforded by a case recorded by Dr. Mitchell Bruce (*Practitioner*, Jan. 1887). The patient was a printer, aged twenty-six, and was under observation for ten months. During this time a series of observations were made as follows. For two days he was placed on ordinary mixed diet without medicine, and the average daily excretion of sugar was estimated at 1360 grains. In the second place, for about three weeks he was kept on "strict Pavy diet," but without any notable diminution in the amount of sugar excreted. This was followed by a third series of observations, when, with continuance of the rigid diet, acetate of morphine was given by the mouth in increasing doses, commencing with fifteen minims, every four hours. The amount of sugar began to diminish notably. On the fifteenth day, when three grains of acetate of morphine were being ingested daily, the sugar had fallen to 912 grains; on the forty-eighth day (4½ grains of acetate of morphine) to 360 grains; and from the fifty-sixth to the sixty-first days of this treatment (4¾ grains of acetate of morphine) sugar was entirely absent

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from the urine. It was only towards the end of this series of observations that any narcotic effect, and that inconsiderable, was produced. On discontinuing the drug, but still maintaining the rigid diet, there was a rapid reappearance and daily increase in sugar—viz., from 600 to 2400 grains. Still continuing the diet, observations were now made of the effect of morphine administered hypodermically, with gradual increase from about ¾ grain up to 3 grains per diem. The amount of sugar excreted never fell below 768 grains, whilst the drowsiness of the patient required a reduction in the drug, with an increase in the sugar excreted, until the latter reached 3000 gr. Recourse was now again had to the administration by the mouth, and by the seventeenth day of such administration the sugar had fallen from 4000 to 1000 grains; by the forty-fourth day it reached 882 grains; but it was not until the ninety-ninth day, when seven grains of the acetate were being given daily, that the sugar was reduced to a mere trace. The patient's general condition correspondingly improved. Dr. Bruce, in his concluding remarks, considers that the glycosuria in this case was proved by the foregoing results to be due to an increased income of sugar in the blood, and not to its diminished destruction in the system; for the morphine had less influence on the glycosuria when introduced into the general circulation than into the portal circulation. It also showed that glycogenesis was still active, and that this was going on mainly in the liver; and that, if of nervous origin, the disorder was in the liver itself, and not in the central nervous system. For whilst the hypodermic administration produced marked depression of the central nervous system, the drug given by the mouth had much less effect, operating mainly on the glycosuria.

THE GREAT NORTHERN CENTRAL HOSPITAL.

THE men of the north of London have an object well worth their consideration and sympathy in the Great Northern Central Hospital. This subject divides itself into two parts—the maintenance of patients in the existing hospital in the Caledonian-road, and the provision of funds for building the new hospital in the Holloway-road. We regret to see that on both heads the financial report at the annual meeting (Mr. Marshall Lang in the chair) is unsatisfactory. The maintenance fund is £657 short of last year, and the funds in hand for the new hospital are so small that the promoters have determined to proceed with only one block of buildings, at a cost of £2000. This is highly judicious on the part of the committee, but we trust that in this Jubilee year we shall see them supplied with the £24,500 required to make the new hospital complete and worthy of the populous district by which it is surrounded

HEALTH OF MAURITIUS.

THE annual report of the medical department of Mauritius for the year 1885 is remarkable chiefly for the very small amount of information which it furnishes on the subject of the health of the population. It states that the health of the colony was by no means satisfactory. "Some localities in Mauritius are as healthy as England, and others again are little less than pestiferous." But it does not give a single figure to show what was the death-rate of the island generally, or of any of the districts, with the exception of Rivière du Rempart, in which it amounted only to 21·82 per 1000 of the population. This total absence of detailed information as to the death-rate is the result, apparently, of the returns which were furnished not being printed—an instance of extravagant economy, for without them the report is of scarcely any value. We would suggest to the Chief Medical Officer that in future, instead of merely referring, as in the present report, to tables which may not be printed, he should state in the text of the report the numerical results which are shown by them. As illustrating the very unhealthy condition of the island, and at the same time the prevailing distress, the Chief Medical Officer states that about 44,000 cases of disease were treated in the medical institutions of the colony in 1885, but he does not state the population. Assuming it to be 370,766, as given in Whitaker's Almanack, this would show that one in eight had thus obtained medical relief. The report shows that 15,488 cases were received into the public hospitals, and of these 1366 died, being in the ratio of 88·24 per 1000 treated. This high death-rate was, doubtless, to a considerable extent due to the condition of the patients on admission, for in the Civil Hospital, for which alone the details are given, of 598 deaths 213 took place within forty-eight hours after admission. Malarial fevers, including under that term also cases returned as "malarial cachexia," were the most prevalent and fatal diseases admitted into the public hospitals; there were 5749 cases returned with 240 deaths; of dysentery there were 693 cases and 216 deaths; and of pneumonia and pleurisy there were 264 cases and 156 deaths. Pneumonia appears to be a very fatal disease in the island; at Powder Mills Hospital 21 cases were admitted, and all died—"a fact sufficiently remarkable to deserve explanation," but of which no explanation is given. We cannot but regret that the information repecting the health of the island is so very meagre, but we trust that before the next annual report is due the Chief Medical Officer may be able to satisfy the Governor of the necessity for publishing the usual statistical tables, if the report is to have any practical value.

DENTAL CARIES IN BAKERS.

DR. FR. HESSE has given a detailed description in a recent number of the *Deutsche Monatschrift für Zahnheilkunde* of a peculiar form of caries especially affecting the outer surfaces of the teeth. The caries is soft, rapid in its progress, and penetrates deeply. It commences at the neck where the tooth is in contact with the gum, and extends more towards the free cutting edge than towards the fang. The discolouration produced is of a brownish tint. It commences early, usually attacking patients between the ages of seventeen and twenty-three. He refers it to the inhalation of meal dust, and thinks it also occurs in millers. It most commonly first attacks the upper front teeth, eating away the enamel, the eroded edge of which is sharply defined, and exposing the dentine, which assumes a brownish or even black colour. The same conditions are found in sugar-bakers and in confectioners, both of whom remain long in rooms the air of which is loaded with sugar dust, and who have often to taste hot saccharine substances. Hesse therefore considers this condition to be caries induced by sugar. A similar defect is found in the front teeth of children who are fed with certain kinds of sacoharine farinaceous food, such food being often in a state of acid fermentation.

DIPHTHERIA AT BASSINGBOURN.

A SERIOUS epidemic of diphtheria, which attacked sixty children in thirty-seven families in the adjoining parishes of Bassingbourn and Kneesworth in the Royston rural district, has just been reported on by Dr. Anningson. The epidemic commenced on June 13th last, and continued for fifteen weeks until Sept. 25th, and the peculiar feature attaching to it was its apparent connexion with a polluted water-supply at the elementary school. The incidence of the disease was certainly very marked on the girl's side, where this polluted water was available, but at the same time it is difficult, in the face of the existence of other means of diffusion, such as are in operation in an elementary school, to eliminate all the usual conditions favouring personal com-

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munication, and to assign the disease to a water-supply. The Bassingbourn outbreak is regarded as having, in the first instance, been brought about by the recrudescence of a previous epidemic, and school assemblage is admitted to have been a main cause of its introduction. Hitherto, although there have been similar cases in which polluted water has appeared to have been associated with the spread of diphtheria, this circumstance has, as a rule, been overshadowed by some more potent factor, such as personal communication during school attendance. The influence of such attendance in causing diphtheria is well known; that of a polluted water-supply is as yet not definitely made out. But all such cases as that under consideration are well worthy of study in this connexion.

METROPOLITAN SEWAGE DISPOSAL.

WE observe with regret that the Metropolitan Board of Works have accepted an estimate to provide, at an enormous cost to the metropolis, the tanks and jetty which are necessary for treating London sewage in the manner upon which the Board had previously decided. We have recently so fully discussed this matter, that we fear it will serve little purpose to reiterate the arguments we adduced against this method; it will be sufficient for most of the ratepayers to know that the Metropolitan Board is acting in defiance of the recommendations of a recent Royal Commission which carefully studied this subject in all its bearings. The Metropolitan Board only indirectly represents those who will have to bear the cost of this unwise undertaking; they represent the vestries and district boards, and upon them must devolve the chief duty of opposing the scheme against which we have felt it necessary to protest. But we observe with much satisfaction that an influential meeting of ratepayers was held on Wednesday to consider the question of London sewage disposal, and that at this meeting a resolution was adopted strongly protesting against the action of the Board. A committee has moreover been appointed, which will, we trust, urge this view upon those who are responsible for the wasteful expenditure contemplated. We are not, however, sanguine of the result. It will be very difficult for the Metropolitan Board at this period to withdraw from a position which has already been taken up, but we gladly see the effort made to induce them to adopt this course, if only to demonstrate that the metropolis as a whole is not wanting in wisdom.

THRIFT IN COOKERY.

ECONOMY in the kitchen has long been recognised as a domestic virtue; and in these days, when cooking has become more than ever a fine art, it is satisfactory to note that old-fashioned household thrift can well keep pace with the advance of custom. Important as this fact is on general grounds, it is no less important in the treatment of the sick. In the various forms of fever, as is now generally admitted, the value of suitable nourishment can hardly be exaggerated. The case is not different in instances where the failing powers of age rather than the nature of disease form the chief obstacle to recovery. Here time gained may be life saved, and a diet at once palatable and digestible therefore becomes a primary consideration. For the wealthy invalid such a diet is not difficult to obtain; the resources of cookery are at his command. The poor in illness are less fortunate, though much may be accomplished in the same direction by the introduction among them of simple but efficient means of cooking, which appear in careful hands to answer many of the purposes of a more elaborate system. Of this we are reminded by the excellent teaching conveyed in a small and practical manual by Miss E. de V. Mathew, entitled "Cookery for our Sick and Invalid Poor." This little work contains a large number of recipes, with hints as to ready methods in cookery, which bear the mark of experimental training. Some of the dishes enumerated seem to us rather too rich for an invalid. This defect, if it prove such in practice, a little judgment might easily remedy. In another pamphlet the same lady treats of "Tinned Meats &c., and how to use them." It is an unfortunate thing that the wholesomeness of food preserved in this way is not yet so far above suspicion as to render all care in its selection unnecessary. This fact does not, however, suffice to forbid the discriminating use of such food, and it does not in any way impair the general excellence of the advice contained in the pamphlet just mentioned. Whilst on this subject, we may direct attention to a device introduced by Mr. H. T. Tallack, of Hatton-garden, in the shape of stout steel skewers, each headed with a hollow iron sphere, and which being thrust deeply into the substance of the joint prepared for roasting, serves to conduct the heat more readily into the centre of the meat, thus ensuring more rapid and complete cooking.

MEDICAL FEES IN CROWN CASES.

WE have often in our columns directed attention to the inadequate fees paid to medical witnesses in Crown cases. In a manslaughter case at Wigan, last week, Dr. Brady, one of the medical witnesses, refused, when before the magistrates, to be bound over to appear at the Liverpool Assizes, alleging as a reason that he would not undertake to leave his patients and practice from day to day to attend the Assize Courts at Liverpool for the remuneration offered by the Crown. He was willing to give evidence and render what assistance he could when called upon, but he would not from day to day wait about the Assize Courts till called upon for £1 1s. per diem. The magistrates on the bench threatened him with all the pains and penalties possible if he refused to be bound over, and the assistant magistrate's clerk stated that, with an experience of thirty-five years, it was the first time he had known a professional witness refuse to be bound over. Dr. Brady assured the clerk it was not too late to begin, and he was eventually allowed to leave the court without being bound over. We agree with Dr. Brady as to the inadequate remuneration, and think it ought to be two or three guineas at least. A medical practitioner's time is usually too valuable, not only to himself, but to his patients, to be wasted in waiting about law courts day after day.

SIMPLE METHOD OF ESTIMATING THE EFFECTS OF RESPIRATION.

MM. HANRIOT and Ch. Richet have described a method of measuring the oxygen inhaled and absorbed, also the carbonic acid formed, during respiration, which is much more simple than the usual method by weighing, and is adapted for carrying out at the bedside. A gas-meter measures the volume of air inhaled, and a second that of the air expired; this air is then passed through potash and subsequently through a third gas-meter. The difference between the second and third meters of course gives the carbonic acid formed, and the difference between the first and third the oxygen absorbed.

POLICE EMERGENCY CASES IN EDINBURGH.

THE Public Health Committee of Edinburgh have had before them the arrangements for securing medical attention for emergency cases. The question of appointing police surgeons in different districts was raised, but was not favourably received. The present system was approved, by which the nearest practitioner is to be summoned by the police, who are to give remuneration according to the time at which the service is required.

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THE ELASTIC LIGATURE FOR UTERINE FIBROIDS.

THE removal of uterine fibroids by means of the elastic ligature having been recently adopted by Prof. Slavyanski in four cases, a paper has been published by one of his pupils, Dr. Zhabotinski, dealing mainly with the history of this method of operating. He has collected accounts of 216 cases, of which 151 are British (44 being Dr. Robert Lee's), 27 French, 20 German, 10 Russian, 5 American, and 3 Italian. Of these 18, or 8·3 per cent., proved fatal—8 from peritonitis, 3 from septicæmia, 3 from exhaustion, 1 from pleurisy and peritonitis, 1 from meningitis, 1 from tetanus, and 1 from an accidental disease. In 12 of these death occurred before the tumour came away, and in the remaining 6 after separation had taken place. The author thinks that the opinions of West and M'Clintock on the dangerous character of this method of procedure were formed on the results of too small a number of cases, and that as most of the published cases occurred in pre-antiseptic times the danger with modern methods may be looked upon as very slight. The mode of procedure which Prof. Slavyanski adopted, and which in Dr. Zhabotinski's opinion is the best, is to cut away the tumour after the elastic ligature has been applied to the peduncle. This seems to have given the best results, even before the days of antiseptics. The main indications for the elastic ligature operation are a pedunculated condition of the tumour, an accessible situation, and a disposition to hæmorrhage.

THE GENERAL MEDICAL COUNCIL.

PURSUANT to the provisions of the Medical Act of 1886, the following appointments have been made:—Dr. John Struthers, to represent the University of Aberdeen; Dr. William Leishman, the University of Glasgow; Sir William Turner, M.B., the University of Edinburgh; Dr. William Moore for Ireland; and, as announced last week, Professor Bell Pettigrew, the University of St. Andrews.

THE ELECTRIC LIGHT IN MINES.

AMONG the future possibilities of the electric light, there is probably none which possesses more interest than its adaptation to the lighting of mines. The advantages which must follow its use in this way are at once obvious. Darkness and fire-damp between them will account for the majority of the more serious as well as for many lesser accidents to miners, and they are dangers which cannot better be avoided than by the general adoption of a mode of lighting which ensures at once brilliant illumination and the perfect exclusion of gas currents from the lamp flame. Now that the one disqualification which can be urged against the electric light—namely, that it does not serve as a test for gaseous impurity in the air of the mine—has been removed by attaching indicators to the lamps used underground, we may indulge a hope that the cost of introducing new lights and electric machinery will not long be allowed to oppose this much-needed reform.

ENDEMIC GOITRE IN CENTRAL ASIA.

SURGEON G. M. GILES, M.D. Lond., surgeon to the I.G.S. *Investigator*, who was sent on special duty with Colonel Lockhart's Mission to the Gilghit and the Paman Plateau, furnishes an interesting paper to the *Indian Medical Journal* on the Prevalence of Goitre among the Denizens of the Highlands of Central Asia. Dr. Giles is inclined to attribute the disease to the habits of the people who live in dark mud huts with no entrance for light but the door, and to the absence of trees on the surrounding hills. He speaks very highly of the treatment by injections of iodine into the cysts at intervals of a week or so, and lays great stress on the use of a watery, not an alcoholic, solution of the drug. His highly favourable opinion of the efficiency and harmlessness of iodine is founded on the result of some three hundred injections.

DENTAL SURGERY ON THE CONTINENT.

ACCORDING to the *Independent Practitioner*, in Austria and Hungary there were until lately no dentists, medical men alone being allowed to practise dentistry. Before the year 1876, in order to practise dentistry in Holland, it was necessary to hold the diploma of medicine, surgery, and midwifery. The law has now been amended, a special course of study and special examinations having been provided for, as in Germany, Russia, and Switzerland. Is not this non-insistance on medical qualification rather a retrograde step?

THE "JACOB" TESTIMONIAL.

THE subscriptions to the Jacob testimonial fund which have been handed in or promised up to the present amount to about £210. The lengthy list of subscribers shows how general and widespread is the desire of the profession to mark in an appreciable way its esteem for Dr. Jacob.

THE DISCUSSION ON RABIES AT THE FRENCH ACADEMY.

THIS debate, says our Paris correspondent, whose letter we are obliged, from want of space, to hold over, was concluded on Tuesday last. M. Peter read particulars of two new cases in which death had occurred from rabies after the intensive inoculations. M. Vulpian praised Pasteur's work, and criticised the statements and conclusions of M. Peter; after which M. Brouardel spoke, and the discussion terminated.

FILARIA SANGUINIS HOMINIS.

DR. STEPHEN MACKENZIE gave, at the Clinical Society on the 14th inst., a most successful demonstration of the living filariæ from the blood of a gentleman—a member of the medical profession—suffering from chyluria. The microscopical preparations were seen by a large number of members of the Society.

M. BLONDIN.

VIEWED from a physiological point, the performance of M. Blondin at the Agricultural Hall must be regarded as one of the marvels of the age, which grows more wonderful every year. Such feats as his are remarkable when done by men of twenty, but done at the "grand climateric" they are trebly so. Though on close inspection it is seen that M. Blondin bears marks of age, his step on the rope, and his self-command in a "poke" or on his bicycle, are as perfect as ever.

FOREIGN UNIVERSITY INTELLIGENCE.

Dorpat.—The Heimburger prize, amounting to about £50, has been awarded to a former Dorpat student, Dr. Erich Harnack, Professor of Physiological Chemistry and Pharmacology in Halle, for his treatise on Materia Medica and Prescribing.

Gratz.—For the vacant Professorship of the Diseases of Children the names of Drs. Soltmann of Breslau, Epstein of Prague, Von Hüttenbrenner of Vienna, and Tschumer of Gratz have been brought before the Medical Faculty. For the Professorship of Ophthalmology, vacated by Prof. Blodig, the claims of Drs. Becker of Heidelberg, Eversbusch of Erlangen, Sattler of Prague, and Schnabel of Innsbruck having been considered, the last was invited to accept the chair.

Groningen.—The death is announced, at the age of thirty-eight, of Dr. Johann R. Ranke, Professor of Surgery. The

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deceased professor was a German by birth, and was formerly assistant to Prof. Volkmann.

Kieff.—Dr. D. V. Chirkoff of Moscow has been appointed Professor of Special Therapeutics.

Madrid.—The death is announced of Dr. Gonzalez Encinas, Professor of Clinical Surgery, and one of the most distinguished operators in Spain.

Naples.—A Professorship of Orthopædic Surgery has been established.

Paris.—M. Pajot has resigned the chair of Midwifery owing to his advanced age. M. Farabeuf has been appointed Professor of Anatomy, in succession to M. Sappey. M. Gabriel has been appointed Professor of Physics, in succession to M. Gavarret. M. Dieulafoy has been elected to the chair of Internal Pathology, in succession to M. Hardy. M. Moisson has been appointed Professor of Toxicology in the École Supérieure de Pharmacie. M. Chatin has been chosen Assistant Professor of Zoology in the Faculty of Sciences.

DR. WILLIAM PERRY, of Exeter, N. H., the oldest living graduate of Harvard, celebrated the ninety-eighth anniversary of his birthday on the 22nd ult. Dr. Perry is the sole survivor of the passengers on Robert Fulton's steamboat on its trial trip down the Hudson seventy-nine years ago, and he was a member of the class of 1811 at Harvard College, of the members of which there is only one other survivor.

IN connexion with the outbreak of small-pox on board the German steamer *Preussen* from Southampton to Adelaide, we are requested to point out that although foreign steamers call at British ports to embark passengers, they do not necessarily come under the sanitary supervision which the Board of Trade exercises over British steamers under the Passengers Act.

CHOLERA is now prevalent on both sides of the continent of South America. It has increased in Chili, where it is fatally spreading in the province of Valparaiso; and it has since been reported to have broken out at Monte Video, in Uruguay. Situated as Monte Video is at the mouth of the river La Plata, considerable commercial interests are likely to be involved.

A NEW bi-monthly publication, devoted to the Diseases of Children, the *Centralblatt für Kinderheilkunde*, will be published in Vienna on the 1st of March next. The editor is Dr. R. W. Raudnitz, and the English collaborator, Dr. H. Ashby of Manchester.

BY the death of Colonel Bolton, which we announced last week, the office of Water Examiner under the Metropolis Water Act has become vacant. This is really an important public health appointment, and should be held by a medical man having special knowledge and experience in sanitation.

AT the next meeting of the Hunterian Society, on Wednesday, January 26th, Mr. Croft will contribute a paper on the Immediate Treatment of Fractures, and give a demonstration of his mode of applying plaster-of-Paris splints.

IT is satisfactory to have to announce that the Naval Medical Good Service Pension of £100 a year has been awarded to Sir William Smart, K.C.B., the senior officer on the retired list of Inspectors-General.

THE Berlin police department is doing its best to discourage the sale of quack medicines by issuing warning notices to the public.

AN International Health Exhibition, referring especially to foods and cooking, under the presidency of M. Chevreuil, is to be held next month at Lyons. It will be open from the 20th to the 28th proximo.

THE annual general meeting of the Neurological Society will be held at the National Hospital, Queen-square, at 8.30 P.M. on Thursday, January 27th. The President-elect is Dr. Samuel Wilks, F.R.S.

IN many parts of Bavaria diphtheria has been very rife. It is thought that fully 10,000 children have been affected there being 3000 in Bamberg alone. In several localities the schools have been closed.

A SUCCESSFUL meeting of the Association of General Practitioners was held in Exeter Hall on the 19th inst. We hope to publish in our next issue a detailed account of the proceedings.

IN the Eghri-Capon quarter of Constantinople there is at present a great deal of small-pox, some forty-five deaths having already occurred.

WE are glad to hear that a matter which has excited much painful interest in one of our northern universities has been satisfactorily settled by apology and retractation.

Pharmacology and Therapeutics.

BROMIDIA.

BROMIDA, a sample of which has been forwarded to us by Messrs. Roberts of New Bond-street, is a combination of bromide, chloral, hyoscyamine, and cannabis indica, and is acknowledged to be a valuable hypnotic. The combination seems to be peculiarly efficient, for cases of insomnia have been relieved by it when each of the drugs mentioned had individually failed.

DIFFERENT METHODS OF TREATING CERVICAL CATARRH.

Dr. L'voff of Kazan has reported in the *Meditsinskoe Obozrenie* a number of observations made on the comparative value of different methods of treating catarrh of the cervix uteri. The total number of cases was eighty-two. Of these thirty-six were treated by mechanical scraping of the mucous membrane, eighteen by means of powerful caustic applications, and twenty-eight with weak caustics. The method of applying the weak caustics was, after washing out the vagina with warm water or a solution of boracic acid, to swab the cervical canal with tincture of iodine or with a 10 per cent. solution of chromic acid. This was done once a week, plugs soaked in glycerine of tannin being also used every other day. The strong caustic application consisted of a bougie made of sulphate of zinc and alum fused together. This was allowed to remain in the canal till it had all dissolved, which took place usually in one or two hours. Afterwards the mucous membrane presented a white appearance, due to the eschar. This fell off in five or six days, during which time warm vaginal douches were administered and plugs of glycerine and iodoform inserted every alternate day. In the cases treated by scarification an iodoform and glycerine plug was left in for twenty-four hours, and the patient was then sent home. The results of these different methods of treatment were that the mild caustics ultimately effected a cure, but required at least two months to do so; while the severer methods—that is to say, the fused zinc and alum and the scarification—produced a permanent cure in about a fortnight. The author adds that no unpleasant symptoms were caused by either the caustics or the scarification in any of the eighty-two cases.

RUSSIAN PEPSINE

The comparative value of different preparations of pepsine and papaine as peptonising agents has recently been investigated by Dr. Lipski of St. Petersburg. He finds that the

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best of all the dry preparations he tried was the pepsinum saccharatum siccum of the Russian Pharmacopœia, 2 grms. of which, when freshly prepared, digested 9·53 grms. of albumen. From his results it appears that the Russian pepsines are far more active preparations than most of those in use in western continental Europe. Dr. Lipski did not apparently make any determinations of the value of any English or American preparations.

ANTIFEBRINE IN TYPHOID.

Antifebrine has been used a great deal in Professor Kotovshcheski's clinic in Kazan in typhoid fever cases with good results. After a single four-grain dose, the temperature sank in the course of an hour 0·9° to 2° C., the reduced temperature persisting for from an hour and a half to three hours. It was found that by repeating these four-grain doses every two hours the temperature could be kept at the normal point all day. The frequency of the pulse was at the same time diminished and its tension increased. The excretion of urea was also augmented. The patients liked the drug, and no ill effects were ever observed from its use.

SALICYLIC ACID IN FOOD.

M. Vallin has presented a report to the French Government on the employment of salicylic acid in articles of food, in which he states that medical observation has established that even small quantities of salicylic acid, or its derivatives, if taken constantly, are capable of affecting the health of certain subjects who are peculiarly susceptible to the influence of this drug, as also the health of aged persons and those whose renal and digestive organs are not perfectly sound. He consequently advises that the addition of salicylic acid and the salicylates, even in small quantities, to solid and liquid articles of food should be prohibited.

ICHTHYOL IN ERYSIPELAS.

Dr. Nussbaum of Munich has recently obtained strikingly successful results in traumatic erysipelas by the use of an ointment composed of vaseline with 10 per cent. of ichthyol, a chemical substance rich in sulphur, obtained from mineral oil, which was introduced by Dr. Unna a few months ago, and which was found useful by Dr. Dubelir of Moscow in acute and chronic rheumatism (see THE LANCET, Oct. 2nd, 1886) both as a medicine and as an external application. Dr. Nussbaum found, as indeed Dr. Dubelir also remarked, that the ichthyol had an irritating effect on the skin, so that it could not well be borne for more than three days, but as this was long enough to effect a cure in all the cases no difficulty on this head arose.

PULVERISED SPLEEN IN CHLOROSIS.

The German medical papers quote some observations made by Dr. Predazzi at Prof. Maragliano's request, on the value of treating chlorotic patients with an emulsion of pulverised spleen, bitter almonds, and brandy. In the five cases in which this was adopted, rapid improvement took place both in the general condition of the patients and in the physical signs; that is to say, the number of red blood-corpuscles was increased, as also the arterial tension and the body weight. The author does not attempt any explanation of the action of this singular remedy. The quantity of "polp. splenic." given daily was about five ounces, and it was ordered at meal-times.

PROTECTIVE INOCULATION FOR BOVINE CONTAGIOUS PLEURO-PNEUMONIA.

THE animal plagues which have for so many years committed such havoc among our flocks and herds are gradually becoming amenable to the measures of sanitary police devised for their limitation and ultimate suppression. Indeed, one of the most troublesome and costly of these maladies—that popularly known as the foot-and-mouth disease—seems to be entirely eradicated from our soil after harassing cattle-owners since 1839, as no cases have been reported in the three kingdoms for several months. But its companion disease, the so-called lung-plague, or "pleuro," as the dairymen and butchers designate it, which appeared in Great Britain in 1842, yet lingers in some parts of the country, and particularly in Scotland, in spite of the efforts of local authorities. This disorder has been a most serious scourge, not only in the United Kingdom, but also on the European continent, notably in Holland (which has now, however, stamped it out), from which country it was originally introduced into our own. Within the last thirty years it has been carried into nearly every part of the world, and its desolating effects are now being experienced in South Africa, Australia, and the United States of America. The difficulty in suppressing it is mainly due to its insidiousness—the invasive stage being most difficult to detect—the uncertain duration of incubation; and the fact that an animal which has been imperceptibly affected, or which has apparently recovered, may for a long time afterwards infect healthy cattle, owing to a necrosed piece of lung, more or less encapsuled, continuing to give off infective elements during expiration.

The disease, unlike rinderpest and foot-and-mouth disease, appears to be exclusively confined to the bovine tribe, all attempts to transmit it to other species having failed; and no authentic instances of accidental transmission to other animals or mankind, even by the ingestion of the milk or flesh of diseased cattle, are recorded.

In order to diminish the ravages of this lung-plague, protective inoculation, first introduced by Dr. Willems of Hasselt (Belgium) some thirty years ago, has been resorted to in this country, on the Continent, and in South Africa and Australia. The value of this procedure has been thoroughly established, the protection afforded by the inoculations having been demonstrated in the most marked manner during outbreaks of the disorder, and also by the experiments instituted by commissions appointed by the Governments of France and other countries. The virus for inoculating purposes is obtained from the diseased lung at a certain stage, and, as may be surmised, great care is necessary not only in collecting and keeping it, but also in introducing it into the body of the ox which is to be protected. Indeed, success or failure depends upon the skill of the inoculator, as he must not only be cognisant of how to obtain the material in its purest and most active condition but also when and where to introduce it, and how to control its action when inoculated. The infectiveness of the virus is extraordinary. If a drop of the serous fluid from a diseased lung is inserted beneath the skin of a part where the connective tissue is loose and abundant—as in the dewlap of the ox—the effect is most serious, death being the result in almost every case from rapid extension of the morbid process set up to vital organs. To obviate such unfortunate accidents, the extremity of the tail is now selected, as there the connective tissue is scantier and denser than elsewhere; and when the morbid action threatens to extend to the body, timely amputation of a portion of the organ—necessitated by certain indications manifesting themselves beyond the seat of inoculation—at once checks it.

Protective inoculation can be resorted to with great advantage when a district or country is invaded by the disease, and slaughter of all the cattle therein would prove a serious calamity. Even in the case of valuable herds, when the disease has only attacked one or two animals, and it is of great importance that its extension should be checked and the remainder of the cattle saved, there is good reason for the adoption of the measure; though the "stamping-out" method, entailing the slaughter of all, has its advocates. These urge the danger of allowing cattle to live which may, through contact with the sick, have only a small portion of lung involved, present no symptoms, are inoculated, and so are supposed to be safe to place among others, while all the time they are capable of infecting. This is really the danger attending the practice of inoculation, a danger not easily avoided, because of the difficulty of thoroughly exploring the thoracic cavity of the ox, owing to the thick skin and parietes, and the unfavourable position of the animal for examination.

There seems to be no danger of infection from cows during the inoculation period, no reliable evidence having been adduced that this operation tends to spread the disease, or to maintain it in districts where it is prevalent. On the contrary, there are numerous instances recorded in which the extension of the scourge in a cowshed has been stopped in a few weeks after inoculation has been practised, and the inoculated cattle have resisted subsequent infection under the most favourable conditions for receiving it. Holland has been freed from lung-plague by energetically slaughtering the diseased and inoculating the unaffected, and France has adopted the same course. In this country no experiments of a public kind have been instituted to set at rest the value of protective inoculation for this malady, and notwithstanding strong evidence in

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its favour, its adoption is strongly opposed by those who favour the expensive, but thoroughly effective, plan of wholesale slaughter of the sick and suspected, the latter including all the cattle which have been directly or indirectly in contact with the former.

PHTHISIS IN THE ARMY.

AT the Statistical Society on Tuesday evening a paper was read by Robert Lawson, Esq., LL.D., Inspector-General of Hospitals, on the Mortality among Troops serving in the United Kingdom from Consumption. After stating the sources from which the rates of mortality from phthisis in the army and in civil life respectively were obtained, the author showed in a tabular form the ratio of deaths in civil life from this disease at five periods of life between seventeen and forty-five in the five years 1838-42 and the seven quinquenniads 1850-84. The decrease in the mortality from phthisis in the later periods he considers to be mainly attributable to hygienic measures, and perhaps to some extent also to more successful medical treatment. In making a comparison of the death-rates in the army with those in civil life, the author pointed out the necessity of adding to the military deaths a certain proportion, which he shows reason to estimate at one-half, of the men discharged the service in each year on account of consumption. Calculating the ratio of deaths upon the numbers living, and bringing it into comparison with the proportion which would have occurred in civil life in a population with the same age distribution as the army, the following results were obtained:—

Periods.	Phthisis in army at civil rates.	Phthisis observed.		
		Deaths.	Half of discharges.	Total deaths.
1837-46	5·09	8·53	0·85	9·38
1860-64	3·63	3·07	2·70	5·77
1865-69	3·81	2·57	2·26	4·83
1870-74	3·39	2·43	2·21	4·64
1875-79	3·21	2·45	2·22	4·67
1880-84	2·70	1·92	1·71	3·63

The actual reduction in the deaths among the troops in the latter as compared with the first period is to some extent due to increased facility of invaliding phthisical cases; but with the correction made by Dr. Lawson there is still a marked progressive diminution to the extent of about three-fifths. The table, however, shows clearly that "at every period mentioned service in the army was attended by greater mortality from phthisis than would have been met with among men of the same age exposed to the ordinary causes of that disease in civil life." Dr. Lawson questions the opinion held by many of the medical officers that this decrease was to any great extent attributable to improved ventilation in barracks. He believes it to have been much more in consequence of removing a considerable number of the troops from the towns in which they were quartered to camps at Aldershot, Shorncliffe, Colchester, and the Curragh, and to an improvement in their clothing by the adoption of woollen shirts for linen or calico. He also considers the abolition of white trousers and the substitution of woollen material for them to have exercised a beneficial influence. Dr. Lawson pointed out that the mortality from consumption has decreased also among the troops in the colonies, with the exception of Mauritius and Ceylon. In a subsequent table it was shown that while so marked a decrease occurred in the general death-rate among troops at home, it was greater in deaths from phthisis than from other diseases. Instead of the former—as in 1837-46—constituting 52·3 per cent. of the whole, in 1880-4 they only amounted to 43·8 per cent.

In the discussion that followed, Dr. Longstaff, Captain Douglas Galton, Dr. Marston, Dr. Dickson, Dr. Lloyd, R.N., and others took part.

Dr. Longstaff's criticism mainly bore upon the differences between the military and civil portions of the community, rendering comparisons between them difficult, and, as affecting the statistical deductions, unreliable.

Captain Galton spoke of what had been done in effecting sanitary improvements in barracks since the time of Lord Herbert, and dwelt upon the fact that there was a great diversity in regard to these in different barracks, and even in different portions of the same barrack, rendering it difficult to gauge exactly their effect on the soldier's health.

Dr. Marston adverted to the large prevalence of ophthalmia in the army twenty-five or thirty years ago; the amount of inefficiency and invaliding it caused then as compared with the practically insignificant amount of the same disease now; and he urged that this could only have been due to the removal of a main factor in its production—viz., the effects of overcrowding and imperfect ventilation. Clothing might fairly be estimated as a cause of disease. He likewise called attention to the prevalence of pulmonary disease among the crews of ironclads years ago, and to the prejudicial effect of crowded and badly ventilated buildings in causing these diseases, as proved by his experience in India and Afghanistan. He traced the operation of the same factor in affecting the incidence and prevalence of epidemic disease generally, and cited some illustrations.

Dr. Dickson and Dr. Lloyd, R.N., followed, and Dr. Lawson in his reply, after meeting Dr. Longstaff's criticism, explained, in effect, that owing, no doubt, to the difficulty of grasping the points in a statistical paper of this kind some misapprehension had arisen. He did not at all depreciate the effect of sanitary improvements, but he had endeavoured to point out some of the directions in which these had operated that had not hitherto received due attention.

BRITISH MEDICAL BENEVOLENT FUND.

THE annual general meeting of subscribers to this Fund was held on Monday, Jan. 10th, at 34, Seymour-street, Portman-square, the residence of the treasurer, at 4 P.M., when the chair was taken by Dr. Jonson, chairman of the committee, in the unavoidable absence of the President, Sir George Burrows, Bart.

The financial statement was submitted and the annual report of the committee read, from which it appeared that the donations during 1886 had amounted to £869 5*s.* 6*d.*, subscriptions to £1228 9*s.* 5*d.*, exclusive of £226 9*s.* 1*d.* contributed from the Jubilee Fund—a total of £2324 3*s.*, which shows an increase over the receipts of 1885 of nearly £300. The disbursements during the year had been, in grants to 183 applicants, £2128; in annuities distributed amongst 61 old people, all over sixty years of age, £1074. The cost of collection and distribution of this large sum (over £5500), minimised though it is by the fact that the officers are all honorary (with the exception of the collector), amounted to £130, including stationery, collector's commission, the printing and postage of the report (of which a copy is sent to each subscriber), the postage and other expenses of the secretaries for finance and cases, and the postal and incidental expenses connected with the distribution of over £3200 in weekly or monthly instalments, which is a peculiar characteristic of this Fund, carried out by means of the Cheque Bank, and by Dr. Jonson as regards the annuities. The distribution of grants is entrusted to the various honorary local secretaries, when it can be done without imposing too irksome a burden upon those gentlemen who so kindly undertake that duty. The number of applicants for grants was 209, of whom 183 (an excess of two over the number relieved in any previous year) received sums varying from £5 to £20, and many of those inadequately relieved would have been given larger grants, had the sum in the hands of the committee been larger. Personal inquiry proved dire and distressing want in many instances amongst those who had been brought up in comparative ease and comfort, and who, by the death of the breadwinner, found themselves dependent upon charity for the common necessaries of life. If this applies to the case of those in receipt of grants, how much more must it occur in the cases of those who, in addition to want of money, are suffering from the weight of years. Of such, the list of annuitants affords many an example, and well shows the infinite good wrought by this charity. The celebration of the Jubilee Year by a banquet in July, under the presidency, and aided by the distinguished advocacy, of Sir James Paget, including a donation of £100 from Her Majesty the Queen, resulted in the addition of £3000 to the funded property from which the annuity payments are derived. This splendid addition will allow of the creation of new

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annuities and a consequent relief to the donation or grant department.

Mr. Brett of Watford joined the Committee of Management, in the place of the late Dr. Harvey Kowen, a liberal contributor during his lifetime, and the generous donor of a legacy of £500. The names of Dr. Coates of Bath, Dr. Matthews Duncan, and Dr. R. Quain were added to the list of Vice-Presidents of the Fund, in recognition of their liberality.

THE ERASMUS WILSON BEQUEST.

The following memorial, to which we alluded last week, has been addressed to the President, Vice-Presidents, and Council of the Royal College of Surgeons of England:—

"GENTLEMEN,—We, the undersigned, being informed that a legacy of a considerable amount has been bequeathed to you by the late Sir Erasmus Wilson for the benefit of the College, and presumably for the advancement of science, beg respectfully to direct your attention to the need of support of those collateral branches of medicine which can only flourish by liberal pecuniary aid. We would, therefore, submit to you the desirability of founding an institution under the direction of the College which shall have for its object "physiological and pathological research." The want of such an institution in England has long been felt, and more especially of late, when we have had to look to Berlin for information respecting tubercle and to Paris for experiments on the prevention of hydrophobia. It is a national discredit that we have nothing in London like the splendid laboratories which exist not only in the capital cities of Europe, but in comparatively small towns, such as Bonn, Strasburg, and Leipsic. There is little prospect of the Government establishing such an institution, or of its being founded by public subscription; the only hope of its foundation lies in the possible bequest of a large sum of money to be devoted to scientific uses. An opportunity has now occurred which has put it in the power of the College to carry this into effect, an opportunity which if now lost may never recur. The foundation of an institution of this nature would tend to raise England to the scientific position held by France and Germany, would create a body of men anxious to devote themselves to scientific work, would be in accord with the best wishes of the donor, and would place the Royal College of Surgeons of England amongst the foremost institutions of Europe. The President and Council would be doing much to their honour if, when an endeavour is being made to strengthen the Empire by a consolidation of the Colonies, they founded an institute in the mother country which should draw to it students from all parts of Her Majesty's dominions.

"We remain, gentlemen, yours obediently,

John Eric Erichsen, F.R.C.S.; J. Hughlings Jackson, M.D.; Sir Henry Thompson, F.R.C.S.; Sir J. Fayrer, K.C.S.I., M.D.; David Ferrier, M.D.; Sir William W. Gull, Bart., M.D.; W. Watson Cheyne, F.R.C.S.; Francis Galton, M.A.; Geo. H. Savage, M.D.; George Pollock, F.R.C.S.; Sir Jas. Risdon Bennett, M.D.; P. H. Pye-Smith, M.D.; John Simon, C.B., F.R.C.S.; E. Klein, M.D.; Sir Henry W. Acland, K.C.B., M.D.; George J. Romanes, F.R.S.; F. W. Pavy, M.D.; W. H. Flower, F.R.S.; Sir Andrew Clark, Bart., M.D.; Sir W. Bowman, Bart., F.R.S.; Richard Quain, M.D.; Gerald F. Yeo, M.D.; George Fleming, LL.D.; W. H. Broadbent, M.D.; Thos. Stevenson, M.D.; Victor Horsley, F.R.C.S.; Sir Edward H. Sieveking, M.D.; T. Lauder Brunton, M.D.; E. A. Schäfer, M.R.C.S.; W. Withers Moore, M.D.; Robt. Cory, M.D.; H. N. Moseley, F.R.S.; E. Ray Lankester, F.R.S.; R. Brudenell Carter, F.R.C.S.; Charles E. Groves, F.R.S.; Thomas H. Huxley, F.R.C.S.; Arthur Gamgee, M.D.; John Tyndall, F.R.S.; Sir John Lubbock, Bart.; Jos. D. Hooker, F.R.S.; W. T. Thiselton Dyer, F.R.S.; Shirley F. Murphy, M.R.C.S.; M. Foster, M.D.; J. Burdon Sanderson, M.D.; Charles S. Roy, M.D.; Francis Darwin, M.B.; Hugo Müller, F.R.S.; J. N. Langley, F.R.S.; W. H. Corfield, M.D.; W. H. Gaskell, M.D.; Donald MacAlister, M.D.; Samuel Wilks, M.D.

(The last-named gentleman acted as secretary.)

The memorial was, as we announced last week, referred to a committee on the question as to the disposal of the fund under the will of Sir Erasmus Wilson.

HEALTH OF THE METROPOLITAN POLICE.

SIR CHARLES WARREN states the "authorised strength on Dec. 31st, 1885," to have been 13,319, but nowhere in the report is the average strength throughout the year given. Of this strength, 12,586 were employed in the metropolitan divisions, and 733 in the dockyards and military stations of Woolwich, Portsmouth, Devonport, Chatham, and Pembroke. The Chief Surgeon reports that "the total number of separate individuals who were on the sick list during the year 1885" was 6328, but he does not state how many cases occurred, nor does he give any information respecting the diseases from which the men suffered or the number constantly off duty on account of sickness. There were 204 men admitted into general or special hospitals, and 20 into naval hospitals during the year, but there is nothing to show whether these were included in the number stated above. The deaths amounted to 66, of which 16 occurred in hospitals; 1 man shot himself, 1 was drowned, 1 was killed by accidentally falling downstairs, and 3 died from fractures, in one case complicated with delirium tremens. The proportion of deaths to strength for the whole force was 4·96 per 1000; only one of the deaths occurred among the men employed in the dockyards. The death-rate in the metropolitan divisions was 5·16 per 1000 of strength, a ratio which compares favourably with previous periods. In the five years 1852-6, it amounted to 7·6, or excluding deaths from cholera, which was epidemic in 1853–4, to 7·4 per 1000, and in 1880 it was 6·4 per 1000. Of the 65 deaths in the metropolitan divisions, 31 were caused by pulmonary diseases, being in the ratio of 2·46 per 1000 of the strength, and lower than in either of the two previous periods. The men removed from the force on account of being "incapacitated by sickness or long service" amounted to 222, or 16·67 per 1000. This is very much below the proportion returned as "invalided" in previous reports, having been 35 in 1852–6 and 25 in 1880; but there may probably be some difference in the mode of recording the discharges at these different periods. In the present return the cause of invaliding is stated in only 163 cases; 44, or upwards of one-fourth, were assigned to rheumatism, rheumatic gout, and sciatica; 22 to long service, age and debility; and 16 to pulmonary diseases. So far as we can judge from the information afforded by the returns, the health of the force has been very satisfactory.

THE PARKES MUSEUM.

THE annual report of this institution, which was presented at the general meeting in December, shows conclusively that the work which is being done by the museum is of a kind calculated to be of great utility to the public. Since its inception, now nearly eleven years ago, the annual records of the work done have none of them, we think, equalled the record of 1886 for real solidity in its accomplished facts. Early in the year 1886 it was suggested that a course of lectures should be given intended to meet the requirements of persons desirous of qualifying for such offices as that of inspector of nuisances, &c. No difficulty was found in arranging these lectures. Professors de Chaumont, Corfield, Robinson, Messrs. Eassie, Percy, Boulnois, Shirley Murphy, Wynter Blyth, Sykes, and Cassal each expressed their readiness to help by delivering one or two lectures intended to form part of a coherent course, and it is no wonder that with such a well-qualified staff the lectures became popular. A fee of 5*s.* was charged, with the result that some sixty persons attended the course; and when, as was necessary, the course was repeated in the autumn, seventy-five persons were found who were eager to pay the small fee and listen steadily to the instruction offered. This is work of the right kind, and work which, as we have said above, must benefit the public. The lectures are admirably calculated for the audiences to which they are delivered, and the museum affords abundance of material with which to illustrate them. In lectures such as these the museum finds its true mission. The collection is not one calculated to attract the public at large, and it is obvious that the person who is ignorant in sanitary matters would fail to appreciate the exhibits, many of which are of a very technical character. When, however, the lecturer

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and the museum collection become mutually complementary to each other the value of each is enormously increased.

The ordinary lectures to the members were well attended.

Most of the recognised teachers of hygiene brought their classes to the Museum for practical instruction.

The library, we are told, has been enriched during the past year by 450 books and pamphlets, and the card catalogue is completed, so that the work of reference is easily carried on. Those of our readers who issue annual reports on sanitary subjects would do well to remember the importance of sending such reports to this central library devoted to sanitation, which is yearly becoming of more and more importance.

The lectures for the ensuing year are to be given, not as heretofore in the evening, but at five in the afternoon—an hour which it is hoped may prove convenient to the majority of members and their friends. The first lecture is arranged for Thursday next, Jan. 27th. The lecturer is Mr. Ogle Tarbotton, M.Inst.C.E., and the subject is "Engineering and Architecture in relation to Sanitary Science." Captain Douglas Galton, F.R.S., will occupy the chair.

ADULTERATION OF FOOD AND DRUGS ACT.

A SPECIAL general meeting was held on Jan. 12th at the Lecture-room of the Sheffield Pharmaceutical and Chemical Society, Norfolk-row. The meeting was called "to consider the recent ruling at Sheffield Town Hall under the 'adulteration of Food and Drugs Act.'" The chair was occupied by the President, Mr. Newsholme, and there was a large attendance, the room being almost filled.

The Chairman proposed the first resolution, which was as follows: "That this meeting, specially convened, views with alarm the recent decision of the Sheffield stipendiary magistrate 'that a preparation containing *any* opium and *any* alcohol whatever may be legally sold as tincture of opium'; and this meeting is of opinion that if this be upheld as legal, and is acted upon, it is likely to interfere dangerously with uniformity and with the public safety. It would further affirm that the only tincture of opium acknowledged generally by the trade is that of the British Pharmacopœia."

The resolution was carried unanimously, as was also the following:—

Moved by Mr. Ward, F.C.S.: "That this meeting expresses also its astonishment at the judgment recently given with respect to paregoric, that any preparation of a soothing nature may be sold under that name. It holds that the fact of two or more dissimilar prepartions having the same name is so dangerous to public health that it is desirable the Pharmacopœia Committee should adopt, as a synonym of the compound tincture of camphor of the Pharmacopœia, that which is commonly known as paregoric, paregoric elixir, and elixir paregoric."

Moved by Mr. Preston: "That this meeting desires to point out its determination strictly to conform to the British Pharmacopœia as binding upon it, in accordance with the Order in Her Majesty's Privy Council made respecting thereto."

This resolution was carried almost unanimously, and a vote of thanks to the Chairman concluded the meeting.

ST. ANDREWS GRADUATES' ASSOCIATION.

ON Friday afternoon last, Mr. Balfour, Secretary for Scotland, and his colleague, the Lord Advocate, received a deputation of the St. Andrews Graduates' Association at Dover House, Whitehall. The memorial, signed by 789 graduates of the University, urged that an endowment be found for two additional professors—viz., a Professor of Anatomy and a Professor of Botany, so that the University may be enabled to give two *anni medici* to medical students attending the University. After completing their two years' course of preliminary and theoretical study, they could go for practical and clinical work to any of the great hospitals of the United Kingdom most convenient to them; they could then return to the University and submit themselves to examination, and thus obtain graduation and a licence to practise their profession. Dr. B. W. Richardson, President of the Association, Sir J. Crichton Browne, Surgeon-General Gordon, and Dr. Hicks, F.R.S., spoke in support of the memorial. Mr. Balfour and the Lord Advocate, in reply to the deputation, assured them that the ancient University of St. Andrews was secure of the good-will of Her Majesty's Government, and that the memorial itself and the arguments in support of it would receive due attention. They also intimated to the deputation that evidence upon the matter set forth in the memorial would be received by the Commission about to be appointed to inquire into the constitution and endowments of the Scottish Universities, and the deputation agreed to furnish this evidence to the Commission. A cordial vote of thanks to Mr. Balfour and to the Lord Advocate for their courtesy and attention was then proposed and carried unanimously.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5856 births and 4263 deaths were registered during the week ending Jan. 15th. The annual death-rate in these towns, which had increased in the preceding four weeks from 20·7, to 26·5 per 1000, declined again last week to 24·1. During the thirteen weeks of last quarter the death-rate in these towns averaged 20·3 per 1000, and was 2·1 below the mean rate in the corresponding periods of the ten years 1876-85. The lowest rates in these towns last week were 17·4 in Portsmouth, 19·3 in Bradford, 19·3 in Sunderland, and 19·8 in Oldham. The rates in the other towns ranged upwards to 30·4 in Cardiff, 30·8 in Blackburn, 31·0 in Manchester, and 31·6 in Wolverhampton. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 537 and 475 in the preceding two weeks, were last week 485; they included 195 from measles, 95 from whooping-cough, 82 from scarlet fever, 48 from "fever" (principally enteric), 34 from diarrhœa, 31 from diphtheria, and not one from small-pox. These zymotic diseases caused the lowest death-rates last week in Brighton, Portsmouth, Nottingham, and Bolton; and the highest rates in Leeds, Sunderland, and Huddersfield. The greatest mortality from measles occurred in Liverpool, Wolverhampton, Newcastle-upon-Tyne, Halifax, Leicester, and Leeds; from whooping-cough in Bristol, Plymouth, Preston, Sunderland, and Huddersfield; from scarlet fever in Norwich, Bristol, Manchester, Blackburn, Sheffield, and Sunderland; and from "fever" in Birkenhead and Plymouth. The 31 deaths from diphtheria in the twenty-eight towns included 18 in London and 5 in Birmingham. Small-pox caused no death in London and its outer ring, or in any of the twenty-seven large provincial towns. Only 2 cases of small-pox were under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease. The deaths referred to diseases of the respiratory organs in London, which had increased in the preceding four weeks from 416 to 731, declined again last week to 591, but exceeded the corrected average by 89. The causes of 107, or 2·5 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Cardiff, Birkenhead, Derby, and Plymouth. The largest proportions of uncertified deaths were registered in Sheffield, Halifax, and Huddersfield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 25·1 and 29·9 per 1000 in the preceding two weeks, declined again to 26·1 in the week ending Jan. 15th; this rate exceeded, however, by 2·0 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 16·4 and 18·0 in Greenock and Leith, to 30·9 in Glasgow and 33·3 in Paisley. The 652 deaths in the eight towns last week showed a decline of 94 from the number in the previous week, and included 26 which were referred to whooping-cough, 13 to scarlet fever, 10 to measles, 10 to diarrhœa, 7 to "fever" (typhus, enteric, or simple), 5 to diphtheria, and one to small-pox; in all 72 deaths resulted from these principal zymotic diseases, against 63, 73, and 94 in the preceding three weeks. These 72 deaths were equal to an annual rate of

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29 per 1000, which was 0·2 above the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 15, 21, and 27 in the previous three weeks, were last week 26, of which 18 occurred in Glasgow, 4 in Edinburgh, 2 in Aberdeen, and 2 in Paisley. The 13 deaths from scarlet fever corresponded with the number in the previous week, and included 8 in Glasgow and 5 in Edinburgh. The 10 deaths attributed to diarrhœa showed a decline of 8 from the number in the previous week; 5 were returned in Glasgow and 2 in Edinburgh. All the 10 fatal cases of measles occurred in Glasgow. The seven deaths referred to "fever" corresponded with the number in the previous week; and included 2 in Glasgow, 2 in Greenock, and 2 in Paisley. The 5 fatal cases of diphtheria showed a decline of 12 from the numbers in the previous week; 4 were returned in Glasgow. The death referred to small-pox was a fatal case of chicken-pox in Glasgow. The deaths from acute diseases of the respiratory organs in the eight towns, which had been 179 and 213 in the preceding two weeks, declined again last week to 181, but exceeded the number in the corresponding week of last year by 36. The causes of 86, or more than 13 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 38·0 and 31·3 per 1000 in the preceding two weeks, rose again to 36·2 in the week ending Jan. 15th. During the thirteen weeks of last quarter the death-rate in the city averaged 26·7; the mean rate during the same period did not exceed 18·8 in London and 19·5 in Edinburgh. The 245 deaths in Dublin last week showed an increase of 33 upon the number returned in the previous week, and included 8 which were referred to scarlet fever, 7 to diarrhœa, 4 to "fever" (typhus, enteric, or simple), 2 to whooping-cough, and not one either to small-pox, measles, or diphtheria. Thus the deaths from these principal zymotic diseases, which had declined in the preceding five weeks from 23 to 13, rose again last week to 21; they were equal to an annual rate of 3·1 per 1000, the rates from the same diseases being 2·3 in London and 2·4 in Edinburgh. The fatal cases of scarlet fever, which had been 11 and 6 in the preceding two weeks, rose again last week to 8; the deaths from diarrhœa and diphtheria also showed an increase upon the numbers in the preceding week; while those from "fever" showed no variation. The deaths both of infants and of elderly persons showed a considerable increase upon the numbers in the previous week. Five inquest cases and 5 deaths from violence were registered; and 82, or more than a third, of the deaths occurred in public institutions. The causes of 41, or more than 16 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

INDIA OFFICE.—The Queen has approved of the following promotions made by the Governments in India:—Surgeon-Major James Hunt Condon, M.D., of the Bengal Medical Establishment, and Surgeon-Major Edward Sexton, M.D., of the Bombay Medical Establishment, to be Brigade Surgeons.

ADMIRALTY.—The following appointment has been made: Surgeon Ernest Apthorpe, to the *Bullfrog*.

RIFLE VOLUNTEERS.—1st Dumbartonshire: Acting Surgeon William Mackie resigns his appointment.—1st Elgin: Acting Surgeon D. Hardie resigns his appointment.

THE CROYDON SEWAGE FARM.—The Beckenham Local Board have given instructions for an injunction to be applied for to restrain the Croydon corporation from continuing to use their sewage farm at South Norwood. It is alleged that the farm causes an intolerable nuisance, and is prejudicial to the health of the locality. The Beckenham board will, it is stated, probably be joined in the application by other adjacent local authorities.

PERILS OF JUVENILE PARTIES.—It is stated that after a juvenile ball given by a well-known Spanish nobleman, seventeen of the children who had been present were found to be suffering from measles, one of the little guests having only just been convalescent from that affection.

Correspondence.

"Audi alteram partem."

"FEVER CASES IN GENERAL HOSPITALS."

To the Editors of THE LANCET.

SIRS,—In your short article, on page 83 of your issue dated 8th inst., approving the decision of the governors of the Sussex County Hospital, situated in the borough of Brighton, to exclude in future cases of typhus, scarlatina, and measles (small-pox is already proscribed) from the hospital, you do not appear to have been fully informed as to the ample provision which has been made by the Corporation for the isolation and treatment of these and other infectious diseases. Will you, therefore, allow me to supplement this deficiency, and to put your readers in possession of the cardinal facts relating to the question.

About six years ago the Town Council—which is the sanitary authority of the borough—purchased ten acres of ground to the north of the town or on the Downs, well removed from all human habitations, and in due course proceeded to erect thereon a commodious sanatorium at a cost of about £13,853, so arranged and divided as to enable the sanitary committee, assisted by the health officer, to cope not only with the ordinary, but also with any extraordinary, demands that might be made upon its resources. The administration block provides accommodation for the physician, matron and steward, nurses, and female servants. The numerous wards and the convalescent rooms can be separately heated at any moment, and maintained at any temperature required. The ventilation is unimpeachable. The arrangements are such that each form of contagious disease can be effectually quarantined from all other types. The sexes are also separated. So that there are two wards assigned for each variety or type of fever, each being equipped with its own nursing establishment and other necessary appointments. Any of these compartments can be fumigated and disinfected with ease; and, as a matter of precaution, this is repeatedly done to make assurance doubly sure. The disinfecting apparatus is open for the use of the public as well as for that of the inmates of the sanatorium. There is an efficient laundry. Telephonic communication exists with the porter's lodge, the Town Hall, and one of the police stations. For the extinction or limitation of fire, hydrants have been fixed, and are periodically inspected and reported upon, like others in the town, to the Watch Committee. A Lewis hand fire-extinguisher is suspended in every ward.

From the foregoing summary, it will be gathered that, as regards the town of Brighton, the quarantine afforded is all that can be desired. The public are still further protected by the employment of an ambulance for the transport of patients and their infected clothing &c., and by its thorough disinfection after being used. The risks involved in conveying in cabs persons suffering from infectious disease are thus avoided. As regards the different kinds of fever, the segregation on the spot, and the periodical purifications of the wards &c., are about as perfect as they can be made.

During the meeting of the British Medical Association here in August last, the hospital was visited by a large number of medical practitioners and health officers, who, without exception, accorded to its management and organisation their full and unqualified approbation. Then there were only four patients. The numbers have seldom exceeded, at any time, a very minute tithe of those for whom provision can be made at the shortest notice. But, seeing that Brighton has occasionally suffered from want of a refuge of this description, the Corporation, in the exercise of the sanitary powers vested in them, have doubtless acted wisely and well, in providing, on a large and liberal scale, readily admitting of much elasticity either in the direction of expansion or contraction, for every emergency.

The commissioners of the adjoining town of Hove have lately opened their splendid Sanatorium which, with the ground, it is believed, cost about £10,000. It is placed at a safe distance, and convenient enough to Aldrington and Portslade—both rising and growing communities; and it may probably be eventually utilised by the inhabitants of these places as well as by those of Hove.—Yours truly,

JOSEPH EWART, M.D.,
Chairman of the Sanitary Committee,
Brighton Town Council.

Brighton, Jan. 14th, 1887

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THE PROVIDENT PRINCIPLE AND THE MEDICAL PROFESSION.

To the Editors of THE LANCET.

SIRS,—In condensing into a single paragraph in your leading article in THE LANCET of to-day the proposals for united action between hospitals, general and special, and dispensaries, provident or otherwise, in each district of London, contained in my Sturge Prize Essay, you do, I think, some injustice (quite unintentionally, I am sure) to an idea for which I lay no claim of originality, it having been expressed in both the other successful essays, and possibly in many others of the seventy or eighty which were not successful. The following passage will place the matter before your readers in its true light:—

"If the managers of hospitals desire, as no doubt they do, to have their incomes increased in proportion to the needs of an enormously increased and still increasing London, they must be prepared to abandon the policy of isolation which leads each institution to appeal for itself alone, and to act as if unconscious of the presence of other medical charities in its neighbourhood. The union, for certain purposes, of a group of general and special hospitals and dispensaries in each district of London is to be advocated on many grounds, not the least of which is that it would greatly facilitate the making of effective appeals for funds in a systematic manner. It would also render it easier for the public to distinguish between useful and useless charities, and for hospital managers to compare the different modes of keeping hospital accounts, and of making appeals to the public, with the object of securing the general adoption of what seemed to be the best. It would be almost a necessary preliminary to the systematic workshop collections advocated above, as it would render it possible to offer subscribers the option of going to any of the united medical institutions in their district. A further step in advance would be the union of these various groups under one council with a central office."

I must not trespass on your space so far as to explain what are the "systematic workshop collections" mentioned in this passage, but I shall be happy to send a copy of the essay to any of your readers interested in the subject.

I am, Sirs, yours faithfully,

Southville Park Villas, Jan. 15th, 1887. H. NELSON HARDY.

THE MEDICAL REGISTER.

To the Editors of THE LANCET.

SIRS,—With reference to my communication as to the registration of the diploma of Member of the King and Queen's College of Physicians in Ireland, and the degree of Master in Obstetrics of the Universities, which appeared in THE LANCET of Dec. 25th, I have since that time been engaged in correspondence with the English and Irish Offices of the Medical Council as to the refusal of the Registrar of the Branch Medical Council for Ireland to carry out Clause 20 of the Medical Act, 1886. The result is that these qualifications are now registrable in England, Ireland, and Scotland, and I understand that those already on the Register can have these additional qualifications appended to their names in the Register for 1887 by making application to the Registrar for Ireland during the next week or ten days.

I am, Sirs, yours &c.,

Dublin, Jan. 15th, 1887. C. FREDK. KNIGHT, M.D.

"SCHOOL-MADE CHOREA."

To the Editors of THE LANCET.

SIRS,—Having a year or two ago acted for twelve months as honorary correspondent to one of the largest Board schools in London, I have read with much interest in THE LANCET of last week Dr. Sturges' contribution and the leading article upon the subject of school-made chores.

Dr. Sturges clearly makes out two points. First, that by neglect of the temperament of children chorea is sometimes caused by the mere distress of uncongenial work. Secondly, that when chorea has just begun in a child it often remains unnoticed, and so becomes much exaggerated by school work. The remedy for the first grievance will, I am afraid, remain far distant so long as the present system of forcing children through certain standards, irrespective of their inclination and capabilities, prevails. The second complaint, that of the neglect of commencing chorea, is only a small part of a very wide evil. The commencement not only of chorea, but of all diseases, is neglected in Board schools. No place affords so good an opportunity of studying the different stages in the development of permanent squint than a large infants' Board school. Here, also, children may be seen "growing out of" rickets, and so on. Most of us will also remember the sad case of the child who died of meningitis a few days after he had received a blow on the head for being stupid. The remedy for this state of things is obvious. What is required is a skilled medical inspection of Board schools. It is useless to trust, as at present, to the unskilled and preoccupied observations of the teachers. The Board at present has an expensive organisation for driving children into the schools, but no provision is made to ensure that the children so driven in are fit to go to school. It seems incredible that an institution such as the School Board, whose very existence depends on the value of training, should trust their pupils' health to unskilled hands. I trust that all this will soon be changed; but the change will be brought about only by the calm display of facts, such as appears in Dr. Sturges' article.—I am, Sirs, your obedient servant,

London, Jan. 1887. THOS. GLOVER LYON.

RELATION OF PHTHISIS TO OVARIAN CYSTIC DISEASE.

To the Editors of THE LANCET.

SIRS,—In reference to Dr. Bailey's case narrated in your Clinical Notes of last week's issue, I would, firstly, venture to congratulate him on his accurate diagnosis and successful treatment of a most difficult case, and, secondly, I would thank him for the information he kindly gives me on the point of the relation between phthisis and ovarian cystic disease, for which I am the more grateful because it is *not* confirmatory of the common family history of consumption. But he mentions a fact which strongly supports the theory I ventured to propound, that ovarian cysts were caused by a family tendency to early tissue degeneration. Dr. Bailey says "the patient's parents were first cousins," and how marriages of consanguinity tend to the enfeeblement of the offspring in a great majority of cases is well known. But I feel still more grateful to Dr. Bailey because many professional brethren have most kindly and courteously sent me family charts or particulars of cases in which ovarian cysts and phthisis were existent markedly in the same family, but hitherto no one has favoured me with notes of a case occurring in a member of a healthy family. Such, of course, we know do happen, and I have tried to show the importance of knowing *why*.—Yours faithfully,

West-street, Finsbury-circus, Jan. 17th. BEDFORD FENWICK.

A "NEW" METHOD OF EXCISING THE KNEE-JOINT.

To the Editors of THE LANCET.

SIRS,—I at the earliest opportunity most frankly acknowledge that the operation I thought to be my own has previously been suggested and performed by Professor Ollier. I also tender my sincere thanks to Mr. Keetley for referring me to Professor Ollier's paper in the *Revue de Chirurgie*, which I had never seen before this day. The merits of the operation I submit should in fairness be left to future clinical experience.

I am, Sirs, yours truly,

Jan. 19th, 1887. HERBERT ALLINGHAM.

DEGREES FOR LONDON MEDICAL STUDENTS.

To the Editors of THE LANCET.

SIRS,—With regard to your paragraph in THE LANCET of Jan. 15th, stating that the students of St. Mary's Hospital were the first to express a collective opinion on the scheme of the conjoint Colleges for granting an M.D. degree, I think it is only right to say that on Nov. 25th, 1885, at a meeting of the University College Medical Society, attended by over one hundred students, Dr. Thomas Barlow being in the chair, an almost identical resolution to that approved by the students of St. Mary's Hospital was passed, after a long and animated discussion.—Yours truly,

J. WALTER CARR, M.B., B.S.,
President, Univ. Col. Medical Society.

University College Hospital, Jan. 16th, 1887.

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NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

THE NEWCASTLE INFIRMARY.

THE special committee appointed by the governors of the Newcastle Infirmary two months ago have completed their labours and have adopted their report for presentation to the governors. The report is a very voluminous one, and at the same time critical as regards the financial position and past management of the institution. The ground it covers may be inferred from the fact that it fills nearly five columns of our daily papers here, so that I can only give you a condensation of it in this letter. The committee, in dealing with the question of admission of patients, recommend the institution of a ward for those who can pay a whole or part of the expense incurred by their keep. They point out that at present there is much overlapping of the medical charities of the city, and, for instance, recommend the removal of children, except in some surgical cases, to the new children's hospitals at Newcastle and Gateshead when these institutions are ready to receive them. As regards expense, under the head of stimulants they point out that it is in excess of all other institutions with which comparison has been made, with one exception, and they think that it ought to be capable of a reduction of at least 10s. per bed per annum, which would effect a saving of £117 in this head. In reference to the very large expense of one article of diet for the sick—viz., £747 last year for beef-tea alone,—they suggest that a better and cheaper beef-tea could be made by proper cooking. The use of rabbits in place of fowl to some extent is also recommended; and skimmed milk, they think, might be more generally used at the infirmary; also the more general use of oatmeal porridge. The recommendations of the committee as regards beef-tea are to a very great extent borne out by the special analysis of Mr. T. Hatfield Walker, analyst for the city of Carlisle, who states that when beef-tea is intended for enemata it should not be heated above 100° F. Some suggestions are made as to the nursing department, and also as regards saving under the head of antiseptic dressings, an account to be kept of the expense to each bed and to each surgeon, as at Edinburgh. A table is given, showing the number of out-patients and casuals treated in the various medical charities of Newcastle and Gateshead during the year 1885, the total amounting to 75,503. The committee are of opinion that the time has come for abandoning the letter system, and making the infirmary a free institution, and in this they have the unanimous support of the medical board. They further say that the infirmary has long been a school of practical medicine and surgery, and is not the least important factor in the success of the College of Medicine here. The number of pupils entered for the hospital practice at the present time is 115. Of these 38 are full students entered for the complete course of the College, and about 40 are from the metropolitan hospitals. At present the fees are about £1000 per annum, and are at the disposal of the honorary physicians and surgeons, with some small deductions for the infirmary library, &c. The committee think that, without interfering with the fees charged for pure clinical instruction, a charge of £5 5s. per annum should be made for each student using the infirmary, to be paid to and received by the treasurer for the benefit of the infirmary, and they refer to the custom at Edinburgh in this respect. My own opinion is that Newcastle cannot be compared with Edinburgh for many obvious reasons, and that the charge will be regarded, on the one hand, as a fine on the students, and, on the other, an attempt, and not a generous one, to lighten the pockets of the teachers. Surely £5 5s. per annum is too heavy a fine for a student's attendance at our infirmary, good as it is. I predict that this suggestion will require considerable modification before it is adopted. The committee record an investigation of cases which is of considerable interest. Of 161 cases, 41, or one-third, were reported as venereal. Of 33 cases investigated, 5 were in receipt of 5s. per week, 2 had given false addresses, 5 were in receipt of parish relief, and the remaining 21 were persons whose circumstances may be said to have justified their seeking medical relief at the infirmary, though some could afford to make some small payment to a club or provident dispensary. As to venereal cases, the committee recommend that, although only a few male patients had been admitted since 1885, when the lock ward was closed, for the future a stringent rule should be made excluding all such cases, as it is an abuse of the charity to use its funds for this purpose, and they further advise all the other medical charities not to receive them. Here the committee go rather astray, and forget, or are ignorant of, the multitude of cases which spring from this origin, and crowd out eye, throat, ear, and skin hospitals. Besides, if this is strictly carried out at the infirmary, their pupils will pass from its wards very imperfectly equipped with practical knowledge of a very valuable nature. Not very long ago I told you that the question of making the infirmary a free hospital was looming in the not very far distance. This met with an official contradiction. Well, after all, your correspondent was only very slightly in advance of the fact, which is now in a fair way of being accomplished. The committee also recommend the abolition of the casual and out-patients' department, which would effect a saving of £1000 per annum.

Newcastle-on-Tyne, Jan. 17th.

LIVERPOOL.

(From our own Correspondent.)

THE SEVENTEENTH ANNIVERSARY OF HOSPITAL SUNDAY IN LIVERPOOL.

WHEN Hospital Sunday first became an institution here we were favoured with good weather. This continued for years, and it is only recently that the weather has been so inclement. A more unfavourable day than that which marked the seventeenth anniversary could not have been imagined. The result was a great falling off in the attendance at church and chapel, and in most instances a considerable reduction in the sums collected. So strongly has it been felt that many persons were deprived by the weather of the opportunity of showing their interest in the medical charities, that additional appeals were made and offerings collected on the following Sunday, the 16th inst. The total amount of the Sunday collections, as advised to the treasurer up to the 18th inst., amounts to £4074. Many more collections have yet to be returned.

THE HOSPITAL FOR WOMEN.

A meeting of the governors of this charity was held on the 17th to elect a successor to the late Dr. Lupton. On the recommendation of the Committee, Dr. Henry Briggs, M.B. Edin., F.R.C.S. Eng., honorary medical officer to the Ladies' Charity and Lying-in Hospital, was unanimously elected. Dr. Briggs has resided in Liverpool for nearly ten years, during which he has held the offices of senior house-surgeon at the Stanley Hospital, and of resident medical officer to the Royal Infirmary. He has also been demonstrator of anatomy at the Liverpool University College, surgical pathologist, tutor in clinical surgery, and chloroformist at the Royal Infirmary. In all these he has won golden opinions both from patients and colleagues, and the governors of the Hospital for Women are to be congratulated on the choice they have made.

THE STANLEY HOSPITAL.

Drs. Costine and Sheldon, the founders of the Stanley Hospital, who have just retired from the positions of honorary physician and surgeon respectively after twenty years' service, were on the 15th inst. presented with their portraits painted in oil, as a mark of the appreciation in which they are held by the medical staff of the hospital. The presentation was made at a dinner given at the Adelphi Hotel, at which Dr. Kellett Smith presided, among the guests being Mr. Edward Whitley, M.P. For the vacancies thus created Dr. Whitford has been elected physician, and Mr. Robert Jones surgeon.

ADULTERATION OF PEPPER.

Dr. Campbell Brown, the city analyst, and Professor of Chemistry in University College, has done a great public service in detecting and exposing the manner in which pepper is largely adulterated, not only in Liverpool, but elsewhere. It would appear that the adulteration consists of the admixture of 15 per cent. of a hard ligneous tissue,

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consisting of ground fruit stones, resembling olive stones. It would also appear that a worthless material resembling ground olive stones is imported from Italy, under the name of "pepperette" or "poivrette," for the express purpose of being fraudulently mixed with pepper.

NORTHERN HOSPITAL.

Dr. James Barr was on the 18th inst. elected, without opposition, physician to the Northern Hospital, in the place of Dr. Seaton, recently elected physician to the Infirmary. Dr. Barr is well known for his many contributions to medical literature.

Liverpool, Jan, 20th.

EDINBURGH.

(From our own Correspondent.)

THE LATE LORD IDDESLEIGH.

ON Tuesday last the lectures in the University were entirely omitted, as a mark of respect for the late Lord Rector, while in the afternoon a University memorial service was held in St. Giles' Cathedral, synchronously with that in Westminster Abbey, and with the funeral obsequies in Devonshire. In the Cathedral, which was very crowded, there was a large assemblage of the students, amongst whom the late Lord Rector was an especial favourite, and who were eager to pay this last tribute of respect to their twice-elected representative. The general public filled all the remaining space, with the exception of a portion of the chancel, which was occupied by University officials in their robes and insignia of office. The memorial sermon, preached by Dr. Cameron Lees, one of Her Majesty's chaplains, referred to the great loss to the University and to the cause of culture throughout the country occasioned by Lord Iddesleigh's death. A large part of the sermon dealt with the manly and noble character of the late Earl, as evidenced alike in public and in private life. A special service had been prepared for the occasion, containing appropriate selections for the choir, and the whole ceremony was of a strikingly impressive nature.

HEALTH LECTURE FOR THE PEOPLE.

A popular lecture under the auspices of the Health Society was delivered by Professor Stirling of Manchester last Saturday, and was largely attended. The lecturer chose the subject of "Wear and Tear," illustrating the transformation of energy and of material in the animal mechanism by a series of most demonstrative experiments. In an admirable way the physiological facts connected with nutrition and excretion were enumerated, illustrated by conclusive experiments, and correlated with rules for daily living of great practical importance. The demonstration was heartily appreciated by the audience, who could hardly fail to profit by the lucid exposition of the subject supplied by the lecturer.

THE ROYAL INFIRMARY.

A meeting of the contributors was held last Monday, to consider the report of their committee upon the management of the institution during 1886. The report was of a very satisfactory nature, and was unanimously adopted. It shows that in the twelve months 8088 in-patients and 25,500 out-patients have received treatment at the institution; 57 per cent. of the cases were treated in the surgical hospital, 43 per cent. in the medical house. The success of the new special departments for dermatology and throat and ear diseases is also alluded to. During the year a new observation hospital for infectious cases has been added, situated in an isolated part of the infirmary grounds; and, including this addition, the institution can now accommodate 660 inmates. The ordinary expenditure shows a distinct decrease, while the daily average of patients has been larger than in previous years. The committee report in favour of a modification of the bye-laws giving a deliberative as well as a casting vote to the chairman of the Board of Managers, which is not at present the case, an alteration in which all the parties interested concur. Comment is also made upon the thorough and efficient performance of their duties by the present staff, and the yeoman service during so many years rendered by Dr. Joseph Bell, who recently retired from the acting surgical staff of the hospital.

Edinburgh, Jan. 19th.

GLASGOW.

(From our own Correspondent.)

SOUTHERN INFIRMARY.

THE proposal to erect a third infirmary in Glasgow, to be placed on the south side of the river, where there is at present no such institution, has taken very definite shape, and may now be said to be fairly before the public. A few years ago the future of the scheme seemed to be absolutely assured by a large legacy left by a wealthy local manufacturer; it turned out, however, when the donor's estate was wound up, that there was no available balance for the proposed infirmary, so that the provisional committee are again appealing to the public for funds. It is proposed to erect only a portion of the buildings in the meantime. Plans for this have been prepared and estimates accepted provisionally. The sum which the promoters aim at raising is £20,000, and of this £8000 have already been secured. Acting in the spirit of "Bart. Rous," whose lines appear in last week's LANCET, the executive committee have approached the Town Council of Glasgow, urging the adoption of the Southern Infirmary scheme by the city as at least one of its methods of commemorating the Jubilee of Her Majesty the Queen. If this rather appropriate suggestion be adopted, and Her Majesty's consent be obtained to name the institution the "Queen's Infirmary," or the "Victoria Infirmary of Glasgow," the project will become fashionable and popular, and will soon have plenty of funds. Certainly no Jubilee memorial could be more fitting than this, or more in accordance with Her Majesty's well-known sympathies. The great need for such an institution has been amply demonstrated. The south side of the Clyde, with a population of about a quarter of a million, mostly of the working class, has not a single infirmary bed, the two existing infirmaries being situated one at the extreme northern and the other at the extreme western end of the city. That these two infirmaries are unable to cope with all the work expected of them is seen in the fact that, after filling every available bed, the average weekly number of suitable applicants waiting for admission was in 1885 no less than forty-eight, and in 1886 it was fifty-two. While that was the average number, the maximum was reached each year in February, being 120 in 1885 and 144 in 1886. Further statistics show that, while Dublin provides one bed for every 157 of her population, and Edinburgh one for every 400, Glasgow has only one for every 700, and even that is obtained here by considerably curtailing the number of cubic feet of air space which it is desirable each patient should have. When these facts have been fairly digested by the wealthy and generous of Glasgow the future of the scheme will be no longer doubtful. Meantime, it is to be hoped that the request to be made to Her Majesty for official recognition of the infirmary may meet with a favourable response.

HEALTH OF THE CITY.

The last annual report on the health of the city shows that in the year 1886 there were 13,099 deaths registered, as compared with 13,486 in the previous year, a decrease of 387, representing an average death-rate of 25 in place of 26 per 1000 living. Since the Public Registration Act took effect there has not been so low a death-rate, except in 1879 when it was 24·5 per 1000. The slow but steady improvement which is taking place in the health of Glasgow is indicated in the following table:—

Mean death-rate	1866-75	30·4	per 1000.
" " "	1876-80	26·7	"
" " "	1881-85	26·3	"
" " "	1886	25	"

For the fortnight ending 1st January, 1887, the deaths were 631, giving a death-rate of 31·5 per 1000. Fevers, especially scarlatina and measles, still prevail to a great extent in Glasgow; but it is satisfactory to note that in the whole city there are only 3 cases of typhus, and they are all in hospital. One of the typhus patients is a medical practitioner. It is many years since a Glasgow medical man was attacked by typhus, yet in times not very remote, say twenty years ago, this was a common occurrence, and many valuable lives were thus lost. The value of these fever hospitals, both to the profession and to the community at large could not be more clearly demonstrated than by these facts.

Glasgow, Jan. 18th.

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DUBLIN.

(From our own Correspondent.)

THE GENERAL MEDICAL COUNCIL.

I AM in a position to state that Dr. William Moore, Physician in Ordinary to Her Majesty in Ireland, has been offered and has accepted the post of Crown nominee for Ireland on the General Medical Council. Dr. Moore has filled numerous offices with distinction, including that of president of the College of Physicians; and deservedly ranks high in the estimation of the public and his professional brethren.

BRITISH MEDICAL ASSOCIATION.

The tenth annual general meeting of the Dublin Branch of the Association will be held on the 27th inst. in the College of Physicians; when the officers and council for the ensuing year will be elected by ballot, and any other necessary business transacted. The President elect (Dr. Grimshaw), will give the annual address.

BONE-SETTERS: A WARNING.

At a recent meeting of the Drogheda guardians, an application was received from Dr. Adrien for a fee for the performance of an operation under the following circumstances. The patient was a fine young man, aged twenty, who had got his arm broken above the elbow by a fall off a cart. He went to a bone-setter, and as a result of his treatment Drs. Kelly and Byrne were called in, and found the man's arm gangrenous from the tight manner in which the bandages had been applied. On taking off the bandages the bones were found to overlap. The only chance was amputation close to the shoulder, which was done by Drs. Adrien and Kelly. The man is not expected to recover.

BARRINGTON'S HOSPITAL, LIMERICK.

This institution seems financially to be in a very low condition, for at a meeting of the governors last week it was stated that the hospital was £748 in debt, £300 being due to the bank, which had refused to honour any further cheques. It appears also that the resident medical officer and other officers and servants have not been paid their salaries for the past two months. Another meeting of the governors will shortly be held, and in the meantime a committee has been appointed to open a subscription list, and so place the institution in a more satisfactory position than at present.

RICHMOND HOSPITAL, DUBLIN.

There were five candidates for the post of physician to this hospital, which had become vacant by the death of Dr. Lyons. The board appointed Dr. O'Carroll, the assistant-physician. There is no salary attached to the appointment.

ASSISTANT MEDICAL OFFICER TO THE DUBLIN METROPOLITAN POLICE.

By the death of Dr. Long, J.P., a vacancy for an assistant medical officer to the Dublin Police arose; and although the emolument of the post was only £75 a year, yet the competition was most keen, and the candidates were, it is said, over fifty in number, and were from all grades of the profession, from the examiner of a university or corporation down to the simple apothecary. I believe Dr. Long had to compound the medicines ordered, but I understand his successor will not be required to do so. The vacancy has now been filled up by the appointment of Dr. Oulton, formerly resident surgeon to the Meath Hospital.

Dublin, Jan. 18th.

MANCHESTER MEDICAL SOCIETY.—The annual meeting of the members of this Society was held on the 12th inst., Dr. J. Hardie, president, in the chair. The secretary, Mr. F. A. Southam, read the annual report of the committee, in which the members were congratulated on the continued prosperity of the Society. During the past year, it was stated, twenty-four new members had been elected, whilst seventeen had, through death and other causes, severed their connexion. The number of members now on the roll is 249.

ON the 10th inst. an Eye Hospital was formally opened at Cardiff by Mr. Alfred Thomas, M P.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on Jan. 17th:

Cranstoun, George, M.B. Durham, Ludlow, Salop.
Middleton, Alfred Hancock, M.D. Dublin, Shankill, co. Dublin.
Moxham, Marcus Camplin, L.S.A., Swansea.
Murray, John, M.B. Dublin, Norfolk-street.
Tattersall, C. Herman, L.R.C.P. Lond., Patricroft, Manchester.
Wild, Charles Henry, L.K.Q.C.P.I., Bedford-road, Bootle.

Admitted on the 18th inst.:—

Adams, Percy Targett, L.S.A., Ashford-road, Maidstone.
Browne, Henry, L.S.A., Cornwall-road, Westbourne-park.
Foxton, Edward, M.D. Kingston, Brockville, Ontario.
Green, Arthur, M.B. Durham, Walker-terrace, Gateshead.
Harrington, Samuel Henry Nazeby, L.K.Q.C.P.I., Parliament-street, Liverpool.
Howitt, John FitzWilliam, M.B. Toronto, Guilford-street.
Johnson, John G., L.R.C.P. Lond., Campbell House, Aldershot.
McLearn, Isaac Crawford, M.D.Q.U.I., Highgate.
Sparrow, John Elliotson Pennington, L.S.A., Clarendon-road, Southsea.
Sumpter, Berners George, M.B. Durham, Cley-next-sea, Norfolk.
Thornton, Fred Whitfield, L.K.Q.C.P.I., Trinity-street, Huddersfield.
Yeoman, William Metcalfe, M.B. Durham, Northallerton.

Admitted on the 19th inst.:—

Blake, William Henry, L.S.A., Brondesbury Villas, Kilburn.
Brown, Henry Herbert, The Park, Harrow.
Crook, Herbert Evelyn, L.R.C.P. Lond., Northfleet, Kent.
Duncan, H., L.R.C.P. Lond., Henrietta-street, Covent-garden.
Spencer, George Herbert, L.K.Q.C.P.I., Turton, Bolton.
Williams, John T. Creswick, L.S.A., Dolgelly, North Wales.

COLLEGE LECTURES.—The annual course of lectures will be commenced on Monday, January 31st, at 4 o'clock, by Professor Francis Warner, M.D., who will deliver three lectures on the "Anatomy of Movement." Professor W. H. Hylson Jessop will deliver three lectures on the "Intraocular Muscles," commencing on Wednesday, February 16th. Professor C. Barrett Lockwood will deliver three lectures on the "Development and Transition of the Testicle, Normal and Abnormal," commencing on Wednesday, February 23rd. Professor A. Alfred Bowlby will deliver three lectures, commencing on Wednesday, March 2nd (subject will be duly announced). Professor Charles Stewart will deliver nine lectures on the "Auditory Organs of the Vertebrata," and on some recent Additions to the Museum, commencing on Wednesday, March 9th. The course will be concluded in June by Dr. Leonard C. Wooldridge, Professor Henry Power, and Professor Christopher Heath. The subjects of the several lectures will be hereafter published. The lectures will be delivered in the theatre of the College on Mondays, Wednesdays, and Fridays, at 4 o'clock punctually each day.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on the 13th inst., the degree of M.B. was conferred on—

Walsham, Hugo, Caius.

COLLEGE OF PHYSICIANS IN IRELAND.—At the January examinations the following obtained the licences in Medicine and Midwifery of the College:—

MEDICINE.—Thomas Spread Campion, William H. Haslop, Hugh Griffith Hughes, Henry John Mathews, Frederick William Monsell, Denis Joseph O'Loghlin, Thomas Fox Parry, John Sclesfield, Thomas Henry Wilson.

MIDWIFERY.—Thomas Spread Campion, Thomas Augustus Connellan, Timothy Corkery, Hugh Griffith Hughes, Wm. Edward MacFeeters, Henry John Mathews, Frederick William Monsell, Denis O'Loghlin, Thomas Fox Parry, Thomas Henry Wilson.

The following have been admitted Members of the College:

J. Armstrong Hanrahan. | William Frazer (Dublin).
William Frazer. | Guy P. L'E. Nugent.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The following have been admitted Fellows of the College:—

Alfred Asbury, A.M.D. | James McMullen, A.M.D.

SOCIETY OF APOTHECARIES.—The following gentlemen passed the examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise on the 13th inst.:—

Bacot, William Rickward, The College, Sudbury, Middlesex.
Ford, Theodore Albert Vores, Beaufort-road, Clifton, Bristol.
Johnson, Reginald Edward, Winter-street, Sheffield.
Wilde, Leonard, Ardwick House, Watford.

UNDERGROUND WIRES.—The Postmaster-General, in reply to a correspondent, states that the question of extending the system of laying telegraph wires underground shall receive his careful consideration.

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MEDICAL MAGISTRATE.—Dr. Charles B. Plowright has been placed on the Commission of the Peace for the borough of King's Lynn.

A NEW monthly medical journal, entitled *Therapeutische Monatshefte*, edited by Drs. Langgaard and Rabow, is being published by O. Liebreich of Berlin.

THE Marquis of Bute has decided to present to the corporation of Cardiff a site for the proposed hospital for infectious diseases, which it is proposed to provide for that town.

AT the annual meeting of the governors of the Lincoln County Hospital on the 13th inst., it was reported that during the past year the expenditure of the hospital had exceeded its income by £101.

NAVAL MEDICAL SUPPLEMENTAL FUND.—At the quarterly meeting of the directors of the fund, held on the 11th instant, Sir W. R. E. Smart, K.C.B., M.D., Inspector-General, in the chair, the sum of £61 was distributed among the several applicants.

THE large number of applications for admission to the Normal School of Science and Royal School of Mines at South Kensington at the beginning of the present session has necessitated the adoption of a process of selection for the future.

SOCIETY OF PUBLIC ANALYSTS.—At the annual meeting of this Society held in the rooms of the Chemical Society, Burlington House, on the 12th inst., Mr. A. H. Allen, of Sheffield, analyst for the West Riding of Yorkshire, &c., and author of "Commercial Organic Analysis," was elected President of the Society for the ensuing year.

CARDIFF MEDICAL SOCIETY.—The following members have been elected office-bearers for the year 1887: President: Mr. T. Garrett Horder. Committee: Dr. M. G. Evans, Dr. Herbert Vacher, Mr. J. L. Treharne, and Mr. P. Rhys Griffiths, M.B. Treasurer: Dr. C. E. Hardyman. Hon. Secretary: Dr. W. Campbell.

THE Countess of Dufferin has issued an appeal for subscriptions in aid of the funds of the National Association for supplying Female Medical Aid to the Women of India. The Jubilee year seems, as the Countess of Dufferin remarks, a fitting occasion to make a very special effort to help those Indian women in whose sufferings the Queen has shown so great and personal an interest.

EPIDEMICS OF MEASLES.—Up to the 17th inst., 130 cases of measles, 14 of which proved fatal, were reported by the medical officer to have occurred at Sebastopol, Monmouthshire. In accordance with a notice of the sanitary authority the schools have been closed for three weeks. At Ashford in Kent several deaths have occurred, and the disease is pronounced to be of a very bad type. All the schools in the town have been closed for a fortnight.

PRESENTATIONS.—On the 29th ult. the members of the recent class in connexion with the St. John Ambulance Association at Worsbro' Dale presented Mr. Blackburn of Barnsley, who had acted as their instructor, with a Tantalus spirit stand and a silver jug, in recognition of his services.—On the 13th inst. Mr. E. J. Foulston was presented with an illuminated address and a purse of gold, on the occasion of his departure for Earlestown.

LIVERPOOL MEDICAL INSTITUTION.—At the annual meeting held on Thursday, Jan. 13th, the following list of officers, council, and microscopical committee was adopted. President: J. B. Nevins, M.D. Vice-Presidents: William Alexander, F.R.C.S.; James Barr, M.D.; Robert Robertson, M.D.; W. Williams, M.D. Treasurer: F. J. Bailey, L.R.C.P. General Secretary: A. Bernard, M.B. Secretary of ordinary meetings: Damer Harrisson, M.R.C.S. Librarian: Richard Williams, M.R.C.S. Council: Alexander Davidson, M.D.; E. T. Davies, M.B.; C. G. Lee, M.R.C.S.; Robert Gee, M.D.; N. K. Marsh, M.R.C.S.; T. G. Wollaston, M.D.; J. D. Crawford, M.D.; Karl Grossmann, L.R.C.P. Edin.; W. Irvine, M.D.; W. P. Rowe, L.R.C.P. Edin.; G. E. Walker, F.R.C.S.; W. Whitford, M.D. Microscopical Committee: W. Alexander, F.R.C.S.; A. Barron, M.B.; P. M. Braidwood, M.D.; Henry Briggs, F.R.C.S.; G. Hamilton, M.R.C.S.; J. S. Hicks, L.R.C.P.; J. R. Logan, M.B.; Rushton Parker, F.R.C.S.; F. T. Paul, F.R.C.S.; W. Williams, M.D.; J. Wiglesworth, M.D. Auditors: William Fleetwood, M.K.Q.C.P.I.; T. G. Wollaston, M.D.

THE third annual ball for the benefit of the Italian Hospital in London was held on the 18th inst., and was largely attended.

MORTALITY OF MEDICAL MEN AT MATANZAS.—The Havana journal, *La Enciclopedia*, states that during the last three years no less than eight medical practitioners have died at Matanzas, which is a port in the northern part of the island of Cuba, the population of which is only about 35,000.

AYR COUNTY HOSPITAL.—The Committee of the County Hospital ball, which was held last week, have been able to hand over to the treasurer of the hospital the handsome sum of £408 17*s* 6*d*, whilst the funds of the charity have been still further enriched to the extent of £40 as the proceeds of the concert given in the Town Hall a few days since

MEASLES IN A LONDON WORKHOUSE INFIRMARY.—A serious epidemic of measles is prevalent in the Homerton district. At the meeting of the Hackney Board of Guardians on the 19th inst., twenty-four cases, four of them proving fatal, were reported to have occurred in the workhouse infirmary. A Board school in the district has been closed to check if possible the spread of the disease.

NORTH-WESTERN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—At the monthly meeting of the members of this Association, on the 6th inst., a paper was read by Dr. Niven (Oldham) on the Infectiousness of Pneumonia. The author stated that the whole bearing of the inquiry into the question was that the new view that pneumonia was conveyed by germs might lead to the preparation of a vaccine having the power to protect anyone inoculated with it against a subsequent attack of the disease.

MORISON PRIZES FOR MERITORIOUS ATTENDANCE ON THE INSANE.—On the nomination of Dr. Alex. Keiller, LL.D., F.R.C.P.E., the Morison Lecturer on Insanity, the treasurer of the Royal College of Physicians, Edinburgh, has awarded the two annual prizes endowed by the late Sir Alex. Morison for meritorious attendance on the insane to Miss Agnes Shankland, of the Crichton Royal Institution, Dumfries, and Mr. Edward M'Mahon, head attendant, Saughton Hall, Murrayfield.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGE OF PHYSICIANS OF LONDON AND THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

FIRST EXAMINATION.

PART I.—CHEMISTRY, INCLUDING CHEMICAL PHYSICS.

Tuesday, January 4th, 1887, from 1 to 4 P.M. (Candidates must answer at least four questions, and not more than six.)

Section I.—1. Explain what is meant by the diffusion of gases. According to what law do gases diffuse? The relative densities of marsh gas and carbonic acid gas being 8 and 22, what are their respective diffusibilities? 2. What is understood by the term latent heat? A pound of ice at 0° C. is placed in a pound of boiling water, and the mean temperature of the water is found to be 10° C. What is the latent heat of water?

Section II.—3. Write a brief sketch of the properties of sulphur. How is sulphuretted hydrogen prepared, and what are its distinguishing chemical characters? Ten grammes of sulphuretted hydrogen are burnt in air. What products, and how much of each by weight, are formed? (S=32; O=16; H=1.) 4. What are the chief properties of iodine? How it it prepared from kelp? State carefully what occurs when iodide of potassium is added to solutions, respectively, of (*a*) mercuric chloride, (*b*) mercurous nitrate, (*c*) lead nitrate, (*d*) silver nitrate, and (*e*) chloride water. Give equations. 5. Describe the oxides, chlorides, and iodides of mercury, and give their formulæ. How are the oxides prepared, and how are they acted on by dilute hydrochloric acid?

Section III.—6. What is the composition of cyanogen, and what are its properties? How can the following bodies be obtained from potassium ferrocyanide: carbon monoxide, cyanide of potassium, prussic acid? 7. What are the relations between marsh gas (methane), chloroform, methylic alcohol, and formic acid? Describe how you would obtain marsh gas from acetate of sodium. Give equations. 8. Describe the constitution of the fats and oils. Some beef fat is boiled with a dilute solution of caustic potash: describe in detail what happens, and the properties of the bodies formed.

[*Note.*—This paper also applies to candidates for the licence of the Royal College of Physicians of London.]

PART II.—MATERIA MEDICA AND PHARMACY.

Wednesday, Jan. 5th, 1887, from 1 to 4 P.M. (Candidates must answer at least four questions.)

1. Give an account of nux vomica, stating its origin, its most important active principles, its medicinal action on the various organs of the body, its official preparations, and their doses. 2. Enumerate the various forms of alcohol contained in the Pharmacopœia. State the strength of each, and give a brief account of their medicinal action.

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3. What are the official salts of (1) bismuth, (2) zinc? In what doses are they employed, and what are their actions? 4. Give an account of the medicinal action of hyoscyamus. To what drugs is it most closely allied, and to what is it antagonistic? What are its preparations, and what are their doses for internal administration? 5. Give the composition of the following Pharmacopœial preparations:—Mistura ferri composita, pulvis cretæ aromaticus cum opio, pulvis catechu compositus, lotio hydrargyri flava, pulvis opii compositus, liquor arsenii et hydrargyri iodidi. 6. What forms of sulphur are mentioned in the Pharmacopœia? What are its preparations and doses and how is it eliminated?

[*Note.*—This paper also applies to candidates for the licence of the Royal College of Physicians of London.]

PART III.—ELEMENTARY PHYSIOLOGY.

Tuesday, January 4th, 1887. From 10 A.M. to 12 noon. (Candidates must answer at least four of the six questions.)

1. Name the tissues shown under microscopes A, B, C. By what characteristics do you recognise them? 2. Give the position and action of the valves of the heart. 3. Milk is a complete food for infants. Explain this statement. 4. Describe and explain a simple reflex act. 5. Enumerate the chief constituents of bile. 6. What changes does a striped muscle undergo in contraction and in death.

SECOND EXAMINATION.

PHYSIOLOGY.

Thursday, January 6th, 1887, from 2 to 5 P.M. (Candidates must answer at least four questions.)

1. Explain and illustrate the action of the nervous system on the arteries. 2. Describe the minute structure of the spinal cord. 3. What is the structure of a capillary bloodvessel and a venule? Contrast the character of the blood-flow in these with that in an arteriole. 4. Describe the structure and functions of the skin. 5. Mention the fats which are usually taken as food. How are they digested? What is their probable destination? 6. State the composition and properties of glycogen? Where does it occur? How may it be prepared?

ANATOMY.

Friday, January 7th, 1887, from 2 to 5 P.M. (Candidates must answer at least four questions.)

1. Describe the sensory nerve-supply to the skin of the face and scalp. 2. Describe the dissection required to expose the deep epigastric artery. 3. Give the origin, course, insertion, actions, relations, and nerve-supply of the pyriformis muscle. 4. Describe the œsophagus, and give its situation, relations, arterial and nervous supply. 5. Enumerate the muscles acting on the shoulder-joint. Give their actions and nerve-supply. 6. Give the course, relations, and tributaries of the superficial and common femoral veins.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

SOUVERIE, F. P. MCDONALD, M.D., C.M., &c., has been appointed Medical Officer and Public Vaccinator for the North District of Wallasey of the Birkenhead Union.

BRIGGS, HENRY, M.B., F.R.C.S., has been appointed Honorary Medical Officer to the Hospital for Women, Shaw-street, Liverpool, vice Lupton, deceased.

BURKITT, JOHN C. S., M.D., L.Ch. Roy. Univ. Irel., has been appointed Medical Officer to the Whitwick Local Board.

CASTLE, HUTTON, M.B. Lond., M.R.C.S., has been appointed Medical Officer for the Shorwell North District of the Isle of Wight Union.

COURTIER, RAYMOND, M.B.Dur., M.R.C.S., late Senior House-Physician at the Westminster Hospital, has been appointed Assistant Medical Officer to the St. Marylebone Infirmary, Notting-hill, W.

DE JONG, EDWARD M., B.A., L.S.A., has been appointed Resident Junior Visiting Surgeon to the Ancoats Hospital, vice Alfred Mackay, M.B., C.M., resigned.

DRAKE, THOMAS, M.R.C.S., L.S.A., has been appointed Medical Officer of Health for the West Ham Urban Sanitary District.

GREENLEES, T. DUNCAN, M.B.Edin., Second Assistant Medical Officer to the Counties Asylum, Carlisle, has been appointed Assistant Medical Officer to the City of London Asylum, Stone, Dartford.

HOBBES, T. G. FOSBROKE RICE, L.F.P.S., L.M., L.S.A., has been appointed Medical Officer and Public Vaccinator to the Sutton District of the Aston Union, vice C. Barlow, M.R.C.S., L.S.A., deceased.

INGLEBY-MACKENZIE, K. W., M.R.C.S., L.R.C.P. Lond., has been appointed House-Surgeon to the Royal Isle of Wight Infirmary, Ryde, vice A. G. R. Foulerton, M.R.C.S., L.R.C.P., resigned.

JOLLIFFE, WALTER J., M.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer for the Shorwell South District of the Isle of Wight Union.

LIMRICK, W. SOMERVILLE, L.R.C.S., L.R.C.P.Ed., has been reappointed Medical Officer of Health by the Waterloo Local Board.

PARRY-JONES, W. R., L.R.C.S., L.R.C.P.Ed., L.S.A., has been appointed Medical Officer to the Rhosddu Lodge, N. U. Order of Oddfellows, the Bridge House, Golden Lion, Bowling-green, and Wrexham and District Colliers Tontine Societies.

RYGATE, JOHN R., L.K.Q.C.P.I., L.R.C.S.Ed., has been appointed Medical Officer for the Seventh District of the Bridgwater Union.

WESTON, GEORGE H., M.R.C.S., L.S.A., has been appointed Medical Officer for the Polesworth District of the Atherstone Union.

WHITFORD, WILLIAM, M.D., Honorary Assistant Physician, has been appointed Physician to the Stanley Hospital, Liverpool, vice D. D. Costine, M.D., J.P., appointed Consulting Physician.

YOUNG, R. R., M.B., C.M.Glas., has been appointed to the Medical Staff of the Midland Railway Company, Leicester Centre.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

CARLISLE COUNTY ASYLUM.—Junior Medical Assistant. Age under twenty-six. Salary £90, with board; no wine or beer.

GREAT NORTHERN CENTRAL HOSPITAL, Caledonian-road, N. — Two Clinical Assistants.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident Clinical Assistants.

HOSPITAL FOR EPILEPSY AND PARALYSIS, Regent's-park. — Assistant Physician.

HULL AND SCULCOATES DISPENSARY.—House-Surgeon. Salary £150 per annum, with house (unfurnished), coals, and gas.

LANCASHIRE COUNTY ASYLUM, Rainhill, near Liverpool.—Assistant Medical Officer. Salary commences at £100 a year, with apartments and board.

NATIONAL ORTHOPÆDIC HOSPITAL FOR THE DEFORMED, Great Portland-street.—Surgical Registrar and Anæsthetist. An annual honorarium of £30 is attached to the office.

NORTH RIDING INFIRMARY, Middlesborough-on-Tees.—House-Surgeon. Salary £100 a year, with bed, board, washing, and £5 per annum in lieu of beer.

ROYAL BERKS HOSPITAL, Reading.—Assistant House-Surgeon. Qualification not essential. Board and lodging, but no salary.

SANITARY ASSURANCE ASSOCIATION.—Chief Medical Officer.

Births, Marriages, and Deaths.

BIRTHS.

HERMAN.—On the 19th inst., the wife of G. Ernest Herman, M.B., F.R.C.P., of Harley-street, Cavendish-square, W., of a son.

HUXLEY.—On the 17th inst., at Higher-terrace, Torquay, the wife of J. Usher Huxley, M.D., of a daughter.

JONES.—On the 12th inst., at Llanfyllin, Montgomeryshire, the wife of F. Felix Jones, M.R.C.S. &c., of a daughter.

MACQUEEN.—On the 16th inst., at Eastbourne, the wife of Thomas MacQueen, M.B., C.M., of a son.

MAURICE.—On the 15th inst., at Terrace House, Marlborough, the wife of J. Blake Maurice, M.D., F.R.C.S., of a son.

MARRIAGES.

GRIFFITHS — COLLING. — On the 15th inst., at St. Michael's, Great Torrington, Surgeon Gilbert Saunders Griffiths, 32nd Punjab Pioneers, to Katherine Celestina, second daughter of the late H. R. Colling, Esq., of Oakehampton, Devon.

HODGE—GEDYE.—On the 14th inst., at the Wesleyan Chapel, Cotham, Bristol, the Rev. Sydney Rupert Hodge, M.R.C.S., L.R.C.P., to Ann Elizabeth, eldest daughter of Francis W. Gedye, of Ashley Grange, Bristol.

LEEDS—EDWARDS.—On the 15th inst., at St. Andrew's, Holborn, Thos. Leeds, M.R.C.S., to Fannie, daughter of Joseph Edwards, of Burton-on-Trent.

REID—HORNE.—On the 5th inst., at the Parish Church, Kirkcudbright, William Swanston Spence Reid, M.B., C.M., to Agnes Darling, daughter of the late James Darling Horne.

RISK — LANGSTON-FADDY. — On the 13th ult., at St. Luke's Church, Jullandur, Punjab, Surgeon E. J. Erskine Risk, A.M. Staff, to Ellie Mary, youngest daughter of Major Langston-Faddy, Ret. List, Bengal Army.

STANWELL — SHARPE. — On the 12th inst., at St. Mary's, Rochdale, William Stanwell, M.R.C.S., to Mabel Frances, eldest daughter of the late Alex. Barclay Sharpe, M.D., F.R.C.S., of Norwood, Surrey.

WARNER—GROVE.—On Wednesday, the 19th inst., at St. Peter's, Eaton-square, by the Rev. R. E. Warner, M.A., cousin of the bridegroom, assisted by the Rev. A. Boyd, M.A., Frederick Ashton Warner, L.R.C.P., M.R.C.S., L.S.A.Lond., only surviving son of Frederick Warner, Barrister-at-law, of Woodford House, Trinidad, W.I., to Sydney Anne Grove, daughter of the late Christopher Grove, of Hertfordshire House, Bucks.

DEATHS.

ANGIER.—On the 16th inst., at his residence, The Highlands, College-road, Upper Norwood, James Hague Angier, M.R.C.S., L.S.A., in his 84th year.

ANDREW.—On the 10th inst., at his residence, St. John's Hill, Shrewsbury, Edwyn Andrew, M.D., aged 55.

HOLLIS.—On the 17th inst., at Deacons, Yarmouth, Isle of Wight, Charles Wise Hollis, M.D. Univ. Edin., in his 71st year.

NOTT.—On the 17th inst., at Russell-road, Kensington, Hamlin Nott, M.R.C.S., L.R.C.P.Ed., Surgeon-Major, Retired List, H.M.'s Indian Forces.

SNAPE. — On the 13th inst., at Chorley New-road, Bolton-le-Moors, Richard Forth Snape, F.R.C.S.Eng., aged 65.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births Marriages, and Deaths.*

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Medical Diary for the ensuing Week.

Monday, January 24.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesdays, same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.
SOCIETY OF ARTS.—8 P.M. Dr. J. L. W. Thudichum: The Diseases of Plants, with special regard to Agriculture and Forestry (Cantor Lecture).
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Clinical Evening. Mr. Davies-Colley: Case of Plastic Operation for Ectropium.—Mr. Walter Pye: Case of Plastic Operation on the Face.—Dr. Maguire: Analgesia after Injury to the Head.—Dr. Isambard Owen: Case of Tumour of Abdomen, and others.

Tuesday, January 25.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 1.30 P.M. Skin Department. Mondays and Thursdays, 9.30 A.M.
SOCIETY OF ARTS.—8 P.M. Mr. J. H. Kerry Nicholls: The Volcanic Eruption in New Zealand.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. Barwell: On Widely Incising by a Two-Stage Method Hydatids of the Liver.—Mr. W. E. Cant: Clinical Observations on "Induration" in the Primary Lesion of Syphilis in Women (communicated by Mr. Holmes).

Wednesday, January 26.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesdays and Thursdays, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; and on Friday, 2 P.M.; and Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M.; Saturday, same hour.
HUNTERIAN SOCIETY.—8 P.M. Mr. Croft will explain and demonstrate the Method of Treating Fractures by the Immediate Application of Plaster-of-Paris.
SOCIETY OF ARTS.—8 P.M. Mr. J. Traill Taylor: Photographic Lenses.
BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens will be shown. Address on Listerism, by Dr. Granville Bantock. Council at 8 P.M.

Thursday, January 27.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8.30 P.M. Living and Card Specimens at 8 P.M.:—Mr. Nettleship: (1) Atrophy of Optic Nerves with Multiple Congenital Exostoses of Skull; (2) Three cases of Night Blindness with Peculiar Retinal Changes.—Mr. George Cowell: Three cases showing the result of Operation for Conical Cornea.—Mr. Marcus Gunn: Case of Transverse Calcareous Film of Cornea. Papers:—Mr. P. H. Mules: A short record of Some Unusual Clinical Cases.—Mr. G. A. Berry: On three cases of Acute Cerebral Disease with Ocular Symptoms.—Mr. W. H. Jessop: Sudden and Lasting Lateral Nystagmus.—Mr. W. Lang: Case of Meningitis after Excision.

Friday, January 28.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CLINICAL SOCIETY OF LONDON.—8.30 P.M. Address by the President. Mr. Henry Morris: (1) A case of Calculous Disease of both Kidneys, with Remarks on the Surgical Treatment of Calculous Kidneys; (2) A case of Nephro-lithotomy.—Mr. Howard Marsh: A case in which very Severe Symptoms were due to Four Small Stones in an Atrophied and Movable Kidney; Failure to Detect the Kidney by Lumbar Incision; Discovery by Laparotomy; Successful Removal of the Organ.—Mr. W. H. Bennett: A case of Supposed Nephrotomy for Scrofulous Disease. Living Specimens:—Mr. J. R. Lunn: (1) A Boy with Ichthyosis; (2) Peculiar Deformity of the Feet in an Ataxic Patient; (3) A Man with Raynaud's Disease of the Feet; (4) A case of Myxœdema with want of Development of the Genital Organs.

Saturday, January 29.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, January 20th, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Jan. 14	30·32	N.E.	33	32	...	37	31	...	Foggy
,, 15	30·30	E.	34	32	...	35	32	...	Cloudy
,, 16	30·10	N.E.	31	Froz.	...	37	29	...	Overcast
,, 17	30·09	W.	27	Froz.	...	40	24	...	Overcast
,, 18	29·97	W.	40	39	...	49	33	·12	Raining
,, 19	30·10	W.	49	47	...	54	39	·02	Overcast
,, 20	30·39	N.	40	37	...	45	37	·15	Fine

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

THE RIDDELL FUND.

Amount already acknowledged	...	£54	1	0	C. J. Kieland, Esq. ...	£1	1	0
F. Le Gros Clark, Esq. ...		1	1	0	J. Gould, Esq. ...	1	1	0
W. E. C. Nourse, Esq. ...		1	1	0	W. Pearse, Esq. ...	1	1	0
Sympathy		0	5	0	Miss E. Lunn ...	1	0	0
Collected by Dr. Woodman, Exeter:—					W. Easton, Esq. ...	0	5	0
					Mrs. Nicholson ...	0	5	0
					J. E. James, Esq. ...	0	5	0
E. A. Brash, Esq. ...	...	1	1	0	Sympathy	0	2	6

Captain Petrie.—The disclosures made by our Analytical Sanitary Commission resulted, we are happy to say, in such legislative measures being adopted as have rendered impossible in this country gross adulterations of the kind specified in the extract from the Pittsburgh paper. The article, as a whole, is probably intended to be amusing, rather than descriptive of an actual condition of things.

A Subscriber will find the reply in our issue of the 8th inst., p. 109.

COCAINE IN WHOOPING-COUGH.

To the Editors of THE LANCET.

SIRS,—In a letter which appeared in THE LANCET of Feb. 27th, 1886, on the treatment of pertussis by local applications, I suggested that cocaine be tried with the view of lessening the severity of the paroxysms. In the Journal of the American Medical Association of October 9th, there appears an original article by Dr. A. V. P. Garnett of Washington, in which he states that in January of last year he determined to try the use of hydrochlorate of cocaine by inhalation and used a six per cent. solution of muriate of cocaine in chloroform, of which ten minims poured into a wineglass made warm by tepid water were placed under the patient's mouth. No difficulty was experienced after a few trials in getting the patient to inhale the vapour. This practice was repeated every four hours, and, whenever possible to do so, immediately preceding or at the outset of a paroxysm of coughing, in the latter instance using double the dose of the solution. He found that by this means many of the paroxysms were arrested entirely or materially cut short. In very young children Dr. Garnett has found it more convenient to pour ten or twelve drops on a handkerchief, instead of using an inhaler. Should further experience confirm these conclusions, we have in cocaine a remedy that will do much to rob this disease of its most distressing symptoms, besides greatly facilitating the application of germicides for its radical cure. I am, Sirs, yours truly,

Bournemouth, Jan. 17th, 1887. A. WOODMAN DOWDING, M.D.

M.D. & F.R.C.S.E. and *O.P.Q.* have not enclosed their cards.

Mr. Gillibrand.—Next week.

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SHOULD NORFOLK HOSPITAL BE FREE?

Mr. James C. Barnham, in a letter to the *Eastern Daily Press*, argues against the proposal of making admission to the hospital independent of letters of subscribers and dependent on the mere comparative fitness of cases as determined by medical officers and others. He thinks such a rule would tell hardly upon patients coming from a distance, who might find themselves refused, and that it would not conciliate the support of distant parishes.

A Young Practitioner.—The attention of the bodies whose qualifications the advertiser holds should be directed to the matter.

Señor Fontanal (Lerida).—We cannot exchange.

Mr. J. W. Mason's (Hull) letter arrived too late for publication this week.

PERSISTENT DIARRHŒA.

To the Editors of THE LANCET.

SIRS,—In reply to the request of "L.R.C.P." for information from your readers concerning the treatment of persistent diarrhœa, I beg to send you the following abstracts of two cases.

CASE 1.—A coachman, aged forty-two, consulted me in 1879 for persistent diarrhœa. He had been exposed to great hardships and privations during the Franco-German War, and had had intermittent fever. Whenever he took anything to drink it was sure to "run through him" immediately, and he had been obliged to give up his place because he found that he was unable to sit for any length of time on the box without being disturbed by his infirmity. On the theory that the trouble might be of malarial origin, I gave him quinine (all the more usual remedies having been tried by my predecessors), and this was the last I saw of him as a patient. A few months later, however, I met him in the street, and in reply to my inquiry as to his health, he informed me that he was perfectly well. I was just congratulating myself on the success of the treatment when he added that it was not due to any physic of mine, or, indeed, of any professional brother, but that one of his colleagues who had suffered in a similar way had cured himself by wearing a flannel binder round the body, and, following his friend's advice, he had found it equally efficacious.

CASE 2.—A lady of uncertain age, from Central America, gave me some particulars about a similar condition. I was attending her husband, and the ailment was mentioned as a chronic infirmity, for which she did not expect to find any relief. She was saturated with malaria, and had tried every kind of treatment, the only medicine in which she had retained any faith being hamamelis. I do not think I offered any advice; but in any case she would not have followed it. The following year she again visited Paris, and I was much struck with the change for the better in her appearance, and learnt that she was then quite well. After trying without effect a grape cure and a whey cure in Switzerland, she had been recommended to go to Wiesbaden, where she had by the use of the waters been restored to health, and witnessed a like success in the case of a fellow bather.

I presume that your correspondent has eliminated from his diagnosis the possibility of organic disease of the liver. Assuming, then, that there is only habitual hyperæmia of liver and intestine, associated with malarial poisoning, I would recommend him to abstain from fluids during meals and the period of digestion, and take, even if it has failed under other circumstances, small doses of arsenic.

I am, Sirs, yours faithfully,

Rue Marbeuf, Paris, Jan. 17th, 1887. OSCAR JENNINGS, M.D.

To the Editors of THE LANCET.

SIRS,—Your correspondent, "L.R.C.P.," seems to me to be suffering from the result of abnormal fermentative changes in the bowels, due probably to the original obstruction. In all ordinary diarrhœa cases I find carbolic acid with ammonia sufficient to check these changes and the resulting flatulence. When, however, an element of chronicity is introduced, the bacillary consequences have to be combated with germicidal remedies having a more remote action, and of these the biniodide of mercury is the one I depend upon. I would prescribe as follows:—℞. Spiritus ammon. aromat., ʒss.; sol. morph. hydrochlor. (P.B.), ʒi.; sol. acid. carbolic. (1 in 20), ʒvi.; ether. chloric., ʒii.; sol. hydrarg. bichlor. (B.P.), ʒi; potass. iodid., ʒss.; aquam ad ʒviii. M. ft. Mist. One tablespoonful every four hours.

I am, Sirs, your obedient servant,

Jan. 17th, 1887. C. R. ILLINGWORTH, M.D.

To the Editors of THE LANCET.

SIRS,—I have little doubt in my own mind that "L.R.C.P." is suffering from malarial poisoning, and I would suggest a trial of large doses of quinine. I have myself suffered from such diarrhœa on my return from the tropics, and at first could not account for it, and treated it wrongly with astringents; but experience has proved to me that, as far as my case went, its cause was tropical malaria lying latent in my system and breaking out periodically in troublesome diarrhœa, and at other times in excruciating muscular pains. As Sir J. Fayrer said in his lectures at the College of Physicians in 1882, its symptoms are multifarious. Among other peculiar pains it gives rise to is unendurable pain in the vicinity of the kidney and along the course of the ureter and into the testis. This in my case is always relieved by a large dose of quinine. I remember in my young and inexperienced days, in the hot weather in India, treating this latter expression of its existence in soldiers as acid urine passing down the ureter, and giving bicarbonate of potash and anodynes. Since I have become the subject of such symptoms I am forcibly reminded of my malpraxis, and in those cases a large dose of quinine would have given rapid, if not instant, relief.—I am, Sirs, yours faithfully,

Jan. 17th, 1887. A SURGEON.

To the Editors of THE LANCET.

SIRS,—Will anyone kindly give me some suggestions as to the treatment of the following case of obstinate diarrhœa?

Mrs. L——, after suckling her first child for two months, was attacked for the first time in her life with diarrhœa, which has continued, more or less, for the last five years. Milk, vegetables, fruit, or coffee always bring it on. Worry, anxiety, and excitement also have the same effect. The diarrhœa came on worse after the birth of the second child and the third, so that she had to give up suckling. She is rather weak, and not well nourished. Appetite good. A mixture of catechu, opium, and chloric ether seems to have given more relief than any other medicine. She is the wife of a medical man, and has undergone a variety of treatment without any permanent good effect.

I am, Sirs, your obedient servant,

Jan. 17th, 1887. NEMO.

Dr. W. H. Murray.—We fear the employer is not liable, unless our correspondent can prove that he was called in on the employer's authority.

Mr. Eversbed (Arundel).—We shall be glad to receive the particulars.

R. S. W.—It is customary to waive all considerations of fee in such cases.

HOMŒOPATHY.

To the Editors of THE LANCET.

SIRS,—I have just received a pamphlet on "The Medical Treatment of our Time," which proves to be a prize essay on homœopathy addressed apparently more to the public than to the profession. In the appendix there is an urgent appeal to young practitioners to "visit the homœopathic hospital in Great Ormond-street, watch its treatment, examine into its cases, and test its results with an open and candid mind and a sincere desire to arrive at truth." Now, this is exactly what I did, or rather attempted to do, soon after I was qualified. I was treated with great courtesy by the medical officers, and allowed to accompany the physicians on their somewhat rapid rounds; but upon my repeated requests to be permitted to attend in the morning and assist in taking notes and examining the patients, I was told that that could not possibly be allowed. I was, I remember, shown a patient who was being cured of impetigo by taking a solution (!) of carbon, and was assured that some drug—I forget what—had caused several ovarian tumours to disappear. I was also taken to a meeting of the British Homœopathic Society, where I heard it gravely stated that natrium muriaticum (chloride of sodium) in minute doses was the best treatment for relapsing fever. I was also shown the book by which, as I was told, all homœopaths studied their treatment, referring to it as to a dictionary. This was "Jahr's Materia Medica." The absurdities I found in it when I looked at it in the British Museum convinced me that homœopaths must be satisfied with very little evidence, and has since made me sceptical when I am told of the wonderful cures they effect.

I am, Sirs, yours faithfully,

Jan. 18th, 1887. A BAFFLED INQUIRER.

*** We have also received a letter on this subject from Mr. A. G. Bateman, M.B., in which he says that Drs. Ringer and Brunton have done an immense deal to break down the barrier between homœopathy and allopathy, asks for a calmer and juster examination of both systems and, with a generosity which does him no discredit, argues for a discontinuance of what he calls "boycotting" the homœopath. The prize essay which calls forth these letters is prefaced by a communication from Dr. Richard Hughes, in which, in a somewhat menacing tone, he says, and he reiterates, that "this [the prize essay] may be the last appeal to the profession of this country for justice to homœopathy." We regret to say that the "last appeal to the profession" looks much more like an appeal to the public, or rather to the less informed among the public. The medicine of to-day, excepting homœopathy, is held up to ridicule and disparagement, and is in very material respects misrepresented whilst its real achievements are not stated. The whole idea underlying the prize essay is that there is a conspiracy in the minds of the men of medical science to shut their eyes to the discovery of Hahnemann. This is an admission of despair and almost of failure. Is there any other instance of all the scientific men in Europe resisting a true discovery for nearly a hundred years? The idea is altogether absurd. The sooner homœopaths see that they boycott themselves the better for them. All they have to do is to drop their distinctive appellation, cease to believe that there is something in the human mind specially inimical to them, liberate their own minds from the fetters of a fantastic notion which they are pleased to call a "law," and recognise the general drift of medical science and art, and they will find no unfriendly feeling to them.—ED. L.

Nivis.—Such a person is not likely to suffer prosecution. But he is not justified in acting in the way suggested.

Frater.—It is difficult to answer the question without knowing the nature and amount of the insurance for which the fee is paid.

Mr. E. J. Fisher.—The duty is by law made imperative and gratuitous.

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CITY AND GUILDS OF LONDON INSTITUTE.

PROFESSOR ARMSTRONG'S lectures at this institution, on the Chemistry of the Alkaloids and Albuminoids, commence on Monday next, Jan. 24th, and not on the 27th, as by an error was stated in an advertisement in our columns.

M.D., F.R.C.S.—Our correspondent acted with much humanity and reasonableness. The journey home might have been followed with fatal consequences. He has the satisfaction of having done right—the praise of Boards of Guardians does not always follow that line of conduct. The existence of measles already in the infirmary nullifies the only conceivable argument against his action.

Constant Reader.—1. Moorfields or any of the principal general hospitals.—2. This is more a question of taste than of professional etiquette.—3. We cannot give an opinion without seeing the circular.—4. As we understand the question, the reply must be in the affirmative.

Honorarium.—Unless any circumstances exist of an exceptional nature, such as length of attendance, &c., the charges mentioned appear highly reasonable.

EMASCULATION OF FOWLS.

To the Editors of THE LANCET.

SIRS,—Your correspondent, "B. L. T.," will find all he wants relative to caponising and poulardising of fowls if he refers to the large edition of Tegetmeier's Poultry Book, p. 138 (published by Routledge).

As I am writing, I should like to take the opportunity of asking whether any of your readers have found any special treatment succeed in split or fissured lip. A little girl, aged ten, always suffers from this in cold weather, especially the lower lip, which gets rather a deep crack in the centre. Even if it slightly heals, laughing will make it bad again. I have tried several of the usual applications—oleates, salves, &c.

I am, Sirs, yours faithfully,

Jan. 19th, 1887. FIDELIS.

To the Editors of THE LANCET.

SIRS,—In reply to your correspondent, "B. L. T.," we beg to say we have been making sets of instruments for caponing chickens for upwards of eight years. Directions as to the mode of operation accompany each set. We are, Sirs, yours obediently,

Jan. 18th, 1887. KROHNE AND SESEMANN.

Mr. Brown (Oban).—We have not given an exhaustive opinion on the nutritive value of the esculent. One of the Handbooks published by Clowes in connexion with the late Health Exhibition, entitled "Health in Diet," Part I., contains a chapter on the subject, which may possibly answer the purpose of our correspondent.

THE LICENCE OF THE LONDON COLLEGE OF PHYSICIANS A SURGICAL QUALIFICATION.

To the Editors of THE LANCET.

SIRS,—Can a L.R.C.P. Lond. call himself "Surgeon," having no other diploma? Or is a L.R.C.P. Lond. having only that diploma a surgeon? Can he give surgical evidence in court? Can he sue in a county court for surgical treatment? I am, Sirs, yours truly,

January, 1887. L.R.C.P. LOND.

*** The answer to all the above questions is in the affirmative. The licence of the London College is a double qualification, complete in itself.—ED. L.

ERRATUM.—An obvious printer's error occurred in our issue of Dec. 25th, second paragraph, page 1245, where "Birmingham" is put for *Washington*.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Fenwick, London; Dr. Charteris, Glasgow; Dr. Quinlan, Dublin; Dr. Griffiths, London; Dr. Maclagan, London; Mr. Harwood, Bristol; Sir Philip Magnus, London; Rev. C. Bullock, Blackheath; Mr. Symonds, London; Mr. Fisher, Wolverhampton; Dr. Illingworth, Clayton; Mr. Shirley Deakin; Dr. Alderson, London; Mr. E. C. Beale, London; Dr. Percy Boulton, London; Mr. J. B. Pike, Loughboro'; Messrs. Fraser and Co., London; Dr. A. Cordes, Paris; Dr. Jacob, Leeds; Mr. Nelson Hardy, London; Dr. C. F. Knight, Dublin; Messrs. Deighton and Co., Cambridge; Mr. Evershed, Arundel; Dr. Murray, Galashiels; Dr. Whitelegge, Nottingham; Mr. Donnelly, London; Dr. Bedford Fenwick, London; Mr. A. Robinson, Rotherham; Messrs. Duncan and Co., Edinburgh; Dr. P. F. Frankland, London; Messrs. Woolley and Sons, Manchester; Captain Petrie; Messrs. Wood and Co., New York; Dr. J. Denys, Louvain; Dr. Ewart, Brighton; Messrs. Lee and Nightingale, Liverpool; Mr. F. A. Hind, London; Mr. Brady, Wigan; Mr. J. G. Horder, Cardiff; Mr. Maitland, London; Mr. J. W. Carr, London; Surgeon-Major Alcock, Dublin; Mr. A. G. Bateman, London; Dr. Simmons, Lincoln, U.S.A.; Dr. Cilla; Messrs. Wright and Co., Bristol; Mr. Clark, Margate; Dr. Tennant, Matlock; Mr. Clark, Edinburgh; Mr. Trevithick, London; Surgeon-Major Ellis, Aligarh; Dr. McNeal, Glasgow; Mrs. Hitch, St. Leonards-on-Sea; Mr. Mayne, Falkirk; Mr. Greenway, Middlesboro'; Mr. Scott Foster; Mr. Roger Williams, London; Mr. H. C. Burdett, London; Messrs. C. Griffin and Co., London; Mr. Dambrill-Davies, Chelford; Messrs. Krohne and Sesemann, London; Mr. J. M. Menzies, London; Dr. Dowding, Bournemouth; Mr. Blake, Dublin; Mr. Murison, Glasgow; Dr. R. W. Raudnitz, Prague; Mr. K. Taylor, Macclesfield; Messrs. Willing and Co., London; Mr. McKay, Preston; Mr. Berthier, Paris; Mr. Marcus Gunn, London; Mr. J. Croft, London; Mr. Cooke; Messrs. Smith and Son, Liverpool; Rev. J. P. Miners, Eastbourne; Mr. Evans, New Quay; Dr. T. G. Lyon, London; Mr. Barker, Hull; Mr. G. N. Pitt, London; Mr. Mason, Kingston-upon-Hull; Mr. Sell, London; Dr. T. Cooke, London; Mr. Clark, Edinburgh; Mr. Russell, Liverpool; Mr. Mitchell, London; Miss Eustace, Brompton; Mr. Ville, Birmingham; Mr. H. Allingham, London; Frater; Unqualified Assistant; A Surgeon; Nemo; J. B. H., Gosport; F. S. H., Bristol; A Young Practitioner; Honorarium; Fidelis.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Hollis; Mr. Thomson, Anstruther; Mr. Harbord; Mr. Coleclough, Merthyr Tydvil; Mr. Bryan, Hanwell; Mr. Greenish, London; Mr. Gayley, Tipperary; Mr. Read, Canterbury; Mr. Brooks, Hull; Mr. Torrance, Blofield; Mr. Royle, Sherborne; Mr. Essex, Pontypool; Mr. Smith, Westminster; Mr. Hartley, Cheltenham; Messrs. Atkinson and Co., Kendal; Dr. Stainthorpe, Redcar; Messrs. Bradshaw, Notts; Dr. Mackenzie, Edinburgh; Mr. Stephens, Austell; Messrs. Kuhner and Co., London; Messrs. A. and C. Black, Edinburgh; Messrs. Wilson and Son, Manchester; Mr. McArthur, Glasgow; Messrs. Maclachlan and Co., Edinburgh; Mr. Carless, Devizes; Mr. Aitken, Aberdeen; Mr. Lilley, Leicester; Mr. Gillibrand, Bolton; Mr. Mackay, Eske; Medicus, Sheffield; Alpha, Brighton; Alpha, Stamford; Sister; L. A. E.; Medicus, Liverpool; Medicus, Holloway; Barium; G. D., Edinburgh; Physician, Brighton; Medicus, Notts; X. Y.; Medical, Luton; W. R.; Yorkshire; Z. W.; Fides, Doncaster; Billhay, West Bromwich; Omega, Birmingham; Southport, Leicester; M.R.C.S., Manchester; Deutsch; X. Y., Manchester; Urgent; X. Y. Z.; M.D., Peckham; H. T. A.; M.D., Hackney; Ivor; G. S., Oldham.

Entertainment Gazette, The Stockkeeper, Bolton Journal, Jarrow Express, Boston Guardian, Herne Bay Press, Salisbury Times, Rock, Huddersfield Examiner, Eastbourne Review, Barnsley Independent, West Yorkshire Pioneer, Wigan Observer, Earlestown Guardian, &c., have been received

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The Publisher cannot hold himself responsible for the return of testimonials, &c., sent to the office in reply to advertisements; copies only should be forwarded.

NOTICE.—Advertisers are requested to observe that it is contrary to the Postal Regulations to receive at Post-offices letters addressed to initials only.

An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on page 2, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

Advertisements are now received at all Messrs. W. H. Smith and Son's Railway Bookstalls throughout the United Kingdom and all other Advertising Agents.

Agent for the Advertising Department in France—J. ASTIER, 60, Rue Caumartin, Paris.

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Harveian Lectures
ON
CANCER OF THE UTERUS.

By J. WILLIAMS, M.D. LOND., F.R.C.P.,
OBSTETRIC PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL, LONDON.

LECTURE II.
CANCER OF THE CERVIX.

(*Concluded from page 163.*)

CASE 15.—A married woman, thirty-one years of age, was admitted into University College Hospital in December, 1884 and gave the following history. She first noticed a yellow discharge three years ago, which has greatly increased in quantity during the last three months. It was preceded by bearing-down pain. During the last three months she has had hæmorrhage about a fortnight after each menstrual epoch, lasting for about two hours. This was first noticed after a fall. She began to menstruate in her fifteenth year, has always been regular, with bearing-down pain for two or three hours. She has been losing flesh for twelve months, but more rapidly during the last five months, and during this time she has suffered from indigestion, swelling of the feet, and faintness at times, once causing her to fall and hurt her back. She has had rheumatic fever three times. She has been twice married, the first time at eighteen; she became a widow at twenty, and was married again at twenty-nine. She has had one child by the first husband, and no miscarriages. She was fairly nourished, somewhat sallow; she weighed 7 st. 7 lb.

The uterus was moderately low down, slightly retroverted, and freely movable; the cervix had been lacerated on the right and left sides. The anterior lip was rough, and there was a rough edge apparently at the junction of the vaginal surface with that of the canal. The posterior lip was thickened, soft, everted, and bled readily on examination. The surface of the growth was of a pale pink colour, and somewhat like brain-substance in appearance. The growth in the posterior lip extended backwards, but did not involve the vagina.

The cervix was amputated above the vaginal insertion. After removal the nodule on the posterior lip was found to be three-fourths of an inch in diameter. On the anterior was a papillary superficial growth about three-fourths of an inch in diameter and one-fourth of an inch in depth. The surface appeared rough, and the stratified epithelium was retained to the border of the disease on both lips, and at that point was a slight depression as if it ceased abruptly. On the vaginal surface of the nodule on the posterior lip the stratified epithelium was intact. The squamous epithelium on the vaginal portion was preserved. The whole thickness of the posterior lip was cancerous; the cancer extended downwards so as to abut on the squamous epithelium. It was of the columnar type, and developed in the glands. It appeared to have begun in the deeper parts of the glands.

She returned twelve months afterwards with recurrence, and I ask your particular attention to what I have to say about this, for its importance from a clinical and therapeutical point of view cannot be exaggerated. A portion of the vagina and of the stump of the uterus remaining after the first operation was removed, and when the part removed was submitted to examination a very curious and interesting condition was found. The surface of the vagina as well as of its walls was healthy. The epithelium was somewhat thickened, but it showed no sign of malignancy. The surface of the stump was healthy. There were numerous glands in the mucous lining of the portion of the canal left, and these were healthy; none of them showed signs of cancer. Deep in the cervical wall, however, on its outer aspect, was found well-developed cancer. Between the glands on the inner surface of the canal and the diseased tissue was a layer of perfectly healthy cervical tissue, containing neither glands nor cancer. There was no connexion between the glands present in the cervix and the malignant new growth. The cancer was of a typically glandular character, and every stage of transition from almost healthy glands to cancerous masses could be distinctly traced. Whence came the disease? The recurrent disease presents the same glandular character as the primary disease in the cervix, and yet it does not grow from the cervical glands. On examining the whole section, we find the cancer grows from the outer end of the cicatrix upwards and inwards into the wall of the cervix; and it is clear that before the first operation the disease had extended through the whole thickness of the cervix and invaded the cellular tissue around, though in so slight a degree as not to have affected the mobility of the uterus, and to have escaped notice during the operation. As far as the uterine stump was concerned the cancer had been extirpated, but the cellular tissue around proved traitorous and the disease recurred on the outer and non-glandulous side of the organ. I must illustrate this further by another case of no less interest.

CASE 16.—A married woman, very sallow and cachectic-looking, was admitted on May 9th, 1885. She weighed 8 st. 3 lb. For the last six months she has been getting thinner; she has noticed a slight discharge, and has lost a great deal of blood: during the whole time she has hardly been free from hæmorrhage. She has had slight pain in the stomach and between the shoulders. She has frequent frontal headache, and lately has frequently vomited after taking food. She has no pain or flatulence after food. Temper bad. She was married when nineteen years of age, and has had five children, at twenty, twenty-one, twenty-three, twenty-five, and twenty-seven years of age. Her labours were good. The catamenia appeared at thirteen, and have always been regular until a few months ago, lasting six days without pain. The cervix was low down, freely movable, and of the diameter of half a crown. It was flattened and granular, some of the granules being hard, others soft. The cervix was greatly thickened. The body was not large for a woman who had had five children; it was freely movable.

Supra-vaginal amputation of the cervix was done, and in the course of the operation the disease was found to extend up higher than was expected, the whole of the cervix being thickened. The cervix and the greater part of the body was removed, and the mucous membrane of the fundus, together with that at the orifices of the Fallopian tubes, were shaved off. The cancer in this instance proved to be histologically of the same character as that already described—glandular. The patient was lost sight of until August last, when she came back complaining of a return of the bleeding. On examination it was found that recurrence of the disease had taken place, and the manner of it and the lines of its growth were very clear, and have an important bearing upon the operative treatment of cancer of the cervix.

The patient was readmitted into the hospital on Aug. 31st, 1886, sixteen months after the operation. She said that she had been well until lately, when bleeding returned, and recurred occasionally, lasting four or five days. She had a varying amount of offensive discharge, but always small in quantity. The mucous membrane of the vagina was healthy up to the old wound. A finger was passed through the opening at the top of the vagina into a cavity large enough to hold a small walnut. The sides of this cavity were formed by the cellular tissue around the cervix, and the bases of the broad ligaments, the bladder and peritoneum, and the roof, by the remains of the body and fundus of the uterus left after the operation. The sides of this cavity were cancerous. The walls of the vagina were fixed and rigid—the anterior in almost its whole length, the posterior for about an inch from the top; the sides were also similarly affected. On microscopic examination of a portion of the vagina at the edge of the wound, the superficial epithelium was found intact, and the papillæ were not enlarged; beneath the epithelium was a layer of healthy vaginal wall, and deeper still was cancerous tissue. The recurrence was of a cylindrical shape, but the cells composing it might have been taken for those arising from squamous epithelium rather than from columnar. While in the hospital she had several attacks of severe hæmorrhage, and died on September 20th.

On examination after death the peritoneum of the pelvis was in the main healthy. The fundus of the uterus was normal. It was freely movable within certain limits, the limits being determined by the indurated tissues below the stump at the upper end of the vagina. There was a chain of cancerous glands running up along the iliac vessels on

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the left side; on the right side were a few enlarged glands at the brim of the pelvis, at the sacro-iliac synchondrosis, and along each side of the spine. There were three yellowish white spots, each of the size of a hemp-seed, on the posterior aspect of the fundus. They were covered by peritoneum, and the vessels running into them were injected. The ovaries were healthy. The right Fallopian tube was closed at the outer extremity, but not dilated; the left was healthy, but a little more bent than usual owing to an old adhesion. The rectum and sacro-uterine ligaments were healthy. There was a large opening between the bladder and the vagina. The new growth had spread for the most part in the cellular tissue around the vagina, breaking through the mucous membrane in a few places only. The tissue between the vagina and the bladder was involved as far down as the opening of the urethra; posteriorly the disease extended for a much shorter distance. The growth was sloughing. The mucous membrane of the vagina was healthy, except at a few points where a few whitish spots as big as carraway-seeds were seen, caused by the encroachment of the new growth from the surrounding tissues. The kidneys showed extreme interstitial nephritis; the pelves were dilated; the right contained pus; there was commencing suppurative nephritis in the right kidney.

In this instance the recurrence took place, not in the uterine stump or in the vagina, but in the peri-cervical cellular tissue. It grew into the bladder, forming a large opening into it, and into the cellular tissue at the base of the broad ligaments and around the vagina, and at the time of death had only just begun to invade the uterine stump and the vaginal mucous membrane by extension.

Three other cases I have observed in which the cervix was amputated for cancer and in which recurrence took place. In two of these the disease did not return in the stump, but in the cellular tissue around, and it did not appear in the stump until the close; in one I cannot tell whether the recurrence appeared in the stump or cellular tissue. In one of those in which recurrence showed itself in the cellular tissue, I do not know the nature of the cancer; in the two others it began in the glands.

But cancer may also begin not only in the lower section of the cervix, but also just below the inner orifice in the substance of the cervical wall. This happens perhaps oftener than is generally supposed, and the fact has not been taken into consideration in theorising about the cause of cancer. I have seen two instances of this which were observed from an early period.

CASE 17.—The first was that of a lady, aged about forty years, of a very fair complexion, who had had two children and some miscarriages. I saw her first in July, 1878. She said that she had not been poorly for six weeks, and that she felt sick and had very frequent micturition. On examination, the os was found large and patulous; and high up, close to the inner orifice in the wall of the cervix, was a small hard mass the size of a pea. This was thought to be a small fibroid. I saw her again in 1879. She said that she had had a miscarriage at Christmas-time. Her husband had been away for six months, and returned a fortnight ago, and she had observed a slight loss of blood after coitus since, but at no other time. She had no pain and no discharge. The uterus was a little enlarged and freely movable. The posterior wall was thickened, and on its inner surface was a small ulcer about the size of a shilling, which extended slightly on the vaginal surface of the lip; it was depressed with hard edges, and it bled on the slightest touch. The uterus was extirpated. It was three inches and a half in length. The walls of the body were somewhat thickened, but otherwise appeared to be healthy. The cervix was considerably enlarged, the enlargement affecting chiefly the posterior wall, which had a small ulcer situated on its anterior surface just within the os. The anterior lip was papillary on the surface. Section showed the posterior wall to be occupied by a mass of the size of the kernel of a walnut. This reached upwards to a little above the level of the internal orifice, and occupied the whole thickness of the wall, and it reached downwards to the portio vaginalis; but it had nowhere penetrated through the mucous membrane of the portio, which remained intact. The mucous membrane of the lower half of the cervical canal had broken down, and there was found the ulcer I have already mentioned. The growth appeared to the naked eye almost as if it were encapsuled; but this appearance seemed to be due to the pressure exercised by the growth upon the parts immediately surrounding it. The growth was a glandular cancer.

But cancer may have more than one point of origin. It may begin in the substance of the wall of the cervix, near the inner orifice, and also at or near the os externum. It may begin in the cervical glands and in the squamous epithelium of the portio at the same time. This happened in the following case:—

CASE 18.—The patient was thirty-nine years of age; she had had three children, and was admitted into University College Hospital in July, 1885. She said that menstruation had always been regular until July, 1884, when she had a "tremendous hæmorrhage." She had been bleeding for three weeks. She had had no pain until a few months before admission, and then it was only slight, situated in the umbilical region, and of a sharp shooting character, lasting a few seconds. Micturition was normal. She had wasted a little. Menstruation began between the age of fourteen and fifteen; it was regular, lasting two or three days, in large quantity, accompanied by a little backache. Her labours were good; the last was "rather hard." She made good recoveries. The father died of cancer of the stomach; five brothers and sisters died of consumption. The patient was well nourished, fat, but looked very ill, sallow, and anæmic. She was of dark complexion. There was a slight watery discharge from the vagina. There was a growth on the anterior lip of the uterus and inner surface of the canal, extending to the vaginal portion; the mucous membrane over the portio appeared healthy. The posterior lip was healthy. The body of the uterus was somewhat enlarged and freely movable. The cervix was amputated at the inner orifice. She died of septicæmia.

After death no enlarged glands or secondary deposits were discovered. The body of the uterus was healthy. Examination with the microscope showed the squamous epithelium of the vaginal portion to be intact and unchanged up to a point close to the external orifice. Beneath the part of it close to that orifice were many glands, clearly glands of an erosion. Before it terminated at the external orifice it became suddenly much thickened, and beyond this point it was cancerous, and this cancerous part overlapped the glandular cancer which I shall presently describe. This cancerous portion was in part separated from the glandular cancer by glands which were not cancerous. Then we came upon the cancer of the cervix, which appeared to have been developed from the lower cancerous centre. This was developed from the glands in the substance of the cervix, and had not involved the whole of the superficial glands, so that the inner surface of the cervical canal was in the main intact. Higher up towards the inner orifice was the cancer developed from the upper centre near the internal orifice, and this also had grown from the deeper glands, and had left some superficial glands unaffected in the canal. The growth of the cancer from the glands is clearly shown by the transition from columnar epithelium of the glands into cancer. Here we have cancer developing from two points of origin, if not from three—that is, from the glands just below the inner orifice, from glands near the external orifice, and from the squamous surface of the portio vaginalis. It may be asked, What is the relation of the growth of cancer in the squamous epithelium to that growing from the glands? I cannot answer this question. I do not know whether it was an independent growth, or whether it was due to irritation caused by the presence of the glandular cancer in its immediate neighbourhood.

A form of cancer which has not been described before is the squamous epithelioma, which attacks the mucous polypus of the cervix. I have met with only one instance of the kind. It was the following:—

CASE 19.—A patient aged forty-two, was taken into the hospital for a few days to have a small mucous polypus removed. She said that she had been losing a good deal of blood with her periods. The uterus was low down, and a small polypus was found projecting from the os externum. It was seized with forceps and twisted off. The polypus was about three-quarters of an inch in length, and half an inch in diameter at its widest part. Its pedicle was quite thin. A section was made of the growth in its whole length, and this was examined microscopically, and a very curious and not less important state of things was discovered. The lower and larger end of the tumour was capped by a layer of cancerous squamous epithelium, which sent processes into the substance of the growth and into some of the glands. Above the point where the cancer ceased and along the surface of the pedicle many glands opened, and the surface was covered by columnar epithelium. The pedicle

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was quite healthy. This was a mucous polypus, and evidently had grown from the surface of the cervical canal. The lower portion of it, outside the os externum, appeared to have acquired a squamous epithelial covering, while that covering the base retained its original columnar form. Uterine polypi in advanced age are apt to be malignant, and whenever removed they should be examined by the microscope with a view to ascertain their true character.

The changes in the glands in cancer are various. The glands increase in number, and develop in places where glands are not present in health. They assume forms which are not seen in health, but which are often seen in erosions. The chief and the characteristic changes, however, are those observed in the epithelial lining of the glands. The cells, which are in a single layer in health, become stratified or multiple-layered, and frequently fill the gland, obliterating its lumen. The cells, instead of having a single nucleus, acquire two or more, and they become many-shaped. Not infrequently they form long branching tubes, or strings of cells, and clusters and nests, which sometimes contain horny cells, just like those found in squamous epithelioma; and frequently the true character of the growth can only be made out by tracing it to its origin, or by tracing its mode of growth. The latter method fails, however, in some cases, as in the recurrence in Case 16. Sometimes the cells preserve their original columnar character, but become thinner and larger, and stratified as in Case 17. In other cases the new product consists of small round or oval cells, as in Case 18; and here it would have been impossible to have arrived at certainty with regard to the origin of the growth, but for the discovery of the actual transition of the columnar to the round cells. The cells in the recurrences may maintain the character of those met with in the original growth, retaining more or less their columnar shape, as in Case 15; or they may lose every trace of it, and present characters which are indistinguishable from those of growths from squamous epithelium, as in the recurrence in Case 17.

The starting-point of cancer of the cervix, so far as I have seen, is in the cervical glands. I have seen no case originate in the epithelium of the surface, but it may begin in the glands close to the surface or in the deeper portions of the glands. Of twenty-four cases, the whole cervix was involved in nine when first seen, and it was not possible to discover the starting-point of the growth. It is not impossible, indeed I think it is probable, that in some of these the growth had begun near the inner orifice, and among other reasons for this opinion is the fact that the portio vaginalis was not ulcerated in any one of them, although the whole of the cervix was involved. In eleven the cancer had clearly begun in the lower part of the cervix; in two it began near the inner orifice; in one it appears to have begun in two separate centres, one being near the outer and one near the inner orifice; and in one it had commenced on the surface of a mucous polypus. So that although the upper part of the cervix is by no means uncommon as the starting-point of cancer, yet the lower half appears to be a far more favoured site. Of the eleven in which the disease had begun in the lower part of the cervix, the posterior lip was alone or chiefly affected in six, the anterior in two, and the right commissure and lips in two, leaving the left commissure free. So that cancer appears to show a preference for the posterior rather than the anterior lip of the uterus, the growths retaining more or less the columnar character, as in Case 15, or they may lose all trace of it, and present appearances which are not distinguishable from those of growths from squamous epithelium, as in the recurrence in Case 16.

The forms assumed by cancer of the cervix are various. It may form a polypus hanging from one of the lips; in this case its surface carries for a considerable time a thin layer of normal squamous epithelium, which has nothing to do with the disease. In others it forms a papillary growth on the surface, which penetrates deeply into the wall of the cervix, and then it looks much like the head of a cauliflower; or the growth may begin as a small nodule in the wall of the cervix, as in Cases 14, 15, 16, and others; or, again, it may begin as a nodule close to the inner orifice and gradually extend and involve the whole cervix. I have met with no clear instance in which the disease began on the surface.

The lines of its growth appear simple, and unfortunately they have a direction which is calculated to baffle treatment. If we take first of all the polypoid form, we find here the tendency of the disease is to grow downwards into the vagina and to form a sort of excrescence on the lip. The growth appears to invade the lip for a short distance, apparently for a depth of not more than about three-quarters of an inch; but it involves the whole thickness of it. If we take three or four cases in succession, beginning with Case 14, we shall find the disease commencing as a small nodule near the surface and gradually extending downwards and outwards, and upwards in a less marked degree, invading the wall of the cervix deeper and deeper until it has passed through its whole thickness and has reached the cellular tissue around it, where it luxuriates. At the same time it grows downwards, causing elongation of the lip as well as thickening. In the course of this process of growth the squamous epithelium is retained, but it becomes thinner and thinner, apparently by the tension placed upon it. As the disease progresses, it extends upwards and reaches the internal orifice, and sometimes, but rarely, passes it. This tendency to grow downwards and in a lateral or horizontal direction towards the peri-uterine tissues is very clearly shown by the instances of recurrence which I have related.

Again, when it begins high up, just below the internal orifice, its lines of growth are similar. It has no tendency towards, or preference for, the body. It does not, however, invariably respect the internal orifice, for sometimes it passes beyond it and invades the body. It grows downwards towards the vaginal portion and outwards towards the cellular tissue around, and ultimately involves the whole of the wall in its length and thickness. This was well seen in Case 17 and in another, the only two cases in which this form was observed from an early stage. Thus the lines of growth are mainly outward and downward so as to involve the portio vaginalis and the vesico-vaginal and recto-vaginal septa, but respecting the mucous membrane of the vagina.

Lecture

ON

ACUTE CROUPOUS PNEUMONIA.

Delivered at Mercer's Hospital, Dublin,

BY CHARLES FREDERICK KNIGHT, M.D.;

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GENTLEMEN,—Towards the end of last session you were afforded an opportunity of hearing a paper read on "Certain Peculiarities attending the type of Pneumonia prevalent during the session in Dublin and its immediate neighbourhood," and of subsequently listening to a discussion on the subject, which by special request was chiefly directed to the treatment of the affection. The peculiarities to which attention was directed were complications—viz., pericarditis, pleuritis, peritonitis, congestion of the brain, lungs, and kidneys, and in one case dyspepsia. It was stated that morphia had been administered in some of these cases subcutaneously to allay pain and diminish the number of respirations, also that in one case aconite was administered with benefit, and in another where the right heart was loaded cupping afforded speedy and lasting relief. You heard that some years ago the late Professor Stokes treated cases of this form of pneumonia with large doses of tartarated antimony—six- or eight-grain doses; that some years after this the disease was treated in Edinburgh with diaphoretics, which practice was about the same time followed by Professor Stokes, who stated that the constitutions of the people had changed so much that they were unable to bear the more depressing mode of treatment. Cases were cited where the affection had been preceded by exposure to emanations from sewers, and also cases where it was associated with enteric fever. A close observer of climatic influences on the causation of disease had noticed that the affection was most frequently met with in the months of April, May, and June—that is, during the transition period from wet to dry cold—and suggested that this atmospheric condition may act as an excitant. Opium was advocated to allay pain, and also ergot, though said to be a cardiac sedative, like aconite,

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still, good effects have been obtained by carefully watching the action of these drugs. Quinine was little noticed except by one speaker, who objected to its administration in the disease because it "dries up the secretions." Large blisters were advocated, but attention was drawn to the fact that they caused localised pleuritis. Lymph had in one case been found on the cerebral arachnoid. Mercury had also been administered with advantage. Attention was directed to a valuable physical sign, obtainable in a large number of cases, which occurred during the session—viz., increased resonance, sometimes amounting to tympany, above the affected portion of lung, *which was not subsequently attacked.*

The cases that have come under your notice during the session have not presented any unusual features, and though some might be classed as bad cases, in no instance have we had a fatal termination. You have been taught for years to avoid opium in all forms of pulmonary disease. I admit that in cases of pneumonia where opium or its preparations have been given, the objects aimed at—namely, allaying pain and reducing the frequency of the respiratory acts—have been obtained. But is this advisable? Can we not by other means relieve the pain, and is not the increased frequency of the respiratory acts a conservative process, compensating for the lung tissue, which is inactive? Again, in cases related to me, and also in those recorded, in which opium has been given, complications, especially cerebral, have arisen. Is this due to the cerebral congestion caused by the narcotic? With regard to ergot, does it act as a cardiac sedative in medicinal doses? Doubtless it does so in toxic cases, like digitalis, and in medicinal doses it diminishes the frequency of the cardiac beats; but does it not act primarily by contracting the arterioles, thus raising arterial tension, and causing the heart to contract less frequently, but with more regularity and force? I regard ergot as a most valuable therapeutic agent in this affection, particularly if given in the earlier stages, causing contraction of the vessels, acceleration of the blood current, and limiting the amount of exudation. Quinine is of value as an antipyretic. The term "drying up secretion" is rather indefinite, but if it has the power of limiting the amount of exudation, its administration will be beneficial even in the earlier stages. It is probable that the delirium may in many cases be due to the presence of exudation substance on the arachnoid, and not to the action of narcotics. The hyper-resonance noticeable above the affected portion of lung was, I believe, pointed out by Dr. Hudson, who was of opinion that this preceded extension of the disease to the area which was hyper-resonant; this, however, did not occur in the cases previously referred to, no extension of the disease having taken place. Is not the increased resonance due to distension of the air vesicles which are adjacent to the consolidated portion of lung? The more marked the distension, the greater will be the tenuity of the membrane which forms the walls of the alveoli; consequently there will be stasis of the capillary circulation in that part, thus placing it in a condition most favourable for the manifestation of the disease in question.

It has been remarked—and very properly—that this disease is not suitable for "speculative medicine," and also that drugs have little effect on its progress. Pathologists of the present day nearly unanimously regard acute croupous pneumonia as a specific disease, the exudation substance in the pulmonary alveoli being its local manifestation. The views which I hold are not only in accord with this, but I go further and say that the affection tends to throw out exudation substance on all serous membranes, these being especially "selected" on account of the tenuity of the membranes and transudation from the bloodvessels taking place with facility. The "selective power" of disease is readily seen in many other affections—rheumatism, &c.; and this view with regard to croupous pneumonia explains the phenomena seen in the pericardium, pleuræ, peritoneum, arachnoid, kidneys, &c., and shows us how occasionally these membranes are implicated as well as the pulmonary alveoli. The predilection for the lung tissue appears to me to be due to the fact that its tenuity is greater than other serous membranes; the walls of the vessels are more permeable; the membrane is the most extensive of its class in the body, and its vascularity is far in excess of any other. The exudation in the alveoli obtains its peculiar characters from the presence of so many bloodvessels, and is most likely to become puriform from its constant exposure to the air, whereas the same exudation substance on other membranes does not so frequently undergo the same degenerative changes from the absence of this exciting cause. I would direct attention to the pathological significance of the "raspberry" congestion of the posterior thick margin of the lungs, to the attenuation and fatty condition of the right heart, and finally to the elongated and attenuated condition of the papillary muscles in the right ventricle. At a recent necropsy I found two papillary muscles with a clot projecting into the pulmonary artery, which accounted for the sudden termination of the case.

The following is the treatment which you have seen adopted in the cases occurring in my clinique:—A patient in the first stage is placed on camphor and ergot, with counter-irritation over the affected area by sinapisms or turpentine stupes; if the temperature runs up, quinine is added to the camphor and ergot. Embarrassed respiration from congestion of the right heart is relieved by depletion; but if from extension of the disease, the physical signs point to its advent and call for energetic treatment—viz., larger doses of ergot, using turpentine in the form of inhalation, stupes, and by the mouth. Finally, in the third stage, if the exudation is not being absorbed, stimulants are given, as brandy; if the cardiac action is weak, digitalis is prescribed, carefully watching effects to guard against these drugs embarrassing respiration. In cases associated with "prune juice" expectoration turpentine is especially useful. I regard it as the only remedy on which we may rely with confidence in apparently hopeless cases. It is a stimulant to the pulmonary capillary circulation, stimulating their absorbent functions. It is also a powerful "antiseptic" and hæmostatic, and a therapeutic agent which, I believe, exerts a powerful and beneficial influence on the progress of this affection; and by its free use you have had numerous opportunities of seeing many cases of croupous pneumonia guided to a happy termination in the wards of this hospital.

A CASE OF RAYNAUD'S DISEASE.

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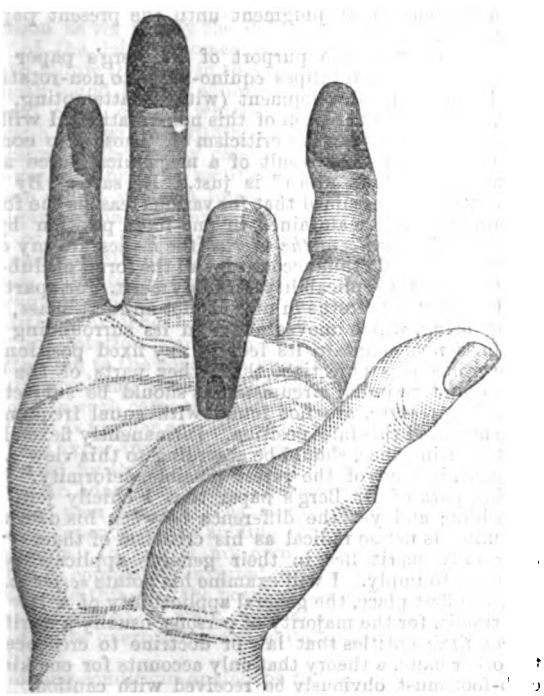
ON February 8th, 1886, I was called by my friend, Dr. C. F. Wilkinson of Caledonian-road, to see a patient of his. I made the following notes of the case:—

L. D——, aged fifty-six, widow, who keeps a butcher's shop, had been in failing health since her husband died, some years ago. Formerly a very active and energetic woman, she had, during the last four years, been somewhat lethargic; she had increased rapidly in bulk, owing to overfeeding, and, as a consequence, her exercise had been much restricted. She had hitherto enjoyed only tolerably good health, having suffered from occasional bronchitis and rheumatism. She was also subject to quinsy and frequent 'nettle-rash." In addition, she had periodic attacks of "stomach-ache" and looseness of the bowels for many years, the diarrhœa being easily increased by hurry or excitement. Her friends asserted that she was always emotional, being "easily upset," tremulous, and would always cry at the least distressing occurrence; and they constantly noticed her habit of sighing and gaping. The patient herself was always complaining of catching cold, and of always feeling cold except in the middle of summer. There was no history of exposure to malaria.

When I examined the patient—a very large, fat woman—she was complaining of excruciating pain in her hands and fingers and in her toes and feet. The digits in both extremities were affected by the condition known as Raynaud's disease. In the *right* hand the pulp of the index and little fingers was of a dusky, livid, or bluish tint, whilst the whole of the skin, back and front, on the terminal phalanges of the ring and middle fingers was of the same dusky and livid colour, but apparently in a more intense condition. In the *left* hand the same fingers—viz., the index, the middle, and the ring—were affected in a precisely similar way, except that the discolouration was on the skin over the dorsum of the little finger instead of on the pulp. (See engraving.) There were symmetrical black patches about the size of half-crowns on the dorsal metacarpal surfaces of both hands. Over these patches of discolouration the skin was of a dark bluish tint at first, not at all unlike the discolouration resulting from a

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blow or crush. The cutaneous sensibility was so much increased over the discoloured areæ, that the slightest touch caused exquisite pain; the patient even complained of pain from exposure to the atmosphere. The toes were affected in a similar way; that is to say, in the *right* foot the terminal phalanges of the middle, ring, and little toes were discoloured, tense, and painful, the pulp being the part apparently most involved, although the lividity extended to the dorsal surfaces of the digits. There was, in addition, a patch of discolouration about two inches square on the dorsum of the foot over the bases of the second, third, and fourth metatarsal bones. In the *left* foot the ring and little toes only were seized, but exactly in the same way and degree as in the right foot. There was, however, no patch on the dorsum of the foot. At night there were paroxysms of excruciating pain in the discoloured fingers and toes, causing her, although a woman of some fortitude, to cry out with distress. The pulse was 100, but regular and free from intermission. There were no signs of degeneration in the vessels, nor any obstruction in the main arterial trunks of the limbs, and, in addition, pulsation could be distinctly felt in the digits of both upper and lower extremities. The heart's apex beat was in its normal position; there was no increase of area of cardiac dulness. The only abnormal sign which she had in reference to her heart was a faint systolic murmur over



the aortic valve and in the course of the aorta. The lungs presented a slightly impaired percussion note at both bases, with small crepitation both with inspiration and expiration. Elsewhere there was dry rhonchus, with a slightly prolonged expiratory murmur, which condition, together with great expansion and hyper-resonance of the thorax, is generally held to be characteristic of chronic bronchitis with emphysema. The respirations were 30; temperature 99° F. The hepatic dulness was slightly increased, and there was some slight resistance over the hepatic region, probably showing just such an enlarged liver as one would expect in a patient of her build, occupation, and habits. The urine was of sp. gr. 1025, and contained mucus and an excess of urea, but no albumen or sugar. I could detect no oxalates with the microscope, but amorphous urates were abundant, and there was an occasional crystal of uric acid. There was nothing in the appearance of the urine or in its chemical reaction indicating the presence of blood. The skin over the general surface of the body, but especially on the chest and back, was damp and sodden, and, in addition, was covered with a dense papular exanthem somewhat resembling an irregular initial eruption of small-pox. This condition was perhaps best marked round the loins and abdomen at the line of cincture of her garments. Indeed, beneath the band of an old flannel petticoat which she habitually wore, night and day the skin eruption was so pronounced as to suggest the presence of some local irritant, rather than a constitutional disorder. The eruption was intensely irritating, especially at night, and her skin was in places lacerated by her constant scratching. There was nothing approaching a gangrenous condition in any part of the body except in the hands and feet, as described. The joints of the body appeared quite healthy. Her eyesight was, and always has been, good. I did not, however, examine her optic discs. She had no indications of affections of any of the columns of the cord; the "reflexes," both superficial and deep, were normal. The surface temperature of the trunk and limbs was not, I regret, observed. It may be interesting to note that the weather at the time was very raw, cold, and damp.

The treatment we resolved upon was complete rest in bed; the hands and feet to be thoroughly protected from the atmosphere by being swathed in cotton-wool. Her bedroom, which hitherto had been stuffy, as the windows were always closed to shut out the noise of the street, was thoroughly ventilated. The windows were ordered to be kept open night and day, whilst the temperature of the room was maintained by a brisk fire. We attended to the state of her stomach and digestive organs, and we prescribed mild aperients with a view to ensuring a regular action of the bowels, and thus help to lessen vascular irregularities or disturbance. In addition, we prescribed ether and digitalis, with iodide of potassium. Her diet consisted of milk and broths and other easily digested foods, together with four ounces of brandy daily.

She apparently improved so much under this regimen, that three days afterwards, when I was again asked to see her, the lividity of her toes and fingers had almost disappeared. There was no discolouration on the dorsum of the hands, and, with the exception of some still acute pain in the phalanges of both hands and feet, there was very little trace or appearance of what so recently had seemed such a dangerous malady. But the "local asphyxia" reasserted itself in a few days more, with all the old intolerant pain, which was worse at night, all the symptoms of restlessness, and also of alternate fits of irritability and depression. The skin on the trunk during the remissions was again very active, and the papular eruption, which had somewhat faded during the intervals, became again lit up, and added, by its irritation, to a truly pitiable condition of mental depression and bodily helplessness. The same toes which only a few days since were threatened with death, and which subsequently recovered, were again swollen, with an integument which was tense, shiny, and livid. There was a recurrence of the intolerable pain, and, in addition, the mental agony, as a result of her pain and sleeplessness, was apparent. Such exacerbations, with subsequent remissions, continued, but with decreased length of intervals, for about three or four weeks, till eventually they were replaced by constant pain and discolouration of the toes, and at length death of the parts. This occurred in spite of treatment, which we varied. Gentle shampooing of the limbs above the seat of injury was tried, and this, together with hot anodyne fomentations, appeared to afford more relief than anything. Galvanism was not attempted on account of difficulties in its regular application. Collodion, however, appeared to afford transient reprieve from pain.

On seeing the patient about three months after my first visit, I found that the following destruction had occurred:—

Right hand	Little finger	Slough of pulp.
	Ring ,,	Terminal phalanx exposed.
	Middle ,,	Terminal phalanx had been exposed, and was removed by Dr. Wilkinson.
	Index ,,	Slough of pulp.
Left hand	Little ,,	Slough of pulp.
	Middle ,,	Terminal phalanx exposed.
Right foot	Middle toe	Loss of pulp and nail.
	Little ,,	Do. Do.
Left foot	Ring ,,	Loss of pulp.

Remarks.—There can be no doubt that this case is an example of Raynaud's disease, but with this peculiarity: the patient is not only an adult, but is beyond life's prime. The great majority of cases have occurred, so far as I have been able to gather from the literature on the subject in this country, in children. Dr. Barlow, however, has published a case in an adult, and Dr. Colcott Fox has published two. But my case occurred in a woman who had no obvious sign of heart disease, the only exception being a faint systolic murmur at the aortic orifice. She had no sign of

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vascular degeneration; there was no history of syphilis. Besides all these, the pulse both at the wrists and on the dorsal surfaces of the feet was good. One could distinctly feel, in addition, pulsation in the digital arteries of both hands and both feet. Another point in the diagnosis is the almost perfect symmetry of the affection, the fingers affected of the left hand being the same as those of the right, although varying in amount. Again, we must note the almost precise parity of conditions in the feet. It is of interest, however, to observe that the toes have been involved to a less extent than the fingers, a condition one would expect to be reversed were Raynaud's disease a true dry gangrene. On the other hand, it cannot fail to be noticed that the pollex and the hallux, both of which are extra well supplied with blood, show no signs of the disease. The darkened condition of the finger ends is not due to ecchymosis. There is no true ecchymosis. The discolouration is transient. It may be present to-day with intolerable pain, but it vanishes perhaps to-morrow, to reappear, it may be, in two or three days.

In criticising the suggestion that the disease is a peripheral neuritis, I must content myself with clinical evidence at present. For until I have had demonstration that such lesion does exist, the clinical aspect of the case must be regarded as against such theory. One of the characteristic features of the disease is its transient nature. To-day the patient is suffering intense agony, and to-morrow, or it may be the next day, there is little or no pain, and perhaps less naked-eye evidence of the disease. This characteristic is, so far as I can understand, opposed to the theory of an inflammatory condition of nerve-endings—a condition which would suggest chronicity in duration, regularity in its painful course, and eventually the production of some atrophic lesion of the part, whether of skin or of joint.

On the other hand, we must recognise the main clinical points which present themselves—viz., that cases of Raynaud's disease occur most frequently in feeble, ill-nourished children, or in adults, in whom, by some cause or other, be it inactive habits, be it defective systolic stroke, or be it some functional disorder of the sympathetic system, the peripheral circulation is diminished. For although the typical lesion occurs in the fingers or toes, patches of "asphyxia" may be occasionally seen in the external ears, the nose, &c.; in other words, those distant parts which are exposed to any disordering influence from without, such as changes of temperature or the like, are the sites in which the disease manifests itself. This looks as though the extremities, or the external ears, or the face, are the seats of local vascular storms—storms which are not of a very wide range, but which are very severe in those localities in which they occur; and that the "chief centres of depression" of such vascular storms occur in the finger or toe ends, or in the tip of an ear or nose, producing, it may be, damage which is easily repaired, or, on the other hand, a destruction which, as in the case above related, amounts to gangrene and the loss of some digits both in the hands and feet.

Tavitton-street, Gordon-square,

ON CLUB-FOOT.

By R. W. PARKER,

SURGEON TO THE EAST LONDON CHILDREN'S HOSPITAL, ETC.

THE interest of the subject, and the diversity of the views held by competent observers as to the mode in which this well-known deformity is brought about, lead me to offer some further observations thereon, and to add some fresh proofs in favour of a mechanical mode of causation. I cannot do better than make the observations a sort of criticism on a paper published two years ago by Dr. H. W. Berg, of the New York Orthopædic Hospital, in Seguin's *Archives of Medicine* (vol. viii., No. 3, pp. 226-48), now defunct, in which this author raises most of the points in dispute.

In the *International Journal of the Medical Sciences* for July, 1886, there is a brief but friendly notice of some views on the pathology and etiology of club-foot, which I recently communicated to the Pathological Society of London conjointly with my friend Mr. Shattock. I cannot sufficiently thank the author of that notice for calling my attention to Dr. Berg's excellent paper, and can only regret that I did not become aware of its publication until the end of last October, the more so as I might then have embodied in the monograph just alluded to, the few criticisms on his paper I now desire to make. As regards the question of priority, delicately hinted at in the above-mentioned journal, I need only say that both Dr. Berg and I have been anticipated, more or less, by so many previous writers that we can both afford to say nothing about priority. Moreover, our interpretation of club-foot rests not so much on individual work, as may be well seen from the rich bibliographical references contained in Dr. Berg's paper, as on the application of that of many workers in the various branches which constitute scientific medicine. I must thank Dr. Berg, however, for his mention of my first paper, which appeared some two years before his own, and again express my regret that I could not (for the reason given) reciprocate this kind attention by a reference to his views in my later, more detailed, and illustrated monograph. As regards one other remark in the *International Journal*, "that the American contributor has carried his observations a step in advance of the authors', and followed them to their legitimate logical conclusions, which for some reason Messrs. Parker and Shattock have avoided," I will only ask for a suspension of judgment until the present paper is concluded.

Premising that the purport of Dr. Berg's paper is to attribute congenital talipes equino-varus to non-rotation of the limb during development (without attempting, however, to explain the reason of this non-rotation), I will pass on to discuss how far his criticism of "those who consider the deformity as the result of a mechanical force acting upon the fœtus in utero" is just. He says: "By these authorities it is assumed that for various reasons the foot, in certain cases, is maintained in one fixed position by the *pressure of the walls of the uterus* [the italics are my own]. This theory would thus account for all the forms of club-foot, and this general applicability is its only merit. For, apart from the fact that the fœtus in utero is not an inert mass, but a living being, which moves about in its surrounding fluid and does not maintain its feet in any fixed position, the theory has this objection, that other parts of the body, which under similar circumstances should be subjected to a similar pressure, are not found with equal frequency to have acquired this false position. Permanently flexed knee-joints, for instance, should be according to this view a very frequent, instead of the rarest possible, deformity." It is on this part of Dr. Berg's paper that I chiefly join issue with him; and yet the difference between his own views and mine is not so radical as his criticism of them—"that their only merit lies in their general applicability"—is intended to imply. I will examine his points *seriatim*.

In the first place, the general applicability of a law or a doctrine is, for the majority of persons, usually a merit, and *primâ facie* entitles that law or doctrine to credence; on the other hand, a theory that only accounts for one kind of club-foot must obviously be received with caution. Now, although Dr. Berg applies his views to congenital equino-varus only, and not to calcaneus, these two—the common—forms of congenital club-foot are so clearly due to some common mode of causation that, *mutatis mutandis*, only such mode of causation can be acceptable as will apply to each. Non-rotation of the limb, however, will not explain calcaneus, and for this reason, therefore, I regard Dr. Berg's explanation not as wrong, but rather as insufficient, due to the fact that Dr. Berg has not followed his observations to their legitimate logical conclusion.

In the next place I must object to the idea that when the foot is "maintained in one fixed position" this is always due to "pressure of the walls of the uterus." This latter is only one of several mechanical forces acting on the fœtal foot. Direct pressure of the uterine wall undoubtedly occurs in certain cases, but I doubt very much whether it comes into play in any large proportion of the cases of club-foot which come under the surgeon's observation. A more frequent force, only to mention one of several, is interlocking of parts of the fœtus, one in another. This condition, described by various authors, leads to deformity without the direct action of the uterine walls, and cases have been figured which undoubtedly originate in this manner. According to Dr. Berg, the "mechanical theory" has also this objection: the fœtus in utero not being an inert mass, but a living being moving about in its surround-

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ing fluid, and not maintaining its feet in any fixed position, other parts of the body ought to show signs of similar pressure *with equal frequency* [the italics are my own]. Here again I find myself at variance with Dr. Berg. It seems to me that a very sufficient reason why other parts suffer less frequently than the feet may be found in their being less anatomically disposed to a deformity so consistent with healthy development elsewhere. Is it not highly probable that when direct pressure affects the head or the abdomen, the life of the fœtus is endangered and that abortion takes place? But that both hip- and knee-joints do frequently suffer analogous deformity is known to every orthopædic surgeon, certainly to every surgeon who sees much of children's diseases. In the severer forms only are these deformities rare; in their lesser degrees they are matters of every-day experience. But the surgeon must look for them not among his orthopædic cases, but among new-born infants; there he will find that probably not less than 30 per cent. are quite unable to fully extend the thigh or the leg for a variable number of days or weeks after birth. As regards the hands, it will be remembered that Cruveilhier explained their comparative exemption by the protected position they occupy during fœtal life.

Dr. Berg further says (*op. cit.*, p. 228):—"There are no adhesions to overcome. On the contrary, motion, as far as is possible in the deformed position of the joint, is good; and as soon as we rectify the deformity by tenotomy, the motion of the joint becomes unrestricted." I am quite unable to follow Dr. Berg in this opinion also. Mr. Shattock and I both found fibrous adhesions within the ankle-joint in several cases, one of which (Case 6) is figured in our monograph. It will be within the knowledge of all orthopædic surgeons that many cases of club-foot, especially of equino-varus, cannot be rectified after tenotomy. I have elsewhere shown what an important part is played by the tarsal ligaments in maintaining the deformity. Even after section of both ligaments and tendons there are cases which resist rectification. It is quite probable that this resistance is due to the presence of such adhesions between the astragalus and the tibio-fibular articular surfaces.

If additional evidence be required to show the insufficiency of the "non-rotation" causation of congenital varus, I will draw attention to the condition known as "crus varum"—a deformity involving the foot and the whole limb up to the hip-joint. In such cases the talipes proper is generally very marked, but is further aggravated by the inward rotation—I would say hyper-inverted position—of the limb. Such cases are described by Dr. Berg's distinguished countryman, Prof. Sayre, by Mr. Adams, and some other authorities, and I have myself also seen several. The chief difficulty in treating these cases depends on the abiding tendency of the limb to turn inwards. In one of my own cases, a little girl, the feet could be completely inverted, so that the heels looked forwards; and this was the position the feet assumed when she first attempted to walk, even after the talipes proper had been quite overcome, until suitable instruments were applied.

As showing conditions analogous to club-foot, I may cite the following cases from my own practice, and while admitting that they are rare, I would carefully point out that their rarity depends on the *degree* rather than on the *nature* of the deformity. As I have already said, the hip- and knee-joints do not lend themselves, anatomically, to severe deformity; nor does the ankle-joint, and it is for this reason a talipes calcaneus is far less severe as a deformity than equino-varus. The former concerns a hinge-joint, and involves movements of flexion and extension only; the latter, besides these movements, involves others (chiefly of rotation) between the calcaneum and astragalus, and between these bones and the fore part of the foot, at the transverse joint. It is this multiplicity of joints and of possible movements which renders the foot so much more liable than the hip or knee to be influenced by slight causes, while the complicated nature of the deformity ensures its coming under the care of a surgeon, and of being reported.

Fig. 1 represents a child with genu recurvatum—a condition of the knee-joint in every way analogous to talipes; owing to malposition in utero, the limb has not been able to pass through that series of positions which is necessary to the development of muscles and ligaments (chiefly) of sufficient length to ensure healthy movements in independent life, and thus certain movements of the knee- and hip-joints were faulty. The deformity, like talipes, yields to suitable manipulations. This infant was only seventeen hours old when first seen. There had been a normal presentation, and labour was quickly accomplished. The deformity affected the left side only.

Fig. 2 represents a still severer form of the same deformity, associated with talipes calcaneo-valgus. The infant was fourteen days old when first seen. The right limb was more affected than the left. The right knee could not be flexed at all; it appeared quite fixed, and resisted all attempts at flexion. The thigh could be extended a few degrees only. The left limb differed in having a few additional degrees of movement. The child was born in, and when naked and left to itself it for some weeks resumed, the position indicated in the drawing. During intra-uterine life the limbs had remained extended on the trunk, with the feet pressed against the chest. In this case there can be no doubt that talipes was caused by uterine environment; the muscles and ligaments were, as a consequence, so short that the joints

FIG. 1.

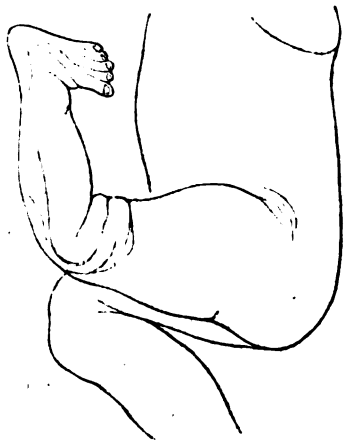
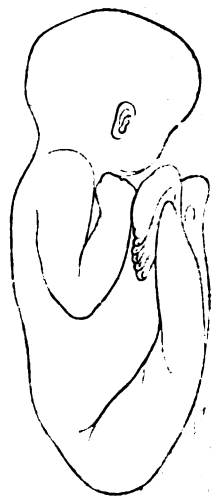


FIG. 2.



could not be extended until the shortened structures had been stretched.

These cases and the whole subject of talipes will be dealt with more fully in a work I have nearly completed, and am about to send to press. More especially I hope to point out the part played by certain of the tarsal ligaments in maintaining the deformity of club-foot, and the importance of dividing them in view of a speedy and radical cure of the deformity.

These observations dispose, I think, of the chief objections urged by Dr. Berg against the "mechanical theory." After discussing other alleged causes and demonstrating their insufficiency, he proceeds to enunciate his own views. He says:—"I shall endeavour to present in a new light a view which, although feebly advanced by some authorities from time to time, has never been supported by well-observed facts, and has therefore gained no adherents. This theory supposes that the deformity of pes equino-varus is due to an *obstruction in the normal development of the feet during some period of intra-uterine life.*" I am quite prepared to endorse this italicised sentence, and am quite sure Mr. Shattock would do the same. For reasons to be presently given, I cannot endorse the earlier part of the above quotation from Dr. Berg's paper. He next proceeds to epitomise the development of the lower limbs, more especially as to the rotation they undergo during the earlier weeks of intra-uterine life. He then says that the deformity "is not due to pressure," but to "non-rotation inwards, or a retarded rotation inwards of the lower extremities." He thus very materially limits the method of causation, and rather goes back on himself and his opinion previously expressed in the italicised sentence just quoted above. In this I think he is wrong, and that Mr. Shattock and I have the advantage over him, since we point out the direct mechanical agencies, which are the *active causes*; it being hardly possible to conceive non-rotation or retarded rotation of the limbs as *spontaneous*; this non-rotation itself must have some active cause. It would seem not improbable that the vitality of a fœtus may be low and insufficient to carry through those developmental processes on which the

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integrity of the limbs and other organs depend. Should this be very marked, death of the fœtus and abortion take place. When the want of vitality is more localised, perhaps it results in deformity or deficiency in the organ chiefly affected; but these are mere speculations, difficult to test, and obviously inapplicable to the majority of cases of congenital club-foot, since, as Dr. Berg himself admits, the limbs are fat and well-nourished, of normal surface temperature, showing no signs of the atrophy which would follow on deficiency of vital power. What, then, are these active causes? Without pretending to have explained all the methods in which a *mechanical force* may act, I think good evidence may be found in our monograph in favour of the mechanical mode of causation as the most reliable and most satisfactory for the majority of cases met with in practice.

If Dr. Berg still entertains the view that the developmental processes to which he alludes in his paper have not been sufficiently taken into consideration when attempting to explain the production of club-foot, and have found no adherents, I would refer him to an admirable exposition of the whole subject entitled, "Ueber die Fötalkrümmungen, namentlich in Bezug auf die Bedeutung der angeborenen Verdrehungen der Bauchglieder," by the late Professor Eschricht of Copenhagen, and to other writings by this distinguished physiologist. I think he will find that Professor Eschricht has anticipated him in most of his conclusions. By consulting the literature of club-foot Dr. Berg will also find that Eschricht's doctrine has many adherents; it has been fully appreciated by writers of eminence, such as Billroth, Volkmann, Lücke, and many others of lesser note, including myself. The great merit of Eschricht is that he was *original* in his enunciation of this doctrine and far ahead of his compeers. He founded it on researches, both human and comparative, carefully and laboriously carried on for years. Among other interesting points he showed that one particular form of monstrosity—the siren—depends on a total absence of this rotation of the limbs, and he thus explained how it was, in such cases, that fusion takes place along the outer border of the limbs, and not along the inner border, as many have erroneously supposed. If Eschricht's views appear to be neglected, it is due to the fact that they are unconsciously included in the larger "mechanical theory" which is at last gaining ground, and to one probable factor in which Dr. Berg has contributed the weight of his authority.

In conclusion, I hope that Dr. Berg, as well as the writer in the *International Journal of the Medical Sciences*, will accept the assurance of my regret that I did not sooner meet with Dr. Berg's paper, and that they will bestow careful consideration on the points on which they and I seem to differ.

Old Cavendish-street, W.

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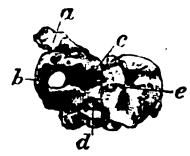
SEPARATION BY NECROSIS OF THE OSSEOUS LABYRINTH OF THE RIGHT EAR, AND ITS REMOVAL AS A SEQUESTRUM FROM THE EXTERNAL AUDITORY CANAL.[1]

BY THOMAS BARR, M.D.,

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THE specimen shown in the accompanying figures was removed on June 1st from the right ear of a boy aged eleven years. It consists of an osseous labyrinth with its three divisions—the vestibule, semicircular canals, and cochlea—clearly marked. In examining the specimen from the outer aspect (Fig. 1)—that is, from the direction of the cavity of the tympanum—we see the opening of the fenestra ovalis (Fig. 1, *e*) leading into the vestibule considerably enlarged by carious erosion; below this, and separated from it by a part of the outer wall of the first turn of the cochlea, there is the fenestra rotunda (Fig. 1, *d*) leading into the scala tympani of the cochlea. Behind and above the fenestra ovalis the external or horizontal semicircular canal (Fig. 1, *b*), with its ampullary enlargement, is seen in its whole extent. Springing from the upper part of the vestibule, the superior semicircular canal (Fig. 1, *a*) is seen to about half of its extent. The Fallopian canal, with its contained facial nerve, is absent at that part of its course where it lies above and behind the fenestra ovalis. The outer wall of the cochlea, considerably thickened, is seen in front (Fig. 1, *c*). On the inner aspect of the specimen (Fig. 2), or that corresponding with the interior of the cranium, there is a cavity of considerable size (Fig. 2, *c*) leading into the vestibule and the scala vestibuli of the cochlea; this

FIG. 1.



Outer aspect of sequestrum.

FIG. 2.



Inner aspect of sequestrum.

opening is evidently a carious extension of the apertures of the lamina cribrosa. In its interior can be traced part of the osseous spiral lamina of the cochlea. On this side of the specimen are two other smaller apertures in the vestibule; one is that common to the two united extremities of the superior and posterior semicircular canals (Fig. 2, *d*), and the other is the ampullary end of the posterior semicircular canal—the only part of this canal represented in the specimen. The superior semicircular canal (*a*) and the horizontal canal (*b*) are also seen on this side of the specimen.

The boy from whom this sequestrum was removed had been affected for ten years with profuse purulent discharge from his right ear, which had originated in an attack of scarlet fever when a year old. Facial paralysis of the corresponding side appeared shortly after the commencement of the discharge, and has continued ever since. He was brought to the Glasgow Ear Hospital on June 1st, mainly in consequence of severe pain in the affected ear. A polypoid growth was seen to occupy the orifice of the ear, and on examining with a probe a large loose sequestrum was felt in the external auditory canal. After the polypus was removed by means of a snare the sequestrum was with some difficulty extracted with a pair of forceps. The external auditory canal was considerably dilated and its lining much excoriated, but after the removal of the necrosed bone the discharge quickly subsided, and within two weeks it had completely ceased, while the interior of the ear had become healed. There was apparently at no time any mastoid complication. It has also to be mentioned that the boy suffered a few years ago from hip-joint disease, which went on to suppuration, and has left behind considerable shortening of the left leg. There is, as might be expected, total loss of the hearing power in the right ear, as tested both by air conduction and by bone conduction. A vibrating tuning-fork or a loudly ticking watch, applied to any part of the head, is heard only in the left ear, while neither a watch, tuning-fork, nor Politzer's Hörmesser is perceived by air-conduction, if the opposite external auditory canal is efficiently closed. The voice spoken into a hearing tube inserted into the ear is heard—evidently, however, by the other ear through osseous conduction. In view of the loss of the semicircular canals on one side, it is interesting to note that this boy has at no time suffered from giddiness or staggering. This seems to support the theory that disturbance of the equilibrium, which has its origin in the semicircular canals, is due to irritation from disease or injury of these canals, while, on the other hand, absence or destruction of the semicircular canals has no effect upon the equilibrium. The facial paralysis is almost complete. As the trunk of the facial nerve was without doubt destroyed at that part of its course where it ordinarily lies on the inner wall of the tympanum, it was important to determine accurately the condition of the muscles supplied by that nerve; and in order to insure this accuracy I asked the President of the Glasgow Pathological and Clinical Society to examine the area of supply, both electrically and otherwise. The following is his report of the condition as tested on the 5th and 7th of June:—

"There is almost complete paralysis of all the muscles of expression on the right side, and the face is drawn to the left; the right eye seems lower than the other, probably from the relaxed state of the occipito-frontalis. The right eye can be closed to a much more considerable extent than is usual in bad facial paralysis, but the part of the sclerotic below the cornea can be seen. He can close both eyes simul-

[1] This specimen was shown to the Glasgow Pathological and Clinical Society on Nov. 8th, 1886.

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taneously pretty well, but he cannot wink with the right alone. The right side of the lips has also some slight power of movement, and the right buccinator contracts feebly on the finger introduced between it and the gums. There is also some movement of the ala nasi on the right in sniffing; otherwise the whole right side of the face seems flabby and expressionless. The cornea is clear; the eye waters only slightly on exposure on a cold day; the movements of the eyeball are good, and the sensation of the paralysed side of the face is perfect. There is a pretty distinct deviation of the uvula to the left; no deviation of the tongue. On testing with the faradaic battery no response could be obtained in the paralysed muscles, even when using strong currents. Ordinary strengths of the galvanic battery likewise failed to secure contractions. On getting up to twenty-seven or thirty elements, and using an interrupting handle well soaked in salt water, the slightest recognisable quivering was produced in some fibres of the orbicularis in the lower lid, and in the orbicularis at the angle of the mouth. During this testing marked contractions of the muscles of mastication sometimes occurred." Dr. Finlayson again reports on November 8th: "No distinct change since above note. The sense of taste was not tried last time, and the boy does not seem very ready to give assistance in this testing."

It is somewhat surprising that in such a case as this there was not extension of the disease to the brain or its membranes. In cases where sequestra have been found after death in the inner wall of the mastoid process, in contact with the dura mater, but without injuring the intracranial contents, there has usually been found localised thickening of the dura mater. Probably thickening of the dura mater also exists in this boy in the region of the posterior surface of the petrous bone—a conservative process of nature, by which a barrier is erected against the propagation inwards of the purulent disease. It is very curious to see how the inflammatory process has caused death and separation of only the hard ivory-like osseous tissue which forms the encapsuling walls of the labyrinthine cavities, as if these walls were separate and distinct, which they are not, from the adjoining more cancellated bone. The disease has really provided us with a preparation which the anatomist finds it difficult and tedious to prepare by dissection.

It only remains for me to say that while a number of cases are on record of individual sections of the osseous labyrinth, especially the cochlea, being exfoliated, there are comparatively few cases recorded of an exfoliated labyrinth having its various parts so well represented as in this specimen. A pretty complete specimen which was placed in the museum of the London College of Surgeons, but has since disappeared, is mentioned in Toynbee's book, and is fully described in the eighth volume of the Pathological Society's Transactions. Wilde also describes one in his "Aural Surgery" (p. 377), and refers to it as "one of the most extraordinary pathological specimens of diseased bone perhaps in existence." In the *British Medical Journal* of June 13th, 1885, Dr. Pye of London describes a specimen removed from the mastoid process somewhat similar to the one I have described. Another case is related in the same journal by Dr. Phillips of Bolton on July 4th, 1885. In his paper Dr. Pye gives an interesting account of the more important recorded cases of necrosis of the labyrinth, both partial and complete.

ON THE OCCURRENCE OF A POISONOUS PTOMAINE IN MILK.

BY R. H. FIRTH, F.R.C.S. ENG.,
SURGEON, ARMY MEDICAL STAFF.

FROM time to time one reads or hears of people who having partaken of certain milks or ices, and even cheeses, are afterwards the subjects of symptoms indicative of an irritant poison. I am at the time of writing unable to quote instances of such with any accuracy, but readers of THE LANCET will doubtless be able to recall several such cases. During the past few months my attention has been devoted to an inquiry into the circumstances of a case of the kind.

On August 3rd, 1886, certain men in the British Infantry section of the Station Hospital, Meean Meer, were seized with nausea, vomiting, dryness of the fauces, with a sense of constriction, colic, purging, and in some few a tendency to collapse, while in others there was a disposition towards stupor. On the same day nine out of ten men in the military prison were affected with similar symptoms in greater or less severity. Under simple treatment all the cases recovered. The circumstance naturally attracted the attention of the medical officers, and on inquiry it was found that the only men affected in hospital were those upon "milk" or "low milk" diets. Also it was noted that the one prisoner who had been free of the symptoms was a man who, not liking the taste of his milk at breakfast, had refused to drink it. Curiously enough, the others remarked nothing to be wrong with the taste or smell. This common factor in the dieting of the two groups of men directed suspicion towards the milk supplied. Further, it was noticed that the milk supplied to the British Infantry section of the hospital and to the military prison were from one and the same contractor, while the milk sent to the Artillery section of the hospital came from another contractor, and amongst the Artillery sick no similar symptoms had followed the drinking of the milk. Unfortunately, none of the suspected milk remained from the hospital, but the unconsumed pint remained at the prison. As officiating staff surgeon at the time, I inquired into the matter, and secured the residue of the milk. The contractor was reported to the commissariat officer, and fined on the strength of the circumstantial evidence. Analysis of the sample of milk left gave the following result: Sp. gr. 1025; solids not fat, 9·6; caseine, 4·1; fat, 3·0; milk sugar, 5·04. It was pronounced therefore to be a fairly good milk. I inspected the premises of the contractor (a native), and examined all his utensils and his cows. His premises, while not being all one could wish, were yet good for a native of his class. However, I unhesitatingly condemned the condition of two of his pans, which were markedly unclean, emitting a repulsive odour, and evidently had been unwashed for some days. Though unable to extract in so many words the fact that these vessels had been used to store the milk in on the morning in question, the presumption was that they had been. The weather at the time was very hot, and specially favourable to organic decomposition, fermentative or otherwise. The cows appeared healthy, well nourished, and the udders quite free from fissures, sores, &c. Reflection on this case led me to try to isolate, if possible, and if such existed, any organic poisonous product from the milk under suspicion. Further consideration favoured the belief that any such product must be a ptomaine.

As the quantity of milk for disposal was small after the ordinary analysis had been finished, I adopted the following method. The milk, being coagulated, was filtered. The filtrate was nearly colourless and acid. This was neutralised and made feebly alkaline by potassium hydrate, and afterwards well shaken up with ether. This was now allowed to stand for awhile, and the ethereal stratum removed by a pipette, and then allowed to evaporate spontaneously. After the completion of this process a moist semi-crystallised residue was left. This appeared to be aqueous, probably the result of a certain amount of water which the ether had taken up. This concentrated residue had a mawkish sickly odour, and a strongly pungent taste when put on the tongue. Trying some carefully myself, I was soon after conscious of marked nausea and dryness of the fauces, followed by headache. Though without the prominent symptoms obtained from the original milk, I suspected I had more or less reached the *fons et origo mali*. Following the idea up, I gave all the remaining residue after evaporation to a small pariah dog belonging to one of my servants. The effects were pronounced: the dog was within fifteen minutes purged, vomiting, and obviously ill. He gradually recovered, and six hours later I had him killed. The stomach and intestines, though containing a serous and frothy fluid, were quite free of congestion or inflammatory action.

Deeming this result so satisfactory, I decided to follow up the inquiry and see whether this product was always present in milk, and, if so, under what circumstances. Taking six samples of fresh milk, I tested them all in the above manner, and in each case failed to procure any toxic residue. To see whether time or degeneration of its constituents was the essential factor for its formation from milk, I obtained a gallon of fresh milk, and by analysis assured myself of its goodness. This I placed in eight clean glass stoppered bottles, and put the same in a room having a mean tem-

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perature of 80° F. From time to time, usually every twenty days, a bottle was opened and the milk examined for the ptomaine, as before explained. Negative results were always obtained until Oct. 19th, when bottle No. 6 was examined and yielded a white acicular crystalline substance having the same odour and taste as that found in the originally suspected milk. Its action on myself and on four dogs and a cat was identical—namely, nausea, vomiting, purging, thirst, frontal headache, and collapse. Bottles 7 and 8 yielded the same product. My means at command are too imperfect to enter into any precise analysis as to the exact nature of this product. I believe it to be a ptomaine, and to which I offer the name "lactotoxine." How and why it is formed seem obscure. It is evidently an effect of decomposition. Microscopical examination of the milk showed no specific organisms on which to father it beyond some common forms of oidium and penicillium. The milk was not unpleasant to taste or smell.

The literature on this topic at my command is so limited that I am unable to refer to the writings of others; but that ptomaines, or similar bodies, do exist in organic fluids under certain circumstances is probable, and it is only by patient and careful investigation as to their causation and composition that we may hope to unravel some frequent but obscure forms of dietetic poisoning. As but an indifferent contribution to this subject, and with a keen sense of its imperfections, I somewhat hesitatingly furnish this paper; but, in conclusion, would remark how well this case illustrates one of the many difficulties we in India have in guarding the soldier from the dirty habits and carelessness of the native food contractors. Notwithstanding the care taken in hospitals to see the milk drawn from the cows on the premises, and under supervision, yet on this occasion some evasion of the precautions must have occurred either by mixture of stale milk with fresh, or by employment of unclean vessels. That the cows themselves were not to blame is supported by the fact that on the next day the very same animals gave milk unproductive of toxic effects.

Meean Meer, Punjab.

NOTES ON A CASE OF UNUNITED FRACTURE OF THE FEMUR.

BY ROBT. W. LEEMING, B.A., M.B. CANTAB., M.R.C.S.

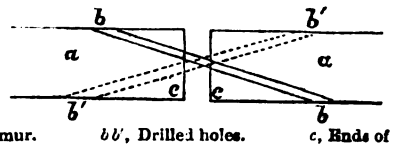
THE following notes may prove of interest as showing the success attending the use of ivory pegs in ununited fracture of a large bone like the femur, and the power of recovery in youth after severe injury.

On Sept. 27th, 1884, J. B——, aged twelve years, an errand boy, was admitted into the Kendal Hospital suffering from injuries received on the railway. From a subsequent account by himself, he was standing on the metals, when a waggon coming up behind him knocked him down, and "he thinks ran over him."

On admission, there was a large open wound over the lumbo-sacral region, about four inches and a half in diameter; just below the left trochanter was a second wound, two inches and a half in diameter, showing the tendons &c. perfect and uninjured, and having a long subcutaneous connexion with a similar opening on the outer side of the thigh a short distance above the knee. The right thigh had sustained a compound comminuted fracture at the junction of the upper and middle thirds of the femur. All the wounds, especially that at the seat of fracture, were thoroughly washed out with carbolic acid (1 in 40) and dressed with iodoform wool. The fractured limb was extended to its original length, and placed on a bracketed Liston's splint. The temperature was 96·6°; the pulse 136, small and feeble. The patient was ordered brandy, and a mixture containing carbonate of ammonia and digitalis every two hours.

The temperature gradually rose to 104° on Oct. 1st, after which date both that and the rapidity of the pulse subsided, till on the 10th both became normal, and remained so. On the third day a gangrenous slough had formed over the seat of fracture, and the veins showed great congestion around. Hot fomentations were applied, and the slough separated on Oct. 3rd, when all the wounds assumed a healthy appearance. Owing to the frequent dressings required by the wound on the back it was quite impossible to keep the limb in perfect position, more especially as there was a fragment over an inch in length lying between the ends of the broken bone. It was therefore decided to keep the parts in as good position as possible until the wound on the back was healed. This proved a very tedious process, and was not completed till the beginning of March, and then only by the aid of skin-grafting.

At 12 noon on March 10th the patient was placed under chloroform, when examination showed the end of the lower fragment to be drawn backwards and upwards towards the ischial tuberosity, and firmly fixed in that position, while the upper fragment was tilted forwards. An incision was made the full length of the cicatrix, and a second one at right angles to the first meeting it in the middle, when a fragment of dead bone an inch and a half in length was removed. The upper end of the lower fragment was so firmly embedded in connective tissue that the greatest difficulty was experienced in reaching it. This was done by means of the finger-nail and a blunt-pointed instrument to avoid risk of hæmorrhage, the whole circumference of the bone from the wound upwards having to be stripped before any reduction could be effected. When this was done the end was sawn off, and the upper fragment was treated in the same manner, its end also having to be stripped for some considerable length before it could be brought into apposition. Having been under chloroform for more than an hour, it was found necessary to proceed no further for the present; the limb was therefore placed on a back splint and firmly bandaged, with the ends of the bone in contact. The lad stood the operation remarkably well, the temperature being highest (100·4°) on the 13th and 14th; but as the position was not maintained, it was determined to try ivory pegs as a *dernier ressort* before amputation. On the morning of the 16th the boy was placed on a fracture board and encased in plaster-of-Paris, strengthened with bell wire, from the shoulders downwards, with the exception of the anterior parts of the chest and abdomen, the second limb, and an opening eight by six inches in extent over the wound. By these means the body and limb were completely



a, Femur. *b b'*, Drilled holes. *c*, Ends of bone.

fixed, and he could be moved when required without injury. In the afternoon of the same day, under chloroform, several strands of strong silk were passed beneath the lower fragment, which was then drawn forwards and held in position by an assistant, while the upper fragment was depressed till accurate contact was secured. Holes were then drilled through both ends of the bone in opposite directions, as is shown in the above diagram. Into these holes two ivory pegs, each two inches in length, were driven, their crossed direction preventing any displacement; the wound was then closed and dressed with iodoform wool as before. On the 26th the temperature rose for the first time to 102·6°, and as it remained high a large portion of the plaster in the neighbourhood of the wound was removed, as it had become saturated with discharge, and a fall of temperature followed; this was on April 2nd. A large amount of callus had by this time been formed, the diameter of the bone at this part being nearly four inches; and a few days later all the plaster was removed and the bracketed splint again brought into use. On May 9th the temperature suddenly rose to 104·4° without any apparent cause; the exhibition of quinine caused a fall, which was again followed by a rise on successive days. On the 16th a small red swelling, not unlike a boil, was observed near the cicatrix; while examining this, half of one of the ivory pegs was expelled spontaneously, falling some distance from the limb. After this the temperature remained normal, and in about a fortnight the second half of the peg came away through the same opening. The ivory shows deep marks of absorption over the whole surface, and as more than twelve months have now elapsed since the operation, it seems very probable that the other peg has by this time been absorbed. On July 16th he was discharged cured, being able to walk easily with a thick sole to his boot, and even to ride on horseback.

The two points which seem of most importance in this case are the difficulty in keeping the broken limb in position and the absorption of the pegs. From experience the splint

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was evidently powerless to keep the limb so firmly in position as to prevent the two thin pieces of ivory from being broken, but by encasing the body and limb in plaster almost complete immobility was maintained. With regard to the second point, the marked absorption of the material used, as shown by the appearance of the portions which came away, affords an argument in favour of using ivory where possible instead of wire, presenting as it does the chance of a wound healing by first intention, and no further operation being required. Of course this plan could not be adopted in the case of a slender bone, since the drilling of so many holes would render the ends too weak to bear any strain.

Kendal.

OVARIOTOMY FOR THE REMOVAL OF A DERMOID CYST.

By E. SINCLAIR STEVENSON, M.R.C.S., L.R.C.P. Ed.

THE following case illustrates the rapid growth of dermoid cysts.

Mrs. B ——, aged thirty (second pregnancy, last eighteen months ago), a spare and healthy person, sent for me in September, 1885, suffering from symptoms suggestive of pelvic hæmorrhage occurring during menstruation. The locality of the effusion could be easily felt anteriorly in the left inguinal, and per vaginam filling the posterior cul-de-sac and left fornix. The patient being thin, a thorough examination of the pelvic cavity could be made. The right side was free from any suspicious enlargement. The pelvic hæmatocele gradually disappeared under careful treatment. On Nov. 26th of the same year I saw her again, and found a lump the size of a turkey's egg projecting in the hypogastrium, inclining to the right, freely movable, hard, not fluctuating, with little pain and no inconvenience. She had menstruated since I had last seen her, and there had been no increase in the flow. The case was carefully watched at frequent intervals. At the end of three months, during which she had menstruated regularly, the growth had reached a level two inches above the umbilicus, filling the abdomen anteriorly, leaving the flanks clear. Fluctuation was now distinct, percussion at any point of the circumference producing an equal wave in all directions, pointing to the existence of a large unilocular cyst. The patient felt very little pain or inconvenience besides that of weight; but a few days before she had been seized with a sharp pain in the right side, suggestive of a twist in the pedicle. For this and other reasons, especially that of the rapidity of the growth, it was decided to interfere.

The operation on Feb. 21st, 1886, was done with strict antiseptic precautions. The room was carbolised with spray for half an hour previously to the operation, other details being strictly carried out on Listerian principles. There were no adhesions, and no hæmorrhage whatever. The cyst contained about two pints of sero-albumen, with lymph flakes and oil and fat floating in it. While tying the pedicle a small secondary cyst burst and discharged its sebaceous contents into the peritoneal cavity, necessitating a careful toilet. The growth was a cyst of the right ovary, containing bunches of long hair in the cavity, short hair growing on the lining membrane, and between the walls anteriorly a flat bone half an inch long with two teeth. Besides which there were five smaller cysts, containing sebaceous matter and hair. Carbolised silk was used for tying the pedicle and for the sutures, and a dressing of salicylated cotton wadding externally. The temperature immediately after the operation was 99°. She was kept on ice for two days, with the addition of injections of peptonised beef-tea. On the third day she had milk added to her diet. Menstruation occurred on the second day after the operation, and lasted four days. On the twelfth day the wound was healed, and on the twenty-first day she got up.

Remarks.—The interest of this case lies in the clear data which I had, enabling me to calculate almost to a certainty the duration of the growth. Thus in three months the cyst grew to the size of an adult's head. The success of the operation I attribute to its having been done early, and to the skilful assistance rendered me by my friends and colleagues, Drs. Murray, Parson, and Evans.

Cape Town.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum allorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

LONDON HOSPITAL.

HEPATIC ABSCESS.

(Under the care of Dr. RALFE.)

THE surgical treatment of tropical abscess of the liver has excited considerable discussion in the past, and it was at one time advised that such abscesses should be left to break spontaneously. Since the introduction of improved methods of drainage and the employment of antiseptics, of which the following case is an example, the opinion of the majority will be found to coincide with that expressed by Dr. Ralfe in his remarks. This mode of treatment, however, cannot in all cases supersede the use of the aspirator or trocar, the employment of which is still required where the diagnosis is obscure, or the abscess deeply seated and possibly of small size. That the use of the aspirator may be beneficial where no abscess exists is proved by a case published by Dr. Ralfe in THE LANCET of 1876. For the notes of the case we are indebted to Mr. J. F. Johns.

John A——, a sailor, unmarried, a strong, muscular man, came to the hospital on Nov. 15th last, complaining of a feeling of uneasiness in his abdomen, and of "a lump there." The patient was pale and tremulous, and looked exceedingly unwell. On examination a fluctuating tumour was felt about an inch and a half below and a little to the right of the xiphoid cartilage. The tumour was very soft, and the fluctuation well marked. No pain was experienced by the patient in the region either on palpation or percussion, nor indeed had he ever noticed any pain in the part, but, as he was evidently very unwell, he was taken into the hospital forthwith. The patient had contracted syphilis in India twelve years ago, had suffered from cholera in India three years ago, and had also suffered from dysentery whilst in China recently. During several recent voyages the patient, together with others of the crew, partook frequently of partially cooked meat, especially the so-called frozen mutton. His illness commenced about three weeks ago, after a considerable debauch, by general pains all over the abdomen, which on subsiding left a feeling of uneasiness at the upper part of the abdomen. Then it was that the tumour was first noticed. He stated that the tumour got larger for about a fortnight, and then seemed to cease enlarging. The temperature on the evening of the 15th was 100°, being down to normal the next morning, and running up to 101° in the evening again.

The patient was seen by Dr. Ralfe on the 17th. The tumour was larger and more doughy to the touch, and the fluctuation less distinct than on the previous Monday. Mr. MacCarthy was called in consultation, and it was decided to make an exploratory puncture. The patient being anæsthetised with ether, Mr. MacCarthy proceeded to puncture the tumour at about its centre with a trocar and cannula, with the result of pus being found. Then, without the use of the carbolic spray, a free opening was made into the abscess and enlarged with the finger, allowing about a pint and a half or two pints of laudable pus tinged with blood to escape. On inserting the finger, an extensive cavity was found extending deeply downwards, excavating the whole left lobe of the liver. The cavity was then washed out with a weak carbolic solution and a large drainage-tube inserted. The orifice was dressed with iodoform, with a wood-wool pad and antiseptic gauze.

Nov. 18th.—Temperature last night 101°. The patient felt no ill effects from the operation beyond a slight headache. Wound dressed this morning, and the cavity syringed out with carbolic solution. A considerable amount of discharge had taken place. Temperature 99°; pulse 80. Patient quite comfortable; no pain.

20th.—Discharge still plentiful, but diminishing. The drainage-tube, which was level with the surface of the

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abdomen, now protrudes half an inch from the wound. Temperature normal; pulse 78.

25th.—The temperature went up to 100° last night, but is normal this morning; pulse 82. The tube in the cavity is now about an inch and a half long. Discharge much less. General health much improved. Diet increased. No pain.

27th.—Large drainage-tube came out in the night, and so this morning a smaller one was substituted. Very little pus washed out. Temperature 97°; pulse 80.

Dec. 4th.—There has been no pus washed out for two or three days, and so syringing is discontinued. A very small piece of drainage-tube is now left in the cavity. The opening of the cavity is too small to admit even the tip of the little finger, but the probe goes in about an inch and a quarter. Wound dressed as usual. Temperature 97·5°; pulse 80. Patient gets up.

7th.—Tube removed entirely; no discharge. Probe goes in about an inch. No pain, only a tickling, itching sensation round lips of wound.

13th.—Wound dressed with small piece of padding and iodoform; is healing rapidly. Patient eats well and is up all day. Has no pain whatever.

17th.—Patient discharged. Wound quite healed up. He was looking much better than when he came in, and had gained several pounds in weight.

The only drug treatment the patient had was a quinine mixture until the operation and slight laxatives regularly afterwards.

Remarks.—The clinical interest in this case was the painless character of the swelling, and the very slight degree of pyrexia attending this large and rapidly formed collection of pus. The patient declared that he had never experienced a rigor and did not sweat, and it was not till his admission to the hospital that a slight rise of temperature at night was noticed. This, taken with the history of the patient having eaten for some time raw meat, led to a suspicion that the swelling might prove to be a hydatid cyst undergoing suppuration, but the peculiar doughy infiltration of the integuments over the tumour was considered decisive of the abscess being hepatic. The case also illustrates the advantage of a large opening and drainage-tube, the patient being discharged cured within a month of the operation. In a previous case, where the incision was made between the eighth and ninth ribs, owing to narrowness of the intercostal space only a small drainage-tube could be introduced. Considerable difficulty was experienced in keeping the tube free, and pus was constantly re-collecting in the abscess, so that the patient was in the hospital some months before the abscess closed up. As regards the comparative results obtained by aspiration and free drainage respectively, Dr. Ralfe has had seven cases of hepatic abscess under observation. In the first three aspiration was relied on, and of these all have died. Of four cases treated by incision and drainage three have made a complete recovery; the fourth case recovered from the operation, but as soon as the abscess closed tubercular phthisis developed, which rapidly proved fatal.

NORTH-EASTERN HOSPITAL FOR CHILDREN.

TWO CASES ILLUSTRATING THE TREATMENT OF THE DEFORMITY FOLLOWING TUBERCULAR DISEASE OF THE KNEE-JOINT.

(Under the care of Mr. BILTON POLLARD.)

For the notes of the following cases we are indebted to Mr. H. Downes, house-surgeon.

CASE 1. *Tibia flexed and displaced backwards; joint opened by division of the patella; anterior crucial ligament divided and limb straightened; joint healed under one dressing.*—Eliza P——, aged seven years, was admitted on Sept. 27th, 1886. Her father and two of her brothers had died from consumption. The disease of her knee began when she was two years of age. Plaster-of-Paris bandages were applied for a few months, and then for a period of eighteen months nothing more was done. The leg became drawn up and shortened. Two years ago an operation was performed on the knee, and the child returned home with discharging sinuses. For the last seven months the knee had been quite sound, but the deformity had been steadily increasing. On admission the child was well nourished, and presented no signs of disease. There were scars of old sinuses on the front and inner side of the right knee. The joint was flexed almost to a right angle, and so firmly fixed that no extension or flexion movements could be made. The tibia was displaced backwards considerably, and the leg was much wasted.

On Oct. 8th an incision was made across the front of the knee, and the joint opened by sawing across the patella. It was found impossible to straighten the limb owing to the tibia being held backwards by means of a mass of fibrous bands taking the direction of the anterior crucial ligaments. These bands were divided, and then it was possible to bring the tibia forwards; but the limb could not be quite straightened owing to the interval between the condyles being so filled up as to prevent the somewhat enlarged spine of the tibia riding forwards into it. This interval was deepened sufficiently to accommodate the spine, and then the leg was brought forwards into a line with the femur. There were no visible signs of recent disease in the joint. A few vascular points were seen and ligatured, but the tourniquet was not removed until the dressing had been applied. The two halves of the patella were united by a silver wire suture. The middle portion of the skin wound was sutured, but both ends of the wound were left open for drainage. No tube was employed. The wound was dusted with iodoform, and a dressing of salicylic wool was applied and firmly bandaged on. A piece of galvanised iron was placed behind the knee in the middle of the wool as a support to the joint. The limb was raised to a right angle with the body for a few hours. The spray was used during the operation, and the strictest attention was paid to antiseptic details. The temperature reached 100·6° F. on the second day after the operation; it then fell to the normal and remained so. No blood or discharge showed through the dressing, and there was no need to change it, but on the twenty-second day after the operation this was done to remove the stitches. The wound was healed except at a small spot opposite the wire in the patella. Three weeks later the wire was removed from the patella, and a week after that the limb was put up in plaster-of-Paris and the patient was discharged. She was seen six weeks later. The limb was straight and slight movement at the knee was possible. The patella was soundly united and freely movable at the condyles of the femur.

CASE 2. *Left leg flexed and abducted at the knee and ankylosed; joint excised and bones wired; joint healed under one dressing.*—Annie P——, aged eight years, was admitted on Aug. 31st, 1886. Her father and grandfather died of consumption. The disease of the knee commenced after a fall when the patient was fifteen months old. The knee had never suppurated, but it got much deformed and almost prevented the patient from walking. The child had been twice in the hospital during the year. Weight extension and forcible movement under chloroform failed to reduce the deformity.

On admission, the patient could only hobble about a little; the knee was flexed to an angle of 45° from the extended position; the leg was abducted and rotated outwards at the knee; the joint was firmly ankylosed, and the patella was fixed to the external condyle.

On Oct. 2nd the joint was opened by a transverse cut across the patella; the patella was firmly ankylosed to the external condyle, from which it was freed by a vertical saw-cut. The greater part of the external condyle had been destroyed, and as it was found impossible after the division of fibrous bands to bring the leg straight, a slice of bone was removed from the lower end of the femur, and a very thin layer was removed from the tibia; a few vascular points were tied. The limb was put straight, and the patella was united by a wire to the front of the femur, the femur and tibia being united by a second wire. The rest of the treatment was identical with that described in the first case. The temperature remained normal throughout. On the second day after the operation a spot of blood appeared through the wool, so a layer of the latter was removed and a fresh layer applied, but the wound was not exposed. Four weeks after the operation the dressing was removed and the wound was found healed in its entire length. The dressing was stained with blood only, and was perfectly dry. Three weeks later the limb was put up in plaster-of-Paris and the patient was discharged. The patient was seen a month later; the limb was soundly healed, but there was a small sore opposite the wire suture which united the tibia to the femur. This was removed, and after a week the wound was healed.

Remarks by Mr. POLLARD.—The first case appears to me of much interest and importance. It is well known that after strumous disease of the knee, when the tibia is dis-

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placed backwards, it is useless to attempt to straighten the joint until the tibia has been carried forwards, for unless this precaution be taken, either the backward displacement will be increased or the tibia will give way at the upper epiphysial line. To Mr. Beck's teaching at University College I owe the knowledge that the cause of the difficulty in straightening the limb in such cases is the shortened anterior crucial ligament combined with other adventitious bands, and in this case I was able to demonstrate the correctness of that teaching, and to show that the deformity might be remedied after dividing these bands without removing any bone, and subsequently without impairing the growth of the limb. In the second case the external condyle of the femur was so destroyed that it was impossible to straighten the limb without performing an excision. This I regret greatly, and I would not have done it if any other means would have succeeded, for the growth of the bone will be impaired thereby. The cases are good examples of what can be achieved by aseptic surgery—primary union—under a single dressing without tubes. I do not know that the complete method of dressing detailed in the first case has as yet been published, but I claim no credit for it; I owe it likewise to Mr. Beck, and my cases are only instances of the success which has attended it equally in his hands as well as those of other surgeons. For such operations as those described I prefer Volkmann's method of dividing the patella, for I should anticipate firmer union of a wired patella than of a sutured ligament.

ST. VINCENT'S HOSPITAL, DUBLIN.

TWO CASES OF ABSCESS EVACUATED WITHOUT ANY RESULTING DISFIGUREMENT; REMARKS.

(Under the care of Dr. QUINLAN).

For the report of these cases we are indebted to Mr. M. C. O'Gorman, resident pupil.

CASE 1.—C. B——, aged seventeen, a messenger, was admitted on Oct. 12th, suffering from a large swelling occupying the whole right submaxillary space, and in which deep-seated fluctuation could be detected. On the 15th, the purulent matter being apparently half an inch from the surface, a silver wire was introduced in a horizontal direction, beginning in the healthy tissue to the right of the abscess, passing through it, and coming out about half an inch on the inner side of it. Lint wetted in spirit lotion was applied to the external surface. On the next day purulent matter was coming out at both openings; but after a few days it was evident that the lower part of the abscess was working towards the surface. This arose from the circumstance that the lower part of the abscess extended down the neck much further than was at first supposed, and in consequence a "pocket" of purulent matter pressed upon the tissues and produced absorption of them. As the skin was actually beginning to thin, another wire was on the 20th introduced through the external opening of the original wire, passed through the "pocket" above described, and brought out well below it. In a few hours the pus began to discharge through the lower opening, and the tendency to "point" at once ceased. The discharge became gradually thinner, the abscess being carefully evacuated by pressure with a tampon of soft cloth in the morning, mid-day, and evening. On the 25th the discharge from the openings of the original wire having entirely ceased, it was removed, and the evacuation process through the secondary wire carefully continued. On Nov. 22nd all discharge ceased, the swelling was much reduced, and the redness of the skin greatly lessened. On Nov. 7th the secondary wire was removed, and on the 10th the openings had healed up. On Nov. 16th the patient was discharged. There was slight swelling and induration on the site of the abscess, and very little redness of the skin on the spot where it had threatened to point. Three red points showed the sites of the entrance and exit of the wires. On Nov. 22nd the boy was seen, and all traces of the abscess were rapidly disappearing, there being no disfigurement whatever.

CASE 2.—M. H——, aged thirty-nine, a healthy, well-nourished woman, the mother of eight children, had been confined of her last child, a girl, on June 2nd. A month after, a swelling appeared in the left iliac fossa over Poupart's ligament, accompanied with great pain, gathering up of the left thigh, and stooping of the body. She became gradually unable to make the slightest exertion, and was at last obliged to take to her bed. She was admitted on Aug. 19th. She was treated with hot poppy fomentations and linseed poultices, together with hypodermic injections of morphia, to keep down the pain, which was extreme; quinine and nourishing diet were given to support her strength, which was very much reduced. Suppuration took place, so that on Aug. 25th the purulent matter was within half an inch of the surface. Two silver wires were introduced through the abscess—one in a direction parallel to Poupart's ligament, and the other at right angles thereto. The matter gradually discharged itself along these wire setons, a dressing of calico steeped in spirit lotion being kept continuously applied. The pain and swelling steadily subsided, and the discharge, which was profuse, became less of a purulent and more of a sanious character. On Sept. 10th it had ceased for some days, and one of the wires was withdrawn. After an interval of three days the second wire was withdrawn, and the openings closed. On the 20th she was able to walk without stooping, contraction of the leg, or pain; and on the 28th she was discharged, cured, and without any mark over the site of the abscess, except four red pinhole openings corresponding to the entries and exits of the wires.

Remarks by Dr. QUINLAN.—In both these cases large abscesses were evacuated without the production of any external mark or disfigurement. In the second case the situation of the abscess in the groin rendered this a point of little consequence, although this case clearly shows how disfigurement can be avoided in abscesses of the neck and face, where the avoidance of marking or deformity is most desirable, especially in the case of females. The treatment is dependent upon the early introduction of the wire, upon the avoidance of poultices (which tend to relax the capillaries of the skin) during the wire process, and upon the application of spirit lotion, which cools the surface, keeps down inflammation, and hardens the skin. This method is superior to aspiration, which causes too many punctures, and has not the same power of keeping the sac of the abscess empty by the drainage of the matter, whether purulent or sanious, as fast as it is secreted. This constant drainage, which is greatly aided by the use of the flat tampon of old soft calico, causes the sac of the abscess to collapse, and removes all pressure and consequent chance of absorption from the skin. The red wire openings left after the operation are small cicatrices, not larger than the head of a full-sized pin. These undergo cicatricial contraction and disappear. In the case of Miss O. D——, recorded in THE LANCET some years ago, they cannot now be detected, even by the aid of a lens.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Surgical Treatment of Hydatids of the Liver.

AN ordinary meeting of this Society was held on Tuesday last, Mr. G. D. Pollock, F.R.C.S., President, in the chair. The whole of the evening was occupied by the discussion of Mr. Barwell's paper.

Mr. RICHARD BARWELL read a paper on widely incising, by a two-stage method, Hydatids of the Liver. Hydatids of the liver may be treated surgically by (1) puncture with a small trocar, (2) evacuation with a large persistent opening, and (3) electrolysis. This last has not commended itself to the judgment of the profession. The author recommends that the first method should always be primarily resorted to, chiefly because it sometimes is curative—viz., in cases of single barren cyst; but in a large proportion of cases there are numerous daughter or secondary cysts, and then the tumours frequently recur. Under such circumstances the most efficacious treatment is by keeping a large opening patent for some time. The object of the paper was to point out the safest way of making such an opening. After discussing certain other methods, it was shown that incising the abdominal parietes first, then stitching to them the cyst or its surroundings, and finally cutting into the tumour after a few days, was regarded as a very safe and efficacious procedure. The author recommended certain precautions to be taken when the cyst wall appeared so thin that a needle puncture might cause effusion of hydatid fluid into the peritoneum. Some modifications introduced with a view to meet special circumstances were discussed. The case of a young

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woman who had a hydatid of the liver which had been punctured eight times, and on whom the author performed the above mentioned operation, was related. After a time eighteen hydatids and the wall of a large mother cyst were passed from the wound. There was an absence of peritoneal symptoms, and the patient made an easy recovery.

Mr. W. HAWARD considered that the character of the contents of the hydatid cysts should determine the nature of the operation. Doubtless a free opening would be required if the contents were thick and compounded of daughter cysts. He criticised Mr. Barwell's method, and thought that the potassa fusa caustic was to be selected, rather than the one which Mr. Barwell advised. His remarks were illustrated by cases. In one instance a second cyst was found bulging into the first, which had been emptied. The second one was also opened through the first, but still the patient did not recover, and finally died with lardaceous disease. Hydatids were found in the omentum and spleen, and a suppurating cyst in the back of the liver, which was doubtless the cause of the continued illness and lardaceous disease. Altogether the method of gradual perforation of the abdominal wall, so as to secure proper peritoneal adhesions, was to be preferred to other methods.

Mr. HOWARD MARSH had successfully practised the operation recommended by Mr. Barwell in one case recently. The sutures had to be passed into the substance of the liver because the hepatic peritoneum was so thin. The suppurating hydatid cyst was incised four days afterwards. In a case of suppurating hydatid cysts of the liver in a little child, an abdominal section was made without attempting to secure adhesion between the liver and abdominal wall. The result was satisfactory, and the case not complicated by the extravasation of the contents of the cysts into the peritoneal cavity.

Mr. HARRISON CRIPPS considered that the free incision enabled the surgeon to deal with multiple cysts, which, in his experience, were frequent complications of hydatids of the liver. A case illustrating the advantage of a free incision was mentioned. In this instance special precautions with a view to obtaining adhesions were not used. A second cyst was completely emptied through the wall of the first cyst, which had also been completely evacuated. The results were perfectly satisfactory.

Sir DYCE DUCKWORTH had seen good results after all the methods of treatment for hepatic hydatids. He was doubtful of the excellency of the advice that all the contents of the cyst should be evacuated at the surgical operation. It was still a point for the surgeons to decide whether the cysts should be completely cleared out, and whether antiseptic injections should be practised.

Mr. WALSHAM remarked that surgical treatment of hydatid cysts was not always of a harmless nature. A few cases of sudden death, even from aspiration, had been recorded. Perhaps this was due sometimes to hydatid fluid escaping into the venous circulation. He could not but think that an incision four inches long would be attended with some danger. In several cases of the kind he had made the incision from an inch to an inch and a half in length, and found this size ample for all purposes. There was but little fear of pus or hydatid fluid escaping into the peritoneal cavity, and he thought that excellent results could be obtained without the surgeon first endeavouring to secure adhesions of the cyst to the abdominal wall. After evacuation of the contents the cysts should be well syringed with carbolic acid solution, and then powdered with iodoform. In his own practice the wounds healed under this treatment with the best possible results.—Dr. ANGEL MONEY said that a continental surgeon was operating by abdominal section on a case of hydatid of the liver when the patient suddenly fainted and died. A daughter cyst must have escaped from the liver and entered into the hepatic vein, for one was found free in the right auricle of the heart.

Mr. A. PEARCE GOULD thought that aspiration should be tried first in all cases. It was still an open question as to what was the best means to be adopted even in aspiration. Should the surgeon remove all the hydatid fluid obtainable, or only a small quantity? Perhaps the latter method was the safer. In one case that had been under the care of Dr. C. Y. Biss, in a woman aged forty, Mr. Gould made an incision through the right linea semilunaris, when peritoneal adhesions were found and four quarts of pus and hydatid cysts evacuated. The patient began retching, and the omentum protruded at the lower part of the wound. In the omentum abortive hydatid cysts were seen, but the omentum was easily returned and the sinus eventually closed. In a second case there was a very large hepatic tumour, from which reddish serous fluid, without hooklets, was drawn off. After incision two pints of fluid flowed out, and a large quantity of solid material was discovered. Some days later much of this material was scraped away, and some bleeding resulted. The case had now almost completely recovered. He was strongly in favour of the knife as against caustics. He did not think it was necessary to stitch the wall of the cyst to the abdominal wall before opening the tumour.

Mr. HENRY MORRIS supposed that the chief point for discussion in the paper was the necessity or not of a double operation. In a work of Dr. W. Thompson, published in 1841, on diseases of the liver and biliary passages, four methods of treatment were fairly stated. Some quotations were made by Mr. Morris from an article published in the *Madras Quarterly Medical Journal* for 1839 by an Indian surgeon, in which the opinion was expressed that there was not much danger of effusion into the peritoneal cavity in opening abscesses of the liver. The plan of attaching the cyst to the abdominal wall was perhaps associated with that of gastrostomy and colotomy, but the procedures in the three cases were altogether different; for in the two latter operations a mobile and contracting organ had to be dealt with. In hydatids of the liver it was necessary to obtain a sufficiently large opening to allow of the escape of bulky contents. It was not difficult to secure coaptation of the cyst to the abdominal wall, and thus to prevent the escape of fluid into the peritoneum. Manipulations were also possible by which this coaptation could be secured at the time of operation. He thought that there was no necessity for a division of the operation into two stages. He could not think the procedure of Mr. Harrison Cripps—of removing the entire mother sac—an advisable one. Once, when tempted to perform this, he had in his recollection the case recorded by Dr. Bright, in which the stripping of the parent membrane from the adventitious coat was followed by hæmorrhage that nothing succeeded in stopping. Once also a boy was run over and died. It was found at the necropsy that a hydatid cyst of the liver had become detached from its adventitious capsule, with consequent fatal extravasation of blood between the true and the false sac of the hydatid. The surgeon should, in his opinion, empty as much of the fluid and daughter cysts as would come away without using force, but he should not attempt to remove the parent sac at the time of operation. He had never resorted to irrigation, but aseptic drainage-tubes should be used. The indiscriminate use of iodoform in the cyst might be followed by disagreeable delirium and perhaps even death.—Mr. BARWELL said that he could supply the sequel to the case narrated in the paper. A small but long sinus persisted for some time, but had recently completely healed. He had a dread of filling a large cavity with iodoform; symptoms of blood-poisoning had been known to occur after such free dressings with this powerful antiseptic.

MEDICAL SOCIETY OF LONDON.

Hunterian Chancre of Lower Lip.—Plastic Operations for Ectropion and Contraction of Face.—Excision of Elbow.—Nævus of Hand.—Early Colotomy.—Floating Abdominal Tumour.—Pharyngo-laryngeal Stenosis.

A CLINICAL MEETING of this Society was held on Monday last, Mr. R. Brudenell Carter, F.R.C.S., President, in the chair.

Mr. G. R. TURNER showed a living specimen of Hunterian chancre on the lower lip complicated by a mushroom-like growth on the chin. The man had injured his lip five months ago, and two months and a half ago the site of injury took on morbid action. There had probably been simultaneous inoculation at two places, and this was perhaps the chief interest of the case. Syphilitic sores were found on the penis, and a suppurating bubo in the left groin, also an eruption on the arms.—The PRESIDENT thought the high probability was that the inoculation had been accidentally effected with the man's own fingers.—Mr. BLOXAM remarked on the occurrence of two chancres on the lip in close proximity. He had several times seen three and four hard chancres in one individual at the Lock Hospital. They affected any position, such as the upper and lower eyelids, side of the nose, armpit, nipple, abdomen, umbilicus, arms, and back.—Mr. HARRISON CRIPPS had observed fourteen cases of Hunterian

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chancres of unusual situation during the past year. In one case of chancre of the eyelid, in a woman aged seventy years, it seems that the grandchild was suffering from secondary syphilis, and the woman averred that she had obtained her sore from the child. These unusual sores might not show any induration when occurring in the skin; but those attacking the lips sometimes caused the submaxillary glands to enlarge so much as to suggest mumps.

Mr. DAVIES-COLLEY exhibited a case of Ectropion following necrosis of the superior maxilla in a boy aged six. He showed the case as an example of a new form of operative procedure for the relief of a severe case of ectropion. The lower eyelid exhibited a granulating surface of the palpebral conjunctiva, and was exposed over an extent of three-eighths of an inch at least, from above downwards. The bone beneath the sinus was bare, but not loose. The edges of the tarsal cartilage were pared over the outer two-thirds of their extent, and after freeing the lower eyelid by an incision three-quarters of an inch long, made parallel to it and a quarter of an inch below its free border, the eyelids were sutured together. Three-fifths of the palpebral aperture were closed. Nine months after this operation the sinus had healed up, but the contraction of the parts had considerably drawn down the upper eyelid. The union was divided, and the eversion of the eyelid was seen to be as bad as ever. A year after the first a further plastic operation was performed: a triangular flap of skin two inches long was taken from the left temple just behind the external angular process, and fixed on the gaping incision which had been again made below the lower eyelid. This flap healed fairly well, but the upper eyelid was still drawn down, and the palpebral aperture was very small. To overcome this defect, Mr. Davies Colley divided the upper eyelid and converted that portion of it which had for some time occupied the position of the lower eyelid into a substitute for it. The result was very satisfactory. The boy had good sight and could close the eye. The hairs of the upper eyelid still remained in what was now the lower border of the lower eyelid.—Mr. BRUDENELL CARTER congratulated Mr. Davies Colley on the success of the treatment.

Mr. WALTER PYE showed a Nævus of the Left Hand in a girl aged seven years, in whom there was a clear and definite history of a maternal impression.

Mr. ASTLEY BLOXAM exhibited a case of plastic operation for Contraction following Ulceration of the Face. In 1879 the patient had ulceration of the entire face as high as a line drawn transversely across the face at the level of the infra-orbital ridges. The nose was completely eaten away in process of time. The ulceration was probably due to lupus, though some contended that syphilis was the cause. In December, 1886, the mouth was represented by an opening half an inch in transverse and a quarter of an inch in vertical diameter. On Jan. 13th Mr. Bloxam operated as follows: A tube was placed into the orifices representing the nostrils, and the tongue was secured by a piece of string passed through the lip. An incision was then made through the cheek on either side, and the mucous membrane turned down over the lower lip and fastened to the incision in the skin by horsehair sutures close together. The skin of the upper lip was then stitched to the mucous membrane with horsehair. The result was very satisfactory.—Mr. BRUDENELL CARTER had operated on a somewhat similar case with a good result.

Mr. WALTER PYE showed a case of Excision of the Elbow in a boy aged six, in whom he tried to perform a partial excision, leaving the lesser sigmoid cavity of the ulna; but this had to be removed after five months had passed. The part left seemed to be typically healthy. The case went to show that complete excision was most necessary in order to obtain a perfect result.

Mr. HARRISON CRIPPS showed a case of Colotomy for Carcinoma of the Sigmoid Flexure in a woman aged forty. The opening of the artificial anus was of a valvular nature, and the patient had considerable power over defecation. The operation had relieved distress and diarrhœa, and probably retarded the growth of the disease. It was important to obtain primary union between the skin and mucous membrane. The operation was in this case very beneficial to the patient.—The PRESIDENT, Mr. J. H. MORGAN, and Mr. BLOXAM joined in the discussion. Mr. H. CRIPPS, in reply, thought it was most important to get the bowel thoroughly emptied before opening it, if primary union was desired.

Mr. ISAMBARD OWEN described a case of Floating Abdominal Tumour in a woman aged seventy-six. It was situate in the epigastric and umbilical regions, and reached beyond these bounds, but was not apparently connected with either the liver or spleen.—Dr. W. H. DICKINSON thought it was a floating kidney.—Dr. C. T. WILLIAMS considered that the splenic relations of the tumour were not absolutely negatived; the tumour might be omental and benignant.

Dr. GILBART SMITH showed a case of Pharyngeal Stenosis of peculiar funnel shape; the epiglottis was much contracted and the cricoid cartilage thickened. The larynx seemed to have received a sort of twist. There was no doubt that the man had had syphilis, though he attributed the laryngeal state to accident.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

AT a meeting of this Society on Jan. 7th, Dr. Alderson, President, in the chair, the following communications were made:—

Dr. BLENKINSOP read a paper upon Phthisis and its Treatment.

The Etiology of Phthisis and its Treatment from a Hygienic Standpoint.—Dr. SEYMOUR TAYLOR read a paper under this title. Phthisis he considered a condition or symptom having several causations—inflammatory, fibrous, tubercular, or otherwise. The tubercular form might be described as bacillus phthisis, or, owing to Koch's connexion with the tubercule bacillus, the disease might be called Koch's phthisis. In his experience the bacillus tuberculosis was always present in tubercular phthisis. Tuberculosis, like cancer, may vary in its virulence. In some it may be general in its distribution; in others it may be quite a local process. It is not singular in its behaviour. It seems to attack some localities from choice. It selects certain families or constitutions, apparently by preference, and not by accident. The author then discussed the arguments which had been advanced against the infective theory of tuberculosis, and said that other factors were necessary for a man to contract the disease than the mere contact of the bacillus; while, whatever the gate of infection might be (mucous or otherwise), an abnormal condition of the points of contact was a certain factor in the production of the disease. The blood contained bacilli after inoculation, and, as in enteric fever, a relapse may be occasioned by re-inoculation from an infected patch of ulceration; so it may be the case with the extension of tubercular ulcer on the tonsil, or buccal cavity, or from strumous glands containing bacilli; indeed, it is possible by inhalation to account for the multiple tubercular lesions which are met with in the lungs. The author then sketched briefly the life history of a tubercular patch, and discussed the origin of the giant cells. He concluded by epitomising the causes which in his opinion rendered phthisis so virulent amongst us, and said that our cold damp climate, by favouring the prevalence of catarrh of the respiratory apparatus, was directly responsible for a condition which allowed the tubercular parasite to flourish.

The Operative Treatment of Intercurrent Disease in Tubercular Patients.—Mr. BRUCE CLARKE read a paper on this subject. After briefly discussing the nature of tuberculosis and its dependence on a specific bacillus, the author proceeded to show that it was almost impossible to remove by a surgical operation the whole of the bacilli that had found their way into the body. The local manifestation was all that could be got at. It was clear, therefore, that an operation could only aim at removing a growth which was causing so much constitutional disturbance as to prevent the recuperative powers of the patient and the physician's remedies from exercising a due influence on the course of the intercurrent disease. After relating several cases of his own and of other surgeons in which such operative treatment had been practised with more or less favourable results, and after showing that such cases healed with success and ease, the author concluded by asserting that surgical interference was only justifiable when all attempts at cure without the knife had been tried and found wanting.—Dr. THOROWGOOD, in the course of some remarks, said that a depressed state of the nervous system was an especial factor in the causation of phthisis.—The PRESIDENT said that a dry soil was an important preventive of phthisis. In the second decade men

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were much more prone to the disease than women.—Dr. THUDICHUM observed that there was no climate in the world which was free from phthisis. He thought the Koumiss cure advocated by the Russians was of no real use. It was remarkable that since Koch's discovery of the bacillus phthisis had increased all over the world.—Messrs. H. H. Taylor, Lloyd, Benham, and Dunn continued the discussion; and Drs. Blenkinsop, Seymour Taylor, and Mr. Bruce Clarke respectively replied.

Dr. P. S. ABRAHAM showed a selection of sections of Tubercular Organs in man and the lower animals, and specimens of the Tubercle Bacillus.

Messrs. WRIGHT and Co., of New Bond-street, exhibited a large collection of Instruments, Sprays, and Inhalers.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

Preventive Inoculations.

A MEETING of this Society was held on Jan. 12th, at which a paper on the above subject was read by EDWARD F. WILLOUGHBY, M.B.

In opening this paper, which was, he said, in some sense a continuation of one he read last May on the Variolæ of Man and Beast, the author called attention to two characters by which a large class of diseases were distinguished from all others—viz., the spontaneous extinction of the morbid process within a limited, often definite, time, and the immunity against subsequent infection, more or less lasting and complete, which followed one attack. The two phenomena were doubtless closely counected, but till lately no rational explanation had been even proposed. On the latter, however, rested the whole idea of protective inoculations, and it was of the utmost importance that clear and correct conceptions of their nature and relations should take the place of the confused notions that at present prevailed, not only out of, but even within, the profession. The first condition of a preventive inoculation was that the virus used should be derived directly or indirectly from the disease it was intended to avert: "Diseases distinct but antagonistic," to use Mr. Fleming's expression, were unknown to pathologists. Cow-pox protected against small-pox only, because it was small-pox modified by having passed through the cow. The second condition was that the disease must be one that does not recur. All non-recurring diseases were, or were presumably, bacterial; but the converse did not hold good, for some bacterial diseases ran on indefinitely, as tuberculosis and septicæmia; and others, as diphtheria, typhoid, and cholera, conferred no immunity. Consequently, there could in such be no such thing as preventive inoculation, while inoculations of one disease in the hope of averting another were worse than useless. Preventive inoculations might be divided into four or five orders—viz., methods of (1) *Inoculation*, (2) *Vaccination*, (3) *Attenuation*, and (4) what for want of a better term he would call *Neutralisation*. The first and second had as yet been applied only in the case of the varioloid diseases, and he would repeat from his former paper the principles on which they were based. They were: 1. One attack of variola, of the kind proper to any animal, protects the individual against infection by, or inoculation of, the same. 2. Inoculation of any animal with the virus of its own variola produces a milder form of the same disease, but affords a protection similar to that conferred by an attack contracted by ordinary infection. (This is the method of inoculation, properly so called.) 3. Any variola inoculated in an animal other than that whose proper variola it is gives rise to a peculiarly modified form of the disease, attended by little constitutional disturbance, merely local eruption, and no danger to life, such modified disease being no longer communicable to any other animal of the same or of different species, except by direct inoculation (cow-pox is such a modified form of small-pox). 4. This modified disease affords a considerable degree of immunity against infection by any means whatever with the variola whence it was derived, either to the animals whose variola was the original source of it, or to others capable of being infected in any way thereby. (This is vaccination, properly so called.) The first method, or that of inoculation, is open to the grave objection that, however great the immunity conferred and small the risk incurred by the individual, the disease is unchanged and infectious. Jenner's operation is as yet the only instance of the application of the second method, though there is no reason why some animal should not be found to play for the sheep the part that the cow does for man, and it seems probable from Dr. Klein's experiments that the disease at the farm at Hendon, which he would call Cameron's disease, stood in precisely the same relation to scarlatina as cow-pox did to small-pox, and might possibly be employed in the same way. If so, it would be a vaccination in every sense. The third class comprised the so-called attenuations of M. Pasteur, in which it was alleged that the cultivation of the bacilli in artificial media under certain conditions lessened their virulence, so that inoculation with them produced, as in the first method, a milder form of the disease. To minimise the risk, M. Pasteur generally used attenuations of two degrees of virulence, the weaker affording protection against the stronger, and this against the disease itself. This method was open to the same objections as the first, and also to the more serious one, that, it being impossible to standardise the attenuations, they sometimes failed to confer any protection, and at others caused the death of the animal. For this reason they could never be used in the case of man, and except under special circumstances could not be recommended even for domestic animals. The fifth class was represented by Pasteur's practice as regards rabies and hydrophobia, on which he did not yet feel in a position to express a decided opinion. But it was to the fourth method that he wished to to call the attention of the meeting. It consisted in the inoculation of the products of the development of the bacilli without the bacilli themselves. It was well known that all low forms of life, such as those concerned in fermentation, putrefaction, &c., as well as bacilli secreted or caused to be formed in and from the fluids in which they grow, contain chemical products, and that in some cases, as alcoholic fermentation, when these accumulated to a certain point the further development of the organisms was arrested, and doubtless something analogous to this occurred, and to some extent explained the spontaneous extinction of the febrile process, in the so-called zymotic diseases, though it would not of itself explain the subsequent immunity, since such products could not but be eliminated in the course of a few weeks at the longest. However, Dr. Salmon, of the Bureau of Animal Industry in connexion with the Agricultural Department of the United States, had found that, while pigeons were peculiarly susceptible to the poison of swine plague, he could by employing inoculations of sterilised cultivations of the bacilli in artificial media render them perfectly insusceptible. After some more or less successful experiments he performed a series which gave the most decisive results. Culture fluids heated to 140° F. for several hours were so far sterilised that they failed to develop in fresh gelatine solutions. And four pigeons inoculated two or three times at intervals of a fortnight or more with such sterilised fluids were but slightly indisposed after each operation. Finally these birds, together with one that had received a much smaller dose seven weeks previously, and a control bird inoculated with the gelatine only, were each inoculated with '75 cc. of a virulent culture of swine plague, a dose that had invariably proved fatal to others. The results were most remarkable: the control bird died in twenty-four hours; that which had received the insufficient dose fifty days previously died in forty-eight hours; while the other four birds were absolutely unaffected. Cultivations from the blood of the two that died developed the specific bacilli in abundance. Dr. Salmon, therefore, inferred that the products of the development of the bacilli of any such disease so modified the constitution of the bioplasm of the tissues as to render it incapable of affording a pabulum for the bacilli, and, if they did not cause the death of the animal, led to the cessation of the morbid process; and, secondly, that since cells to which a special character had once been imparted tend, as in the case of carcinomata and other neoplasms, to transmit it to those to which they gave rise in the act of proliferation, this inability to support the growth of the particular bacillus might persist for many years; but that, since they might tend to revert to their original character, the individual might sooner or later become again susceptible. That such was the case was well known, as also that in some persons the insusceptibility was so soon lost as to be practically unattained, and that very mild attacks, like that of the pigeon that had received the smallest dose, failed to afford appreciable protection. This method, Dr. Willoughby thought,

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promised results of incalculable importance, and to be of the widest application to the diseases of man and beast. It was merely necessary to identify the specific bacillus to find a suitable medium for their cultivation and to determine their thermal death-point, or to remove them by the Pasteur-Chamberland filter. It was entirely free from the objections to which inoculations and attenuations were open, the phenomena induced being those of a poison, whatever it be, actually antagonistic to that of the disease. Mr. Willoughby urged that investigations on these lines should be at once undertaken in respect of all infectious diseases of cattle, and that there was one human disease—yellow fever—the fatality of which would fully justify, or rather demand, such an experiment, which might under circumstances of special exposure.

New Inventions.

NEW FLEXIBLE GLYCERINE RING PESSARY.

MESSRS. ARNOLD & SONS, of West Smithfield, have patented a new form of annular pessary, which is precisely similar to the ordinary indiarubber ring pessaries. Like these it contains a watch-spring, and is therefore of the same resistance; but instead of being covered with a piece of



thick indiarubber, it has first a coating of rubber around the watch-spring, and then a thin rubber case filled with glycerine. By this means the pessary is rendered beautifully soft; the glycerine, unlike air, never escapes; and the pessary is rendered much softer and easier of introduction.

HUTCHINGS'S FILTERING-PAPER.

In this paper (manufactured by G. J. Hutchings, Howard-street, Baltimore, U.S.) a coarse trellis-like gauze is embedded in the pulp, so that filters of quite exceptional strength can be made from it. Paper filtration is so excellent, and the material so cheap and clean, that we have no doubt this new article will be largely used. The inventor has already applied it to the household filtration of water, wine, and the like, and has made a coffeepot, which we have not seen, but which ought to be perfect. We think it was Jerrold who described English coffee as "perfectly palatial, standing in its own grounds," and the description is but too often true enough. Paper filtration is at once sufficiently accurate and quick to give a perfect infusion, as every chemist knows, while by successive additions of water all waste may be avoided.

THE NEW SEWERS OF THE PALACE OF WESTMINSTER.

The much-needed reconstruction of the main sewers of the Houses of Parliament has been carried out during the recess by Mr. Isaac Shone, the engineer in charge of the works, and on Tuesday last a select party, including representatives of some of the daily and weekly journals, were personally conducted by the engineer to view the alterations which have been made. Mr. Shone has issued an explanatory pamphlet, which to a certain extent is historical, and serves to show what an absolutely modern science is sanitation as carried out at present, and how crude were the attempts in this direction fifty years ago, even in the hands of men of genius with command of unlimited funds. The original sewer of the House, as laid by Sir Charles Barry in 1839, was a huge brick structure with a flat bottom, and having a fall of 1 in 923 towards Abingdon-street, where it emptied itself. It is needless to say that such a sewer as this, with no means of flushing, soon became little more than a nuisance. In consequence of the complaints of smells in the house a new sewer was constructed in 1846, with a narrow deeply curved invert, and with a fall of 1 in 215 towards Speaker's-green, close to which it emptied into a sewer in Bridge-street. This sewer, it will be observed, sloped in a direction opposite to the original one, and, being of better form and possessing ample means of flushing, served its purpose well till 1873. In this year the metropolitan low-level sewer was made, and the Palace sewer was connected with it, its bottom being 21 in. above the bottom of the metropolitan sewer, which was 7 ft. 9 in. in diameter. The average depth of sewage in the metropolitan sewer in dry weather has been about 42 in., 21 in. above the bottom of the Palace sewer. Thus there was always a head of sewage against the Palace outlet, and in wet weather, when the metropolitan sewer was full, the Palace sewage could not escape, and its sewer became a sort of storage reservoir for the metropolitan sewage, the pressure of which forced the sewer air back into the Palace. Thus the Palace of Westminster, especially of a night, when the gas was lighted, served the purpose of a partially exhausted chamber for sucking poison from the metropolitan sewers. Who can complain if the legislation of late years has not been all that could be desired? To remedy this state of things a committee was appointed in 1886, with Sir H. Roscoe, F.R.S., as chairman, and the recent improvements are owing to the labours of this committee. It is due to Mr. L. H. Isaacs, the Conservative member for Newington and Walworth, who is by profession an architect, to state that this gentleman twice performed the unpleasant and almost heroic task of traversing and inspecting the Palace sewer, and it was largely to his evidence and practical knowledge that the works just completed were undertaken. The plan of the new arrangement was supplied by Mr. John Phillips, and received the approval of Major Hector Tulloch, R.E., the Local Government Board inspector. There were originally about 122 subsidiary drain connexions with the main sewer, and these were formed at various levels on the top, bottom, and sides. The original main sewer was 10 ft. high and 3 ft. wide. The improvements which have been made are many of them in the direction of simplification, and will be easily understood. In the first place, the old brick sewers have been replaced by iron pipes. The chief tributary is 9 in. in diameter (in place of one 24 in. by 15 in.), and the main sewer is 12 in. instead of the dimensions above given. The outlet is into a manhole in Speaker's-green, and this is at a lower level than the bottom of the old sewer. Thus the gradients have been everywhere increased, and the rate of flow has been increased in the sewers from 1·11 feet per second (the rate in the main sewer of 1839) to a rate of 2·8 feet per second. This rate of flow is claimed to be what is called a self-cleansing velocity. Ample means for the automatic flushing of these new sewers has been provided in the shape of two Shone's automatic hydraulic flushing ejectors, which at regular intervals discharge a large volume of water through the sewer pipes. One of these flushing ejectors is at the head of the sewer near the Victoria Tower; the other is somewhere near the centre of the Palace. The sewage, falling to a lower level than formerly, is finally lifted some twelve feet, and is discharged into the metropolitan sewer at a level several feet above its bottom, so that the outlet of the Palace sewer is, except in times of flood, always above the level of the fluid in the metropolitan sewer, and has no head of sewage to oppose its outflow. The lifting of the Palace sewage into the metropolitan sewer is effected by means of Shone's pneumatic sewage ejectors. These machines are placed in a chamber beneath Speaker's-green. They consist of strong iron vessels, into which the sewage flows by gravitation. When they are filled a series of valves act automatically (1) to close the inlet, and (2) to admit a stream of compressed air, by which the sewage is driven through (3) the outlet. These ejectors have only to lift the sewage some twelve feet; but it is well known that in other places where they are in use (as, for example, at Warrington in Lancashire) this force is sufficient to drive the sewage more than

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a mile. These ejectors have to be supplied with compressed air, which is provided by means of gas-engine air-compressors, which are in a chamber beneath the Palace, at some little distance from the chamber containing the ejectors. Between the metropolitan sewer and the Palace sewer a strong dam has been erected, which is perforated to admit the outlet pipe. The ejectors are fitted with automatic counters, so that every emptying of them is registered, and thus they will serve as sewage meters. These ejectors take, when Parliament is not sitting, about fifteen minutes to fill, but they discharge themselves always at about the same velocity of half a minute. Observations made while the machinery has been at work lead to the supposition that one gas-compressing engine and one pneumatic ejector will always be sufficient for the needs of the Palace. In order, however, to guard against all possible mishaps, there are four compressing engines and three ejectors. The Palace sewers take the rainfall which falls on the Palace area as well as the sewage, and therefore it is necessary to be ready for times of flood. If in times of flood sewage water accumulates in the outlet manhole, this will act on a float, which in its turn acts on Julius Sax's automatic electrical tidal water gauges, one of which is placed in the ejector chamber and another in the gas-engine room. These machines show the exact level of the water in the manhole, and tell of the necessity of putting a second or third ejector, or a second, third, or fourth gas-engine into operation. Again, if the whole of the new machinery should by some unforeseen accident become inoperative, a valve may be raised in the manhole, and the sewage will fall by gravitation into the metropolitan sewer, as was formerly the case. The new iron pipes are laid in the bed of the old sewers, which serve as convenient subways for workmen. The sewers are ventilated by means of the furnaces which exist in the basements of the Victoria and Clock Towers, and which are made by a very simple contrivance to draw fresh air through the pipes. The works have cost £11,000.

We must congratulate the members of both Houses upon the very important sanitary reform which has been effected by means of these works. There can be no doubt that the condition of the House will be immensely improved, and we think that much credit is due both to Sir H. Roscoe's committee and to Mr. Shone, who has so efficiently carried out the recommendations of that committee. The machinery for keeping the Palace sewers empty will, of course, be constantly supervised by skilled persons, who, it is evident, must always be present night and day, both in and out of session, in order that the proper supply of compressed air may be maintained, and the possible accident of sudden flood be grappled with. However, there is little likelihood of sewage accumulating in the Palace of Westminster in the future. Our legislators have shown themselves alive to the importance of "passing it on." Let us hope they will next turn their attention to the recipients of it, and take unhappy Barking and poor Father Thames into their kindly consideration.

THE CAMBRIDGE MEDICAL GRADUATES' CLUB AND LONDON MEDICAL DEGREES.

A SPECIAL meeting of the Cambridge Medical Graduates' Club was held in the rooms of the Medical Society of London on Thursday, Jan. 20th, "for the consideration of the pending questions with regard to degrees in medicine." The chair was taken by Dr. Dickinson of St. George's Hospital, one of the Vice-Presidents of the club. There was a poor attendance of members, only twenty-eight being present.

Sir Geo. Paget, K.C.B., moved the following resolution:—"That to establish a second university in London for the purpose of granting medical degrees is either unnecessary or unadvisable. That it is unnecessary, if the degrees are to be granted on a standard of acquirements equivalent to those of the existing University of London. That it is unadvisable, if they are to be granted on an inferior standard. Because, to lower the distinction would be unjust towards those who by extended study and diligence have already obtained these titles from the University of London or other universities which maintain a high standard. Because it would be injurious to the interests of the public and to the advancement of medical science to lessen the inducements to men of ability to attain the superior knowledge required for the highest distinctions. That to establish a second university in London with the purpose of granting the same or similar titles for a lower standard of acquirements, would be a competition downwards, and be utterly unworthy of such bodies as the Royal Colleges of Physicians and Surgeons. That the injurious consequences would be intensified if a medical degree were given on the existing standard of the professional examination of the Conjoint Board. That this would in its first effect be unfair towards those who have already passed the same or like examinations without receiving such degree; and in its ultimate result, by making medical degrees nearly universal in the profession and no longer a distinction, would be utterly destructive to the purpose they have served as inducements to superior attainments in medical science."

The resolution was seconded by Dr. Sturges. Sir Henry Pitman, Professor Latham, and others opposed the resolution.

The discussion occupied nearly two hours, and ultimately the resolution was lost, six voting in its favour and fourteen against. Eight members of the Club who were present did not vote.

Professor Latham then proposed the following resolution, of which he had given notice:—"That it is expedient that a committee be appointed whose duty it shall be to consider from time to time the regulations relating to degrees in medicine in the University, to receive and consider suggestions for the improvement of medical education there, and to take such action as they deem necessary."

The resolution was seconded by Dr. Abercrombie, and after a brief discussion it was resolved to adjourn its consideration to the next general meeting of the Club.

The meeting ended with the usual vote of thanks to the Chairman.

MEDICAL APPOINTMENTS IN THE COLONIES.

A SHORT account of the medical appointments which are from time to time filled up by the Colonial Office has been recently forwarded to the medical schools. The medical officers are chiefly required for the West Indies and the West African colonies, and very occasionally for the Eastern colonies (Ceylon, Straits Settlements, and Hong-Kong), Cyprus, Gibraltar, St. Helena, and the Falkland Islands. On the opposite page we have tabulated the chief points in respect of the separate colonies, for easy reference.

In addition to the ordinary medical appointments in these colonies, vacancies also occasionally, though very rarely, occur for which specialists are required—as, e.g., to take charge of a lunatic asylum; and the particulars connected with the post of chief medical officer in some of the larger colonies have not been given, as the headship of the medical department in such colonies, requiring administrative as well as professional qualifications, is not reserved to the ordinary medical staff, but is often filled up directly from the outside.

All applicants for medical employment in the colonies must be between the ages of twenty-three and thirty, and must be doubly qualified; preference will be given to those who have held hospital appointments as house-physicians and house-surgeons; certificates of moral character and of sobriety will be required, and every officer before being appointed will be medically examined.

Applications for medical employment in the tropical colonies from persons in the United Kingdom must be addressed to the Private Secretary, Colonial Office, Downing-street, S.W., during the month of April in each year, and notices to that effect will be posted up early in the year in the leading hospitals and medical schools of Great Britain and Ireland. Out of the total number so applying a list of thirty selected candidates will be made, who will be eligible to fill any vacancies which may occur during the year, and no application at any other time for ordinary medical appointments will be entertained.

From twelve to sixteen vacancies usually occur annually.

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TABLE SHOWING THE MEDICAL APPOINTMENTS IN THE COLONIES FILLED UP FROM THE COLONIAL OFFICE AS VACANCIES OCCUR.

Place.	Number of appointments.	Salary per annum.	Pension.	Leave.	Passage-money.	Private practice.	Remarks.
Jamaica	49	£159 to £250	No. 4 per cent. of salary deducted for a widows' and orphans' fund	On half-pay in case of sickness, or after 6 years' service	Allowed on first appointment	Yes, with a district appointment, but not to new-comers	
Trinidad	26	£300, with furnished quarters	Yes	Yes	Yes	Yes, with district appointments	Must serve 1 year's probation as supernum.
British Guiana	45	£300, with quarters, gradually increasing to £900	Yes. Also 4 per cent. deducted as above	Yes	Yes; but not more than £30	Yes, with a district appointment, and then £100 to £150 yearly also allowed for travelling expenses	2 years' probation
Windward Islands	23	£200 to £400	May be granted	May be granted	May be allowed on first appointment £30	Yes, with district appointments	
Leeward Islands	22	£150 to £400 (average £250)	None guaranteed	Yes		Yes	
British Honduras	3	£100, £150, and £150	Yes	Yes	Yes	Yes	Special fees as public vaccinators
Fiji	8	£300 to £350, and £50 extra for house allowance	Not yet established	Yes	Yes	Yes	
Western Australia	Occasionally sent out at request of Governor	From £100	None guaranteed	—	Usually £100	Yes	
West African Settlements:							
Sierra Leone	4	£250, £250, £300, and £500, with £45 12s. 6d. for travelling allowance for juniors, £91 5s. for senior	As in the case of other Government servants	As in the case of other Government servants	—	Yes	
Gambia	2	£300, £400	,, ,,	,, ,,	—	Yes	
Gold Coast	10 assistant-surgeons	£400, rising to £500	,, ,,	,, ,,	—	Yes	
	1 colonial surgeon	£800, rising to £1000	,, ,,	,, ,,	—	Yes, but only consultation practice	
Lagos	2 assistant-surgeons	As at Gold Coast	,, ,,	,, ,,	—	Yes	Free quarters, or allowances in lieu thereof
	1 colonial surgeon	£400, rising to £500	,, ,,	,, ,,	—	—	
Ceylon	4 deputy assistant-surgeons	1500 Rs.	As other Government servants in Ceylon	,, ,,	As other Government servants	Yes	Deputy assistants are mostly recruited from gentlemen born in the island possessing a British diploma
	24 assistant-surgeons	3000 Rs. to 5000 Rs.				Yes	
	4 colonial surgeons*	6000 Rs. to 8000 Rs.				Consultation practice only	
Straits Settlement	7	Not uniform; average $2400	,, ,,	,, ,,	,, ,,	Yes	
Hong Kong	A colonial surgeon	$2880, with $288 for conveyance, and $864 for Lock Hospital	,, ,,	,, ,,	,, ,,	Yes	
	A superintendent of the civil hospital	$3000, and quarters	,, ,,	,, ,,	,, ,,	No	
	A resident surgeon at the Lock Hospital	$1800, and quarters	,, ,,	,, ,,	,, ,,	No	
	A health officer and inspector of emigrants	$2000	,, ,,	,, ,,	,, ,,	Yes	
Gibraltar	Port surgeon	£150	—	—	—	Yes	
	3 district officers†	£70, £70, and £60	—	—	—	Yes	
	Visiting surgeon to prison and lunatic asylum	£60	—	—	—	Yes	
	Officer of health	£100	—	—	—	Yes	
Cyprus	1 chief medical officer	£500	—	—	—	Yes	
	2 district officers	£250	—	—	—	Yes	
St. Helena	1	£200, and £30 horse allowance	—	—	—	Yes	
Falkland Islands	2	£200, £300	Yes	Yes	Yes	Yes	

* Three superintending officers, 7 district medical officers, and 8 assistants, with the pay and privileges above noted, are appointed to take care of the labourers on coffee and other estates.
† About £25 each as public vaccinators.

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THE ASSOCIATION OF GENERAL PRACTITIONERS.

A MEETING of the Council of this Association was held at Exeter Hall on Wednesday, Jan. 19th. The following members of Council were present:—C. G. Wheelhouse, Esq., F.R.C.S. (Leeds), in the chair; Sir W. Foster (Birmingham) Mr. Ernest Hart, Dr. Alfred Carpenter (Croydon), Dr. Danford Thomas, Dr. Crowe (Worcester), Dr. Mickle (Bow), Mr. Steele, Mr. Wickham Barnes, Dr. Alderson, Dr. Gubb, Mr. Walter Pocock, Dr. J. B. Brierley (Manchester), Mr. Walter Marsh Dr. Maurice Davies, Mr. Major Greenwood, Dr. R. Paramore Mr. A. D. Roe, and Dr. W. Piercy Fox, and the hon. secs., Messrs. Bott and Verdon.

Letters of apology and assent were read from absent members of Council, including Mr. Jalland (York), Dr. Holman (Reigate), Mr. Hallowes, and others. Fifty new members were elected, and the following were added to the Council:—Mr. E. Galton, Dr. C. Royston, Dr. R. Lord, Mr. F. B. Hallowes, Dr. H. C. Pope, Mr. J. W. Workman, Dr. H. J. Capon, Dr. M. Coates, Mr. T. E. Walford, Mr. J. Manley, Mr. W. Eddowes, Mr. Hugh Aker, Mr. W. Winterbotham, Mr. De Vere Hunt, Mr. T. S. Ellis, Mr. Priestley Smith, Mr. J. S. Bartrum, Mr. J. S. Turner, and Mr. F. Wallace.

Mr. WHEELHOUSE said: "I must thank you very cordially for placing me in this chair, and assure you that, so far as it is in my power to aid the objects of this Association as they have been put before me, they shall have my heartiest and most cordial support in every way. We cannot conceal from ourselves the fact that we are living in critical times, when everything, so far as the profession is concerned, appears to be on the point of turning, and it is just at that point of turning when it behoves us as general practitioners to see that our rights are not swept away as the tide flows round. The question was raised during the late election for the General Medical Council as to whether I was a consulting surgeon, a general practitioner, or what? I have been a general practitioner all my life. I am a general practitioner still in a somewhat restricted sense, for when I accepted a seat in the Council of the Royal College of Surgeons, it became necessary that I should forego the practice of midwifery and the dispensing of medicines. I still have a large family practice, and although those amongst whom I live choose every now and then to ask my opinion in consultation, I do not think that that should redound to my discredit, at all events. Now, there seems to be a very general feeling throughout the profession that the rights of the general practitioner were likely to go by unheard unless the general practitioners themselves looked after those rights in all the changes which seemed about to come upon the profession. For a very long period—certainly for twenty-five years—I have been working with the Medical Reform Committee of the British Medical Association in the hope that by patient plodding and by patient working we should after a time, at all events, secure for the profession certain definite rights, and these rights appear now to be within reach of our hand. It seems to me that with this very general desire upon general practitioners to look after our own rights, some such Association as this has become a necessity. In the first place, it has seemed to me perfectly monstrous that so far as London schools and London-educated men are concerned they have no means of taking an ordinary M.D. degree; and whilst you are about it I think you are perfectly right in putting that as one of the points upon the programme for which you contend, and I hope the upshot will be in the end we shall obtain a right to that qualification, or some means by which those educated in London may obtain it without having to go beyond the limits of London itself. Amongst other things we have been striving for, and one to which I have looked all my life with very great hope, is that we should live—at least, some of us—to see one portal, and one portal only, by which those who enter our profession may be admitted to it. With twenty competing bodies there must be a competition which must be unfavourable to the general mass of the profession in the way in which their examinations are conducted. If we cannot have one portal for the whole profession, I should like, as the nearest approach to it, one portal for England, one for Ireland, and one for Scotland, and I would have those under the guidance of the one examining body which will be instituted, I hope, in the near future; and each of these kingdoms should make it an absolute necessity that every man who enters the profession should pass through that portal, and should be made to show that he is efficient in the arts of medicine and surgery. I hope that there will be some means by which the general practitioner, if he says 'I don't care to stand upon this same dead level in which I entered,' may be able to pass into a higher status. If he be a surgeon, he may desire to obtain his Mastership or Fellowship in Surgery. In the same way I would have a medical degree within reach, so that everyone who takes medicine in hand can be able to obtain a London M.D. degree which shall place him upon an equality with the M.D. obtained either in Dublin, Edinburgh, or any other large European centre. In order to do that, I think we should need a very considerable modification in the way in which examinations are conducted. I am one of those who look upon the examinations of the present day as unsatisfactory in more ways than one. I consider they are broken up into many minor matters. A man is called upon to pass too many examinations, and to pass them in such a way that he thinks when he has passed any one subject he may forget it as quickly as he likes. I would therefore diminish the number in which he is called upon to pass examinations. I believe that examinations are conducted too hastily, too cursorily; that they are conducted in a way which is not strictly fair to the student or to examiner, and I think there are changes in the method of examination which, now that new examination halls are to be erected, may be forced upon the attention of those who constitute the examining bodies. I have been very much grieved at what has taken place with respect to both the College of Surgeons and the College of Physicians in the action they have taken with respect to the Apothecaries' Society. My feeling is that if we could see those three bodies so united as to form the examining body of the kingdom, the one-portal system would be within our reach. But when I saw, with all the desire on the part of the Apothecaries' Society to join heartily in any scheme which may be propounded, that that offer was rejected, I felt that pressure ought to be brought to bear upon the Councils of the College of Surgeons and the College of Physicians, and, if need be, on the Privy Council itself, to pray if possible that this arrangement may not be completed if it is not heartily accepted. I hope that this Association will be able to put such pressure upon the examining bodies, upon the governing bodies, and upon all the bodies concerned with medical education, that we shall eventually succeed in obtaining that for which every general practitioner has been fighting for a long time."

Dr. ALDERSON moved the following resolution:—"That this Association urgently appeals to the general practitioners of England to give their adhesion and support to the Association, by becoming members, in furtheranse of its important objects, which are briefly as follows: That this Association regards with satisfaction the proposal for securing to the general practitioners of England in the future means of obtaining the M.D. degree in London by reasonable and adequate examination tests." Dr. Alderson thought the success of the Association was assured. They were most fortunate in having as their president the most representative medical man in the kingdom. He (Dr. Alderson) felt a particular interest in proposing this resolution, inasmuch as he had not only met with some little difficulty in getting his own degree; but he had been compelled to send a son of his away to Durham. Why, he asked, should London have only given her diploma to thirty-six men during the past year? Could it be that there were only thirty-six students in the whole of London worthy of that degree? The student's career should be progressive.

Mr. MAJOR GREENWOOD said he had great pleasure in seconding the resolution, and expressed the hope that some alteration would take place in London with regard to the granting of degrees. The London University could not in any sense be said to fulfil the requirements of a London University. There were many students who desired to complete their curriculum after having engaged in practice who found it impossible now, compelled as they were to return to the hospital, and go through the whole curriculum again. He hoped when a new University was instituted that it would help those who failed to carry out the full curriculum at the present London University.

The resolution was carried unanimously.

Mr. WICKHAM BARNES moved the following:—"That this Association protests against the exclusion of the

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Apothecaries' Society from the Conjoint Examining Board of England as tending to create a division of medical interests to the public and to the profession." He stated that he had inserted two notices in the Medical Press asking the members of the Poor-law Medical Officers' Association to express their opinion upon the question. As the result he had received 200 replies, only one being opposed to the admission of the Apothecaries' Society to the conjoint examination.

Mr. STEELE said he had much pleasure in seconding the above resolution. The action of the College of Surgeons in ignoring the resolution passed at one of its meetings was conduct which could not be approved. The position of the Chairman on the General Medical Council was a protest by the general practitioners throughout England that henceforth as general practitioners they intended to have some voice in matters affecting their interests. The fact that the Apothecaries' Hall had been omitted from the conjoint scheme showed the necessity for vigorous action on their part.

This resolution was passed unanimously.

Dr. DANFORD THOMAS, in moving the following resolution—viz., "That this Association claims for the general practitioners of England, Members of the College of Surgeons, and Members and Licentiates of the College of Physicians a representative voice in the governing bodies of the respective Colleges, of which they are the main support,"—said this was a matter in which he was specially interested, and from his connexion with a kindred Society—viz., the Association of Members of the College of Surgeons, which had been working for some two or three years now in endeavouring to obtain the right of the representation of members on the Council of the College. The success which had recently attended their efforts to secure representation on the General Medical Council, and the honour they had in seeing two of those gentlemen who had been elected present, should encourage them to commence work with the view of obtaining the reforms set out in the resolution. What Parliament had realised they should be successful in carrying out in a minor degree. They had now their representatives on the General Medical Council, and they intended to fight—he hoped successfully—for representation on the Council of their College. They had, he thought, met with considerable success with regard to the work they had done in the Association, to which he had referred, and he believed the Council would now be willing in some way to meet them. The steps they had taken had, he thought, been to some extent more favourably received than hitherto, and if necessary they were determined to take the course to be pursued by this Association, and petition the Privy Council. They had received a similar reply from the Privy Council, stating that no new Charter would be granted to the College until they had had an opportunity of being heard. This Association went further, and said that the licentiates of the College of Physicians should also have a representative voice in the governing body. That, he thought, was only fair and just.

Mr. A. D. ROE seconded the resolution, which was carried *nem. con.*

Sir WALTER B. FOSTER said as regards the principle of the resolution it had had his support from the beginning. He believed he was the first member of the profession who publicly announced that that principle was the only one on which the College of Surgeons could hope to flourish. He published a pamphlet, entitled "The Political Powerlessness of the Medical Profession," and in that he pointed out that the Council of the College would never speak with the full force of authority with which it ought to speak until it rested on the full 16,000 members of which it consists. He believed that was the only principle on which the two Colleges ought to be constituted. Everyone who held a diploma from the Colleges had a right to some voice in the body with which he was connected. It was, he contended, wrong for one portion of that body to exclude another. He (Sir W. Foster) believed that Members and Licentiates were equally interested in the College to which they belonged as Fellows, and he wanted them all to be interested. He was heartily with them.

Dr. BRIERLEY (Manchester) said he had been asked to propose what was, perhaps, the most important resolution on the paper. He did so with very great satisfaction. It was: "That this Association asks for a Royal Commission of inquiry into the constitution of the said Colleges as a preliminary to the granting of any Charter for the extension of the powers and privileges of these two corporations separately or in conjunction, unless such Charter be framed so as to give to the general practitioners, who compose upwards of 95 per cent. of the profession, a just voice in the governing councils of such corporation or university." Dr. Brierley said he quite agreed with them. They should never forget what infinite good the Apothecaries' Hall had done for medicine in the past, and he thought it was perhaps the most ungraceful act that could possibly have been done towards that corporation to exclude it from any new arrangement which might be made. He would have had nothing to do with the resolution if it had been to suggest a new power for the Apothecaries' Hall to confer a further degree. They had, as had been remarked, more than enough already. It was not new powers, but a reconstruction of the old that was required, and the merging into one scheme. With regard to the College of Physicians, he must say he held that qualification in very high esteem. He possessed that qualification. On the other hand, he had the profoundest respect for the licentiateship of the Apothecaries' Society.

Dr. GUBB, in seconding the resolution, said they had passed several resolutions, and after passing them the next thing for them to do was to give them effect. It was a very grave measure asking for a Royal Commission, but if they obtained it he thought it was extremely probable that it would fulfil their wishes.

The resolution was carried unanimously.

Dr. MICKLE suggested that the two questions, that of obtaining the London M.D. degree for medical students and the incorporation of the Colleges, should be kept distinct. The burning question was the one of degrees. Everyone who had watched the London schools during the last twenty years knew that the students laid under enormous disadvantages. This Association had already committed itself in a former resolution to support the obtaining of the M.D. degree, and it seemed to him very undesirable for the Association to do anything which would form an opposition to it. He thought the resolution might be so modified as to imply that no opposition would be given to the granting of the M.D. degree.

Mr. HART said he hoped no one would consent to this proposal, which practically meant selling their birthright for a mess of pottage. Now, when the Colleges were asking for new Charters, was the time to move for an inquiry into their constitution. The only ground on which they would go to the Privy Council would be to ask to be allowed to constitute a new University, and the only *status* they had was to go and say, "Yes, they were in favour of that, but the Colleges must remodel their constitution." If they were allowed to establish their new constitution on the present basis, they would be giving them so much added power.

Dr. MICKLE suggested that the two questions should be fought out on separate lines.

Mr. HART said the answer to that was that once the Colleges were allowed to obtain their new powers, they (the Association) had no further *locus standi* in the matter.

Dr. BRIERLEY said that he apprehended the very object of this resolution was to prevent any action being taken without its being carefully watched by a Royal Commission which would consider the whole question.

Dr. STEELE said everyone seemed to be very imperfectly informed as to what the Colleges were asking for. He understood that the Colleges of Surgeons and Physicians jointly asked for one thing. The College of Surgeons were asking for a new Charter which should give larger powers, and this his Association was opposing. The Colleges unitedly asked for power to give an M.D. degree. That they as an Association would support. The present Association had intimated its intention of supporting the Members, who were opposed to the College of Surgeons acquiring further powers which would exclude them from a voice in its affairs.

Mr. MAJOR GREENWOOD said they opposed any Charter for whatever purpose it might be asked which excluded Members of the College of Surgeons and Members or Licentiates of the College of Physicians from their Councils.

Dr. MICKLE withdrew his suggestion, and the resolution was carried unanimously.

Dr. POCOCK moved, and Dr. PARAMORE seconded, the next resolution, which was "That copies of the foregoing resolutions be forwarded to the Privy Council, with a request for an audience on the above matters, and that due steps be taken to bring them under the notice of medical corporations, the profession, and the public." This having been passed without opposition, the meeting closed by Dr. MICKLE proposing a vote of thanks to the chairman.

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THE LANCET.

LONDON: SATURDAY, JANUARY 29, 1887.

IT is so generally the custom of medical men to leave the management of the sick room to the friends of a patient or to nurses, that it seems to be almost forgotten that this is, in a remarkable degree, a professional duty. "Treatment" does not consist wholly, or indeed chiefly, in the administration of drugs. The surroundings of the sick are not less important as agents of cure than the medicines given to them. Indeed, we will go so far as to say that in the best and most physiological methods of therapy drugs are only admissible as *aids* to the arrest of disease and the recovery of health, which Nature will accomplish if only the case be so conditioned as to remove obstacles out of her way, and facilitate the processes whereby she is working. The scientific therapeutist regards the placing of his patient in circumstances favourable to convalescence as the first and most urgent step he has to take, and it is therefore impossible for him to look upon the management of the sick room as of trivial or even subordinate importance. We have no thought of attempting to determine the particular conditions required for the recovery of the sick. Obviously these can only be indicated by the needs of each patient. We believe one and all *systems* of management must be open to the fatal objection that they do not deal directly with the lesser needs of the individual; and these lesser needs are in practice the most important. The point on which we are especially anxious to insist is that the practitioner ought to make the management of the sick room his most solicitous care. To relegate this part of his duty as a minister of health to a nurse, however skilled, or friends, however intelligent and solicitous for the welfare of the patient, is to surrender to others a power which may be either wasted or applied obstructively, with the best of intentions; and simply because, being dissociated from the exhibition of drugs, the management of the sick is no longer felt to be what it really is—namely, an integral and elementary part of treatment.

To manage the sick room wisely and efficiently, the practitioner must be so thoroughly versed in all the details of nursing as to be able himself to do, if necessity arises, all that he expects of others. The best illustration of what we precisely mean may be formed from the position of a captain commanding his ship in a storm. He not only possesses a general notion of what ought to be done, but he is practically acquainted with every rope and spar and sail in the vessel, and he could, if it were physically possible, perform the whole duty himself. He can supervise, because he has himself passed through every grade of seamanship, possesses the knowledge of *how* things are to be done, as well as what to do in the circumstances. Now we greatly fear that anything approaching to this practical familiarity with the details of the duty devolving upon a medical practitioner as a minister of health is rare, and daily becoming increasingly difficult to find among the most advanced and theoretically competent workers in our profession. Division of labour is no doubt a necessity of progress, but we cannot regard without uneasiness the erection of nursing into a specialty, separate from, and in large measure independent of, treatment. The profession is not, we think, aware of the magnitude of the sacrifice it is making in allowing this province of the art of healing to pass out of its grasp. The development of nursing as a craft has grown out of the neglect with which that function has been too long treated by those who ought to be its principal promoters and directors. The condition of matters exposed by CHARLES DICKENS in connexion with his personification of the old-fashioned nurse as "Sairey Gamp" did permanent service; and the nurses of to-day are confessedly as superior to their predecessors of forty years ago as the medical men of the present time are better provided with instruments of precision, and more skilled in the knowledge of both health and disease than were those of the last or a previous generation. Nevertheless, we cannot but feel that against this gain to the interests of good management in the sick room must be reckoned the very grave fact that the most erudite and expert of our cloth to-day are incomparably, and almost of necessity, less able to direct and control the conditions of the sick than the practitioners of a time when the average attainments of the scientific physician or surgeon were immeasurably less considerable than those of the least advanced and accomplished of our contemporary doctors. There is no marvel in this fact, because nowadays the details, and much more than the details, of the art of nursing are left to a class of persons who, whatever their devotion and intelligence may be, are certainly not qualified to take the position of medical practitioners. It is not with any disrespect to the class of skilled nurses that we protest against the growing evil of surrendering a large and most potent part of the art of healing to those who are not in a position to master it. No lasting success can possibly attend the separation of nursing from medicine. The doctor who does not himself direct the nursing of his patient in all its details cannot be held to have control of even half of the appliances of cure, and, for anything he can tell, the manner in which his patient is treated during the intervals between his visits may be such as, though admirable in themselves, must prove antagonistic to his own method and policy. We are not now thinking of the disastrous effects of bad or even careless nursing, but of the very best that can be procured. Nursing ought to play a leading *rôle* in treatment, and therefore it should be one of the first considerations of the practitioner. His should be the guiding hand in everything that concerns the sick, and to this end his authority and influence should be paramount. A great point is gained when it can be said of a practitioner that when he appears on the scene he takes not only general but specific control of the whole management of the case, and personally directs every detail. In no other way can perfect unity of aim and policy be secured. It may be argued that the busy practitioner has no time to spare for thus entering into matters; or that he descends from a high professional position when, for example, instead of contenting himself with simply ordering a poultice, he takes pains to ensure that it shall be properly made. How strangely erroneous such notions as these really are will appear when

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we reflect that the most successful practitioners have been, and still are, those who possess, and do not scruple to apply, the most minute acquaintance with the art of nursing—a knowledge for the most part either acquired by painful experience in their own families or obtained by years of observation and practice in the wards of hospitals where homely rather than ornate systems of nursing were in operation. It must be frankly confessed that we do not see how the students of to-day are to learn the art of nursing in such a way as to render them really able and useful practitioners in private families, seeing that the management of the sick and of the sick chamber is an art and mystery studied and practised by a separate class of non-medical persons, who cannot share the practitioner's responsibility.

IN view of an early meeting of the General Medical Council, it is worth while to consider the composition of that body as affected by recent legislation. The Medical Council of 1887 will be in its representative character and in its *personnel* different from any Medical Council that has ever sat. For one thing, and a very important thing, it will be larger. It will consist of no less than thirty-two persons, instead of twenty-four. The President, Sir HENRY ACLAND, will continue to be a member of the Council and its President in virtue of the provision in Section 9 of the Medical Act of 1886, that "nothing in this section shall affect the duration of the term of office of the person who at the time of passing of this Act is President of the General Medical Council." At the expiration of Sir HENRY'S term of office in 1889, the Council will be required by the Act to choose its President from one of its own members, instead of being allowed as heretofore to go outside. Similarly the number of Crown representatives is unaffected—that is, continues at four for England till the first expiration of the term of office of one of them, when the number will be reduced to three for England. It is satisfactory that Sir HENRY ACLAND will initiate the change from the old Council to the new. He has been a member of the Council ever since its formation. Only he and Dr. AQUILLA SMITH have this distinction. Whether Sir HENRY ACLAND has ardently longed for the changes which have taken place in the Council or not is a matter of doubt, but he is quick to see the good in actual and accomplished facts, and generous enough to regard without fear a direct representation of the registered practitioners, and even an enlarged representation of the individual bodies.

The new Council will contain several persons who have never sat in it before—viz., Dr. BRUCE of Dingwall, Mr. R. B. CARTER of London, Sir WALTER FOSTER of Birmingham, Dr. GLOVER of London, Dr. KIDD of Dublin, Dr. WILLIAM MOORE of Dublin, Dr. LEISHMAN of Glasgow, and Mr. WHEELHOUSE of Leeds. Sir WILLIAM TURNER will enter the Council, not indeed for the first time, but for the first time in his new capacity as representative of the University of Edinburgh alone. He has repeatedly sat, and that with much effect, as the representative of the two Universities of Edinburgh and Aberdeen. The latter University will be henceforth represented by Dr. STRUTHERS, and Sir W. TURNER will have his hands free to vindicate the ways and interests of the great University of Scotland. Few bodies have gained more than the Scottish Universities by the recent Act. It was admitted on all hands that the Act of 1858 was indefensible when it gave only half a representative to such a body as the University of Edinburgh, while giving a whole one to the Apothecaries' Society of Dublin and to the Faculty of Glasgow. Now the Scottish Universities will be represented by four members in the Council; the representatives of Scottish Corporations will be three in number; the Crown in Scotland will have one representative as heretofore; and there will be the new direct representative—from all accounts a good typical specimen of a medical Scot, contending creditably with disease and climate in the extreme north, and yet so interested in problems of medical education and registration as to be willing to take a journey of four or five hundred miles for their promotion. Fully a third of the new Council, about to sit, enter it for the first time, or in a new capacity. Of the thirty of which the Council will ultimately consist, nine will represent Scotland, as against seven representatives for Ireland and fourteen for England. It will be curious to see how the different elements of the new Council will comport themselves—how they will combine and how contend; whether Corporations will combine against Universities, or "nation rise against nation," or the Direct Representatives preserve their happy independence of "Bodies." They will constitute only one-sixth of the whole Council—too small a proportion to greatly affect the issues, though large enough, let us hope, to be of some use. Numerically the Universities will be the most represented interest in the new Medical Council, having eleven representatives, against nine of the Corporations, five of the Crown, and five of the registered practitioners. The extension of the principle of individual representation of bodies in the Council is a very serious feature and fault of the late Act. But our simple object at present is to indicate the elements in the composition of the Council.

THE two past numbers of the *Journal of Anatomy and Physiology* contain an article on "Intra-peritoneal Blood Transfusion and the fate of Absorbed Blood," by Dr. WILLIAM HUNTER of Edinburgh, which has an important bearing at the present time, and demands the most serious consideration from those who advocate intra-peritoneal operations for the removal of effused blood. The observations form part of an Edinburgh graduation thesis, and, although not yet published in their entirety, are of much importance, and will necessitate a reconsideration of some of the principles which are often urged for immediate operative treatment in cases of intra-peritoneal hæmorrhage. The experiments and observations are very striking, obviously most trustworthy, and deal most fully with the absorption of blood introduced experimentally into the peritoneal sac. They were undertaken with the view of observing what effect extravasation *per se* had on the life-duration of the absorbed corpuscles, and of determining the seats and methods of blood destruction within the body; but incidentally they happen to be of especial interest in regard to the absorption of the blood from the peritoneal cavity and the dangers of its presence therein. From 30 to 90 per cent. of the quantity of blood calculated to be present in the body was transfused within the peritoneum of rabbits, and occasionally of dogs. In certain cases defibrinated blood was used; in other cases entire blood was transfused directly from the carotid of the one

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animal into the peritoneal cavity of the other, and this latter class of investigation forms the special set of experiments to which we would particularly draw attention.

In the cases in which defibrinated blood was employed no special immediate effects were noticed, and the question of the fate of the corpuscles under such circumstances, though very interesting and valuable from a physiological standpoint, are comparatively beside the more important issue—viz., what happens locally and generally to the animal experimented on when such a large quantity of normal blood is introduced into this great serous sac. In only two instances out of twenty-five experiments did death follow, and this result was directly traceable to a septic condition of the syringe used for injection. In other words, blood within the peritoneum, unaccompanied with sepsis, led to no danger whatever. In some instances the transfusion was repeated several times in the same animal—notably in one in which blood to the amount of 200 per cent. was introduced four times in the course of three months, and in another in which transfusion was performed three times within two months. The most striking feature in the experiments was the slight amount of harm due to the transfusion. In cases in which defibrinated blood was used the animals were almost entirely unaffected; and even when blood not deprived of fibrin was employed, the operation was accompanied by only slight loss of appetite and fall of body weight for the first three or four days, doubtless due, as the author suggests, to some localised peritonitis. The rapidity with which coagulation takes place—for in the interim the blood practically behaves as a fluid,—and its distribution previously to coagulation, are the two main factors which determine the amount of absorption. The conditions on which rapid or slow coagulation depends cannot be defined beforehand in an individual case, but the distribution of the extravasated blood gives rise to this most important consideration: "If the blood remains *en masse* at or near the seat of extravasation, coagulation, when it occurs, will be likely to involve the greater part of it, with the result that a clot of some size will be formed which will serve to entangle the great majority of the extravasated corpuscles. Under such circumstances the amount of absorption which takes place may be extremely slight." If, on the other hand, the blood, on being effused, escapes amidst the neighbouring organs before coagulation takes place, not only will coagulation be longer delayed, but even when it does occur the clots which form will be much smaller in size, although perhaps more numerous, and larger numbers of the corpuscles remain free to be absorbed." The post-mortem examinations and experiments fully bear out the writer's conclusions: under the former conditions a large caseous mass, thirty grammes in weight, was found in the abdomen; under the latter only a small caseous nodule not larger than a marble remained.

It is very manifest that, however much effusions of blood under pathological conditions may differ in their behaviour from those which take place into the healthy abdomen, these experiments and observations suggest an expectant treatment, rather than immediate or hurried operative procedures.

THE elevation of Professor BILLROTH, the eminent surgeon, to the peerage of Austria revives the vexed question of medical peerages in this country. Why should England alone of all nationalities refuse to admit members of the profession of medicine to the higher social ranks? It is the more inexplicable that this refusal should be maintained because there would seem to be no scruple as to the elevation of successful tradesmen of all classes. Surely the professors of an art which, being really an applied science, directly concerns the physical and mental capacities of the people for prosperity and happiness, are not less worthy of admission to the most exclusive order than men who have amassed wealth by the manufacture and sale of beer, or by trading in any one or more of the necessaries wherewith the body is nourished or clothed or warmed, or its comfort promoted! Taking the lowest view of the question, and conceding that, possibly, medicine and surgery are among the most degraded of arts, it can scarcely be contended that those who study and practise them are of viler clay than the successful purveyors of coal, iron, wood, beer, and other vulgar commodities, who have achieved "greatness." It is difficult to suppose that any sensible man of culture who knows the hollowness of conventional dignities as the practitioner of medicine knows it can hanker greatly after a peerage; but this does not in the least degree affect the fact that those who persistently refuse peerages to medical men are neither very politic nor very consistent. We are glad that Professor BILLROTH has achieved the distinction he so well deserves, and we commend the subject of peerages for medical men to the renewed consideration of those who advise the Sovereign in this year of jubilee 1887. It would be a timely moment for the ending of a senseless policy and the wiping away of a needless reproach—namely, that members of the profession of medicine are the only persons *systematically* excluded from the peerage of the United Kingdom.

Annotations.

"Ne quid nimis."

A NEW CHOLERA FUNGUS.

A REPORT of the Commission upon Cholera which was despatched to Spain last year by the conjoined action of the Royal Society, the University of Cambridge, and the Association for the Promotion of Scientific Research, has appeared in the proceedings of the first-named body. The commission consisted of Drs. Roy, Graham Brown, and Sherrington, and the report, although "preliminary," contains matter of much importance and interest. Twenty-five typical cases of cholera were examined, either immediately or at a short interval after death, with the result that Koch's comma bacillus was not discovered in the intestinal canal in all the cases. In some this microbe was present in great abundance; in others it was far less conspicuous; whilst in many undoubted cases, where death occurred before the reaction stage set in, it could not be detected at all. These observations were confirmed by the results of plate cultivations in gelatine and agar-agar. Moreover, it was found that when present the comma bacilli were collected either on the surface of the mucosa or so close to it as to suggest a penetration of the epithelium after death, but in the majority the organism could not be found in the mucous membrane or in any of the tissues or organs. These results, which are directly opposed to Koch's, are considered to be conclusive against the bacillus having a pathogenic relation to the disease; but it is suggested to

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be the cause of the premonitory diarrhœa, which is held not to be a mild attack of Asiatic cholera, but only a predisposing condition. Having thus satisfied themselves that the comma bacillus is not the cause of cholera, these investigators similarly dismiss the claims of Emmerich's straight bacillus to that distinction, and also state that they were unable to recognise Klein's straight bacillus in any of their preparations. An interesting fact is their examination of specimens of Ferrán's inoculation fluids and cultivations. These were found to contain several forms of bacilli and micrococci, but no comma bacilli and none of the peronospora bodies which Ferrán describes as developed from the commas. The inference is that not only can the inoculations practised by Ferrán have no protective power, but they are dangerous from the risk of inducing septicæmia. The pathological characters of the choleraic intestine as described by Strauss and others are confirmed, and some valuable remarks are made upon the nature of the intestinal flux. This hyper-secretion has none of the characters of catarrh, nor does the bowel present any lesions suggestive of its being due to the presence of an irritant. On the other hand, Moreau's observation is confirmed, which demonstrates the close similarity of this excessive secretion to that induced by section of the intestinal nerves. It is suggested, therefore, that the choleraic flux may be owing to some causes acting on the glands or mesenteric nerves or ganglia. The search for a pathogenic parasite was continued by the commission after their return from Spain, and many months were occupied in the task. At length the discovery was made of a fungus, present in the intestinal mucosa of every case, at varying depths from the surface, and also in the kidney and liver. This fungus, consisting of granular masses and a delicate mycelium, which could not be stained without difficulty, was pronounced by Messrs. Vine and Gardiner to belong to the Chytridiaceæ, a class which includes many rapidly-growing and virulent parasites of vegetables. The difficulties of its detection may have led to its being overlooked by former observers; whilst the objection of possible after-contamination is met and refuted. At the same time, it is stated that further investigation is needed, especially in the cultivation of the fungus, before the discovery can be held to be conclusive.

THE ISOLATION OF FEVER NEAR BRADFORD.

THE Local Board of Health for North Bierley have very wisely come to the conclusion that it is their duty to provide their district with a hospital for the isolation of cases of infectious fever; the need for such a hospital being the more pressing because the Bradford Fever Hospital, hitherto a public institution open to the districts around Bradford, is to be for the future handed over to the Bradford Corporation, and to be retained for the purposes of the borough only. Both decisions are wise ones. The Bradford Fever Hospital is certainly not, in point of accommodation, in excess of the requirements of the borough, and North Bierley stands in need of a place near at hand to which first attacks can be promptly despatched for isolation as well as for treatment. From the discussion which took place, it is evident that the subject had been carefully thought out in advance. Mr. Whitteron, the medical officer of health, very properly explained that the needed building could not be regarded as sufficing to deal with an epidemic; its object was to provide such a number of beds as would prevent an epidemic. At the same time it is important, in the case of a new hospital, that the authority should take sufficient land to enable them to put up temporary additions if needed. Then came the question of single action, or joint action with other authorities near by. This must almost necessarily be a matter to be decided by local feeling. If districts so adjoin that one hospital will serve for several localities, it is obviously cheaper to combine, instead of going to the cost of providing several sites, several administrative buildings, and several groups of pavilions; the cost of maintenance is also borne by a larger number of contributors. But the only satisfactory method of uniting is by means of a Joint Board formed under a Provisional Order, and this means delay and an additional local organisation. Under these circumstances North Bierley has decided to act alone. With regard to the cost, it is hoped that it may be publicly subscribed, and that the building may thus come to form a memorial of Her Majesty's Jubilee. A more appropriate method of commemorating a reign, which has been more marked than any that has ever preceded it by the success of efforts to control the spread and mortality from infectious diseases, could not well be conceived. But there is just one aspect of this method of raising the needed funds, as opposed to the system of building the hospital out of a loan raised on the security of the rates, that is worth notice. If the former practice were adopted, the Bierley Local Board were informed they would be free from interference on the part of the Local Government Board. Now we have no reason for suggesting that the authority should in any way that they do not desire place themselves under the instructions of the central body; but at the same time we know of similar hospitals that have been constructed without the guidance of official advisers, that have come far short of that which it had been hoped to attain; and we would hence remind the Local Board of North Bierley that, even in cases over which they neither have nor seek to have any control, the Local Government Board have been most willing to make suggestions, on plans submitted to them, and that these suggestions, coming from those who are constantly engaged in dealing with the question of infectious hospital construction, have been found most valuable. North Bierley had in 1881 a population of about 21,000, and a considerable proportion of these live in houses which cannot retain the infectious sick without risk of spread. Whether, therefore, all the necessary accommodation is provided at once or not, the authority should not, in the long run, contemplate less than some twenty beds. Perhaps the best plan would be to begin with one of the composite pavilions recently designed by the Local Government Board, and so contrived that under the same roof two diseases in both sexes can be received without practical risk of spread. Such a pavilion will always be needed, and under ordinary circumstances it will be the one which will be mostly in use.

MUSCULAR ATROPHY CAUSED BY "HYDROMYELITIS."

DR. C. WALLIS of Stockholm reports an interesting case occurring under his care in the Sabbatsberg Hospital, where a peculiar affection of the spinal cord, which he calls hydromyelitis, had produced progressive atrophy of the muscles. The patient, a peasant aged thirty-eight, was admitted for empyema on the right side, of which he died in a week's time. He had noticed for some eighteen years a gradual impairment of the power of his right hand, and for seven or eight years of that of the left. The right hand was flexed (*in Krallenstellung*), with atrophy of the interosseous, flexor brevis, and opponens pollicis. A similar condition existed in the left hand, but to a less marked degree. The muscles of the right arm and shoulder were also slightly atrophied. At the necropsy, besides the empyema, atrophy of the muscles of the hands and forearms was found, and the same condition was also present in a marked degree in the deltoid and serratus magnus on the right side. Microscopical examination showed that in most of the localities where atrophy existed the muscular fibres had lost their transverse striated appearance, and that they were undergoing fatty degeneration. A centimetre below the medulla oblongata

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the central canal of the spinal cord began to be dilated, attaining opposite the roots of the second and third cervical nerves a diameter of half a centimetre. The anterior cornua were greatly atrophied; the posterior cornua were of an abnormal shape, and displaced by the increased size of the canal, but were not atrophied. The distended condition of the canal continued without alteration along the whole of the cervical portion; below this it began to diminish, and at the same time the atrophy of the anterior cornua became less marked, but it was only in the lumbar portion that the cord presented its normal characters. The canal contained a transparent and very fluid liquid, and its wall consisted of a firm white membrane a millimetre in thickness.

CONSULTATIONS BY TELEGRAPH.

THE phrase "medical advice" is one which has assumed at different times very different meanings in accordance with the varying custom of practitioners. It usually does, as it should, imply that the recipient has been seen and examined by a medical man, so as to leave no reasonable doubt as to his illness, constitutional state, and appropriate mode of treatment. In order to arrive at this degree of security—the least that is required for any serious effort to overcome disease—it is commonly necessary and always advisable that a practitioner should be at the time in attendance on his patient. It does not necessarily follow that every prescription which is granted without regard to this rule is mischievous or ineffective. The arrow shot at a venture may hit the mark. The risk implied in such haphazard practice, however, may be very great. It is of two kinds. There is, firstly, the danger that remedies may do no good and no direct harm, yet cover and disguise the progress of disease; and, secondly, that actual injury may be caused to persons who are thus treated without respect to signs of illness other than reported symptoms. We do not deny that past experience of some patients will enable a medical man to sanction the continuance of a course of treatment, or even a change of minor importance, without a fresh attendance. Cases of this kind, however, are in reality such that the invalid understands his own management without the guidance of more skilled opinion. If any such plea can be urged in defence of the prolonged series of consultations for which the Atlantic cable is said to have been utilised, it has probably been strained to the utmost. Practice conducted on these principles is no better than a name. If it concern itself with graver matters it becomes unjustifiable, while its systematic exercise even in trifles is at best the harmless shadow of a dangerous custom, and does not accord with the true ideal of professional duty.

TYPHUS IN THE STOURBRIDGE UNION AND NEIGHBOURHOOD.

IT seems pretty clear from the local newspaper reports that typhus is prevalent in the Stourbridge Union, and that it has made its way into the workhouse. Of all places in which typhus constitutes a real danger, a workhouse is perhaps the worst; for it is the centre towards which destitution tends to congregate, and, as is well known, destitution, overcrowding, and that special form of filth which is attendant on those conditions, are precisely the circumstances which are favourable to the spread of typhus. It is true that a workhouse which is well ventilated, free from overcrowding, and provided with real means of isolation, may aid materially in checking typhus. But it is evident, from the interview which Dr. Mouat of the Local Government Board has had with the Stourbridge guardians, that these favourable conditions do not obtain in their workhouse; and Dr. Mouat found it necessary to warn them in grave terms as to what they might have in prospect. Already one nurse has sickened and died, and, as Dr. Mouat says, no true isolation is provided. And whilst this report reaches us, we find that Mr. Spear, another medical inspector of the Local Government Board, has interviewed the Quarry Bank Local Board, whose district lies in the same neighbourhood, and one mile from Dudley. From twenty-five to thirty cases of fever were found there, of which five have already terminated fatally. According to Mr. Spear, this disease was connected with filth, overcrowded houses, and destitution. This, too, looks suspiciously like typhus; and at this period of want of labour, and its attendant destitution and tendency to overcrowding, the significance of such events is all-important. The Local Government Board show that they hold this opinion by the despatch of two skilled medical officers into what is practically the same district.

ST. JOHN AMBULANCE ASSOCIATION.

WHEN the Colonial and Indian Exhibition was opened in May last, an ambulance station was, by permission, established in "Old London," under the direction of Mr. John Furley, with Mr. H. Percy Potter as honorary surgeon, for the use of the staff and *employés*, and of the visitors to the Exhibition, and was continued till the dismantling was completed at the end of November. During that time aid was afforded to 701 persons, of whom 41 were removed to their homes or to hospital on litters. Of the total number, 399 were cases of injuries and 302 of diseases, chiefly fainting, diarrhœa, epilepsy, and hysteria, and included two cases of drunkenness. An ambulance station was also established at Liverpool, in the grounds of the Exhibition there, of which Mr. F. T. Paul was the honorary surgeon, and Mr. Furley the honorary director. Between March 26th and Nov. 18th 248 persons received "first aid," and 11 were removed by horse ambulance or hand litter; 211 were cases of accident, wounds, &c., and 37 of disease, 18 of the latter being returned as fainting. In London one case and in Liverpool two cases of apoplexy are stated to have died subsequently to removal. These reports afford good evidence of the valuable work done by the Association under the superintendence of its able honorary Director of Stores.

SUICIDE WITH A DARNING-NEEDLE.

ON the 15th inst. Dr. Danford Thomas held an inquest at Clerkenwell on the body of Charles Nutter, aged seventy-seven, who was found dead in bed with a common darning-needle fixed in the epigastrium. Through the eye of the needle a cross-bar of tin had been threaded, and this had been fixed firmly in position by binding with worsted. The object of the deceased man (the jury returned a verdict of "Suicide whilst of unsound mind") was, no doubt, to make an instrument wherewith he could effectually encompass his end. Over the epigastrium and lower part of the chest were nine punctures: the one already mentioned as containing the needle, which had caused a superficial laceration of the liver; another had passed through the fourth right intercostal space and had penetrated the right ventricle and entered one of the posterior set of musculi papillares. Through the small puncture blood to the amount of nearly a pint had escaped into the pericardium, where it was found in part liquid and in part firmly coagulated. The remaining punctures had only extended into the abdomino-thoracic walls. There are several points of interest suggested for examination. In the first place, as regards the suicidal or homicidal origin of the wounds. The fact of a needle being used to inflict a mortal injury on an exposed part and being left *in situ* was of itself practically sufficient to negative the theory of murder; but there was further circumstantial evidence tending to show that deceased committed suicide. The heart

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was greatly hypertrophied and dilated. This is important as furnishing presumptive evidence that the epigastric pulsation led the deceased to make the punctures where they were found, instead of, as is usual, more immediately over the cardiac region. The case shows that penetration of the cardiac cavities by means of a small instrument is not necessarily suddenly fatal, for it is clear that deceased must have lived for a considerable time—probably for an hour or more—after the fatal puncture was made, considering the size of the opening into the ventricle and the large quantity of blood found in the pericardium. No injury of the coronary vein or of either coronary artery could be detected.

THE MOXON MEMORIAL.

AT the meeting of the friends of the late Dr. Moxon, to be held on Tuesday next, Feb. 1st, at 5 P.M., at the Royal College of Physicians, it will have to be determined what form the proposed memorial should take. The first resolution will be moved by Sir James Paget, and seconded by Sir Andrew Clark. It would seem right that Dr. Moxon's name should be associated with Guy's Hospital, where he was physician and lecturer on medicine; but as many outside the Guy's *clientèle* have expressed a desire to assist in raising a monument to his exceptional talents, it is probable that the fund raised will be divided between Guy's Hospital and the Royal College of Physicians. It has been suggested that, after placing a tablet to his memory in Guy's Hospital, the remainder of the funds collected should be used to found a clinical medal, to be awarded, like the Baly Medal in Physiology, every alternate year, to the physician or surgeon most distinguished for clinical research.

"THE SPECTATOR" AND THE ERASMUS WILSON BEQUEST.

THE *Spectator* ridicules the idea of an Institution for Physiological and Pathological Research being needed, and founded in London, especially in the present year, lest it may one day be said that in the jubilee of the Queen's accession "one of those monstrous *bastilles* for the incarceration of creatures destined to the question of physiological inquisitors was founded in the capital of the most tender-hearted and truly humane of English sovereigns." It would be futile to enter into a discussion with our contemporary on such a subject, and we do not propose to do so. The foundation of a pathological institution will not in any sense "neutralise the Act of 1876"; it will *not* reconcile students "to horrors such as those which have hitherto been confined to continental capitals"; and it will *not* tend to obliterate in the minds of students "that scruple in subordinating the art of inflicting pain to the art of relieving it which has hitherto dignified the characters of our surgeons and physicians." There is little fear of such changes coming over the profession as are foreshadowed by the *Spectator*. "Sentiment and law" will continue, as heretofore, to actuate doctors in all their professional work. Our contemporary evidently misunderstands the uses of such an institution as the one proposed. If vivisection be carried on, it will be in strict accordance with the law, under the direct supervision of the Council of the College of Surgeons, and would thus be under more complete control than it is even at present. We imagine, however, that vivisection will form but a very subordinate part of the work to be done. There are physiological and pathological researches of the greatest value, which can only be studied in the dead subject; it is more than probable that the study of the intimate causes of disease and of the intimate effects of these causes may largely supersede other methods of research. The artificial cultivation of micro-organisms—"disease germs,"—their variation under varying conditions, in different cultivation-media, their analogies, antagonisms, and possible combinations, are the subjects which now attract professional attention, and it is chiefly for the study and elucidation of such questions that London demands a suitably equipped physiological and pathological research institution.

UNUSUAL SITE OF AN HYDATID CYST.

A CASE of hydatid of the scrotum came under the care of Mr. Philip E. Muskett in the Sydney Hospital during the course of last summer, and as this is an example of a very rare condition a brief note will be of interest. The patient, aged twenty-five, had been in Australia since he was three years old, and in a sheep district where the water was very bad for four years before the swelling appeared; this was first noticed eight years before he came under treatment. During that time it had been tapped twice, and on the second occasion also injected with iodine. When admitted to the hospital "there was an intra-scrotal tumour, about the size of a large emu egg, on the right side. It was smooth in outline and its general contour nearly oval. The tumour was tense and dull on percussion, but gave to the fingers on palpation the sensation of fluid within. There was no impulse on coughing, and it was irreducible. The position of the testicle at its posterior part was made out by the presence of testicular sensation. The cord could not be clearly defined at the upper portion of the swelling. Light was transmitted by the ordinary manner of procedure, and, finally, the history had been that of an eight years' growth: painless except from its mere weight." The cyst was tapped on the day following admission, and about an ounce of "serous-looking fluid" of pale yellowish tinge evacuated. Suppuration followed this tapping, and thirteen days later about six ounces of purulent fluid were drawn off. After this pus drained away from the puncture for eleven days, then a hydatid sac partly forced its way out and was partly extracted through this opening. The sac was greyish in colour, translucent, and elastic, and in its sunken condition would about fill an egg-cup. The swelling gradually subsided, the sinus closed, and the patient left cured.

EMIN PACHA.

ON the 21st inst. Mr. H. M. Stanley left England on his new expedition, the object of which is to effect the relief of Emin Pacha and to secure the withdrawal of the women, children, and non-combatants who are with him in a position of great danger in his province of Equatorial Africa. The fact that Emin Pacha is a member of the medical profession may not be known to all our readers. Dr. Hermann Schnitzler, better known as Emin Bey and subsequently as Emin Pacha, is an Austrian doctor, who was educated at Vienna, Paris, and Berlin, and is a man of great attainments, both linguistic and scientific. He has the reputation of being able to speak all the principal European languages, together with various African ones; and he has also an intimate acquaintance with geology, botany, meteorology, anthropology, geography, &c., on which subjects he has supplied valuable papers to many learned societies. Twelve years ago Gordon Pacha, who was then Governor of the Equatorial Provinces, appointed him Surgeon-General, and he held that post for four years, when he succeeded Gordon in the governorship. Since then he has been engaged in bringing a barbarous region into a state of civilisation, and, owing to the attacks of rebels from the north, has been for three years completely cut off from the outer world. During the first five years, at least, of his governorship he devoted any little leisure which his varied

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duties left him to the healing of the sick. At sunrise every morning he was to be found in his hospital, and at night he used to write reports for scientific papers by the light of candles of his own manufacture. The preservation of such a man, and the rescue from the terrible dangers by which they are threatened of those he has for three years guarded with such magnificent and such heroic devotion, will be a feat which will add fresh glory to the already illustrious name of Stanley, and it is earnestly to be hoped that success, speedy and complete, may attend him in his errand of mercy.

LONDON POOR-LAW INFIRMARIES.

THE paper of Colonel Montefiore on Metropolitan Poor-law Infirmaries, and the importance of throwing them open to medical science, which was read at a meeting of the Hospitals' Association, Mr. Timothy Holmes in the chair, recalls attention to a subject of much importance, alike to the poor, the profession, and the public. The metropolitan infirmaries number fourteen, with 6803 certified beds; besides which there are eleven irregularly built institutions, with 5392 beds. In other words, they contain roughly double the number of sick beds of the great hospitals of London. The rate of expenditure was lightly touched on by Colonel Montefiore. He showed that different Boards pay very different prices for the same things. He pointed out that the medical officers had an enormous amount of work to do, and that for very modest salaries. In some cases two medical men had to attend 500 cases, besides having other duties to perform. He advised that these infirmaries should be brought into relation with the great hospitals, that the hospitals should supply their best men to fill the posts of the infirmaries, and that the medical superintendent of the infirmaries should be instructed to hold consultations with members of the consulting staff of the hospitals of the district in cases of unusual interest. We believe the Poor-law infirmaries are well officered, and their inmates now as a rule tolerably well cared for. But it does seem reasonable, and indeed has long seemed urgent, that provision for consultations should be made. It requires little imagination to conclude that 500 or 600 cases of sickness must involve much misery, and some difficult questions of duty and treatment, for which it is but reasonable to provide the opinion and help of more than one man. Indeed, it is scarcely fair to one man to make him responsible for all that 500 or 600 poor people may need, and we trust that, both for his sake and theirs, an arrangement for consultation will be conceded by the Local Government Board.

TO CURE LONDON OF ITS FOGS.

SIR H. W. TYLER has hit on the idea of doubling, or if need be, trebling, the duties on coal, with the proviso that these duties should be levied only on bituminous or smoke-producing coal, and that the smokeless sorts should be free of duty. From this legislative "protection" of the cause of colour and body in fogs he anticipates a very considerable diminution of the nuisance and injury inflicted by them. We heartily wish Sir H. W. Tyler success. It is an experiment worth trying. Meanwhile, it must be remembered that mists and fogs—properly so-called—we shall necessarily continue to have with us, at least until the prediction of another *savant* is fulfilled, and, some twenty millions of years hence, the sun grows cold, and, as the need for fuel increases, the mode as well as the means of providing heat utterly fails. We are fully alive to the fact that much would be gained by ridding the fogs of their carbonaceous impurities, but they would be none the less chill and raw, and nerve-depressing, for all that gain involves and implies.

CAMBRIDGE GRADUATES AND LONDON DEGREES.

WE are pleased to see that the medical graduates of Cambridge University were sufficiently liberal-minded to reject by a substantial majority Sir G. Paget's resolution:—"That to establish a second university in London for the purpose of granting medical degrees is either unnecessary or undesirable." Opposition from the existing universities may doubtless be expected, but it is gratifying to find that many of the members of the most important medical university in England are firm supporters of the scheme. If Sir G. Paget were more in touch with the London medical student, he would hear the most cogent reasons for the establishment of a second university in the metropolis, and he need not apprehend that it will lead to a competition downwards. Everyone connected with medical teaching agrees that the University of London insists on an absurdly high standard of acquirements, and that another university must be formed sooner or later in the metropolis.

THE GENERAL MEDICAL COUNCIL.

DR. WILLIAM MOORE, A.B. and M.D. Dub., was officially appointed on Tuesday last by the Queen as Crown Nominee for Ireland in the Medical Council. Dr. Moore is Physician in Ordinary to the Queen in Ireland, is physician to several hospitals in Dublin, and author of works on various medical subjects. Professor Rawdon Macnamara has been again chosen unanimously to represent the Royal College of Surgeons of Ireland in the Council. Mr. Macnamara has been in the Council for twelve years, and, while redoubtably defending his "Body" against all attacks, does so with unfailing good temper and "honest courtesy," of the good Irish type.

RED AND WHITE MUSCLES IN RODENTS.

M. RANVIER has again directed attention to the interesting difference of colour in the muscles of rodents. We refer to it because we believe that a careful study of the histology and experimental pathology of the corresponding nerves and spinal centres will bring fresh knowledge into a region where it is much wanted. There are great differences of organisation between guinea-pigs and rats on the one hand, and rabbits and hares on the other. In the hare all muscles are red, doubtless in relation to its greater agility; in guinea-pigs and rabbits some muscles are red and others white. The nuclei of the sarcolemma of red muscles are numerous and form longitudinal series. The semi-tendinosus and soleus of the rabbit are red, whilst the great adductor and gemelli are white. Although all the muscles of the hare appear red, yet the great adductor and gemelli have the same histology as the white muscles of the rabbit, whilst the semi-tendinosus and soleus have the constitution of the red.

TORSION OF AN INCISOR TOOTH.

MR. SMALE mentions in the *British Journal of Dental Science* the case of a boy aged eight who had the right upper central incisor twisted so that the mesial surface presented towards the lip. The tooth was grasped firmly by a pair of straight-bladed forceps and twisted into a good position, care being taken to press the tooth firmly into the socket during the operation. It was tied to the surrounding teeth with silk twist in order that it might not return to its old position. A week afterwards it was quite firm, the tooth could be tapped, and he could distinguish between hot and cold applications. There was no discolouration, and the gum was quite healthy. Torsion may be used freely before the patient arrives at the age of twelve years, and should be always done at one operation. It is only applicable to the incisors.

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THE "VICTORIA READING CIRCLE."

IF, as Carlyle maintained, the diffusion of printed literature removed in great measure the necessity for universities, the establishment of public libraries must have still further reduced the need of those institutions. As if to impress this fact, we have had presented to us the syllabus of a newly-established "Victoria Reading Circle," the aim of which is to secure "at home some of the advantages of a college, so far as reading and study are concerned, without interference with other duties." This new society affords to adults whose early education has been defective, and to young people who have recently left school, a course of systematic reading in general literature. The whole course, like that of a university, extends over four years, each of which is divided into two periods or sessions. Certain readings are exacted as necessary, while others are optional. There are no examinations, but a guarantee is required to show that the works prescribed have been carefully read. Annual certificates, and finally a diploma, are granted to those candidates who have fulfilled their course and have satisfied the conditions laid down by the society. The admission fee, the cost of books, and the amount of reading to be done daily are each of them very moderate indeed, and the system as a whole, though yet untried, appears well calculated to foster a habit of self-culture, and at least in some degree to work out the Carlylean theory. The home of this new enterprise in education is at 56, Old Bailey, London.

REAL AND APPARENT DEATH.

IT was only last year that we commented in our columns upon the "signs of death," drawing attention to the more important criteria by which a skilled observer may avoid mistaking cases of so-called suspended animation from actual decease. Quite recently two instances have been recorded in which, if report be true, it would seem there is still room for maturing the judgment upon the question herein raised. At Saumur a young man afflicted with a contagious disease apparently died suddenly. His body was enshrouded and coffined, but as the undertaker's men were carrying "the remains" to their last resting-place they heard what they believed to be a knocking against the coffin-lid, and the sound was repeated in the grave. Instead of testing at once the evidence of their senses, they, in accordance with judicial custom, sent for the Mayor, in whose presence the lid was removed from the coffin. Whereupon, to the horror of the spectators, it was observed that the dead man had only just succumbed to asphyxia. The above narrative seems on the face of it too ghastly to be true, especially as the occupant of the coffin must have been shut up in a space containing oxygen in quantity totally inadequate to sustain an approximation to ordinary breathing. But in cataleptic and similar states the organic functions are reduced to the lowest ebb, and history records several instances in which, for a time at least, the determination of the living state was a matter of uncertainty. In our issue of the 15th inst., p. 129, the reader will find an account of "Post-mortem Irritability of Muscle," in which the phenomenon was manifested in a marked degree two hours after death from a chronic wasting disorder—a condition which favours early extinction of vital action in muscle. It may be argued, then, with some show of reasonableness, that it is quite possible for the heart to stand still, as it were, and yet retain the power of action, although experience tells us but little on the question as regards the human subject. Experiments on the lower animals, however, show that over-distension of the right cavities of the heart causes cessation of cardiac contraction, and that relief from the distension may be followed by resumption of the function of contractibility. It must not be forgotten that an analogous condition is witnessed at times in patients suffering from capillary bronchitis or other physical states underlying acute distension of the right heart; for, in these cases, venesection is not uncommonly instrumental in arresting the rapidly failing cardiac contractions. The second case of apparent death alluded to above happened in "the land of big things." An inhabitant of Mount Joy, Paramatta, was believed to be dead, and his supposed remains were about to be committed to the earth, when a mourning relative startled the bystanders by exclaiming, "I must see my father once more; something tells me he is not dead." The coffin was taken from the grave to the sexton's tool-house, and there opened, and was found to contain a living inmate, who justified the presentiment of hisson by "slowly recovering." As no mention is made in either case of the period that elapsed between the occurrence of apparent death and the body being placed in the coffin, or of the time during which the encasement lasted, special and minute criticism is uncalled for. Enough has been said on the subject to emphasise the exhortation: "Get knowledge, and with all thy getting get understanding."

THE SPHYGMOGRAPH IN ASYLUM PATIENTS.

DURING recent years the junior medical officers of our large asylums have recorded, perhaps more than in the past, observations on clinical pathology and morbid anatomy. We have repeatedly urged that these are profitable fields for investigation. Dr. Duncan Greenlees has an interesting paper in the current number of the *Journal of Mental Science* on observations with the sphygmograph on asylum patients. In nearly every case the sphygmogram was found to be abnormal. Acute mania is characterised by dicrotism, due to lax arteries, during the stage of great agitation. Mental depression enfeebles the cardiac action, and thus leads to diminished arterial tension. Epileptics generally have relaxed arteries and low arterial tension. During the *status epilepticus* and during the unconscious stage of the fit, the sphygmogram becomes monocrotic or dicrotic, and the pulse "soft, frequent, small, and running," as that of coma or collapse from acute disease. In general paralysis the pulse varies with the stage of the disease. The pulse-tracing of dementia indicates a feeble cardiac action and a slow circulation from imperfect fulness of vessels. In cases of arrested development of brain, the arteries were found to be tense, with strong cardiac systole, calling to mind renal disease and aortic obstruction.

SUICIDE OF A MEDICAL MAN SUFFERING FROM TYPHOID FEVER.

The Exeter Evening Post of Saturday last gives the sad particulars, elicited at an inquest, touching the death of Dr. Morris Hannigan Curtin, one of the medical staff of the Exeter Medical Aid Association. On the Saturday preceding he first complained of being ill. On the Tuesday following he felt better and performed his usual duties. On the Wednesday he was worse, and had a high temperature. Mr. Barstow, one of the non-resident officers, suspected typhoid, and called in Dr. Davy, who seems to have confirmed the diagnosis, though other particulars are not given in the report. Mr. Barstow kindly had Dr. Curtin removed from his lodgings to his own residence, thinking that he would have better attention. Dr. Davy saw him on the Thursday and Friday, and on both days found him in good spirits and comfortable, only regretting his distance from home. On the Friday he saw Father Hobson, who found him wandering in mind. Shortly after his visit Mrs. Barstow heard and saw him making for the surgery, where he shut himself in, and was shortly after found with a bottle containing liquid near him, gasping, bleeding at the nose, and the heart

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scarcely beating. The breath had the odour of prussic acid. In spite of the injection of ether, artificial respiration, and the use of the stomach pump by Dr. Roper, he died in about twenty minutes, and the jury properly returned a verdict of "Suicide while in a state of unsound mind." Dr. Roper said it was not unusual for persons with typhoid to suddenly develop a suicidal mania. It is not, perhaps, quite so common, however, to see so much method in suicide in typhoid as was shown in this very sad case.

SALICYLIC ACID USED FOR ADULTERATION.

A COMMISSION appointed by the French Academy of Medicine to inquire into the employment of salicylic acid as an antiputrefactive agent in the manufacture of beers and wines has recently issued its report. Though this addition to beers and other eatables to ensure their keeping has not at present been the subject of legal proceedings in England, yet, as the report remarks, there is no evidence to show whether this is due to the tacit tolerance of the analysts or the fact that the acid is not used in English beers, which are more capable of preservation owing to their greater alcoholic strength. The inquiry divides itself into two parts. First, Has salicylic acid, in moderate doses continued for a long time, any deleterious effect on the body? Secondly, Is there a point in the percentage of the acid in beers and wines beyond which it is unsafe to go, and below which there is no danger to the consumer? The first question is answered in the negative. Despite the fact that Kolbe took for thirteen months one gramme every day in beer or wine, and that Lehmann gave fifty centigrammes a day to two individuals in sound health, without effect, there is reason to believe that the acid would be injurious in those predisposed to its action, and in persons not in sound health, especially those suffering from renal disease, in whom, as has been known for some time, owing to defective elimination, the drug quickly produces toxic symptoms. The answer to the second question is also unfavourable to the supporters of salicylage. Owing to the difficulty of ensuring an exact percentage and the ease with which a maximal dose can be passed without detection, it is unadvisable to sanction by law any addition of this nature. Moreover, as has been well said, Let each put salicylic acid in his beer if he likes, but not in that of others without their knowledge.

MEDICO-LEGAL REFORM IN PORTUGAL.

THE Society of the Medical Sciences of Lisbon is very anxious to obtain a radical reform in medico-legal matters, and at its last meeting, under the presidency of Professor O. Feijão, discussed the best mode of drawing up a satisfactory scheme. The Minister of Justice, who was present, thanked the Society for the steps it was taking, and promised to be present at future meetings for the discussion of the subject. The Society appointed a small committee, consisting of Señhores Bettencourt Raposo, Sousa Martins, and Silva Amado, to consider the subject and to draw up a report.

ENTOZOA AND PERNICIOUS ANÆMIA.

DR. G. REYHER, writing on the etiology of pernicious anæmia, points out that, as in a large number of these cases a Bothriocephalus latus has been diagnosed and expelled by means of male fern, the patients subsequently recovering, and as the anæmia of miners is now known to be due to the Anchylostomum duodenale, it is possible that all cases are due to entozoa of one kind or another, and that therefore diligent search should always be made in the fæces for the ova of tæniæ, &c. The treatment will in cases of successful search be obvious.

THE GUY'S HOSPITAL FUND.

THOUGH the sum contributed to the Guy's Fund (over £30,000) is still far short of what is needed, enough is already secured to raise hopes that the whole will be forthcoming. The letter of Mr. Money Coutts, forwarding the generous subscription of £1000, is in the right spirit and strikes the right note. "Hospitals are a permanent boon to the poor." So they are; and what a gain they are to the rich in the skilled surgeons and physicians they educate! We hope to hear of many more gifts like that of Mr. Money Coutts. But is it past hoping for that we may see in this *annus mirabilis* another Guy, whose generosity will build and endow an institution like that in the Borough, where poverty and sickness for generations to come may find a bed and all the amenities of medicine and surgery? The wealth of the nineteenth century is greater beyond all comparison than that of its predecessor? Shall it be used less magnanimously?

THE PREVALENCE OF HYDROPHOBIA.

A CONTEMPORARY comments on a case of alleged hydrophobia in a man named Mullett, at Bolton, who had been bitten three months before by a terrier, which is stated to have remained healthy until destroyed three months after biting the man. The wound was sucked and cauterised at the time. This case and another recent case at Putney are thought to be inconsistent with the axiom that rabies is always fatal to animals, and, according to Pasteur, fatal within ten days. An inquest was also held on a case of hdrophobia at Hindley in a woman bitten ten weeks before her death by her fox terrier; and another mad dog is reported to have been killed at Bolton after biting several children. Our contemporaries do good service in recording minutely all alleged cases. We may hope to see the provinces take a serious view of this question and help those who are seeking some protection to the public from a terrible risk.

MARGARET-STREET INFIRMARY FOR CONSUMPTION.

SOME difference of opinion appears to exist amongst the governors of the Margaret-street Dispensary for Consumption and Diseases of the Chest. A large majority of the medical men attached to the hospital object to a small minority of their colleagues practising what is called homœopathy. At present a breach exists, and this cannot be rectified until the special general meeting has decided what course is to be pursued. The Executive Committee have already given effect to their opinion. They considered that the minority should give way to the majority, and resign their posts or desist from the practice of homœopathy. Amongst the governors there are certainly two camps. It seems that the constitution gives the executive committee no legal powers in the circumstances. It is perfectly certain that the majority of the medical staff will resign unless the special general meeting endorses the action of the executive committee.

DEATHS OF EMINENT MEDICAL MEN ABROAD.

THE deaths of the following eminent continental medical men have recently been announced:—Dr. Fedele Margary, chief surgeon of the Hospital of San Giovanni Battista in Turin, and editor of the *Archivo di Ortopaedia*. Professor Dr. Halla, the well-known clinical teacher of Prague, in his seventy-fourth year; he had been editor of the *Prager Vierteljahrschrift* since the year 1843. Dr. J. Kalt, one of the most esteemed members of the profession in Bonn; he was a "Sanitätsrath." M. le Dr. Charles Saraxin, formerly agrégé of the old French Faculty of Medicine of Strasburg.

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Dr. José Pereira Reis, Emeritus Professor in the Medical School of Oporto, and author of several medical and scientific works in Portuguese especially dealing with materia medica and prescriptions; he left a considerable legacy for the foundation of a children's hospital.

TRANSPORT AND TREATMENT OF INFECTIOUS PATIENTS IN THE METROPOLIS.

SIR VINCENT KENNETT-BARRINGTON has addressed to *The Times* a letter pleading for the free admission of all classes of patients into the hospitals of the Metropolitan Asylums Board, and for the general use of the Board's ambulances to the exclusion of all other vehicles. These proposals meet with our cordial approval. From an administrative point of view, we believe it is the only system which will ensure the perfection of the metropolitan machinery for the isolation of cases of infectious disease. But when the writer quotes statistics to show that hospital treatment has conferred upon London the benefit of reducing the amount of prevalence of these disorders, he exposes himself to some criticism. The diminution of the death-rate from scarlatina, which has undoubtedly been taking place for some years, is not confined to London, and other circumstances besides those of hospital provision are probably concerned in the reduction of this malady. As to small-pox, the less said about hospital treatment of the disease by those who are in favour of the London practice, the better. London, which treats the vast majority of its cases in hospital, has suffered out of all proportion to the rest of the country.

HOW LONG SHOULD A NERVOUS PATIENT BE TREATED?

THE question of how long treatment should be continued in a neurotic case when no evident benefit is produced has recently been raised in a Hamburg law court. A medical man, having as a patient a merchant suffering from "nervousness," treated him by galvanism. Altogether he galvanised him 445 times, but the nervousness did not disappear. Then came the matter of fees. The sum claimed was £111 5*s*.. The merchant disputed this on the ground that the treatment ought not to have been continued so long, as it was not producing any benefit. The court referred the matter to the medical board, which gave as its opinion that the doctor ought to have asked the patient after some fifty sittings whether he would like to continue them, as it was doubtful whether the treatment was doing any good. The court, however, declined to accept this view, holding that it was for the patient to say when he had tried the treatment as long as he was disposed to pay for, and so gave judgment for the full amount claimed.

THE PROPOSED MATERNITY HOSPITAL FOR BRISTOL.

THE scheme for the establishment in Bristol of a maternity hospital is exciting sharp local controversy. The erection and endowment of such an institution as a jubilee memorial is being earnestly advocated, and equally as earnestly opposed. A memorandum, expressing the opinion that a maternity hospital is much needed for the poor of Bristol, and would supply a long-felt want in the city, has been signed by all the members, with one exception, of the medical staffs of the three great Bristol medical charities and by other local medical men, and in the face of such a statement it will be well-nigh impossible to maintain that there is no need for such an institution. Many, however, of those who signed the memorandum referred to do not support the scheme as a jubilee celebration, and differ widely in their opinions as to how, should such a hospital be established, the best result may be obtained; so that it is doubtful whether, after all, the opponents of the scheme may not, for the present at least, prove successful.

METROPOLITAN HOSPITAL SUNDAY FUND.

AN important meeting of the Council was held at the Mansion House on Thursday, under the presidency of the Lord Mayor. A letter from the Bishop of London was considered, suggesting an alteration in the Sunday for the collection; but as all churches have now made their arrangements for the year, it was thought impossible to change the day. A special committee was appointed, on the lines of that proposed last year by the late Dr. Wakley, to consider the best means of promoting the success of the Hospital Sunday Fund, with special reference to the Jubilee of Her Majesty's reign. Incidentally Mr. Carr-Gomm made a statement showing that the London Hospital, of which he is treasurer, has not lost a single private subscription since the establishment of the Hospital Sunday Fund. Mr. Burdett adduced facts to the same effect.

THE SICK POOR OF ALL ENGLAND AND THE HOSPITALS.

MR. HENRY C. BURDETT in the daily press propounds a huge scheme for bringing the sick poor in every hamlet in the land into practical touch with every hospital, and the highest medical and surgical skill, through the Hospitals' Association. Every parish, congregation, village, or hamlet is invited, through its clergyman, minister, or other representative, to affiliate itself to this Association by the formation of a hospital society. The Hospitals' Association would thus be an immediate aid society, and its office a bureau of information and centre of reference. The scheme is to be discussed at a congress in May next, to be presided over by Sir Andrew Clark. The only question is, Is it not too big—too central? Have we got so well in hand the problem of the maintenance and management of metropolitan hospitals that London men should assume a kind of providence over the provincial sick and invite them up to fill our London hospitals? This is a practical and urgent question. Mr. Burdett is a wonderful organiser, but we think he would do well to leave the provinces to look after their own sick poor and hospital administration, and devote his great energies to the metropolitan institutions.

EMMENAGOGUE ACTION OF OXALIC ACID.

DR. POULET (*Gazette Hebdomadaire*, 1886, No. 20) extols oxalic acid as the best of all emmenagogues. It does not, however, he admits, abolish the pain experienced by many women in the discharge of the menstrual function, and it is of course, inoperative in amenorrhœa consequent upon organic disease. The dose in which he prescribes it is one teaspoonful every hour, of a mixture containing thirty grains of oxalic acid, about six ounces of water, and two ounces of syrup of orange-peel.

INFLUENCE OF TIME ON COLOURATION OF WINE.

ACCORDING to the observations of M. Cazeneuve, the aniline dyes—fuchsine, Bordeaux red, purple red, &c.—employed in colouring wines may persist for many years in certain wines, and be obtained intact therefrom by analysis. The chemical changes that wines undergo, especially in the *dépouillement* (stripping) of new wines, lead to the precipitation of a greater or less amount of the artificial colouring agent. The diseases produced by microphytes (e.g., *mycoderma vini* and *aceti*) also cause a disappearance of colour.

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PYÆMIA AFTER EXTRACTION OF A TOOTH.

DR. ZAWADSKI mentions in a Polish journal a case where the extraction of a lower wisdom tooth in a man, aged forty-six, by a "feldsher," was followed by a fatal result. The day after the operation the soft parts in the neighbourhood began to swell, then followed severe headache, a rigor, and fever, death occurring on the nineteenth day. At the necropsy, purulent inflammation of the dura mater of the base on the left side was found, and purulent thrombi in the cavernous and superior petrosal sinuses. The soft parts near the angle of the lower jaw were infiltrated with pus, and there were broken-down thrombi in the neighbouring veins, also metastatic abscesses in the lungs and spleen.

ANOTHER POST-GRADUATE COURSE.

FOLLOWING in the wake of America, Edinburgh, and Manchester, where the movement has been attended with remarkable success, an arrangement has been made by the staff of the Leeds General Infirmary, under which a course of lectures and demonstrations will be given weekly to qualified practitioners. The first lecture of the course was delivered by Dr. Clifford Allbutt on the 21st inst. on "Coma and its causes."

SEVERAL of the local boards in the Halifax district have recently decided to have medical officers of their own, instead of joining in the payment of one medical man for the whole district. The Local Government Board have, however, decided that the combination shall continue, and this decision is meeting with considerable opposition throughout the district affected.

FOR an alleged libel published in *Life* on June 6th, Mr. Tom Bird has, through his solicitor, obtained from the magistrate sitting at Bow-street Police Court summonses against the proprietor and publisher of that newspaper.

A Professorship of Hygiene has recently been created at Breslau, to which Professor Flügge of Göttingen has been appointed, where he is Director of the Institute of Chemistry and Hygiene.

WE hear that Dr. Ralph Leslie, who accompanied Sir F. W. de Winton up the Congo, has started with Mr. Stanley on the Emin Pacha Expedition.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5640 births and 4043 deaths were registered during the week ending Jan. 22nd. The annual death-rate in these towns, which had been equal to 26·5 and 24·1 per 1000, further declined last week to 22·8. During the first three weeks of the current quarter the death-rate in these towns averaged 24·5 per 1000, and exceeded by 0·4 the mean rate in the corresponding periods of the ten years 1877-86. The lowest rates in these towns last week were 15·0 in Derby, 15·2 in Norwich, 15·6 in Brighton, and 18·2 in Birkenhead. The rates in the other towns ranged upwards to 28·4 in Leeds, 30·1 in Manchester, 32·7 in Preston, and 33·8 in Plymouth. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 475 and 485 in the preceding two weeks, declined last week to 392; they included 146 from measles, 92 from whooping-cough, 62 from scarlet fever, 36 from diarrhœa, 33 from "fever" (principally enteric), 23 from diphtheria, and not one from small-pox. No death from any of these zymotic diseases was recorded during the week in Birkenhead, Bolton, or Halifax; whereas they caused the highest rates in Preston, Leeds, and Huddersfield. The greatest mortality from measles occurred in Newcastle-upon-Tyne, Wolverhampton, Liverpool, Leeds, and Huddersfield; from whooping-cough in Leeds, Manchester, Norwich, and Huddersfield; from scarlet fever in Norwich, Sheffield, and Plymouth; and from "fever" in Cardiff. The 23 deaths from diphtheria in the twenty-eight towns included 13 in London, 2 in Portsmouth, 2 in Liverpool, 2 in Manchester, and 2 in Preston. Small-pox caused no death in London and its outer ring, or in any of the twenty-seven large provincial towns. Only 4 cases of small-pox were under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease. The deaths referred to diseases of the respiratory organs in London, which had been 731 and 591 in the preceding two weeks, further declined last week to 531, and were 5 below the corrected average. The causes of 93, or 2·3 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Nottingham, Portsmouth, Brighton, and in four other smaller towns. The largest proportions of uncertified deaths were registered in Oldham, Salford, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 29·9 and 26·1 per 1000 in the preceding two weeks, further declined to 23·7 in the week ending Jan. 22nd; this rate exceeded, however, by 0·9 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 9·7 and 15·8 in Perth and Leith, to 27·7 in Glasgow and 30·8 in Paisley. The 591 deaths in the eight towns last week showed a further decline of 61 from the numbers in the previous two weeks, and included 20 which were referred to whooping-cough, 16 to scarlet fever, 8 to measles, 8 to diphtheria, 7 to diarrhœa, 5 to "fever" (typhus, enteric, or simple), and 1 to small-pox; in all 65 deaths resulted from these principal zymotic diseases, against 94 and 72 in the preceding two weeks. These 65 deaths were equal to an annual rate of 2·6 per 1000, which was 0·4 above the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 27 and 26 in the previous two weeks, further declined last week to 20, of which 14 occurred in Glasgow, 3 in Edinburgh, and 2 in Aberdeen. The deaths from scarlet fever, which had been 13 in each of the preceding two weeks, rose last week to 16, and included 9 in Glasgow, 3 in Aberdeen, 2 in Edinburgh, and 2 in Paisley. The 7 deaths attributed to diarrhœa showed a further considerable decline from the numbers in recent weeks, as did the 8 fatal cases of measles, of which 7 occurred in Glasgow. The deaths from diphtheria, which had been 12 and 5 in the previous two weeks, rose again last week to 8, all of which occurred in Glasgow. The deaths referred to "fever," which had been 7 in each of the previous two weeks, declined last week to 5, of which 2 occurred in Edinburgh, 2 in Dundee, and 1 in Glasgow. The death classed to small-pox was said to be a fatal case of chicken-pox in Leith. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 213 and 181 in the preceding two weeks, further declined last week to 165, but exceeded the number in the corresponding week of last year by 5. The causes of 70, or nearly 12 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 31·3 and 36·2 per 1000 in the preceding two weeks, declined again to 32·2 in the week ending Jan. 22nd. During the first three weeks of the current quarter the death-rate in the city averaged 33·2; the mean rate during the same period did not exceed 23·7 in London and 23·5 in Edinburgh. The 218 deaths in Dublin last week showed a decline of 27 from the number returned in the previous week, and included 4 which were referred to scarlet fever, 6 to diarrhœa, one each to diphtheria, whooping-cough, and "fever" (typhus, enteric, or simple), and not one either to small-pox or measles. Thus the deaths from these principal zymotic diseases, which had been 13 and 21 in the previous two weeks, declined again last week to 13; they were equal to an annual rate of 1·9 per 1000, the rates from the same diseases being 1·9 in London and

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14 in Edinburgh. The fatal cases of scarlet fever, which had been 6 and 8 in the preceding two weeks, declined last week to 4; and the deaths from diarrhœa, fever, and whooping-cough also showed a decline from the numbers in the preceding week. The deaths both of infants and of elderly persons were fewer than those in the previous week. Six inquest cases and 11 deaths from violence were registered; and 56, or more than a quarter, of the deaths occurred in public institutions. The causes of 45, or nearly 20 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

On the 20th inst. Surgeon-General J. Hendley, C.B., the principal medical officer at Aldershot, made the official half-yearly inspection of the Depôt (16th Division) Medical Staff Corps, which paraded under the command of Surgeon-Major Staples.

ADMIRALTY.—Staff Surgeon Eugéne Victor de Méric has been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet.

The following appointments have been made:—Fleet Surgeon Thomas H. Atkinson, to the *Vernon;* Fleet Surgeon Fleetwood Buckle to the *Brilliant;* Staff Surgeon Solomon Kellett, to the *Cordelia;* Staff Surgeon Herbert M. Ellis, to the *Valorous;* Staff Surgeon Valentine Duke, to the *Calliope;* Surgeon Alexander W. M'Leod, to the *Invincible;* Surgeon Alfred Copley, to the *Calliope;* Surgeon A. M. Page, to the *Monarch;* and Surgeon G. Smith, to the *Hercules.*

ARTILLERY VOLUNTEERS.—3rd Durham: Surgeon and Honorary Surgeon-Major Joseph Frain resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the corps on his retirement.—1st Kent: Acting Surgeon G. H. Harvey, M.B., resigns his appointment.—1st Worcestershire: Acting Surgeon Henry Horton resigns his appointment.

RIFLE VOLUNTEERS.—3rd Surrey: Surgeon G. R. Barnes is granted the honorary rank of Surgeon-Major.

Correspondence.

"Audi alteram partem."

THE UNIVERSITY OF LONDON AND ITS NEW REGULATIONS.

To the Editors of THE LANCET.

SIRS,—A recent regulation affecting the Intermediate Examination for the degree of Bachelor of Medicine has been issued by the University of London. As it is reasonably considered a hardship by many students who are preparing for the July examination, I desire to draw attention to it. The regulation (dated August 1st, 1886) is to come into force in July, 1887, and is as follows:—

"Candidates at the July examination shall be examined for a Pass or for Honours in each of the following subjects: (1) Anatomy, (2) Physiology and Histology, (3) Organic Chemistry; (4) Materia Medica and Pharmaceutical Chemistry. Every candidate for the July examination, on sending in his name for the examination, must state whether he intends to compete for Honours in any subject or subjects. No candidate shall be allowed to take both the Pass and the Honours papers in the same subject; but every candidate must take the Pass papers in those subjects in which he does not offer himself for Honours. A candidate who enters for but fails to obtain Honours in any subject may be recommended by the examiners for a Pass in that subject, if they are satisfied such a competent knowledge thereof as is required by the regulations for the Pass Examination, &c."

The effect of this new regulation, as far as I have been able to gather, will be altogether to cut out many men deserving of Honours from the competition for Honours. Why? Because few medical students can afford to risk rejection in any one subject which entails rejection on the whole examination. As it is, the curriculum is quite long enough; they have not the time, money, or inclination to prolong it. Many of those, therefore, who might have competed for Honours under the old regulations will now rest content with taking the Pass papers only, and, having so decided, will lower their standard of work accordingly. They will be supported in this course by a note appended to the above-quoted regulation, which reads thus:—"Candidates must bear in mind that the standard of attainment for the Honours Examination is *much higher* than that for the Pass Examination; and they should therefore exercise *due caution in making their choice,* to which they will be required to adhere" (the italics are mine). There appear to be two possible objects only to be attained by the new regulations. The first, that the examiners may be saved a little trouble, which is, I fancy, scarcely a valid one; and the second, that those students who present themselves for the Intermediate M.B. Examination "in due course"—that is to say, in two years after having passed the Preliminary Scientific Examination—may be practically excluded from the competition for Honours. It is only reasonable to ask, if the University of London aims at restricting the competition for Honours in any subject to specialists in that subject, that such should be definitely stated in the regulations. Specialists in even one of the four subjects of the Intermediate M.B. Examination are scarcely to be produced, under ordinary circumstances, in two years at a medical school.

I may mention, in passing, that a very general opinion appears to prevail that the whole system of competition for Honours at the University of London needs revision. At present there is nothing to indicate the relative standing in point of seniority of the competing candidates, and a man on his first attempt at an examination may be pitted in the Honours competition against, and beaten by, another several years his senior, who has tried the examination one or more times previously without success. Of the unfairness of the competition there will be no record: the result only will remain.

As regards the new regulations at the Intermediate M.B. Examination, however, I think you will agree with me that they are scarcely likely to satisfy the prevailing wish for revision. They tend either to encourage men to postpone the examination and prolong their ante-clinical studies, or to lower their standard of work. They are not likely to add popularity to the University of London examinations, which are already not too popular among students or teachers.

I am, Sirs, yours truly,

VINCENT D. HARRIS, M.D. Lond., F.R.C.P.,
Demonstrator of Physiology at St. Bartholomew's Hospital.
Wimpole-street, Cavendish-square, W., Jan. 1887.

THE PROPOSED JUBILEE HOSPITAL.

To the Editors of THE LANCET.

SIRS,—The proposal to found another special hospital for the treatment of diseases of the throat, ear, skin, eye, rectum, &c., is not likely to meet with general approval. There already exists in London a number of special hospitals devoted to the treatment of these diseases, in addition to the facilities afforded by all the general hospitals. As a consequence, it is a notorious fact that many of the patients seeking relief at these special hospitals do not belong to the class of the indigent poor, for whose relief alone money is subscribed by the public. If, however, it is thought advisable to commemorate the Queen's Jubilee Year by the foundation of a Queen's Jubilee Hospital, there is a class of cases for which, it seems to me, hospital accommodation is required. I refer to cases of chronic but curable diseases, such as spinal abscess, diseases of joints, suppuration of joints, &c. Although cases of spinal abscess, especially in adults, were formerly practically incurable, we have now ample evidence that, if the cases are treated strictly aseptically from first to last, a very large proportion will recover completely. Unfortunately the time required for cure is long, on an average eight to ten months, and sometimes much longer, and this lengthy treatment can only be carried out in exceptional cases and with great inconvenience in a general hospital. The aim of these hospitals is to do the greatest good to the greatest number, and if a considerable proportion of the beds is occupied for months by these chronic cases the efficiency of the institution is seriously impaired, and cases requiring urgent treatment have to be rejected for want of room. Hence one of two things usually happens. Either the cases are not admitted at all, the abscess is allowed to burst, and the patient ultimately loses his life from prolonged suppuration and its consequences

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or, if the patients are admitted, they are only kept in and treated aseptically till the discharge becomes slight, and then they are dismissed and relegated to the out-patient department. In most of these cases the whole benefit of the stay in hospital is undone, and the patient goes steadily down-hill. For, however efficient the apparatus employed to give support and fixation to the diseased part, the home surroundings and hygienic conditions are as a rule wretched, and the food unsuitable in quality and deficient in quantity, while the patient as soon as he is discharged from the hospital may have to earn his living. And more serious than these are the risks to the continuance of strict aseptic treatment: the patient finds it inconvenient to come to the hospital on the day he is told, and the dressings are left on too long, or he finds the wound uneasy or itchy, and takes off the dressings with the view of giving relief; or when he comes to the hospital, especially if it be a large hospital, his wound is not dressed by the surgeon or the house-surgeon, but, it may be, by some dresser who has had insufficient experience of antiseptic work. For one or other of these reasons, when a patient is dismissed from hospital before his wound is completely and thoroughly healed, fermentation, as a rule, ultimately occurs, and he is very little better off than if he had never been taken in at all. I am constantly meeting with such cases, more especially in the case of children, where patients present themselves with septic and suppurating wounds who have been in other hospitals for some weeks, and have then been sent out to be treated as out-patients. I do not at all mean to imply that this is any fault of the surgeon in charge of the case, or of the hospital at which it was treated; it results entirely from the fact that in a general hospital one cannot allow any large number of beds to be occupied for an indefinite time by the same cases. It is no exaggeration to say that there is a pressing necessity for an institution where patients, provided their diseases are curable, can be kept as long as is necessary and treated strictly aseptically, and that if such an institution existed many lives would be saved which are now lost.

In speaking of spinal abscess it must not be supposed that I mean that that is the only or, indeed, the chief class of cases for which this sort of accommodation is necessary. It is equally required for other chronic but curable cases—as, for example, diseases of joints. The same remarks apply to advanced joint disease as to spinal abscess; and it may be added further that excision, which is not always good practice, would not be so often resorted to were it not that it is necessary to shorten the stay of these cases in hospital.

A great deal more might be said in support of this suggestion, but I think I have said enough to show why I hope that the energies of those who wish to promote a Queen's Jubilee Hospital may be expended in the direction which I have indicated, rather than on the foundation of a special hospital for which there is no public necessity.

I remain, Sirs, yours faithfully,

Welbeck-street, W., Jan. 22nd, 1887. W. WATSON CHEYNE.

THE TERM "SPAYING."

To the Editors of THE LANCET.

SIRS,—I cannot say much in respect of your critical research on this subject if you believe, as certainly is asserted in your article in THE LANCET of to-day, that the word "castration" is the analogue in the male for "spaying" in the female. It is not so; the proper word so to use is "gelding." Both these terms mean the removal of the essential sexual organs of immature animals to prevent the access of sexual maturity, and they both mean the double operation. "Castration" has no such meaning, and it may be either single or double. To apply this term to removal of the uterine appendages, as is done by the Germans, is an error in classics, but otherwise not very objectionable. The word "spaying" is, however, eminently objectionable, for it is entirely misleading. Whenever used, it at once conjures up the idea of masculine voice, the growth of a beard and other male peculiarities, as well as the loss of sexual appetite, not one of which is an incident in the complete after-history of a case of removal of the diseased uterine appendages from a mature woman. It is a term, therefore, which ought not to be used, as well for the other reason, which you so trenchantly point out, that it is one of reproach to the poor sufferers who have had to submit to it. There are many other and very strong objections to this unnecessary term which I have already urged and need not repeat here.

I am, Sirs, yours truly,

Birmingham, Jan. 22nd, 1887. LAWSON TAIT.

THE PETITION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS TO THE PRIVY COUNCIL.

To the Editors of THE LANCET.

SIRS,—Without attempting at present to give a detailed analysis or a final summing up of the signatures to this memorial received by us, we may state that up to date we have over 4000 names of Members of the Royal College of Surgeons appended to it, and that each post still brings in numbers of signatures in reply to our issue of copies of this petition. Already, therefore, you will see that our demand is most strongly backed up by Members of the College, and should have enormous weight with the Privy Council. Of course, however, we are still desirous of receiving additional names to add to the petition, though its success appears to us now assured. As our time is just now so much occupied in the reception and arrangement of these forms, perhaps you will excuse any further details for the present.

We are, Sirs, your obedient servants,

Jan. 26th, 1887. WARWICK STEELE, WM. ASHTON ELLIS, } Hon. Secs. Assoc. of M.R.C.S.

ARTERIAL PRESSURE.

To the Editors of THE LANCET.

SIRS,—Dr. George Johnson's letter is satisfactory so far as it explains one possible form of blood pressure—that produced in the large elastic arteries from constriction of the minute arterioles. But this does not cover the whole ground. In the first place, I do not understand Dr. Brunton to refer exclusively to the large elastic arteries when he states that tension and pressure are synonymous terms. On the contrary, I understand this expression as a universal one, applicable to all areas. Indeed, there are many passages where he distinctly implies so; as, for example, dilatation of the renal arterioles increasing the pressure in them. Are we to suppose, when constrictive impulses travel along the vaso-motor nerves, that the peripheral ends of the arterial system are contracted, and the pressure in them lowered, while the more central parts are dilated, and have their pressure increased? If this is the correct reading, how are we to understand the following statement at page 231:—"If the arterioles are made to contract, the pressure rises, but the increased pressure stimulates the vagus roots in the medulla." Surely the vagus roots would be affected by the arterioles, whose lumen is contracted and whose pressure is lowered; certainly not by any large elastic artery, where only is the pressure increased.

I remain, Sirs, your obedient servant,

East Greenwich, Jan. 25th, 1887. W. NICHOLSON.

TREATMENT OF THYROID CYSTS.

To the Editors of THE LANCET.

SIRS,—After reading a paper on the above subject at the Clinical Society on Jan. 14th, Dr. Felix Semon, who was present but did not take part in the discussion, mentioned to me that he thought someone had previously adopted the method of stitching the cyst wall to the skin; but as he could not give me more exact information without reference, he would write and tell me if it were so. The following information, to me quite new, which he was kind enough to communicate by letter, is so important that I feel I ought to ask you to give it publicity:—"I find on reference that the proposal was made, and acted upon, not less than thirty years ago by the younger Chelius (*vide* Chelius' 'Handbuch der Chirurgie,' vol ii., p. 463, 1857), and that it has been referred to since with approbation by Bardeleben and Lücke (in Pittra Billroth's 'Chirurgie,' Band iii., Abth. i., Lieferung 6, p. 83), and mentioned by myself in Heath's 'Dictionary of Surgery,' vol. ii., p. 619)."

I am, Sirs, yours truly,

Leeds, Jan. 25th, 1887. A. W. MAYO ROBSON.

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MANCHESTER.

(From our own Correspondent.)

OWENS COLLEGE.

FOR the third time within a comparatively short period the College has lost by a sudden and unexpected death one of the members of its teaching staff. On Friday night last Mr. W. H. Waters, M.A., the senior demonstrator with Professor Stirling in the physiological laboratory, died in bed from what appears to have been an epileptic seizure. He had been at work as usual at the College in the afternoon, and his death has come as a great shock to all connected therewith. During the interregnum between Dr. Gamgee and the appointment of Professor Stirling, Mr. Waters had entire charge of the physiological department, delivering the lectures and superintending the work of the laboratories. Hulme Hall (the new hall of residence for students) was opened this month, where at present thirty students can be accommodated. The sanitary arrangements of the building have received special care and attention, and the comfort of the students, both in their studies and their amusements, has been well cared for. Under the will of the late Mr. A. Heywood, the College receives £10,000, which the donor desires shall be used, so far as the rules and regulations of the College will allow, for "the instruction of women and girls in the said College." As years roll on, it may be fairly expected that the different colleges of the Victoria University will become possessed of ample funds for carrying on the various branches of their work; it has but recently been announced that Mr. Harrison of Liverpool has given £10,000 to the Liverpool College to found a chair of Engineering there. The proposed application to the Government for a grant out of the Imperial exchequer on behalf of the Victoria University is receiving the support of most of the municipal bodies of this and adjoining counties.

HOSPITALS.

Amongst the hospitals, &c., benefited under Mr. Heywood's will St. Mary's comes in for £200. This time the Royal Infirmary receives nothing. From a return published for the six months ending Dec. 31st, it appears that the number of patients under treatment at the Infirmary and its allied branches, the Convalescent and Fever Hospitals, has been in considerable excess of those of the corresponding six months of the previous year. The largest increase has been at the Fever Hospital, where 914 patients have been admitted, against 569 in the foregoing year, owing to the great prevalence of scarlet fever during the past few months. At the three hospitals there has been a total increase of 713 in-patients and 2790 out-patients. At the Infirmary no special festivities were held at either Christmas or New Year tide, the authorities having apparently set their faces against anything of the sort during the last few years, though formerly some very pleasant entertainments were got up at these seasons. At the Children's Hospital, Pendlebury, at the Ancoats, the Clinical, and the Royal Eye Hospitals, entertainments were much enjoyed; the inmates of the latter hospital were mainly indebted to its indefatigable chairman, Mr. Alderman Goldschmidt, for their evening's feast and amusement. It is worthy of note how the various boards of guardians differ as to the supply of beer to the inmates of the workhouses at Christmas time; in Salford and Manchester no beer was allowed, whilst at Withington and Prestwich the adults were supplied with a pint each.

SOCIETIES.

The annual meeting of the Medical Society disclosed a satisfactory condition of the Society's affairs. Both financially and numerically it is flourishing. A proposal was alluded to of attempting to raise funds for the erection of a building of its own for the purposes of library and of meetings, but at present this project is deferred, and, indeed, seeing how well at present the Society is housed at the College, it would scarcely appear to be necessary. It seems to have almost passed into an unwritten rule now that the president should hold office for two years, and in accordance therewith Mr. Hardie was re-elected for the ensuing year. The Pathological Society continues to increase and flourish, and a very pleasant feature is the exchange of courtesies between this Society and that of Liverpool by the attendance (as has been the case recently) of members from the two cities at each other's meetings. The Medical Society might also well take a leaf out of its younger rival's book in the provision at its meetings of tea and coffee prior to the commencement of business.

Many of your readers will hear with regret of the ill-health of Mr. Scott, the genial and obliging secretary of the Manchester and Salford Association and its allied societies. A testimonial from a number of his friends who appreciate his services in connexion with the above was recently presented to him, in the shape of a purse of £100.

Manchester, Jan. 25th.

BIRMINGHAM.

(From our own Correspondent.)

POST-GRADUATE LECTURES.

YET another series of advanced lectures is advertised; this time under the auspices of the Medical Institute, on the subject of Bright's Disease. No one can have any excuse for not becoming acquainted with the modern views embraced in these courses of lectures—that is, if he can find time to attend them. What with work and worry the busy practitioner generally has his hands pretty full, and however he may be disposed towards the attainment of knowledge, he may reasonably ask, "Which of the learned, with all his love, hath leisure to be wise?"

A SUGGESTION FOR TEMPERANCE REFORMERS.

A novel suggestion has been made by an enthusiastic advocate of the temperance cause, the practical application of which, could it be carried out, might probably be productive of some good. He says: let a certain number of barmaids from various public-houses attend the casualty rooms of the hospitals, on Saturday nights particularly; when they will see for themselves the effects of drink and degradation in some of its worst phases. They will doubtless be stirred to higher motives in refusing to supply more drink to those who have evidently already had enough, and they will observe for themselves how missapplied in a given sense are the philanthropy and benevolence of those whose charitable aid supports these institutions and provides the best educated professional men and intelligent nurses to administer aid, not to the poor and deserving, but mainly to the debauched and debased through drink. Such is charity in its widest sense, and as such it knows no distinction between the thrifty and steady and the worst forms of social evils. Police-courts, on the other hand, take more note of human nature than charity. The contrast is worthy of attention.

DILAPIDATED DWELLINGS.

The so-called rookeries have ever been a subject of active condemnation on the part of the coroner, and a recent experience of his where the jury narrowly escaped tumbling through a rotten floor evoked a strong expression of regret that such tenements should be allowed to exist in crowded towns, where risks to life and limb, to say nothing of comfort, were so often conspicuous. Another oft-repeated and wise admonition on the part of the coroner will bear repetition—the treatment of

FAINTING AND SYNCOPE.

The common practice of raising fainting persons to a sitting or upright position is often sufficient to destroy the spark of life which remains. The death of an eminent statesman a short time ago gave opportunity to the coroner for emphasising this fact, and of pointing out how much more reasonable and sound it is to keep such persons in the prone position while restoratives and local means are adopted to enable them, if possible, to regain consciousness. Though inquiring into the cause of the appearance of the "shadow feared by man," the coroner is not unmindful that its advent is often preventable, and a due regard to the welfare of the living prompts him to give sage admonition as the result of his own experience of some frequent causes of death.

Birmingham, Jan. 27th.

THE annual meeting in connexion with the Newton Cottage Hospital and Dispensary was held on the 20th inst., when favourable reports were presented.

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NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

CURIOUS CASE: ACCIDENT INSURANCE.

A CURIOUS case, bearing on accident insurance and the legal and medical definition of an accident, has just been tried before before Mr. Justice Cave at the Newcastle Assizes. The widow of a late hotel proprietor brought an action against the Northern Accident Insurance Company to recover £1000 due upon an ordinary policy in the company. The deceased, it was shown, was a healthy man, but two or three years ago he had suffered from diabetes, from which he had recovered, and it had nothing to do with his death. He was not, as far as was known, suffering from any disease at the time of his death. It appears that in May, 1886, he was in his bedroom alone, and while cutting his corn the knife slipped and cut his foot. The wound was painful, but the deceased did not consider it serious, and after five days of domestic treatment the foot got into such a state that medical assistance was called in, blood-poisoning set in, and death ensued. Evidence was called to show that death was caused by the accident named. His widow was not aware that at the time of his death he was insured in the company, and when the policy was found the claim was sent in. The defence was that death arose from mortification caused by diabetes, and that no notice of claim was sent in within the time specified in the policy; but the judge overruled this, saying that "this was a ground for a counter claim only." Mr. Justice Cave, in giving judgment, said "he had come to the conclusion that the cut on the foot which was spoken of did lead to the production of the sore, which degenerated into gangrene and produced blood-poisoning, and so death. Deceased's actual health was not so robust as that of some men; it seemed to him impossible to say that the diabetes alone could be said to have so contributed to his death, but that the injury alone could not have so contributed within the meaning of the policy it was also impossible to say. No doubt he was a man of irregular habits, but to go so far as to say he was intemperate was another matter. If insurance companies did not intend to be liable in these cases, they must at once introduce some conditions to strike at them." His lordship gave a verdict for the plaintiff for £1000, but as the case was one fairly admitting of argument and discussion, he consented to stay execution on £1150 being paid into court.

SOUTH SHIELDS VOLUNTEER LIFE BRIGADE.

The Volunteer Life Brigade of South Shields is well known for its deeds of mercy and of daring in connexion with shipwrecks at the mouth of the Tyne. The *Newcastle Daily Chronicle*, in an appreciative article, mentions that since the formation of the brigade 180 persons have been rescued by means of the rocket apparatus, and adds that during its existence the brigade has been honoured with the services of an honorary surgeon. The first gentleman who held the appointment was the late Dr. Stokoe, and he has been succeeded by Dr. J. R. Crease, who has since been unanimously elected annually. It may be mentioned that the appointment of surgeons to the brigade entails services of the most arduous nature and exposure to the very worst weather, for it is only at such times that medical services are needed.

BOROUGH OF TYNEMOUTH INFIRMARY.

It is now stated that the foundation-stone of the new building is fixed to be laid on the Jubilee day in June next, on land presented by the Duke of Northumberland. The building fund was opened only a month ago by a donation of 200 guineas from Mr. R. S. Donkin, the borough member, and it was much augmented by an Art and Industrial Exhibition held at Tynemouth about the same time.

NEWCASTLE INFIRMARY.

Owing to the length of my letter last week, I was unable to give you the recommendations of the special committee as to the future election of the honorary medical staff, and which will be duly appreciated by candidates:—"They desire to call attention to the very unsatisfactory method under which the election of the honorary medical staff is conducted. On the skill of these gentlemen the reputation and efficiency of the infirmary depend, yet their election is dependent on their skill as canvassers or the number of personal friends who canvass for them. This must always be the case when success depends upon securing a majority of the votes of a large body of subscribers who know little of the fitness of the applicants. The committee therefore recommend that in future all elections to vacant posts at the infirmary be placed in the hands of a committee of selection. Such committee might be the house committee or a special committee appointed for that purpose."

Newcastle-on-Tyne, Jan. 24th.

EDINBURGH.

(From our own Correspondent.)

DR. CLOUSTON ON SELF-CONTROL.

LAST week Dr. T. S. Clouston, Lecturer on Mental Diseases in the University, delivered an address on Science and Self-Control, under the auspices of the University White Cross Society. Viewing the subject from a purely scientific standpoint, and in the light of his large experience, the lecturer traced the relation of the reproductive functions to the general activities of the human economy in the various stages of life. The developmental phases of the question occupied the greater part of the address, and it was demonstrated in a most interesting way, from the evolutionary point of view, that the premature expenditure of energy in that direction results in racial deterioration, if not extinction. Numerous illustrations from the history of human and animal races were cited to show the wise checks and penalties ordained by Nature's laws for the preservation and elevation of her types. Dr. Clouston also stated a physiological law of the transformation of vital energy, accurately corresponding to that of the physicist, showing that the various physiological activities of man are correlative to, and to a great extent substitutional for, one another; the substitution of one form for any other less adapted to normal existence in its several phases being carried out by the will of the individual appropriately directed, or by the exigencies of his environment. This law of the conservation and transformation of vital energy was illustrated by reference to the very specialised manifestations of human activity produced by particular combinations of natural or fortuitous surroundings. The lecturer shortly and aptly pointed the moral to be derived from the scientific principle thus established. In addressing an audience of undergraduates, who in their turn must become the teachers and exemplifiers of healthy living, wherever their lives may be spent, he laid stress upon the importance of a due balance between the various forms of vital activity in human life, and showed how the possession of self-control supplied the only key to its attainment. Professor Chiene, who occupied the chair, warmly coincided in Dr. Clouston's views, and hoped that the able expression of them to which he had listened would be rendered permanently and widely useful by the publication of the address; a hope also expressed by Professor Calderwood, who supported the proposal of a vote of thanks to the lecturer.

EDINBURGH UNIVERSITY COURT.

At a recent meeting the Court adopted a minute expressing the deep sorrow and the great loss occasioned to the University by the death of Lord Iddesleigh, and directed that a copy of the minute should be sent to the family of the deceased earl. Lord Balfour of Burleigh was appointed one of the curators of patronage of the University for a term of three years. A number of appointments to examinerships in the Medical Faculty were then made. In Materia Medica, Dr. C. D. F. Phillips of London was appointed, in the room of Dr. Murrell; in Physiology, Dr. Noël-Paton takes the place of Dr. Caton; in Pathology, Dr. Sims Woodhead succeeds Dr. Sidney Coupland; in Surgery, Dr. James D. Gillespie has been succeeded by Mr. Watson Cheyne; and in Clinical Medicine, Dr. Byrom Bramwell by Dr. J. D. Affleck. These appointments are for a period of one year, but their occupants are eligible for re-election annually till a term of five years has been completed; and it is customary for them to retain office for that length of time. The University Court also recognised the courses on Pathology and Practical Pathology held by Dr. Alexander Bruce as qualifying courses in the University medical curriculum; and a similar recognition

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was continued in the case of Dr. Peter Young's lectures on Midwifery, on his removal to new class-rooms.

PROPOSED CONVALESCENT HOME FOR FEVER PATIENTS.

A proposition is at present under consideration by the city authorities as to whether they cannot establish a convalescent home for patients treated in the city fever hospital. At present there are frequent cases of patients leaving the fever hospital recovered only so far as an early stage of convalescence, and it is felt that could care and good nursing be extended to these for a somewhat longer period, away from the fever wards, it would greatly enhance the usefulness of the institution. The City Assessor is to be consulted on the question.

Edinburgh, Jan. 25th.

DUBLIN.

(From our own Correspondent.)

DEATHS OF EMINENT MEDICAL MEN IN DUBLIN.

WITHIN the last few days two well-known practitioners have been taken away. One of these, Dr. Denham, an ex-president of the Royal College of Surgeons in Ireland, had for some years retired from practice; but Dr. Henry Kennedy, who succumbed on Monday last, was in active practice until his last illness. I trust next week to be able to refer at greater length to the last-named gentleman, whose loss is deeply regretted by a large circle of friends.

ACADEMY OF MEDICINE IN IRELAND.

At the last meeting of the Surgical Section of the Academy, Mr. Henry Fitzgibbon read a very interesting paper on a case of Trephining for Mastoid Disease, with Paralysis and Aphasia. The patient recovered perfectly, although before the operation death was imminent. In the discussion which ensued. Mr. Wheeler, who recommended the procedure in 1883, stated that by this operation the tympanum, mastoid cells, dura mater, and the temporo-sphenoidal lobe were successively exposed.

BRITISH MEDICAL ASSOCIATION.

The annual meeting of the Dublin branch will take place on Thursday, the 27th inst., when the following motions will be brought forward: "That the Council be requested to take such steps as may be necessary to bring before the various teaching bodies in Dublin the necessity of providing systematic instruction in pathology." "That quarterly meetings of the branch are essential for carrying on the work of the Association." A paper will also be read on "Medical and Hospital Reform in Dublin."

INQUIRY AT MERCER'S HOSPITAL, DUBLIN.

The Corporation inquiry into the alleged ill-treatment of the patient Farrell, in Mercer's Hospital, closed on Saturday. The committee came to the unanimous conclusion that Farrell had received proper care; that he had been supplied with proper food during his illness. They considered that the conduct of the matron was justified throughout, and that Mr. Newcomen's conduct to her was unjustifiable; that Farrell had not been ill-treated, and that he received the most anxious care and attention from Dr. Kennedy. The committees further report that on Aug. 4th Farrell's condition made it probable that he might at any moment be seized with paroxysms of homicidal or suicidal mania, and that he should therefore be put under proper restraint. With reference to the conduct of the matron, the committee were of opinion that there was absolutely no evidence that she had neglected her duties, but, on the contrary, abundant proof that she had discharged them efficiently. The committee finally report that in their belief the allegations made against the institution originated in a concurrence of trivial circumstances, and that the management of the hospital was effective and humane.

DUBLIN HOSPITAL SUNDAY FUND.

I regret to state that the collections made in aid of this excellent charity on the 14th of last November show a decided falling off as compared with the previous year. In 1885 the amount obtained came to £4468 5*s.* 8*d.*, and last year to £4158 0*s.* 3*d.*, or a decrease of £310 5*s.* 5*d.* It must, however, be stated that the collection in 1885 was the highest obtained since the fund was organised. It may be interesting to add that the total amount collected since 1874 amounts to £50,058 6*s.* 2*d.*

BITE FROM A MAD FOX.

Lord Doneraile, of Doneraile Court, county Cork, and his coachman were recently bitten by a tame fox, which was affected with rabies. Although his lordship had on his gloves at the time, yet it has been thought better to take every precaution, and he and the coachman have proceeded to Paris, to be placed under the care of Prof. Pasteur.

The death is reported at an advanced age of Dr. O'Connell, of Kilmallock. The deceased at one time was a surgeon in the British army.

John Bryan, M.D., of Pettigo, has been placed on the Commission of the Peace for the County of Donegal.

Dublin, Jan. 25th.

PARIS.

(From our own Correspondent.)

THE DISCUSSION ON RABIES.

THE discussion on rabies was resumed on the 18th inst., the interest in the question being so great that it was difficult to obtain standing-room even in the passages. M. Peter read particulars of two new cases, communicated to him since the last meeting, in which death had taken place from the paralytic form of rabies after the intensive inoculations. A stonemason and his son were bitten on Nov. 8rd by a mad dog, and were treated in Paris from the 7th to the 21st of the same month. On Dec. 2nd the father was seized with violent pains at the seats of the inoculations in the head, the loins, and the limbs, and with general prostration. On Dec. 7th he had complete paraplegia with anæsthesia, or rather painful analgesia, as the pains were still felt in the limbs. There was no difficulty of deglutition, delirium, or convulsion, but slight hallucinations of hearing the day before his death, which took place on the 8th. These cases of paralytic rabies continue to occur, said M. Peter, and yet the partisans of the intensive method still ignore its dangers. The cases are explained away either by the doctrine of limitation or by attributing the death to some pathological condition, such as uræmia. The child, who was said to have died from uræmia, had not even had his play interfered with by the headache that always precedes a fatal termination. He had had neither eclampsia, coma, nor delirium. He had had dyspnœa and difficulty of deglutition, symptoms referable to the pneumogastric and glosso-pharyngeal nerves; and these, it must be recollected, have their origin in the parts of the nervous centres affected in rabies. The death of the man at Constantine had not been put down to uræmia, but no one knew exactly what he had died of. In the six cases brought forward the incubation had been from thirty-six to thirty-nine days, and death had occurred from paralysis, whereas ordinary rabies occurs after forty days, and is convulsive. M. Brouardel had quoted M. Von Frisch. It should be known that the Viennese Professor of Bacteriology had been sent to Paris on behalf of a committee of ladies interested in Pasteur's experiments, and that his sympathies were all in favour of the method; but when asked on his return what was his impression, he replied diplomatically, "I think that it is well to continue the investigation." The first ten conclusions of his report of his subsequent experiments were favourable to M. Pasteur's method, and were quoted by M. Brouardel in his last communication to the Academy; but the other six conclusions were absolutely condemnatory of it (see THE LANCET, p. 50). Consequently, both clinically and experimentally, the intensive method was dangerous—unlike the first method, which, if inefficacious, was at least harmless. As long as Pasteur's experiments remained purely physiological, they deserved the greatest praise and admiration; but the line must be drawn at the point where they are applied to human medicine. The anti-rabic inoculations originated in the following conception: Was it not possible to prevent the ulterior appearance of rabies by inoculation during its incubation with an attenuated virus, similar to those which had already been obtained for

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other diseases? For his previous attenuated viruses M. Pasteur had made microbic cultures in bouillon, the attenuation being obtained by the action of oxygen through time. But this method was not applicable to rabies, the microbe of which was unknown. The ingenious idea occurred to him of passing the virus through a succession of living organisms, and it was found that the virulence of the monkey vaccine, so obtained, was attenuated, whereas that of the rabbit was intensified. This intensified virus was found to be attenuable by exposure to air, and M. Pasteur was able to obtain a series of decreasingly virulent viruses, the progressive inoculation of which, beginning with the weakest, prevented the appearance of rabies after infection with the most virulent. Thanks to this "Mithridatisation," a dog could be made refractory to rabies, and, what was even more extraordinary, a dog already bitten could also be rendered incapable of developing the disease. At this juncture a young man who had been badly bitten by a mad dog (J. Meister) offered to make a trial of the method. The case was delicate, but, after consultation with MM. Vulpian and Grancher, the treatment was applied, and four months later the result was made known to the scientific world, and it was proclaimed by M. Vulpian that a certain remedy had been found for hydrophobia. What had been the results of the method during the last year? In his article upon "Rabies" in the Encyclopædic Dictionary, M. Brouardel gave *thirty* as the average annual mortality for twenty-seven years in France. This was exactly the number of deaths for the last year—sixteen not inoculated, fourteen inoculated. After a fresh protest against the intensive method, M. Peter said: "I must be moved by a profound conviction to come here to discuss a treatment that has been adopted by the most eminent representatives of French medicine, and so risk my popularity and the sympathy of the Academy, which I prize above all. If I do so, it is because the new method seems to me not only dangerous, but rash, and I cannot help saying to M. Vulpian, *à propos* of his enthusiastic speech at the Academy of Sciences, 'What! you, an experienced physician, and a member of the Academy, did not understand that a single case proves nothing in therapeutics! You could not see that the patient had the same five chances out of six that we all have of escaping rabies after a bite from a mad dog! Why proclaim with enthusiasm what should have been made the subject of sober examination? Why conclude so hastily from the laboratory to clinical application? An eminent physician like you should have dissuaded rather than encouraged M. Pasteur, and I do not hesitate to declare that the words pronounced by M. Vulpian might compromise the Academy of Sciences, M. Pasteur, and M. Vulpian himself.'"

M. Vulpian, who was received with applause, said that he was proud of what he had done on the day he pronounced the words alluded to by M. Peter, and that he was prepared to repeat them to-day. Nothing could be grander from a humanitarian point of view than M. Pasteur's work, and it was a pity that M. Peter had chosen the hour when he was absent through illness to make his attack. "What can be M. Peter's object? Surely not to prove that the method had sometimes been unsuccessful. That has been admitted by M. Pasteur himself. M. Peter has accused M. Pasteur of concealing facts. This is untrue. In each of his statistics the rare failures have always been mentioned. M. Peter relies upon the statistics to show that the method is inefficacious; but all those who have examined them without bias have recognised that they afford a striking proof of the preservative value of the method. He endeavours also to show that the intensive method is dangerous. Stripping his language of all artifice, M. Peter in reality accuses M. Pasteur and all his assistants not only of a grave error, but even of involuntary homicide. His propositions may be formulated as follows: (1) M. Pasteur's anti-rabic method is dangerous, as it may communicate rabies to those who are so treated. (2) The method is inefficacious. To prove that the anti-rabic method is dangerous, M. Peter has brought forward a small number of cases where death, according to him, is attributable to what he terms the "collaboration" of the two viruses forming, to use his own expression, the canino-experimental virus. As regards the cases seen in England, the certificate of death of Wilde sent to M. Pasteur is formal, indicating pulmonary disease as the cause. The cause of death in the case of Smith is more obscure, but until Mr. Horsley's report is published it should not be brought into the discussion. In the observations that have been obtained at home (in France) M. Peter has noted the occurrence of general fatigue (*courbature*) in the patient as a proof that the *materies morbi* was derived from the rabbit. But where did M. Peter recognise this fatigue in rabbits? and by what feat of imagination can he see in the fatigue of the patient the proof of rabbit-derived infection? The pains at the seat of the inoculations have no diagnostic value. All sorts of sensations may occur after inoculation, and it is possible that, with the development of rabies, any existing wound may become painful. If we knew more about this disease—if, for instance, we knew for certain that rabies never occurred in a paralytic form in man—the paralytic symptoms adduced by M. Peter would have more importance. But this is not the case. Not only is it probable that the paralytic form of rabies will soon become a recognised variety, but it has even been described in a Paris thesis published before the application of M. Pasteur's intensive method, and consequently written without partiality. Van Swieten also quotes a case which occurred in 1684, and which is reported in the Philosophical Transactions by Dr. Roger Howman." M. Vulpian read several observations of the kind, and added that "we cannot, without committing a grave mistake, attribute the paralytic symptoms of rabies occurring in those who have been submitted to the intensive treatment to the effect of the rabbit virus. The rabbit-derived virus, indeed, does not always give rise to paralytic symptoms; in the dog so infected the rabies is of the furious kind. To return now to M. Peter's assertion that the method is inefficacious and irrational, having failed 'lamentably.' How can we lay down the law in such matters? This is not a question of theory, but of fact. M. Peter knows as well as anyone that the overwhelming proofs he speaks of do not exist. He bases his examination of the results upon an old statistical return of the number of deaths occurring annually in France from rabies, from which it would appear that, notwithstanding the preventive inoculations, the mortality remains the same. But these statistics are perfectly unreliable, and when quoted by M. Brouardel, the remark was added that the mortality was no doubt much greater than appeared. It has been pointed out repeatedly that fourteen cases have died after inoculation, and that sixteen deaths have occurred in individuals who have not undergone the preventive treatment. Adding the two together the mortality has been the same as the average—that is to say, thirty deaths in all, and it has been concluded by a comparison of the numbers of deaths that the chances were only as sixteen to fourteen in favour of the inoculated. But the truth is, the vast majority of those bitten have submitted to inoculation, and the *fourteen* deaths have occurred in 1726 cases, giving a mortality of less than 1 per cent., whereas the *sixteen* fatal terminations have occurred in a small minority, probably not more than a hundred cases, and give a mortality of 16 per cent., which is about the average mortality from rabies after dog-bite. Taking this figure, 16 per cent., as the basis of our calculation, of the 1726 persons treated, by M. Pasteur 276 would have died. Subtracting those who were not saved by his method, there remains 262 persons who owe their lives to M. Pasteur. And this is the lamentable failure of which M. Peter speaks! M. Peter's objections stand upon no solid foundation, and they are without value. The method of M. Pasteur is entirely free from danger, and nearly always preserves from rabies. It is successful even in an unhoped-for degree." M. Vulpian, whose speech was received with enthusiastic applause, was followed by M. Brouardel, who went over much the same ground. He read passages from the observations of Van Swieten, and quoted from the thesis of Dr. Roux to show that there was a paralytic form of rabies in man. He maintained also that there could be no question as to the value of inoculation as a criterion of rabies in obscure cases. M. Peter's attempt to discredit its certitude was useless, the results obtained by this means of investigation having been uniformly constant.

The *Semaine Médicale* of the 19th inst. publishes the account of a conversation on M. Peter's communication between M. von Frisch and its Vienna correspondent. Professor von Frisch says M. Peter is wrong in concluding that the cases he has brought forward died of rabbit-derived disease. The laboratory virus does not always give rise to a paralytic rabies, and the only proof that death had been caused by the inoculations would be the production of the dog, for whose bite the treatment had been undertaken, in a state of health. Since the publication of the results of his

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first experiment M. von Frisch finds that "dogs which have been treated by the intensive method without previous infection with street-rabies have invariably succumbed."

The Pasteur Institute has lost nothing by M. Peter's contentions. The last three subscription lists have brought in 129,000 francs.

The following statistical account was distributed to the members of the Academy:—

General Statistical Account of French and Foreign Patients treated at the Pasteur Institute up to December 31st, 1886.

Persons bitten and treated	2682
Deaths	31
Mortality	1·15%

Persons bitten by animals known to have been rabid, either by experimental proof or veterinary observation:

Bitten	2164
Deaths	29
Mortality	1·34%

Persons bitten by animals suspected of rabies:

Bitten	518
Deaths	2
Mortality	0·38%

Statistics of French and Algerian Patients treated up to December 31st, 1886.

Persons bitten and treated	1929
Deaths	18
Mortality	0·93%

Persons bitten by animals known to have been rabid either by experimental proof or veterinary observation:

Bitten	1538
Deaths	19
Mortality	1·04%

Persons bitten by animals suspected of rabies:

Bitten	391
Deaths	2
Mortality	0·57%

Statistics of Bites about the Head and Face.

French and foreigners bitten and treated	214
Deaths	10
Mortality	4·66%

Persons bitten by animals known to have been rabid either by experimental proof or veterinary observation:

Bitten	186
Deaths	9
Mortality	4·83%

Persons bitten by animals suspected of rabies:

Bitten	28
Death	1
Mortality	3·57%

Comparison of the Simple and Intensive Treatments.

Bites about Head and Face.

Persons bitten by animals known to have been rabid either by experimental proof or veterinary observation:

French and foreigners bitten and treated	186
Simple treatment	136
Deaths	10
Mortality	6·66%
Intensive treatment	50
Deaths	0
Mortality	0

Statistics of Persons Bitten by Rabid Wolves.

Persons bitten	48
Deaths	7
Mortality	14%

Three of these deaths occurred during the treatment. They are, however, comprised in the return, and count in the percentage.

Persons who have Died after Treatment.

French.

Pelletier, Videau, Lagut, Bouvier, Clédière, Peytel, Leduc, Magneron, Astier, Moulis, Moermann, Clergeot, Jansen, Grand, Sodini, Leteng, Née, Gérard.

Note.—Pelletier and Moermann came for treatment thirty-five days after the bite.

Persons treated who have died of different Diseases.

Christin, meningitis (Dr. Genoud); Duresset, pulmonary disease (Dr. Yot); Rouyer, uræmia (report of Dr. Brouardel); Réveillac, unknown.

Note.—Goriot's case (a recent one) will figure in the 1887 statistics, death having occurred on January 16th.

Foreigners.

Ivanowa, Russian; Gagou, Roumanian; Zotoff, Russian; Nyasnikoff, Russian; Glutza, Roumanian; Lecudet, Dutch; Nikiforoff, Russian; Guardia Ribes, Spaniard; Pita, Spaniard; Requego, Spaniard; Berqui, Italian; Collinge, English; Smith, English.

Note.—Ivanowa was seized with symptoms six days after treatment; Gagou the day after the end of the treatment; Nikiforoff came a month after the bite; Requego thirty-four days after the bite. These count in the percentage.

Person treated dying of other Disease.

Wilde, Arthur, pulmonary disease (Dr. Foote).

FLORENCE.

(From our own Correspondent.)

FOR the present in Italy Florence is the centre of sanitary interest, owing to the charges brought against her salubrity by non-medical correspondents in influential journals. In the first quarter of 1886 there were, it seems, fifty-one deaths from typhoid and five from diphtheria; whereupon the foreign visitor was loudly warned to keep outside her gates until her municipality had purged her of the disease-producing causes. The Società d'Igiene, however, has just issued a report which proves Florence to have a lower death-rate than any other Italian town of approximate size; and that, as to typhoid, she ranks ninth among the thirteen great Italian cities in mortality from that disease. The document is a carefully compiled one, and is signed by the President of the Society, Dr. Paoli, by the two Vice-Presidents, Drs. Faralli and Fenzi, and by six other office-bearers, well known in the medico-statistical world. A few extracts may be useful to those of your readers who are asked (as is usual at this season) how far this or that Italian town is safe for the English sojourner.

In the quinquennium 1881-85 Florence had 811 deaths from typhoid, thus distributed: 202 deaths in 1881; 166 in 1882; 152 in 1883; 112 in 1884; and 179 in 1885. Except in 1885 there was thus in the preceding four years a progressive diminution. For the same quinquennium the mortality from every cause was 23·292, which (the typhoid deaths being 811) gives 34·8 victims to this disease per 1000. The population of Florence according to the census of 1881 being 169,001, there were in every 10,000 inhabitants 9·6 deaths from typhoid—i.e., less than one per 1000 yearly. In fact, the annual mean of deaths from this cause was 162—that is to say, 13·5 per month. It is therefore manifest that the mortality of the first quarter of 1886 ought to have been 40·5, but that it was 51 by one of those accidental variations common to every fact in nature, to be compensated by an opposite variation, as indeed happened in the quarter immediately following, when the mortality from the same cause was only 32.

Another point. That the importance attached to the deaths from typhoid is exaggerated is shown by the fact that in the necrological tables typhoid appears among the other causes of death as occupying only the eleventh place, the order of sequence being this:—1, pulmonary phthisis; 2, inflammation of the respiratory organs; 3, organic affections of the heart and great vessels; 4, marasmus and the varieties of tabes; 5, determinate causes and others; 6, cerebral apoplexy; 7, cancerous cachexia; 8, pulmonary catarrh; 9, enteritis and peritonitis; 10, meningitis and encephalitis; 11, typhoid fever. Moreover, it is necessary to distinguish, in the total number of deaths, those victims

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who, having come to be cured in Florentine hospitals of diseases contracted in the outlying communes, have died in these hospitals. In the fifty-three months from July 1st, 1882, to Nov. 30th, 1886, out of 711 deaths from typhoid, 566 were of persons belonging to the commune of Florence, and 145 (rather more than one-fourth) were of the other category. With this legitimate deduction the deaths would be reduced to the much smaller mean of 128 per annum, and the mortality among the resident citizens would descend to 7·57 per 10,000 of the population yearly. Without this deduction, Florence still ranks only as ninth in mortality from typhoid, after Bari, Catania, Brescia, Leghorn, Palermo, Messina, Turin, and Milan; her death-rate from this cause being almost equalled by that of Naples, and slightly higher than that of Rome, Genoa, and Venice.

Yet another point. The observations on the mortality from typhoid made during the last six years have proved that there is no true centre of typhoid infection in Florence, the deaths having occurred in quarters of the city quite distinct and wide apart. With very few exceptions the malady has numbered its victims by preference, and almost exclusively among the very lowest in the social scale, who herd or huddle together in wretched habitations, whose life is a struggle with bad or insufficient food, foul air, scanty clothing, and neglect of every sanitary law. The Florence in which the English-speaking visitors congregate—the new Florence extending from the feet of the Colline di Majano, di San Domenico e del Pelegrino, up to the grand Viali, which separate it from the old city—offers hardly a case of typhoid to the statistician.

Finally, from the quite recent official publication of the Minister of Agriculture and Commerce it appears that at the end of 1885 the population of the Italian kingdom was 29,699,785, out of which in that year there were 737,217 deaths, which gives the proportion of 265·06 deaths per 10,000 of the inhabitants, or 26·50 per 1000. In Florence in the same year there were 4625 deaths, from which, deducting 720 as not belonging to the commune, there remain 3905. The population of the city up to that date being 173,063, the proportion of deaths that year was 225·64 per 10,000 inhabitants, or 22·36 per 1000—notably, therefore, lower than the general mean of the kingdom. To improve this state of things (relatively satisfactory as it is), the municipality will shortly put in practice new and extensive sanitary measures, chief among which is the daily flushing of the city drains, while the Società d'Igiene has appointed a commission, in concert with the great body of the practitioners, to examine the causes of typhoid at their source, and to aid the municipality in removing them.

Diphtheria, it is added, since the epidemic of fifteen years ago, has hardly been known in Florence.

Florence, Jan. 15th.

NEW YORK.

(From our own Correspondent.)

JOHN P. GRAY, M.D., LL.D.

THE death of Dr. Gray, superintendent of the New York State Lunatic Asylum, creates a vacancy among the alienists of this country which will not soon be filled. For over thirty years he stood in the front rank in his specialty. He made the asylum at Utica famous as a school in which were trained many of the more prominent asylum superintendents of this State. His own fame culminated in the trial of Guiteau, the assassin of President Garfield, when he appeared as the Government expert, and by his testimony as to the prisoner's sanity exercised so powerful an influence that prompt conviction followed. Dr. Gray was a man of massive physical as well as mental form and force, and while an autocrat in his field of labour, he was a most genial Christian gentleman, overflowing with sympathy for human suffering. Dr. G. Alder Blumer, the first assistant physician of the asylum, has been appointed Dr. Gray's successor. Dr. Blumer is of English birth, but was educated in this country, and has been on the staff of the asylum seven years.

QUARANTINE AT NEW YORK.

The quarantine of New York, always the most efficient in this country, has undergone marked improvements during the year. Detention as a quarantine measure has yielded to sanitary cleanliness and freedom from contagious diseases. So thoroughly has the health officer impressed upon the masters of vessels that cleanliness of their ships and healthiness of crew and passengers will be his test of their right to pass quarantine, that during the past year not a pound of cargo has been discharged in quarantine, nor has there been longer detention than was needful to make the necessary examinations. This is an entirely new experience in the management of quarantine with us, and is undoubtedly the beginning of a new era in the history of this old, cumbersome, and ineffectual method of preventing the introduction of foreign pestilences into our ports.

ABDOMINAL AND PELVIC SURGERY.

These new fields of operative surgery are being cultivated with an ardour among our surgeons quite astonishing. I have before me the cards of several hospitals announcing the operations in each on operating days. Abdominal section has the precedence. In one hospital four such operations are announced for one session. Cancer of the stomach, gall-stones, peritonitis, and uterine and ovarian affections are given as the objective points in the operations. Extirpation of the ovary for alleged hydro-, pyo-, or hæmato-salpinx is becoming alarmingly frequent. The question has been raised in the Academy, and none too soon. Is this operation required so frequently? One prominent gynæcologist stated in conversation that he had seen healthy ovaries that had been removed as in diseased conditions. The successful removal of a table-knife from the stomach by Dr. Bernays, of St. Louis, is one of the most recent achievements in abdominal surgery. The knife was nine inches and a quarter long, and lay transversely, the handle at the pylorus. The operator on exposing the stomach seized the handle, cut on it, and withdrew the knife; the patient did well. This is the second recorded operation for the removal of a table-knife from the stomach. The first was performed in 1791 by Schwabe, who extracted a knife six inches and a quarter long by the point; his patient recovered.

INTERNATIONAL MEDICAL CONGRESS: SECTION OF PSYCHOLOGY.

By the death of Dr. Gray this section was deprived of an energetic chairman, whose force and prestige would have ensured a successful session. His successor is Dr. J. B. Andrews, superintendent of the Buffalo Insane Asylum, New York State—a gentleman little less known as an alienist than his predecessor, and of equal force of character. He has begun the work of organisation with great energy, and will without doubt make the section one of the most interesting of the Congress. From present appearances the Congress will prove a great success. Every section is now well advanced in its preparation, and the profession of the States has become heartily and cordially enlisted in the work of organisation.

LABORATORY OF PRACTICAL HYGIENE.

Laboratories are increasing in this country. Several medical colleges have recently received endowments for departments for laboratory work. Recently the State Board of Health of Michigan petitioned the Regents of the University of that State to establish a Laboratory of Practical Hygiene, and the Regents have approved the suggestion, and will ask for the requisite appropriation.

January, 1887.

ROYAL COLLEGE OF PHYSICIANS.

AT the Comitia on the 27th inst., Sir W. Jenner, Bart., President, in the chair, the following gentlemen were admitted Members of the College:—Dr. G. A. Maconachie, Dr. J. A. Marston, Dr. Jas. Reid, and Dr. F. J. Smith.

A communication was read from the Royal College of Surgeons, with reference to the celebration of Her Majesty's Jubilee by the Colleges; and a Conjoint Committee was formed to consider the proposal.

Dr. Bristowe was nominated to the Committee of Delegates, in the place of Dr. Pye-Smith, resigned. Dr. Habershon, Sir Ed. Sieveking, Dr. Blandford, Dr. Sturges, and Dr. J. E. Morgan were elected to serve on the Council of the College.

The annual report of the Examiners was read, and a tabulated return showing the results of the several examinations was presented.

A report from the Committee of Management recom-

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mending the appointments of Mr. F. G. Hallett as secretary, and Messrs. W. Fleming and C. E. Scragg as senior clerks to the Examination Hall, was adopted.

On the recommendation of the Council, the title of the Certificate in Hygiene was altered to that of "Diploma in Hygiene," and it was resolved that the College of Surgeons be invited to join in the examinations for this diploma.

On Dr. Quain's motion, the resolution adopted on June 29th with respect to the Croonian Trust was referred to the Special Committee, to ascertain what further steps were necessary to carry it into effect.

A report was read from the delegates appointed by the two Colleges to deliberate on the best use to which the unoccupied ground on the Thames Embankment, belonging to the two Colleges, can be applied. The recommendation of the delegates, that the ground be utilised for the prosecution of research in, and the exposition of, subjects connected with medical science, was adopted by the Colleges.

Obituary.

JOHN DENHAM, M.D., F.R.C.S.I.

ON Friday, the 21st inst., Dr. Denham died at his residence at Kingstown, near Dublin, at the advanced age of eighty-one years. Dr. Denham was well known in Dublin, where he practised for many years as an obstetric surgeon, filling for seven years the important post of Master of the Rotundo Lying-in Hospital in that city. The deceased was born at Killeshandra in 1806, and was the son of a Presbyterian clergyman. He was apprenticed to Dr. Ephraim McDowel, one of the founders of the Richmond Hospital, where he commenced his studies. He graduated in medicine at the University of Edinburgh in 1831, and the following year obtained the licence of the Royal College of Surgeons in Ireland. He was elected a Fellow of the College in 1863, some time afterwards a member of the Council, and president in 1873-4. He was also an ex-president of the Dublin Obstetrical Society. Dr. Denham's health became impaired a few years since, and he retired from practice; the occasion being taken advantage of by his friends, both lay and professional, to present him with a substantial testimonial in 1885. His contributions to obstetric medicine included "Case of Inversion of Uterus after Delivery," "Puerperal Tetanus," "Case of Labour with Unruptured Hymen," "Operations for Ruptured Perineum," &c. He was married twice, his second wife surviving him, and leaves a son, who is a member of the profession and practises in Dublin. His remains were interred in Mount Jerome Cemetery on the 25th inst., the funeral *cortège* being a very large one.

HENRY MUNROE, M.D.

DR. HENRY MUNROE, whose death recently occurred at his residence in Hull, was born in Kingston-upon-Hull in 1818. He received his professional education at Guy's Hospital, and became a Licentiate of the Apothecaries' Society in 1839, a Member of the Royal College of Surgeons of England in 1840, and in 1859 obtained the degree of M.D. at King's College, Aberdeen. In 1840 he settled in his native town, where he for many years enjoyed a large practice. Dr. Munroe was a Fellow of the Linnæan Society, and for a quarter of a century was lecturer on Medical Jurisprudence and Histology at the Hull and East-Riding School of Medicine. For some years he was an active member of the Hull Corporation, and rendered essential service to the town on the sanitary and other committees of that body. Dr. Munroe contributed several papers to the various medical and microscopical journals, and since 1860 he had been an active and ardent supporter of the temperance movement.

SURGEON JAMES PEDLOW, M.D. Q.U.I.,

SURGEON, ARMY MEDICAL STAFF.

SURGEON PEDLOW died of cholera on board the s.s. *Rangoon* on Oct. 21st, and was buried at Menbo. He was proceeding up the Irrawaddy to Bhamo in charge of C and D Sections, No. 16 Field Hospital. After leaving Thayetmyo he was attacked by cholera; all that could be done for him by careful attendance was afforded by Surgeon S. F. Freyer, A.M.S., who was with him till his death. Dr. Pedlow had seen much active service in Afghanistan and Egypt; for the former he was awarded a medal, and for the latter a medal and two clasps and bronze star, as mentioned in the despatches. He formerly served in the Turkish army and saw much fighting. He received a commission in the Turkish army, which was dated Feb. 3rd, 1878.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on Jan. 20th:

Balgarnie, Wilfred, Scarborough.
Beadle, Joseph, Middleton-in-Teesdale, Durham.
Brown, Lewis Henry, Cazenove-road, Stamford-hill.
Charles, Henry Evans, Swansea.
Farr, Joseph James William, Earls-court-road.
Frost, Francis Turner, College-road, Bromley.
Green, Robert Walter, Leeds.
Grose, John Sobey, Wadebridge, Cornwall.
Hebblethwaite, Harold, Bradford.
Hitchings, Robert, South Hackney.
Nicholson, Charles, York.
Powell, Lewis, Crouch End.
Rymer, James Francis, Pevensey, Croydon.
Simpson, Charles Shackleton, West Kensington.
Taylor, Frederick Howard, Fyrland-road.
Turtle, Frederick Wennan, Woodford, Essex.
Yunge-Bateman, Marcus George, Folkestone.

Admitted on the 21st inst.:—

Bidwell, Leonard Arthur, L.S.A., Lee-terrace, Blackheath.
Blenkinsop, Alfred Percy, L.R.C.P. Lond., Hilldrop-crescent.
Brook, W. H. Breffitt, Lincoln.
Bueno de Mesquito, Solomon, Goodmans-fields.
Corbin, Eustace Rhodes St. Clair, M.B. Lond., Stanhope-street.
Crouch, Charles Percival, Hampstead.
Garrould, Walter Robert, L.R.C.P. Lond., Willesden-park.
Gravely, Harry, L.S.A., Lewes, Sussex.
Hamilton, Robert Jessop, Princes-road, Liverpool.
Harris, Edward Bernard, L.S.A., Stoke Newington.
Helsham, Hugh Paul, L.R.C.P. Lond., Kirkdale, Sydenham.
Marshall, Arthur Lumsden, L.S.A., Leicester.
Staple, James Dibble, L.S.A., Bayswater.
Walsh, Robert William, L.S.A., Shadwell.
Walls, James, L.S.A., Handey, Wigan.
Williams, Arthur Henry, New Cross.

Admitted on the 24th inst.:—

Anderson, W. Maurice Abbot, M.B. Durh., Endsleigh-gardens.
Browne, Edward Granville, L.R.C.P. Lond., Bernard-street.
Brownfield, Harry Munyard, Rotherhithe.
Bullock, Roger, L.R.C.P. Lond., Warwick.
Cook, Edward Thomas, L.S.A., Southsea.
Dincker, William Rembold, L.R.C.P. Lond., Finsbury-park-road.
Evans, Howell Thomas, Tredegar.
Evelyn, William Arthur, L.R.C.P. Lond., Vincent-square.
Fitzgerald, Gerald Crowfoot, M.B. Camb., West Dulwich.
Ford, Theordore Albert Veres, L.S.A., Clifton, Bristol.
Greene, Henry Bertram Bladwell, Cheltenham.
Griffiths, William, L.S.A., Highgate.
Hamel, Julius, Clapham.
Hicks, Edward Harman, L.S.A., Folkestone.
Kitson, Francis Parsons, L.R.C.P. Lond., Martland-park-villas.
Loxton, William Arthur, L.R.C.P. Lond., Birmingham.
Taylor, John Francis, L.S.A., Blackheath.
McShane, George, L.R.C.P. Lond., Southsea.

The lectures for the present year will be commenced on Monday, the 31st inst, by John Bland Sutton, F.R.C.S. Eng. (Erasmus Wilson Lecturer), who will deliver on that day and on Wednesday and Friday three lectures on "Evolution in Pathology." The lectures will be commenced at 4 P.M. each day.

SOCIETY OF APOTHECARIES.—The following gentlemen passed the examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise on the 20th inst.:—

Arnold, Francis Sorell, M.R.C.S., Bradmore-road, Oxford.
Blaker, Edward Spencer, M.R.C.S., Marmora-road, Honor Oak.
Braddon, William Leonard, M.R.C.S., Upton-upon-Severn.
Laker, Richard, L.R.C.P., M.R.C.S., Smith-square, Westminster.

GERMAN HOSPITAL.—The annual general court of governors of this institution was held on the 26th inst., when the report showed that the number of in-patients treated during the year was 1663, and of out-patients 23,219. The number of patients in the Convalescent Home was 449. The annual expenditure amounts to about £9200, while the reliable income is only £5800. The Duke of Cambridge, President of the hospital, has promised to preside at the 42nd anniversary festival, which will take place on April 27th.

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THE Shrewsbury Hospital Sunday collection is to be held on the 13th prox. The last collection realised £238, an increase of £12 on the previous year.

AT the second annual meeting of the subscribers to the Sidmouth Cottage Hospital, which was recently held, a highly satisfactory financial report was presented.

THE first annual ball in aid of the funds of the Royal National Hospital for Consumption, which was recently held at Ventnor, proved highly successful.

MEDICAL MAGISTRATE.—The Lord Chancellor has, on the recommendation of the Lord-Lieutenant, placed the name of Dr. Langdon Down on the Commission of the Peace for the County of Middlesex.

ON the 19th inst. a cowkeeper at Leicester was sentenced to a month's imprisonment, without the option of a fine, for being the owner of meat intended for the food of man, but which was unfit for that purpose.

VACCINATION GRANT.—Mr. T. H. B. Rodwell, of the No. 2 district of the Loddon and Clavering Union, has received the Government grant for efficient vaccination (sixth time).

DEATHS OF CENTENARIANS.—The deaths are reported of a widow in Wetzlau, aged 108, and of the well-known sheikh of the howling dervishes in Constantinople, Alif Baba, aged 110.

A GRATEFUL PATIENT.—M. Ramon Fernandez, the Mexican Minister in Paris, has informed the Prefect of the Seine that a native of Zacatecas, a State of Mexico, has bequeathed £1060 to a Paris hospital where he was nursed in 1841.

AT the fortnightly meeting of the managers for the Central London School district on the 24th inst., it was reported that there had of late been an appreciable decrease of ophthalmia amongst the pauper children at the Hanwell schools.

THE report of the Charité Hospital in Berlin shows that 17,010 patients were admitted during the year 1886, to which number must be added 1253 infants born alive, also 79 stillborn. The total deaths amounted to 1904. The cases cured numbered 14,892.

PRESENTATION.—Mr. D. H. Thomas, Swansea, has been presented with an illuminated address and a purse of 160 guineas, in recognition of his services to the town and its inhabitants. The money has been given by the recipient to several local charitable institutions.

FOOD EXHIBITIONS.—An International Exhibition of Popular Food and Cookery will be opened at the end of the present month at Leipsic. The capital of 100,000 florins required for the organisation of an International Food Exhibition at Amsterdam has been subscribed.

FINSBURY DISPENSARY.—The annual general meeting of the governors of this institution was held on the 26th inst., when the committee's report showed that during the past year 15,912 new cases had been treated at the dispensary, with a total attendance of 35,366; 3151 patients had also been attended at their own homes.

WEST CORNWALL DISPENSARY AND INFIRMARY.—The fourteenth annual meeting of the supporters of this institution was held at Penzance on the 19th inst, when it was reported that the number of in-patients during the past year was 104, and of out-patients 1525. The income amounted to £635, and the expenditure to £624.

LINCOLN GENERAL DISPENSARY.—The annual general meeting of the governors of this institution was held on the 18th inst., when it was stated that the number of home patients treated during the year was 1513, and of out-patients 1744, making a total of 3257. The total income amounted to £886, and the expenditure to £833.

ADULTERATION OF FOOD IN SPAIN.—The Spanish Ministry of the Interior has issued a circular to the governors of the different provinces, calling their attention to the importance of food being sold in a pure and wholesome condition, and directing them to see that the various municipal authorities enforce the laws against all persons, of whatever position they may be, who adulterate food, and that their names and the nature of their offences are published in the *Boletin Oficial*.

LEEDS HOSPITAL FOR WOMEN AND CHILDREN.—The report which was read on the 24th inst. at the thirty-fourth annual meeting of the supporters of this hospital stated that the patients during 1886 had numbered 1339, 1140 being out-patients, and 199 in-patients. The total income was £2265, being £789 more than in 1885, and the expenditure amounted to £1382.

AT the meeting on the 26th inst. of the committee appointed to consider the proposal to found a medical school in connexion with the Dundee University College, the receipt of a donation of £6000 towards the foundation of the school was announced. This sum is in addition to the gift of £12,000 for the endowment of a chair of anatomy which had previously been announced.

STEPS are being taken by the officers and men of the Coldstream Guards to raise a monument to the memory of Sister Crump, one of the staff of nursing sisters doing duty at the regimental hospital, who recently died while in the actual discharge of her duty. Miss Crump joined the service four years ago, and after serving in Egypt since October, 1884, was invalided home last April.

VOLUNTEER MEDICAL STAFF CORPS.—Sir J. Hanbury, K.C.B., the principal medical officer of the home district, distributed on the 22nd inst. prizes to the Woolwich division of the Volunteer Medical Staff Corps, and took the opportunity of speaking strongly of the importance of a more extended system in connexion with the Volunteer force for tending the sick and wounded. An appeal was made to the medical profession to take up the matter.

NORWICH JENNY LIND HOSPITAL FOR CHILDREN.—The annual meeting of the governors of this institution was held on the 19th inst. The number of patients during 1886 was 1642, being 438 in excess of the number received in 1884, when the highest total since the establishment of the hospital was reached, and 50 in excess of 1885. The total receipts amounted to £2272, and the expenditure to about £1100.

CITY DISPENSARY.—The ninety-eighth annual meeting of the governors of this institution was held on the 20th inst. During the past year there has been a great increase in the number of personal attendances, the aggregate exceeding 30,000. The total number of patients treated was 15,124. The accounts showed that with a balance of £366 brought forward from last year the receipts had been £1744 and the expenditure £1443, leaving a balance or £301, but the liabilities at the present moment will absorb this. The annual festival in aid of the charity is to be held on the 24th prox.

HARROGATE BATH HOSPITAL.—At the general annual meeting of the governors of this institution on the 20th inst., it was reported that the number of patients treated during the past year was 664. This was a decrease on the previous year, but many cases recommended were of a convalescent nature, and consequently inadmissible; this difficulty will be removed when the convalescent wing is opened. The receipts amounted to £1535, as against £1636 in the preceding year. The number of baths administered was 5580, being 17 more than in the previous year.

BIRMINGHAM CHILDREN'S HOSPITAL.—The annual meeting of the governors of this institution was held on the 24th inst., when the secretary reported that the finances of the hospital were in a much sounder condition at the end than at the beginning of 1886, as the debt had been reduced to £301, whereas twelve months ago it was £910. The total expenditure during the year was £4306, being £142 less than in the preceding year. The number of in-patients was 794, out-patients 13,035, and 143 children were received at the Convalescent Home.

SOCIETY FOR THE PREVENTION OF HYDROPHOBIA AND REFORM OF THE DOG LAWS.—A most important meeting of this Society was held at the offices, 50, Leicester-square, London, W.C., on Monday. The Duke of Northumberland, the Duke of Westminster, the Earl of Egmont, Lord Stanley of Alderley, and Professor Huxley were elected vice-presidents, and several members were added to the general committee, among them being some well-known breeders and exhibitors of dogs. Proposals for future legislative action had been circulated among members, and these were considered and adopted formally as a basis for subsequent discussion. The Society aims at such amendment of

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the Dog Act as will ensure, permanently, the better control of all dogs throughout the kingdom, and the removal of the large number of stray dogs, which are a constant source of danger and trouble; but, in consequence of the continued spread of rabies in the country, it is hoped that a short Act may be carried by Parliament for the extension to the provinces generally, for six months, of those regulations which have recently proved so effectual in London.

FOOTBALL FATALITY.—A boy aged nine years, residing with his parents at Irvine, died on the 20th inst. from injuries received while playing football at school. During a scrimmage he received a kick on the loins, which resulted in inflammation of the bowels. Deceased remained in an unconscious condition for several days after the occurrence.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.—A festival will be held at the Holborn Restaurant on Wednesday, Feb. 9th, the Right Hon. Lord Halsbury (Lord High Chancellor) in the chair, to commemorate the opening of the National Hospital for the Paralysed and Epileptic, and with the especial object in view of assisting to raise a jubilee fund to enable the whole of the accommodation to be taken into use, wards containing fifty-five beds (of a total of 180) not having been as yet in occupation.

DORSET COUNTY HOSPITAL.—At the annual meeting of the friends and supporters of this institution, held on Thursday the 27th inst., an attempt was made by resolution to render members of the medical staff ineligible to sit on the general committee of the hospital. So great and effective, however, was the opposition to the motion, that it had to be withdrawn. The committee was enlarged from twelve elected members to eighteen, and a resolution proposed by Dr. Lush, that at least four days' notice be given of any notice of dismissal, was carried by a large majority.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—A quarterly court of this Society was held on Jan. 12th, at the rooms of the Society, 53, Berners-street. In the unavoidable absence of the President, Sir J. Paget, the chair was taken by the Senior Vice-President present, Mr. Tegart. A sum of £1364 was voted for distribution among the 63 widows and 9 orphans on the funds. The expenses of the quarter amounted to £55 8*s.* 6*d.* One new member was elected, the resignations of 4 read, and the deaths of 5 reported. The secretary stated that during the last year there had been 16 deaths among the members, and 19 resignations, and only 5 elected. Astonishment was expressed by many of the directors that so few new members joined, the advantages being so great; some thought if it could be made more generally known that young men could join on completing their studies and when still living within the twenty-mile radius, and that, when once a member, the membership was not forfeited by removal beyond the radius or even out of the country, many young men would avail themselves of the opportunity of ensuring a slight provision for their widows and orphans.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ARNOLD, WILLIAM, M.R.C.S., L.S.A., has been appointed Medical Officer for the Blisworth District of the Towcester Union.

BEALEY, ADAM, M.A., M.D.Cantab., F.R.C.P.Lond., has been re-elected Honorary Consulting Officer to the Harrogate Bath Hospital.

BRITTON, THOMAS, M.D. St. And., M.R.C.S., has been re-elected Honorary Medical Officer to the Harrogate Bath Hospital.

COOMBE, ROBERT GORTON, jun., M.R.C.S., L.R.C.P.Ed., L.S.A., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births and Deaths to the Southminster District of the Maldon Union, vice Arthur Lattey, L.R.C.P.Lond., M.R.C.S., resigned.

DEANE, EDWARD, L.R.C.P., M.R.C.S., late Assistant House Surgeon, has been appointed House-Surgeon to the Royal Berks Hospital, vice G. A. Shackel, resigned.

DOYNE, R. W., M.R.C.S., L.S.A., has been appointed Surgeon to the Oxford Eye Hospital.

GAYE, H. S., M.D. St. And., M.R.C.S., has been elected Consulting-Surgeon to the Newton Cottage Hospital and Dispensary.

GREENE, GEORGE EDWARD JOSEPH, L.R.C.S.I., L.K.Q.C.P I., Admiralty Surgeon, Kilmore, has been appointed Medical Officer for Ferns Dispensary, Enniscorthy Union, vice Smyth, resigned.

HARSTON, LIONEL DE COURCY EAGLES, L.R.C.P., M.R.C.S., has been appointed Medical Officer to the Perth Hospital, West Australia.

HAYDON, EDGAR, M.B., C.M.Glas., has been elected Medical Director of the Newton Cottage Hospital and Dispensary.

HOBSON, M.D., B.S.Lond., F.R.C.S.Eng., has been re-elected Honorary Medical Officer to the Harrogate Bath Hospital.

LITTLE, A. N., M.R.C.S., L.S.A., has been appointed Third Assistant Medical Officer to the Worcester County and City Lunatic Asylum.

MACAULAY, THOMAS, M.R.C.S., L.S.A., has been reappointed Medical Officer of Health for the Market Harboro' Rural District.

MITCHELL, JOHN, M.D., C.M.Glas., has been re-elected Medical Officer to the Barnard Castle Dispensary.

MORRIS, EDWARD, M.R.C.S., L.S.A., has been appointed Medical Officer for the Fernhurst District of the Midhurst Union.

PATRICK, ROBERT, M.D.Dur., M.R.C.S., has been appointed Certifying Surgeon (under the Factories Act) to the Bolton District.

SCOTT, W. GIFFORD, M.B., C.M.Ed., has been elected Medical Director of the Newton Cottage Hospital and Dispensary.

SHAW, LAURISTON E., M.D., M.R.C.P., has been appointed Medical Registrar and Demonstrator of Practical Medicine to Guy's Hospital.

SOUTHERN, JOHN, M.R.C.S., L.S.A., has been appointed Medical Officer for the Ludlow District of the Ludlow Union.

TREDINNICK, ERNEST, M.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer for the Stokesay District of the Ludlow Union.

WATSON, HARRY O., L.R.C.P.Ed., L.F.P.S.Glas., has been appointed Medical Officer for the Clee Hill District of the Ludlow Union.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

GREAT NORTHERN CENTRAL HOSPITAL, Caledonian-road, N.—Aural Surgeon.

HULL AND SCULCOATES DISPENSARY.—House-Surgeon. Salary £150 per annum, with house (unfurnished), coals, and gas.

LIVERPOOL INFIRMARY FOR CHILDREN.—Assistant House-Surgeon. Board and lodging in lieu of salary.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House-Surgeon. Salary £70 per annum, with residence and maintenance in the house.

NORFOLK AND NORWICH HOSPITAL, Norwich.—Assistant to House-Surgeon. Board, lodging, and washing provided, but no salary.

ST. BARTHOLOMEW'S HOSPITAL, Smithfield, E.C.—Assistant-Physician.

SHREWSBURY EYE, EAR, AND THROAT HOSPITAL.—Surgeon. An honorarium of £150 per annum will be given for three years.

Births, Marriages, and Deaths.

BIRTHS.

ADAMS.—On the 20th inst., at Clifton-gardens, W., the wife of G. D'Arcy Adams, M.D., of a son.

BALDING.—On the 24th inst., at Dane House, St. Albans, the widow of Mortimer Balding, M.D.Cantab. (who died on Nov. 23rd, 1886), of a son.

COMYN.—On the 18th inst., at Dawson-place, W., the wife of J. Sarsfield Comyn, Deputy Surgeon-General (prematurely), of a son.

HUNT.—On the 19th inst., at Crouch-street, Colchester, the wife of Edgar A. Hunt, M.R.C.S., L.R.C.P., L.S.A., of a daughter.

OMAN.—On the 13th inst., at Strada Mezzodi, Valetta, Malta, the wife of Neil Oman, M.D.Ed., of a daughter.

PAYNE.—On the 22nd inst., at Wimpole-street, the wife of Joseph Frank Payne, M.D., of a daughter.

STRUGNELL.—On the 24th inst., at Highgate-road, N.W., the wife of F. W. Strugnell, L.R.C.P., M.R.C.S., of a daughter.

MARRIAGES.

PRAIN—THOMSON.—On the 24th inst., at Calcutta, David Prain, Surgeon, I.M.S., to Margaret, second daughter of the Rev. W. Thomson, M.A., Minister of Belhelvie, E.B.

RELTON—BELL.—On the 25th inst., at the Parish Church, Ealing, W., Bernard Relton, M.R.C.S., L.S.A., to Georgina Kate, younger daughter of the late A. D. M. Bell, Esq., of Quebec.

SIMON—WILLANS.—On the 26th inst., at Christ Church, Lancaster-gate, by the Rev. Canon Fleming, B.D., assisted by the Rev. F. C. Cursham, M.A., Vicar of Cropwell Butler, Notts, Robert M. Simon, M.B., M.R.C.P., of 26, Clarendon-road, Edgbaston, Birmingham, to Emily Maud, younger daughter of William Henry Willans, of 23, Holland-park, Kensington, and High Clyffe, Seaton, Devon, Esq. (no cards).

DEATHS.

BROWN.—On the 20th inst., at his residence, 25, Dublin-street, Edinburgh, William Brown, F.R.C.S.Ed., aged 90.

CHESSALL.—On the 19th inst., at his residence, Horley, Surrey, William Chessall, M.D., aged 56.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

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Medical Diary for the ensuing Week.

Monday, January 31.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesdays, same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.
SOCIETY OF ARTS.—8 P.M. Dr. J. L. W. Thudichum: The Diseases of Plants, with special regard to Agriculture and Forestry (Cantor Lecture).
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. J. Langdon Down: On some of the Mental Affections of Childhood and Youth (Lettsomian Lecture).

Tuesday, February 1.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 1.30 P.M. Skin Department, Mondays and Thursdays, 9.30 A.M.
ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Prof. Arthur Gamgee: The Function of Respiration.
SOCIETY OF ARTS.—8 P.M. Mr. T. Armstrong: The Condition of Applied Art in England, and the Education of the Art Workman.
PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Bland Sutton: Genito-urinary Diseases of Animals.—Mr. D'Arcy Power: A Neglected Point in the Pathology of Colles' Fracture.—Dr. Griffith: Extra-uterine Fœtation.—Mr. Bruce Clarke: Subperitoneal Rupture of Bladder.—Dr. Barling: Tubercular Tumour of Brain.—Mr. Bilton Pollard: Multiple Perforative Necrosis of Skull of Tubercular Origin.—Dr. W. Edmunds: Horny Growth on the Hand.

Wednesday, February 2.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesdays and Thursdays, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; and on Friday, 2 P.M.; and Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M.; Saturday, same hour.
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown. Dr. Gibbons: Case of Unilateral Galactorrhœa. Annual Meeting—Election of Officers and Council. The President (Dr. Potter) will deliver the Annual Address.
SOCIETY OF ARTS.—8 P.M. Dr. Alfred Carpenter: Sewage Irrigation.

Thursday, February 3.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Prof. A. W. Rücker: Molecular Forces.
HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Mr. G. Buckston Browne: The Position and Value of the Operation of Internal Urethrotomy.—Sir W. Mac Cormac: The Supra-Pubic Operation in its application to Stone in Children.

Friday, February 4.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—8 P.M. Living Specimens:—Mr. Keetley: (1) A case of Arterio-venous Aneurysm of Cavernous Sinus (?) after Treatment by Compression; (2) A case of Cholecystotomy. Card Specimens:—Mr. H. Percy Dunn: (1) A Large Intussusception from a Child; (2) Tuberculosis of the Spleen from a Child of three months; (3) Extensive Rupture of the Duodenum following a Kick from a Horse. Papers:—Dr. Thudichum: On the Nature and Operative Treatment of Hypertrophies and Tumours of the Nasal and Pharyngeal Cavity.—Dr. Campbell Pope (for Dr. Suckling): A case of Acute Multiple Neuritis following Diphtheria, and one of Unilateral Progressive Facial Atrophy.
ROYAL INSTITUTION OF GREAT BRITAIN.—9 P.M. Mr. Edwin Freshfield: Some Unpublished Records of the City of London.

Saturday, February 5.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Mr. Carl Armbruster: Modern Composers of Classical Song—Johannes Brahms (with Vocal Illustrations).

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, January 27th, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Jan. 21	30·39	W.	37	36	...	45	34	...	Hazy
,, 22	30·68	N.W.	43	41	...	46	37	...	Overcast
,, 23	30·56	W.	43	41	...	44	35	...	Overcast
,, 24	30·56	S.	37	36	...	46	36	...	Overcast
,, 25	30·24	S.W.	40	39	...	50	36	...	Overcast
,, 26	30·32	S.W.	43	41	...	53	40	...	Hazy
,, 27	30·40	S.W.	37	37	...	...	36	...	Foggy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

A FACT IN FRENCH COUNTRY PRACTICE.

A FRENCH doctor being asked by a man one day to go to a distance to see his sick child, replied that it was too far to walk, and that he had no carriage. "Oh," said the man, "that doesn't matter; I am a livery stable keeper, and will drive you." Some time afterwards the doctor's bill was asked for. It was five francs. The livery stable keeper then presented his bill for the hire of the carriage. It was six francs;

Spero.—The Apothecaries' Society *does* labour under the disability described by its clerk, and this can only be remedied by an Act of Parliament, which we fear could not be obtained.

A Non-subscriber.—We regret that our correspondent should think it necessary to punish himself in the manner he proposes.

FISSURED LIP.

To the Editors of THE LANCET.

SIRS,—Your correspondent, "Fidelis," may be interested in a case of fissured lip under my care some three years ago.

I painted the adjacent surfaces with a 5 per cent. solution of cocaine, incised the base of the fissure freely, inserted a harelip pin and silk binding, covering the whole with collodion. The pin was removed about the fourth day, and the crack has never recurred. The patient was a woman of about twenty, much exposed to wind and weather, and the fissure had been in existence for three or four years. Ointments, strapping, collodion, simple incision, &c. had previously been tried in vain.

I am, Sirs, yours truly,
Jan. 24th, 1887. FISSURE.

To the Editors of THE LANCET.

SIRS,—If your correspondent, "Fidelis," will apply a piece of court plaster (which has been made thoroughly pliant by dipping it in hot water) over the fissure, the sides of it being pressed together, he will find that it will quickly heal. Salves or ointments would be of more avail as preventive than as curative treatment.

I am, Sirs, yours faithfully,
Jan. 24th, 1887. G. H. S.

To the Editors of THE LANCET.

SIRS,—I would recommend your correspondent, "Fidelis," to try the application of nitrate of silver in stick. I have seen a troublesome central fissure of the lower lip cured by its use after other applications had been tried without success.

I am, Sirs, yours faithfully,
Jan. 25th, 1887 B. H.

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THE VALUE OF THE RUPEE.

Q.—The subject of the depreciated value of the rupee as affecting the pay of medical officers in India is a large financial question scarcely suitable for discussion in our pages. There can be no doubt that a great injustice is inflicted not only upon medical but upon all officers—civil and military—in India, by their pay being issued to them in rupees calculated at the value of 2*s.*, while in the ordinary transactions of trade the real value is something under 1*s.* 6*d.* In fact, officers receive only 75 per cent. of the pay which is professedly secured to them by regulation. We cannot doubt that some new arrangement will have to be adopted ultimately to remove these complaints; but we are bound to say that it is a large and very difficult subject.

Insects.—There is no doubt the lice may be contracted from clothing, linen, bedding, &c. The crab louse lays from ten to fifteen eggs, and the young are hatched in six or seven days, and become capable of reproduction in two weeks.

M. W. S.—With few exceptions the surgeon has all his meals in the saloon with the passengers, even where the officers dine by themselves; but he does not have a cabin in the saloon, nor does he sleep there.

Dr. Hawkes.—Yes.

"HOMŒOPATHY."

To the Editors of THE LANCET.

SIRS,—I know not who the "Baffled Inquirer" is, nor am I at present connected with the London Homœopathic Hospital; but I know that now, as ever, the medical officers of that institution are always happy to welcome and assist any inquirer who presents himself at the hospital and conforms to its established customs. Your correspondent says he made "repeated requests to be permitted to attend in the morning and assist in taking notes and examining the patients," but that he was not allowed to do so. I imagine he would not be allowed to do this in any other hospital in London in his character of an inquiring visitor. The case might be different if he were a regular pupil. Of course, all your readers will see the unreasonableness of his request to visit and examine the patients at his own convenience; for if he were allowed to do this, why not others? And how would it fare with the patients suffering from serious acute diseases to be examined and disturbed several times a day by sceptical, or even by unprejudiced, inquirers? Nothing of the sort would be permitted in other hospitals. Why, then, should your correspondent think that it would be allowed in the Homœopathic Hospital? I imagine that his memory is not very good as regards the points of therapeutics he incidentally mentions. As he forgets the drug that he was told had cured some cases of ovarian tumour, probably he is wrong in supposing that he was told that impetigo was cured by a solution of carbon, and that relapsing fever was best treated by natrium muriaticum. He could hardly have been informed at the British Homœopathic Society that all homœopaths studied their treatment in "Jahr's Materia Medica." If the "Baffled Inquirer" really wishes to inquire into homœopathy, I would recommend him to study it in such works as Dr. R. Hughes's "Pharmacodynamics" and "Therapeutics," where he will find something better than the "absurdities" which I quite believe he found in "Jahr."

As regards your own question, "Is there any other instance of all the scientific men in Europe resisting a true discovery for nearly a hundred years?" I would only remark that homœopathy is acknowledged as the truth in therapeutics, and is practised at the present moment, by upwards of 10,000 regularly educated and qualified medical men, some of whom may no doubt be considered to be "scientific men"; that it has hospitals in many European countries, and upwards of forty hospitals and lunatic asylums in the United States; that though there is only one chair of homœopathy in European Universities—viz., that at Pesth—it has colleges and universities in the less tradition-bound United States. On the whole, though we regret the attitude of the authorities of established medicine in this and other countries towards homœopathy, we make no "admission of despair and almost of failure" as regards the progress of Hahnemann's discovery. I am, Sirs, your obedient servant,

London, January 22nd, 1886. R. E. DUDGEON.

To the Editors of THE LANCET.

SIRS,—Many thanks for your kindly-expressed notice of my letter *in re* Homœopathy. Your readers might perhaps imagine that I was a "homœopath," but such is not the case. I am only a "puzzled inquirer," and my puzzle is not solved when I study Dr. L. Brunton's work—a text-book in almost general use; as in it I find drugs such as pulsatilla, bryonia, ruta, thuja, cantharis, and dulcamara—all recommended in small doses for various diseases! All these drugs I was brought up to believe were strictly homœopathic, but when I find them in such a work as the one mentioned I begin to wonder if there be not some mistake.

I am, Sirs, yours faithfully,

Longridge-road, S.W., January, 1887. A. G. BATEMAN.

*** Dr. Brunton and Mr. Bateman are, of course, free to use any drug they please. It is not the use of any particular drugs that constitutes homœopathy, and that has caused it to be contemned by the medical profession.—ED. L.

Invenis.—Parkes' Hygiene, Ganot's Physics, Baldwin Latham's Sanitary Engineering, and the Public Health Acts.

THE COST OF A HOSPITAL BED.

THE following statement of the comparative cost per occupied bed in the year 1885 in thirteen large general hospitals in industrial centres has been drawn up at Newcastle-on-Tyne:—Birmingham General, 237 beds, £56 6*s.*; Bradford, 113.6 beds, £53; Edinburgh Royal, 595 beds, £58 5*s.* 9*d.*; Glasgow Western, 368 beds, £50 18*s.*; Hull, 96 beds £65 16*s.* 4*d.*; Leeds, 253 beds, £56 7*s.* 9*d.*; Liverpool Southern, 161 beds, £40 0*s.* 6*d.*; London Hospital, 620 beds, £68 5*s.* 10*d.*; Manchester Royal, 253 beds, £60 1*s.*; Nottingham, 138 beds, £55 3*s.* 8*d.*; Sunderland, 128 beds, £42 3*s.* 9*d.*; Wolverhampton, 200 beds, £52 5*s.* 2*d.*; Newcastle Infirmary, 235 beds, £50 14*s.* 9*d.* Such comparisons are, however, fallacious and unreliable without a full knowledge of the dietary of the patients of each hospital, and other matters which contribute directly to increase or diminish the average cost per bed. For instance, in some hospitals the patients must provide at their own cost tea, sugar, and butter. This is the case, we believe, at Newcastle and the Birmingham General Infirmary; whereas at the Leeds Infirmary the patients are provided with everything. In this institution the average cost per occupied bed, in 1885, for these three articles of diet was £3 10*s.* 3½*d.*, which reduces the cost of the beds to £52 17*s.* 5½*d.* if calculated on the same basis of the other two hospitals named. At Leeds, again, the repairs of buildings and fittings are charged to the cost of in-patients; some other hospitals do not adopt this plan.

N. Y. Z.—Our correspondent should have been communicated with; but he does not allege that the gentleman who certified is unregistered. He would have real ground for complaint if an unregistered member of the staff had officiated.

Young Practitioner is referred to THE LANCET of Aug. 8th, 1885, p. 276, for an answer to his question.

W. G.—No.

THE GREAT NORTHERN CENTRAL HOSPITAL.

To the Editors of THE LANCET.

SIRS,—Whilst tendering to you the best thanks of all those who have the welfare of this hospital at heart for so kindly calling the attention of your readers to its pressing wants, you will allow me to point out two important mistakes in your statement concerning the financial report submitted to the half-yearly meeting of the general council on the 14th inst., which, if not corrected, may prove detrimental to the success of the appeal for the required funds.

The cost of the block of buildings which the committee have determined to proceed with in the first place, and which will contain sixty beds, and part of the administration block, is *£20,000*, not £2000; and the amount required to complete the new hospital of 150 beds with a large out-patient department, is *£45,000*, and not £24,500 as stated in your paragraph.

I am, Sirs, your obedient servant,

Jan. 24th, 1887. WILLIAM T. GRANT, Secretary.

ARE MIDWIVES APOTHECARIES?

THE following may raise a question in the minds of the Apothecaries' Society, as it certainly will in the minds of their licentiates:—"Mrs. C. H. Botham, midwife, 69, Langdon-road. Mixture: One tablespoonful three times a day." Though a midwife may attend a midwifery case, does it follow that she may attend and supply medicines to patients? May she even do so in a case of puerperal fever or puerperal convulsions, and be within the bounds of her duty? We trow not.

Messrs. Krohne and Sesemann.—The name was given simply as that of the apparatus which was preferred by the writer of the article. There was no question of priority raised.

G. P.—We must refer our correspondent to our advertising columns for the information he desires.

OBSTINATE CONSTIPATION IN AN INFANT.

To the Editors of THE LANCET.

SIRS,—I shall be glad to have some suggestions from your readers regarding the management of a case of most obstinate and persistent constipation in a child of twelve months.

For a long time the bowels have not been moved without aperients of rather strong character, or the use of enemata of various kinds. The fæcal mass is often so hard and lumpy as to require being scooped out of the rectum. There is bleeding on almost every occasion of defecation. The child is artificially fed, and every kind of food suitable for a child of such a tender age has been tried without avail, and various constitutional remedies likely to be of service have also failed. There is no abnormal distension of the stomach or large intestine, and the child is well nourished. Indeed, it is rather above the average size, and is a fine, healthy-looking child. I am, Sirs, yours truly,

Jan. 18th, 1887. O. P. Q.

F.—1 and 2. These questions must obviously be answered in the affirmative.—3. Dr. Hack Tuke's work on the Influence of the Mind on the Body in Health and Disease.

C.—Yes, shortly.

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THE VALUE OF NEVA WATER AS MEDICINE.

A CERTAIN baron in St. Petersburg has been for a long time selling a specific for a number of diseases at a high price. This has lately been analysed by order of the Medical Council, with the result that it has been declared to be nothing more or less than simple Neva water! It might have been expected that the publication of this fact would have seriously interfered with the baron's trade; but the Neva water remedy seems to have taken such a hold on the imaginations of the St. Petersburg public that they still flock to purchase it at from one to four shillings a bottle.

Mr. K. Taylor.—Tempora mutantur. Circumstances are now very different from those which obtained years ago, when the words quoted were written.

W. W. W. should consult a surgeon. We do not give advice.

N. has not enclosed his card.

THE BINIODIDE OF MERCURY AS AN EMMENAGOGUE.

To the Editors of THE LANCET.

SIRS,—I find the red iodide of mercury is a certain and safe emmenagogue. My attention was directed to its virtues quite accidentally some three or four years ago, since which time I have used it successfully in a large number of cases. I prescribe it in the form of mixture as follows; but I should think it would act quite as effectually in pills of a quarter of a grain twice a day, or an eighth four times a day:—℞. Sol. hydrarg. bichlor., ℥i.; potass. iodid., ʒss.; ferri ammon. citrat., ʒi.; ether. chlorici, ℥ij.; aquam ad ℥viii. One tablespoonful three times a day after meals. I am, Sirs, your obedient servant,

Jan. 24th, 1887. C. R. ILLINGWORTH, M.D.

THE CLIMATE OF PLYMOUTH.

DR. BAMPTON sends us word that he has seen primroses in bloom growing in the open at Plymouth during the last week. Under the circumstances, a primrose is a primrose and something more. It is a floral record of the current atmospheric conditions, and sums up or registers all the past meteorological and geological conditions to which it has been exposed. In short, it indicates the mildness and geniality of the climate during the late winter months. It is to be borne in mind that the people in towns farther north are exposed to more than the equivalent of South Devon rain, in the form of hail, snow, and sleet.

Alfred Robinson, M.B., M.R.C.S.—A chapter in Powell's Diseases of the Lungs.

M.D.—We fear little can be done in the matter.

Dr. Percy Boulton is thanked.

ERRATUM.—In a paragraph headed "Presentations," which appeared in our last issue, page 200, Mr. Foulston was spoken of as taking his departure *for* Earlstown, whereas, in fact, he is leaving that town for Liverpool.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir J. Fayrer; Dr. J. Williams, London; Mr. J. R. Godlee, London; Mr. Lawson Tait, Birmingham; Mr. C. Lucas, London; Dr. W. E. Steavenson, London; Dr. Juler, London; Dr. E. Martel, Paris; Mr. J. N. Bredin; Mr. Hodgskin, London; Dr. Wolf Smith, Montreal; Mr. C. Hewett, London; Mr. Tallach, London; Mr. Blackett, London; Mr. Watson Cheyne, London; Mr. Balls-Headley, Melbourne; Mr. W. F. Moore, London; Dr. Dudgeon, London; Dr. Galton, Norwood; Mr. Morton Smale, London; Mr. Evans, Wolverhampton; Messrs. Brinsmead and Co., London; Mr. A. G. Bateman, London; Messrs. Maclachlan and Co., Edinburgh; Mr. F. H. M. Burton, Birmingham; Messrs. Smith and Son, London; Mr. E. C. Beale, London; Messrs. Hopkinson and Co., Notts; Dr. C. Maghéria, Naples; Mr. Millar, London; Mr. J. G. Marshall, Dover; Mr. H. H. Ashdown, Edinburgh; Messrs. Squire and Sons, London; Dr. Hawkes, Northampton; Messrs. Deighton and Co., Cambridge; Mr. J. L. Wright, Derby; Dr. Jacoby, New York; Mr. J. D. Watson, Glasgow; Mr. Lavis, Naples; Mr. Poole Shrewsbury; Mr. Greenwood, Liverpool; Mr. Fallah; Messrs. Boulton and Paul, Norwich; Mr. Barker, Hull; Mrs. Sturges; Messrs. Woolley and Co., Manchester; Mr. Williams, Oswestry; Messrs. Isaacs and Co., London; Mr. Plummer, Thame; Dr. O'Flynn; Messrs. Blake and Co., Leeds; Mr. Brown, Westgate-on-Sea; Messrs. Longman and Co., London; Miss Moorhouse, London; Dr. Fulton; Mr. Lowndes, Liverpool; Dr. Dale, Scarboro'; Messrs. Morley, London; Mr. Baker, Newport; Mr. Larder, London; Dr. Dowse, London; Messrs. Bromley and Co., Lincoln; Dr. Riordan, Plumstead; Messrs. Sharrow and Co., London; Mr. Moore, Callington; Dr. Hare; Messrs. Bates and Co., London; Dr. Malins, Birmingham; Messrs. Marlborough and Co., London; Dr. W. Sumpter, Cley-next-the-Sea; Mr. Richard Prale, Rochester; Mr. Kershaw, London; Dr. Fitzgerald, Folkestone; Mr. Robson, Leeds; Mr. Bond, Leicester; Messrs. Harris and Co., Birmingham; Dr. Robinson, Dublin; Messrs. Burroughs and Wellcome, London; Dr. V. D. Harris, London; Messrs. Wright and Son, Bristol; Mr. Lupton, Bradford; Dr. Nicholson; Messrs. Fletcher and Co., Manchester; Mr. B. B. Rawlings, Leicester; Mr. Latimer, Swansea; Mr. Pycroft, Kenton; Mr. Grant, Edinburgh; Mr. W. T. Grant, London; Dr. Illingworth, Clayton; Mr. Sutherland, Fence Houses; Dr. C. J. Power, London; Mr. Abbs, Dewsbury; Mrs. Wood, Kington; Mr. Unsworth, Liverpool; Mr. Harris, Abertillery; Mr. F. Bird; Mrs. Armstrong, Ryde; Dr. Tennant, Matlock; Mr. Oldham, Manchester; H. W. S.; O. P. Q.; B. H.; A. C.; M.; Junior Consultant; K. K., Bucksted; Editor *Bristol Observer*; Verbum sat. Sapienti; Advertiser; Fissure; G. E. S.; Celtau; Speco; Subscriber.

LETTERS, *each with enclosure*, are also acknowledged from — Dr. Day, London; Mr. Lilley, Leicester; Mr. Hamilton, Birmingham; Dr. B. Meadows, London; Mr. Flower, Melksham; Messrs. Willmott and Co., Shepherd's-bush; Mr. Hardman, Birmingham; Mr. Hoffmeister, Gosport; Dr. Evelyn, Armoy; Mr. Wylde, Crawley; Dr. Thomson, Brailes; Mr. Clark, Edinburgh; Mr. Shute, Greenwich; Mr. King, Lurton; Mr. Jennings, Coleford; Miss Hunter; Messrs. Wright and Co., Romford; Mr. Draper, Huddersfield; Dr. McKeith, Wickham Market; Mr. Parry, Bagillt; Mr. Rideal, London; Messrs. Blake and Co., Leeds; Mr. Davies, Worcester; Dr. Trevor, Anglesea; Mr. H. H. Bigg, London; Mr. Armstrong, Manchester; Messrs. Roberts and Co., London; Miss Bourne, Coventry; Mr. Cowland, Launceston; Dr. Griggs, Parkstone; Mr. Rowley, Barnsley; Medicus; Dispenser, Whitechapel; H., Norwich; M.R.C.S., Fulham; J. J.; C. C., New Cross; Medicus, Edinburgh; Sphenoid, London; B., Bradford; O. K., Peterboro'; Medicus, Brighton; Medicus, Birmingham; F.R.C.S., Holborn; C. S., Preston; Beta; Amicus, Fulham; T. B., Portsmouth; Surgeon, Plumstead; R. A., Bushey; W. A. W.; Secretary; Noon Greaze, Penzance; C. P.; Dual; H. A., Norwich; Physician; Lady Superintendent, Bath; X. Y. Z.

Cambrian, Practical Cooking, Weekly Budget, Montgomeryshire Express, Advocate of India, Bristol Observer, Pendleton Reporter, Oldham Evening Express, South Eastern Gazette, Blackburn Standard, Montreal Herald, Llandudno Advertiser, Mother's Companion, Merthyr Express, &c., have been received.

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An Address
ON
DEFECTIVE SANITATION AS A CAUSE OF PUERPERAL DISEASE.

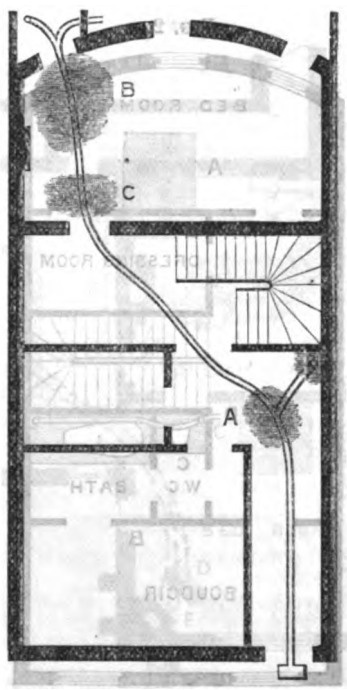
Delivered at the East London and South Essex District of the Metropolitan Counties Branch of the British Medical Association.

By W. S. PLAYFAIR, M.D., LL.D., F.R.C.P.,
PROFESSOR OF OBSTETRIC MEDICINE AT KING'S COLLEGE, AND PHYSICIAN FOR THE DISEASES OF WOMEN AND CHILDREN TO KING'S COLLEGE HOSPITAL.

GENTLEMEN,—When your Secretary, Dr. Hunt, did me the honour of suggesting that I should deliver an address at your opening meeting, the difficulty I experienced in acceding to his request was not the want of a subject, but rather the selection of one amongst the many topics connected with obstetrics and gynæcology which might be of sufficient interest to claim your attention for a short period. My first idea was to offer you a comment on some of the topics that have of late been especially discussed by gynæcologists, such as the more recent developments of abdominal surgery, particularly the removal of the uterine appendages and ovaries, which mooted point certainly calls for much more thorough discussion than it has yet received. I soon found that to enter on topics such as these in the brief period which I could occupy without unduly trespassing on your patience and courtesy involved an effort at concentration of which I was incapable. Dr. Hunt's invitation told me that a short paper of half an hour's duration or thereabouts would suffice, provided it was of a nature to elicit discussion; and I therefore resolved to direct your attention to a hardly appreciated source of septic disease, to which I have myself traced many otherwise inexplicable cases of septicæmia in childbirth, and to which my attention has been more particularly drawn within the last few months from the fact that I have had the misfortune to meet with what I believe to be a well-marked instance of it in the person of the wife of an esteemed professional friend, whose terrible illness was traced to this source. I refer to the poisoning of lying-in women from sewer gas, conveyed to the house in consequence of defective sanitary arrangements. Here at least is a topic which must interest you all, for if there is one thing more than another which the practitioner has to dread it is the development of this insidious and terrible illness after delivery, defying as it so often does the most strenuous and best-directed treatment, desolating happy homes, and too often leading to most undeserved blame and injury to the medical man who has the misfortune to meet with a case in his practice. This source of puerperal disease has scarcely received any attention at all, and it is hardly alluded to in our text-books, and yet I believe it to be very far from uncommon, and I trust I may elicit from your experience some corroboration of my views on this topic. I thus speak of it in my work on Midwifery: "Exposure to sewer gas may, I feel sure, produce the disease. In two cases of the kind I had the opportunity of closely watching, an untrapped drain opened directly into the bedroom, in one instance into a bath, in the other into a watercloset. Both cases were indistinguishable from the ordinary form of the disease, and in both improvement commenced as soon as the patient was removed into another room. In a case I saw some years ago at Notting-hill, the patient, who had been confined a week, had all the symptoms of a most intense attack of septicæmia, but none of a diphtheritic character, while her husband lay in an adjoining room suffering from a diphtheritic sore-throat. Here the waste-pipe of the bath was found to communicate directly with the sewer. In spite of her intense illness I had the patient removed to another house, and from that moment she began to improve. In two other cases in which the same source of disease was detected, the removal of the patient from the infected atmosphere was immediately followed by a marked amelioration in the symptoms. I know of three similar cases which ended fatally, in which I have every reason to believe that the cause of the disease was poisoning by sewer gas. Frankenhauser has related a curious case of the poisoning of four puerperal women by sewer gas. In fact, the whole question of defective sanitary conditions on the puerperal state deserves much more serious study than it has ever yet received, and I have long been satisfied that they have often much to do with certain grave forms of illness in the lying-in state the origin of which cannot otherwise be traced."

Now this quotation, which is only to be found in the later editions of my book, contains, I believe, a summary of nearly all that is known on this important topic, and you will see how little it is. It is surely high time that it should be more thoroughly worked out and studied, and although I have no pretension to-night to do more than to direct your attention to it, I trust that the endeavour may be of some practical use. I purpose therefore to describe more particularly some few illustrative cases of the kind, and to show you by rough diagrams how the sewer gas came to be brought closely into contact with the patient. I shall select four only out of the large number of cases I have seen and noted, in which no other source of disease could be traced, and in which its dependence on this cause may, I think, be taken as proved to demonstration. As I am now dealing with causation only, I shall not describe at all the symptoms of the patients; merely saying that all these cases were typical examples of the ordinary puerperal fever or septicæmia, not differing in any marked way from the usual types of that disease.

FIG. 1.



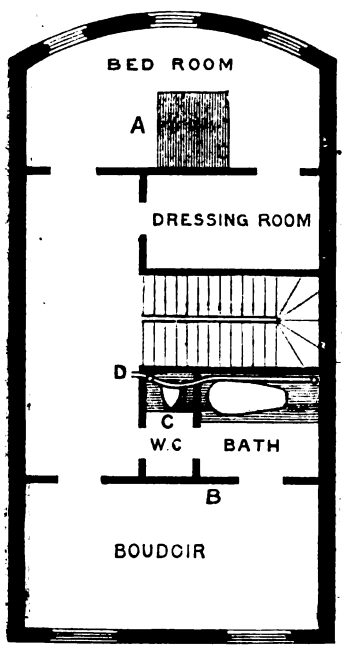
Let me first direct your attention to the case I have alluded to. I myself attended my friend's wife early in June last, and very shortly she developed a severe illness, accompanied by marked hyperpyrexia, the temperature constantly ranging over 104°, and continuing at this high level for over six weeks. It was only kept down by the use of Thornton's ice-cap and constant sponging with iced water. Two months after delivery large pyæmic abscesses formed; and I wish it could be said that even now, after the lapse of three months, convalescence was established. Now, in searching out the causes of this terrible illness the hygienic condition of the house was naturally investigated, with the results I shall show you. My friend entered his house on his marriage a year since, and believed that the sanitary arrangements had been thoroughly seen to. Unfortunately, the engineer to whom they had been entrusted had relied on the statement of the former owner that the main drain was in good

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condition. Moreover, there existed the radical defect of having the closets and soil-pipe in the centre of the house, an arrangement quite incompatible with perfect sanitation. Now let me point out what was discovered. First, as to the basement (Fig. 1):—At A in the passage the new soil-pipe placed when the house was taken was joined to the old one, and at the junction there was a considerable leakage, and when uncovered the stench was intolerable. At B was found an old brick drain surrounded by sodden sewer earth, very foul. A large cartloadful was removed from the spot indicated below the floor of the kitchen. At C were two defective joints with considerable soaking through of sewage, and over these drains there was nothing but earth and kitchen boards. Dr. Dawson Williams, who conducted the investigation, very naturally says that he considered the above a very serious condition. Dr. Williams also points out that on the second floor not only was the sewer gas from the basement drawn up (Fig. 2), but the bedroom (A) where the confinements took place, the boudoir (B) where the patient chiefly lived, and the W.C. (C) "were practically in one." Besides the above, other but less important defects were found, such as a housemaid's closet, the waste-pipe of which opened directly into the soil-pipe (D).

Now, can it be reasonably doubted that this illness

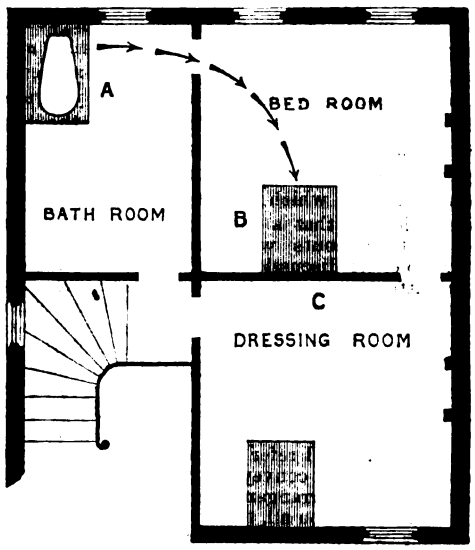
FIG. 2.



originated in this horrid state of things, since no other possible cause could be detected? Moreover, is not this a striking example of the way in which we are all placed absolutely at the mercy of workmen and plumbers? Here is the case of a member of the profession fully alive to the risks of defective sanitation, who in going into a new house spares no expense to have it properly drained, who employs a sanitary engineer for the purpose, with the results I have described above. It is a curious fact in connexion with this case, and I think it must be something more than a coincidence, that in the favourite professional street in which my friend lives I have myself seen four cases of puerperal septicæmia within the last five years, one of which proved fatal, and I have heard of three more, one of which proved fatal. Possibly there may have been more of which I am not cognisant. Now, in a street of 152 houses there can only have been a small number of confinements in five years, and if out of this small number seven were attacked with puerperal septicæmia, surely there is fair ground for suspecting that there exists some morbific cause localised in the street; for to suppose that there were seven cases of conveyed septicæmia in one street in five years is an assumption that is incredible. Now, all these houses are old, probably all were originally defective in their sanitary arrangements, and many may yet remain so. I do not wish to attach too much importance to the fact I have stated, but it is certainly striking and suspicious. I have often wondered whether in the good old days, when there was no such thing as a watercloset in existence, when foul smells were at least localised to the place of their origin, and when sewer gas was not ingeniously carried by a complex series of pipes to our very sleeping-places, true sanitation was not really better than it is now, when it is so much studied and so little practised.

Now let me show you a second example. This diagram (Fig. 3) represents the bedroom floor of a new house of considerable pretensions in Notting-hill, in which I saw a lady some years since, with her medical adviser, Mr. Hewer, in a very dangerous state from septic disease. The origin of her illness was discovered from the curious fact that her husband was lying ill at the same time in the bed in the dressing-room (C) with a severe diphtheritic sore-throat. This could hardly be a mere coincidence, and it pointed very strongly to some common cause of illness to which both had been subjected. The fact that his wife's illness showed no diphtheritic symptoms went for nothing in my judgment, for I have been long satisfied that septicæmia may be produced in lying-in women from zymotic poison—as, for example, the scarlatinal poison—without any of the specific

FIG 3.



symptoms of the special poison producing it. Here the cause was not far to seek, for, amazing as it may seem, the waste-pipe of the bath (A), close to the bed (B) occupied until a few days before by both, went straight down the outside of the house to the main drain, into which it opened, so that the sewer was ventilated right into the dressing-room. As soon as this was detected, seeing that the patient must have been constantly inhaling fresh doses of poison, I had her removed, in spite of her critical condition, to her mother's house in a neighbouring street. The result most fully proved the correctness of the assumption as to the cause of her illness, for a marked change for the better at once occurred, and the patient was soon convalescent.

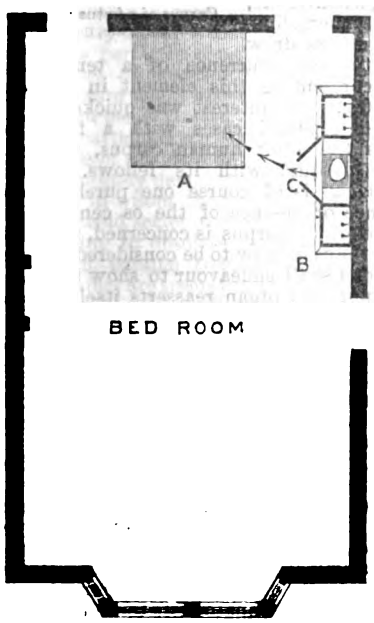
The next diagram (Fig. 4) represents a bedroom in a large house in the most fashionable part of the West-end, which had been recently taken and done up in the most costly way. I attended the lady of the house in her second confinement, and she lay in her bed at A. Shortly she developed well-marked septic symptoms, and I naturally investigated the sanitary state of the house to see if it threw any light on their origin. I could find nothing amiss. There was no bath or fixed washhand stand near the room, and the closets were at a distance, with the soil-pipe running down the outside wall, as it should do. It was not until some days afterwards that I discovered the extraordinary arrangement depicted in the diagram, which no one could possibly have suspected, and the knowledge of which the patient had given special directions should be withheld from me. At B is represented a very handsome and innocent-looking

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piece of furniture which seemed to be a fixed wardrobe, to which purpose its ends were in fact devoted. The centre door, however, formed by a large mirror, opened on a concealed watercloset (C), which luxury no one could have looked for in such a situation. I subsequently discovered that this was a brilliant idea of her husband's, who actually had had a special soil-pipe carried through the centre of the house, which communicated directly with the main drain, with no ventilation, and who had thus contrived, at an enormous cost, to have a stream of sewer gas laid on close to his bedside. And be it remarked that builders and plumbers had carried out this ingeniously dangerous arrangement without giving him the slightest hint that it was either unusual or perilous. Of course as soon as I made this discovery I had the patient removed to another room, when her symptoms soon abated.

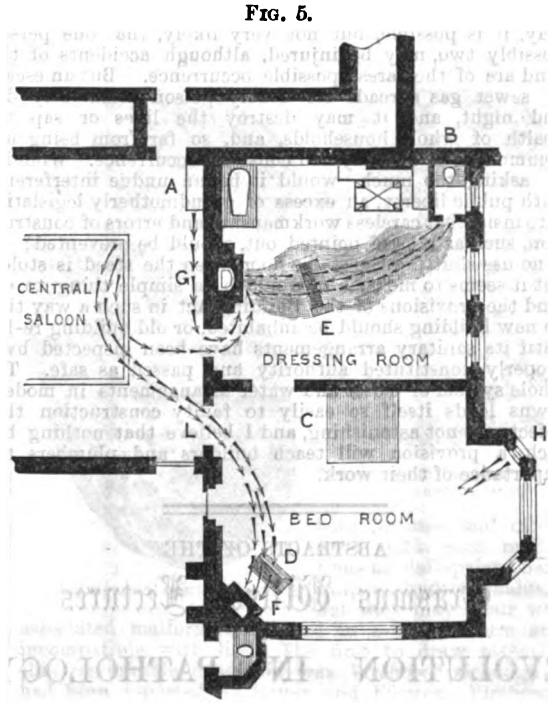
I could easily go on multiplying examples of this kind, but I shall content myself with one more case, which was thoroughly worked out, with very instructive results. It was that of a lady who was confined in the country of her first child, in a large and expensive house, newly built, and supposed to be supplied with all the most perfected sanitary arrangements. There was nothing particular about the labour, and for the first ten days the convalescence left nothing to be desired. On the eleventh day she got up and

FIG. 4.



lay on the sofa (Fig. 5, D) opposite the fire (F), which, as it was in January, was burning day and night. The day after, although she had a headache and felt poorly, she again got up and lay on the sofa. The subsequent day, although feeling very ill, she again insisted on getting up and lay on the sofa at E, in her husband's dressing-room. On the following day she was very ill indeed, with a temperature of 104° and a pulse of 130, and I was summoned to see her. It is needless to say more of her illness, which rapidly increased, except that, feeling satisfied it was caused by defective sanitation, I advised her removal to a house in the neighbourhood, in spite of the very grave symptoms that existed, with the most satisfactory result, for within twenty-four hours her temperature had fallen, and she rapidly became convalescent. Of course at this time nothing was known of what actually existed, but I was led to form this conclusion from the fact that a number of the servants and residents were suffering from sore-throats, and from being told that almost everyone who came to stay felt ill and out of sorts. Subsequently the sanitary state of the house was thoroughly investigated by one of the most distinguished sanitary engineers in London, from whose reports the accompanying diagram (Fig. 5) is copied. It is useless to enter into a description of all the abominations which were found to exist, which, in a house of the kind, in the building of which no expense was spared, were almost past belief. For the purpose of my story it will suffice to say that the smoke test showed that there was a very abundant escape of sewer gas into both the bedroom and dressing-room, which, from the fact that there were large fires burning constantly in both rooms, passed in a continuous current in the direction of the arrows. In addition, the plumbing work in the closet in the dressing-room had been so imperfectly done that its contents found their way out under the floor. Now, mark how thoroughly and curiously these facts prove the cause of the disease. The patient lay in the bed at C, which, from the accident of its being winter, and the current of sewer gas being drawn therefore to the chimneys, was quite out of its reach, and for the first ten days after her confinement, while she remained in bed, she was perfectly well. On the eleventh day, when she got up, she was placed directly in the current of sewer gas at D, and instantly got poisoned. On the twelfth and thirteenth days she was again exposed to the absorption of further and more intense poisoning; while immediately on her removal to fresh and uncontaminated air all her threatening symptoms disappeared. Remark also that there was nothing peculiar in the symptomatology, nothing different from an ordinary and rapidly progressing case of puerperal septicæmia. It seems to me that this instructive history is about as com-

FIG. 5.



plete a demonstration of the origin of puerperal disease from defective sanitation as anyone could possibly desire, and I can see no flaw in the chain of evidence.

It may probably be objected that most of these cases had been exposed for a length of time to the very influences which are supposed to have caused disease after labour, and that therefore the illness should have appeared antecedently. This is undoubtedly a fact difficult to understand, and of which I profess to offer no explanation. It is to be remembered that there are many things in connexion with puerperal fever "not dreamt of in our philosophy," and for which we are as yet quite unable to account. Doubtless future investigations will throw fresh light on this and other obscure points. It may be that delivery, and the exposure of large absorptive surfaces resulting from it, makes women susceptible to influences they previously resisted. It may be also—and I have seen many cases that lend weight to the assumption—that absorbed poisons may remain latent in the system, and only show their malefic influence after delivery. I well remember a terrible case which could not, so far as I can see, be explained except on this theory. It was that of a lady who had been residing in a hired cottage in the country, close to London, up to the time of her confinement. If I remember rightly,

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she was confined before her medical man could reach her. Within twenty-four hours she was terribly ill, and was dead in a few days. The virulence of the septic influence may be judged of by the fact that one of the nurses in attendance pricked her finger, got rapid gangrenous poisoning, and had to have her arm amputated at the shoulder-joint. Is the conclusion not inevitable that the patient, who felt perfectly well on leaving the country, brought with her in some latent way the poison that developed with such deadly results? Some light is thrown on its origin by its being discovered that the cottage in which she had been living was in a most insanitary state, the details of which, however, I never learnt.

Now, of course, the question arises: If these risks are really so serious to lying-in women, as I contend they are, how are they to be avoided? Increased attention on the part of the profession may do something, but not much, for the demon plumber is abroad, and one may rest in fancied security that proper care has been taken, while the carelessness of a single workman may render all our precautions useless. The Building Act authorises the district surveyor to inspect every new building, and any fault of construction promising to be dangerous he has the power to have remedied; but in the very house the beams and floors of which he inspects, every bath and cistern may open into the sewers, and the contents of the soil-pipes may freely percolate under the floors; he may even be aware of these facts, and yet he has no power to interfere. Now, if a beam breaks or a floor gives way, it is possible, but not very likely, that one person, possibly two, may be injured, although accidents of this kind are of the rarest possible occurrence. But an escape of sewer gas spreads its deadly poison insidiously day and night, and it may destroy the lives or sap the health of whole households, and, so far from being uncommon, it is of daily and constant occurrence. Would it be asking too much—would it be an undue interference with public liberty, an excess of grandmotherly legislation—to insist that careless workmanship and errors of construction, such as I have pointed out, should be prevented? It is no use shutting the stable door when the steed is stolen, but it seems to me that it would be a simple thing to extend the provisions of the Building Act in such a way that no new building should be inhabited, or old building re-let, until its sanitary arrangements have been inspected by a properly constituted authority and passed as safe. The whole system of closet and water arrangements in modern towns lends itself so easily to faulty construction that defects are not astonishing, and I believe that nothing but such a provision will teach builders and plumbers the importance of their work.

ABSTRACTS OF THE
Erasmus Wilson Lectures

EVOLUTION IN PATHOLOGY.

Delivered at the Royal College of Surgeons of England,

BY J. BLAND SUTTON, F.R.C.S.,
ASSISTANT-SURGEON TO THE MIDDLESEX HOSPITAL.

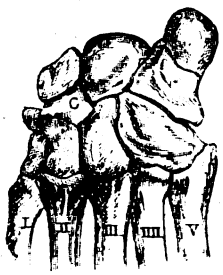
LECTURE I.

SUPPRESSION OF PARTS.

MR. PRESIDENT AND GENTLEMEN,—Last year I endeavoured to show that the three laws formulated by Professor Huxley as expressions of the principles concerned in evolution, in so far as they relate to anatomical details, are equally applicable to pathological anatomy. The first law—*There has been an excess of development of some parts in relation to others*—was abundantly illustrated under the term "hypertrophy." In the present course full attention will be devoted to the second law—*Certain parts have undergone complete or partial suppression.* A careful consideration of this law leads to important conclusions, and renders intelligible some very obscure conditions, which have excited more or less curiosity in the minds of pathologists.

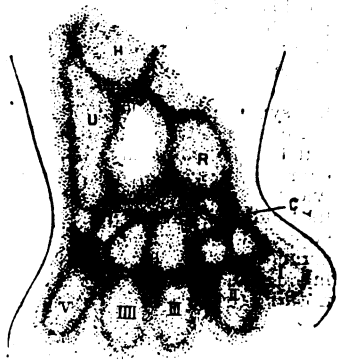
The first example is merely chosen to serve as a clear instance of the process termed "suppression." Recent researches indicate, beyond all doubt, that an ossicle has been suppressed in the human carpus. In the manus of a very large number of vertebrates, beginning with tailed amphibians and passing onwards to primates, wedged in between the proximal and distal row of the carpal bones, we find an ossicle known as the "centrale." A typic carpus, taken from a baboon, is represented in Fig. 1.

FIG. 1.



Carpus of a baboon, showing the os centrale.

FIG. 2.



Carpus of a fœtus with the rudimentary centrale, c (after Leboucq).

This bone became very interesting when Henke, Reyher, Rosenberg, Kölliker, and others drew attention to the occurrence of a temporary nodule of cartilage representing this element in the carpus of the human fœtus. The interest was quickened when Gruber and Turner reported cases with a fully developed os centrale in the adult human carpus, taking rank with, and being coequal with its fellows. The illustration chosen (Fig. 2) is of course one purely anatomical, and the existence or absence of the os centrale, in so far as the function of the carpus is concerned, is of little moment. In most of the cases now to be considered the matter is very different, for I shall endeavour to show that in many cases where a suppressed organ reasserts itself, in some it gives rise to serious malformations, and in others is a source of danger, inasmuch as the parts are not infrequently the starting-points of abnormal growths. To trace the ancestral history of these structures and to decipher their meaning is, in many instances, exceedingly difficult, but the quest is surrounded with fascination, and is one of the most enjoyable occupations which fall to the lot of the scientific pathologist. It is rendered more delightful from the fact that the investigator is obliged to carry his inquiries into the remotest realms of biological science, and gather evidence in support of his case from animals which have long since passed away, now only known to us by their bony framework. All mammals possess in their brain a striking illustration of the truth of this remark, for the pineal body, imagined by the older anatomists to be the seat of the soul, has now been shown by Mr. Baldwin Spencer to be the remnant of a median eye, which still persists in a rudimentary form in lizards. It was most highly developed in extinct amphibians, being probably a functional sense organ of pretertiary periods. The fact of the pineal body originating as a tubular diverticulum from the thalamencephalon is very suggestive, and that it should be the seat of aberrant formations may be anticipated. Weigert, Virchow, Wilks, and Drs. Charlewood Turner and Silcock have described specimens of a cystic condition of the pineal body in the human subject.

One of the clearest instances of suppression, and at the same time one capable of indisputable demonstration, is connected with the disappearance and occasional reappearance of a third incisor tooth in man. The matter was first worked out and announced by Professor Albrecht (now of Hamburg) in quite a number of papers, that normally man inherits three incisors on each side in the upper maxillæ, but during development the middle (second) one of the three is suppressed. In many cases of cleft palate, however, more room is afforded, and the usually suppressed tooth attains a functional condition. The question was one of importance, and I was able in a paper read before the Odontological Society of Great Britain in December, 1884, to confirm this part of Albrecht's observation. Professor Sir W. Turner, a month later, adduced also confirmatory testimony in the

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Journal of Anatomy and Physiology, vol. xix.; and the last contribution in this direction is by Windle and Humphry in the same journal. A careful analysis of the facts shows, beyond all doubt, that in the usual course of events an incisor tooth is suppressed in the upper maxilla of man; the only point admitting of any latitude of opinion is whether the missing tooth is the second or third incisor. As the case stands at present the balance of opinion is in favour of it being the second.

We must not forget, however, that supernumerary teeth are found in other situations than in the incisor series; indeed, they may occur in almost any part of the dental arch, and may vary in character from a perfectly formed enamel-covered tooth to a tiny conical mass of dentine. In determining whether an extra tooth is a supernumerary one or not, we must also take into consideration the fact that an excess in the number of teeth is occasionally due to the retention of one or more milk teeth. In order to comprehend the true significance of supernumerary teeth, it is necessary to bear in mind the morphology of these organs. In their essential features the teeth of a shark agree with those of a mammal, and in their development as calcified papillæ of the involuted epiblast in the buccal region the stomodæum—the two forms are in perfect harmony. In the case of the shark almost the whole of the mouth is beset with teeth, whereas in mammals they are normally restricted to certain very definite tracts. An unprejudiced survey of the facts ought to convince us that though the teeth of mammals are thus kept within narrow limits, yet the papillæ in the immediate vicinity of these teeth territories are potentially teeth, and it is perfectly consonant with what we know of the principles of atavism that these papillæ should occasionally declare their ancestry by developing as rudimentary, or even perfect, teeth. Nor is this form of atavism limited to this particular region; for, inasmuch as teeth are modified papillæ of the skin or integumental covering (and this may be absolutely demonstrated in the case of the young of the dog-fish, in whom the various stages may be clearly traced from placoid scales to teeth), so in those remarkable teratomata arising in obsolete canals lined with epiblastic tissues, calcified papillæ (teeth) make their appearance. Dentine and enamel are tissues which exist in scanty proportions in man, yet they formerly occurred in great abundance in the remarkable mailed-ganoids which are encased in an elaborate armour of these very extraordinary tissues.

If we admit the above opinions, then a rational explanation is forthcoming of certain interesting pathological conditions which occur in the mouth. For instance, some forms of odontomata may be considered as aberrant involutions of buccal epiblast and papillæ; the view is supported by the fact that this variety of neoplasm occurs in many mammals. There is also good evidence to support the view that the milk dentition is to be regarded as a set of teeth appearing in obedience to the law of inheritance. In many mammals they are, like the lanugo of the human fœtus, shed before the embryo quits the uterus. If supernumerary teeth can be regarded as atavistic, then we must consider certain pre-calcific stages of teeth in the same light; for instance, in the early stage a tooth consists of an up-growing papilla capped by a down-growth of epithelium. Suppose the development to advance no further, but growth to continue, the result is an aberrant formation—a neoplasm. Involutions of this kind have been detected by Malassez, and Mr. Eve has discussed their relation in connexion with multilocular cystic tumours of the jaws. The upshot of the argument is this: supernumerary teeth, odontomata (excluding the cementomata of herbivora), and multilocular cystic tumours of the jaws may be regarded as originating in the germs of teeth suppressed in the process of evolution of our species. The incisor tooth, to the consideration of which the early part of the argument was dedicated, may be considered, in all probability, as the last tooth in the order of suppression.

In addition to neoplasms originating in undeveloped enamel germs, we have to take into consideration a class of tumour usually described somewhat vaguely as adenomata, growing from the palate. Our knowledge of these cases is much advanced by the work of Mr. Stephen Paget on this subject. It appears that neoplasms, perfectly innocent in their nature, but full of epithelial nests, occur in the palate, and there are good grounds for believing that many of the growths variously described as glandular, alveolar sarcoma, alveolar carcinoma (!) &c., have their origin in little rounded masses of epiblast, which become enclosed between the two horizontal plates, which fuse together in the median line in order to separate the nasal and buccal cavities. The existence of such isolated epithelial islets has been affirmed by more than one observer, and a good account of them, with references to the literature of the subject, will be found in Lebouccq's papers on "Le Canal Naso-palatine chez l'Homme," and Note sur les Perles Epithéliales de la Voûte Palatine."[1]

In the museum of the Middlesex Hospital, standing side by side in the section devoted to injuries and diseases of the kidney, are two specimens; each in the words of the catalogue is thus described:—"A kidney, which is enlarged to three times its natural size, and is almost entirely made up of a congeries of cysts, varying in size from a walnut to a pin's head, separated from one another by a narrow band of renal tissue. The pelvis and ureter were not dilated. The normal shape of the organ is retained, but no distinction is visible between the cortex and medulla." The kidney, I have since been able to determine, was removed from a fœtus at term, and its general appearance may be gathered from Fig. 3. Few can have conducted many pathological examinations of fœtuses without encountering such a case. I have examined ten such kidneys. A goodly number are recorded in the Transactions of the Pathological Society, and many of the pathological collections in London possess examples of the condition. This cystic state is not confined to human kidneys, for I have studied them in calves, sheep, asses, and horses. Such kidneys are usually found in still-born fœtuses, and often coexist with such malformations as cleft-palate, hare-lip, talipes, hydrocephalus, &c.; but they may occur without associated malformations, and in a milder form are not incompatible with life. The first to draw attention to this remarkable condition was Virchow,[2] although cases had been reported by Rayer and Förster. Virchow considered the cysts to arise by ectasia of the uriniferous tubules, in consequence of obstruction to the tubules, the result of disease during intra-uterine life; in the majority of specimens the pelvis of the kidney is absent. The cysts contain fluid which numbers among its constituents urates. The ureter is excessively thin, but always pervious, and the renal artery excessively attentuated. Often the kidneys are of the horseshoe pattern. In rare cases a tract or a few patches of normal renal tissue is present. The researches of my friend, Mr. S. G. Shattock, put the matter on a totally different footing. By great good fortune a fœtal kidney in a less advanced stage and with a perfect pelvis came under his observation, and microscopic examination showed that the walls of the cysts were lined with tessellated epithelium. Comparison of sections from this kidney were carefully made with sections of the mesonephros (Wolffian body) of a human fœtus, and their identity established. Whilst Mr. Shattock was working in this way, I adopted an independent method, and compared sections of congenital cystic kidneys with

FIG. 3.



A congenital cystic kidney.

FIG. 4.



General cystic disease of the testicle. Innocent form.

[1] Archives des Biologie, vol. ii., 1881.

[2] Ueber Congenitale Nierenwassersucht, Gesammelte Abhandlungen, pp. 839, 864. Consult also Pye-Smith, Trans. Path. Soc., vol. xxxii., p. 112.

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specimens prepared from an abnormally large paroophoron in a fœtus, beside numerous smaller ones. The conclusion derived from the study was irresistible—viz., that in these enormous cystic kidneys, whether they occur in the fœtus or adult, are to be regarded as persistent mesonephritic (Wolffian) tubules which have become cystic (retention cysts). The amount of mesonephritic tissue varies in different cases, and in most a certain proportion of metanephritic tissue is present. Mr. Shattock's observations on congenital cystic kidneys are not only directly confirmed by what we know of mesonephritic remains composing the paroophoron, and the great tendency they exhibit to form cysts, but they shed much light on the innocent variety of cystic disease of the testis. In this case the cystic spaces are lined with tessellated epithelium, and arise from the dilatation of the collection of mesonephritic remains familiar as the organ of Giraldès, situated between the testis and the epididymis. The general appearance of this affection recalls that of the congenital cystic kidney. (Fig. 4.) Thus developmentally, structurally, and in pathological tendency, congenital cystic kidney, the innocent form of cystic testicle, and paroophoron cysts are identical.

Among suppressed organs of pathological import must be mentioned the pedicle of the allantois—familiar as the urachus. Although normally persistent as a shrunken, impervious cord, passing from the summit of the bladder to the umbilicus, it may occasionally retain its patency for a long period after birth. In some instances it may grow equally with the bladder, retain a communication with that viscus, and give rise to a so-called bifid bladder. It may dilate unequally and form a chaplet of small cysts, and in some rare instances may serve as the starting-points of a cystic tumour (outside the peritoneum) of enormous dimensions. In one case I had an opportunity of examining and reporting upon with Dr. Aveling for the Gynæcological Society, the tumour weighed nearly five pounds. A careful account of some examples of this kind of cyst has been furnished by Mr. Lawson Tait in the *Gynæcological Journal*, vol. ii., in a remarkable paper on "Extra-peritoneal Cysts."

Among the most extraordinary instances of suppression of parts, with retention of an original function, known to me, is exhibited by the prostate. Morphologically, this organ, with its utriculus, glands, and muscle fibre, is to be regarded as a diminutive uterus. Careful analysis of its mode of development shows very conclusively that it is the homologue of the uterine cervix and upper segment of the vagina. These portions of the female reproductive organs are formed from that part of the Müllerian ducts which, in the oviparous vertebrates, constitutes the shell-forming segment. All surgeons and pathologists must be familiar with the small concretions so constant in the recesses of this organ in adults, and which have been so well described by Sir Henry Thompson in the Medico-Chirurgical Transactions (vol. xl., p. 78, 1857). In constitution and composition they agree with egg-shell, and they are formed in parts strictly homologous in reptiles, birds, and mammals. Thus man has in his prostate, morphologically, structurally, and functionally, an unimpeachable witness testifying to an ancestry with the feathered tribe, low down among the oviparous reptiles.

MANCHESTER MEDICO-ETHICAL ASSOCIATION.—The annual meeting of this Association was held on the 28th ult. The report of the committee showed continuous prosperity, with a steady increase of funds. The following resolution was passed:—"That the Manchester Medico-Ethical Association expresses its approval of the action taken by the Apothecaries' Society of London, to obtain admission to the Conjoint Examining Board for England, together with the Royal Colleges of Physicians and Surgeons of London." The following gentlemen were elected office-bearers and members of committee for the year:—President: Dr. H. Simpson. Vice-Presidents: Drs. H. Ashby, W. H. Barlow, S. Buckley, and F. M. Pierce. Treasurer: Dr. D. Lloyd Roberts, F.R.S. Ed. Secretaries: Mr. J. Broadbent and Dr. A. Wahltuch. Committtee: Drs. F. H. Collins, A. Emrys-Jones, S. H. Owen, T. C. Railton, W. J. Sinclair, and W. Walter, and Messrs. H. A. G. Brooke, J. C. Clarke, J. Hewett, J. Foster, H. P. Ilderton, and G. H. Pinder.

THE Bournemouth Improvement Commissioners contemplate spending £9000 in a scheme for supplying the town with sea water for street-washing and sewer-flushing. The gas and water company have objected, and it is necessary that their consent to the scheme be obtained.

ABSTRACT OF THE

Lettsomian Lectures

ON SOME OF THE

MENTAL AFFECTIONS OF CHILDHOOD AND YOUTH.

Delivered before the Medical Society of London, January, 1887,

BY J. LANGDON DOWN, M.D. LOND., F.R.C.P.,
PHYSICIAN TO THE LONDON HOSPITAL.

LECTURE III.

Infantile Insanity.—Infantile mania is not of frequent occurrence, and has not been the subject of much comment. Dr. Down has observed recurrent attacks of acute mania in young children. Cases having well-marked delusions of suspicion have also been met with. The ordinary trustfulness of childhood has been replaced by painful mistrust. The lecturer had seen some cases of melancholia associated with manifest delusions, one boy believing that he resembled an animal. In one case of homicidal mania in a little girl who subsequently became epileptic Dr. Down thought that the maniacal paroxysm was really masked epilepsy. As puberty approaches attacks of mental aberration assume a special character; there is frequently unnatural introspection, and a critical hyper-conscientiousness becomes prominent. Sometimes such patients avoid making any positive assertion lest the exact truth should not be spoken. These cases cause great anxiety at the time, and occasionally end in a permanent break-down. Many, however, by careful management may be tided over the climacteric period of puberty, and then all may go well. It is important to be on guard against concealed suicidal impulse and to note its slightest indication, as the tendency in such cases is to melancholia, and in some cases to self-inflicted injury. Care should be taken that there is no sexual deviation. If present it should be treated as a physical evil, and to be corrected for the good of the body. Sexual deviations are readily recognised by the supra-orbital headache, dilated pupils, brown umber areolæ surrounding the eyes, averted look, and statuesque bearing. Occasionally the latter is so marked as to resemble a minor cataleptic state.

Moral insanity is met with in childhood and youth. Such are cases of purposeless theft, lying, or mischievousness. The subjects of this condition are sometimes intellectually bright, and have an amount of address which makes them extremely troublesome to their friends. More frequently moral insanity is associated in childhood and youth with some amount of mental backwardness. The backwardness may be very slight, but the manifestations of moral insanity may be multiform. A dangerous form of moral insanity is incendiarism. Many forms of low cunning are developed in backward boys by associating them with others of more wit. Under such circumstances the backward boy calls to his aid lying, theft, and deceit to compensate for his intellectual weakness. The moral sense in these cases may be regained or developed when removed from their injurious surroundings and submitted to appropriate training. Idiot *savants* are feeble-minded children who exhibit some faculties developed to excess. Some such could carve and draw with great skill. Extraordinary memory is often met with associated with very great defect of reasoning. One boy, in reading Gibbon's "Rise and Fall of the Roman Empire," skipped a line on the third page at his first perusal. Ever after, when reciting from memory the stately periods of Gibbon, he would, on coming to the third page, skip the line and retrace his steps just as when he first re-committed the passage to memory. Often the memory takes the form of remembering dates and past events. One boy never failed to tell correctly the name and address of every confectioner's shop he had visited in London, and could as readily tell the date of every visit. The faculty of number is usually slightly developed in feeble-minded children, while memory is fairly well developed; yet occasionally the power of mental arithmetic has been well developed. Improvisation is an occasional

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faculty. Memory of tune is a very common faculty among the feeble-minded; they readily acquire simple airs and rarely forget them. In none of the cases of idiot *savant* had there been any history of the possession of a similar faculty by the parents or sisters or brothers. In one case a necropsy had been made. The boy had a remarkable, indeed perfect, appreciation of past or passing time. There was no difference from an ordinary brain, with the exception that there were two well-marked and distinct soft commissures. Dr. Down's explanation of the phenomenon was that, as every movement of the house was absolutely punctual, he had data from which he could estimate the time by accurate appreciation of its flux. All these cases of idiots were males. Every form of mental deviation may be met with in the congenital feeble-minded. They may become the subjects of acute and chronic mania, of acute and chronic melancholia, and of dementia. Occasionally under the influence of acute mania, the feeble intellect of the youth becomes fanned into a brighter flame. The taciturn may become loquacious; the timid and respectful, proud and defiant; the amiable and tractable, abusive and destructive. Three remarkable instances have occurred to Dr. Down of boys who had never been able to speak making use of well-formed sentences during the high febrile state of acute pneumonia or scarlatina. There are two ailments from which the congenital feeble-minded are remarkably free—chorea and hysteria. Chronic and persistent incoördinate movements may be seen, but not the acute attacks so common in a general hospital. Perhaps it is partly owing to the lessened emotional life of the patients. The same reason may account for the rare occurrence of hysteria. This defective emotional element in the feeble-minded spares them much grief. Epilepsy is a common complication of feeble-mindedness. Of the whole number of Dr. Down's patients 24 per cent. have been at some period or other epileptic. Dr. Kerlin of Pennsylvania gives nearly the same percentage. Epilepsy often appears for the first time at puberty, and subsequently disappears. Occasionally the status epilepticus supervenes with the worst possible results. Catalepsy is met with among the feeble-minded, but always associated with impure habits.

The *physical deviations* of the feeble mind are important. They are very prone to eczematous eruptions in the flexures of the joints and behind the ears. The skin gives evidence of degeneration in its tendency to unnatural unions, just as the petals of the corollifloral exogen indicate a lower grade than the distinct petals of the thalamifloral. So do webbing of the toes and fingers and adhesions of the lobules of the ears suggest marked inferiority. Abnormalities of the ear were frequent in people of a degenerate type: lobules absent, lobules adherent, helices defective, and the entire pinnæ misshapen or shrunken, are very common. The development of the hair offers some anomalies; some of the feeble-minded are hirsute over the whole body, and 11 per cent. have the eyebrows continuous over the nose. The tongue is very badly coördinated; at the usual time for commencing to speak, 36 per cent. were found to be speechless, and 30 per cent. could speak but little, whilst not more than 28 per cent. could speak fluently. Mastication is often defective; deglutition is often hurried. Rumination occasionally occurs. The appetite may be perverted, pebbles and other things being swallowed without ill effect. The organs of reproduction are ill developed—small ovaries and undeveloped or undescended testes. The reflex functions are defective. Constipation is common. Emesis difficult to excite. Absence of cough and expectoration when the subjects of phthisis was also to be explained in the same way. The vaso-motor system is very sensitive. Sudden change of weather easily excites gastro-intestinal trouble. Bolting food, or over-eating, or taking too much meat, or electrical disturbances are other common causes of catarrh of the bowels. Disseminated sclerosis, shown in the characteristic gait and scanning speech, may be observed; but more frequently pseudo-hypertrophic paralysis is manifested in the feeble-minded. Diseases of the liver and kidneys are extremely rare, owing to the discreet and temperate habits which such patients are accustomed to lead under medical guidance. Rheumatism is very exceptional. Diseases of brain and lungs are the chief causes of death, putting aside the diseases of childhood. Dr. Fletcher Beach found that about 2½ per cent. of the average daily number of inmates of the schools at Darenth die from epilepsy, or more than the mortality of London from all causes. The prevalence of phthisis as a cause of death depends very much on the nature of the soil on which they reside. In the year 1867 Dr. Down wrote a paper in THE LANCET "On the Relation of Idiocy to Tuberculosis," in which he showed how prevalent phthisis was among idiots, amounting to 39 per cent. of the general mortality. Nothing is more remarkable than the readiness with which feeble-minded children succumb to acute disease of any kind, or the way in which they are affected by climatic changes. The onset of illness should be narrowly looked for and promptly treated. The thermometer is of great value in detecting the early signs of disease and the need for early precautionary measures. Loss of appetite was the indication most relied on of illness before the introduction of the clinical thermometer. As to height and weight of idiots, Dr. Down's observations agreed with those of Dr. Shuttleworth and Dr. Tarbell of America. They are shorter and lighter, but the relative rate of growth of the two sexes of idiot children follows the same rule as that of normal children, and is subject to the same variations at puberty.

Diagnosis.—The diagnosis is important both for training and forensically. The profound cases are easily diagnosed, especially if associated with marked asymmetry of cranium or microcephalism. The congenital class is that which has to be considered in early life. The instinctive process of feeding is often acquired with difficulty, and indicates that there is no predominance of instinct in infancy. The young animal is on a higher platform than an idiot baby so far as instinct is concerned. There is a marked indisposition to make muscular effort. There is no responsive leap when the feet are allowed to touch the ground. No disposition to crawl. The power of standing is long deferred, and walking may never be attained. There may be much difficulty in diagnosing the accidental cases. They are, as a rule, fleet and mobile and mischievous to a degree. Irritated by constraint and intolerant of cephalic examination, they alternate their mischievous pranks with shrill shrieks and unmeaning cries. They rarely speak, are fond of feeling things with their tongue, and run about in search of fresh objects for indulging this freak. They live entirely in a world of their own. Slavering is a very common sign among the members of the three classes, arising sometimes from inattention, or from the hyperæmic condition of the salivary glands, from prognathous form and inadequate size of jaw, from want of muscular power of lip, from incoördinate movements of the tongue, and sometimes from a combination of two or more of these conditions. Automatic movements are also common. These may consist of rotatory movements of the head on its axis, from side to side, and rhythmical movements of the fingers before the eyes.

Backwardness.—There are a large number of boys and girls who are dull and backward, who develop tardily, but do eventually attain to a fair amount of intellectual power. These are the *enfants arrières* of French writers. For diagnosis the question to be answered is, Can we in imagination put back the age two or more years, and arrive thus at a time perfectly consistent with the mental condition of our patient? This would be possible with a backward but not with an idiotic child.

Absence of speech may be ascribed to deafness or congenital defect of hearing; to defective formation of the tongue, palate, or lips; to defective mental power, the child having no idea, or being incapable of converting ideas into words.

Anatomy.—The weight of the brain may be very considerably diminished in the microcephalic or Aztec types. The brain is not always simply retarded in growth. Too early synostosis could not be the cause of microcephalism. There is defect of development as well as of growth. The development of convolutions was not arrested equally at all parts of the brain. In one case—the brother of the patient whose brain was described by Mr. Marshall—the occipital lobe had developed but slightly. The convolutions were less complex, smoother, and with fewer secondary sulci than those of the orang or chimpanzee. The supra-marginal lobule, and the second connecting convolution were almost absent. The first convolution was very simple. There was a calcarine lobule, but not any accessory fold uniting the second ascending fold to the supra-marginal lobule. In these features the brain resembled the quadrumanous cerebrum. The want of symmetry, of an operculum, of the two internal connecting convolutions: the position of the bent fold in regard to the fissure of Sylvius; the complete junction of the calloso-marginal and the middle temporal or uncinate convolution—were characters

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essentially human. Asymmetry of the brain is common. The occipital lobe is often undeveloped. Hypertrophy of the brain is not unfrequent. A huge cranium with completely ossified sutures may coexist with a hypertrophied brain. The cranium may be greatly thickened. More or less complete absence of commissures may be met with. The corpus callosum has been absent in 2 per cent., and the soft commissure in 8 per cent., of Dr. Down's post-mortem examinations. Pallor of the grey matter is of very frequent occurrence. Indeed, nothing is more striking than the frequent mention of whiteness of this part. Dr. Down could not but think that this phenomenon afforded indications for treatment and hopeful prognosis—as to the possibility of functional improvement of the brain.

Treatment resolves itself into physical and medical, and moral and intellectual training. Treatment should be begun betimes. Early training is of importance in preventing the growth of bad habits. Dr. Down avers that he knows nothing of cataclysmal improvements at seven and fourteen years of age. These ages are developmental crises full of danger. The most successful training is effected by placing the child with its peers, and not with its superiors. Intelligent children will not take part in the amusements and games of feeble-minded ones. It is important to rescue the feeble one from a *solitary* life, to give him companionship with his equals, and to place him in a condition where all the machinery moves for his benefit, where he is surrounded by influences of art and nature calculated to make life joyous, to arouse his observation, and to quicken his power of thought. In the families of the wealthy feeble-minded children do not receive the needful education and the necessary attention. It must always be kept in mind that the basis of all treatment should be *medical* in the large sense of the word. Success can only be attained by keeping the patient in the highest possible health. This is demonstrated by the increased intellectual torpor that accompanies deterioration of bodily health, and also by the diminished intellectual vigour observed in cold weather. A very liberal dietary is of great importance. It should contain a fair quantity of nitrogenous elements, and be rich also in phosphates and oleaginous constituents. Green vegetables are very essential as a valuable antiscorbutic. Too much farinaceous food should be avoided. Semolina, entire wheat flour, or macaroni are the best. The food must be easy to masticate. The bed- and sitting-rooms should be spacious, well warmed, and ventilated. The skin should be frequently sponged; the exhalation from it in the feeble-minded is something *sui generis*. A gravel soil, with well-made walks and plenty of out-door exercise and warm clothing, are most necessary. Summer brings with it a remarkable immunity from disease. Gymnastics, massage, and galvanism are employed to improve the condition of the muscles. Volitional movements should take the place of automatic ones. Simple ones are first practised. Finger lessons should precede tongue lessons. Dr. Down always remembers the pinioned Frenchman who entreated that his arms might be freed because he wanted to speak. The physical quality of the brain and other nervous centres must be improved, and this will bring the patient into practical relation with the external world and initiate reasoning. The *moral* training is of great importance. The patient's will must be brought into subjection to that of another. He has to learn obedience, that right-doing brings pleasure, and wrong-doing deprivation of pleasure. The affective faculties should be so cultivated that loss of the teacher's love should be felt as the greatest punishment, and *vice versâ*. In this way indications of untruthfulness, selfishness, obstinacy, sensuality, theft, and unkindness are checked. Corporal punishment should be strictly forbidden. Nothing is worse than deprivation of food as a punishment for an offence. Moral delinquency may be the result of mental excitement, the outcome of defective nutrition. The *intellectual* training must be based on a cultivation of the senses. They should be taught the qualities of form and the relation of objects by the sense of touch; the colour, size, shape, and relation by sight; the understanding of the various sounds; the qualities of objects presented to taste or smell. The concrete, not the abstract, should be taught. Dressing and undressing should be taught. Habits of order and neatness, of dexterity in the use of the knife, spoon, or fork, of precision in walking and handling, should be inculcated. Defective speech is best overcome by a well-arranged plan of tongue gymnastics, followed by a cultivation of the purely imitative powers. Monosyllabic sounds having concrete representatives should be first taught. The transactions of buying and selling may be easily arranged for amongst the patients themselves. House and school instruction should be supplemented by gardening and farming operations. The lathe, the fretwork machine, carpenter's bench, and printer's shop are useful appliances and means. For girls kindergarten occupations and the various elegancies of needlework may be the outcome of persevering effort. Music and dancing may, for all, alternate with dramatic entertainments, which appeal to eye and ear.

A CASE OF WOUND OF THE COMMON FEMORAL VEIN; SECONDARY HÆMORRHAGE FROM THE COMMON FEMORAL ARTERY; SEPTICÆMIA; DEATH.[1]

By A. PEARCE GOULD, M.S.,
ASSISTANT-SURGEON TO THE MIDDLESEX HOSPITAL.

THE wound of a vein is, as a rule, less serious and more easily dealt with than a wound of the corresponding artery, and for this among other reasons wounds of veins have received but scant notice at the hands of most surgical writers. Wounds of very large veins, however, are very grave injuries, and there are several interesting questions connected with their treatment which may be considered as still open to discussion. Having recently had to treat a case of wound of the common femoral vein attended with grave complications, I have thought an account of it might be considered worthy of attention.

On the evening of Oct. 11th, 1886, M. M——, an Italian ice-cream seller, was stooping down in the street, when on rising he came in contact with the knife of a cat's-meat woman who was standing by his side, the knife entering his left groin. Blood flowed very freely, and he went to a neighbouring chemist, who applied a pad and bandage and sent him to Middlesex Hospital. On his arrival at the hospital the hæmorrhage had ceased, but while the house-surgeon (Mr. Livermore) was preparing to readjust the pad the man vomited, and at once a full stream of venous blood spurted from the wound. A compress was firmly bandaged on and I was sent for.

I found the man pale, cold, and rather faint from loss of blood, and as the hæmorrhage had been so abundant I determined to secure the wounded vessel. An anæsthetic was administered by Mr. Fardon, and a Petit's tourniquet was applied to the thigh *below* the wound. The wound was a clean cut half an inch long, immediately below and parallel to Poupart's ligament and exactly over the common femoral artery; a probe passed into it slipped downwards and inwards. There was no alteration in the femoral or tibial pulse. I enlarged the wound by a vertical incision about three inches long, and turned out a considerable quantity of clotted blood which was lying beneath the fascia lata; upon this very free venous hæmorrhage ensued, which was with difficulty held in check by digital pressure above the wound. I then passed my finger into the bottom of the wound, and found that it passed quite into the common femoral vein through a wound which severed the whole anterior segment of the vessel. A ligature was passed around the vein above and below the wound and tied. This did not arrest the bleeding, which was then seen to come from the internal saphena vein, which entered the femoral just opposite the wound; a ligature was passed around this vein and tied. But blood still welled up from the wounded vessel, and a further search showed that another vein entered the femoral trunk just opposite the wound in the segment between the two ligatures. This vein was tied, and then all hæmorrhage was found to be arrested. The ligatures were of carbolised silk. The femoral vein was divided between the two ligatures. The man lost a good deal of blood during the operation, which was attended with considerable difficulty owing to the impossibility of completely arresting the hæmorrhage by pressure above and below. The femoral artery was clearly seen during the operation, but was apparently uninjured. The wound was very thoroughly irrigated with solution of

[1] A paper read at a recent meeting of the Medical Society of London.

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CASES OF WOUND OF THE FEMORAL VEIN.

Surgeon.	Reference.	Injury.	Treatment.	Result.
Langenbeck	Langenbeck's *Archiv*, I., 1	Wound of femoral vein during removal of sarcoma of groin	Ligature of femoral artery	Recovery
Oettingen	"International Encyclop. of Surgery," vol. iii. (Dr. Lidell's article)	Wound of femoral vein during removal of tumour of groin	Double ligature of vein; ligature of femoral artery	Recovery
McClellan	Ditto	Wound of the internal saphena vein at the entrance to the femoral vein, during excision of tumour in the groin	Lateral ligature of the femoral vein	Recovery
Roux	*Gazette des Hôpitaux*, 1853 (quoted by Nicaise)	Wound of femoral vein above saphena during removal of tumour in the groin	Double ligature of the femoral vein	Recovery
McClellan	Dr. Lidell, *op. cit.*	Wound of femoral vein and exposure of the femoral artery by a blunt hook	Ligature of femoral artery; compression of wounded vein	Gangrene of leg; amputation; recovery
Ollier	Quoted by Nicaise	Wound of femoral vein in groin	Suture of skin wound; light compression	Recovery
Delore	Ditto	Wound of femoral vein	Compression above the wound	Death from hæmorrhage
Roux	Ditto	Compound fracture of the middle third of the femur; wound of the femoral vein	Wound enlarged; hæmorrhage arrested by plugging	Recovery
Larrey	Quoted by Nicaise (*Clin. Chir.*, t. iii.)	Sabre-wound of groin dividing saphena vein at the entrance to the femoral vein	Ligature of femoral and saphena veins	Recovery
Garretson	"Medical and Surgical History of the War of the Rebellion," second Surgical volume	Wound of femoral vein	Double ligature of femoral vein; single ligature of femoral artery	Death
Leale	Ditto	Gunshot-wound of femoral vein and prostate	Compresses	Death on the 13th day
Pegue	Ditto	Gunshot-wound of femoral vein	—	Death on the 17th day
—	Ditto	Gunshot-wound of femoral vein	—	Death on the 18th day
—	Ditto	Wound of femoral vein	—	Death
—	Dr. Lidell, *op. cit.*	Wound of femoral vein and crural nerve	Compresses and styptics	Death
Agnew	Quoted by Lidell	Wound of femoral vein during ligature of artery for aneurysm	Ligature of artery	Recovery
Travers	"Surgical Essays," by Cooper and Travers	Wound of femoral vein during ligature of artery for aneurysm	—	—
Gensoul	Quoted by Nicaise	Gunshot-wound of middle of thigh, fracturing femur; secondary hæmorrhage from femoral vein	Ligature of common femoral artery	Death on the 7th day; no gangrene
Desprès	Quoted by Nicaise (*Soc. de Chir.*, Oct. 18th, 1871)	Wound of upper part of thigh; secondary hæmorrhage	Ligature of femoral vein	Recovery
Nelson	"Medical and Surgical History of the War of the Rebellion," Part 3rd	Gunshot-wound of groin; sloughing; pyæmia; secondary hæmorrhage from a wound of femoral vein by a needle	Ligature of femoral artery	Death
—	"International Encyclop. of Surgery" (Dr. Lidell), vol. iii.	Wound of femoral artery and vein	—	Death in a few moments
	Ditto	Wound of femoral artery and vein	—	Death in a few moments
Rose	Ditto	Punctured wound of femoral artery and vein	Double ligature of femoral artery and vein	Recovery
—	Dr. Lidell's article, *op. cit.*	Gunshot-wound of femoral artery and vein	Ligature of femoral artery and vein	Gangrene; death
Dougherty	"Medical and Surgical History of the War of the Rebellion," second Surgical volume	Gunshot-wound of femoral artery and vein	Double ligature of femoral artery and vein; amputation	Death
—	Ditto	Wound of femoral artery and vein	Amputation	Pyæmia; death
—	Ditto	Wound of femoral artery and vein	Amputation on ninth day	Death
Thomson	Ditto	Wound of thigh; secondary hæmorrhage	Ligature of femoral artery and vein	Gangrene; death
Thomson	Ditto	Wound of femoral artery and vein	Double ligature of femoral artery and vein	Death
Gayet	Quoted by Nicaise	Wound of femoral vein and profunda artery	Lig. of external iliac artery	Death

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bichloride of mercury (1 in 2000), and was closed with catgut sutures, a drainage-tube being inserted at the lower angle, and dressed with sal alembroth wool. A flannel bandage was rolled around the limbs, and the man was returned to bed with the knee slightly flexed. A quarter of a grain of morphia was given hypodermically.

Oct. 12th.—Next morning he appeared comfortable; pulse 96; temperature 98·4°; sweating freely. The leg and foot were nearly as warm as the other side, and there was no œdema. The temperature rose in the evening to 101·2°; and the urine was drawn off by catheter, as none had been passed.

13th.—Temperature 103·6°; pulse 100; profuse sweating; patient restless at times. One grain of opium was ordered every six hours. The wound was dressed; there was no redness of the edges, swelling, or bagging. The drainage-tube was removed. At 9 P.M. the temperature was 104°, and, as the bowels had not acted, an ounce and a half of compound senna mixture was given.

14th.—Temperature 101°. Bowels acted five times during the night, and this diarrhœa continued through the day, in spite of the opium which was taken. There was slight œdema of the left foot and lower part of the leg.

15th.—Temperature 101°; pulse 108. Diarrhœa has ceased. The wound was dressed, and a considerable quantity of turbid serum oozed from it. The highest two stitches were removed, the edges separated, and the cavity was well washed out with corrosive sublimate solution (1 in 2000).

16th.—Temperature 100°; pulse 96; no sweating. On removing the dressing the edges were found sloughy, so the remaining stitches were removed, the edges separated, and the part well irrigated with corrosive sublimate.

17th.—Delirium set in; at 12 noon he had a fit, being seized with tremors and cough, followed by dyspnœa, the patient with wide-open mouth gasping for breath for four or five minutes. The wound was dressed and well irrigated. One-sixth of a grain of morphia was injected, but he slept only a very short time after it, and at night a mixture containing half a drachm of bromide of potassium, one scruple of chloral hydrate, and fifteen minims of tincture of hyoscyamus was ordered to be given every hour until sleep was obtained. The delirium was closely like delirium tremens. Four doses of this mixture produced no effect, and the man had a very restless night. At 4 A.M. one-sixth of a grain of morphia was again injected under the skin.

18th.—The patient has had two hours' sleep, and is much more sensible. The wound looks healthier. During the day he had three injections of one-sixth of a grain of morphia.

19th.—He had had a fairly good night and was better; the edges of the wound were granulating. He was quiet all through the day, and took nourishment well.

20th.—The improvement continued; in the evening he passed urine voluntarily for the first time.

At 12.30 A.M. on the morning of Oct. 21st, after a violent fit of coughing, profuse hæmorrhage came on, and a good deal of blood was lost before aid arrived. The artery was controlled above Poupart's ligament, and Mr. Livermore seized the bleeding point with pressure-forceps. I was sent for, and had the patient placed under the influence of chloroform. I found that the bleeding came from the common femoral artery; without difficulty I placed a silk ligature upon the vessel close below Poupart's ligament. The vessel was softened, and obviously unfit for a ligature as far down as the origin of the profunda, so a ligature was placed around both the superficial and the deep femoral arteries; this entirely arrested the hæmorrhage. The wound was again irrigated with the mercury solution, and dressed as before with alembroth wool. The limb was wrapped in a thick layer of cotton-wool, and hot bottles were placed in the bed.

The patient never recovered from the effects of the loss of blood, and he died in the evening of Oct. 22nd. During the last five days of his life the foot and leg became more œdematous, and especially was this so after the second operation. The foot and leg did not regain their warmth after the ligature of the artery.

The necropsy was made nineteen hours after death by Mr. Roger Williams. Rigor mortis was present, and the body was jaundiced in appearance. The two ends of the femoral artery were separated by about two inches, each secured by a ligature; in the upper end was found a rather firm reddish clot, which extended up to and obliterated the origin of the deep epigastric artery; the distal end was filled by a much smaller and softer clot, about three inches long. The tied end of the profunda femoris artery was found between the ends of the femoral artery. The upper end of the femoral vein was found with its ligature lying loose by it; there was no ligature over or near the distal end. A ligature was found around the internal saphena vein, and another around the external circumflex vein. The profunda vein entered the lower end of the femoral vein. There was a broken-down clot filling the external iliac vein from the entrance of the circumflex iliac vein and extending almost up to the vena cava. The left lower limb was deeply congested, and swollen from œdema and gas generated by decomposition. Liver and kidneys fatty. The spleen weighed 14½ oz., and was deeply congested. The endocardium on the right side of the heart was stained red.

Remarks.—I would submit the following interpretation of this case:—The wound of the vein was made with an infected knife. Antiseptic irrigation failed to remove all the infective material, which, remaining behind, set up inflammation in the wound and led to the breaking down of the thrombus in the vein. The femoral artery may have been bruised at the time of the original injury, although it showed no signs of it at the time, and the treatment pursued—plugging the wound, &c.—may have injured it, and so its walls quickly yielded to the septic processes in the wound, and secondary hæmorrhage ensued, necessitating ligature of arteries. Meanwhile the septic thrombus had been spreading up the iliac vein until all the direct channels for the venous blood returning from the lower limb were blocked, and with this moist gangrene occurred, its full development being prevented by the death of the patient from general blood-poisoning, accelerated by loss of blood.

The consideration of this case naturally divides itself into two heads—the occurrence of the septicæmia and the proper treatment of a wound of the common femoral vein.

1. *The septicæmia.*—Of the fact of septic infection of the wound, with the formation of a spreading, softening thrombus in the iliac vein, there can be no doubt; but exactly to determine how this infection was occasioned is a more difficult matter. My own impression is that the cat's-meat knife was the carrier of the infection, and that my antiseptic irrigation, although carried out with a special view to this contingency, failed to remove all the infective material. All the usual precautions in wound treatment were adopted: the ligatures were of silk, which had been boiled in carbolic acid solution (5 per cent.), and kept in the same liquid. To the occurrence of this septic infection of the wound the fatal result is due, for it prevented the healing of the wound by first intention, was an important factor in the production of the secondary hæmorrhage, led to the complete closure of the channels for the venous return from the limb, and induced the constitutional change which was manifested by fever, sweating, diarrhœa, delirium, and jaundice.

2. *The treatment of the wounded vein.*—From the "Medical and Surgical History of the War of the Rebellion," Dr. Lidell's article in Ashhurst's "International Encyclopædia of Surgery," and Nicaise's "Thesis," I have collected the following cases of wounds of the femoral vein. The cases in the accompanying table (page 259) illustrate several varieties of wound of the femoral vein: (*a*) wound of the vein during the removal of tumours, four cases, all ending in recovery; (*b*) accidental wound of the vein by bullet, sabre, hook, or fragment of bone, eleven cases—only three of these patients escaped with their life; (*c*) wound of the femoral vein during ligature of the artery for aneurysm, two cases; (*d*) secondary hæmorrhage from the femoral vein, three cases, one of which recovered; (*e*) simultaneous wound of the femoral vein and the femoral or profunda artery, ten cases, with only one recovery. As in so many other statistical inquiries the cases have varied so much in their nature, and in some instances the reports are so scanty, that this table cannot be relied upon as a safe and sufficient guide to the treatment of a wounded femoral vein. But at the same time it shows certain facts, the most striking of which is the variety of treatment that has been adopted, and the success that has attended almost every means used.

Ligature of the wounded vein.—The table shows four cases, in one of which the ligature was applied laterally; all these patients recovered, and no mention is made of subsequent œdema or congestion, still less of gangrene. On the other hand, Verneuil is quoted by Nicaise as having had three cases of lateral ligature of the femoral vein, all fatal. During the removal of cancerous glands from the groin on one occasion I had to tie the saphena vein at its juncture with the femoral vein. The man recovered, without any symptom referable to venous obstruction. In

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M'Clellan's case of lateral ligature of the vein, he speaks of the wound as a large one. The relative value of the lateral and circular ligature is the same in the femoral vein as in other situations, and although many cases of successful lateral ligature of large veins are recorded, the fatalities are too numerous to warrant its repetition, except in the case of punctures and small wounds.

Ligature of the femoral artery.—The table shows in all six cases, three ending in recovery, and three in the death of the patient. The best known case is that of Langenbeck, who failed to secure the vein, and then, on ligating the artery, found the venous hæmorrhage stop. In one of the cases the ligature was placed upon the external iliac artery.

Ligature of the femoral artery and vein.—This was done in three cases for wound of the femoral vein only (including one case of wound of the ending of the saphena vein), with two recoveries; and in four cases for simultaneous wound of the two vessels, with one recovery and three deaths. The ligature of an artery for wound of the corresponding vein was first done by Gensoul in 1831; but Langenbeck's name is specially associated with this form of treatment, which has been advocated also by Tillmanns and others. Langenbeck urged that the danger of ligating the main vein of a limb was the occurrence of gangrene from venous obstruction, and that by tying the main artery the supply of blood to the limb was so reduced that this danger was obviated. There are two sufficient answers to this argument: in the first place, it has been shown that ligature of the main vein of a limb does not produce gangrene so long as the various accessory channels of venous return are patent; in the second place, ligature of an artery lessens very materially for a time the *vis a tergo* of the blood in the capillaries and veins, and therefore reduces the force which is opposed to the venous obstruction. I have three times ligatured the axillary vein while removing malignant growths from the axilla, and have not observed any serious effects upon the circulation, and many cases might be quoted to show that Langenbeck over-estimated the injurious effects of ligature of the main vein of a limb.

The treatment of a wound of such a large vein by compression is not to be recommended, especially in view of the fact that the hæmorrhage, when apparently stayed, is liable to burst out during any expiratory effort, as was the case in my patient. Ollier's case, in which the only treatment adopted was suture of the skin wound and light compression, is a very striking one, and may serve as a good example in like instances.

The best treatment, therefore, appears to be the ligature of the wounded vein, and should I meet with another similar case this is the practice I am prepared to follow. When the secondary hæmorrhage occurred, the question of amputation suggested itself, but such a course would have been quite unjustifiable in view of the success which has sometimes attended ligature of the femoral artery and vein. In my case it would have been doubly wrong, for it would have inflicted a most serious injury upon a patient already doomed to death from the septic thrombus in his iliac veins. In a table of cases of hæmorrhage from veins in the "Surgical History of the American War," fifteen cases of wound of the femoral vein are mentioned, of which only two recovered.

SOME CONSIDERATIONS IN REGARD TO THE CAUSATION OF SEX.

BY A. J. WALL, M.D. LOND.,
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So many theories have been put forward as to the causation of sex that it would require much time even to state them. The object, however, in view at present is to propound no theory whatever, but simply to examine facts that may have a bearing on the subject, and, if possible, to bring out any relation that may be found to exist between the occurrence of sex and any well-ascertained circumstances in regard to the parents, and to draw therefrom any conclusions that may seem just.

In the lower animals there are so many different arrangements of the procreative process that it is not easy to determine what is the exact relation they bear to sex as seen in the higher members of the animal series. Of course, the essential point in all reproduction is the same—namely, the separation of a portion of the tissue of an organism, and its development after more or less change—a change sometimes so great as to surpass the creations of a fairy tale—into an organism like that from which it took its origin; and though in by far the greater number of animals the process has become modified, so that portions of tissue of two organisms unite before development proceeds, yet that it took its origin in the simpler method is evident from the fact that even so high up in the animal scale as birds the first step in the development of the ovum—cleavage—may occur without any interference of the male element whatever, though the process continues no further: a survival of great importance as evidence of an earlier and simpler method of reproduction. But, judging from the facts that intermediate between the simplest forms of reproduction and the complex ones, in which two individuals are required, there is a large class in which both sexual elements are placed in one individual, though not necessarily for self-impregnation, and also that even in the highest animals there is an occasional natural effort to revert more or less completely to this arrangement, it would seem that sex is merely an abortion of one class of sexual organ in each individual, and we must therefore look upon the sexual form which accompanies this as purely secondary. And widely different in appearance as the sexes in the higher animals often are, yet but remove the sexual organs and you have in each case a being with characteristics between the two. Moreover, if there is any imperfection in the development of the sexual organs, there is generally an approach in outward characteristics to the appearance of the other sex, showing that it requires the presence in perfection of one class of organ to exclude entirely the approximation to the opposite sex.

But the mode in which this suppression of one class of sexual organ has been brought about is exceedingly obscure, though a very cursory glance at the animal world would suggest that it is not always produced in the same way. In the class Insecta, for instance, we have in the well-known case of the honey-bee perfect females and sterile females produced from eggs impregnated by the male, but the larvæ of which are fed in different ways; whereas males are produced from eggs that have never received any of the male element at all—a position proved by the fact that if the communication with the spermatheca in the queen be interrupted, the ova then produced only bring forth males, and also that when the common bee is crossed with the Ligurian, only the queens and workers have any trace of the cross-breeding, the males being purely of the race of the queen from whom they proceed. In ants also it occasionally happens that the workers, who of course take no part in the nuptial flight, bring forth eggs, and as far as observation goes—certainly in Lasius niger and Formica fusca—these eggs invariably produce males. Now, whatever views may be held as to the cause of sex in man—and many of them are sufficiently eccentric,—no one has ventured to suggest that it is due to the absence or presence of impregnation by the male element. But even in the same group of animals sex is not always arrived at in the same way, for in this very class Insecta—in Chermes abietis for example—no male individuals have ever been detected, and perfect females lay eggs from which only females are produced. In aphides, again, after several generations of sexless forms, perfect males and perfect females are produced for normal sexual reproduction. In looking, therefore, for the cause of sex, we should be even more careful than usual in not generalising too hastily, and any evidence obtained should be applied in reasoning strictly to the group from which it comes till other observations show that it may be safely extended.

As in man differentiation of sex occurs by no means late in fœtal life, attention is naturally directed to the condition of the parents, and though we cannot with any prospect of success investigate all the circumstances relating to them, yet there is one fact often ascertainable with precision, and that is the age, which is necessarily correlated with some of the most important conditions of life. It will be, then, the present object to examine all the evidence accessible on this subject, and to see what light is thrown on the occurrence of sex; but it may be well to state at the outset that age *of itself* cannot be the cause, for both sexes appear to be produced at nearly all possible ages of the parents.

In regard to man, the examination of this question has not attracted the attention it deserves. Sadler, in his "Law of Population" (vol. ii., page 343), gives a table by which

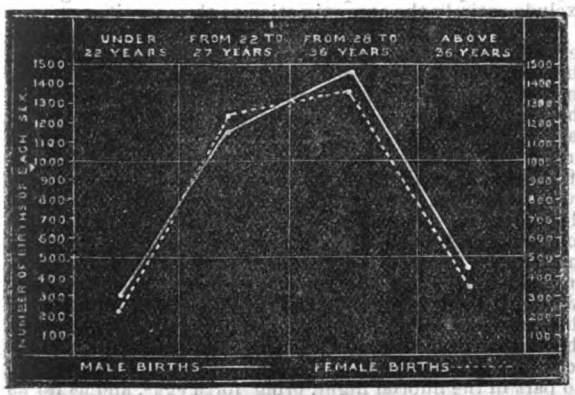
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he believes he proves that the older the male the greater is the proportion of male births; but as he admits that in only 381 families were the ages of both parents known to him, and as he classes together all offspring at whatsoever ages of the parents they may have been produced—a proceeding that will be seen in the sequel to be well adapted for defeating the purpose of the examination,—his conclusions are not worthy of serious consideration.

As this inquiry must be necessarily statistical, the first point to be aimed at in the statistics is their accuracy. Therefore, the Royal Houses of Europe were first included. They contributed in all 120 families, our own Royal Family giving 15 of them. The authority chiefly used was the well-known "Almanach de Gotha," and from the same source were taken 27 other families of princely rank. No family was utilised except those in which the dates of the births of both father and mother were exactly given. Next follow 890 noble English families from the "Peerages"—the volumes used being twenty-five years apart in date, so as, if possible, to include two generations. In addition, 163 families are taken from the "Gothaisches Genealogisches Taschenbuch der Gräflichen Häuser." These families had each of them several children, and the mother's house was given in the volume as well as the father's, ensuring, as far as possible, the accuracy of the date of her birth. Thus in all there are 1200 families with 6529 children, being 5·4 children to a family. Of these 6529 children 3381 were males and 3148 were females, or a birth-rate of 107·4 males to 100 females. This is something higher than the usual

CHART 1.

Ages of Mothers.



Showing the number of male and female births at different periods of the ages of the mothers.

rate, which is generally given as 106 males to 100 females, but variations occur, and a much higher male birth-rate than this has been observed.

As the sexual life of the female is so much shorter than that of the male—being in these statistics thirty-four years, the earliest age of a mother being sixteen and the latest forty-nine,—it will be advantageous to consider first the influence of the age of the mother. Does, then, this proportion of 107·4 males to 100 females obtain equally in all periods of the mothers' lives? To ascertain this it will be convenient to divide the whole time of fertility in the female into periods corresponding to the natural stages of life. The earliest period, that of immaturity, may be taken as commencing from the date of the first birth at sixteen years of age till the completion of the twenty-first year. Within this period there were 589 births, of which 315 were males and 274 females, or a birth-rate of 114·9 males to 100 females—a great excess of male births over the average of 107·4, which occurs at all ages.

The next natural period is that of complete womanhood, when the sexual powers are at their height, which may be taken as from twenty-two to twenty-seven years, both years being included. During these years 2275 births took place, of which 1128 were males and 1147 females. This is equivalent to a birth-rate of only 98·3 males to 100 females—a very complete reversal of the usual frequency of the occurrence of the sexes.

After this the sexual powers undergo a decline, but it will be convenient to divide the remaining sexual life into two periods using the end of the thirty-sixth year as the dividing line. From the twenty-eighth to the thirty-sixth year inclusive 2823 children were born, giving 1489 males and 1334 females, or a proportion of 111·6 males to 100 females. Here the males again asserted their predominance considerably beyond the mean proportion.

The last period will be from the thirty-seventh year to the termination of sexual life at forty-nine years. Here 842 births occurred, of which 449 were males and 393 females, being 114·2 males to 100 females—a very great excess of male births, being only a fractional part below the excess noted in the period of immaturity.

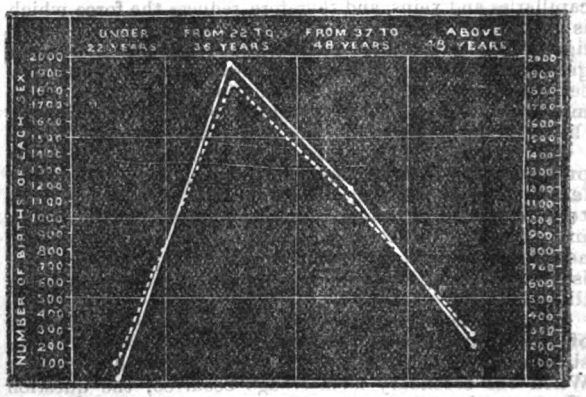
There is, therefore, evidence that the proportion between the male and female births is constantly changing, and that the varying proportion bears a distinct relation to the sexual condition of the mother. Chart 1 will show more clearly than any words this relation between the age of the mother and the sex of the offspring.

We must now turn to the influence of the age of the father. But we have here a difficulty to contend with, which is due to the much greater length of the sexual life of the male. In the tables containing these statistics the age of the youngest father is nineteen, and the oldest eighty, giving a sexual life of sixty-two years. To investigate thoroughly an extended period like this would require a far larger number of families than is at present available.

In the period of immaturity in the male, which may be taken, as in the female, up to the end of the twenty-first year, there were but 24 births, of which 10 were male and 14 female, or a proportion of only 71 males to 100

CHART 2.

Ages of Fathers.



Showing the number of male and female births at different periods of the ages of the fathers.

N.B.—In this chart the dotted line begins too far above the plain straight line. The two ought to begin very close together, the dotted line being only slightly above the other.

females. This, taken together with the evidence we have obtained from the mother in the time of immaturity, when no less than 114·9 males were born to 100 females, shows how little capable the immature parent is of impressing its own sex on the offspring. But it shows, moreover, that the immature male has even less power of doing this than the immature female.

After the twenty-second year a difference is perceptible in the influence exercised by the male and female parent. In the female from twenty-two to twenty-eight years a considerable excess of female births takes place; but after that there is a decided decrease; whereas in the male there appears to be no great difference in the proportion of male to female offspring till considerably after thirty years. Thus from twenty-two to thirty-six years of age, both inclusive, of the fathers, there were 3820 births, of which 1997 were males and 1823 females, or 109·5 males to 100 females—an excess of males beyond the mean proportion.

In the period from thirty-seven to forty-eight years there were were 2281 births, with 1180 males and 1101 females, or a proportion of 107·1 males to 100 females, or a slight decline of males from the previous rate, and very close indeed to the mean proportion.

In the last period, that of decadence of sexual power, from forty-nine years to the limit of sexual life, here given at eighty, there were 404 births, with 194 males and 210

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females, or a proportion of only 92·4 males to 100 females. That is to say, in the period of declining sexual power in the male the proportion of females born is greater even than at the period of the greatest energy of the female, from twenty-two to twenty-seven years. At the same time, the proportion of males produced by male parents in their declining years is considerably greater than at the age of their immaturity. Chart 2 illustrates these varying proportions.

(To be concluded.)

ON A CASE OF

INCISION AND FREE DRAINAGE OF THE LUNG FOR PHTHISICAL CAVITIES.

BY ARTHUR NEVE, F.R.C.S. EDIN., &c.

IN the very dawn of surgery it is probable that the chest was opened from time to time when abscesses pointed outside it. In this sense "pulmonotomy" is no new proceeding. But incisions through the thoracic wall for gangrene, deep-seated abscess, and bronchiectasis or tubercular cavity are truly modern operations, differing from the former as widely as the counter-puncture and thorough drainage of an abscess differs from the rude gash made by some Polynesian savage. The advance of visceral surgery has, indeed, only been rendered possible by the increased precision of diagnosis; and there is little cause for boasting of surgical advance, when in such a large proportion of cases the increased accuracy of diagnosis only makes us feel the more keenly our remedial powerlessness. It is only within quite recent years that notices of attempts to drain purulent collections in the lung itself have appeared in the journals. As far as I can make out, from reference to Dr. Neale's valuable Digest and the medical journals, the cases as yet are confined to one or two for abscess, several for gangrene, and more recently one or two for bronchiectasis. But that the operation has not taken a recognised position is shown by the fact that in Quain's "Dictionary of Medicine" it is only mentioned in connexion with gangrene, and then but casually as an alternative of tapping. The case which I have to record is as follows:—

A young man, haggard and wasted to a degree, was admitted into the C.M.S. Mission Hospital on April 10th, 1886. For a year he had been suffering from violent cough and profuse expectoration. His appearance was that of a man in the last stage of phthisis. His fingers were much clubbed. The expectoration amounted to a pint and a half or two pints in the twenty-four hours. It was tough, and in large flocculent, purulent masses. Microscopic examination showed a very considerable proportion of pus cells, with elastic fibres, &c., and swarming with bacilli. Examination of the chest revealed the presence of cavities in the upper and anterior part of the right lung, while the right base and most part of the left lung was fairly healthy. The left apex appeared condensed, with possibly commencing softening. For nearly three weeks the patient was treated with cod-liver oil, tonics, eucalyptus and creasote spray, and counter-irritation. During this time there was no improvement, and the patient (a troublesome one) was clamorous for something to be done. Accordingly on April 29th, having administered chloroform, I made an incision two inches long close to the right nipple, through which a corresponding portion of the fourth rib was resected, with the periosteum attached. The pleural surface was, as I expected, firmly adherent. I then forced my finger inwards and upwards in the direction of the cavities. There was no such large cavity close to the wound as I had hoped to find; but upwards it entered two small cavities. The tissues were hard, but friable. I did not attempt to open the cavities on the axillary side, deeming that they would drain by the bronchi into the wound. A large-sized drainage-tube, six inches long, was passed into the lung, and the wound closed by a pad of gauze and a sawdust bag. Hæmorrhage was quite inconsiderable, and the air whistling through the wound gave promise of good drainage. Within two days the expectoration by the mouth was diminished to three or four ounces, and was no longer accompanied by the distressing cough which the man had complained of. There was, however, much pain about the wound. It was daily washed out with corrosive sublimate solution, and pure oil of eucalyptus was poured into the tube. At first this gave rise to cough, but tolerance was established. Inhalations of creasote and eucalyptus were continuously maintained by keeping the pad on the wound moist with them. The discharge from the tube was chiefly muco-purulent; at first bloody, later thick and tenacious, but progressively less so. About the fourth week the patient began again to complain of the drainage-tube (which he had himself removed several times during the first two days); a little blood also appeared on the dressings; so, fearing ulceration into the vessels of the lung, I removed it altogether. In the early part of June the sputum continued healthier, and he went home. On the 24th he returned. The improvement was then striking, especially in the local signs. The chest around and above the wound was considerably contracted, and sucked in. The sinus was freely open, and upon coughing some mucus was expelled from it. The healthy area of the lung seemed increased. The apex of the left lung, however, showed more signs of breaking down. He remained under observation in hospital for two days, and was photographed. The expectoration was about ten ounces in twenty-four hours, but was chiefly clear and watery, with a few nummular masses similar to those of which it formerly entirely consisted. His cough troubled him only in the morning; he slept and ate well, almost ravenously, and gained strength, though but little flesh. He was then sent to a mountain sanatorium 8500 feet above the sea. Up to this point the improvement effected was entirely by means of the operation. Since that time I have not seen the patient, but occasionally receive reports from his friends. After September he became weaker. He is said to wander over the country, is seldom at home, and does not work. There still remained a small opening in the chest.

Remarks.—In resorting to pulmonotomy for a case of advanced phthisis, I was performing an irregular proceeding, though it was fully justified by the amount of the expectoration, by the limitation of gross lesions to one lung, and to a not very extensive area therein, and, therefore, by the possibility of effective drainage. An operation, moreover, offered the means of directly medicating the affected parts, and of delaying or arresting the advance of disease in the other lung, which would have rapidly determined a fatal issue. For these reasons I did not hesitate to avail myself of the willingness of the patient to undergo an operation which he was given to understand would alleviate his distress. The result was as satisfactory as I had anticipated. The cavities which were opened, and also those higher up in the apex, ceased to secrete such a large amount of sputum, and apparently cicatrised. In this they were assisted not only by the drainage and topical medication, but by the removal of a considerable portion of rib, with the consequent possibility of retraction of the thoracic wall. The slight amount of respiratory movement of the upper part of the chest and lung is probably the chief cause of the special liability of the apex to the formation of tubercle and its resulting cavities; but even this slight movement is probably unfavourable to the healing of such cavities when the pleural surfaces are adherent. I therefore think that in many cases of phthisis with apical vomicæ it might be beneficial to remove portions of the upper ribs, as in Estlander's operation for empyema. If a similar case presented itself, but with less abundant sputum, I should be disposed to try the resection of portions of the second and third ribs, with intra-pulmonary injections. As the preliminary to all operative methods, the usual antiseptic inhalations and other remedies should be fully tried. Having decided to operate, the aspirator should be used to confirm the diagnosis as to the position of the cavity. The first risk met with in operating is that arising from non-adhesion of the pleura. Circumstances may point towards adhesions, but the diagnosis must always be attended by uncertainty. Puncture and drainage of a cavity, where the pleural cavity is not shut off from the purulent secretion, would lead almost necessarily to a pyogenic pleuritis. If after resection of the rib the pleura is found non-adherent, it would probably be best to unite the lung by catgut stitches to the thoracic wall, and postpone incision into the lung for a few days, when the exuded lymph will occlude the pleural cavity; this might not be practicable on account of collapse of the lung, but at least it might be attempted by seizing the lung with a sharp hook, and effecting the suture promptly.

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In making the incision it is not necessary to use a sharp instrument. The friability of the lung often permits of the finger being used, in which case dangers are avoided and information procured which no other instrument could give. In my case bleeding was insignificant, and most surgeons have found that if it occurs it is easily arrested. Drainage takes place less by gravitation than by the expiratory efforts; but position can do much towards helping these. Similarly, position, aided by inspiratory efforts, will effectually distribute antiseptic applications, such as iodoform dust, eucalyptus oil, &c., to subjacent parts of the lung, and their effect may be kept up by the use of volatile antiseptics in the dressing used. As in all my surgical cases for the last four years, I use large pads of cedar sawdust, to which I add creasote &c.; these act as respirators, filtering and warming the air. I may add that the operation cannot be taxed with failure because a permanent cure is scarcely to be achieved, inasmuch as legitimate operative interference is necessarily delayed until the disease has made great headway, and the local symptoms, grave as they may be, are but the manifestations of a graver constitutional disease.

Kashmir Mission Hospital.

CASE OF STRONGYLUS GIGAS.

BY R. CANNON, L.K.Q.C.P., L.R.C.S.I., M.D. CHILI.,
LATE SURGEON, ROYAL NAVY.

ON August 20th I was called to see a boy of twelve years of age suffering from febrile symptoms of three days' duration. He complained of headache, aching in the limbs, and general malaise. He had had epistaxis, his tongue was foul, and his bowels costive; temperature 39·50° C.; pulse 90. The night before I saw him he could not micturate, and on the morning of my visit he had done so without difficulty. In the chamber-vessel, which he had used in the upright position, a worm had been seen. The "patio," or court of the house, was asphalted and dry, and it was quite impossible that any earth-worm could have been introduced by chance into this vessel. I take this to be a case of strongylus gigas, of which only seven cases at all trustworthy have, according to Davaine, been reported. The worm was in three parts, and was of a reddish colour, as if blood-stained. It measured about ten inches. Around the head could be seen prominences, as if tubercles or rudimentary eyes; some fine membranous films, as if of a delicate cyst, were adherent to the broken parts. The urine contained no blood or any deposits; it was of a darkish colour, but not more so than one sees in febrile states. I at once put the specimen into spirit and have not since extracted it, contenting myself with examining it with a lens. It does not appear to me to be an intestinal lumbricus, and I have not the slightest doubt that it issued from the boy's urethra. He was not aware of having passed anything unusual until the vessel was brought to him by his mother. There could be no object in deception of any kind. The boy was treated with salicylate of soda and with nightly doses of antipyrine, and after copious bleeding had taken place from the nostrils the headache and febrile symptoms were in a few days quite relieved, and the boy had no other troubles in connexion with the urinary organs.

We know that this parasite is found in the kidneys and urinary passages of such animals as the weasel, hare, ox, dog, wolf, &c.; but in the present case the only animal that could have interfered would be the dog. I saw no dogs about the "patio," and, besides, it would have been ridiculous to suppose that a dog would have had the sagacity to deposit his strongylus gigas in a chamber-vessel; moreover, on the previous night the boy had been unable to pass his urine, and the parasite must have occupied the urethra or blocked its entrance into the bladder.

Cases have been recorded in which intestinal worms have found their way into the bladder. This, of course, might easily occur in the female, but in the male the difficulty would be great. The boy, in this instance, was a quiet sensible lad, not by any means hysterical or a trickster, and I think the case from its rarity is very interesting and worthy of the fullest investigation. Of course the interest turns on this worm being a specimen of strongylus gigas or not, and this fact I have no means of deciding. I showed the specimen to my friend Dr. von Schroeders, of this city, but he had no plates depicting the parasite. I also showed it to an American colleague, but, curiously enough, he had never heard of such a thing as strongylus gigas.

Valparaiso, Chili.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF EXOPHTHALMIC GOITRE TREATED BY THE CONTINUOUS CURRENT.

BY W. B. HADDEN, M.D., M.R.C.P.

DRUGS are uncertain, and unfortunately often useless, in exophthalmic goitre. I therefore determined to try galvanism in this case, and the result, as will be seen, was very satisfactory.

The patient was a single young lady, aged twenty-eight, a professional nurse. She consulted me on Jan. 15th, 1886. For nine months previously she had found difficulty in distinguishing the names of streets, and for three months her friends had noticed that her eyes were prominent. She had remarked some fulness of the throat for two months. When I first saw her the eyes were markedly prominent and somewhat injected. The thyroid was large, mainly on the right side, but not pulsating. The pulse was 140. There was no cardiac bruit. She had frequent and excessive perspiration. There were constant efforts at deglutition, and she suffered from borborygmi. The bowels were regular. There was no derangement of the catamenia. She expressed herself as feeling pretty well in herself; but on being questioned said she had some dyspnœa and dysphagia. She had never suffered from any illness except measles. I ordered a constant battery of ten cells to be used night and morning. The negative pole was placed on the nape of the neck, and the positive over the thyroid gland and also over the eyeballs, the eyelids being closed. Each application did not extend beyond ten minutes. There was a marked improvement in a month.

On June 22nd she was practically well. The right eyeball and the right side of the thyroid were still slightly full. There was no palpitation, from which previously she had suffered, and the pulse was reduced to 96. The perspiration and sensations of excessive heat had quite disappeared. I have seen her frequently since, and the improvement is maintained. She tells me that when her illness first began she used to sleep in cold weather with only a sheet over her. During the time she was under treatment her weight increased by more than one stone. No medicine was given except belladonna for two or three weeks; but this drug, which was prescribed at the very onset, was discontinued, as no beneficial result ensued. The battery was not used at this time.

Remarks.—The treatment of exophthalmic goitre by this method deserves a trial. I do not wish to dogmatise from one case; but I may mention that I have had quite recently the opportunity of seeing the beneficial effects of the continuous current in another patient.

Welbeck-street, W.

ON A CASE OF TETANUS SUCCESSFULLY TREATED WITH CHLORAL HYDRATE.

By J. HAWKES, M.D.

I THINK the following notes on a case of idiopathic tetanus treated with chloral hydrate throughout the greater part of its duration may prove interesting, as indicating the almost specific effect of the drug and the large doses tolerated in this often intractable complaint.

A healthy country lad, aged thirteen, employed in outdoor work, was taken ill with symptoms of tetanus about a week before my attendance was requested on Nov. 16th. When I saw him he was lying on his back in rigid opisthotonos; dorsal region and thorax prominently arched, and stretched towards the right side; head drawn back; eyelids partly closed: lips retracted, exhibiting marked

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risus sardonicus; muscles of neck and trunk hard and board-like; lower extremities extended; breathing hurried and shallow. The boy had been unable to sleep. The jaws were firmly clenched to within about a quarter of an inch. I ordered belladonna liniment to the spine, powdered jalap with calomel, and a sudorific mixture three times a day. As he resided at some distance from my house, two days elapsed before I saw him again, when his condition had undergone no change. The bowels had freely acted. Linseed-meal poultices sprinkled with turpentine were applied to the dorsal region, and ten grains of chloral hydrate, with twenty grains of bromide of potassium, were given every four hours.—Nov. 21st: Has had two hours' sleep, the first he has had since the beginning of his illness. Decubitus natural; opisthotonos much relieved, but not disappeared. Countenance natural; lips no longer retracted, but the jaws are clenched as before. To continue treatment, and apply a mustard-and-linseed poultice to the nape of the neck.—22nd: Slight improvement. — 24th: The chloral to be increased to twenty grains and the bromide of potassium to thirty, and taken every four hours. — 27th: Can open his mouth more freely, and speak distinctly, but the rigidity persists in the abdominal and thoracic muscles; the neck is easier. To apply linseed poultice with turpentine to the neck as before. To continue the treatment.—Dec. 2nd: Lies placidly in bed; answers questions distinctly; sleeps for two or three hours, but never more than three; bowels act regularly; takes semi-solid food. To continue the treatment.—6th: Is going on fairly well, but some rigidity continues, especially in the trunk; can move the feet freely. The chloral treatment was now suspended for four days, and henbane with fœtid spirit of ammonia substituted, but no improvement followed.—10th: Ordered fifteen grains of chloral hydrate, twenty minims of tincture of lobelia, and twenty minims of compound tincture of cinchona, thrice daily.—13th: Belladonna plaster applied to the whole dorsal region. To continue the treatment.—17th: Has obtained further relief, the rigidity becoming less. To continue the mixture. Is wearing the plaster, which he feels to be beneficial.—22nd: Is altogether better. To continue the mixture and repeat the belladonna plaster.—24th: Is very comfortable, and almost convalescent.—29th: Was able to enjoy his Christmas dinner downstairs with the rest of his family. Appears to be fairly well. To discontinue the treatment.

Remarks.—This was a case of idiopathic tetanus brought on by exposure to wet and cold. It presented the symptoms of trismus very markedly, and there was absence of sleep for a long time. It appears to me that chloral alone or combined with bromide of potassium controlled the severity of the disease, and if it did not actually cure the malady it afforded time for nature to exert its recuperative power.

Northampton.

SURGICAL MISHAPS.

By E. L. HUSSEY, F.R.C.S.E.

ONE of the cases mentioned by Mr. Teale reminds me of a case formerly under my care.

In 1861 a young lady applied to me with a small tumour behind the angle of the jaw on the right side. It was tough and almost cartilaginous under examination, and the skin was generally adherent over the surface. The case had been seen by the late Mr. Hester and Mr. Owen of Oxford, and by Sir H. Acland. It was thought to be of a cystic nature, and the swelling had been injected with tincture of iodine. I cut through the substance in its whole thickness, and endeavoured to clear away the contents from each half; this could only be done to a very slight extent. The wound healed favourably. A second operation was undertaken some months afterwards. The skin was divided, and separated without difficulty from the tumour. This now appeared to be about the size of a large walnut and of a fibro-cellular structure. I cut off the exposed part, so as to clear the wound for a deeper dissection. Then, fixing a hook in the remaining part, I endeavoured to draw it forwards. This I was unable to do. The attachment was evidently very deep; the skull itself moved with the motions of the hook. I cut off, as deeply as I could, the part of the tumour which was transfixed by the hook, and closed the wound. This healed as favourably as after the former operation. The lady afterwards married, and she died from phthisis more than twenty years after the operation. There was not any fresh growth of the tumour. Being in communication with Mr. Cæsar Hawkins at the time of the operation, I mentioned the case as a disagreeable piece of active surgery. He told me that Mr. Liston, in a similar case, found, upon the death of the patient, that the tumour had its origin in the base of the skull.

Oxford.

HYDATID OF LIVER TREATED BY PUNCTURE; COMPLETE RECOVERY.

By FREDK. A. A. SMITH, M.D.

MRS. K——, aged forty-eight, struck her right side against the kitchen table about five months ago. She did not think anything about the accident, but soon afterwards felt a pain in the right side, which gradually enlarged and extreme emaciation set in. Cancer was diagnosed by several medical men, and one thought the ribs were fractured. When I saw the patient, she was extremely weak and emaciated, and looked like a woman dying of cancer. On examination the ribs of the right side were found very prominent, with bulging of the intercostal spaces. Percussion dulness extended over the median line and downwards to nearly three inches below the ribs. The tumour felt firm and smooth, and gave one the impression of an enlarged liver. At a spot, the size of a florin, an inch below the margin of the lower ribs and two inches to the right of the median line, slight fluctuation was felt. Diagnosing the case as one of either abscess or hydatid cyst, I plunged a No. 1 trocar and cannula into the centre of the fluctuating spot, in a direction upwards and backwards, and drew off about six ounces of limpid, straw-coloured fluid. A small piece of plaster was placed over the puncture and a towel tied tightly round the abdomen. Nothing more was done, and the patient got rapidly well and is still alive. The only precautions I took were to stretch the skin, so as to make the opening valvular and arrest the flow of liquid before the cyst was entirely emptied; thus no air was allowed to enter.

The interesting part of this case was the distinct history of a blow, and the rapid enlargement of the tumour and extreme emaciation. The fluid was examined carefully under the microscope, but no hooklets were detected.

Cheltenham.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

SUPRA-PUBIC LITHOTOMY IN A MAN AGED SEVENTY-TWO; CURE; SUBSEQUENT DEATH FROM APOPLEXY; REMARKS.

(Under the care of Mr. JOHN CROFT.)

THE following case is one of those in which the operation which was performed is specially advantageous. There were two large stones, an enlarged prostate, and a patient who was in a very poor state of general health. He was not in a condition to bear the prolonged administration of an anæsthetic, or the manipulation which would have been called for had the size of the stones permitted of lithotrity; therefore no very accurate measurement was taken of the stones before operation, the supra-pubic method being so clearly indicated.

J. T——, aged seventy-two, a labourer, was admitted into Edward ward on July 12th. About twelve years ago he noticed pain at the end of the penis on micturating; during the last two or three years the pain has increased. Micturition is and has been very frequent, he not being able to hold his urine for more than two hours. Has on several occasion had catheters passed, but has not suffered from retention of urine. On examination per rectum the prostate

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was felt considerably enlarged laterally. On passing a sound the sensation of striking a stone was elicited, and appeared to be produced by the presence of a very large one or by a collection of calculi, stone being struck on either side as the sound was rotated. The urine was very offensive, alkaline, and contained pus. The patient was much enfeebled by suffering and age, by degenerated arteries, and a great tendency to bronchitis.

On July 17th Mr. Croft operated. Chloroform was administered. A catheter was with some difficulty passed into the bladder, and this was washed out three times with a solution of boro-glyceride, eight to ten ounces of this solution being left in the bladder, and the rectal bag injected with twelve ounces of fluid. An incision three or four inches in length was made in the middle line above the pubes. There was a fair amount of abdominal fat. The tissues in front of the bladder were unusually friable and vascular, the veins being somewhat varicose in appearance. A puncture was made in the bladder with the point of a scalpel; through this the forefinger of the left hand was inserted and the wound dilated. Two large calculi of lithate of ammonia &c. were extracted, together weighing over four ounces, one weighing 969 grains and the other 945 grains. No other stone was felt, but the middle lobe of the prostate formed a well-marked projection into the bladder. The opening in the bladder was not closed, but two stitches were placed in the upper part of the abdominal wound. The bag was removed from the rectum. A large drainage-tube was inserted, and the wound plugged with lint soaked in carbolised oil; over this was placed lint spread with iodoform and vaseline ointment and finely drawn carbolised tow and absorbent wool. Two hours before the operation the patient had had a rigor, and the temperature rose to 101·4°; in the evening it was normal.

For three days the patient was kept on his back, and a flexible indiarubber catheter retained in the urethra. The wound was dressed every two hours in a similar manner to that employed after the operation. For a long time the old man was very feeble and apathetic, requiring great attention and careful feeding and nursing. The catheter was of no service, and therefore removed.

On the 18th he had slept well after a subcutaneous injection of morphia, but complained of pain in the abdomen due to flatulence; warm milk instead of cold was given, and he was much easier in the afternoon. There was slight cough, and his breath was very offensive.

19th.—Wound washed out morning and evening with a carbolic solution. He perspires very much over the face and hands.

20th.—Restless, requiring the subcutaneous administration of morphia. Complaining of flatulence and cough, he was ordered an effervescing mixture of citrate of potash and carbonate of ammonia, and allowed three ounces of rum.

21st.—Allowed to lie on his side. Had an attack of convulsive character in the early morning, which lasted about fifteen minutes, during which he appeared to be only semi-conscious.

On the 23rd the bowels acted after medicine. The drainage-tube was removed on the 28th, and a sponge, which had been soaked in a warm solution of Condy, was applied over the wound. Wine was ordered, and a tonic of quinine and iron.

There was a gradual but slow improvement until Aug. 1st; during that day he complained several times of faintness and shortness of breath, but could move more easily in bed in the intervals. The urine was very offensive, and most of it came by the wound. Next day a broad strip of strapping was placed across the wound from hip to hip; and in the evening he was taken out of bed, and sat in an arm-chair for a time. The wound was kept open for more than a month after this date, and the bladder washed out daily. The temperature rose on the third day after the operation to 101·6°. This was the highest record, the reading after the fourth day varying from 96° to 98·6°. He was taught to pass a catheter for himself. When he left the hospital, the wound was firmly closed, there was no evidence of cystitis, and the man was apparently quite well.

It appears from a letter written to Mr. Croft by Dr. Thomson of Luton, who attended the patient, that the latter died suddenly on the 19th of October from apoplexy.

Remarks by Mr. CROFT.—This case is of special interest, as it is the first supra-pubic operation for stone performed at St. Thomas's since Cheselden gave up the high operation about a century and a quarter ago. He himself says that "he would not have left the high way but for the hopes he had of a better, being well assured that it might hereafter be practised with greater success." His prediction has come true. The incision into the bladder was a puncture not more than half an inch in extent; this was dilated with the finger until large enough to allow of the extraction of the stones. This lesion healed, when permitted to do so, very soundly and readily, although the exit of urine from the bladder was materially obstructed by the enlarged middle lobe of the prostate, which projected greatly into the bladder. It was only his age and debilitated condition that prevented the removal of this at the time of operation.

BULLET WOUND OF CHEST; WOUND OF LUNG; REMOVAL OF BULLET; RECOVERY.

(Under the care of Mr. CROFT)

BULLET wounds of the chest are not common in civil practice, and it is important that such should be recorded if only to increase our knowledge of the prognosis when they are treated under the most favourable conditions. That there was a penetration of the lung in this patient was proved by the amount of shock which immediately followed the injury, the hæmoptysis, the emphysema which was manifest around the point of entrance and about the swelling behind, which corresponded to this point, by the subsequent slight hæmopneumothorax, and the later development of localised pneumonia. No attempt was made to remove the bullet at first; the amount of shock was considerable, and it was not considered advisable to add to this or increase the risk of septic inflammation of the parts damaged by the passage of the bullet. For the following notes we are indebted to Mr. G. R. Anderson, dresser.

F. de C. C——, aged thirty-three, was admitted on Oct. 12th in a rather collapsed condition, suffering from a gunshot wound of the chest, of his own infliction. He used a five-chambered revolver, carrying a ·320 bullet. Before using it he threw back his coat and vest.

On admission the patient was pale; surface of body and extremities cold; beads of perspiration on the forehead; hands clammy. The pulse felt at wrist was rapid, thready, and small; respiration shallow. He spoke rationally and answered questions; seemed in a desponding condition, and expressed a wish to die. On examination, in front was found a small wound in the second intercostal space, on the left side, just internal to the nipple line. The shirt covering this region was blood-stained, blackened, and singed round a small hole corresponding to the wound. The patient wore no under-vest. On probing the superficial part of the wound the direction was found to be from before backwards and outwards. No rib was exposed. The tissues round the wound were emphysematous. On forced respiration this emphysema was increased, but air did not definitely escape by the wound. On examining the back, a small hard body was found over the vertebral border of the scapula about an inch and a half from the root of the spine, freely movable under the skin; some tenderness on moving it. There was emphysema about this also. The wound was dressed with carbolic solution (1 in 20), and a pad of iodoform gauze strapped firmly on. Mr. Croft saw the patient at 10.30 P.M. He had rallied from the shock. There had been very little external hæmorrhage, but there were signs of internal bleeding. Bright-red sputa. Dulness over left base behind; hyper-resonance in front. Emphysema was now detected as low as the pubes, extending backwards over the left loin; it also extended some little distance up the neck. It was not largely increased over the scapular region. Mr. Croft decided not to remove the bullet at once. The patient was given ice to suck, and the front and left side of the chest were covered with ice-bags.

Oct. 13th.—Retention came on; bladder emptied by catheter at 9 P.M. Some cough; bright-red sputa. Temperature 100·4°; pulse 82; respiration 36.

16th.—Some dyspnœa early this morning. Sputa merely blood-stained. Bullet wound has healed without suppuration.

17th.—Patient sleeps badly. No recurrence of dyspnœa. Catheter passed every eight hours. Temperature 98·8°.

18th.—Cough better. Sputa streaked with blood. Ice-bags discontinued. Temperature 98°; pulse 72; respiration 36.

20th.—Has control of bladder. Emphysema remains. At

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the right base posteriorly, dulness, tubular breathing; and crepitations; above the left base also there is a small patch of pneumonia. Pulse 90; respiration 28; temperature 100·4°.

22nd.—Patient feels comfortable. Cough better. Temperature 98°; pulse 85.

26th.—Sleeplessness returned. Pulse 80; respiration 24.

29th.—Cough almost gone; no blood in sputa since the 15th.

Nov. 1st.—Mr. Croft removed the bullet; subcutaneous injection of cocaine (1 in 20) was given ten minutes before extraction. An incision of an inch and a quarter was made over the bullet; it was found to be beneath the muscular fascia; this was incised and the bullet withdrawn without difficulty; wound dressed antiseptically. The bullet was grooved on one side in screw-like fashion, flattened at the apex; on comparison with an unused bullet it was six grains short.

3rd.—Wound dressed; looking well. Temperature 97·4°; pulse 80.

10th.—Patient got up to-day; feels much better. Wound dressed with chlorinated soda solution three times daily.

20th.—Emphysema over abdomen, chest, and neck quite gone. Wound nearly healed; some swelling and hardness to left of incision still remains.

22nd.—A little suppuration in the wound; a drainage-tube put in.

25th.—Discharge decreasing; wound syringed out with weak solution of chlorinated soda solution.

Dec. 2nd.—Patient went out, there being still a little discharge from the wound. His mental condition has improved since admission, though he is still very desponding at times.

Jan. 31st.—Continues quite well.

LEICESTER INFIRMARY.

SUPRA-PUBIC LITHOTOMY IN THE ADULT; SUTURE OF BLADDER; PRIMARY UNION; REMARKS.

(Under the care of Mr. C. J. BOND.)

W. C——, aged forty-nine, blacksmith, very stout. Has had symptoms of stone for three years, also some enlargement of the prostate, the bladder being very irritable. At the time of operation the bladder was emptied and injected with sixteen ounces of boracic fluid, and the rectal bag then introduced and distended. On division of the abdominal wall, the bladder did not seem fully distended, so four ounces more were injected, and it was then opened in the usual way. A uric acid calculus, measuring 1½ in. in one and 1¼ in. in the other diameter, was removed by lithotomy forceps. Catgut sutures were used, the upper being passed first through the bladder muscular wall, slightly inverting the edges of the wound; the organ was then held up by this suture, and the others introduced. A drainage-tube was placed deeply in the abdominal incision, and the bladder again injected with boracic fluid, which came out clear. No catheter was left in, but a soft catheter was passed every three hours for the first two days, the patient passing urine naturally on the third day. On passing the catheter, however, on the evening of the day of operation, the bladder contracted violently, forcing the catheter out and driving some urine between the sutures through the wound. This, however, did not occur again, and apparently did not retard the primary union of the bladder wound at all. The drainage-tube was removed on the fourth day, the wound having healed. The temperature was normal throughout.

The supra-pubic opening was chosen in this case, on account of the enlargement of the prostate, the great depth of the perineum, and the irritability of the bladder.

Remarks by Mr. BOND.—This is, I think, a good example of primary union of the bladder wound after supra-pubic lithotomy in the adult, and the result is the more encouraging, because it shows that an escape of urine between the stitches within a few hours after the operation need not necessarily prevent union, provided *that the urine be healthy* and there be no cystitis with its accompanying urinary decomposition. I think it might be useful in the present probation stage of this operation to draw attention to the following points:—First, the difficulties of suturing the bladder in a fat adult, with large pelvis and stout abdominal muscles, are considerable, but can be best overcome by inserting the upper suture first, pulling the bladder upwards by this, and so drawing the edges into apposition; the bladder wall being thick, it does not seem necessary to produce much incision of the edges, but chiefly to avoid transfixion of the mucous membrane. Secondly, after considerable or even moderate distension of the bladder when the tension is relieved by the incision and rapid escape of fluid, the organ does not contract at all forcibly for some little time, but rather collapses; the posterior wall is driven downwards and forwards by the weight of the abdominal viscera on to the anterior, thus flattening the empty viscus; and unless the finger is introduced immediately after the incision, this bulging forwards of the posterior wall may render manipulation inside the bladder more difficult, and might possibly lead to injury if the point of the knife be held directly backwards. A slight difficulty was also caused in the case related by the rectal bag being introduced *after* injection of the bladder; it thus slipped up the bowel and, passing above the sharp peritoneal fold (which can always be seen like a broad ligament on looking into the pelvis), turned forwards and increased the bulging of the posterior wall mentioned above. In the distended bladder in the living and in the dead subject, as the peritoneum is pushed or rather drawn upwards it leaves an empty fold in the angle between the abdominal wall and the receding upper part of the anterior surface or summit of the bladder; this upper portion of the anterior surface is never wholly uncovered by peritoneum by distension, and the fold mentioned above is generally pulled upwards out of the way at the operation. The uncovered space in a distended bladder has, in fact, the shape of a triangle with apex cut off, with the base downwards on the pubes, its width here corresponding to the interval between the two Poupart's ligaments. Finally, in settling the important question whether after supra-pubic lithotomy the bladder wound should be left open and a tube placed in the bladder, or whether it should be sutured and primary union attempted, I think the condition of the urine may be a guide; if that be healthy, other things being equal, primary union will probably result after careful suturing; it seems better to pass a catheter frequently than to leave one in the bladder.

ST. VINCENT'S HOSPITAL, DUBLIN.

A CASE OF PERFORATING ULCER OF THE STOMACH.

(Under the care of Dr. QUINLAN.)

B. O'C——, aged thirty-eight, cook, was admitted on Oct. 11th, in great agony. She had for several years been suffering from dyspeptic symptoms, with occasional gastric irritation and habitual constipation, for the relief of which she constantly took purgatives. On the previous Wednesday night she had taken pills and a large dose of compound senna mixture, which had a powerful effect. Immediately after she was attacked by severe pain, which kept increasing. Early on Saturday morning the pain became intolerable, and her employer humanely called in Dr. Kendal Franks, who saw her immediately, and to whom I am indebted for the notes of the case while it was under his care. Dr. Franks found her in acute agony and resting upon her elbows and knees. With difficulty getting her to lie upon her back, he found slight distension of the abdomen, but no pain on pressure worth recording. The pulse was 110, the temperature normal, and the expression of the face pinched. She became worse and worse, with increasing temperature, and was removed to St. Vincent's Hospital on the Monday. The abdomen was then greatly distended, but there was no pain on pressure; in fact, pressure seemed rather to give relief. There was much vomiting, and nothing would remain in the stomach except a little iced brandy-and-water. Her bowels had not moved since the previous Thursday; the pulse was 120, weak and compressible. The temperature 101·2°. The facial expression was almost like that of cholera. As the end was evidently approaching rapidly, treatment was directed solely to relieve her great agony, this being accomplished by large hypodermic injections of morphia, along with hot poultices and poppy fomentations to the abdomen. Relief was thus obtained. At about 11 P.M. the patient said that all her pains were gone, and spoke quite rationally to the house-surgeon, Mr. Coen, who was looking after the hypodermic morphia. About a quarter of an hour afterwards she suddenly collapsed, and died immediately.

The post-mortem examination was made ten hours and a half after death, in the presence of Dr. Quinlan and Dr. Kendal

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Franks. The deceased was a fairly nourished woman, and upon opening the abdomen the intestines were found distended with gas, and the contents of the stomach effused into the peritoneal cavity. There was much peritonitis in the upper and left portions of the abdomen. On examining the stomach, a perforating ulcer about the size of a bronze penny was found in the middle of the lesser curvature, and equally divided between the anterior and posterior aspects of the stomach. The ulcer was divided into two portions by a cord of gastric substance which stretched across it. Beside the ulcer there was a thickening of the gastric parietes about the extent of a crown-piece, and evidently the result of old gastric disease. On the inside of the lower curvature were three bright-red patches of congestion of the mucous capillaries, each about the size of a sixpence. The stomach contained a small quantity of dark grumous fluid, which was tested in the medical laboratory for mineral irritants, but with negative results.

The case was evidently one of chronic ulceration of the stomach, which had greatly thinned the parietes of the organ when the perforation occurred, probably as the result of the straining incidental upon the strong purgative dose already described. The remarkable feature, however, is the fact that, with extensive acute peritonitis accompanied by very severe agony, there was a complete absence of pain when the hand was pressed upon the abdominal surface.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Genito-urinary Disease in Animals.—Pathology of Colles' Fracture.—Extra-uterine Fœtation.—Rupture of Bladder. Cerebral Tumour.—Multiple Perforative Necrosis of Skull of Tubercular Origin.—Horny Growth on the Hand.

AN ordinary meeting of this Society was held on Tuesday last, Sir James Paget, Bart., F.R.S., President, in the chair.

Mr. BLAND SUTTON related some cases illustrating Diseases of the Genito-urinary Organs in Animals. The first specimen consisted of the kidney of a sloth which had lived in the Zoological Gardens twelve years. Occupying the pelvis of the kidney were two calculi; one was small and weighed 2 grains, the other 12·83 grains. Chemically they were found to be composed principally of oxalate of lime. Although renal calculi are not uncommon in domesticated animals, they seem to be excessively rare in wild ones. A remarkable case of distension of the vaginal, cervical, and uterine cavity of a hog deer was described, and a uterus from an agouti was shown, in which some pieces of placenta and fœtal membranes had been retained. Inflammation and suppuration of the mucous membrane (suppurative endometritis) resulted; the pus made its way along the left cornu and Fallopian tube, and an abscess formed in the ovary, which ruptured into the peritoneal cavity and brought about the agouti's death by acute peritonitis. Details of a case of inflammation of the oviduct of a fowl were related. The bird during life laid eggs of very small size, and without yelk. When the bird was killed the infundibulum of the oviduct was found adherent to the ovary, so that the ova could not fall into the duct; the intestines were matted together by inflammation. A pelvis of a baboon was shown with the viscera *in situ*. The uterus exhibited a severe retroflexion. During life the animal presented well-marked symptoms, which were attributed to the condition of the uterus. Some remarks were made regarding the existence of ripe ova and follicles in the ovaries of the human fœtus, and in those of the embryos of various and diverse species of mammals.—Sir JAMES PAGET thought it would be difficult to over-estimate the value of Mr. Sutton's work, for it illustrated the influence of conditions of human life on newly imported animals and the influence of close confinement on animals not submitted to the ordinary accidents of their life. It seemed that they became subject to varieties of the same diseases that affected human beings. He asked whether the diseases in animals just after importation differed much from those found in animals long resident in the Gardens. The diseases of animals in their native state might be thus differentiated.—Mr. BLAND SUTTON said that it was the first twelve months that settled the question whether the animal would be very diseased, or whether it would go on an indefinite time and become acclimatised.

Mr. D'ARCY POWER read a paper on the Pathology of Colles's Fracture, and drew attention to the large proportion of fractures of the lower end of the radius in which the lower fragment was comminuted into the joint. He believed that, from a pathological standpoint, this variety of fracture is more common than the simple form ordinarily described: and he held that, without dissection of the injured part, it was often impossible to distinguish the simple from the comminuted fractures, since the deformity might be identical. He related the case of a man, aged thirty-nine, who fractured his wrist, and sustained such other injuries that he died. During life, and even after death, when a more careful examination could be made, the wrist presented the symptoms of an ordinary Colles' fracture, and it was only upon dissection that the true nature of the injury was apparent. The lower end of the radius was seen to have undergone a very complete crushing, the wrist-joint being implicated in more than one place. Since the occurrence of this fracture, Mr. Power had examined several other cases which appeared to be of the ordinary type, but which, upon dissection, proved to be in reality comminuted. He exhibited the six specimens before the Society. He had also collected details of cases in which, after almost identical injuries, a fairly useful joint had resulted. He concluded his paper by observing that, although the pathological interest attaching to these cases was great, he believed that the clinical importance was but small, since it was difficult to distinguish between the two classes in the first place, and when that was done the final result appeared to be almost equally good. In examining the specimens preserved in the various pathological museums in London, Mr. Power had only found twenty-five cases of simple fracture, as against thirty-two, in which, the lower fragment of the radius being comminuted, the fracture had extended into the joint, thus bearing out the observation of Mr. Clement Lucas that pathological specimens showed a very large proportion of comminuted fractures.—Sir JAMES PAGET asked if the history of the manner in which the patients fell was known.—Mr. GILBERT BARLING had seen cases of simple, impacted, and comminuted fracture into the joint, but this anatomical knowledge would not be of therapeutical value.—In reply, Mr. POWER agreed with the last speaker, and said that indirect violence was the cause of all the fractures, but the exact method of its application was very difficult to discover.

Dr. GRIFFITH showed a specimen of early Pregnancy in the fimbriated extremity of a Fallopian tube, with large extra-uterine hæmatocele; also specimens of Decidual Casts from the Uterus, discharged in cases of tubal pregnancy. The patient, who had been under the care of Dr. Matthews Duncan, was a nullipara, aged thirty-two. The catamenia had been absent four months; she suffered from morning sickness, severe right iliac pain, and metrostasis. The usual signs of early pregnancy were present, and a small, rounded, not tender, swelling was found on the right side of Douglas's pouch. Eight days before death she passed a decidual cast; and three days later, after a severe attack of pain, she became collapsed, and remained so until her death. A large hæmatocele had formed, filling the pelvis and extending into the hypogastrium, in which the blood was coagulated and shut off from the general peritoneal cavity by recent adhesions between the omentum and small intestines, illustrating the usual anatomy of hæmatoceles, if the patient survive the effusion of blood for a few days. Dr. Griffith stated that, in spite of what had recently been written to the contrary, the large majority of effusions of blood of considerable size in this region are intra-peritoneal and true hæmatoceles, whilst the large subperitoneal effusions or hæmatomata, described by Mr. Lawson Tait and others, were, for the most part, a new disease produced in abdominal operations involving the broad ligaments, and were due to a vessel being left insecure in the broad ligament, leading to a sudden or gradual distension of it with blood. The decidual casts are probably diagnostic of extra-uterine fœtation, and are easily distinguished by their size and thickness from the menstrual casts of so-called membranous dysmenorrhœa. Both tubes present similar appearances of past disease, the outer third of each being dilated, and the mucous membrane partially destroyed; the inner two-thirds of each tube appeared healthy, but on microscopical examination the mucous membrane was found to be nearly destroyed, only a thin layer of the deeper part remaining, and the columnar

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epithelium had disappeared from all parts. These conditions were probably the result of past destructive inflammation, and were sufficient to account for the arrest of the ovum in the entrance of the tube. The muscular wall of the tubes was thickened, as were the walls of the vessels.

Mr. BRUCE CLARKE showed a specimen and drawing of Bladder Ruptured at its Apex. All the coats were ruptured except the peritoneal coat, and the blood was extravasated in the subperitoneal tissue. The man, aged seventy-five, had a stricture of the urethra, and had been run over. The bladder was columnar in shape.—Sir JAMES PAGET said the muscular coat was much thinned.—Mr. W. RIVINGTON asked whether there was any sign of tunicary herniæ, which were most numerous about the ureters and urachus, and might be the cause of the rupture.—In reply, Mr. BRUCE CLARKE said he took it to be some sudden rupture without extravasation of urine, of which there was not as much as a teaspoonful between the ruptured coats.—Mr. E. HURRY FENWICK quoted Mr. Rivington's statistics to show the position of the rupture in one hundred cases. Eighty-eight times the rupture was situated on the posterior surface. A case of litholapaxy was mentioned in which there was vertical rupture of the bladder between the interuretal bar. The entire thickness of the muscular wall of the bladder was torn, but not the peritoneum; pelvic cellulitis resulted in death. The rupture had evidently been made by the evacuator having been used too violently in a small bladder. He referred to the case because of its illustrating an entirely new class of violence acting on the posterior wall—a uniform fluid pressure acting from within and tearing the viscus posteriorly and vertically. He contended that the occurrence of fatty degeneration and inflammatory softening were insufficiently recognised as causative elements in the production of rupture. These pathological changes affected certain parts more than others, and the posterior wall was a common seat of both changes. This was interesting in relation to the frequency of posterior rupture.—Mr. R. J. GODLEE inquired whether in the operation of litholapaxy it was possible that the lithotrite or catheter had caused the rupture.

Mr. GILBERT BARLING showed a Tubercular Tumour of the Brain, which occurred in the practice of the late Dr. W. Russell of Birmingham. It came from a boy aged twelve years, who died in 1859 from ascites and anasarca of renal origin. Epileptiform fits on the right side without loss of consciousness, subsequent partial paralysis of the right limbs and right side of the face, and jerky movements in the paralysed limbs were noticed. The tumour was situate at the junction of the anterior and middle lobes of the brain in the upper part of the left "motor" area. The surrounding tissue was not softened. A few bacilli were found in the caseous part of the tubercular mass. The tumour was very circumscribed, and gave rise to symptoms only five weeks before the patient's death.—Dr. OWLES asked whether there was any scrofulous disease of the kidney.—Dr. NORMAN MOORE thought there might have been tubercles in the pericardium. He had found tubercles in the adherent pericardium in children who had tubercle in other parts of the body.—Mr. BARLING, in reply, said there was no record of scrofulous or tuberculous disease in the kidney.

Mr. BILTON POLLARD showed the Vault of a Skull, in which there were four perforations, which had resulted from tubercular disease of the bone. The specimen had been taken from a female child aged ten months, when she first came under Mr. Pollard's care at the North-Eastern Hospital for Children. At that time there were four chronic abscesses on the skull, for which no cause could be assigned. They were opened, and found to be situated immediately over the bone. They were all scraped out. The smallest abscess healed in a few weeks, without causing perforation of the bone, but the others remained fistulous, and a fifth abscess formed over the occipital protuberance; this was treated like the others, and ran a similar course. Four months later sequestra, involving the whole thickness of the skull, were removed. Three of the abscesses then healed soundly, but that over the occipital protuberance never quite healed. After the removal of the sequestra the child rapidly wasted, and two months afterwards she died. There were a few patches of caseous tubercle in the lungs, and the bronchial glands were caseous; the mesenteric glands were enlarged. The skull presented four perforations, the borders of three of which were smooth and healthy, but there were signs of disease still present along the upper border of the perforation in the occipital bone. Mr. Pollard had examined some of the granulation tissue, and one of the pieces of bone which had been removed, but though they showed the microscopical structure of tubercle, he had failed to detect any tubercle bacilli in them. There were no signs of syphilis of the skull. Volkmann (*Centralblatt f. Chirurgie*, 1880, p. 8) had described similar cases, which he considered to be of tubercular origin. — Mr. G. BARLING had seen a similar specimen in a child less than twelve months of age. This child had a cyst in the back. Excision of the cyst was practised and two small sequestra of the laminæ of the vertebræ removed. Meningitis followed, and death supervened. At the necropsy circular sequestra of the bones of the skull were discovered. These were not due to syphilis, but a protracted search would probably be required before tubercular bacilli could be discovered, if at all.—Mr. W. G. SPENCER referred to a case of tuberculosis of the skin in a woman aged forty, in whom necrosis of the skull was present. Tubercle bacilli were found in the cutaneous lesion, which had some resemblance to syphilitic disease. — Mr. A. E. BARKER showed a specimen of tubercular disease on the inner aspect of the skull. It was removed from a child who had suffered from very extensive caries of the spine; there was no evidence of intra-cranial disease during life. After death a whitish patch over the greater wing of the sphenoid was found between the dura mater and bone; the disease had penetrated the bone and produced a rarefying osteitis of tubercular nature.—Dr. T. D. ACLAND testified from considerable experience to the difficulty or impossibility of finding tubercle bacilli in chronic scrofulous lesions.—Dr. DAWSON WILLIAMS said that inoculations in guinea-pigs with material from tubercular joints gave rise to generalised tubercle, the lesions of which showed typical bacilli, though they were not found in the inoculated material.—Mr. A. A. BOWLBY testified to the rarity of the affection of the cranial vault by tuberculous processes. He accepted Mr. Pollard's views of the specimen. He agreed that the presence of bacilli was not necessary to the diagnosis of tubercle. The bacilli might be there in very small numbers. The same paucity of numbers existed in lupus.—Mr. BILTON POLLARD, in reply, said that Volkmann had collected eleven cases, in some of which caries rather necrosis was the chief feature. In his own specimens the necrosed bone appeared to have been previously infiltrated by tubercular material.

Dr. EDMUNDS showed a specimen of Horny Papilloma of Hand from a woman aged seventy-five. It occupied a great part of the surface of the back of the hand. There was about an inch in thickness of horn. The papillæ of the skin were hypertrophied. The hand had been burnt seventy years previously.—Mr. B. SUTTON asked whether it was to be regarded as a horny epithelioma.—Sir JAMES PAGET thought the ulcerated surface resembled that of an epithelioma.—Mr. EDMUNDS said that the growth did not extend in depth below the cutis.

The following card specimens were shown:—Mr. E. H. Fenwick: Carcinoma of Prostate. Mr. Targett: Extra-peritoneal Rupture of Bladder.

CLINICAL SOCIETY OF LONDON.

President's Address.—Nephro-lithotomy.—Renal Surgery.

AN ordinary meeting of this Society was held on the 28th ult., Dr. W. H. Broadbent, F.R.C.P., President, in the chair. Owing to the lateness of the hour, the discussion on the surgical papers was postponed till the next meeting.

Dr. BROADBENT gave his inaugural address as President of the Society, and expressed his high sense of the honour and responsibility attaching to the post. If he had had an ambition outside and beyond the performance of his duty, it was certainly that of figuring as President on the honoured *rôles* of one or other of the Societies. Alluding to the progress which had been made in the study of morbid anatomy, pathology, and therapeutics, he congratulated the profession on the fact that every day tended to render practice more scientific, and that pathology and therapeutics now went hand in hand. Diagnosis was one of the most important elements of success in the career of medical men. A well-known barrister of his acquaintance, in his post-prandial chat, was wont to say that, to paraphrase an aphorism of Demosthenes, the first element of success at the Bar was good animal spirits; the second, good animal spirits; and the

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third, good animal spirits. In the same way, he would be disposed to say that the great element of success in medicine was diagnosis. By diagnosis he meant careful and exact localisation of lesions. It was not diagnosis to say that a patient had paraplegia unless the nature and site of the lesion was ascertained. As to the mere fact of some cases proving exceptional, he recalled the saying of Sir James Paget, that "an exception to one rule was in reality the first indication of another and possibly unknown rule," and might therefore be the means of enabling the careful and attentive observer to carry out useful observation on a new line. He observed that in the Transactions of the Society the surgeons appeared to better advantage than the physicians—a state of things probably attributable to the fact that physicians' cases did not lend themselves to exhibition as did the surgeons' cases. The physician could, and often did, point to the arrest of phthisis in individuals and communities; the progress of Bright's disease might be staved off indefinitely if the patient only carried out the treatment laid down for him; but such cases scarcely admitted of being shown, and in any case did not appeal to the attention in the same way as the more palpable results of the surgeon's intervention. He deprecated anything in the nature of scepticism in regard to the use of drugs, and declared that when physicians used drugs they did so in good faith. Alluding to the class of drugs known as antipyretics, he said that, while very useful in a certain category of cases, the mere knowledge that they lowered the temperature was not a sufficient justification for their use. It was necessary for the physician to know *how* the temperature was lowered before he ventured to lower it. The mere existence of fever was not a sufficient reason, and there were many cases in which it was doubtful whether a reduction in temperature was desirable or beneficial to the patient. The physician was not in a position to say that a high temperature was *per se* a symptom to be combated, since it might be a necessary item in the evolution of the morbid phenomena. Referring to the employment of the salicylates in the treatment of acute rheumatism, he acknowledged that many of the inconveniences and sequelæ of that disease were abridged or prevented by its use. At the same time he enjoined a certain caution, especially in prolonged courses of the drug. He said that, since its use had become general, he had certainly seen deaths from rheumatic fever of a kind he had not met with before. In conclusion, he thanked the Society for the honour they had conferred upon him.

Mr. HENRY MORRIS read a case of Calculous Disease of both Kidneys, with remarks on the Surgical Treatment of Calculous Kidney generally. A woman, aged forty, was sent to Mr. Morris at the Middlesex Hospital on June 15th, 1886, by Mr. Nunn, for the purpose of undergoing an operation for calculous disease of the right kidney, associated with a purulent fistula of long standing in the right loin. The patient was very ill at the time, had passed several small calculi, and complained of severe pain in the right loin and frequency of micturition. Within a few days some pain had also been felt in the left loin. There was a history of albuminuria of long standing. On June 18th the right kidney was explored through an incision in the loin. The tissues round the kidney were condensed, indurated, and tenaciously adherent to the renal capsule; the kidney was small and hard. On cutting into the kidney several small calculi and some fragments of pyogenic membrane, but no pus, were removed. The operation was followed by no relief, and more intense pain was experienced on the left side. Partial and then complete suppression of urine followed, and the patient died comatose on June 23rd. At the post-mortem examination the left kidney was found very large and white, and with a great increase of cortical substance. It contained two cysts filled with pus, in one of which there was about two hundred small calculi. Numerous other calculi were scattered through the kidney. The right kidney was small, hard, and contracted, and one or two minute calculi were found scattered in its substance. There was no calculus in either ureter, and no other cause of ureteral obstruction present. It is argued from such a case as this that the surgeon may be easily misled by clinical symptoms, and also by abdominal exploration, to operate upon the wrong kidney —viz., one which, though the seat of a calculus, is not the organ which is exciting the present symptoms, these symptoms being caused by the second kidney having become calculous after it had undergone hypertrophy, owing to previous long-standing calculous disease in the first. Such cases are not favourable for operation, and differ vastly from the more numerous cases which are cured or relieved respectively by nephro-lithotomy and nephrectomy.

Mr. HENRY MORRIS read a case of Successful Nephro-lithotomy. A man aged forty-two, who for ten years had been suffering from symptoms pointing to renal calculus, was sent to Mr. Morris by Dr. George Johnson on May 4th, 1886. He was admitted into the Middlesex Hospital on May 12th, and operated upon on May 15th. A rough rounded calculus, weighing 23½ gr., was removed through an incision in the loin from the right kidney. There was no pus in the kidney. After the operation no urine whatever escaped by the wound, but blood in decreasing quantity was passed in the urine for some days. The wound healed by direct union. The patient sat up on the sixteenth day, and was discharged perfectly well at the end of the third week after the operation. For a long time prior to coming under notice he had taken very large quantities of brandy and laudanum to relieve pain; these were entirely discontinued from the time of the operation, as all pain ceased from that time. He has been several times seen since he left the hospital, and is in good health and passing natural urine.

Mr. HOWARD MARSH read a case in which very severe symptoms were due to two small Stones in an Atrophied and Movable Kidney; failure to detect the organ by an anterior lumbar incision; discovery by laparotomy; successful removal of the kidney. The patient, aged twenty-five, unmarried, was admitted into St. Bartholomew's Hospital on June 29th, 1886, with well-marked symptoms of stone in the left kidney, constant pain, severe exacerbations, frequent micturition, and pus and blood in the urine. As no improvement followed rest and medical treatment, it was determined to explore the kidney. For this purpose an incision, suggested by Mr. Willett, and which had several times been found highly advantageous for the removal of large kidneys, situated exactly half way between the spine and the middle line in front, and vertical in direction, was made through the abdominal wall and fascia transversalis. The kidney, however, could nowhere be found though a wide search was made. On a subsequent occasion the abdomen was opened in the middle line, and the hand passed in. The kidney was now easily detected, but found to be movable and atrophied. No stone, however, could be felt. The kidney was then removed by the ordinary lumbar incision. The patient made a bad recovery. On opening the kidney after removal two small stones were found in one of the calyces. The author drew attention to the important fact that, though the symptoms were very urgent, the stones on which they depended were of very small size. He pointed out that, though the incision in the axillary line is ordinarily adopted for the removal of a large kidney, the posterior lumbar incision is preferable for the purpose either of mere exploration or the removal of a stone from the kidney; and he discussed the means that may be adopted for the detection and removal of small renal calculi. He also raised the question how far the symptoms in the present case may have been due to the fact that the kidney was freely movable.

Mr. WILLIAM H. BENNETT read a case of supposed Nephrotomy for Scrofulous Disease. The patient, a married woman, aged thirty-seven, was admitted into St. George's Hospital under the care of Dr. Champneys on Dec. 25th, 1885, on account of abdominal tenderness, painful micturition, and a reniform swelling on the left of the umbilicus which rapidly increased, and by Jan. 8th extended into the left loin. On the 14th there was a sharp rigor, fluctuation became manifest in the mass, and a considerable amount of pus appeared in the urine, which was neutral in reaction and up to this time had only been slightly turbid. Exhausting vomiting set in, and the case was transferred to Mr. Bennett's care, who, on Feb. 3rd, laid open the tumour freely through the left loin, whereupon a large quantity of curdy partly caseating discharge poured out, with a foul urinous odour. On the finger being introduced into the cavity it entered what was apparently a disorganised scrofulous kidney, there being a large sac with irregular imperfect septa formed, so far as could be judged, by the undestroyed calyces running in the usual direction. At the inner aspect was a pouch-like offshoot, which was thought to be the dilated ureter. Great relief followed the operation; the patient was progressing favourably in every respect; the abscess contracting rapidly until Feb. 18th, when lung compli

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cations set in, of which she died on the 28th. Post-mortem examination: There was a small wound in the left loin leading into a sacculated abscess of small size, at the inner and anterior part of which lay the kidney *absolutely intact*, not having been involved in the operation at all. The organ, on being cut open, was found in a condition of scrofulous disease, but had not broken down to any extent. Difficult as may be the differential diagnosis of renal and peri-renal abscess, Mr. Bennett was unacquainted with any case in which doubt had arisen, after free incision, as to the situation of the disease. In his case, so exactly in every way did the cavity resemble the interior of the kidney at the time of operation, that no surgeon could have doubted that the kidney had been laid open. Had the patient survived, as she might have done but for the occurrence of lung disease, the abscess would certainly have healed, and the case probably have been recorded as a successful instance of nephrotomy for scrofulous disease. As it seemed not impossible that similar sacculated abscesses may have been opened by other surgeons under the impression that the kidney had been incised, Mr. Bennett thought the case not without interest in connexion with the statistics of the result of treatment of scrofulous kidney by incision.

The following living specimens were shown:—Mr. R. J. Godlee: Removal of both Upper Jaws for Epithelioma of Hard Palate. Mr. R. W. Parker: An Unusual Form of Hare-lip. Mr. J. R. Lunn: (1) A boy with Ichthyosis; (2) Peculiar Deformity of Feet in an Ataxic Patient; (3) A man with Raynaud's Disease of the Feet; (4) A case of Myxœdema with want of Development of the Genital Organs.

Mr. HENRY MORRIS exhibited four Renal Calculi and cases illustrative of successful Nephro-lithotomy.

OPHTHALMOLOGICAL SOCIETY.

Treatment of Conical Cornea.—Calcareous Film of Cornea. — Choroidal Hæmorrhage. — Exostoses of Skull, with Atrophy of Optic Nerves.—Unusual Clinical Cases.—Acute Cerebral Disease, with Ocular symptoms.

AN ordinary meeting of this Society was held on the 27th ult., Mr. E. Nettleship, F.R.C.S., Vice-President, in the chair.

Mr. COWELL showed three patients with Conical Cornea treated by transverse incision, which he preferred to vertical incision. Text-books averred that conical cornea was commonest in women; but his experience was different. Two of his patients had asked that the second eye might be operated upon, they were so gratified with the results.—Dr. BRAILEY thought women were more commonly affected. He preferred a vertical section, but had of late simply made a vertical groove in the cornea and then stitched the edges of the groove together.—Mr. HIGGENS said that women were most frequently affected, and hypermetropic eyes were more prone to it than others. After operation a convex glass greatly improved the sight.—Mr. MCHARDY had seen it only in very young men. He preferred trephining to removing an elliptical flap; but the latter was attended with less pain and retention of aqueous fluid. The horizontal was better than the vertical section. — Mr. ANDERSON CRITCHETT observed that anterior synechia was noted in 50 per cent. of the cases operated on, and iridectomy was necessitated. He began with a minute vertical iridectomy, and ten days later another iridectomy outwards, and afterwards an elliptical portion of the cornea was removed.—Mr. LANG thought the incision should be wider than the size of the pupil, and so adhesion of cornea and iris could be avoided. He cut out a short, nearly circular ellipse.—Mr. HARTLEY concurred with Mr. Lang, and was struck with the apparent length of the scar in the cases exhibited.—Mr. COWELL claimed no originality for the vertical method, but thought it had fewer inconveniences than others. He would not employ a suture, for it set up irritation. The two surfaces of the cut cornea adapted themselves better if the incision were long.

Mr. MARCUS GUNN showed a living specimen of Transverse Calcareous Film of both Corneæ. The left eye had defective vision, and originally squinted. The chief features of interest were the causation and treatment. The man was a blacksmith, and had been exposed to blasts of cold air as well as to great heat. The vision in the right eye was still fairly good. Mr. Gunn proposed to scrape away the calcareous matter. There had been no keratitis or iritis. There was no family history of gout or rheumatism. The film reached to the extreme inner edge of the cornea, but did not slope. In these two features it differed from those shown by Mr. Nettleship.

Mr. W. H. JESSOP read the sequel to the case of Large Semicircular Hæmorrhage. The eye has recovered with perfect vision, and without a scotoma. He concluded that the extravasation had probably occurred into the nerve-fibre layer.—Mr. QUARRY SILCOCK said that the case of large hæmorrhage shown by him at the last meeting had resulted in a white patch of choroidal atrophy, which therefore justified his calling the case choroidal rather than retinal hæmorrhage.

Mr. W. LANG showed a case of Central Detachment of Retina of obscure origin in a widow aged sixty-three, a semptress.

Mr. E. NETTLESHIP showed a living specimen of Congenital Multiple Symmetrical Exostoses of Skull, with Post-papillitic Partial Atrophy of Optic Nerves. The boy, aged twelve, was much undergrown, but fairly healthy and intelligent. There were very large and perfectly symmetrical smooth exostoses in the temporal and mastoid regions and on the outer wall of each orbit, laterally, and at or near the situation of the anterior and posterior fontanelles in the middle line. The coronal suture could be felt as a groove on the temporal and anterior median exostoses. At the sides of the root of the nose there is a gap between the nasal process of the frontal and of the superior maxillary bones, but the central ridge formed by the nasal bones is normal. Numerous large veins emerge from or pass into the gap on each side of the root of the nose; and others are seen in the temporal regions. The eyes are too wide apart, the orbits being separated apparently by expansion of the median bones. When the mouth was opened the lower jaw was dislocated forwards, but without causing inconvenience; probably the shape of the glenoid cavity is much altered. The roof of the palate is very high and narrow anteriorly; with this exception, the facial bones seem to be quite natural. The smell and hearing were good. There was no other deformity. Both the optic discs were pale, with clear evidence of former inflammation. The left showed more change than the right. Vision is defective: right, 14 J.; left, 16 J.; less than $\frac{5}{60}$ with either. The refraction was hypermetropic, 3·5 D. He could read better with the aid of + 3 D. The head was of its present shape at birth, but the bosses have become less conspicuous as he has grown. The sight has been in its present state all his life, so far as could be ascertained. There were no other cases in the family.

Mr. P. H. MULES read a paper on some Unusual Clinical Cases. 1. Pseudo-sarcoma of iris. A case of solitary gummous tumour of the iris simulating sarcoma, in a child aged thirteen months. There was no iritis or other appearance of syphilis. The growth was dispersed by mercurial inunction in seven weeks, leaving the eye normal. 2. A deep and extensive crescentic ulcer of the cornea (Wecker's malignant ulcer), with splitting of the corneal layers to the apex, permitting passage of probe (a very rare condition), occurring in a man aged fifty-four, arrested by scraping and iodoform. The case was a crucial one, and Dr. Mules pointed to it as proof of the efficacy of scraping and antiseptics. 3. A second case of corneal ulcer in a man aged fifty-six suffering from Graves's disease. The ulcer was painful, and was complicated by posterior synechia. All minor treatment failed, and the cornea being in eminent danger of destruction, the lids were united over four-fifths of their length. The pain was at once relieved, and the ulcer healed rapidly without further treatment. The interest of this case was accentuated by the record of corneal losses from Graves's disease recently published. 4. A case of double auto-extraction, the result of accident, in a man aged sixty-seven, with retention of useful vision in both eyes. 5. Extraordinary foreign body retained in globe: a dart from puff and dart encapsuled for eleven days. 6. Scleral hernia from direct violence on the front of the eye; media transparent. Papilla with an irregular margin of sclera, forced out and destroyed; central artery reduced to white lines; vein retaining its normal patency. It was believed that this was the only case in which this accident had been observed.—Mr. CRITCHETT related the case of a lady who had been shot in the eye with a dart nine months before. During the enucleation of the eye for sympathetic ophthalmitis the dart was found to have penetrated the optic nerve, and lay outside the eye in the orbit.—Mr. G. A. BERRY had examined the

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case of exophthalmic goitre, and the result seemed to be most satisfactory. Was it requisite to pare the edge before bringing the lids together? He had recently seen a similar case in which good results were obtained without paring the edges. —Mr. HIGGENS referred to the crescentic ulcers; they were more amenable to treatment by eserine and bandaging than by any other method of treatment.—Dr. BRAILEY thought that cases where there was no infiltration of the base of the ulcer did best with eserine; where there was infiltration, the galvano-cautery was very useful.—Mr. MARCUS GUNN said that in one case of fairly clear, greyish, serpiginous ulceration, extending half round the entire cornea, he had employed the galvano-cautery with great success.—Mr. SIMEON SNELL alluded to the value of quinine in two-grain doses three or four times a day.

Mr. G. A. BERRY read three cases of Acute Cerebral Disease with Ocular Symptoms. His first case was one of acute ophthalmoplegia externa in a little girl, aged two years and a half. There was a history of gastro-enteric catarrh five months before admission. The present illness began three weeks ago with cough and headache. Ten days before something wrong was noticed with the sight. There was almost complete ptosis of both eyes, with absolute divergence of eyeballs—in fact, a condition of almost complete ophthalmoplegia externa. The child was mentally very apathetic; once she had a severe screaming fit; the knee-jerks were absent. After treatment by iodide of potassium for two weeks, distinct improvement in the general condition began, and the ophthalmoplegia was less marked. There was a scrofulous condition of one finger. The pathology of ophthalmoplegia was reviewed. Perhaps the condition was dependent on tubercular disease about the ocular nuclei. The second case was one of megrim associated with spasm of convergence, in a girl aged eighteen. The possibility of hysteria being the cause was considered. On one occasion the patient had an attack of apparently insurmountable conjugate deviation of the eyes to the left. Extraordinary abnormalities of temperature of the body were observed. The corpora quadrigemina or the cortex might be the seat of the nervous lesion. The third case was one of recurrent attacks of bitemporal hemianopia. The patient was a man aged fifty-three, who had suffered from headache and drowsiness. Both temporal halves of the fields of vision were extremely defective up to about 5° from the points of fixation. On six occasions, at intervals of about one week, and for three or four days, vision became affected and the temporal fields of vision dimmed or obliterated, whilst at the same time the heart's action was markedly slower than during the periods of intermission of the ocular symptoms. Pressure on the chiasma in an antero-posterior direction might be the cause of the hemianopia.—Dr. GOWERS said the cases were difficult. He agreed with Dr. Berry that it was highly probable that different cases of external ophthalmoplegia had different pathological lesions, especially judging from what was known of ophthalmoplegia interna. The loss of light-reflex, usually attributed to degeneration, might pass away even in tabes. Where recovery took place, the lesion could not be a destructive one, though there might be some nutritional change. With regard to the first case, he doubted whether it could be due to distension of the aqueduct or to a simple tubercular lesion. Distension of the aqueduct was frequently met with without paralysis of ocular muscles. Sudden lesions were generally vascular. Thrombosis was common in children; in this case it was probable that a thrombus had occurred in the artery leading to the ocular centre. In the second case, he agreed that the case was not one of hysteria. Divergent strabismus was conclusive against hysteria. As to the third case, no doubt internal hydrocephalus was an occasional cause of pressure on the chiasma, and blindness. He referred to a case where first the decussating and afterwards the non-decussating fibres were affected by the distension of the third ventricle.—Mr. WARREN TAY referred to a case of Mr. Hutchinson's, which recovered.—Dr. SEYMOUR SHARKEY did not accept the tubercular theory of the first case. Many acute cases resembled tubercular disease and got well, but there was not any reliable evidence of recovery after tubercular disease of the brain. He had discovered diffuse inflammation of the basal ganglia when the cerebral symptoms had begun suddenly. He would regard the present case as one of this kind rather than as of thrombotic origin.—Mr. BERRY, in reply, considered that some vascular lesion was most probable in the first case. He had observed one case of external ophthalmoplegia, evidently of inflammatory origin. Spasm of convergence, so far as he knew, was rare; paralysis more common.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

AT the ordinary meeting held on Jan. 14th, Mr. Wheelhouse in the chair, the following pathological specimens were shown:—Mr. Lawford Knaggs: Carcinomatous Ulcer of Pylorus. Mr. C. J. Wright: Pedunculated Fibroma of Labium—a large mushroom-shaped tumour ulcerated on the surface. Mr. Mayo Robson: Diseased Uterine Appendages—viz., tube occluded by caseous matter; distended tube with parovarian and small ovarian cyst.

A drawing of Lichen Circumscriptus was shown by Dr. Barrs of a case in which the eruption was produced by wearing flannel.

Mr. McGill exhibited a specimen of a large Cyst near the larynx, removed post mortem.

The following communications were made:—

On the persistence of Palsy in limited groups of Muscles. Dr. CLIFFORD ALLBUTT pointed out the frequency with which this occurred both in cerebral and spinal paralyses, and he held that the theory that it depended on the particular group of cells affected by the lesion was untenable, at all events in cerebral cases. Considering the muscular actions to be carried on by groups of mechanisms, he thought the will acted with diminished power and therefore imperfect control, resulting in the overaction of stronger muscles and consequent spasm through want of their proper antagonisers. This local disorder was to be treated by local means, and he recommended the use of elastic bands to assist in counteracting the spasm of stronger muscles, and spoke highly of the use of tenotomy, which should be done early, before any dislocation &c. could take place. —Mr. WHEELHOUSE said that he and his surgical colleagues had been led to make a very extensive use of tenotomy in the treatment of infantile palsies through the representations of a very skilful surgical mechanician, and had been much surprised at the results obtained.—Dr. MAJOR thought that in polio-myelitis anterior there could be no doubt, from the wasting and altered electric relations of the muscles, that the lesion did pick out certain groups of cells and leave others.—Dr. EDDISON agreed with previous speakers in the benefit to be obtained from surgical treatment.—Dr. CHADWICK thought that stretching the unopposed muscles by means of a splint was more reasonable than cutting their tendons.—Dr. CHURTON thought that in the gradual evolution of the nervous system the later formed parts might be more delicate than the older, and therefore lesions produced different effects; but tenotomy relieved the muscle by removing the irritation of its opponents.—Dr. GRIFFITH thought the same theory could not account for central and peripheral palsies. In lead-palsy there was very little spasm, and he thought deformity arose from the long continuance of the parts in a position like that seen in the cadaver.—Dr. ALLAN had seen excellent results from the use of elastic bands in the practice of Mr. Chauncy Puzey of Liverpool.

Pernicious Anæmia.—Mr. BATES described a fatal case in a patient aged forty-nine. The principal symptoms were shortness of breath, attacks of vomiting, and diarrhœa; there was also an attack of jaundice. At the necropsy the liver was slightly fatty, and the stomach walls were very thin, but had not yet been microscopically examined. Death took place after twenty-four hours' unconsciousness. Another case of the same kind was described, in which also there had been jaundice before death. The stomach was very thin.—Dr. BLACK recommended the use of alteratives in the treatment of anæmia.—Dr. ALLBUTT referred to the definite appearance of pernicious anæmia, as accompanied by extravasations into the retina, and in the curable cases remedied by arsenic rather than iron.—Mr. JESSOP spoke of three patients he had seen, all of whom lived in houses much exposed to sewer air.—Dr. EDDISON doubted the advantage of the term "pernicious." He thought many cases so called were due to ague or syphilis. In all cases he had seen the blood-cells were distorted.

Primary Nerve Suture.—Mr. ROWE described a case where the ulnar nerve and artery were both divided. After securing the artery he joined the cut end of the nerve (the proximal

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being much retracted) with a carbolised catgut suture passed through the nerve. Two days after the operation the numbness was less. In five days and a half the sensation was the same, but there was some slight movement in the muscle. In thirty days sensation was slightly impaired, and motion was definite, but not perfect. Shortly afterwards the man pursued his occupation. Mr. Rowe referred to cases by Favel, Nélaton, and others; in some sensation partly returned at the end of the second day, recovery taking place at the end of a week. In a case of primary nerve suture reported by Laugier, recovery began on the day of operation. In Page's cases it occurred in nine days; in Pye's cases, in eight days; but there were some errors of localisation in the former. Mr. Rowe compared the rapid restitution of function in primary suture with the later development noticed in cases of secondary suture, referring specially to a case where the sciatic nerve was sutured by Mr. Wheelhouse, perfect function being only restored after several months.—Mr. WHEELHOUSE said that nerve suture was now established as a satisfactory operation, whether primary or secondary; but in one case by the latter he had known the effect delayed for three months. Referring to a case mentioned by Mr. Hartley where a painful tumour formed over the seat of suture of the median nerve, he said that probably some part of the nerve had failed to unite and had become bulbous, and he recommended a fresh operation to remove this.—Mr. JESSOP thought we should in future, in large wounds, fix more divided parts in apposition by sutures than has been the custom. One of the first cases of nerve suture on record was one where he had sutured the ulnar twelve years after division, first removing a bulbous end. On the seventh day the patient could localise a touch.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

AT the meeting on Dec. 23rd, 1886, the following communications were made:—

Malignant Disease of Pancreas and Liver.—Dr. DYSON related this case. The patient, aged forty-nine, was previously under his care for left pleural effusion, for which he was tapped, and he made a good recovery. His colour was suggestive of Addison's disease, and there was a history of alcoholism. The patient applied at the Sheffield Infirmary for relief because the tumour, which was situated in the epigastrium and which was somewhat movable, interfered with his work. The most noteworthy fact in the case was the complete absence of pain and digestive troubles until within a month of his death. During the last month, pain, vomiting, obstruction of bowel, hæmorrhage, and pyrexia supervened, and the patient died of exhaustion. At the necropsy the pancreas was found almost entirely invaded by scirrhus; the neighbouring glands were affected, and there were numerous secondary deposits in the liver, one especially large one in the left lobe. No other deposits. Left pleura adherent.

Tremor and Incipient Graves' Disease.—Dr. DYSON introduced this patient, an iron-turner, aged thirty-six. The tremors were fine and generally distributed, and probably due to chronic alcoholism. Cardio-vascular symptoms were the first to appear, and slight exophthalmos and Graefe's lid symptom came on quite recently. Pulse 150. He had also a slight internal squint and dilatation of the pupil of the left eye; no glycosuria. Many drugs had been tried for his relief, but none so far was obtained.

Some Clinical Features of Graves' Disease.—Mr. SNELL read this paper, based on cases coming under his observation. Referring to those in which the eye symptoms were the first to appear, he mentioned the case of a young woman, in whom the other cardinal symptoms had recently developed, and the patient was introduced by Dr. Dyson, under whose care she was now; also that of a woman, aged forty-five (introduced), with Graefe's and Stellwag's symptoms in right eye; no marked (if any) exophthalmos; slightly enlarged thyroid, and unobserved by patient; absence of other symptoms; left eye normal. Two monocular cases in females were related, besides the one above, as were also two instances of suppuration of both corneæ; the cases coming under observation first when the cornea was seriously affected in one (aged twenty-three), and destroyed in the other (aged forty). The question of Stellwag's (retraction of eyelids) and Graefe's (loss of coördinated movement of upper eyelid and globe on looking down) signs occurring independently of the usual train of symptoms of Graves' disease was discussed, and the following two cases in particular were related:—A young lady, with Graefe's and Stellwag's symptoms in one eye (right); no other apparent symptoms of exophthalmic goitre; greatly improved under treatment. A miner, aged thirty-six (introduced), the subject of miner's nystagmus. In both eyes Stellwag's and Graefe's signs were present; no exophthalmos, enlarged thyroid, or other symptoms of Graves' disease. The man seemed to possess some control over the lid phenomena. Among other points, the pathology was briefly touched upon, and support given by the cases related to a central disease theory (Sattler, Fitzgerald).

WIGAN MEDICAL SOCIETY.

Attendance of Medical Witnesses at Assize Courts.—A special meeting of the Society was held on Jan. 27th, Dr. Berry, J.P., President, in the chair, for the purpose of considering the present procedure in binding over medical witnesses to attend at assize and sessions courts, and the inadequate fees paid for the great loss of time involved. After some discussion upon the hardships entailed upon medical men by being compelled to attend as witnesses for a number of days at these courts, held in Liverpool, before their particular case is disposed of, and attention having been called to the fact that the scale of fees (namely, one guinea per day) was fixed thirty years ago by the then Lord Chancellor, when that sum was of much more value than at present, and there was not the same facilities for the saving of public time, the following resolutions were unanimously adopted:—1. "That it is most desirable that some alteration be made in the present procedure of detaining medical men as witnesses for a number of days at assize and sessions courts, and that adequate remuneration be allowed them for the loss of their time." 2. "That a subcommittee, comprising the president, vice-president, secretary, Messrs. Barnish and Brady, be appointed to consult counsel, and take the necessary steps towards calling the attention of the Crown to this grievance." 3. "That a report of the proceedings of this meeting be sent to the medical journals for publication."

Reviews and Notices of Books.

The Healing of Arteries after Ligature in Man and Animals. By J. COLLIS WARREN, M.D., Assistant Professor of Surgery, Harvard University; Surgeon to the Massachusetts General Hospital, &c. New York: William Wood and Co. 1886.

THERE is probably no theme in Surgery which has commanded a greater amount of interest and attention than the arrest of arterial hæmorrhage. The importance of the process is its just claim to attention, and this is for us greatly strengthened by the history of its gradual development, and the great names that are inseparably connected with the chief steps in the advance of our knowledge and in the improvement in our practice upon arteries. In spite of all that has been done there are many points yet open to discussion. It is still debated whether a ligature should be flat or round, large or small, permanent or temporary, single or double; and whether it should be applied tightly so as to partially sever the vessel, or more loosely so as only to compress it more or less firmly. For some years past Dr. Collis Warren of Boston has been studying with much care the minute processes occurring in the healing of ligatured arteries, and he has embodied his results in a valuable treatise. Dr. Warren has, of course, availed himself of the aid afforded by direct experiment on animals, and the series of vessels thus obtained, together with several human arteries removed at varying times after ligature, have formed materials from which he has been able to trace the entire process of healing. In removing the artery experimented upon, he has been careful not to dissect it away from the

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body of lymph or "callus" in which it lay, but to remove the mass entire. By examining sections of specimens thus preserved the entire process can be followed far better than when the vessel is dissected out and examined alone.

In many points Dr. Warren confirms the statements of other observers, but several of his facts are so striking that they are certain to excite fresh inquiry. The relative *rôles* of the internal coagulum of Petit and of the various coats of the arteries have afforded much matter for discussion. Dr. Warren attributes to the internal clot a very subsidiary share in the cicatrisation of the vessel. Like others, he finds that the size of this clot is much affected by efficient antiseptic treatment; he does not believe that it plays any active part in the closure of the vessels, but that it forms a very suitable soil for the development of granulation tissue sprouting into it from the neighbourhood of the ligature. The part played by the tunica intima has been variously estimated. Dr. Warren finds that both in animals and in man the endothelium of an artery takes but a small share in the work of cicatrisation. In some specimens it was seen to be undergoing proliferation, and by this means to affix the internal clot to the vessel wall; this may not be seen at the seat of the ligature, but at the other extremity of the clot. The endothelium also proliferates to form a lining for the vascular spaces in the arterial cicatrix; beyond this it does not take any active share in the closure of the vessel, if Dr. Warren's experiments and statements are to be relied on. The tunica media appears to play a very important part, for it is found that a main and essential part of the cicatrix in an artery is composed of long oval cells with rod-shaped nuclei, which are derived from the middle coat, and are to be regarded as involuntary muscular-fibre cells. These cells shoot into the organising tissue wherever the elastic lamina of the intima is broken through, whether at the seat of ligature or at some distance from it. Outside this muscular layer of the cicatrix is a fibrous layer by which it is continuous with the tunica adventitia and the scar tissue in the sheath of the vessel. The fully developed scar of a ligatured artery is therefore seen to be formed of three distinct layers: an innermost, derived from the intima, and consisting of endothelial cells with and without newly formed elastic lamina; a thick central mass consisting of delicate mucous tissue and capillaries, with muscle-fibre cells; and an outer layer of dense fibrillated tissue. Among the many interesting facts observed in this inquiry is the opening out of the artery a short time after its ligature. At first the inner and middle coats are severed and the outer coat is strangled and the lumen of the vessel is completely obliterated. This is quickly followed by the formation of a callus of exudation material around the vessel; the outer coat is then disintegrated at the seat of ligature; this allows of its opening out and of its retraction, and through the aperture thus formed granulation tissue sprouts into the interior of the vessel from the surrounding callus. This process is very clearly seen in several of the diagrams which illustrate Dr. Warren's book, and which have all the appearances of faithful representations of facts. This growth of granulation tissue invades the internal coagulum, and within it blood spaces are formed which communicate with the lumen of the vessel. The muscular-fibre cells sprout out into the granulation tissue, and may sometimes be specially traced around the anastomosing blood channels. The time required for the formation of a complete cicatrix in a large artery is at least from three to six months. Dr. Warren has investigated the changes occurring in arteries in stumps, and the processes leading to the obliteration of the ductus arteriosus and the hypogastric artery. In these he finds corroboration of the above facts. Altogether this book is the record of a very valuable piece of work, and deserves to be carefully studied.

Hygiene of the Eye in Schools. By HERMANN COHN. Professor of Ophthalmic Science in Breslau. English Translation. Edited by W. P. TURNBULL. London: Simpkin, Marshall, and Co.; and the Midland Educational Company, Limited.

THIS is a much-needed work, and one that should be in the hands, not only of every surgeon, but of all those who have the care of children—schoolmasters and mistresses and tutors of all grades and classes, from the heads of our great public schools and colleges to the humblest National school teachers. The work is founded on an article in Eulenberg's Real-Encyclopedie, but the author has added a short and popular introductory chapter on the Anatomy of the Eye, as well as a few remarks on its physiology and pathology. The chapter is of course correctly and simply written, but a doubt may be expressed whether any ordinary layman could, in the absence of special education and dissection, follow the account of the eye and its defects here given. Something, however, will be done if Prof. Cohn can explode some antiquated notions which are very generally accepted—as, for example, the erroneous idea that a short-sighted eye is a good eye, and improves with age. Prof. Cohn very properly maintains without hesitation that a short-sighted eye is a diseased eye, and still more that progressive short sight is in every case ominous of evil for the future, so that not unfrequently at the age of fifty or sixty, if not much earlier, the power of sight, either from detachment of the retina, or from hæmorrhage, or, lastly, from atrophy and degeneration of the yellow spot, is irrecoverably lost. All ophthalmic surgeons will, we are convinced, agree with Professor Cohn in thinking that one of the main causes, if not the only one, is the continual looking at near objects, especially with insufficient illumination. The influence of this unfavourable condition is of course greatly intensified by insufficient food and other lowering causes. Professor Cohn is well known to have been amongst the first to publish statistics in regard to the development of myopia in schools; and his table of results obtained from the examination of 10,060 children has been often quoted. They show that in every school the number of short-sighted children increases from class to class, and that the average degree of myopia rises constantly from the village schools to the gymnasia. The eleventh chapter is devoted to School Desks, and opens with a graphic account by Fahrner of the position and movements of children under ordinary circumstances in writing, and shows clearly the effect of the form and height of the desk, and the position of the slate or copy-book in producing "round" or "skewed" backs; and careful descriptions are given of the proper form, height, slope, and back-rest of model school desks and school seats, in regard to which many points are noted that we venture to say have never crossed the minds of nine-tenths of the teachers in English schools. Prof. Cohn quotes with approval the remarks which have been drawn up by Prof. Esmarch of Kiel, and distributed to parents whose children were crooked. This report says: "School children become crooked and short-sighted by crooked sitting on bad school forms. They sit crooked when the form is too far off the desk, is too low for the desk, and has no back-rest." The proper form is then described, and it is noted that a readjustment of the seat and the desk should be made every six months to meet the requirements of growing children. Another very important chapter is devoted to the Day-lighting of schoolrooms. How many schoolrooms in the country are dark and dingy, dirty in their interior, with small windows, with bad ventilation, and with the desks all placed in a faulty position in regard to the little light that enters. Von Hoffmann of Wiesbaden has recently made the excellent suggestion that in every class-room Snellen's test-types should be hung up, and lessons ended as soon as the day-light is not strong enough to allow a healthy eye to read type No.

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at a distance of six inches. The author expresses himself in the strongest terms in regard to the amount of light admitted into a school-room: "There can never be too much light in a school." Javal says, "The school must be flooded with light, so that the darkest place in the class may have light enough on a dark day." Prof. Cohn maintains that for every square foot of floor there should be at least thirty square inches of glass. The light should be admitted from the left of the scholars, and of course there should be no high buildings in close proximity to the school to intercept the light. The distance of the opposite buildings should be twice their height. From natural illumination the transition is easy to artificial illumination of schools. The author prefers gas, then petroleum, then oil; the relative illuminating power of these substances being—gas 100, petroleum 87, oil 63. The work concludes with admirable chapters on handwriting, drawing, print, and paper. We have said enough to show that this is a valuable book, and one that should be widely read. The present arrangements in the schools of England are simply disgraceful. We have only praise to accord to Mr. Turnbull for his very well executed translation.

Minutes of the General Medical Council, of its Executive and Dental Committees, and of its Branch Councils, for the Year 1886. With four Appendices. Vol. 23. London: Spottiswoode and Co.

THIS volume has now been issued, and includes a full report of the transactions of the Council and its committees, together with four valuable appendices. The first contains the Standing Orders of the General Council; the second, Visitation Reports on the Universities of Oxford, Cambridge, Durham, London, Edinburgh, Glasgow, Aberdeen, St. Andrews, Dublin, and the Royal University of Ireland. The third and fourth appendices contain respectively the second and third reports by the Statistical Committee of the General Medical Council regarding medical students registered as beginning the study of the profession in the quinquennium 1871-1875.

THE MOXON MEMORIAL.

A MEETING of the friends of the late Dr. Walter Moxon was held in the Royal College of Physicians on the 1st inst., to consider the question of perpetuating his memory by some suitable memorial. Sir William Jenner took the chair at 5 o'clock, and was supported by the treasurer and registrar (Sir Dyce Duckworth and Sir Henry Pitman). Letters were received from Sir A. Clark, Sir J. Lister, and Dr. Wilson Fox, expressing their regret at being unable to attend.

Sir WILLIAM JENNER opened the proceedings by explaining, in a few remarks, that the object of the meeting was to raise some visible sign which should be a lasting memorial of one now passed away, who was honoured for his scientific and professional work, esteemed for his zeal, and universally respected for his high and unsullied character as a man.

Dr. WILKS moved the first resolution, as follows: "That in the opinion of this meeting it is desirable to express, by public memorial, the widespread appreciation which exists of the high character and remarkable personal qualities of the late Dr. Moxon, and especially of the services he rendered in advancing medical science, and in otherwise promoting the highest interests of the profession." He said that as he grew older he was conscious of the ranks of the profession growing thinner around, and it remained for the few to hand down the names of those who had gone before. It was difficult for him to speak of Dr. Moxon, whom he had known as a pupil; but all who had met him were ready to admit that Moxon was no ordinary man. He was a burning and shining light that dazzled men by his brilliancy, so that his companions often ceased to converse and preferred to listen. He threw a halo round every subject he touched. Succeeding the speaker in the chair of Pathology, he soon mastered every detail in that science. Then passing to the chair of Materia Medica, he at once threw a new interest around a very unattractive subject. He was able to strike sparks out of rhubarb and senna leaves. In practice, he endeared himself both by his manner and acumen, and in treating patients his wit was constantly seen. Only the other day he heard of a story of a hypochondriac clergyman who had consulted Moxon. When the patient returned home his wife wanted to know what the doctor called his complaint. On this point the patient was a little doubtful, so it was determined to send his son down to inquire. When the son arrived Dr. Moxon said he could not remember the particular case, but if the son chose to look in his note-book he might there see for himself Moxon's candid opinion. The son looked, and found "a lanky parson with nothing the matter." The diagnosis was taken home and cured the patient. Moxon took pains in everything he did. At the College of Physicians his influence was soon felt, and he made strong friends. How gratifying it was to the friends and relatives to see the esteemed President at his grave, as a mark of respect to his memory, the speaker well knew. Two things they had to commemorate—Moxon's great genius and high scientific contributions to medicine, and his great personal worth, his pure heart, upright conduct, and general integrity. Many illustrious men died without evoking this feeling.

Sir JAMES PAGET, in seconding the resolution, said that Dr. Wilks had left little for him to say, who knew personally so much less of Dr. Moxon, for he had never seen Dr. Moxon at his work at Guy's Hospital; but this slighter acquaintance made the impression he had formed of him perhaps the more remarkable. He knew him only by repute, by his work, and by occasionally meeting him at societies or in consultation; but it was impossible to know him in that way without being impressed by his mental and moral worth. His mind was of a kind which gave free play to imagination, yet went on progressing towards the truth. To him it seemed at first strange and difficult to understand how this should be so, till he learnt that there was always present a most perfect appreciation of facts. At a consultation the beginning was illuminated, but the end was full of the most practical decisions for the patient's good. In society the charm of his wit was most fascinating. In the profession there never was a question but that what he intended to do was always the best according to what he conceived to be right. It was right that such good work should be recorded, and that a memorial should be raised which generations after would respect.

Dr. PAVY moved the second resolution, to the effect that subscriptions should be invited, and that an influential subcommittee be appointed to decide on the most suitable form of memorial. He spoke of the satisfaction it was to him to pay respect to one he had known as a pupil, colleague, and friend, and expressed a hope that part of the memorial fund should be devoted to perpetuating Dr. Moxon's memory at Guy's Hospital.

Sir DYCE DUCKWORTH seconded the resolution, and said that he had known the late Dr. Moxon for twenty-five years, and had often visited him when at work at Guy's. He had the highest appreciation of his character and work. He thought the memorial might be divided between Guy's and the College of Physicians, and hoped that it would be something worthy both of Dr. Moxon, of Guy's, and of the College.

Dr. BRAXTON HICKS and Mr. SIDNEY TURNER proposed that Mr. R. C. Lucas be treasurer, and Dr. G. N. Pitt and Mr. W. A. Lane secretaries to the fund.

The Treasurer of Guy's Hospital proposed a vote of thanks to the President for presiding, and to the Council for the use of the College, which Mr. DURHAM seconded, and to which Sir WILLIAM JENNER briefly replied.

HUNTERIAN SOCIETY.—The annual meeting of this Society will be held on Wednesday, the 9th inst., at 8 P.M., when the oration will be delivered by Dr. Galabin in the theatre of the London Institution, Finsbury-circus. The following is a list of office-bearers for the ensuing year:—President: Dr. Gervis. Vice-Presidents: Dr. Talbot King, Mr. T. R. Fendick, Mr. G. E. Herman, and Mr. G. J. B. Stevens. Treasurer: Dr. Fotherby. Orator: Mr. Clement Lucas. Secretaries: Dr. Charlewood Turner and Mr. John Poland. Council: Messrs. T. E. Bowkett, F. M. Corner, J. S. E. Cotman, G. B. Hicks, T. Mark Hovell, W. Rivington, R. G. Tatham, C. J. Symonds; and Drs. E. G. Gilbert, P. Horrocks, Pye-Smith, and Stephen Mackenzie.

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THE LANCET.

LONDON: SATURDAY, FEBRUARY 5, 1887.

WE understand that the promoters of a Teaching University in London are waiting on the Senate of the University of London for an official answer to their representations on the necessity for, and the functions of, a real University in London. In all past discussions on the threefold subject of the University of London in relation to medical degrees, the formation of a Teaching University in London, and degrees for average London medical students, we have not had the advantage of any definite statement from the authorities of the existing University of the policy which they were inclined to pursue, but have been obliged to be content with such side-lights as the present Vice-Chancellor has thrown thereon in his speeches at the last presentation of degrees and honours and at Manchester in November. From these speeches we have learned that the "pass" degrees are considered by the Senate to constitute "distinct honours," and that every successful candidate has an evidence "that he has passed no ordinary standard." We can now go a step further, for we are practically informed, in an article in the current number of the *Quarterly Review*, that the University relies on its past history. For instance, in medicine it is prominently put forward that "the University has probably influenced the profession profoundly and beneficially by confining its distinctions to the *élite* of medical students, and by setting up a high ideal of professional qualification." The author of the article writes as if he were in full knowledge of the views of the Senate, and he has perceptibly striven to justify its present position in—we will not say a complete *non possumus*, but in admitting only minor internal alterations in the character, management, and functions of the University. He also believes that it is in medicine that the University influence has been most powerfully felt and conspicuously successful, so that we must point out a few considerations on the other side of the question. We shall more particularly refer to the medical aspect of the question in our next issue, and will now confine our remarks more especially to the general question of degrees in all faculties.

The fundamental objection to the University of London is in its title. As the author truly says, "In the sense in which Oxford, Glasgow, or Bonn possesses a University—an organised body of teachers confederated for the purpose of attracting scholars, guiding their studies, and encouraging learning by appropriate rewards—London still remains without a local university worthy of its metropolitan position, its population, and its intellectual repute." The chief reason for the continuance of this reproach in the nineteenth century is the usurpation of the title "University of London" by a huge examining board in the metropolis of the empire. From its existence and from its having the power of conferring degrees of Bachelor and Doctor (*Lond.*), the public has been induced to believe that a body which has something to do with teaching as in other universities, and with definite collegiate attachments, really exists in this metropolis as in other centres of learning. This delusion has been strengthened and confirmed by the requirement of certificates of attendance on systematic lectures and hospital practice from medical graduates, although in the other faculties all such restrictions have long been cast aside. Its success as a medical university, even if this were to be admitted, only the more completely proves its failure in regard to the other faculties. Certificates of collegiate education are either valuable or useless. But the University requires them in one faculty and will have nothing to do with them in the others. So we are not any nearer now to a real University than in 1615, and we have to thank the University authorities for not assisting in bringing us any nearer to the ideal placed before us in the Appendix to STOWE'S "Annales" of that date.

The present University from its commencement has thrown cold water on the amalgamation of London colleges and schools, and in 1858 deliberately affirmed that, except in medical training, a collegiate education was unimportant to it, and availed nothing. Therefore it is not to be wondered at that the institutions which have since replaced "the divinity schools at St. Paul's, at Westminster, and at St. Peter's in Cornhill, the King's College in Chelsea, the Inns of Court and of Chancery, Doctors' Commons, the College of Physicians, St. Katherine's College, the College of Heralds, and St. Paul's School," are now no closer in affiliation and corporate union than were these places of learning in 1615. King's College and University College, the Science and Art schools, the Technical Institute of the City and Guilds of London, the Medical Schools, the Colleges of Physicians and Surgeons, the Incorporated Law Society, and the Inns of Court and the large public schools of London are as isolated, so far as the University of London is concerned, in this the jubilee year of its existence as were the bodies above mentioned, when a University of London only existed in the imagination of a few worthy scholars and teachers. The only reasons for this failure in duty on the part of the London University are that this work was not ambitious enough for its early promoters, and that it was pledged by its Charter to encourage many persons who pursue a "regular and liberal course of education both in the United Kingdom and elsewhere." Its first proof of encouraging a regular and liberal course of education was to admit, under pressure of Lord BROUGHAM (*teste* p. 45), unworthy certificates of studentship, and so, instead of rigorously demanding sufficient proofs of regular courses of study, it gradually drifted into the acceptance of more and more loosely given certificates, until they became no guarantees even of an honest, much less of a regular, curriculum of study. It is impossible to believe that the then Senate, had it been so minded, could not have overcome this difficulty. From such a passive position towards the affiliated colleges an open examination allowed a speedy retreat, but even then the authorities shrank from the logical carrying out of their views, and insisted on certificates from candidates in medicine being still forthcoming. The medical schools were in quite as eager competition for

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students as the affiliated schools and colleges in the Arts Faculty.

The writer of the article above referred to most clearly indicates that he has no sympathy with any modifications which would change the cosmopolitan character (examining only) of the present institution into a metropolitan institution, having relations exclusively to London students, to London academical organisation, and to London teachers, and whilst gravely suggesting that the title of "university" now only means a "*studium generale*, a *schola*, a gymnasium, a corporate body and buildings dedicated to the pursuit of the higher learning," still uses it throughout in its older sense as perfectly applicable to the Imperial Examining Board in Burlington-gardens. What has this body to do with the *pursuit* of the higher learning? We should say, less than many of our first-grade schools, medical and scientific colleges, and yet the most perfect satisfaction is expressed with things as they are, and the whole article is as optimistic as even an official explanation could be expected to be. We have thought it expedient to comment on this past history in order that our readers may be fully aware that since 1858 the University of London has deliberately placed itself in the anomalous position of being only an "examining board" for the empire, and that as a result of such action it is only right and proper in the interests of local London that a true University should, if possible, be founded.

THE discussion which was raised at the Medical and Chirurgical Society on Tuesday week by Mr. BARWELL dealt with a matter of considerable surgical interest—the best method of dealing with hydatid tumours of the liver. The opinions elicited showed that the line of practice is not settled, and it may be well to consider some of the points involved.

One point to which only scant reference was made in the discussion, but which has important surgical bearings, is the great diversity met with in hydatid tumours of the liver. They may be single or multiple, superficial or deep, barren or fruitful; and if multiple, they may be closely grouped together or distinctly separated. These differences have great practical importance. A single superficial cyst may be readily dealt with by simple means, such as tapping. When a number of cysts are present, they may be so grouped together that when the most superficial are opened the others may be opened from their interior; but, on the other hand, they may be so situated that this is impossible, and a deeply seated inaccessible cyst may thus set up mischief, and cause the death of the patient, as in a case alluded to by Mr. WARRINGTON HAWARD. Fortunately these complicated cases are not common; in the majority of instances the tumours are favourably placed for operative interference. The simplest surgical means is tapping the tumour and removing some or all of its fluid contents. But it was pointed out at the meeting that this operation, simple and apparently safe as it is, is not absolutely free from danger, for sudden death has more than once occurred, which in one case at least was found to be due to the entrance of a small cyst into a hepatic vein, through which it passed to the heart. There is, further, the possibility of the leaking of some of the contents into the peritoneal cavity, and a fact incidentally mentioned by Mr. PEARCE GOULD is of interest from this point of view. He stated that while operating upon a case of very large suppurating hydatid, a quantity of omentum was suddenly forced out of the wound, and it was seen to be thickly studded with aborted hydatid cysts. This patient had been previously tapped on two occasions, and the question naturally arises whether the condition of the omentum was caused by an escape of hydatids from the parent cyst. On the other hand, however, it must be borne in mind that these accidents have occurred in a *very* small minority of cases, that tapping has frequently wrought a cure, and that sometimes it is used for diagnostic as well as for therapeutic purposes. If tapping is employed, how much fluid should be removed? Should the sac be emptied, or should only a small proportion of the fluid be withdrawn? On this point two opposite opinions are held, and clear and definite views are needed. The question turns upon the *modus operandi* of the operation. Is it that it causes the ectocyst to collapse away from the adventitious capsule, or is it that the withdrawal of fluid kills the hydatid and prevents the re-secretion of the fluid? Curiously different results of tapping are obtained. In some cases the cyst that has been emptied collapses altogether, and never refills; in other cases it refills with hydatid fluid indistinguishable from that obtained at first; in others, again, the fluid becomes increasingly albuminous after each tapping; in yet others the cyst suppurates. Surely we need more light on this question. We believe that some physicians think that where the nature of the tumour is obvious, it is better at once to proceed to a more radical mode of dealing with it than to trust to tapping, and they base this opinion upon the fact that the cases which are capable of cure by tapping cannot be recognised with certainty beforehand, but that they are just those in which a free incision and drainage is easiest and safest—so safe, indeed, as not to expose the patient to any appreciable risk. They would state the matter somewhat thus: Tapping is dangerous just in those cases in which incision and drainage are necessary for the cure; incision and drainage are free from danger in those cases in which tapping succeeds; therefore, to incise and drain all cases at once, in place of trying the effects of tapping first, is not to expose the patients to any additional risk, but to preserve them from the special risks occasionally attending tapping. Without asserting that this is the correct line of reasoning and practice, we must admit that there is reason in the view, although the perfectly just conservatism of surgeons will probably dispose them still to resort to tapping in apparently suitable cases.

The particular point, however, which Mr. BARWELL dealt with in his paper was the best mode of executing the operation of incision and drainage in superficial accessible cysts. He advocates an application to this case of a well-known surgical manœuvre—operation in two stages—which has had brilliant results in gastrostomy, and has been applied to the operation of enterostomy also. The object aimed at is a laudable one—the exclusion of the contents of the cyst from the peritoneal cavity; but the argument was defective in two essential points. Mr. BARWELL did not show that this escape of contents has been a serious sequela of the operation as more usually per-

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formed, nor did he show that other means which have been adopted have failed to prevent it. We by no means assert the impossibility of supplying these gaps, but their existence is very evident as the case at present stands. Other means have been employed to attain the adhesion of the cyst to the abdominal wall before incising it, such as the introduction of acupressure pins, the use of caustics, and stuffing the wound made through the abdominal parietes with lint or gauze. Of all methods, we should certainly give the preference to Mr. BARWELL'S suture; it is less painful and more precise than any other; but it is doubtful whether the disadvantage of dividing the operation into two stages is not too heavy a price to pay for the supposed advantages. After the cyst has been freely opened, we have little doubt that the wisest plan is to allow the contents to escape completely, except the mother ectocyst; and not only so, but, as far as possible, the wall of the cyst should be explored for any bulging swellings formed by neighbouring cysts: all such swellings should be tapped and drained through the first. The vessels in the adventitious cyst wall are large and varicose, and the separation of the ectocyst may be followed by serious hæmorrhage. The question of irrigation is one of less moment; where the cyst has suppurated it is probably wiser to at once remove all the pus by irrigation.

One other point worth mentioning incidentally turned up in the discussion. Mr. HAWARD mentioned a case in which an unopened suppurating cyst caused the death of the patient, setting up fever and albuminoid degeneration of viscera. Mr. PEARCE GOULD mentioned a case of a large suppurating cyst which was unattended by any fever, and gave no sign of the purulent nature of its contents. There must be some explanation of the opposite results of an apparently similar condition. Is it that in one case the pus had wandered out of the cyst proper into the pleura or some other tissue, while in the other it was securely lodged within the parasite? But this is only one of many very interesting problems suggested by hydatid disease, the chief and most unexplained of all being the mode in which the parasite gains entrance to the human body.

THE President of the Local Government Board has filled the vacancy created by the death of Sir FRANCIS BOLTON, and has appointed an engineer to occupy this important office. It is convenient therefore at this moment to review the safeguards which London possesses against injury from so fertile a source of disease as contamination of water-supplies. Under the Metropolis Water Act of 1852, Section 4, every water company is required to "effectually filter all water supplied by them within the metropolis for domestic use before the same shall pass into the pipes for its distribution, excepting any water which may be pumped from wells into a covered reservoir or aqueduct, without exposure to the atmosphere, and which shall not be afterwards mixed with unfiltered water." In order to ensure the enforcement of this provision, the Metropolis Water Act of 1871 requires that "there shall be a water examiner, being a competent and impartial person from time to time appointed by the Local Government Board, who shall from time to time, in such manner as the Local Government Board direct, examine the water supplied by any company in order to ascertain whether or not the company have complied with the requirements of Section 4 of the Metropolis Water Act, 1852, and shall from time to time report the results of his several examinations to the Local Government Board; and that Board shall send a copy of every such report to the company to which the same relates; and the company may, if they think fit, on each occasion of such examination, be represented thereat by some officer, but such officer shall not interfere in the examination." The metropolis is therefore largely dependent upon filtration and chemical analysis for its preservation against water-carried diseases. Dr. BUCHANAN, in his Annual Report for 1881, summed up the position of chemical analysis as a safeguard against injury to health by stating that the chemist can tell us of impurity and hazard, but not of purity and safety, and this conclusion will undoubtedly be supported by those who are aware of the minute quantity of specific matter which is competent to produce injury to man. The evidence of mischief is, indeed, less readily found by the chemist than by the health officer, whose duty it is to discover the cause of outbreaks of sickness amongst those who are resident in his district. In London the machinery which would bring such illness to light is of so unsatisfactory a character that no substantial reliance can be placed upon it. The absence of any system of registration of disease is itself a noteworthy disadvantage; the division of London into some thirty-nine districts is again a serious obstacle to the investigation of any diseases which might be produced by the contamination of water-supplies. It is for this reason that we had hoped that the late Sir FRANCIS BOLTON'S office might be filled by the appointment of a medical man competent to perform such duties as we have indicated.

We are fully cognisant of the importance of engineering and chemical skill being brought to bear upon the control of water-supplies, but these touch but one side of the question, and nothing short of the exercise of watchfulness over the health of water consumers can give any guarantee of safety to those who in these matters are practically powerless to help themselves. The legislation of 1852 and 1871 could not have regard to this consideration; medical knowledge has grown since those times, and would itself be largely developed by continuous investigation into the effects upon health of water under different conditions. It has been too readily assumed that sewage when introduced into running water becomes oxydised in its passage down stream; doubtless there is much dilution of the impurity by the addition of other water, but it is difficult to say at what point below the intake of impurity the water regains its wholesomeness.

The drinkers of water supplied by the Thames have much ground for anxiety at the present time; the published reports of Sir FRANCIS BOLTON raise serious question as to the propriety of continuing those supplies which are derived from the Thames at a suspicious proximity to the localities of the discharge of sewage. Certainly, no health officer would be willing to accept as a sufficient basis for confidence the fact that water has been filtered, or that chemical analysis fails to detect impurity. The issues involved are of vital importance to Londoners, and cer-

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tainly those who can exercise control in this matter ought not to leave the metropolis unprotected.

AMONG the proposals for reform in regard to the rules of procedure and customs of business in the lower House of Parliament, is one which must elicit the sympathy of the medical profession without respect to the party feeling or political principles of its members. We refer to the contemplated new rule that, "unless previously adjourned," the House shall "sit till half-past twelve of the clock at night, when the Speaker shall adjourn the House without question put." The phraseology in which this proposal is embodied is not remarkable either for English or elegance, but the idea is an excellent one. Half an hour after midnight is surely late enough for the making of laws. If we may not fall back on the old adage that "it is time for all good people to be in bed," it is an hour at which those who are engaged in work supposed to require fairly clear and energetic brain-functioning may, without any fear of being thought idle, avow themselves weary, and seek reliefand recuperation in repose. How very heavy is the fine imposed by Nature upon the class of public men who not merely turn night into day, but burn the candle at both ends by rising early and late taking rest, is too well known to those upon whom devolves the task of combating the advances of mind and body weakness and of fighting off death on behalf of the victims of this inexplicably mistaken policy. In the old days when the House first formed the evil habit which has come to be one of its cherished usages, early rising was not a practice to which the class of society from which members of Parliament were then commonly taken was much addicted. The legislators of the last century, and the early part of this, acted very much on the prudential principle enunciated by the late Lord BYRON and did not get up until the sun had warmed the world. We have changed all this, but with wondrous awkwardness and fatuity. We rise betimes, but do not go to bed any—or only a very little—earlier than did our great-grandfathers. This is bad enough when the muscular and general systems only are worked excessively, and the brain is practically allowed to lie fallow, as in the case of the man about town; but it is incomparably worse when the particular organ which most needs rest in sleep, and can only get it therein, is worked at the time when it ought to be slumbering.

It has been repeatedly urged that the work done by jaded law-makers at two or three o'clock in the morning connot but be less than the best of which the same minds are physically or intellectually capable. This appeal to the self-critical consciousness of our legislators in the first instance, and to the public, their constituents, in the second place, ought to be regarded as forcible; but, as a matter of history, it has not proved in a practical sense effective. The *argumentum ad hominem* may, perhaps, have greater success. Let it, then, be distinctly understood that recent Parliaments have shown a very serious percentage of brain-mortality—or, which is much worse, mind-ruin—as the result of late sittings which have to be endured after body and brain have been already wearied, if not exhausted, by a fair day's work in a Government office, in court, or with some tiresome occupation. It may be thought that such toil as members of the House of Commons have to face is not in itself very exhausting. That is a misconception, and it may readily be accounted for, because no one who has not personally experienced the weariness of habitually sitting out long debates can ever guess how the strength of body and mind is tried by the process. The time has passed, perhaps for ever, when the business of legislation in the Lower House was mostly left to the enterprise of younger sons of noble families and squires—in short, to men who could afford to be idle except in Parliament. The Commons of to-day are for the most part busy men, wholly apart from politics; and it is, therefore, more than ever desirable—we would say necessary—that a reasonable limit shall be put on the duration of sittings of the House. The Lords do not indulge in late hours, and seldom sit after dinner, except when questions of great moment or urgency are engaging their attention. It is with the Lower House we are chiefly concerned in connexion with the subject of "overwork," and we sincerely hope the very late hour (12.30 P.M.) selected by the promoters of this reform may be accepted as the limit at which measures for the enforcement of rest become publicly and personally indispensable.

Annotations.

"Ne quid nimis."

THE MEETING OF THE ASSOCIATION OF GENERAL PRACTITIONERS.

AT the meeting lately convened by the Council of the Association of General Practitioners debated questions with which the profession is now familiar were once more considered, and the resolutions passed respecting these may, alike in tone and matter, stand as guiding precedents in future discussions of the same character. The advantage of instituting a degree obtainable by London students on terms more reasonable than those required by the University of London was well brought out in a speech by Mr. Wheelhouse, the chairman on this occasion. Another question of considerable moment was not forgotten. In supporting the claims of the Apothecaries' Society, Mr. Wheelhouse and Mr. Wickham Barnes advocated no greater concession than the conjoint Colleges might conveniently grant, or, indeed, than it is incumbent upon them in respect to the expresed wish of the great body of their constituents to allow. The services rendered to the medical profession by the Society in the past call for some return, while to ignore its claims and the recognition afforded them by the last Medical Act can only tend to weaken the influence of the yet unborn conjoint qualification, which embodies the fairest promise which we now have of a common adequate professional status for London-trained practitioners in the future. The importance of the motion which was entrusted to Dr. Danford Thomas must be generally acknowledged. In asking for a representative voice in the government of the College of Surgeons the Members are seeking no more than their due, and it would be a graceful no less than a politic act on the part of the College of Physicians to afford recognition in a similar way to their Members and Licentiates. Personal representation as the counterpart of personal duty is the most characteristic feature of our national life. It is a principle than which none can be fairer. It is native and inevitable to every constitution composed of intelligent men, and, whatever its possible disadvantages, its history in the past has been marked by progress and prosperity. If the Councils of the Colleges have misgivings lest a deterioration of their professional

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spirit or their qualifications might follow the application of this principle in their own case, we would bid them take confidence. Among their less prominent alumni are many men well able to appreciate the value of a high standard of professional education and practice, and it is not likely that their number will diminish. The Privy Council, it is satisfactory to learn, has interested itself in these proceedings. It engages to weigh the opinions of the Members, and we presume of the Licentiates also, before it ratifies any material change in the Charters of the Colleges. If, however, it should happen that ordinary measures fail to attain the desired object, the Practitioners' Association proposes to avail itself of other and more effectual help. The motion by Dr. Brierley asks for the appointment of a Royal Commission to inquire into the subject, and unless a request so reasonable can be turned aside by party influence, it is difficult to see how the claim for representation can fail to be conceded.

ALTERATIONS IN THE EXAMINATIONS AT THE UNIVERSITY OF LONDON.

WE are pleased to see, in the interest of the candidates, that the number of hours at the Matriculation Examination will be reduced from twenty-eight to twenty-five. They will now only be required to show a competent knowledge of one instead of two languages—viz., Greek, French, German, Sanskrit, or Arabic, in addition to Latin, and English language and English history, with the geography relating thereto. Mathematics; mechanics; and one branch of experimental science—viz., chemistry, or heat and light, or magnetism and electricity—are the science subjects carefully laid down to balance the classics. Experience has apparently proved to the authorities that chemistry can be taught at only few schools, and we venture to say that the other branches of experimental science will not be better taught. Moreover, if science has to be taught to schoolboys, why might not some choose one of the various branches of biology, which we, at any rate, believe to be more interesting and important? The only answer is that, however much boys may wish to prosecute such studies, teachers are wanting. But adequate teaching and instruments for experimental science exist in but few large schools and in the science colleges, and the preparation of the rest is *pure cram*. By cram we mean laying stress on a number of isolated facts without insisting on a knowledge of the principles which underlie them, or of the instruments by which they are demonstrated to exist. If the University of London were to insist on a sound knowledge of any one branch of learning—classics, mathematics, English, or an experimental science,—some advantage to real learning might result. Now it presents to the candidate merely an *olla podrida*, and cannot make up its mind whether its matriculation examination is the *terminus a quo* for its degrees, or the *terminus ad quem*, when the learning of the pupil is to come to a stop.

A practical examination with patients will be held in the Examination in Surgery at the M.B. Pass Examination. The recent visitation by the General Medical Council has led to the removal of one blot which was most forcibly insisted on by the official visitors. "There was no Clinical Examination; no operations were required on the dead subjects; no testing as to bandaging was employed; no recognition was required of surgical instruments or apparatus." Such shortcomings are simply and solely the outcome of the University regulations, and for them the examiners are by no means responsible. We think that other alterations on the lines suggested by the Visitors will have to be carried out, for the M.B. Lond. is a registrable qualification, and this must always include a sufficient examination in surgery as well as in medicine and midwifery, and as there are still a few students who do not present themselves to the corporations for examination, but are registered merely on their University degrees.

DEATH FROM CHRONIC LEAD POISONING

AN inquest was held recently at Islington touching the death of a woman aged about thirty-eight. Deceased had worked for many years at a white lead manufactory, and had from time to time suffered from "a touch of the lead,' or in other words had had "painter's colic." She is reported also to have indulged in alcohol, although the post-mortem examination failed to furnish evidence in support of the assertion. For some time before her death there had been weakness of the extensor muscles, yet this could not have been greatly developed, seeing that deceased had continued her occupation until within about ten days of her death. On the last occasion of leaving her employment she showed, in addition to her previous symptoms, signs of cerebral disturbance. As the latter became alarming she was removed from her home to the workhouse, where upon her admission she was found to be delirious. The delirium passed into insensibility, and this into death. She had no saturnine convulsions. At the necropsy the gums were seen to be bordered by a deep blue line, more deeply coloured on the dental than on the labial surface. The muscular coat of the intestines was greatly hypertrophied, though the bowel was not at all contracted. The colon was filled with solid fæces. The liver, spleen, kidneys, heart, and lungs were fairly healthy. The dura mater and arachnoid appeared normal. The meshes of the pia mater were filled with cloudy serosity, but there was no coagulated plasma, and none of that sulphur-like layer found in pronounced meningitis. The cerebral veins were full, but presented no evidence of ante-mortem blocking. In short, there was no intra-cranial disorder other than is found in cases of cerebral irritation from many other causes than lead-poisoning; nor, indeed, could the condition be better described than as what is commonly called "serous apoplexy." It is instructive to note that there had been no known disturbance of brain function attributable to deceased's occupation antecedent to her fatal illness. The surgeon engaged to attend the factory hands stated that 99 per cent. of the operatives had the blue line, and a man who gave evidence at the inquest, and who had only worked in lead for about three months over a period of three years, showed a decided discolouration of the gums. There was ample testimony to show that every precaution had been taken by the employers to protect their workpeople, both as regards legal imposition and voluntary action. We understand that there is the greatest difficulty to compel the operatives to habitually avail themselves of preventive treatment; but even allowing for this, we cannot help thinking that "white lead" making is still a dangerous occupation, and one alike calling for scientific aid and legislative enactment requiring regular medical inspection. The mere weekly attendance of a medical man is delusive in its supposed benefit to the workers in lead, for the existence of the blue line is not considered of sufficient moment to discharge operatives, and obviously many of them will rather conceal any slight subjective symptoms than run the risk of being invalided and so lose their source of income. We cannot subscribe to the opinion given by the medical man to the firm "that the blue line was not evidence of constitutional affection." It is true it may not be accompanied by other manifest signs or symptoms, but, for all that, it proves that the metal has been absorbed into the circulation, and that thus it may be slowly and silently working irretrievable mischief in the tissues—mischief which at any time may show itself in colic, palsy, or even in fatal activity in the brain. An analysis of portions of the liver, made by Mr. A. P Luff, showed traces of lead.

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THE CLINICAL SOCIETY.

The address given by the new President to the Clinical Society on his taking the chair for the first time was, as such addresses are likely to be, eminently characteristic. The address showed a good many traits of Dr. Broadbent's mind; but it showed none better than this—his appreciation of, and interest in, all the branches of the great tree of medicine. He is not one of those who cry "Diagnosis, diagnosis, diagnosis," and then neglect the treatment. Neither does he sympathise with the anatomical to the exclusion of the clinical or experimental pathologist. Like the true practical physician, he believes that all the knowledge of a medical man should be utilised to the full for the benefit of the patient. His remarks on reducing the temperature by special antipyretic drugs struck us as particularly philosophical and practical. Who knows, indeed, what other actions antipyretics may possess? The other actions may be deleterious, innocuous, or harmless. It is tempting, but useless, to speculate as to the probable effect of antipyrin on other than thermogenetic functions. We require more actual knowledge of the action of these drugs on the nervous centres and heart. The value of presidents' addresses consists in their being historical, as well as ornamental, useful, and introductory. The medical historian of the future will find in these addresses a representation of the feelings and thoughts of eminent physicians and surgeons; he will also find in them indications of the aspirations of the times at which they were delivered, and of the special tendencies of knowledge.

THE ELECTION AT ST. BARTHOLOMEW'S.

The vacancy in the staff of St. Bartholomew's Hospital, caused by the resignation of Dr. Wickham Legg, is likely to prove the occasion of a severe contest. From the list which we append below it will be seen that the number of candidates is exceptionally large, for the system that prevails at this hospital of encouraging junior members to hold the temporary staff appointment of "casualty physician" necessarily lays open the office of assistant-physician to a considerable number of claimants. Many of the candidates, too, are well known for their scientific attainments and important contributions to medicine. Dr. Samuel West, who has been medical registrar to the hospital for several years, and medical tutor in the school, has very great claims, which we should like to see duly acknowledged. Amongst the many earnest and able workers in the ranks of young physicians, few have done so much both in clinical and pathological research as Dr. West. Dr. Percy Kidd, another candidate, is also favourably known for his contributions to pathology, especially in pulmonary disease. Dr. Ormerod is equally well known as a careful investigator in neurological science. Dr. Vincent Harris has done good work as a physiologist. Besides these gentlemen, there are others named more or less known outside the limits of their school, and the governors will have no little difficulty in making a judicious selection. We must emphatically protest against the retention in this hospital of the ancient method of election by the whole body of governors. It involves great hardship on the candidates, and places them in a humiliating position; whilst it by no means follows that the candidate who is best qualified will be elected. Surely it is time that this state of things were altered, and the election placed by the statutes in the hands of a select committee, which should exclusively consist of members of the medical staff, who alone are capable of forming a correct opinion of the merits of candidates. This plan is now adopted at many hospitals, and would, we feel sure, while it did away with the degrading canvassing whereby members of a learned profession have to stoop to solicit the votes of individuals who have no interest in or knowledge of what constitutes the real claim to a position on a hospital staff. Another suggestion has been made which is worthy of consideration—viz., that the staff on the medical side of St. Bartholomew's Hospital should be increased by the addition of a physician and an assistant-physician. There is ample room for such enlargement, and it would harmonise with the number of members on the surgical staff. If carried into effect, such a change would create two more medical vacancies, and there would be no difficulty in filling them from among the following names of gentlemen who are candidates for the post of Assistant-Physician, now vacant:—Oswald A. Browne, M.A., M.B. Cantab., M.R.C.P. Lond; Arthur Temple Davies, B.A., M.B. Cantab., M.R.C.P.; Archibald Edward Garrod, M.A., M.B. Oxon., M.R.C.P. Lond.; Samuel Herbert Habershon, M.A., M.B. Cantab., M.R.C.P. Lond.; Vincent D. Harris, M.D. Lond., F.R.C.P. Lond.; Wilmot Parker Herringham, B.A., M.B. Oxon., M.R.C.P. Lond.; Henry Lewis Jones, M.A., M.B. Cantab., M.R.C.P. Lond.; Percy Kidd, M.A., M.D. Oxon., F.R.C.P. Lond.; Joseph Arderne Ormerod, M.A., M.D. Oxon., F.R.C.P. Lond.; William Edward Steavenson, M.D. Cantab., M.R.C.P. Lond.; Howard Henry Tooth, M.A., M.D. Cantab., M.R.C.P. Lond.; Samuel West, M.A., M.D. Oxon., F.R.C.P. Lond.

DIPHTHERIA AT EALING.

A SERIOUS outbreak of diphtheria has occurred at Ealing The disease appeared at the close of the week ending January 22nd, and continued to increase until Thursday, January 27th, when fresh cases ceased to occur. In all up to the time named twenty-three cases were discovered, and three cases terminated fatally, one of them in the person of Mr. Charles James Fox Kenworthy, of Kerrison Lodge, The Park, Ealing, a gentleman thirty-four years of age, and very much esteemed. One of the remarkable features of the outbreak was that not a single instance of an attack was met with amongst the poorer classes—a fact which presupposes that neither water-supply nor drainage is accountable for the outbreak. The idea that milk is the source of the contagion seems pretty general, and Dr. Corfield has, we understand, been called in to inquire into the matter. He is reported to have inspected the principal dairy farm at Ealing in company with the medical officer of health, and after inspecting the ninety-six head of cattle on the farm, together with the cisterns, the drainage, and the sheds, has come to the conclusion that everything is unexceptionably good. The suggestion, therefore, is that if milk be the cause of the evil, it has been imported into the locality—a suggestion the more probable because such importation is rather extensively carried on. The whole subject is still under investigation, and as the elements of the problem are narrowed down to a few we should hope the solution of the mystery will be definitely solved.

UNIVERSITY OF EDINBURGH.

WE have hitherto studiously declined to enter into the painful details of the scandal now agitating the University of Edinburgh and, through it, the public. Everyone must regret to see a man in the position of Professor Rutherford bringing charges of a gross character against his assistant, and having to acknowledge them groundless and to retract them. We have no right to speak judicially, even if we had the means of investigating all the facts of the case; but we are all interested in the welfare and the fame and reputation of the University of Edinburgh; and we think it not only a discredit, but a misfortune, that no notice has been taken of this matter in its earlier stages by either the Senatus or the University Court. The Senatus is an exclusively professorial body. And it is a fault of the

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University that all arrangements seem to regard too exclusively the interest of the professors. Scarcely from such a body could effective intervention have been expected. But the University Court is more responsible. It has powers of censure. In it the public, the graduates, the students, as well as the professors, are represented. And yet it has allowed this matter to grow to a height that is damaging to the reputation of the University and of the professor more immediately affected, to say nothing of his assistant. We shall want fresh guarantees in the new legislation for the Scotch universities against the recurrence of such scandals as this, and in favour of those assistants whose work is only second in importance to that of the professors, but whose emoluments are so small and so liable to discontinuance with the cessation of dignified relations with the professor. Even now, and with its present powers, the University Court ought to intervene, and it would satisfy the public that the University of Edinburgh is a school where scandal may not be raised with impunity.

AVIAN TUBERCULOSIS.

THE October number of the *Journal of Comparative Medicine and Surgery* (Philadelphia) contains an interesting article upon Avian Tuberculosis by Mr. Bland Sutton. The bibliography of this subject is comparatively small, and Mr. Sutton's contribution is therefore all the more welcome. The disease affects mainly, if not entirely, graminivorous birds, and its occurrence in birds of prey may often be attributed to their feeding on tubercular smaller birds. As an illustration of this in another class of animals Mr. Sutton cites the case of a python which died with tuberculosis of the liver, having been fed on fowls, pigeons, and ducks, "which are exceptionally liable to tuberculosis." The marked characteristic of avian tuberculosis is the selection of the alimentary canal and associated organs for the seat of the disease. Large nodular masses form in the intestinal walls, and may give rise to actual obstruction, or eventuate in peritonitis. The lymphatic vessels in connexion with the bowel are often dilated and plugged with caseous material; whilst the liver and spleen show abundance of miliary deposits, resembling in their early stages those produced by such parasites as gregarinidæ. The portal circulation in birds is peculiarly suitable for the secondary infection of liver and spleen. Microscopically, the tubercular nodules consist in early stages of a central focus of round and giant cells, with bacilli in and around the cells; in older nodules the caseous centre is surrounded by an epithelioid zone, and that by a "bacilliferous zone" in which large giant cells occur, and that finally by a zone of inflammatory cells. The bacilli, which are perfectly homologous with the bacillus tuberculosis of Koch, occur in vast numbers; and careful observation shows that in the liver they are arranged in masses corresponding with minute vessels, whose lumina they completely plug. Mr. Sutton finds here an illustration of "amœbic warfare," to which attention was first drawn by Metschnikoff, and subsequently by Mr. Sutton himself in his lectures at the College of Surgeons. The bacilli gaining entrance by the food invade the walls of the intestine, and thence enter bloodvessels, where they encounter leucocytes, which by fusion constitute "giant cells," and take up numbers of the bacilli. He compares the tubercular nodule to a battle-field, the older masses containing most giant cells and indicating the traces of the past struggle in the caseous débris of dead cells and the extending zones of contending cells and bacilli. The disease is probably propagated by contamination of grain with the excreta of affected birds; yet hitherto attempts to detect bacilli in the excreta have failed. Mr. Sutton, however, adduces collateral evidence in support of this, and gives some striking facts upon the propagation of disease among parrots and other birds from neglect and overcrowding. In conclusion, he points out that the high body-temperature of birds doubtless favours the luxuriant growth of bacilli within their tissues, and suggests the possibility that the tubercular bacillus may have been evolved from some harmless form, "and that its peculiar character of thriving best at a temperature equal at least to that of the human body was first acquired by being transplanted to a medium, the chief constituents being *animal excreta*."

THE SHOP HOURS BILL.

THE Shop Hours Act, 1886, came into operation at the beginning of the present year. The limitation expressed in this measure, though it does not err on the side of stringency, has achieved a definite good. Something has been done to restrict the almost incessant work which from week to week was telling with unquestionably serious effect against the health of many young men and women. It cannot be said that the allotted period, seventy-four hours per week, is unduly short. It might, we imagine, be still further curtailed in the case of a good many shops without serious injury to trade. We do not pretend that shop labour is at all times arduous. Both as regards muscular and mental activity it is often, no doubt, sufficiently exacting; but, apart from such considerations, the atmosphere of even large establishments is frequently by no means well adapted to the preservation of health. On this subject we have before spoken at some length, and need not therefore now discuss it further. One evident advantage possessed by this Act is the elasticity conferred upon it by granting power to local authorities to modify its provisions to a reasonable extent in conformity with the local fluctuations of trade; and since in any calling two-thirds of the voting strength must support a proposed alteration, there is reason to expect that this liberty will not often, if ever, be abused. The right of keeping open shop on Sunday is denied to all callings, except those of publicans, keepers of restaurants, tobacconists, and news-agents. Even these, perhaps, might without much public inconvenience be included within the terms of the Bill, provision being made if required, as in the case of chemists, for occasions of real emergency. It has been found impossible so far to apply in the working of the Shop Hours Act the costly machinery of inspection. We sincerely hope that no such system may be required, and that public opinion may act as somewhat of a substitute. Where business premises consist of shop and factory combined the inspectors appointed under the Factory Act are available, and the need of their services in such cases has unfortunately been proved by experience. There is a tendency on the part of some employers to use their workshop employés after the allotted work period to reinforce the staff of ordinary shop-servers. Such an abuse, it is obvious, can only be remedied by careful and frequent inspection. Having thus considered some of the leading features of the new Bill, it is hardly necessary for us now to speak at greater length upon it. Even in its present somewhat imperfect form it must relax considerably the too great strain of business life, and we are convinced that employers will find themselves repaid in the quality and amount of service rendered in the shorter period for the working time which they appear to have lost.

HEROIC DOSE OF TURPENTINE IN CROUP.

IN an obstinate and dangerous case of diphtheritic croup, which had extended into the larynx, after painting with boracic acid, and subsequently with a chloric acid application, without benefit, the child's condition becoming worse and worse, Dr. Lewentaner of Constantinople, before resorting to tracheotomy, remembering a paper by Demlow in which turpentine was recommended in these cases, determined to give it a trial, and s

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administered with his own hands a teaspoonful of the pure oleum terebinthæ, giving after it some warm milk. In a quarter of an hour the laboured laryngeal breathing had given way to normal respiration sounds. That night the child slept well and was quite free from the brassy cough which had previously been present. The next morning he was quite lively and was found playing with his toys. All trace of false membrane had disappeared from the pharynx, which merely presented a reddened surface. Convalescence was rapid and uninterrupted. The turpentine, however, caused an eruption on the face, trunk, and extremities, having much the same appearance as the rash of measles but of a brighter red. The spots completely faded in two days, and were followed by no sign of desquamation.

THE REGISTRAR-GENERAL'S ANNUAL REPORT.

THE forty-eighth annual report of the Registrar-General has just been issued, and contains the detailed vital statistics of England and Wales for the year 1885. It is satisfactory to note that the usual delay in the appearance of these annual reports has been abridged by more than three months, which encourages the reasonable hope that the increasing portion of the public which is interested in the national health statistics may in the near future anticipate the publication of the Registrar-General's detailed annual report, at any rate before the close of the year following that to which its statistics relate. The Registrar-General of Ireland has set a good example to the Registrars-General of the other portions of the United Kingdom in this matter, for his report for 1885 was issued early in July last. On the other hand, the detailed report of the Registrar-General for Scotland for the year 1884 has not yet been issued. It is true that an approximate annual summary of the vital statistics of each part of the United Kingdom is published in various forms within a few weeks of the close of each year, but this does not lessen the force of the unquestionable fact that the value of all vital statistics depends in great measure upon the promptness with which they can be issued after the occurrence of the facts with which they deal. Great as is the interest attaching to the exhaustive series of tables contained in the Registrar-General's Annual Report for 1885, it is impossible to ignore the fact that at the present moment that interest is considerably discounted by the fresher interest felt in the summary of the figures for 1886, which is now due. The year 1885 completed the first quinquennium of the current intercensal decade 1871-80, and was, as the Registrar-General reports, "the fifth consecutive year in which the death-rate did not exceed 19·6, the lowest death-rate in any year previous to this quinquennium having been 20·3." The mean rate in these five years fell to 19·3, from rates that had steadily declined in the four preceding quinquennia from 22·6 in 1861-65 to 20·8 in 1876-80. It is impossible to doubt the substantial improvement of the public health implied by these figures. The great saving of life in recent years has been mainly due to decrease of child mortality, and of mortality from the principal zymotic diseases. At the same time it is eminently satisfactory to note, from the report now to hand, that while the decline of mortality in the five years 1881-85, compared with the mean for the whole registration period 1838-85, was most marked under thirty-five years of age among males, and under forty-five among females, the death-rate in the quinquennium at each of the twelve age periods was below this general average. This must be especially satisfactory to those who have refused fully to recognise the advantage of the decreased mortality in early life, because after middle life the death-rates continued to increase after the decline in the rate of child mortality, and of the gross death-rates at all ages had set in. The report just published contains some special and interesting statistics upon the marriage ages of bachelors in different classes and occupations; on the mortality from hydrophobia in England and Wales in the thirty-eight years, 1848-85; and upon the local age and sex distribution of mortality from diabetes in the thirty years, 1856-85. We shall have occasion to refer to these subjects in a further notice of the report just issued.

ACUTE SPREADING GANGRENE.

IT is not often that examples of this terrible and fatal disease are met with, improved methods of treating wounds and the wounded having almost effectually banished it from the list of surgical accidents during treatment. A short account of a case, which was admitted under the care of Mr. Sydney Jones at St. Thomas's Hospital, will therefore be of interest. The patient, a fairly healthy-looking man, aged forty-three, a gardener, who said he had previously enjoyed good health, fell, on Tuesday, Jan. 25th, and ran a rusty spike into his left leg, about four inches below the knee, making a long punctured wound upwards and backwards, wounding a vessel in the position of the anterior tibial artery. The hæmorrhage appears to have been easily arrested, and the man was sent home and put to bed by his medical attendant. He suffered severe pain in the leg until the Thursday morning, when it began to swell and the pain ceased; the swelling rapidly extended and the leg became discoloured. On Friday midday he was sent to the hospital, and was then very ill, but apparently unaware of his serious condition. The leg was swollen from the foot almost up to the groin, and emphysematous crackling extended, chiefly on the outer side of the thigh, to the hip, and downwards over the foot, which was cold and without sensation. The leg was gangrenous, the region of the wound very tense, cold, and purplish-black, with vesication. Above the knee there was brownish pigmentation of the skin, and this, like the œdematous swelling of the thigh, was most marked on the lateral aspects. His tongue was dry, pulse rapid and compressible, and examination of the urine showed the presence of much albumen. Amputation above the middle of the thigh was performed soon after admission, but the patient, who did well for a time, died somewhat suddenly on the following afternoon, four days after the receipt of the injury. There was slight emphysematous crackling in the subcutaneous tissue of the stump, and tenderness along the femoral vein on the morning after the operation.

WARMING RAILWAY CARRIAGES.

IT is very strange that the repeatedly urged proposal to warm railway carriages by a complete system of pipes heated with the waste steam and the hot air from the engine has not been carried into effect. There would be no serious difficulty and comparatively little expense in putting this plan in operation. At the moment we write it is warm enough for spring weather; a day or two ago the weather was wintry. The cold may return, and, if it should, we shall be shivering under burdensome rugs, even in first-class compartments, while those who travel by the more genial appliances of locomotion across the Channel are taking matters more easily, and, if not actually enjoying themselves—by reason of the intolerable slowness of even fast trains on the Continent—will be, at least, free from perils by chill; not, indeed, because railway companies across the silver streak are one whit more considerate of the comfort and well-being of their passengers, but because the weather being less severe, the ills and grievances of a railway traveller's life are less difficult to bear. It will be well if the companies begin to warm their carriages at once; if not, they must be compelled to do this small service to the

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public. Meanwhile, let those who travel in cold weather insist on securing as many foot-warmers as possible in the compartment, and have them frequently renewed, so that the atmosphere of their carriage may have the keen edge taken off its icyness.

ANTIPYRIN IN PHTHISIS.

ANTIPYRIN has been shown to have various uses, but if the success which has been reported by Dr. Zakrzhevski in a paper contributed to the *Russian Military Medical Journal* attends the practice of other medical men, this drug will hereafter be looked upon as almost a specific. While under ordinary methods of treatment the mortality of phthisical patients in the Helsingfors Hospital was 50 per cent. during the eight months in which the antipyrin treatment has been carried out not a single case has proved fatal, many of the patients having, on the contrary, improved so decidedly as to be able to return to their homes. The author much prefers the hypodermic method of administering antipyrin, as the effect is produced in less than an hour, whereas when the drug is given by the mouth no effect is produced for from one to three hours. The action of antipyrin is to increase the force of the cardiac contractions, and so to raise the blood-pressure. In phthisical patients it slows the pulse, but never quite to the normal rate. It also slows and deepens the respirations, and the digestive functions are improved. No albuminuria or other sign of renal disturbance was observed. With regard to the dose Dr. Zakrzhevski finds that it should be regulated by the strength of the patients. In a man with phthisis, who was still fairly robust, a full dose of ninety grains was required in order to produce the best effect; whereas in greatly debilitated typhus patients ten or fifteen grains were quite sufficient, and in cases where there was decided exhaustion it was found that a dose of sixteen or seventeen grains was the largest that it was advisable to give.

A FATAL CASE OF SCURVY.

AN inquest held recently at Greenwich shows how narrow is the margin of protection afforded by lime-juice against outbreaks of scurvy when ships are ill-found or the crews unhealthy. In this case the patient, who died just on entering the Seamen's Hospital at Greenwich from syncope, embarked at Calcutta in the ship *Aladdin* on August 12th last. After nine days he showed symptoms of disease, which the captain thought was due to syphilis, and treated him accordingly, but it ultimately proved to be scurvy. Another member of the crew was also affected, but more slightly. Evidence was given which showed that the diet was confined to salt meat, bread, peas, rice, tea and coffee, and water, which was very bad. Such a diet would eventually lead to scurvy, and the date of the occurrence of the outbreak would depend upon the powers of the resistance of each individual member of the crew. The two men who were attacked probably had the seeds of the disease in them when they left Calcutta. We have repeatedly drawn attention to the fact that a very large proportion of crews are recruited direct from hospital. So long as they can pass muster before the agent, they are content to engage for the voyage. As Mr. Harry Leech used to say, more ships are lost through the unseaworthiness of the crews shipped than of the vessels themselves. It is certainly a strange anomaly, that while the captains of ships can have emigrants medically examined the crews are not inspected. The Board of Trade, too, is also responsible for the maintenance of the defective dietary still in vogue in the mercantile marine. In these days of cold storage fresh provisions could easily be served out during the whole voyage; but then the rules and regulations of the Board of Trade stand in the way, and fresh meat may not be substituted for salt, unless the weight of fresh meat is equivalent to the regulation allowance of salt, which is absurd; and it is quite unreasonable to expect owners, if they have already gone to the expense of putting up a cold storage-house, to pay the difference between one pound of fresh meat and one pound of salt—a difference of about 2¾*d.*, which would represent a considerable sum on a long voyage and with a large crew. Some time since a large shipping company proposed to introduce a fresh meat supply throughout their vessels, and at their request a well-known authority drew up a diet scale, in which he proposed to substitute twelve ounces of fresh mutton for every sixteen ounces of salt pork and beef allowed by the mercantile marine scale. This very reasonable proposition was not, however, accepted, and for a time the matter was allowed to drop. We hope, however, the Board of Trade will become alive to the importance of improving the dietary of the mercantile marine; with the improved methods of preserving and storing fresh provisions, there can be no excuse for adhering to the antiquated method of provisioning ships still adhered to. There is no reason whatever why the sailor should now be predisposed to scurvy any more than an agricultural labourer. Lime-juice, no doubt, is an excellent preventive, but it is an artificial resource, for if ships were provisioned in accordance with the opportunities now afforded by cold storage and hermetically sealed tins of vegetables, it would become unnecessary and useless.

THE GEORGE THOMPSON FELLOWSHIP IN MEDICINE.

THE conditions and regulations regarding this Fellowship of £100 yearly, founded by G. Thompson, Esq., of Pitmedden, have just been issued by the Medical Faculty of Aberdeen University. The object of the founder was to enable a Graduate in Medicine of the University to pursue further studies and researches at a foreign or some other British school of medicine or hospital. The Fellowship will be tenable for two years, will be awarded after the last term of graduation for the year, and will be open for competition to all who in that or the preceding year have passed all the examinations for graduation in the University. The examination for the Fellowship will be held early in July, will be conducted partly in writing, partly *vivâ voce*, and partly practically, and will be confined to three of the subjects of the medical curriculum.

MERCURIAL PERIPHERAL (?) NEURITIS.

CLINICAL, histological, and pathological facts grow apace in the subject of diseases of peripheral nerves. The number is great of morbid processes known to the clinical physician in which peripheral neuritis has been found. Alcoholism, tabes dorsalis, diphtheria, endemic neuritis (béri-béri), leprous neuritis, saturnism, mercurialism, typhoid fever, rheumatic fever, and probably other continuous fevers, including tubercle and phthisis, are all accredited causes of lesions of peripheral nerves. Many of these causes do not act equally on the whole length of a nerve. Curiously enough, the changes may occur at intervals in the length of a single nerve. This variety has been badly named "segmental." It contrasts strongly with the Wallerian degeneration of the whole length of the nerve, though in this degeneration the first part to undergo change is that next the point of section, not the terminal plate, which would be furthest away from the source of nutrition. M. Letulle communicated recently to the Académie des Sciences the results of some histological investigations into the conditions of the nerves in mercurial paralysis as experimentally induced in animals. The results are remarkable, and require further investigation. The alterations were segmental, as above explained,

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and peri-axial, but not in the least inflammatory. The special character consists in the progressive destruction of the myeline sheath, with preservation of the axis cylinder, but without increase in the number of nuclei of the neurilemma. Letulle speaks of them as trophic changes. Clinically, mercurial paralysis differs from saturnine forms in the preservation of normal electrical reactions, absence of amyotrophy, and persistence of deep reflexes. But further minute study of these paralyses is certainly desirable in the light of most recent knowledge.

THE HOME SECRETARY AND THE CONVICT THOMPSON.

WE are glad to see that the Home Secretary has promised Mr. James that a careful inquiry shall be made into the facts of the case of Thomas Thompson, now under sentence of death in Durham gaol for the murder of his child at Gateshead. We have reason to believe that there are unmistakable proofs of melancholia in Thompson's family. If there are any cases of murder, more than others, in which it is proper, and indeed imperative, to investigate and give due weight to facts proving an element of insanity in the murderer, it is in such a case as Thompson's, where the murderer kills his own child. It would be painful indeed to see such a man executed without the fullest proofs that he had escaped the evil inheritance of his family.

CHOLERA AND QUARANTINE IN SOUTH AMERICA.

IS is quite evident that cholera is on the increase in South America. On the east coast Uruguay and the Argentine Republic are affected, the disease having commenced at the important ports of Monte Video and Buenos Ayres. Inland there has been a somewhat wide diffusion into the centre of the Argentine Republic and also as far north as Paraguay. At Monte Video the increase which is taking place is considerable. On the western coast of the continent the disease appears so far to be limited to Santiago. The first spread of cholera to South America is believed to have taken place in connexion with a very considerable emigration of Italians to the district of the River Plate; but it is not easy to determine which locality became first affected. The attitude of the several Governments concerned is thoroughly characteristic of nations wedded to the quarantine system. Each one begins by denying or minimising the news as to cholera, and then when all are alike infected they set up a rigid system of quarantine between themselves.

TREATMENT OF TYPHOID FEVER BY INHALATION OF COLD AIR.

M. A. SOKOLOFF, of the Military Hospital of Krasnoeesky, published some time ago interesting researches on a new method of treatment of typhoid fever. The author had remarked that the patients suffering from this disease who were placed in tents could without inconvenience respire air at a temperature of zero, and that coincidently the temperature of the body fell from 40° C. to normal. He was thus led to conjecture that inhalations of cold air might be employed with a therapeutic object in view. He experimented on twenty-three cases, and found that inhalation of air nearly at zero caused a more or less pronounced defervescence, though the action is, as might have been expected, less lively than with cold-air or cold-water baths, and is at the same time more transitory. He found that the action varied under different conditions, the defervescence being least from midday to 6 P.M., and greatest between the hours of 7 and 10 in the evening. The effects were less during the first fortnight, the defervescence effected being less than 1° C., and lasting for only an hour and a half or two hours, whilst they were greater after the first fortnight, the defervescence amounting to more than 1° C. and lasting for several hours. The duration of the inhalation was found to be of little importance, a *séance* of ten minutes' duration being equal to one of twenty minutes. The best time was from twelve to fifteen minutes. The defervescence was not in direct ratio to the temperature of the air inspired, and air at very low temperatures did not act any better than air at somewhat higher temperatures, because exposure to the former had to be curtailed. Depression or excitation of the patient diminished or suppressed the antipyretic action of the inhalations. The general effects of inhaling cold air were that the respiration was diminished in frequency by about four times in the minute, and became deeper; the pulse was lowered on the average six beats, and became more full. On the other hand, the skin and mucous membrane became less dry.

THE APOTHECARIES' SOCIETY AND PRESCRIBING CHEMISTS.

READERS of THE LANCET of Jan. 8th may remember the case of a chemist at Bedworth, named Homer, visiting and attending a child till it died. The facts were investigated by the coroner, and the jury found that the chemist had been guilty of a breach of the law in attending, prescribing, and giving a certificate of death. A correspondence has been sent to us by Mr. Upton, clerk of the Society, showing that the Society was ready to prosecute the chemist, and gave him notice of their intention to commence proceedings. Thereupon Mr. Homer pleaded to have the proceedings stayed, and promised that the Society should have no more occasion to complain. The Society then drew out a form of undertaking to be signed by the chemist, and agreed, on these conditions, to abandon proceedings. The Society deserves praise for action in this matter, and not least for its readiness to forbear on a promise of good behaviour, which we anticipated in our notice of the case. There are many culprits who have not given any such promise, who should not be so leniently dealt with.

SALICYLIC ERUPTION.

BURNING sensations in the skin, œdema of eyelids, and patches of bluish-red erythema were noticed by S. Rosenberg to follow the administration of four grammes of salicylate to a sempstress. A bullous eruption appeared on the site of the erythema as the result of continued use of the drug. Three days after the discontinuance of the drug the vesicles dried up. A fresh experimental observation was made, with a similar result. The urine gave a distinct ferric chloride reaction. The inunction of salicyl ointment was followed by burning and red patches on the skin with blueness of face, and the urine showed the salicyl reaction.

THE CRICHTON ROYAL INSTITUTION, DUMFRIES.

IT will doubtless be remembered that about the middle of last year Dr. Lennox, assistant medical officer at the Crichton Royal Institution, Dumfries, charged Dr. Rutherford, the medical superintendent of that institution, with subversion of order in the house, and also complained of the inferior quality and deficient quantity of the food supplies. The General Board of Lunacy held an inquiry into these charges, and the result of their investigation has been published. The conclusions which were arrived at are as follows:—(1) The charge of want of discipline is unfounded; (2) the statements made by Dr. Lennox respecting the food are undeserving of confidence, the supplies being satisfactory, although on a considerable number of occasions the cooking of the food appears to have been unsatisfactory

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(3) that the estimate of the cost of the food is unsupported by facts, and shows an ignorance of the cost of the food of patients in other asylums; and (4) that the charges against the management were prepared and brought forward in a way which deserves strong censure. Two medical commissioners who visited the asylum at the request of the Board of Lunacy also reported most favourably of the discipline and food-supply of the establishment. The case has excited much local interest, and Dr. Rutherford is to be congratulated upon the result of the inquiry and the termination of an episode which must for some months have been a cause of considerable mental annoyance.

IMPENDING RUIN OF SPANISH PHARMACISTS.

La Vara de Esculapio states that since the beginning of July—that is to say during the last six months—nine pharmacies in Madrid have been closed, and that forty more will certainly follow their example before July, 1887; also that unless the present arrangements about military pharmacies are entirely changed an additional seventy will probably close at some subsequent date. If this prophecy comes to pass, the Madrid pharmacies will in a short time have been diminished by 109! In this country chemists have to compete with the stores and seem to have good reason to complain, but we never hear of such wholesale closures as are being carried out in Madrid, where, though the military pharmacies may to an unjustifiable extent supply civilians at something like cost price, as is alleged, no medical man thinks of such a thing as dispensing his own medicines. *La Farmacia Española*, referring to the subject, suggests that the doctors and pharmacists should combine together and demand the consideration of their rights from the Government.

UNIVERSITY EXTENSION IN SCOTLAND.

A MOVEMENT is at present in progress among the Scottish Universities for the organisation of systematic courses of extension lectures upon all departments of science and literature, similar in range and aim to those which were initiated in England upwards of twelve years ago by one of our best known educationists, Professor Stuart, M.P., and which have been so successfully carried on by the University of Cambridge, particularly in the mining and manufacturing districts of the north of England and the midlands. It is hoped in Scotland to overcome the difficulty of supplying regular and complete instruction, so far as the Universities are concerned, by uniting their available lecturing power; so that while any town would naturally in the first place be supplied, as far as possible, from the nearest University, any desired course might be drawn from a more distant one. The project of establishing "extension colleges"—i.e., centres of regular teaching—is already under consideration in several of the most important county towns and manufacturing centres throughout Scotland, especially in connexion with the local jubilee movements.

TUBERCLE INOCULATION DURING CIRCUMCISION.

DR. ELSENBERG, writing in a Polish medical journal, gives an account of a case where tubercular infection was conveyed to a child during circumcision through the filthy practice of sucking the wound. Several cases of this kind have been previously recorded by Lindmann and by Lesmann, who recorded ten instances of infection by one operator. The interest of this case lies chiefly in the doubt which at first existed as to the nature of the ulceration, which had very much the appearance of a chancre, but which on microscopical examination showed the existence of tubercle bacilli. The operator was apparently in pretty good health, having only a trifling cough, but tubercle bacilli were found in his sputum, and in the inter-arytenoid space some distinct tubercles were seen by means of the laryngoscope on an infiltrated base.

EPIDEMIC DIARRHŒA.

IT is unusual to hear of any epidemic prevalence of diarrhœa during the winter months, yet there is little reason to doubt that a large number of persons in London have during the last few weeks suffered from this malady, and this in a manner which raises a strong suspicion of community of cause. The subject is one that would likely enough escape attention, for the ailment is not of a character to influence death returns; nevertheless, diarrhœa is sometimes associated in its etiology with other diseases of a serious nature, and we cannot regard the appearance of groups of cases of this affection without some anxiety as to its meaning. Health officers would render valuable service by placing themselves in communication with medical practitioners in their district, for the subject is well worthy of investigation.

THE COSTS OF THE ELECTION OF DIRECT REPRESENTATIVES.

WE are asked to remind our readers that the costs of the election of Mr. Wheelhouse and Sir Walter Foster are still undefrayed by the contributions that have been received, and that subscriptions will be gladly received by Dr. Robert Saundby, Edmund-street, Birmingham.

DISPENSING BY MEDICAL MEN IN FRANCE.

IN the French Medical Bill, which has been drawn up and published, the old law which permitted practitioners residing in towns, villages, or communes where there was no chemist's shop to supply medicines to their own patients is now proposed to be altered, so that dispensing may be done only in cases where there is no chemist within four kilometres. Upon this *Le Practicien* remarks that it is to be hoped that all rural practitioners, who would simply be unable to exist under such conditions, will protest most energetically against this alteration, drawn up, as of course it is, by persons who have no knowledge of the conditions of medical practice in the country.

THE JACOB TESTIMONIAL.

IT is gratifying to observe that the Jacob Testimonial is likely to be a great success. The subscription-list includes the names of many eminent physicians and surgeons in the United Kingdom, whilst the popularity of the movement is shown by the support it receives from the rank and file of the profession.

THE BLOOD IN LEUKÆMIA.

DR. PRUS, a Polish observer, having studied the composition of the blood in five cases of leukæmia, writes (*Medycyna*, No. 39, 1886) that crystals of leucin are only found in the form of leukæmia which is accompanied with swelling of the glands. In general the number of Bizzozero's plates is very considerable, while the crystals of Charcot and Neumann are but seldom found. The movements of the white corpuscles are greatly increased.

DEATHS OF EMINENT FOREIGNERS.

THE following deaths are recorded:—Prof. Aug. Nonat, formerly a well-known and highly esteemed Parisian gynæcologist, in his eighty-third year; Dr. Antonio Garbiglietti, Dean of the Royal Academy of Medicine of Turin; and Dr. Pieter Hendrik Suringar of Amsterdam.

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SMALL-POX IN AUSTRALIA.

NEWS from Melbourne is to the effect that, there having been no increase in the cases of small-pox amongst the passengers landed there and at Adelaide from the Nord-deutscher Lloyd steamer *Preussen*, those who were detained in quarantine have been released.

FOREIGN UNIVERSITY INTELLIGENCE.

Halle.—Dr. Oberst has been nominated Extraordinary Professor of Surgery.

Prague.—Dr. Emil Kaufmann has been recognised as Privat Docent in Otology in the Bohemian Faculty.

Vienna.—The Ministry of Education has addressed an inquiry to the Professorial Senate as to the necessity of establishing a third ophthalmic clinic—that is, one in addition to those under the charge of Professors von Stellwag and Fuchs. A committee has been appointed to report on the matter.

LECTURES will be delivered in Gresham College, Basinghall-street, E.C., on the Glands, on the 8th, 9th, 10th, and 11th inst., at 6 P.M., by Dr. E. Symes Thompson. The subjects of the respective lectures, which are illustrated by diagrams and free to the public, are the Structure and Function of the Absorbents; the Glands in Health and Disease; Diseases of the Glands; and the Surgical Treatment of Glandular Disease.

SEVERAL practitioners residing in and on the borders of the hamlet of Mile-end having consented to notify the occurrence of cases of infectious disease coming under their notice, the guardians have resolved to allow a fee of 2s. 6d. for each case so notified.

IN reference to the honour conferred on Prof. Billroth, to which we alluded last week, we may remark that the Vienna surgeon is the third medical professor who has in recent years attained the dignity of the Austrian peerage, the other two being Rokitansky and von Brücke.

SEWAGE SLUDGE.

THE best method of dealing with sewage sludge is one of the most pressing questions of the day. The importation of foreign guano has tended materially to reduce the expectation of any reasonable pecuniary return by the sale of sludge for the cost incurred by its separation from the fluid which accompanies it. Nevertheless, this removal is necessary in the interest of the purification of the effluents which now discharge into our rivers, and it may be hoped that the many experiments which are being carried on for this purpose may at last end in success. Mr. William J. Dibdin read an interesting paper last week on this subject, in which he pointed out that the solubility of a portion of the suspended matter in solutions of lime seemed to have been entirely overlooked; that the use of an excessive quantity of lime, while affording a rapid settlement of the sludge and a more or less clear effluent, dissolved a by no means inconsiderable quantity of the offensive matters previously in suspension. Chemical precipitation was incapable of removing more than a limited quantity of the oxydisable organic matters in solution in London sewage. Of the various chemical agents, sulphate of iron was superior to alumina for sewage purification, the latter being valuable chiefly for its effect in removing some of the colour from the effluent, but leaving the matters actually in solution. He regarded sewage sludge presses as a convenient mode for converting the sludge into a semi-dry portable form, but doubted the successful use of the material thus prepared, and said that, in place of the farm, in many cases the furnace appeared to be the ultimate destination of the offensive matter. In the case of the metropolis the conveyance of the sludge to sea was the only available remedy, but where local conditions were favourable, he refrained from saying other methods of disposal were undesirable.

Another paper by Mr. William Santo Crimp on Filter-presses for the Treatment of Sewage Sludge was also read at the same time, the author pleading for the filter-press as a ready means of disposing of the sloppy mass of putrescent mud produced daily in sewage precipitation works. He argued that the offensive and useless mass might be quickly converted into a practically inodorous manure, which was superior to ordinary farm-yard manure.

A very ingenious method of separating the liquid from the solid portion of the sludge was exhibited last week at Walthamstow, in Essex, where arrangements have been made for the application of Mr. Astrop's system of converting sewage sludge into dry powdered manure. At Walthamstow the sewage is run into a tank, where it is subjected to precipitation by lime, and, after the supernatant water is run off, the sludge is pumped into an adjoining building which contains Mr. Astrop's water-extracting machine. It is received first into a large sludge-vat, in which are two hollow perforated metal cylinders covered with fine wire gauze, and which are kept constantly revolving against brushes which keep the gauze clean; a partial vacuum is created in these cylinders by pumping, and about 60 per cent. of the moisture is extracted. The sludge then passes by a sluice valve on to an endless travelling web of wire gauze, having the same sized mesh as the cylinders, and occupying the whole width of the machine. The web is supported by rollers, and also passes under rollers, as well as over one of Körting's exhaustors, by which 10 per cent. of the moisture is removed. The sludge then passes between a series of rollers provided with scrapers, whence it falls into a hopper, and thus reaches a disintegrating cage on the lower floor; here it is exposed to a blast of warm air, and at the end of this process it contains but 5 per cent. of moisture. By this time it is in the form of a powder, which falls through the meshes of the disintegrator on to an Archimedean screw, and by this means is conveyed to a distance, where it is packed into bags. There is but little doubt Mr. Astrop's system will supersede other methods of fluid deprivation, and it can evidently be worked at a very small cost. The value of the product for manure is said to be considerable, but this must be determined more fully by future experience. The method is, however, a very convenient one; the machinery occupies but a very limited space, and is in every way inexpensive.

THE MEDICAL ATTENDANCE ORGANISATION COMMITTEE.

THIS Committee consists of the following gentlemen:—Chairman: Sir T. Spencer Wells, Bart. *Medical:* Dr. J. Ford Anderson, Dr. F. H. Alderson, Mr. E. C. Barnes, Mr. M. G. Biggs, Sir Andrew Clark, Bart., Dr. Alfred Carpenter, Dr. M. Corner, Dr. A. D. Ducat, Mr. W. G. Dickenson, Dr. J. Grey Glover, Dr. Alex. Grant, Dr. John Gordon, Mr. Ernest Hart, Mr. H. Nelson Hardy, Mr. Timothy Holmes, Mr. G. T. Keele, Dr. Alfred Meadows, Dr. W. M. Ord, Dr. H. Campbell Pope, Dr. Gilbart Smith, Dr. J. C. Steele, Dr. Walter Smith, Dr. G. Stoker, Mr. W. E. Steavenson, Dr. Dunbar Walker. *Lay:* Sir T. Fowell Buxton, Bart., Mr. W. Bousfield, Mr. W. G. Bunn, Rev. Canon Erskine Clark, Mr. H. N. Hamilton-Hoare, Lieut.-Col. Montefiore, Mr. F. D. Mocatta, Mr. Claude G. Montefiore, Rev. Geo. S. Reaney, Mr. C. J. Radley. Secretary: Mr. W. G. Bunn, 5, Lamb's Conduit-street, London, W.C.

The meetings of the committee, which are well attended, take place on alternate Tuesdays, from 4 to 5·30. So far not much has been done save to pass the following resolution:—"That any future plan for the medical treatment of the working classes should be conducted upon the principle of assurance, with a small fee at each attendance, or upon each prescription made up. Special terms should, however, be arranged for the admission of persons requiring immediate treatment, who should be compelled to join, and be expected, within one month of recovery, to continue as ordinary members, with the sanction of the medical officer under whom they wish to be registered." Such a resolution, of course, carries us but a little way in this difficult

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question. All will agree that it is desirable that the payments of the working classes should be on the principle of assurance—i.e., that they should be periodical, in sickness and in health, in order that they may be of moderate amount, and most would agree to a little extra payment at each attendance or on the dispensing of medicines as a check upon the tendency to make frivolous demands on the medical men. The difficulty begins when we come to details and to formulate schemes and rates of payment which will really satisfy good general practitioners. All the recent attempts to organise medical attendance on the working classes have been more or less unsatisfactory, including those of the Metropolitan Provident Association. They have not improved on the demoralising notion prevalent among the working-classes that medical attendance is to be had for next to nothing. It could not be expected that medical men should identify themselves with an Association which at low terms took patients of all classes without respect to fitness. It remains to be seen whether any modification of the provident dispensary system can be got to work satisfactorily in London, where the conditions of life are exceptional. It is not proved yet that any new discovery works better than the old club system, supplemented by those accommodating terms on which medical men have always been ready to attend the humbler classes in the emergencies of sickness and disease.

THE VICTORIAN JUBILEE AND SANITARY IMPROVEMENT.

A PUBLIC conference was held at the Paddington Vestry Hall on Jan. 25th to consider proposals for commemorating the Jubilee. The following proposals were made:—(1) A recreation ground; (2) a public library and museum; (3) a town hall; (4) the Imperial Institute; (5) and the purchase of the canal basin and wharves, and the removal of the dust-collecting business from the parish. This last proposal had reference to the following motion, which Mr. Mark H. Judge intends to propose in the Jubilee Committee if sufficient support should be forthcoming from the inhabitants:—"That in the opinion of this Committee, the dust-collecting and other trades which are carried on in connexion with the canal basin between Warwick-crescent and Praed-street, besides being a continual menace to the health of the parish, are, during the summer months, a serious danger to the inmates of St. Mary's Hospital, and a source of annoyance to the Great Western Railway Terminus, which is so often visited by Her Majesty the Queen and the Ministers of the Crown; that the Committee, therefore, considers that no better memorial of the Victorian Jubilee could be devised in Paddington than for the Vestry to purchase the canal basin and adjacent property in order that this long-standing nuisance may be abolished and the site suitably utilised for residential and other purposes."

This scheme was supported at length by Mr. Mark Judge, and by Mr. Edmund Owen on behalf of St. Mary's Hospital.

NATIONAL HEALTH SOCIETY.

ON Friday evening, Jan. 28th, a meeting was held at the Paddington Baths to inaugurate a course of health lectures to be given by Dr. A. T. Schofield, under the auspices of the above Society. The meeting was largely attended and the audience representative of every grade of society, showing how general is the interest in the all-important subject of health. In the absence of Lord Randolph Churchill, who was detained in the House of Commons, the chair was taken by the Rev. J. C. Ridgway. Among the gentlemen on the platform were Sir Crichton Browne, Sir Spencer Wells, Dr. Priestley, Dr. Thorne Thorne, Mr. F. Treves, Rev. Dr. Clifford, and Mr. Shirley Murphy. After some introductory remarks by the chairman, Sir Crichton Browne addressed the meeting, dwelling on the importance of the work of the National Health Society in its efforts to prevent the origin and spread of disease by imparting knowledge through such lectures as Dr. Schofield's to all classes; Sir C. Browne also remarked that a special feature of these lectures would be the avoidance of technical terms and complicated expressions, and he went on to draw a favourable comparise between the physical condition of Englishmen and an other nation in the world.

Sir SPENCER WELLS pointed out that the average lengt of life was twenty years longer now than it was fifty yea ago; this he attributed to efforts at sanitary reform, such those of the National Health Society.

Mr. F. TREVES said the National Health Society wa strictly a missionary society, inasmuch as it appealed t individuals; in this he was supported by

Dr. THORNE THORNE, who said it was essentially th work of ladies to go among the poor, and to impress upo them both personal and general sanitary principles.

The Rev. MARSHALL TREDDLE and Rev. Dr. CLIFFOR spoke warmly in favour of the scheme of the propose Paddington Park.

Dr. SCHOFIELD then announced that the lectures woul take place at the Baths, at 8 o'clock on the following even ings:—Feb. 1st: Prevention of Disease. Feb. 4th: Eatin and Drinking. Feb. 8th: Use and Abuse of Stimulant Feb. 10th: Mind and its Culture. Each lecture will b followed at 9 o'clock by an ambulance lecture and demon stration; either course may be attended separately o together.

After a vote of thanks to the Chairman the meetin separated.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5933 birth and 3734 deaths were registered during the week ending Jan. 29th. The annual death-rate in these towns, whic had been equal to 26·5, 24·1, and 22·8 per 1000 in th preceding three weeks, further declined last week t 21·1. During the first four weeks of the current quarte the death-rate in these towns averaged 23·6 per 1000 and was 0·7 below the mean rate in the correspond ing periods of the ten years 1877-86. The lowes rates in these towns last week were 11·1 in Derby, 14· in Birkenhead, 16·2 in Salford, and 17·4 in Wolverhampton The rates in the other towns ranged upwards to 26·1 i Liverpool, 26·4 in Blackburn, 27·9 in Manchester, and 30·6 i Bristol. The deaths referred to the principal zymoti diseases in the twenty-eight towns, which had bee 485 and 392 in the preceding two weeks, further decline last week to 371; they included 130 from measles, 76 fro whooping-cough, 54 from scarlet fever, 41 from diarrhœa 37 from "fever" (principally enteric), 33 from diphtheria and not one from small-pox. No death from any of thes zymotic diseases was registered during the week in Derby whereas they caused the highest death-rates in Bristol Preston, Leeds, and Huddersfield. The greatest mortalit from measles occurred in Hull, Bristol, Leeds, and Hud dersfield; from whooping-cough in Halifax and Hudders field; and from scarlet fever in Sheffield, Bristol, an Salford. The 33 deaths from diphtheria in the twenty-eigh towns included 22 in London and 3 in Manchester. Small pox caused no death in London and its outer ring, or i any of the twenty-seven large provincial towns. Onl 1 case of small-pox was under treatment on Saturday las in the metropolitan hospitals receiving cases of this disease The deaths referred to diseases of the respiratory organ in London, which had been 731, 591, and 531 in the preceding three weeks, further declined last week to 432, and were 128 below the corrected average. The causes of 90, or 2· per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Portsmouth, Norwich, and Wolverhampton. The largest proportion of uncertified deaths were registered in Blackburn, Plymouth, Halifax, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 29·9, 26·1, and 23·7 per 1000 in the preceding three weeks, rose again to 24·7 in the week ending Jan. 29th; this rate exceeded by 3·6 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 14·6 and 18·7 in Perth and Edinburgh, to 29·7 in Glasgow and

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30·8 in Paisley. The 616 deaths in the eight towns last week showed an increase of 25 upon the numbers in the previous week, and included 19 which were referred to whooping-cough, 18 to measles, 15 to scarlet fever, 10 to diarrhœa, 7 to diphtheria, 6 to "fever" (typhus, enteric, or simple), and not one to small-pox; in all 75 deaths resulted from these principal zymotic diseases, against 72 and 65 in the preceding two weeks. These 75 deaths were equal to an annual rate of 3·0 per 1000, which exceeded by 0·9 the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 27, 26, and 20 in the previous three weeks, further declined last week to 19, of which 16 occurred in Glasgow. The 18 deaths from measles, of which 15 were returned in Glasgow, showed a marked increase upon the numbers in the previous two weeks. The fatal cases of scarlet fever, which had been 13 and 16 in the preceding two weeks, were 15 last week, and included 12 in Glasgow and 3 in Dundee. The 10 deaths attributed to diarrhœa, of which 6 occurred in Glasgow, exceeded those returned in the previous week by 3. The deaths referred to diphtheria and "fever" scarcely differed from the numbers in the previous week; diphtheria caused 5 in Glasgow and 2 in Edinburgh, and 3 of the 6 deaths from "fever" were returned in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 213, 181, and 165 in the preceding three weeks, further declined last week to 155, and were fewer by one than the number returned in the corresponding week of last year. The causes of 80, or nearly 13 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 36·2 and 33·2 per 1000 in the preceding two weeks, further declined to 28·2 in the week ending Jan. 29th. During the first four weeks of the current quarter the death-rate in the city averaged 32·0 per 1000; the mean rate during the same period did not exceed 22·7 in London and 22·4 in Edinburgh. The 191 deaths in Dublin last week showed a further decline of 27 from the numbers returned in the two preceding weeks, and included 6 which were referred to scarlet fever, 4 to "fever" (typhus, enteric, or simple), 4 to whooping-cough, and not one to measles, diphtheria, diarrhœa, or small-pox. Thus the deaths from these principal zymotic diseases, which had been 21 and 13 in the preceding two weeks, were 14 last week; they were equal to an annual rate of 2·1 per 1000, the rates from the same diseases being 1·9 in London and 1·2 in Edinburgh. The fatal cases of scarlet fever, which had been 8 and 4 in the previous two weeks, rose again last week to 6; and the deaths due to fever and to whooping-cough showed a considerable increase upon the low numbers in the preceding week. The deaths both of infants and of elderly persons showed a further decline from the numbers in recent weeks. Five inquest cases and 5 deaths from violence were registered; and 47, or nearly a quarter, of the deaths occurred in public institutions. The causes of 35, or more than 18 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

Surgeon-Major John Godfrey Rogers, M.B, Medical Staff, has been appointed a member of the Distinguished Service Order for operations in the Soudan.

Surgeon General R. Lewer left England on the 27th ult. for Hong-Kong, to take over the appointment of Principal Medical Officer to the British troops stationed in the China command.

Staff Surgeon Parke left Alexandria on the 3rd inst., to join Mr. Stanley's expedition for the relief of Emin Pasha.

ADMIRALTY.—Deputy Inspector-General of Hospitals and Fleets Dugald McEwan, M.D., has been promoted to the rank of Inspector-General of Hospitals and Fleets in Her Majesty's Fleet, and has been appointed Honorary Physician to Her Majesty, vice — Salmon, deceased.

The following appointments have been made:—Fleet Surgeon Henry C. Woods, to the *Victoria and Albert;* Staff Surgeon Alfred E. Delmege, to the *Osborne;* Staff Surgeon Richard J. Barry, to Portsmouth Dockyard, and Staff Surgeon Henry T. Cox, to the *Duke of Wellington*, additional.

ARTILLERY VOLUNTEERS.—5th (Isle of Wight, Princess Beatrice's) Volunteer Battalion, the Hampshire Regiment: Acting Surgeon T. Q. Wiley resigns his appointment.—5th Surrey: Acting Surgeon W. A. F. Bateman to be Surgeon.

Correspondence.

"Audi alteram partem."

THE UNIVERSITY OF LONDON AND ITS NEW REGULATIONS.

To the Editors of THE LANCET.

SIRS,—Dr. Harris, in his letter in THE LANCET of Jan. 29th, has opened up a question of great import to those proceeding to graduate in medicine at the University of London. From the first appearance of the new regulations, in August of last year, we have anxiously awaited some higher power than ourselves to take up the cudgels on our behalf. It has been stated that the regulations in regard to the competition for honours at the Preliminary Scientific Examination (which are practically the same as those recently issued for the Intermediate Examination in Medicine) have worked satisfactorily, and from this it has been argued—upon very scanty data—that there will be a successful result from the new rules for the Intermediate Examination. But the difference between the two examinations seems to us most apparent. At the former the candidate usually presents himself before he has entered a medical school, and, the subjects being not strictly medical, he has no very strong wish to gain honours, and therefore does not run the risk of a failure. But, in the latter examination, there are subjects—anatomy and physiology—in which he will greatly covet honours; and yet, if he essays to secure them, he has to imperil his pass in the whole examination, and perhaps in the end will be only "recommended for a pass," in which case no record of his proficiency in the other subjects of the examination will be made. No student, after two years' work, will now be able to compete for honours without the misgiving that he may lose six months of his most precious time on account of his desire to acquit himself well at this very important examination. Is this the manner in which to encourage a high standard of work? If one paper only *must* be given, let it comprise a certain number of "honour" questions, which could be answered or not at the discretion of the candidates; or let there be a return to the old regulations. This letter, we believe, bears out the feelings of the majority of those who are now studying for their degree.

We are, Sirs, your obedient servants,

SIX UNDERGRADUATES OF THE UNIVERSITY OF LONDON.

Feb. 1st, 1887.

TREATMENT OF HYDROPHOBIA WITH THE POISON OF THE VIPER.

To the Editors of THE LANCET.

SIRS,—In my studies of hydrophobia I have been interested to observe how frequently of late curious methods of treatment have been proposed which have been considered original by those who advocated them, but which are simply resuscitations of old and discarded methods. I have not thought it important before to criticise any of these because they seemed to receive but little attention; but I have very recently seen in so many medical journals in America and in Europe recommendations of the employment of the sting of the viper as a preventive of hydrophobia, that it seems worth while to point out two facts: first, that the suggestion is by no means new; and second, that it has been tried and found wanting, and has been very properly abandoned.

More than a hundred years ago, in 1784, M. de Mattheis, surgeon to the King of Naples, seeing a dog said to be mad, and which went into a convulsion when water was offered it, bethought him of a viper which he had with him, and let it bite the dog's throat. The dog's head swelled immediately, the dread of water ceased, and the dog recovered.[1]

[1] See London Medical Journal, vol. v., p. 220, 1785.

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In 1788, Fabbroni[2] reported the case of a man supposed to have hydrophobia, who was treated by the application of a viper to each of his legs. The patient seemed to be relieved for a moment, but died in half an hour.

These are the only cases I can now recall in which this astounding method of treating hydrophobia has been carried out, and it cannot be considered strange that it is not at present generally adopted. Other curious methods of treatment may be found described in many books on hydrophobia and rabies, and not a few are included in a paper on "The Treatmen of Hydrophobia Historically and Practically Considered," which I read before the American Medical Association in 1884, and which was published in the journal of this Association on Aug. 16th of that year. A reference to some of the books referred to, or to the paper just mentioned, would save some writers from error as to the originality or practicability of the methods which they propose for the treatment of this disorder.

I am, Sirs, yours respectfully,

Philadelphia, Dec. 25th, 1886. CHARLES W. DULLES, M.D.

RECENT PASTEURIAN DEATHS.

To the Editors of THE LANCET.

SIRS,—In the tables appended by your Paris Correspondent to his most interesting letter in your last issue, I find that Arthur Wilde who died at Rotherham after being treated at Paris is stated to have died of pulmonary disease. This is not correct. According to the account given in the *Rotherham Advertiser* the man was mortally ill before any symptoms of lung affection showed themselves, which occurred only a few hours before his death. It was stated that the remains of an old lung affection were found after death, but this could not have been the cause of death. His mother, who nursed him, who is a woman of great intelligence and the matron of an orphanage, assured me that he had nothing wrong with his lungs since he had an attack of pneumonia in his childhood, and that he had enjoyed excellent health afterwards. Her description of his case agreed with that given in the *Rotherham Advertiser*, and also with the description of the cases related by Professor Peter, especially in the commencement of the symptoms at the seat of inoculation—the intense prostration and some frothing at the mouth. These are not the usual symptoms of "congestion of the lungs," of which he is said to have died—indeed, the term is too vague for scientific use; there could have been no pneumonic consolidation, or that would have been mentioned. I observe by the table that M. Pasteur acknowledges the death of Smith, or Goffi, who died at St. Thomas's Hospital to have been due to hydrophobia, though at the inquest the question was left in doubt. It is reported that the rabbits inoculated from Goffi's spinal marrow died of rabies in seven days. According to the statement of M. Pasteur, made after the death of Louise Pelletier, this would prove that the inoculations were the cause of death, and would greatly strengthen Prof. Peter's case. At any rate the facts should be made known without delay, in order, on the one hand, to remove suspicion from M. Pasteur's treatment, or, on the other hand, to warn possible applicants against the risk it involves.

I am Sirs, yours truly,

JOHN H. CLARKE, M.D.

St. George's-terrace, Gloucester-road, S.W., Jan. 31st, 1887.

THE QUEEN'S JUBILEE HOSPITAL.

To the Editors of THE LANCET.

SIRS,—Will you permit me to say a few words in reply to Mr. Cheyne's letter, inasmuch as I wish to correct a most important error which I am sure he has inadvertently made—viz., that the proposed hospital is only for the treatment of diseases of the "throat, ear, skin, eye, rectum, &c.," whereas he has omitted to mention "orthopædic surgery" in all its branches, which will, of course, include diseases of the "spine and joints." There is also connected with this institution a surgical appliance department, for the purpose of supplying various mechanical instruments to distressed persons on their obtaining the requisite number of letters from the subscribers to this department, and I venture to think that this branch (surgical appliance department) is most important and of absolute necessity to the poor, who abound in thousands in the immediate neighbourhoods, such as Chelsea, Fulham, &c., who cannot afford the time to obtain such articles from more distant institutions. It was this branch that induced the promoters to add to the programme most of the special organs for treatment, such as the throat, ear, skin, and eye, and to these they have since added a department for the treatment of disease of the nasal and pharyngeal cavities by the most advanced methods, as beyond the cost of a few inexpensive drugs, the same establishment and employés can be utilised for carrying out the latter, and the medical staff is, of course, honorary. With regard to the in-patients, though the number of beds is somewhat limited, there is every prospect of success of adding more, as a great many influential persons have already promised their support, but who do not and will not contribute to other charitable institutions, for the reason that they are not allowed any privilege with regard to the internal administration of such beyond a few patient's letters of recommendation. Another all-important item is that, by the establishment of this institution, it will afford opportunities to many medical men to become attached to a hospital, and so develop "latent talent which would otherwise lie dormant."

In conclusion, I beg to state that this hospital will be governed by a committee consisting of an equal number of lay and medical members, and that by strictly adhering to all matters of professional etiquette and economy the Queen's Jubilee Hospital will, I hope, be an ornament to the profession.—I am, Sirs, your obedient servant,

THE SECRETARY.

The Queen's Jubilee Hospital, Gloucester-terrace, Queen's-gate, S.W., Jan. 1887.

*** We are still decidedly of opinion that such a hospital is not needed.—ED. L.

HOSPITALS, THE SICK POOR, AND ALL ENGLAND.

To the Editors of THE LANCET.

SIRS,—In a kindly notice of Sir Andrew Clark's original proposal, formulated in a scheme over my signature in *The Times*, for affiliating every parish, congregation, village, or hamlet through its clergyman, minister, local doctor, or other representative, with the Hospitals Association, by the formation of a Hospital Society, you have misunderstood the proposal in one important particular. It is not desired nor will it be attempted, to assume a kind of Providence over the provincial sick, and to invite them up to fill our London hospitals. On the contrary, the provinces will be left to look after their own sick poor and hospital administration, and all that we propose to do is to bring our intimate connexion with metropolitan and provincial hospitals to the aid of those who come in contact with the sick poor in all parts of England, with the object of locating difficult cases of disease or infirmity in the most suitable institution that may be available, always giving the preference to the one which is easiest of access to the particular case which needs such assistance. The scheme has excited very general interest; the conference in May, under the presidency of Sir Andrew Clark, promises to be a genuine success; and, as the proposal aims at aiding all the hospitals by exciting a wider interest in their work among all classes of the people, Sir Andrew Clark or myself will be very glad to hear, or to receive offers of co-operation, from any member of the profession who may wish to know more of our proposals and intentions.

I am, Sirs, yours truly,

The Lodge, Porchester-square, W. HENRY C. BURDETT.

THE MERE PRESENCE OF BLOOD IN THE PERITONEUM NOT A REASON FOR ABDOMINAL SECTION.

To the Editors of THE LANCET.

SIRS,—The novelty and importance of such a question as that dealt with in your leading article on pp. 227-228 induces me to trespass again on your extreme goodness to me in the matter of space in your columns.

I shall pass over the strong objections to the conclusions of Dr. Hunter's thesis as afforded by what we see in the human peritoneum, which proves conclusively that its

[2] Ibid., vol. ix., p. 69.

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functions and its pathology differ most materially from those of the peritonea of rabbits and dogs. I wish only to point out that there is a vast difference between the mere presence of *blood* in the peritoneum artificially injected and the presence there of a *bleeding point*. It is the latter and not the former which demands prompt surgical interference, and in the presence of which the expectant treatment is absolutely criminal. No experiments on the lower animals can help us in deciding how to stop the bleeding from a ruptured tubal pregnancy, for no animal except the human is known ever to be the subject of such an accident.

I am, Sirs, yours truly,

Birmingham, Jan. 29th, 1887. LAWSON TAIT.

TYPHOID AND HYDRANTS.

To the Editors of THE LANCET.

SIRS,—In your issue of Jan. 8th there appears a paraphrase of a letter by Dr. H. Ward on Water Hydrants. I beg to point out that in publishing this Dr. Ward exceeds the bounds of professional etiquette. I, as medical officer of health for the Cowpen District, should have received some intimation of such "inquiry" and letter. I have refuted the assertions brought forward in this letter, which was published in several of the local papers, and written in a very offensive style. The Local Government Board requested a special report from me on the prevalence of typhoid during 1885, which I forwarded to them with the suggestion about the hydrants. They have taken no notice of the latter, and have asked me to report to them upon the carrying out of my recommendations. I attributed the epidemic of last year to wind-pressure upon the open outfalls of the sewers forcing the drain-traps. The epidemic of 1884 I proved conclusively to be caused by sewage pollution of one of the heads of the water-supply, which I condemned. I made seven quantitative analyses of the water and sent them to the Local Government Board, and they confirmed my decision.

I am, Sirs, yours truly,

R. LAING, M.R.C.S., L.R.C.P.,
Medical Officer of Health, Cowpen District.

Northumberland, Feb. 1st, 1887.

RELIEVING THE DUKES.

To the Editors of THE LANCET.

SIRS,—The year before last 148 cases of typhoid fever were treated at St. Bartholomew's Hospital, and 118 at St. Thomas's; and it seems probable that at all the London hospitals 1000 cases of typhoid are treated annually, at a cost of about £16 each. Now, since the Metropolitan Asylums Board is required by law to take charge of all cases of fever arising among the London poor, it follows that by admitting these cases the hospitals are relieving, not the poor, but the rates; and, further, since it does not matter to a man how much of his total for rent and taxes is rent and how much taxes, the only effect of reducing rates is to increase rents, and the hospitals are really benefiting the landlords to the extent of £16,000 a year. A better course would be for the hospitals to contract with the Asylums Board for the care of their typhoid cases; they could do the work cheaper and better than the Board can do it for themselves, and the cases would be available for clinical instruction. Especially is this course advisable at the present time, when so many beds are standing vacant for want of funds—not less than 300, I am told, at Guy's and St. Thomas's

I am, Sirs, your obedient servant,

X.

NORTHERN COUNTIES NOTES.

(*From our own Correspondent.*)

PROPOSED CHILDREN'S HOSPITAL AT GATESHEAD.

The proposal to have a Children's Hospital at Gateshead has been for some time before the public, and we all thought the matter had been settled as far as the project was concerned; indeed, a considerable sum has been collected, and a site for the building granted free by Lady Northbourne, when all of a sudden a letter appears in our local papers condemnatory of the whole thing, and from a strong but very unlooked for quarter—namely, the Rector of Gateshead, who contends that there is no need for a Children's Hospital, and that the proposal is both wasteful and extravagant. This, I think, will not accord with the experience of Newcastle hospital surgeons, for they know that Gateshead children and adults crowd the waiting-rooms of the various hospitals on this side of the water. The Rector's contention is perhaps true, but true only in one aspect—namely, that the Gateshead poor obtain medical aid in Newcastle which ought to be provided in their own town, and that the subscriptions received by the Newcastle hospitals from Gateshead are in no way commensurate, so that it could hardly be considered a commendable economy to ask the town's-people to continue to send us their sick poor, to the saving of pockets at their side of the river. Dr. William Mearns of Gateshead has put the matter very forcibly in a capital letter in answer to objections, and which has appeared in our local papers. He says: "The population of Gateshead is over 70,000, that 90 per cent. belong to the working classes, and at least 25 to 30 per cent. live constantly from hand to mouth, and are in consequence obliged to apply to some charity for medical relief when overtaken by illness. The only medical charity in Gateshead is the Dispensary, which has no accommodation for in-door patients. As a medical man residing and practising in Gateshead for some considerable time, and as one of the honorary staff of the Dispensary, I give my emphatic testimony of the *absolute need* of a great many of the children treated by the staff of that institution being removed from the miserable and wretched conditions under which they live and their polluted surroundings, so as to be treated with any chance of a safe and speedy recovery." Dr. Mearns adduces many other reasons in his forcible letter why Gateshead should have a hospital of its own.

THE LATE MR. G. M'COULL, SURGEON OF OVINGTON.

The late Mr. M'Coull of Ovington, Northumberland, died very suddenly of heart disease when in active practice last April, and his many patients and friends have erected a monument to his memory in the cemetery. The design is of obelisk form, with massive plinth, and its height is sixteen feet. The inscription is in bold Egyptian characters, recording his age, and that "the monument was erected by a large number of patients and friends as a tribute of respect and in remembrance of many kind services rendered by him."

TRIPLETS IN NEWCASTLE.

A few days ago a poor woman was delivered of two girls and a boy by Dr. Farquharson, of Westgate-road. It may be mentioned that this is the third case of triple birth taking place in the Westgate district of Newcastle within the last eighteen months—Mr. John Foggin, a young surgeon here, if I mistake not, having attended two of these cases, which followed each other very closely.

Newcastle-upon-Tyne, Feb. 2nd.

EDINBURGH.

(*From our own Correspondent.*)

PROFESSOR HAMILTON AT THE ROYAL SOCIETY.

AT the last meeting of the Royal Society Professor Hamilton of the University of Aberdeen read a paper entitled "The Conducting Paths between the Cortex of the Cerebrum and the Lower Centres in relation to their Function," and exhibited a large number of sections and drawings illustrating his views on the subject. He defined in the first place the generally received view of the corpus callosum as a commissural structure. In contrast with this he stated the opinion that such is not the case, but that it is constituted by strands of decussating fibres derived from the cortex of either side and passing to the basal ganglia of the opposite half of the cerebrum. The apparent tendency to turn upwards at the lateral extremities of the corpus callosum depends on the necessity for the fibres to pass over the roof of the lateral ventricle before turning downwards to divide into the inner and outer capsules, which Dr. Hamilton describes as their real destination. Having referred to Foville's views on this point, which closely coincided with his own, Dr. Hamilton

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laid down three postulates which must be fulfilled before his view could be proved beyond dispute. They are, first, a naked-eye demonstration by means of the scalpel, showing the course of fibres that he indicates; second, the same shown by transverse vertical sections of the brain; third, a microscopical demonstration that the fibres of the inner capsule and those of the corpus callosum are coterminous. All these, he claimed, were established by the specimens displayed, the third point being most difficult of demonstration, since the fibres do not run transversely, but obliquely, either from behind forwards or from before backwards, in their passage across the corpus callosum from the cortex of one side to the basal ganglia of the side of the cerebrum.

A NEW CENTRE WITH A CORRELATING FUNCTION.

In referring to the formation known as the branching neuroglia, Professor Hamilton stated his opinion that it is a delicate plexus of nerve fibrils. It is present in the grey cortical matter, also in the white matter of the centrum ovale; and a specially dense collection of these fibrils is found internal to the upper part of the inner capsule in the vicinity of the lenticular nucleus. This Professor Hamilton proposes to call the "plexiform nucleus." He assigns to it a function of great importance as a correlating centre.

THE FUNCTION OF THE THALAMUS OPTICUS.

Many of the fibres passing across the corpus callosum end in the thalamus opticus, and form a large part of that body, placing it in direct communication with the cortex of the opposite hemisphere. It has, however, little or no direct connexion with parts below, none whatever through the peduncles, as has been thought. Its main relations in other directions are those which it bears to the optic tracts, with which it is continuous. From these facts Professor Hamilton draws the inference that the optic thalamus is a communicating centre of association, relating other functions to that of sight; through it nearly all the special sense centres receive their education, their functions being here correlated with visual impressions. In support of this view, and of the anatomical details upon which it is based, reference was made to cases of destruction of the corpus callosum, in which it is found that education of the higher centres does not take place, since they are cut off from the influence of the optic thalamus. Where, however, the corpus callosum is congenitally absent, not having been destroyed, decussation takes place lower down than its normal site, and education of the higher centres is possible, and in fact takes place. When education is complete, the function of the corpus callosum as a channel for transmitting educating impulses falls into abeyance; this explains why injury to the corpus callosum late in life does not result in idiocy, as it does when occurring during childhood.

THE RELATION OF NERVE CELLS AND NERVE FIBRES.

As the result of continuous observations upon this point, Dr. Hamilton has come to doubt whether nerve fibres ever enter nerve cells, unless perhaps in the motor areas. He thinks the fibres form a kind of capsule around nerve cells, but do not become actually continuous with them. In regard to this point, it was stated by Dr. Bramwell, in the discussion which followed the paper, that in the anterior horn of the spinal cord there is direct continuity between the nerve cells and the delicate fibrils of that region, the latter being in turn aggregated into fibres. The same probably holds true of motor areas of the cortex; and if there, presumably also in sensory areas. Some such arrangement is demanded by what is known of the conduction and insulation of nerve impulses, and although, as stated by Professor Hamilton, there seems to be conduction apart from continuity in the ear in the relation of the sensitive to the conducting structures, yet in the eye it is found that actual continuity exists between the rods and cones and the nerve fibrils which convey visual impressions. Dr. Bramwell also criticised Professor Hamilton's paper in regard to the views put forth relative to the corpus callosum, and the plexus of nerve fibrils supposed to have a correlating function. Since the object of a nervous mechanism is to conduct as directly as possible nerve impulses to the seat of their realisation, such a plexus interpolated in the path could only complicate the matter very seriously. On the morning following the discussion Professor Hamilton gave a demonstration of his large collection of specimens in the hall of the Royal Institution, at which a large audience was present.

THE EDINBURGH PATHOLOGICAL CLUB.

This new medical society, formed for the informal discussion of medical and pathological topics, has already attained to vigorous vitality. At its second meeting, held in January, there was a plethora of interesting communications, and the limited number of members who form the club speak highly in praise of its efficiency as an arena where new ideas may receive such treatment as fits them for a wider field of battle, or devitalises them once for all.

Edinburgh, Feb. 2nd.

GLASGOW.

(From our own Correspondent.)

ANNUAL MEETINGS.

THE time for the annual meetings of most of the charitable institutions of the city has again come round. One of the most important was that of the

ROYAL INFIRMARY.

The meeting was held a few days ago, when it was reported that the number of patients treated in its wards during the past year was 4884, as against 4943 in the year preceding, and 5300 in 1885; taking the average of five years, the number of patients availing themselves of in-door treatment had fallen off to the extent of about 10 per cent. This seems to indicate a less amount of ill-health or serious accident in Glasgow during the past twelve months than for several years before. As to death-rate, excluding deaths occurring within forty-eight hours of admission, it was found to be 6 6 per cent., as against 7 5 per cent. in 1885. Those treated in the dispensary numbered 39,250, a decided increase on previous years. This, however, is understood to represent the number of consultations, and not that of new patients. The infirmary paid its way throughout the year, and put £265 to capital account. The meeting was rendered particularly interesting and lively by an account given by an infirmary champion of the manner in which its medical school had been founded. Prominence was also given at this meeting to the infirmary's proposal that the school should be erected into a college of Glasgow University—a plan which, if carried out, would probably relieve the directors of a very burdensome white elephant.

GLASGOW EYE INFIRMARY.

At the annual meeting of this very deserving charity it was reported that the number of cases treated during 1886 was 13,701; of these, 983 were in-door patients. This infirmary has recently been enlarged by the erection of new buildings and alterations made in the old one; it has now 104 beds, with air space of 1430 cubic feet for each. The income for the year nearly balanced the expenditure.

SICK CHILDREN'S HOSPITAL.

During 1886 the cases admitted to this hospital numbered 458, the highest total since the hospital was opened four years ago. None of the wards had been closed on account of infectious disease during the year. The mortality, after deducting deaths within twenty-four hours of admission, was 6·8 per cent. The directors intend very shortly to proceed to the erection of a dispensary. The income for 1886 fell short of the sum expended by £140.

THE LUNACY LAWS.

A somewhat unusual case was before Sheriff Rutherfurd of Edinburgh a few days ago, a gentleman who had been detained in Morningside Asylum on the certificates of Drs. Littlejohn and Clouston having lodged a *caveat* to stay proceedings. After the case had been certified, the Sheriff said he thought it was certainly a matter of great regret that the Legislature had devolved upon a single judge, sitting alone, whose judgment was by statute to be final and conclusive, without the intervention of a jury, to state what the mental condition of a party was. The question before him now was the present state of mind of the gentleman in question and whether he was in such a state as to threaten danger to himself or others. The judge did not think it was a bad case, but as a man of common sense, and one accustomed to weigh evidence, he could come to no other conclusion than that the unfortunate gentleman was at present in a state of unsound mind, and that while these delusions continued, he might at any moment become excited and dangerous to himself or

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others. He (the Sheriff) must, therefore, act upon that, and grant the prayer of the petition. The patient was accordingly conveyed back to Morningside Asylum, it being understood that he might at any time obtain the intervention of the Inspectors of Lunacy to inquire as to his state of mind.

DUBLIN.

(From our own Correspondent.)

SIMPSON'S HOSPITAL.

BY the death of Dr. Henry Kennedy, a vacancy for a physician to this institution has arisen, and it will probably be filled up by the trustees at their quarterly meeting this month. For the appointment, the emoluments of which are £25 per annum, Drs. C. H. Robinson, J. W. Moore, and H. C. Tweedy are candidates.

BRITISH MEDICAL ASSOCIATION (DUBLIN BRANCH).

At the annual meeting of the Branch held last week, the inaugural address was delivered by Dr. Grimshaw, Registrar-General for Ireland. In the course of his address, he said that we had high political authority for stating that the health of the people should be the first care of a government, and if this was so, and if *sanitas sanitatum omnia sanitas* was ever to become a reality, and not merely the motto for the professors of a "policy of sewage," it was manifest that their profession must take a highly important position in the fabric of the State. Did their profession occupy such a position? He was afraid the answer must be that it did not, either in this or in any other country that he was aware of. Many of those who had not given sufficient attention to the question thought that these faults in their profession were owing to defects inherent in the profession itself. This was by no means the case. The fault mainly lay with the State. The medical profession had two principal relations to the public—viz., those comprised under the heads of the prevention of disease and the cure of disease. While the duties under the former head have to be mainly performed towards the public in its collective capacity, those under the latter have to be mainly rendered by individual members of the profession to individual members of the public. While the relative scope of preventive and of curative medicine might thus be respectively defined in general terms, it was clear that preventive medicine must often be practised individually—as, for instance, when they advised as to family hygiene and healthy homes. Curative medicine might also be practised collectively where the Poor-law medical officer or the medical officer of a hospital or public institution treats large numbers of sick on an organised system of medical attendance. When viewed from a State standpoint, this crossing of the functions of the profession in its private and public capacities presented difficulties which must necessarily complicate the relations between the State and the profession. These difficulties were not insurmountable, though their existence must be admitted by all persons, and, indeed, a considerable number of them had been surmounted slowly and by a sort of quiet progressive development through the public medical system of Ireland. The annual dinner of the Branch took place in the evening, at the College of Physicians.

MERCER'S HOSPITAL.

At the Southern Divisional Police-court, Dublin, last week, Dr. Kennedy, resident surgeon to Mercer's Hospital, was charged by Mrs. Farrell with having accelerated the death of her husband, Joseph Farrell, by assaulting him while a patient in that hospital in August last. Evidence of a most contradictory kind was given, and after several adjournments it was ultimately decided to have the matter settled before a jury. Dr. Kennedy has therefore been returned for trial at the Quarter Sessions, which will be held this month, his own security in £100 being taken for his appearance.

Dr. Swan, of Monaghan, has been elected medical officer to Monaghan dispensary district, in the vacancy caused by the decease of Dr. William Woods.

There will be a fancy and full-dress ball on the 9th inst., in aid of the funds of St. Michael's Hospital, Kingstown.

Dublin, Feb. 1st.

BELFAST.

(From our own Correspondent.)

BELFAST HOSPITAL FOR SICK CHILDREN.

FROM the medical report presented at the annual meeting of this charity (Mr. Dunville, D.L., High Sheriff of co. Down, in the chair) I learn that there were 829 in-patients and 8694 out-patients during the year 1886. During the present session there are the usual cliniques, which are attended by the senior students of the medical school. In accordance with one of the rules, a meeting was held on Jan. 19th, when Dr. M'Caw, one of the physicians, was re-elected for a period of four years. A letter was read from the Hon. R. J. O'Neill, M.P., the president of the hospital, urging strongly the claims of the Convalescent Fund, by which children are sent to the country and seaside for change of air after having been in the hospital. The financial statement showed that the income was slightly in excess of the expenditure.

ULSTER EYE, EAR, AND THROAT HOSPITAL.

At the annual meeting of this hospital it was reported that during the past year 1789 patients had attended, and of these 180 were intern. The total receipts for the past year were £550 6*s.* 5*d.*, and the expenditure £541 14*s.* Dr. W. A. McKeown (honorary surgeon of the hospital) mentioned in his report that upwards of 500 cataract operations had been performed since the opening of the hospital, the patients being from all parts of the province. He alluded to the absurd superstitions that still exist in regard to diseases of the eye, and said that every year a number of eyes were lost through ignorance and so called "popular remedies." Dr. McKeown referred with just satisfaction to the fact that it was in this hospital first that the magnet was employed to remove pieces of metal from the eye in 1873. Three years afterwards the practice was adopted by Prof. Hirschberg (Berlin), and now it is a settled practice all over the world. In May, 1884, Dr. McKeown originated his new operation for cataract, by which patients are prevented waiting, as it matters little whether a cataract is "ripe" or not for this method to be used. This institution is becoming more and more self-supporting, as for the last five years the contributions of patients (£2070 2*s.* 6*d.*) are in excess of those for the previous eleven years by £238 11*s.* 8*d.*

SAMARITAN HOSPITAL.

The report read at the annual meeting of this hospital showed that there were 148 intern and 974 extern patients during the year. The committee expressed the hope that some benevolent person will see his way to build a wing to the present building suitable for a lying-in department.

BELFAST MAIN-DRAINAGE SCHEME.

A report has been prepared by the Lagan Pollution Committee in which they point out what they deem defective in the drainage scheme of our Town Council. They object that as to the high-level main sewer proposed to be constructed no special system of ventilation is provided, and they believe the ordinary street ventilation gratings would constantly be giving off poisonous gases. Further, the fall in this sewer (1 inch in 120 feet) is so slight that the committee allege it will become a sewer of deposit. Again, no provision is made by this scheme to drain the Falls district, one of the most densely populated parts of the town, and all the sewage of this must continue to find its way into the Lagan. After stating other objections, the committee say they urged upon the Town Council the adoption of the scheme proposed by a gentleman named Gilliland. Such a scheme could be carried out for £18,000. It is not an alternative but a necessary adjunct to the main-drainage scheme, and as absolutely necessary to secure the purification of the Lagan. The works, the committee think, could be carried out simultaneously with the erection of the new Albert Bridge, and would entirely abate the Lagan nuisance, and convert the river above this bridge into a highly ornamental sheet of water. In conclusion, the committee think that the main-drainage scheme would entail an enormous expenditure without any corresponding advantage. At some of the recent meetings of the Ulster Medical Society papers were read on the proposed drainage schemes, and a very interesting discussion took place. There can be no doubt that Belfast, from its peculiar situation and from the great rapidity of its growth, is a town for which it is extremely difficult to construct a

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thorough system of drainage, but it is to be hoped the problem in time will be solved to the satisfaction of all parties.

BELFAST ROYAL HOSPITAL.

I am glad to say that the treasurer has received over £1000 in aid of a special fund to pay off the debt incurred during the year ending Aug. 31st, 1886.

Belfast, Feb. 1st.

PARIS.

(From our own Correspondent.)

SANITARY STATISTICS.

THE last number of the *Bulletin Hebdomadaire de Statistique Municipale* gives a retrospect of the sanitary condition of Paris during the past year, from which it appears that the principal epidemic diseases have been less frequent. Typhoid fever has caused 1009 deaths, or 45 per 100,000 inhabitants, which is one of the lowest percentages of the last twenty-five years. In 1885 there were 59 deaths per 100,000 of the population. The deaths for the first and second quarters of 1886 numbered 212 and 171 respectively. In August the mortality increased to 148 for the month. Since then it has diminished, although it remains higher than during the first half of the year. Small-pox, as usual, capricious in its evolutions, has caused in all 213 deaths, or 9 per 100,000 inhabitants, being 97, 73, 24, and 19 for the respective quarters. Measles shows a tendency to increase in frequency year by year, but the mortality for 1886 is less than that of the preceding two periods. From 1865 to 1869 the average was 32 deaths per 100,000 inhabitants. From 1872 to 1876 it was 35; from 1877 to 1881, 39. In 1880 it was 44 per 100,000 of the population; in 1883, 49; in 1884, 67; and in 1885, 68. During the year 1886 there have been 1238 deaths, giving a mortality of 55 per 100,000. Scarlatina has been three times as fatal as in 1882 and 1883, when there were 6 deaths per 100,000 of the population; twice as fatal as in 1885, when the death-rate for the same number of people was nine. In 1886 there were altogether 410 deaths, being 18 per 100,000 inhabitants, the maximum (67) being in June. Diphtheria has increased in frequency in Paris, during the last twenty years in the same way as measles. For 100,000 inhabitants the mortality from 1865 to 1869 was 43 deaths. From 1877 to 1883 it increased progressively to nearly 100. In 1884 it was 93; in 1885, 79; in 1886 there were altogether 1628 deaths, representing 72 per 100,000 of the population.

TYPHOID POSSIBILITIES.

In connexion with the above statistics, it must be remarked that if the health of Paris has appeared more satisfactory during the past twelve months, the improvement is due to providential causes rather than to any attention on the part of the authorities to sanitary matters. All Parisian residents are more or less protected against typhoid by acclimatisation in an attenuated typhoid atmosphere, and the chief victims to the disease are generally visitors or new-comers. When, on account of some unusual influx of strangers, or for some less evident atmospheric or telluric reason, the typhoid nisus increases in virulence and the "directing classes" suffer, there is always a talk of sanitary improvements, which are forgotten as soon as the alarm is over. In respect to typhoid, the health of Paris has probably benefited by the general commercial stagnation, which has made the past year a bad one for hotel-keepers. The mortality has been no doubt restricted in a great measure by the absence of the potential victims. The laws of supply and demand must also hold good in bacteriology, and the poorer classes, having been more or less decimated in previous years, have necessarily contained a smaller number of individuals in a state of receptivity. To predict the sanitary possibilities for the coming year would be somewhat hazardous, but there are immediate indications of epidemic and portents, if not in the air, in the water, not without their meaning. Paris is supplied with drinking water from the Vanne, the Dhuys, the Seine, and the Ourcq. That of the first two is of good quality, whereas the water of the Seine and the Ourcq, to quote the opinion of M. Léon Collin, is "hot in the summer, cold in the winter, disturbed and muddy at all times, and contaminated by waste product and human excreta." At the present moment the supply from the Vanne is temporarily suppressed on account of repairs to the aqueduct which conveys it to Paris, and the districts in which it is usually supplied are now furnished with typhogenic water from the Seine. It is a matter of general observation that enteric fever has been on the increase during the last few weeks, the mortality from this cause having been higher last week than during the preceding one. The distribution of bad water to those unaccustomed to it is not likely to check the morbidity; and visitors to Paris, to whom the risk is greatest, will do well to adopt simple precautions against infection. Boiled filtered water is not easily procurable in hotels, and the best plan is perhaps, to use genuine mineral waters. The familiar syphon is not to be trusted, being often filled from an impure source.

THE TREATMENT OF TYPHOID.

Professor Grancher, following in the steps of Professor Bouchard, gives the following directions for the treatment of enterica: Four principal indications result from the pathogeny of the disease—general antisepsis, intestinal antisepsis, antipyretics, and nourishment. As soon as the disease is suspected, M. Bouchard commences by the administration of a purgative which is renewed every three days. For the first four days, calomel is given in doses of one-third of a grain every hour as a general antiseptic. Intestinal antisepsis is secured by the administration of vegetable charcoal in powder (100 grammes), iodoform (1 gramme), and naphthaline (5 grammes). This is mixed with 50 grammes of peptone and 200 grammes of glycerine, which constitute the basis of the alimentation, and the black magma so formed is taken by table spoonfuls every two hours. The bowels are washed out night and morning with carbolic acid and water (1 in 1000) each enema measuring one pint. From the beginning of the disease the patient takes eight baths a day until recovery, but instead of using water at a much lower temperature than that of the body, the difference is only of two degrees Centigrade, 38°, for instance, of the temperature is 40°. The bath is then cooled by a tenth of a degree per minute to 30°, but never below, so avoiding all shock and spasm. When the temperature remains high, notwithstanding the baths, quinine is recommended, 30 grains being given in four doses, in the course of two hours, and repeated after an interval of three days. Besides the glycerine and peptone associated with the antiseptics the only other food allowed is bouillon, boiled with barley and as a drink lemonade with a little wine. Should complications occur, they should also meet with a vigorous reception. Extreme or prolonged delirium is to be treated by opium, and peritonitic symptoms by ice or mercurial ointment. Of 266 patients so treated by M. Bouchard 31 died, giving a mortality of 11·7 per cent. The average duration of the disease was nineteen days, and relapses took place on the whole number in 20 per cent., and during the latter period in 10 per cent. of the cases. These figures speak for themselves, and there is one point about M. Bouchard's method beyond contestation. It is certainly thorough. But if, as it would seem, the patient spends thirteen hours in the bath and undergoes fifty or sixty other visitations of different kinds in the course of the twenty-four hours, it is difficult to see what time remains for repose.

PASTEURIANA.

The *Temps* of Tuesday evening gives the following particulars of another death after the preventive treatment:—M. Bergé, living at Bordeaux, was bitten five or six months ago by a mad dog, and went to Paris, where he was submitted to M. Pasteur's treatment. On his return to Bordeaux he appeared to be quite cured, but two days ago symptoms of rabies set in, and it became necessary to send the patient to the St. André Hospital, where he died yesterday. The post-mortem examination was made this morning by M. Peter, dean of the Faculty of Medicine, who declined to give any opinion, but who has made with the medulla inoculations on rabbits. The results of these inoculations will show whether M. Bergé did or did not die of rabies. M. Peter, in a recent clinical lecture, stated that a child had died of rabies at Sceaux after the intensive treatment. *Per contra*, at the Academy of Sciences, the statistical account, published in your last issue, was received with enthusiasm, and it was decided, on the proposition of M. Bertrand, that a reprint of M. Vulpian's note should

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be made by authority of the Academy *(sous l'estampille de la compagnie)*, and distributed to all the French and foreign committees now collecting subscriptions for the Pasteur Institute. This has already been done, and the note forms a small pamphlet in quarto, with the seal of the Academy engraved on the title page—a broad hint to future candidates for the honour of membership. At the Academy of Medicine a note was read from M. Cantini, of Naples, giving details of his experience of the method, which are entirely favourable, none of the patients having as yet died. At the Société de Biologie, M. Gameleva related sixteen cases of rabies in which paralytic symptoms had occurred, although no preventive inoculations had been performed, thus showing that the paralytic form of the disease is not necessarily *canino-experimental*. A similar case was mentioned by M. Laborde.

THE LATE DR. GALLARD.

The death is announced of Dr. Gallard, physician to the Paris hospitals and member of the Academy of Medicine. Dr. Gallard was a practitioner of great merit, and although not officially connected with the School of Medicine, he was the teacher of gynæcology, whose wards were the most frequented by students. His loss will be the more felt in this respect in that there is no chair of women's diseases at the Faculty. Dr. Gallard was also senior physician to the Orleans Railway, and in this capacity rendered great services in medical organisation during the siege, for which he was made an officer of the Legion of Honour. The death is also announced of another gynæcologist, Dr. Nonat, who, having far exceeded the usual span of life, had dropped in a certain measure out of the memory of the present generation. Middle-aged men still remember him at the Charité, where his practice chiefly consisted in leeching the uterus. Nonat was a nephew of the great chemist, Thénard.

A NEW DENTIFRICE.

The *Gazette Hebdomadaire* contains an article by M. Paul Vigier on the Use of Steatite as a Tooth Powder. Many years back M. Vigier discovered that the addition of powdered talc to water prevented the deposit of calcareous salts in boilers. Applying this fact to dental therapeutics, M. Vigier has devised a new dentifrice, which, he says, prevents the formation of tartar. The formula is as follows:—Powdered steatite, 60 grammes; desiccated alum or cream of tartar, 5 grammes; powdered cochineal, 10 grammes; essence of peppermint, 20 drops. Any other perfume may of course be substituted.

Obituary.

HENRY KENNEDY, M.B., M.R.I.A.

WITH regret we record the death of a well-known Dublin physician, who died on Jan. 24th at his residence in Rutland-square. Although in his seventy-sixth year, Dr. Kennedy was of very active habits, and was possessed of a wonderful amount of vitality considering his advanced age. He obtained his degree in Arts and Medicine at the University of Dublin in 1839, and was elected a Fellow of the College of Physicians ten years afterwards. Connected for some years as visiting physician to Cork-street Fever Hospital, he made great use of the valuable material at his command; and a good deal of the experience in fever and diseases of children, for which he was so justly celebrated, was obtained at this institution. He was also physician to Simpson's and the Whitworth Hospitals. The deceased was a constant attendant at the various medical societies, and proved himself an apt and fluent speaker in the discussions which ensued on the various papers read before the members. He was a prolific writer, the following being only a few of the numerous papers he contributed to medical literature:—"Essay on Fatty Heart," "On Slow Pulse in Fever," "On Scarlatina," "On some of the Forms of Paralysis which occur in Early Life," "On the Coexistence of Functional and Organic Disease of the Kidney," "On Hydrocephalus and its Treatment," &c.

RICHARD FORTH SNAPE, F.R.C.S. ENG.

WE regret to record the death of Mr. Richard Forth Snape, which occurred at his residence, Chorley New-road, Bolton, on January 13th. Mr. Snape took up his abode in the town about forty years ago, and some years afterwards became for a time one of the honorary surgeons to the infirmary and dispensary. He early took an interest in the question of the health and long hours of employment of children and young persons in cotton mills, and was instrumental, along with several other gentlemen, in promoting a demonstration of the inhabitants of the town in favour of petitioning the Legislature to pass an efficient Bill for shortening the hours of labour in factories. At the meeting at which this resolution was adopted, and which was held on Jan. 25th, 1847, Lord Ashley (afterwards Earl of Shaftesbury) was present. Mr. Snape had for many years up to his decease held the post of certifying factory surgeon. He was a staunch Conservative and an ardent member of the Church of England, but abstained from any active share in public affairs, his professional duties requiring most of his time and attention, being consulted by many of the influential families in the town and neighbourhood. As a practitioner he was judicious and philosophical in his views, ever cautious to keep himself informed of the most recent discoveries. Few men have possessed to so marked an extent as he did the instincts of a doctor, or have loved their profession more; his kindliness of heart and unaffected simplicity of character had won for him the love and esteem of a large circle of friends, many of whom will continue to think of him with affection and tender regret. He leaves a widow and three sons.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The list of new Members was given in our last issue, page 244.

The following were admitted Licentiates on Jan. 27th:—

Andrews, Archibald George, Poplar Hospital, East India-road.
Ballance, John Des Carrières, Harley-street.
Barlow, Charles, Aspinall-street, Prescot.
Barr, George Arthur, Newport, Isle of Wight.
Barton, Edwin Alfred, University Hospital.
Belson, George de Veulle, Albion-street, Hyde-park.
Blenkinsop, Alfred Percy, Hilldrop-crescent, Holloway.
Bostock, Robert Ashton, South Camp, Aldershot.
Boxall, Frank, Oakley-square.
Bradbury, Harvey Kimmersley, Hill's-place, Regent-circus.
Brodie, Frederick Carden, Middlesex Hospital.
Browne, Edward Granville, Bernard-street, Russell-square.
Bulstrode, Herbert Timbrell, St. Thomas's Hospital.
Butler, Henry John, New Wortley, Leeds.
Calthrop, Lionel Claude, Cheal, Hornsey-lane.
Calvert, John Telfer, Osborne-terrace, Clapham-road.
Calvert, William Dobree, Sewardstone-road, Victoria-park.
Clark, Brown, London Hospital.
Connolly, Frank Glynn, London Hospital.
Cosens, William Burrough, Philpot-street, Mile-end.
Cox, Alfred Harold Lissant, Millman-street, Bedford-row.
Crook, Herbert Evelyn, Northfleet.
Cross, Robert George, Compton-terrace, Highbury.
Dalgleish, John William, West-parade, Newcastle-on-Tyne.
Debenham, Horace Allan, Stepney.
Downing, William, Varna-road, Birmingham.
Downman, Charles Frederick, Newmarket.
Drinkwater, Charles, King's College Hospital.
Duncan, Horace, Henrietta-street, Covent-garden.
Duncker, William Reinhold, Finsbury-park-road.
Edye, John Simpson, Army Medical Staff, Colchester.
Evelyn, William Arthur, Vincent-square, Westminster.
FitzGerald, Gerald Eustace, Shrewsbury-road, Westbourne-park.
Fraser, Paul Wilkes, Gainsford-street, Kentish-town.
Furnivall, Bryan, St. Bartholomew's Hospital.
Garrould, Walter Robert, Willesden-park.
Hall, Herbert Strange, Bradshawgate, Leigh, Lancashire.
Haslip, George Ernest, Whitehall-place, Gravesend.
Helsham, Hugh Paul, Charlwood-street, Pimlico.
Holloway, Samuel Frederick, Osman-road.
Husbands, Harold Wessen, Wellington-park, Clifton, Bristol.
Iredale, Thomas, Midland-road, Headingley, Leeds.
Jarvis, William Charles, Southampton-street, Camberwell.
Jeaffreson, John Leslie, Park-crescent, Stoke Newington.
Johnson, John George, Lansdowne-road, Clapham.
Joly, Joseph Antoine Maurice, Oppidans-road, Primrose-hill.
Jones, John Owen, Cambridge-terrace, Islington.
Kitson, Francis Parsons, Maitland-park-villas, Haverstock-hill.
Knaggs, Francis Henry, Disraeli-road, Putney.
Lansdale, William, Chelsham-road, Clapham.
Loxton, William Arthur, Bath-row, Birmingham.
McKague, William Henry, Burton-crescent.
McShane, George, Shaftesbury-road, Southsea.
Mann, Harold Edward, West Cromwell-road, Kensington.
Martin, Frederick George Sturridge Goodall, Haverstock-hill.
Maxwell, Matthew, Hunter-street, Brunswick-square.
Miller, Frederick Richard, Frederick-street, Gray's-inn-road.
Moore, James, Gotha-street, Victoria-park-road.
Morgan, George Frederic Elliot, Southwark-bridge-road.
Morgan, William Vaughan, Glen Marteg, Streatham-park.
Mould, William Thomas, Fairholme-road, Kensington.
Moxham, Marcus Camplin, Crescent-street, Thornhill-square.
Nihill, John Edward, Newcastle-on-Tyne.
Ord, George William, Streatham-hill.

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Pedley, George Aston, Terrace, Camberwell.
Peeke, Harold Samuel, Sinclair-road, Kensington.
Pepler, William Herbert, Redburn-street, Chelsea.
Pinniger, Charles Lever, Blessington-road, Lee.
Powell, Edgar Elkins, Stoke-road, Guildford.
Quiller, Charles Turner, Orlando-road, Clapham.
Roalfe-Cox, Walter John, Hermitage, Streatham.
Rosenau, Albert, Bath, Kissingen, Germany.
Sharman, John Schütze William Edward, Oak Villas, Norwood.
Stott, Hugh, Carlton Villas, Colney Hatch.
Strickland, Percy Charles Hutchison, Montague-street, Russell-square.
Thane, Elgar Herbert, Montague-street, Russell-square.
Thompson, Stephen Robert, Glenmore House, Dulwich.
Trow, Charles, Endsleigh-street, Tavistock-square.
Tweed, Edward Reginald, Upper Brook-street, Grosvenor-square.
Vidler, Albert Edward, Clapton-square.
Wale, George, West Kent Hospital, Maidstone.
Walker, Alfred William Hinsley, Hampden Club, St. Pancras.
Wheeler, Humphry John, Abingdon Villas, Kensington.
Wilbe, Richard Haydock Wiffin, Finchley-road.
Wilson, William, Hollies, Cleveland-road, Wanstead.
Wreford, John, Clapham-road.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on Jan. 25th:

Belson, George de Veulle, L.R.C.P. Lond., Albion-street.
Brodie, Frederick Carden, L.S.A., Wootton Bridge, Isle of Wight.
Calvert, John Telfer, L.R.C.P. Lond., King's-road, Rochdale.
Calvert, W. Dobree, L.R.C.P. Lond., East Bergholt, Colchester.
Holloway, Samuel F., L.R.C.P. Lond., West Kensington-park.
Joly, Antoine Maurice, L.R.C.P. Lond., Oppidans-road.
Jones, John Arnallt, L.R.C.P. Lond., Fort Talbot, Glamorgan.
Key, David Thomas, L.S.A., Trinity-square, Borough.
Mann, Harold Edward, L.R.C.P. Lond., West Cromwell-road, Kensington.
Parry, Thomas Fox, L.K.Q.C.P.I., Ling-street, Liverpool.
Sidebottom, Ralph Bennett, L.R.C.P. Lond., Manor House, Mottram.
Slater, William Arnison, L.S.A., Green-lane.
Vidler, Albert Edward, L.S.A., Magdale House, Rye, Sussex.
Wheeler, Humphry John, L.R.C.P. Lond., Abingdon Villas.

Admitted on the 26th ult.:—

Barr, George Arthur, L.R.C.P. Lond., Milner-street.
Barton, Edwin Alfred, L.R.C.P. Lond., Lexham-gardens.
Bindley, Robert Alfred, Highbury-hill.
Carvalho, Alberto Pedro de, L.S.A., Lidlington-place, Ampthill-square.
Copeman, Sydney Arthur Monckton, M.B. Cantab., York-road.
Debenham, Horace Allan, L.R.C.P. Lond., Heath House, Stepney.
Haslip, George E., L.R.C.P. Lond., Whitehall-place, Gravesend.
Husbands, Harold Wessens, L.R.C.P. Lond., Wellington-park, Clifton.
Jarvis, William Charles, L.S.A., Southampton-street.
Jeaffreson, John Leslie, L.R.C.P. Lond., Park-crescent, Stoke Newington.
Lyle, Charles Conway Vacey, L.R.C.P. Lond., Maryland-road.
Malpas, James, L.R.C.P. Lond., H.M. Dockyard, Pembroke.
Martin, Frederick George Sturridge Goodall, L.R.C.P. Lond., Haverstock-hill.
Morgan, William Vaughan, L.R.C.P. Lond., Streatham-park.
Norton, Henry Harvey, Beddenden, Kent.
Smith, Percival, L.S.A., Harley-street.

Admitted on the 27th ult.:—

Carey, Basil de Beauvoir, L.S.A., Guernsey.
Cosens, Wm. Burrough, L.R.C.P. Lond., The Vicarage, Dudley.
Cox, W. J. Roalfe, L.R.C.P. Lond., The Hermitage, Streatham.
Davey, Thomas George, L.S.A., Helsham, Cornwall.
England, George Fuller Ashbridge, L.S.A., Winchester, Hants.
Gilpin, William John, L.S.A., The Grove, Bedford.
Going, Joseph Audrew, L.S.A., Wanstead.
Hawkins, Herbert Pennell, L.S.A., Vincent-square, Westminster.
Iredale, Thomas, L.R.C.P. Lond., Leeds.
Lewis, John Nicholls, L.S.A., Primrose Cottage, Swansea.
Macnab, Allan James, L.R.C.P. Lond., Philbeach-gardens.
Oldham, Montague Williams, L.S.A., Southam, Warwickshire.
Ord, George William, L.R.C.P. Lond., Streatham-hill.
Phillips, Thomas, L.S.A., Newcastle Emlyn South Wales.
Pridham, William Frederick, L.S.A., Cromwell-crescent.
Quiller, Chas. Turner, L.R.C.P. Lond., Orlando-road, Clapham-common.
Rusher, John Golby, L.S.A., Finsbury-park.
Sansom, Harry Arthur, L.R.C.P. Lond., Harley-street.
Sen, Chandi Charan, L.R.C.P. Lond., Hanwell.
Walker, Alfred William Hensley, L.R.C.P. Lond., Hampden Club.
Wilson, A. Harvey, M.D. Dartmouth, South Boston, Mass., U.S.A.
Wreford, John, L.R.C.P. Lond., Clapham-road.

Admitted on the 28th ult.:—

Hill, Charles Marshall, L.R.C.P. Lond., Halifax.
Oliver, Charles Pye, L.S.A., Maidstone.
Ormerod, Edward Booth, L.S.A., Robe Town, South Australia.
Peeke, Harold Samuel, L.R.C.P. Lond., Kensington.
Powell, Elgar Elkins, L.R.C.P. Lond., Guildford.
Wilde, Leonard, L.S.A., Watford.

COLLEGE LECTURES.—Professor Francis Warner, M.D., F.R.C.S., will deliver a course of three lectures on "The Anatomy of Movement." The lectures will be delivered on Monday, Wednesday, and Friday, the 7th, 9th, and 11th inst., at 4 o'clock precisely each day.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on the 27th ult, the degree of M.B. was conferred on the following gentlemen:—

George Gavin Morrice, Trinity; William Percival Gore Graham, Gonville and Caius.

SOCIETY OF APOTHECARIES.—The following gentlemen passed the examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise on the 27th ult.:—

Gilpin, William John, The Grove, Bedford.
Hawkins, Herbert Pennell, Vincent-square, Westminster.
Lewis, John Nicholls, Granby-street, Hampstead-road.
Ormerod, Edward Booth, Lawn-terrace, Blackheath.
Prowse, John Skardon, Earl-street, Cambridge.

THE Hospital Sunday collection was held at Rotherham on the 30th ult.

THE eighth annual dinner of the Leeds medical students (past and present) was held on the 28th ult.

THE recent Hospital Sunday Collection at Reading realised £237.

THE Queen has been pleased to sanction the Hull Children's Hospital being called in future "The Victoria Hospital for Sick Children, Hull."

THE seventy-first annual general meeting of the supporters of the Weymouth Royal Hospital was held on the 20th inst.

THE financial report of the Tiverton Infirmary and Dispensary, which was read at the annual meeting on the 26th ult, was unsatisfactory.

AT the annual meeting of the governors of and subscribers to the Hertford General Infirmary, on the 20th ult., an unsatisfactory financial report was presented. The deficit amounted to £1118.

BILLS to amend and consolidate the Acts relating to lunatics have been laid on the table of the House of Peers by the Lord Chancellor, who proposes to move the second reading of the measures on Monday next.

AT a large meeting of the inhabitants of Dartmouth on the 18th ult., it was decided to erect a cottage hospital, with a dispensary, for the town and surrounding district, in celebration of the Jubilee.

RABIES.—An Order in Council, entitled "The Rabies Order of 1887," has been officially published. It lays down certain fresh regulations in regard to animals found to be affected with rabies, more especially dogs. The order, which will take effect from and after the 28th inst., will not interfere with the operation of the Dogs Act, 1871.

ROYAL MATERNITY CHARITY.—The annual meeting of the governors of this charity was held on the 25th ult., Sir John Lubbock, M.P., presiding. The report of the managing committee, which was read, showed that 4000 poor married women had been administered to during the past year. The expenditure amounted to £3371, and the income to £3740.

SHEFFIELD HOSPITAL SUNDAY COLLECTION.—A total of £2278 has already been received as the result of the appeals made in the churches and chapels of Sheffield on the 30th ult., in aid of the local medical charities. This is an increase of £156 over the amount received last year, and there are several sums yet to come in, which it is estimated will bring the total amount received this year to about £2300.

MEDICO-PSYCHOLOGICAL ASSOCIATION.—At the next quarterly meeting to be held at Bethlem Hospital, St. George's-road, on Feb. 23rd, it is proposed to discuss the question "Whether there is ever sufficient reason for the use of strong clothing and side-arm dresses." Dr. Percy Smith will read a communication on "The results of an Epidemic of Typhoid Fever in the Insane."

LONDON HOSPITAL SATURDAY FUND.—Seventy-five metropolitan hospitals and fifty-seven dispensaries have participated in the awards of the above fund. The following are among the chief items:—Charing-cross, £162; King's College, £175; London, £586; Middlesex, £276; St. George's £267; St. Mary's, £224; University College, £204; Westminster, £208; Royal Free, 168; Seamen's, £111; West London, £131; Brompton Consumption, £589; North London, £176; Victoria-park, £288; Royal National, £108; Ormond-street Children's, £120; Temperance, £73; City-road, £96; Cancer, £115; German, £115.

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THE annual collections in aid of the local medical charities were held in Nottingham on the 29th and 30th ult.

THE fifty-fourth annual meeting of the subscribers to the Sussex Eye Hospital was held at Brighton on the 27th ult. The receipts exceeded those of previous years, but additional subscriptions were appealed for, the numbers of patients being year by year on the increase.

WINDSOR ROYAL DISPENSARY AND INFIRMARY.—The report which was read on the 27th ult. at the annual meeting of the supporters of this institution showed that during 1886 the total revenue amounted to £1939 and the expenditure to £2036. The number of in-patients was 269, as against 176 in 1885, and of out-patients 3661, as against 4123.

THE annual general meeting of the National Association for Supplying Female Medical Aid to the Women of India was held on the 26th ult., under the presidency of the Viceroy, who congratulated the Association upon the firm hold it had obtained upon the affections and conviction of the people of India. The funds amount to over three and a half lakhs of rupees, but an appeal was made for further assistance.

SANITARY REGISTRATION OF BUILDINGS BILL.—A special meeting of the Council of the Sanitary Assurance Association was held on Monday last, for the final revision of the above Bill before presentation to the House of Commons, Sir Joseph Fayrer, K.C.S.I., F.R.S., in the chair. The new measure was adopted by the Council, and in the absence of Dr. Farquharson, M.P., from England, it was decided to ask Mr. C. C. Lacaita, M.P., to take charge of the Bill in the House of Commons.

IN his annual report to the Commissioners of Sewers of the City of London, Dr. Saunders reports that during 1886 he has analysed 61 samples of milk, 22 of whisky, 9 of gin, 16 of mustard, 27 of drugs, 10 of disinfectants, 6 of water, 4 of butter and butterine, 2 of pepper, 2 of mineral waters, 2 of oil, 6 of pickles, 12 of preserved herrings, 3 of bread, and 6 of arrowroot. Dr. Saunders states that the apathy of the public in the working of the Food and Drugs Acts, which he has previously commented on, still continues.

DORSET COUNTY HOSPITAL.—The annual meeting of the subscribers to this institution was held on the 27th ult., when the report, which was read and adopted, showed that the total receipts were £2454, and the expenditure £2387. Charges of extravagance in the salaries of the paid staff, and in the amount spent on surgical instruments and lint, were made by several subscribers; and it was eventually resolved that all future reports should be published at least one week before the meeting, in order that the various items may be carefully considered before their adoption by the subscribers.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ADAMS, JAMES, M.D.Aber., M.R.C.S., has been re-elected Surgeon to the Ashburton and Buckfastleigh Cottage Hospital.

BARRON, HUNTER, M.B., C.M., M.R.C.S., L.R.C.P., has been appointed Medical Officer to Christ's College, Finchley, N., vice W. Phelps, M.R.C.S., resigned; also Medical Officer to the Convent of the Good Shepherd, Finchley, N., vice W. Phelps, M.R.C.S., resigned.

BICKERTON, T. H., L.R.C.P.Ed., M.R.C.S., has been appointed Oculist to the Liverpool Royal Infirmary.

BOYS, A. H., L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Second District of the St. Alban's Union.

CESAR, J., L.R.C.P.Ed., L.R.C.S., has been appointed by the Home Office Certifying Factory Surgeon for Elmly, Sheppey.

HUTCHINSON, A. C., M.B., C.M. Aber., has been appointed Honorary Medical Officer to the Brighton, Hove, and Preston Dispensary.

KEMBLE, ARTHUR C., L.R.C.P., L.R.C.S., L.M.Ed., has been appointed Surgeon to the Roman Gravels and Wotherton Lead Mines; also Medical Officer and Public Vaccinator to the Worthen District of the Forden Union, Shropshire, vice T. L. Macartney, L.R.C.P., L.R.C.S., L.M.Edin., resigned.

POLLARD, CHARLES, M.R.C.S., L.R.C.P., has been appointed Assistant Medical Officer to the St. George's Union Infirmary, Fulham-road.

PRITCHETT, HENRY, M.R.C.S., L.S.A., has been appointed Medical Officer for the Workhouse and the Second District of the Bedminster Union.

ROBERTS, JAS. BLACK, M.B., C.M.Edin., has been appointed Medical Examiner to the Nottingham School Board.

STARK, ARTHUR C., M.B., C.M.Ed., has been appointed Medical Officer for the Third District of the Romsey Union.

STEPHENSON, WILLIAM, M.R.C.S., L.S.A., has been appointed Honorary Surgeon to the Beverley Cottage Hospital.

STUART, CHAS., M.B., C.M.Ed., has been appointed Medical Officer for the Great Ayton District of the Stokesley Union.

UBSDELL, HENRY, M.R.C.S., L.S.A., has been re-elected Surgeon to the Ashburton and Buckfastleigh Cottage Hospital.

VOGAN, JAMES N., L.R.C.P. Lond., F.R.C.S.E., has been appointed Medical Officer for the St. Matthew's District of the Ipswich Union.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

DONCASTER GENERAL INFIRMARY.—House Surgeon. Salary £100 per annum, with board and residence in the house.

ROYAL ALBERT HOSPITAL, Devonport.—Honorary Surgeon.

TUNBRIDGE WELLS GENERAL HOSPITAL.—House-Surgeon and Secretary. Salary £100 per annum, together with board, furnished apartments in the hospital, gas, firing, and attendance.

Births, Marriages, and Deaths.

BIRTHS.

BELL.—On Dec. 30th, at Meean Meer, Punjab, the wife of Surgeon W. Howard Bell, Medical Staff, of a daughter.

JOBSON.—On the 26th ult., at Keillour House, Perthshire, the wife of Brigade-Surgeon Jobson, M.D., of a son.

MURPHY.—On the 26th ult., the wife of Harry A. Murphy, L.R.C.S., L.R.C.P.Ed., of Bolton, Lancashire, of a daughter.

SYRÉE.—On the 23rd ult., the wife of Anton Hugh Syrée, M.R.C.S., of Northallerton, Yorkshire, of a son.

TAUNTON.—On the 25th ult., at West Norwood, S.E., the wife of W. M. Taunton, M.R.C.P.Ed., M.R.C.S., of a daughter.

WOOLDRIDGE.—On the 29th ult., at Priory-villas, Barnes, S.W., the wife of Leonard C. Wooldridge, M.D., D.Sc., of a daughter.

MARRIAGES.

BRANFOOT—CARTER.—On Dec. 18th, at St. George's Cathedral, Madras, Arthur Mudge Branfoot, Surgeon-Major, I.M.D., to Lucy Innes, second daughter of H. R. P. Carter, Esq., of Madras.

BROWNE—WHITAKER.—On the 27th ult., at the Parish Church, Leytonstone, Essex, William Browne, L.R.C.S., L.R.C.P.Ed., of Stirling, to Agnes Mary, fourth daughter of the late Jas. Whitaker, of Elmfield, Huddersfield.

CHEYNE—SERVANTÉ.—On the 29th ult., at Christ Church, Gipsy-hill, by the Rev. R. Allen, Vicar, assisted by the Rev. C. W. Servanté, brother of the bride, W. Watson Cheyne, M.B., F.R.C.S., of 59, Welbeck-street, W., to Mary [illegible], only daughter of the late Rev. Wm. Servanté.

IRVINE—HOGG.—On the 27th ult., at Hilton, near Perth, R. W. Irvine, M.B., C.M.Ed., of Pitlochry, to Minnie, youngest daughter of the late James Hogg, of Lowvalleyfield, Culross.

JESSOP—ROGERS.—On the 27th ult., at St. Pancras Parish Church, Edward Jessop, M.R.C.S., L.R.C.P., of Retford, to Ada, youngest daughter of Thomas Arnold Rogers, of Endsleigh-street, Tavistock-square.

POLAND—DENHAM.—On the 31st ult., at St. George's Church, Edinburgh, by the Rev. Archibald Scott, D.D., Minister of the Parish, John Poland, F.R.C.S., of St. Thomas's-street, S.E., third son of R. H. Poland, Esq., Eliot Vale, Blackheath, to Mary Roberts, youngest daughter of James Glover Denham, Esq., of Castle-terrace, Edinburgh.

POTTER—DU BOIS.—On the 29th ult., at St. Mary's, Bryanston-square, by the Rev. C. H. Bowden, M.A., assisted by the Hon. Rev. Canon Leigh, Henry Percy Potter, F.R.C.S.Eng., Kensington Infirmary, W., to Annie Blanche, third daughter of the late Douglas Du Bois, of Thurloe-square.

DEATHS.

ALEXANDER.—On the 27th ult., at Trinity-square, S.E., on his 67th birthday, Charles Linton Alexander, F.R.C.S., L.S.A.

DAUBENY.—On the 26th ult., at San Remo, Italy, Henry Daubeny, M.D., in the 67th year of his age.

LISTON.—On the 28th ult., at her residence, 10, Glengyle-terrace, Edinburgh, Christina, widow of Robert Liston, F.R.S., F.R.C.S., &c., in her 86th year.

MASSEY.—On the 29th ult., at Greek-street, Stockport, Thomas Massey, M.R.C.S., aged 86.

MYRTLE.—On the 2nd inst., at 348, Oxford-road, Manchester, Andrew Scott Myrtle, jun., M.D., aged 24.

PROSSER.—On the 30th ult., at Bromsgrove, Worcestershire, Roger Prosser, L.R.C.P.Ed., M.R.C.S., aged 51.

RAWES.—On the 29th ult., at Bath, William Wilson Rawes, Deputy Inspector-General of Hospitals, Madras Army, in his 71st year.

STARTIN.—On the 26th ult., at Surbiton-hill, the wife of James Startin, of 17, Sackville-street, Piccadilly, aged 37.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

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Medical Diary for the ensuing Week.

Monday, February 7.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesdays, same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.
ROYAL INSTITUTION OF GREAT BRITAIN.—5 P.M. General Monthly Meeting.
ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—8 P.M. Casual communications by Messrs. A. S. Underwood, E. G. Betts, Storer Bennett, C. D. Davis, J. Ackery, W. H. Coffin, L. Matheson, C. Rollins, and Willoughby Weiss.—President's Inaugural Address.
SOCIETY OF ARTS.—8 P.M. Dr. J. L. W. Thudichum: The Diseases of Plants, with special regard to Agriculture and Forestry (Cantor Lecture).
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Lennox Browne: Excision of Half the Larynx.—Mr. Stephen Paget: Cases of Parotitis after Abdominal Operation.—Mr. Hugh Smith: Rupture of Aneurysm into Pericardial Cavity.

Tuesday, February 8.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 1.30 P.M. Skin Department, Mondays and Thursdays, 9.30 A.M.
ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Prof. Arthur Gamgee: The Function of Respiration.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. Cant: Clinical Observations on Induration in the Primary Lesion of Syphilis in Women (communicated by Mr. Holmes).—Dr. Hebb: A case of Actinomycosis Hominis (communicated by Dr. Sturges).
ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8.30 P.M. Lieut.-Col. Sir Charles Wilson: Notes on the Tribes of the Nile Valley North of Khartoum.

Wednesday, February 9.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesdays and Thursdays, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; and on Friday, 2 P.M.; and Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M.; Saturday, same hour.
EPIDEMIOLOGICAL SOCIETY OF LONDON.—8 P.M. Mr. John Moir: Statistics of Small-pox Cases in the West Ham Hospitals during the Epidemic of 1884 and 1885.—Dr. John Macpherson: A Memorandum on Notices of Cholera in India before 1817.
ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Presidential Address by the Rev. Dr. Dallinger, F.R.S., on Recent Optical Improvements in the Microscope, and the operation of the Darwinian Law amongst the Minutest Organisms.
SOCIETY OF ARTS.—8 P.M. Mr. A. Gordon Salamon: Purity of Beer.
BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens will be shown by Mr. Bland Sutton, Dr. Fancourt Barnes, and others. Dr. Charles E. Fitzgerald: The Use and Abuse of Pessaries.

Thursday, February 10.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Prof. A. W. Rücker: Molecular Forces.

Friday, February 11.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
SOCIETY OF ARTS.—8 P.M. Dr. George Watt, C.I.E.: The Economical Condition of India.
CLINICAL SOCIETY OF LONDON.—8.30 P.M. Nephro-lithotomy—discussion on papers read at the last meeting by Mr. Henry Morris, Mr. Marsh, and Mr. Bennett.—Dr. Hughlings Jackson: A case of Crural Monoplegia from Subcortical Disease.—Dr. Carrington: A case of Rheumatic Hyperpyrexia. Living Specimens:—Dr. A. H. Robinson: A case of Charcot's Joint Disease.
ROYAL INSTITUTION OF GREAT BRITAIN.—9 P.M. Mr. Edward B. Poulton: Gilded Chrysalides.

Saturday, February 12.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Mr. Carl Armbruster: Modern Composers of Classical Song—Rubenstein, Raff, and Grieg (with Vocal Illustrations).

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, February 3rd, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Jan. 28	30·39	W.	43	42	...	51	37	...	Overcast
,, 29	30·51	W.	50	48	...	50	42	...	Overcast
,, 30	30·35	S.W.	40	39	...	47	37	...	Cloudy
,, 31	30·14	S.W.	47	46	...	53	39	...	Overcast
Feb. 1	29·82	S.W.	50	48	...	52	44	...	Cloudy
,, 2	30·10	S.W.	37	35	...	50	33	·10	Cloudy
,, 3	30·08	W.	50	47	...	52	36	·09	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

AN ITALIAN DAILY MEDICAL JOURNAL.

AN Italian correspondent informs us, with reference to a letter appearing in our issue of Jan. 1st, that a daily medical journal is published in Naples, called *La Riforma Medica*, which enjoys a considerable circulation. The editor has recently issued a notice that prizes consisting of gold medals will be awarded to the students who shall contribute the best original articles on various branches of medical science. The awards are to be adjudicated by a commission of professors of the different universities.

Med. Staff.—Our correspondent has completely misapprehended our views. We believe also that his opinions on the subject of rewards are not those held by a large majority of the officers.

Mr. Brinsley is referred to a general notice at the head of this column.

TO ALL WHOM IT MAY CONCERN.

To the Editors of THE LANCET.

SIRS,—As an advertiser and answerer of advertisements in your journal I will ask you to be so good as to give a place to the few remarks I make on the above subject.

I have answered several advertisements in your journal, in each case sending an enclosed stamp for reply, along with a copy of my testimonials. I have asked the persons to whom I wrote to be so good as to return my testimonials and favour me with an early reply. I think if persons who insert any advertisement were for a moment to seriously consider that such an act entails a certain amount of responsibility, and to look on the matter as a business transaction, they would at once see that it is neither business-like nor courteous to leave a reply unanswered, especially when a stamp is enclosed for a reply, and a request made to have one's testimonials returned. Those who advertise should also bear in mind that they are not the only persons who do so; and that the person who answers their announcements may very probably be in communication with others, who also desire to come to a settlement. When, therefore, an early reply is asked for it ought as far as possible to be given, especially when it is particularly requested, and a stamp enclosed to defray postage. Surely it would be no hardship—and very little trouble in such cases—to return testimonials, and enclose a slip of paper with "declined with thanks" when one is not disposed to have any more to do in the matter. It is alike to the interest of the advertiser and those who reply to adopt such a course. I feel sure the subject only requires to be mentioned to draw the attention of your *clientèle* to the matter.

I am, Sirs, yours truly,

Jan. 20th, 1887. ADVERTISER.

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FURNEAUX JORDAN TESTIMONIAL FUND.

SECOND LIST.

Coleman, T. M., Esq.	£5	5	0	Johnston, A. K., Esq.	£1	1	0
Browne, H. Langley, Esq.	3	3	0	Haycraft, Prof. B.	1	1	0
Foster, R. H., Esq.	3	3	0	Martin, J., Esq.	1	1	0
Johnson, G. J., Esq.	3	3	0	Moore, C. W. B., Esq.	1	1	0
Pemberton, Oliver, J.P., F.R.C.S.	3	3	0	Neal, J. Breward, Esq.	1	1	0
Pemberton, C. L. H., Esq.	3	3	0	Price, E. Esq.	1	1	0
Bradbury, J. P., Esq.	2	2	0	Robinson, Dr. Edmund	1	1	0
Lewis, Christopher, M.D.	2	2	0	Sanders, Chas., Esq.	1	1	0
Willington, Dr. Wm.	2	2	0	Saundby, Dr. Robert	1	1	0
Owen, D. C. Lloyd, F.R.C.S.I.	2	2	0	Simon, Dr. Robert	1	1	0
Wilson, Wright, Esq.	2	2	0	Standish, Thomas, Esq.	1	1	0
Bond, Dr. Francis	2	2	0	Underhill, Frank, Esq.	1	1	0
Ellis, H. D'Arcy, Esq.	1	1	0	Van Vestrant, Esq.	1	1	0
Evans, A. P., Esq.	1	1	0	Windle, Prof. B. C. A.	1	1	0
Foxwell, Dr. A.	1	1	0	Whitehouse, J., F.R.C.S.	1	1	0
Gaunt, J. P., Esq.	1	1	0	Whitehouse, John, Esq.	1	1	0
Gettings, John S., Esq.	1	1	0	Wood, Horatio, Esq.	1	1	0
Gibb, E., Esq.	1	1	0	Weston, S. L. Darby, Esq.	1	1	0
Grinling, J. C., Esq.	1	1	0	Young, T. B., Esq.	1	1	0
Harmar, J. R., Esq.	1	1	0	Fowler, Walter, F.R.C.S.	0	10	6
Harmar, J., Esq.	1	1	0	Lawrence, S. C., Esq.	0	10	6
				Westwood, H. O., Esq.	0	10	6
				Sunderland, Wm., Esq.	0	10	6

Subscriptions may be forwarded to the treasurer, Mr. T. H. Bartleet, 27, Newhall-street, Birmingham, or to the secretaries, Messrs. Bennett May, 81, Edmund-street, and Jordan Lloyd, 22, Broad-street.

Mr. J. Holloway.—Our correspondent does not supply all the material which would enable a precise opinion to be given. When cold air is heated it requires increased moisture to prevent it from becoming dry and irritating. The amount of moisture required must necessarily depend upon the amount of increase of temperature resulting from the heating. The proper amount of moisture in air for breathing should be from 65 to 75 per cent. of saturation, and the absolute amount which should be added to each cubic foot of air thus warmed can be calculated from the following table, which gives in grains troy the moisture contained in each cubic foot of air when saturated at different degrees of temperature:—

Degrees Fahr.	Grains of vapour in cubic foot.	Degrees Fahr.	Grains of vapour in cubic foot.
10	·8	60	6·0
20	1·3	70	8·0
30	2·0	80	10·0
40	2·9	90	15·0
50	4·0	100	19·0

A Smoker.—We may perhaps take an early opportunity of going fully into the subject.

Mr. W. H. Bull.—Miss Wardell's Institution at Brockley-hill, Stanmore.

"OBSTINATE CONSTIPATION IN AN INFANT."

To the Editors of THE LANCET.

SIRS,—If your correspondent, "O. P. Q.," will read Dr. Cheadle's lecture on the Pathology and Treatment of Chronic Constipation in Children, contained in THE LANCET of Dec. 4th (pp. 1063-1064) and 11th (pp. 1116-1118), 1886, he may find some hints for treatment that may be useful. I have acted as locum tenens for a doctor who used to treat constipation in infants, generally with success, with a mixture as follows:—℞. Res. podophyllin, gr. i.; sp. rect., ʒii.; syrup. aurant., ʒii.; aqua ad ʒiss. One teaspoonful to be taken every night. I saw a child of six years old that received much benefit from taking two-minim doses of tincture of nux vomica in water daily, as recommended by Dr. Ringer. Dr. Goodhart, in his Manual on Diseases of Children, first edition, p. 41, draws attention to the association of small fissures about the anus with obstinate constipation, and recommends "the lower inch of the bowel and anus to be well greased with an ointment composed of equal parts of lead, zinc, and mercurial ointments, or the fissure may be dusted with equal parts of calomel and oxide of zinc."

I am, Sirs, yours faithfully,

Jan. 29th, 1887. W. F. F.

Mr. George Pycroft (Kenton).—We certainly cannot commend the practice referred to. If unwelcome, the book might be returned.

LATERAL CURVATURE.

To the Editors of THE LANCET.

SIRS,—A patient of mine, a girl aged fourteen years, is suffering from lateral curvature of the spine. The deformity is not very much at present—in fact, it was only about a month ago that her parents first noticed anything the matter. There is, however, a distinct bulging of the ribs, with projection of the lower end of the scapula on one side. Could you kindly inform me of any form of strap or other apparatus which would be of use in such a case? I am, Sirs, yours faithfully,

Jan. 26th, 1887. GRADUATE.

*** We would not advise any strap or other appliance of the kind, but regular and proper exercise of the spinal muscles, together with the correction of bad habits in standing and sitting, and general tonic treatment.—ED. L.

MEDICAL APPOINTMENTS IN THE COLONIES.

MR. J. GOODRIDGE ANDERSON writes:—"It will be very necessary for those who think of taking appointments in the colonies to be quite sure of what they are going to before they go to it and find themselves in a strange country, among strange people, under circumstances very different from what they had been led to expect, and without the means of getting home again. I see in the table published in your last issue that the salaries in the Windward Islands are stated to range from £200 to £100. This is not correct. The salaries in Tobago are £100 a year. They were £200; but some year or so back, money being scarce, and it being discovered that the Act under which the medical officers were appointed set forth that they should be paid salaries not exceeding £200 a year, it needed only a stroke of the governor's pen to make those salaries £100 a year. I need hardly say that the stroke was made. I know little, beyond hearsay, of the medical services of the other West Indian colonies; but they are mostly, if not all, Crown colonies, in which the Crown—i.e., the governor for the time being—is paramount. In the larger of these colonies the salaries offer a certain compensation for what the holders of medical appointments have to put up with in connexion with them; in the smaller colonies there is no compensation whatever, and they should be avoided by every man with even the smallest modicum of self-respect."

G. H. F.—The question is a difficult one to discuss, though many attempts at its elucidation have been made.

Doubtful—No; there are many reasons why the question should be decided in the negative.

M.B.—The L.S.A. cannot at present be counted as a double qualification.

Viator.—Mr. L. Bruck, 35, Castlereagh-street, Sydney.

THE GENERAL MEDICAL COUNCIL AND UNQUALIFIED ASSISTANTS.

To the Editors of THE LANCET.

SIRS,—Can you lend your powerful aid in behalf of a body of men who, through the proposed action of the General Medical Council, are about to become the victims of a, to them, sweeping and cruel law abolishing their vocation? Are scores of hard-working and valuable men to their employers to be thrown on the world, many of them married and with families depending on them; some, if not the greater number, too old to embark in any other walk of life; few, alas! with the means? If it is made illegal for a medical man to employ an unqualified assistant, although many general practitioners prefer to do so, and these men are deprived of their livelihood with their wives and families, what is there before them? The workhouse? Are we all to be ruined by the profession many of us have served so long and faithfully? Many of us are working our way slowly into the legitimate ranks of the profession, perishing ourselves, depriving ourselves of small luxuries, saving what we can of our not too liberal salaries, so that we can pay for lectures and hospital, and still maintain the appearance of gentlemen. Others, who have unfortunately married and have families, have no such hope, but manage to live decently and respectably. Some of the very men who are now our most bitter enemies have been unqualified assistants themselves. They used the same stepping-stones; but now they have arrived safely on the other bank, they would kick away the stones, so that no one else may cross, except by the new bridge. Is there no way by which, at all events, the men who are now holding the unenviable position of unqualified assistants may be protected? Could not these men, as has been suggested by a writer in your columns, be allowed to register as assistants, and no fresh admissions be allowed after a certain date, confining them to holding appointments as general assistants, not allowing them to practise "under cover," and striking them off the Register if found doing so. The race would soon die out. Many in course of time would qualify, and the others would gradually disappear. Such an act was allowed in 1815—the same almost—by the pharmaceutical and dental professions, and last year by the Canadian authorities. These men are to be registered as medical practitioners on passing a practical examination before three medical men and payment of a fee. If you would lend your powerful voice in the settlement of this, to many men, vital question, their deep gratitude would be due to you. It has been suggested that a representative meeting of *bond-fide* unqualified assistants be held in London, and resolutions forwarded to the General Medical Council. This would, I think, be a wise proceeding.

Entreating your advocacy for a deserving body of men,

I am, Sirs, yours faithfully,

Jan. 18th, 1887. UNQUALIFIED ASSISTANT.

MEDICAL NEIGHBOURLINESS.

T. B. B.—When a medical man is called upon in an emergency to see the patient of a medical neighbour who chances to be out of the way, it is his duty to act for his neighbour, and to transfer the case to the ordinary attendant. Every medical man occasionally needs neighbourly kindness of this sort, and there is something wrong in any neighbourhood in which it cannot be relied on.

Dr. Blackmore (Portsmouth).—The paper has been received.

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THE UNIVERSITY OF BERLIN.

THE number of students at the University of Berlin increases yearly. It is stated that during this winter more students have matriculated than in any term since the foundation of the University in 1810. In the theological, medical, law, and philosophical faculties there are 5357 regularly matriculated students, and, adding the other schools which are also parts of the University, the number rises to the aggregate of 6880. Every country of Europe, except a few minor Turkish provinces, is represented, and also are Asia, Africa, Australia, and America. The United State, is represented by 149 students, Russia by 98, Switzerland by 80, Great Britain by 18, Japan by 21, and Turkey by 7.

Mr. Thos. Edwards.—If such diseases as those mentioned were cured by medical measures, the power of legal recovery would be good.

Mr. D. Jones (Bicester).—The West-end Hospital, Welbeck-street, would probably receive the case.

Mr. H. E. Facey.—We do not copy letters from the pages of our contemporaries.

M. R. C. P.—The proposition appears to us to be impracticable.

THE CLIMATE OF THE SOUTH-WEST OF ENGLAND.

To the Editors of THE LANCET.

SIRS,—In your issue of Jan. 29th you have an interesting reference to the blossoming of the primrose in the open air during the present month, and you interpret the true value which flowers furnish of the meteorological and geological conditions in which they have been placed. It is a subject in which so many of your readers are interested, that I trust you will find room to record the fact that at the present date the subjoined plants are in blossom in the sheltered valleys of this district. In addition to the veronica, in variety, there are the primrose, violet, snowdrop, and the following herbaceous plants and shrubs now in bloom—viz., Escallonia macrantha, Gentiana verna, Genista fragrans, Coronilla iberica, Erica codonodes, Anemone fulgens, Primula purpurea, Godetia Albemarle, Cheiranthus cheiri, Berberis Darwinii, Rhododendron dauricum, the old "monthly" rose, and red carnation.

I am, Sirs, your faithful servant,

EDWYN SLADE-KING,
Ilfracombe, Jan. 29th, 1887. Medical Officer of Health.

SCIENCE IN THE NURSERY.

To the Editors of THE LANCET.

SIRS,—I learn from the *St. James's Budget* that an incubating experiment is now proceeding at Glasgow upon three children who made their appearance in the world rather earlier than was good for them. What a grand opportunity it is for testing General Pleasanton's (of Philadelphia) plan, and of the alleged efficacy of the mazarine blue glass being inserted alternately with the usual plain white in the nursery windows of the olive branches, as explained in his very interesting little book published by Messrs. Trübner and Co., Ludgate-hill.

I am, Sirs, yours faithfully,
Saltburn-by-the-Sea, Jan. 26th, 1887. H. G. J. DE S.

AN APPEAL.

To the Editors of THE LANCET.

SIRS,—May I venture to appeal through your columns to the generosity of our profession on behalf of the aged widow (82) of a surgeon, long since dead. She is in urgent need of assistance to enable her to pay debts contracted during a long illness. The smallest sum will be thankfully received and acknowledged by

Yours faithfully,
THOMAS BROOKES, M.R.C.S., L.S.A.
Whitchurch, Tavistock, Devon, Jan. 27th, 1887.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Bryant, London; Dr. Mapother, London; Mr. S. Snell, Sheffield; Mr. Lawson Tait, Birmingham; Mr. Bennett May, Birmingham; Dr. Sedgwick Saunders; Dr. Fothergill, London; Dr. Linde, Ross; Mr. Bull, Stony Stratford; Mr. C. J. Bond, Leicester; Mr. Upton, London; Sir John Lubbock, Beckenham; Dr. F. A. A. Smith, Cheltenham; Mr. Mark Judge, London; Mr. Blake, Dublin; Mr. Lankester, London; Mr. L. Humphry, Cambridge; Mr. Whitsed, Hurstpierpoint; Mr. Frank Smith; Dr. Haslam, Birmingham; Dr. Hawkes, Northampton; Mr. Brooks, Whitchurch; Dr. Dunlop, Jersey; Messrs. Boulton and Paul, Norwich; Dr. Hurry, Reading; Dr. Dudgeon, London; Dr. Joy Jeffries, Boston, U.S.A.; Mr. K. Benham, London; Messrs. Blake and Co., Leeds; Dr. Sinclair, Dundee; Dr. Rosenau, London; Mr. H. B. Dow, London; Mr. W. T. Kyle, London; Mr. Curtis, Liverpool; Dr. Davies, Denbigh; Mr. Reid, Canterbury; Messrs. Shanks and Co., London; Mr. Gibson, Bromley; Mr. Kershaw, London; Mr. Bland Sutton, London; Mr. Spurgin, Maryport; Mr. Glendinning; Mr. W. Weiss, London; Dr. Wahltuch, Manchester; Dr. Anderson, Middlethorpe; Mr. Welpton, Ravensthorpe; Mr. H. V. Knaggs, London; Messrs. Thorn, London; Dr. J. Rutherford, Dumfries; Dr. Carrick Murray; Dr. J. H. Clarke, London; Mr. Monks, Wigan; Mr. Laing, Blyth; Mr. C. J. Symonds, London; Dr. Gossett, Canterbury, New Zealand; Mr. Barff, London; Mr. Allen, Chicago; Messrs. Lee and Martin, Birmingham; Dr. Dawson, Southbourn-on-Sea; Dr. Main, East Ilsley; Mr. K. Thornton, London; Dr. F. Warner, London; Mr. E. J. Kitts, London; Mr. C. D. Green, London; Dr. Steel, Abergavenny; Messrs. Waltham Bros., Stockwell; Dr. Crooke, Portsmouth; Mr. J. Anderson, London; Mr. Green, London; Mr. Fuge, Taunton; Mr. W. Jones; Miss Gleitzmann, Clifton; Mr. Gurner, London; Dr. Langley, London; Messrs. Street and Sons, Guildford; Messrs. Macmillan and Co., London; Messrs. Read and Donald, Perth; Messrs. Whitfield and Co., Birmingham; Mr. Calderwood, Battersea; Messrs. Battle and Co., Paris; Mrs. Adams, Hollington; Mr. Elliott, Carlisle; Mr. T. Cooke, London; Messrs. Lumb and Co., Castleford; Messrs. Bates and Co., London; T. B. B.; W. F. F.; Med. Staff; M.R.C.P.; An Ealing Resident; Viator; L.R.C.P. Lond., M.R.C.S.; Pathologist; M.D.; A Smoker; L.R.C.P. & S.Ed.; Philalethes.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Juler, London; Mr. Guest, Darlington; Mr. Turner, London; Mr. Godfrey, Northampton; Dr. Cockrane, Broadford; Mr. Hutchinson, Nottinghill; Mr. Wood, Kington; Mr. Mason, Glasgow; Messrs. Smith and Son, Liverpool; Mr. Healey, Ogiobo, Africa; Mr. Sutherland, West Reinton; Mr. Taylor, Windermere; Mr. Startin, Surbiton; Mr. Ellis, Westminster; Mr. Farrington, Bradford-on-Avon; Messrs. Sutton and Co., Norwich; Dr. Patterson, Butterknowle; Messrs. Burgoyne and Co., London; Dr. Barjee, India; Mr. Foxwell, Colsford; Mr. Butt, Bridlington; Mr. Brown, Kensington; Mr. Wilkinson, Scarboro'; Mrs. Carroll, Bromyard; Mr. Alford, Crewkerne; Mrs. Armstrong, Ryde; Mr. Newman, Glasgow; Mr. Rideal, London; Messrs. Isaacs and Co., London; Mr. Crassweller, Highbury; Messrs. Fletcher and Co., Manchester; Mr. Benton, London; Dr. Eberle, Thirsk; Mr. Petre, Norwich; Mr. Bedford, London; Miss Minks, Chelsea; Mr. Jenkins, Worcester; Mr. Kemp, Castleford; Mr. Cohen, Torquay; Dr. Bremner, North Woolwich; Mr. Hornibrook, London; Matron, Bedford; J. C., Moreton-in-Marsh; Loveland, Castleford; Medicus, Brighton; H. W., Hammersmith; Zeta; Secretary, Bristol; Physician; S. W., West Malling; Orlando; Bamb, York; E. B., London; Gamma, Sittingbourne; Alpha, Reading; Doctor, London; Alpha; Surgeon, Kurtin Lindsey; W. T. W.; C. J. B.; Medicus, Banbury; Scott; Matron, Grimsby; G. P., Newport; N. W.; C. S., Rotherham; D. J. L., Brighton; M.D., Swanage; Secretary, Birmingham.

Evesham Journal, West Cumberland Times, Yeovil Telegram, South Wales Daily News, Western Morning News, Lincoln Gazette, Scottish Leader, Standard, Scotsman, Hand and Heart, &c., have been received.

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Harveian Lectures
ON
CANCER OF THE UTERUS.

BY J. WILLIAMS, M.D. LOND., F.R.C.P.,
OBSTETRIC PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL, LONDON.

LECTURE III.

GENTLEMEN,—Most of the cases given were perhaps too little advanced to manifest secondary growths discoverable by clinical investigation, and in only three of them was the disease watched to the end and a post-mortem examination made. In these the glands along the internal iliac vessels, and in one those along the spine, were cancerous. The sacro-uterine ligaments were not affected in any of them, but the cellular tissue around the cervix and in the broad ligaments was diseased in two.

Small cancerous masses are sometimes seen on the interior of the body of the uterus in cases of primary cancer of the cervix. These are sometimes spoken of as secondary deposits. It is, however, difficult to see how secondary deposits can be produced in the body of the uterus from a primary cancer of the cervix. Neither the arrangement of the blood-vessels nor that of the lymphatics can explain it, and it appears more reasonable to regard such formations as new growths from independent centres—such as I have described as occurring in the cervix itself. They are not often met with.

Age seems to have a considerable influence on this form of cancer, though no age above twenty-eight years excludes it. The oldest patient was eighty-one, the youngest twenty-nine. There was only one under thirty; there were six between thirty and forty, and fifteen between forty and fifty; there was one between fifty and sixty, and one over eighty. So that during the ten years in which the menopause generally occurs this disease is far more rife than at any other period of life; it is next most frequent between thirty and forty; and it is comparatively rare before thirty and after fifty. The history of the menstrual function throws no more light on this form of cancer than it does on that of the portio vaginalis. The age at the time of marriage and the duration of married life throws just as little.

With regard to childbearing, it is to be noted that two, or a twelfth of the whole number, had never been pregnant; four had had one child; two had had one child and one miscarriage; two had had two children; one had had two children and abortions; one had had three children; one, three and one abortion; one had had four children; one, five and five abortions; one, seven; one, eight; one, eight and five abortions; one, eleven and one miscarriage; and one, thirteen and two miscarriages. So that fourteen out of the twenty-four had been pregnant fewer than five times.

The characters of the labours, again, appear to have no influence on the production of cancer. Of sixteen cases in which this point was investigated, eleven had had good, one had had lingering, and five had had difficult labours. Only two of these required the use of the forceps: one five times, the cervix being probably cancerous on the last occasion; and one once, the cervix being probably cancerous at the time. So that we have two cases only among the whole number in which labour had been instrumental.

The chief symptoms of cancer are hæmorrhage, pain, discharges, and wasting. Hæmorrhage was present in greater or less amount in all the cases. Its quantity, however, varied greatly, and the time of its appearance with respect to the onset of the disease not less. In some it began at a very early stage, while in others it set in only when the growth had attained a large size. For instance, in one case hæmorrhage had been present for three years when first seen; the disease affected the whole of the cervix, but the surface of the portio was still intact. In this instance the hæmorrhage began probably soon after the growth commenced. In another case, again, where there was a large growth in one lip, hæmorrhage had been present for three weeks only. Pain may be absent throughout; it was absent, or present in a very slight degree, in six of these cases. When present it is often relieved by the onset of bleeding and by lying down. Discharges are commonly present; four of those with advanced disease had none, six had an offensive discharge, five a watery, two a greenish, four a yellow, and one a white discharge. Wasting was present in varying degrees. Eight of the patients had lost much flesh, six very little, and all these presented a somewhat advanced stage of cancer, except the one who was eighty-one years of age. In some cases extreme emaciation was present, while in others, even at the time of death, there was an abundance of subcutaneous fat. Micturition was frequent in only five of all the cases: in the two cases in which the disease began near the internal orifice, in two in which the whole of the cervix was diseased, and in the old woman. As a rule, when the disease attacks the lower part of the cervix the bladder is not disturbed until a very advanced stage of it.

There is a view of the etiology of cancer of the cervix and portio vaginalis which has been recently brought into prominence, chiefly because it has been made the ground for procedures of an operative kind: I mean the view that lacerations of the cervix are a cause of cancer. If this view be correct, it has a very important bearing on treatment of a prophylactic character; on the other hand, if it be untrue, it has a no less important bearing in an opposite direction. It has been said again and again that lacerations of the cervix are the cause of cancer of the lower part of the uterus, and that the cure of the lacerations by Emmett's operation is a means of preventing the development of the disease. Now, what is the evidence with regard to this view? Are there any known facts which favour or oppose it? One fact which favours this view, or which is supposed to favour it, is that cancer is frequent in women who have had many children. Laceration of the cervix occurs so frequently in first labours—and probably far more frequently than in subsequent ones—that we cannot regard multiparity as the cause of lacerations as against uniparity. Indeed, it may fairly be said that when laceration is present, the time when it was produced was during the first labour; and if this be true, and if it be also true that laceration of the cervix is a cause of cancer, uniparity should be as frequent a cause of cancer as multiparity; and if multiparity is really a cause of cancer as against uniparity, then we must explain the fact in some other way than by the laceration present. In the next place, cancer is often present in association with laceration. But association does not necessarily involve the relation of cause and effect—a fact too frequently lost sight of in the study of uterine disease. It is said, moreover, that lacerations occasion the development of cancer by reason of the irritation to which they give rise. Now, if this be true, we should expect to find the starting-points of cancer to lie at the place of greatest irritation—that is, in or close to the tear, or in the surface of the irritated part. But what are the facts? I have described to you cases of cancer of the portio vaginalis and of cancer of the cervix proper in association with lacerations, but in no instance have I seen it attack the lacerated part primarily. Indeed, it appears to avoid it, and to invade it only after the rest of the cervix has become involved in the disease. The tear is the last part to be attacked. But it may be said that although cancer does not commence in lacerations, yet it begins in the everted or irritated surfaces of the lips. I have been able to trace cancer primarily to the surface in no single instance, except in the variety of squamous epithelioma, when it necessarily begins on the surface. But in cases of squamous epithelioma the disease begins on any part of the surface of the vaginal portion, except perhaps the edges of the tear—a fact which does not favour the view I am discussing. When cancer attacks the cervix proper, it begins, in so far as I have been able to discover, in the glands in the substance of the cervix, and a layer of non-cancerous glands is often, though not always, seen between the disease and the surface. This is the condition present whether laceration exists or not, and the fact that the disease begins in the same situation in the lacerated and the non-lacerated cervix militates against the view that lacerations are an important factor in the development of cancer. Moreover, if irritation be such a very frequent cause of cancer of the uterus as is sometimes maintained, the disease should be frequently met with in the procident uterus; but this, again, is not the case. In some hundreds of cases of cancer of the uterus which I have seen there was but one in which the organ was preci-

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dent. It appears to me that the facts at present known tend to show that lacerations play no important, if any, part in the causation of cancer.

CANCER OF THE BODY OF THE UTERUS.

The next part of our subject is cancer of the body of the uterus. This is a form of cancer which is much less common than that of the cervix, and indeed it was at one time thought that cancer never attacked this part of the organ primarily. It is certain that the disease occurs much more frequently than is generally supposed. Pichot has collected forty-four cases of what he terms cancer of the body of the uterus. They are all apparently cases of malignant disease, but there is no sufficient evidence that they are all cases of cancer. In saying this I wish it to be understood that no case can be scientifically admitted to be a case of cancer unless sections of the growth have been submitted to examination with the microscope. This brings us down to very recent times—past the time when microscopic examination of tissues meant the examination of scrapings and the search for characteristic cells; down to the time when the arrangement of the various elements of a growth were examined into and their relations observed in their undisturbed position in sections. Ruge and Veit have described more or less fully twenty-one cases in which the nature of the disease was established by microscopic evidence. I have seen twelve cases which were believed to be malignant disease of the body of the uterus, but in only three of them was the growth ascertained to be cancer by microscopical examination, and consequently these three only are of sufficient value to serve my purpose in these lectures. It would only lead to confusion were I to introduce cases as basis for description around the nature of which—that is, whether they were sarcoma or carcinoma—any doubt rests. These cases, together with those recorded by Ruge and Veit, will mainly form the material for the description of cancer of the body which I shall give you.

CASE 20.—The patient was a widow aged fifty-two. She was admitted into University College Hospital complaining of a profuse and offensive vaginal discharge, which excoriated and caused swelling of the external parts. She was a nurse, and eight years previously she received a shock through the sudden death of a patient. This brought on a sanguineous discharge, which has continued more or less ever since. She has been losing flesh for some time, but more especially during the last three months. She was married at twenty-two. Her husband lived eight years. She had one child twelve months after her marriage, and no miscarriages. She said that during the lifetime of her husband she had sore-throat, lost her hair, and took medicine which made her gums sore and teeth to ache. She had a polypus removed from the womb five years ago. She began to menstruate in her twelfth year, was poorly every three weeks, losing a good deal, with bearing-down pain in the abdomen. After the birth of her child the flow returned regularly, but in far greater quantity, and with much more pain than before her marriage. She has suffered from leucorrhœa since she was fifteen. There was no history of cancer in her family.

On admission in January, 1881, she was pale, anæmic, and emaciated; the pulse was 100, and temperature 99° F. The uterus appeared to be of the normal size, but less movable than natural. The cervix was normal, except that a small villous growth could be felt in the os. The outline of the body could not be made out, and the sound was not used. Examination by the rectum revealed several nodules apparently growing from the posterior wall of the uterus. There was little or no tenderness.

The villous growth projecting in the os was removed. On Feb. 5th she had several rigors, and her temperature went up to 105°, and remained above 100° until Feb. 10th. This attack of fever was accompanied by severe pain in, and exquisite tenderness over, the whole of the abdomen. A month afterwards she had a similar attack, but without rigors. With these exceptions her temperature remained between 99° and 100°, and her pulse was over 100 a minute. She complained also of globus and other symptoms usually called hysterical. In March there was œdema of the vulva, and a hard growth about the size of a hazel-nut projected slightly through the os. There was copious greenish-yellow discharge with some blood. She gradually became weaker, and died on March 20th. At the necropsy the small intestines were adherent to the fundus of the uterus and the posterior wall of the bladder. There was a small cyst at the end of the Fallopian tube. At the posterior part of the uterus there were several nodules, two of the size of cherries, others smaller, projecting into the peritoneal cavity. These were of a whitish colour, with injection around them. The upper half of the posterior surface in the middle and the fundus were white and bloodless. The rest, especially the sides, were of a purplish colour, with the veins injected. There was a big nodule on the anterior surface where the intestines were attached, and a communication which admitted the thumb was found between the adherent intestine and the cavity of the uterus. The ovaries were white and atrophied. The uterine wall varied from one-half to one inch in thickness. The cavity of the uterus was a fetid abscess; its surface was irregularly nodular and of a greyish-green colour; beneath this was a layer of highly vascular tissue, and still deeper the altered uterine tissue. The cancer was glandular.

CASE 21.—This patient was fifty-two years of age, and was admitted into the hospital in January, 1884. She had enjoyed good health until fifteen months before, and was a strong woman. "Menstruation," which had ceased about nine years previous to this date, recommenced, and recurred about every three weeks. At this time the flow was of the ordinary colour and not profuse. It lasted at first for two or three weeks, but latterly only for one day. For the last five months bleeding had ceased entirely, but a yellow offensive discharge had been continuously present. Some time after the bleeding commenced labour-like pain was felt at the bottom of the stomach and back, but since January, 1883, the pain had been seated principally in the right side of the pelvis and down the right leg, shooting at times to the left side. For some years before her illness the patient suffered from pain in passing urine, and micturition became frequent in June, 1883, for which she had a growth removed from the "entrance to the bladder." Micturition continued to be frequent after the operation. There had been no difficulty or pain in defecation. She had lost much flesh during the previous fifteen months. Menstruation began at fifteen, was regular and painful, and ceased at forty-three. She had been twice married; first at twenty-three. During her first marriage she had four children; one child and one miscarriage during the second. All her labours were natural. One sister died of cancer of the womb in an asylum.

On admission the patient was thin, but not greatly emaciated. The perineum was excoriated. There was a small superficial ulcer on the inside of the right labium. On the vaginal wall were about a dozen small greenish patches, which felt slightly raised to the finger; there was no loss of tissue. The anterior lip of the uterus was thickened by a growth which projected into the cervical canal, which bled on examination. The uterus was freely movable; the body was a little enlarged, thick, and roundish, so that the whole of the uterus—body and cervix—approached a globular form. There was no thickening anywhere in the pelvis. The sound passed in three inches. The chief thickening was in the anterior wall. The cavity of the body was considerably enlarged; the sound could be moved about freely in it. A good deal of bleeding followed.

The uterus was extirpated. The parts removed consisted of the whole uterus, with the exception of a small irregular rounded portion situated on the left side of the middle line, and reaching almost to the origin of the Fallopian tube. The margin of the opening when this piece was absent was lacerated and nodular. The absent portion was about one centimetre in diameter. The whole organ was increased in size—laterally and antero-posteriorly. The external os and cervix for the lower two-thirds were normal in appearance, but soft and pale. The cavity of the uterus contained some dirty muco-pus. The surface was occupied by a nodular new growth, which on section was seen to extend into the muscular wall as pinkish-white granular-looking growths, the tissue which it invaded appearing gelatinous. The nodules of new growth were irregularly scattered over the inner surface, but were thickest on the right side of the posterior wall. Outside the new growth everywhere except at the point mentioned was a layer of muscle and peritoneum, which varied from one to three millimetres in thickness. A month after the operation the patient died. The wound had almost entirely healed, but there was a small abscess in the remains of the right broad ligament. In the small intestine were several small fistulous openings, which were connected with the scar of the operation. The kidneys and ureters were normal; but the bladder was in a state of chronic inflammation.

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CASE 22.—The patient, a single woman, aged sixty-three, was admitted into University College Hospital in January, 1883. She said that she had been losing blood from the vagina occasionally for two years, but not much until March, 1882, when she lost a great quantity, and since then she had been continually losing more than she had from the commencement of her illness until that date. She had fainted several times from the loss of blood. She suffered no pain until the previous March, but since that date she had suffered pain on and off in the bottom of the back and stomach; it was twitching in character, and never lasted more than a minute; it was never severe enough to lay her up, and was not made worse by walking. After the bleedings there was a slight yellow offensive discharge. Micturition had been at times frequent, and sometimes scalding. The patient had suffered for two months from acute eczema of both arms. She had lost much flesh since her illness; her appetite was good. Menstruation began in her thirteenth year; usually regular and profuse, but without pain. It ceased in her fifty-fourth year. She saw nothing afterwards for six years; then she had a slight bleeding twice; after that it ceased for one year, and since that time she had bled frequently. There was no history of cancer in her family.

On admission, she was well nourished and fat. The hymen was intact and the vagina senile. The body of the uterus was large and nodular, and filled the pelvis; it could be felt above the pelvic brim, and it appeared to extend further to the left than to the right. The cervix was far back, very short; the lips were softish. There was no tenderness. The vagina contained a dark-brownish very offensive discharge. Temperature 98·4° to 99·6° F.

The cavity of the uterus was scraped, after which the bleeding and discharge ceased for some time. She ultimately died in the cancer ward of the Middlesex Hospital, under the care of Mr. Henry Morris, through whose courtesy, together with that of Dr. Kingston Fowler, I am enabled to give an account of the appearances found at the necropsy, and a drawing of the uterus:—The body was well nourished. There were several firm adhesions between the omentum and the parietal peritoneum. A large swelling having the appearance of a uterine fibroid was seen at the lower part of the abdominal cavity. The intestines in the middle line of the abdomen were matted together, forming a sac, which on being torn open was found to communicate with the bowel, and appeared to be the seat of a slight fæcal accumulation. The lungs contained several secondary cancerous nodules scattered over the pleural surfaces. Numerous minute secondary deposits were found on the surface and in the substance of the liver. There were three cancerous deposits of the size of peas on the surface of the right kidney. In other respects the kidneys were fairly healthy. The uterus was large and its walls contained three fibroid tumours, two of which were calcified and of the size of walnuts, and one was as large as a man's fist. The walls were much thickened. The inner surface of the body was everywhere cancerous, irregular, and ulcerating. The cervix was healthy. The cancer had not invaded the fibroid growths, but had penetrated through the part of the wall free from fibroids into the broad ligament on the left side, and formed a large mass in that situation, apparently involving the ovary and Fallopian tube. The Fallopian tubes on each side were inflamed and contained pus. The cancer was glandular, and the glands presented a very remarkable appearance. Many of them were coiled up in spaces so that the spaces appeared in section to be filled by circles of columnar epithelium without any connective tissue framework. In many places the epithelial cells appeared normal, while in others they were altered, many-shaped, and more or less broken down. The nodules in the liver presented a glandular structure similar to that of the glands in the uterus.

Cancer of the body may be diffuse or circumscribed. The diffuse form is much the more common; indeed, I have not met with an instance of the circumscribed. Several cases of the latter, however, have been described. They assume a polypoidal shape, and the uterine wall at their base may be healthy, or they may form sessile tumours and grow in the substance of the uterine wall, projecting into the uterine cavity like a submucous fibroid. In the former case the disease may have originated in a polypus already formed, as in Case 19, in which a mucous polypus of the cervix was removed while undergoing the process of becoming a cancer; or it may develop from the first in the form of a polyp. In the second case, when the cancer dips deeply into the uterine wall, it is not improbable that it begins in the deeper portions of the gland, as it so often does in the cervix, and then as it grows it becomes more and more superficial and prominent in the uterine cavity; at the same time it penetrates deeper and deeper into the uterine wall. The further growth of the polypoid form is said to be, not superficial, but in a radial direction towards the peritoneum. The polyp may break down and disappear and leave a mass of cancer in the uterine wall, but connected with the surface. In this way Ruge and Veit explain the origin of circumscribed masses in the uterine wall described as primary, and it is in many cases probably a correct explanation; but there is no impossibility, and indeed no improbability, that cancer may begin in the deeper portions of the uterine glands and there form nodules in the wall just as we found to occur in the cervix, for the uterine glands are known to enter deeply into the muscular wall of the body of the uterus. The diffuse form affects usually the whole of the inner surface of the body. Whether this is the case from the beginning, or whether it is the result of its mode of growth, is not known, and is difficult to determine. In some cases, however, a part of the surface escapes. The cervix is generally respected until a late period. The surface is villous, rough, and ulcerated, or covered with warty nodules, sessile masses, or polypi. The uterus is usually much enlarged; sometimes, however, the enlargement is not great, and even very slight; the wall becomes thickened and hypertrophied by a process, it is said, similar to that which takes place during early pregnancy. As the cancer grows, the successive deeper layers of the wall become involved, and the muscular part becomes thinner and thinner. The cavity of the uterus is in some cases considerably elongated and deformed, in others but little; in some, after the disease breaks down the cavity increases in capacity. In some cases, or in some part of the uterine surface, the disease is quite superficial, the decidua not being much thickened, although diseased throughout, as in Case 22. The disease grows from the glands; it may perhaps begin also in the epithelium of the surface. This has not been actually observed, but the fact that the whole of the surface is generally involved—at least in the specimens which have been examined—is in favour of this mode of origin.

Several cases have been recorded in which fibroid tumours were present with cancer; one of my cases was such. In this case the cancer clearly grew from the uterine glands, and had not invaded the fibroid. Klob, however, has recorded a case in which a fibroid was present and cancerous. He was of opinion that the cancer had commenced in the fibroid. His case is imperfectly recorded, and the growth had begun to break down and to slough, so that the tissues over it had been destroyed, and were in a condition which precluded the possibility of establishing the view of the case adopted by Klob. Moreover, all the histological evidence collected goes to show that cancer of the body begins nowhere except in the epithelium of the surface or of the glands. It has further been shown by the observations of Buhl and Ruge that cancer may extend from the mucosa covering a fibroid and involve the fibroid itself.

The direction or lines of growth of cancer of the body appears to be in two directions—that is, such as to involve the surface and to spread into the deeper structures. The spread of the disease superficially is often stopped at the inner orifice of the uterus and the openings of the Fallopian tubes; and this, although not invariable, appears to be the rule. In some of my cases the cancer had passed the os internum and invaded the cervix; and in a specimen in the museum of St. Bartholomew's Hospital, already referred to, the disease had invaded the Fallopian tubes.

(To be concluded.)

STAFFORDSHIRE GENERAL INFIRMARY.—At the annual meeting of the governors of this institution, on the 28th ult., it was reported that the ordinary income for the past year was £2142, and the expenditure £2953. The books having been neglected, it was impossible to ascertain the number of patients who had been treated. A letter was read from Dr. C. H. Crawford resigning his appointment as physician to the hospital, and a resolution thanking him for his thirteen years' services, and expressing the regret of the board of governors at his retirement, was unanimously agreed to.

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ABSTRACTS OF THE

Erasmus Wilson Lectures

ON

EVOLUTION IN PATHOLOGY.

Delivered at the Royal College of Surgeons of England,

BY J. BLAND SUTTON, F.R.C.S.,
ASSISTANT-SURGEON TO THE MIDDLESEX HOSPITAL.

LECTURE II.

SUPPRESSION OF PARTS.—(*Continued.*)

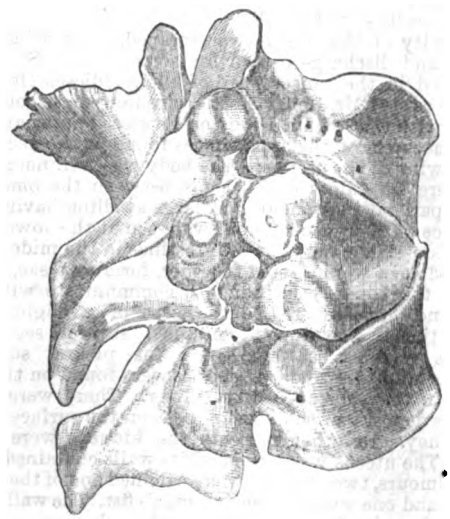
MR. PRESIDENT AND GENTLEMEN,—To the student of mammalian anatomy it has always been a somewhat remarkable fact that, whatever the length and flexibility of the neck, the number of cervical vertebræ remains almost constant; whereas in birds the reverse of this obtains, for the cervical vertebræ are extremely variable in number—a pigeon may possess thirteen or fourteen, but the swan has twenty-five, whilst in the extinct plesiosauria as many as forty cervicals existed in some species. Parker, in his valuable memoir, "The Development of the Green Turtle," has found that at one stage in the embryology of this form fifty-one somatomes are visible externally, but in the adult only forty-one vertebræ are developed, and an examination of the embryos in various stages clearly shows that seven somatomes in the neck and three in the caudal series abort. This suggests an ancestry from forms having a longer neck and tail than existing turtles, and the free suppression of parts indicates a modification by shortening of a form not unlike a plesiosaur. There is abundant evidence to support the view, which at first seems somewhat strange, that there exists an undoubted correlation between the hand and the number of the cervical vertebræ. In such vertebrates as birds the number of the cervical vertebræ and the saddle-shaped articular facets on their centra confer great mobility, and enables the beak to perform actions which rival in delicacy those of the hand and fingers. It is beyond all dispute that as the functions of the hand increase in precision so the number and size of the cervical elements of the spinal column diminish.

In the green turtle we saw that in the embryo several somatomes were suppressed, and now I shall enter upon a discussion to show that it is exceedingly probable that a similar suppression of somites occurs in man. In the first place, the disposition of the cervical nerves suggests that at least one vertebra has disappeared, for in order to harmonise the arrangement of spinal nerves in the cervical region with what pertains in other parts of the column an extra vertebra is requisite. Apart from these anatomical speculations, the observations of teratologists go to show that in the various regions of the column suppression of somites occurs. Professor Humphry[1] has drawn attention to Otto's observation of a spine in which there was deficiency of one-half of the eleventh dorsal vertebra; also a case described by Sandifort in which one-half of the seventh cervical and of the ninth and eleventh dorsal vertebræ is absent, the remaining half being wedge-shaped. Dr. Goodhart[2] has described a fœtal vertebral column preserved in the museum of the Royal College of Surgeons in which only four and a half cervical vertebræ can be made out. The malformation was associated with spina bifida. In the report of the Spina Bifida Committee of the Clinical Society a sacrum is figured in which the left halves of the first and third segments are absent. Willett and Walsham have published a detailed account of a remarkable suppression of vertebræ in a woman aged thirty-one dissected by them, and have referred to the specimens mentioned above. There is in the museum of the Middlesex Hospital a well-prepared skeleton of a presumably full-grown female, in whom there is lateral curvature of the spine caused by absence of one-half of a dorsal vertebra, apparently the third. (Fig. 5.)

Now, all these cases illustrate suppression of halves of the vertebræ belonging to spines presenting less than the normal number. It occasionally happens, however, that the half vertebra is in excess of the proper number. Thus in a case Rokitanski records in his "Pathological Anatomy" (vol. iii., p. 230) there were four half vertebræ, with their half arches and processes, too many. They were so placed on the two sides as to compensate one another, and cause four curves in the spine, two in the dorsal, one in the dorso-lumbar region, and the fourth involved the sacrum. This case, in conjunction with examples of supernumerary vertebræ occurring in the lumbar and sacral series, can only be explained satisfactorily by the hypothesis that during development mesoblastic somites become suppressed, which in the ancestors of man assumed a functional condition. Every human anatomist of moderate experience knows full well that the coccyx may consist of three, four, or five segments. That among mammals the caudal vertebræ may vary from three in the tailless monkey Inuus to as many as forty-six in Manis longicauda. If it is true that mesoblastic somites are suppressed in other parts of the column, but occasionally attain complete development, we ought to have them reappearing in the caudal series.

When we remember that some sharks and serpents may possess the prodigious number of three hundred vertebræ whilst man has only thirty-one, it necessarily follows that a great many segments of the spinal column have undergone suppression. This is still more marked when we compare the vertebral column of a frog with that of a fish, for the frog's spine is normally composed of only nine vertebræ, this being an unusually small number when compared with vertebrata in general. This fact alone would suggest that supernumerary vertebræ ought to occur in frogs. Bourne[3] has recorded a case in which a spine of Rana temporaria was composed of ten vertebræ, and Howes[4] has also described a similar specimen, which agreed in its main details with Bourne's case; in each the supernumerary vertebra was in the sacral region.

FIG. 5.



A half vertebra, from the spine of man. (After Reid.)

The notion of tailed men is usually treated with ridicule because on careful examination the supposed cases have turned out to be lipomata, spina bifida, or coccygeal tumours. But human fœtuses with tails are certainly met with. A careful examination and description of such a case is given by Gerlach;[5] in this case the tail not only contained striated muscle fibre, but notochord.

To return to the question of half vertebra. Professor Albrecht[6] has reported an anomaly of this character which occurred in a python (Python sebæ). The skeleton consisted of 333 vertebræ, but interpolated between the 195th and

[1] The Human Skeleton, p. 123.
[2] Journal of Anatomy and Physiology, vol. ix., p. 9.
[3] Quarterly Journal of Microscopical Science, vol. xxiv., 1884: On certain Abnormalities of the Common Frog.
[4] Anatomischer Anzeiger, Nu. 11, 1886: On some Abnormalities of the Frog's Vertebral Column.
[5] Ein Fall von Schwanzbildung bei einem menschlichen Embryo. Morp. Jahr., Bd. vi., s. 106. 1880.
[6] Bulletin du Musée Royal d'Histoire Naturelle de Belgique, tom. xi., 1883.

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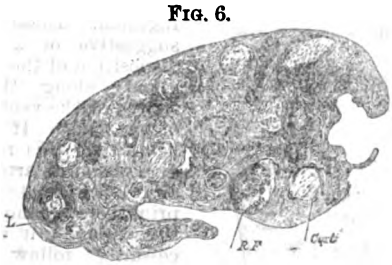
196th segment on the left side was an additional half vertebra. That in the normal course of events the vertebral centra are developed from a single nucleus is beyond all doubt; the parts have been carefully investigated by many observers: I have spent many hours in vainly hunting for two nuclei. It is equally certain that under exceptional circumstances two centres may be deposited and remain independent, as is the ordinary method in the ossification of the odontoid process of the axis. We must also remember that Müller detected two nuclei in the sacral vertebræ of birds.[7] Cope[8] has recorded the following interesting observation, that in an extinct batrachian found in the Permian formation of Texas the vertebral bodies are composed of two lateral pieces. The skeleton belonged to the order Ganocephala, and was named Eryops megalocephala. Between each vertebra a large intercentrum was developed, and the centrum of each vertebra consisted of two lateral pieces or pleurocentra. A similar condition of things existed in other strange forms belonging to this order. Thus there is good reason to believe that in the bilateral nuclei for the odontoid bone we have an instance of the retention of a primitive character, whilst in the occasional existence of a half vertebra, either in excess or diminution, or accompanied by disturbance in the normal ossification of the column, we have to deal with atavistic phenomena.

The conclusions which may be legitimately drawn from the foregoing facts may be summed up in a few brief statements:—1. During development the human embryo possesses more mesoblastic somites than are utilised in the formation of the permanent vertebral column. 2. At least one undergoes suppression in the cervical and lumbar region respectively, and probably many in the caudal segment of the column. 3. Occasionally one, or half of one somite, usually suppressed, may persist, and give rise to a supernumerary vertebra or half vertebra; or the suppression may extend beyond its usual limits, and the total number of segments in the column be fewer than usual. The diminution may affect only one half of a vertebra. 4. Under exceptional circumstances a vertebral centrum may arise from two distinct centres of ossification; this must be regarded as indicating the reappearance of an ancestral character. The study of the evolution of the spinal column teems with illustrations of the two laws—namely, those of *suppression* and *coalescence*.

Parasitic Fœtuses.—These may vary from a shapeless mass of varying proportions to a more or less fully formed individual attached to a perfect child. They are most common in the sacral region, and they may occur on any vertebrate from fish to man. A careful consideration of preserved specimens, as well as actual observations on the eggs of fish and amphibia tend to show that from a single ovum two embryos may be produced. This conclusion is supported by the following facts: 1. There is a continuous series of forms from one extreme of duplicity to the other. 2. Each embryo in a double monstrosity is smaller as a rule, but never larger than a normal single fœtus. If the duplicity were the result of the fusion of two ova, this condition would not be so constant. 3. Double monsters are invariably of the same sex. These facts render it probable that when twins occur of the same sex they are the products of a single ovum. Parasitic fœtuses and supernumerary limbs in the sacral region may be regarded as suppressed embryos, the autosite and parasite originating from one ovum.

We must now consider some points in the history of the mammalian ovary of considerable importance. The fecundity of fish is proverbial; it has been estimated that the roe of a cod-fish contains 9,344,000 ova. From various obvious intrinsic and extrinsic causes only a fraction of this number attain an adult condition, and in the same way only a small fraction of those actually hatched come to maturity. Of the very large number of eggs deposited by frogs only a small proportion of the tadpoles resulting therefrom attain an adult condition. The same is equally true of birds. Thus a bird which produces ten pairs of young during its lifetime (and this is far below the fertility of many birds) will, if we take its life at five years, increase to a hundred millions in about forty years. (Wallace.) Yet only a small proportion of the ova become mature. What is true of fish, batrachians, and birds is equally true of mammals, including man. Waldeyer has computed that the ovaries of a fœtus contain at birth no fewer than 300,000 ova. This is an exceedingly high estimate, and a very large margin must be allowed for portions of the same ovum appearing in two or more sections. Be this as it may, it is certain that if a section of the ovary of a fœtus be compared with one taken from a girl at puberty, diminution in the number of the ova is a most striking feature. This can only be accounted for in two ways: either many of them are suppressed without advancing beyond the fœtal stage, or they ripen and undergo retrogressive changes. As a matter of fact, the ripening of ova, the formation of Graaffian follicles and corpora lutea, commences very early, even at the seventh month of fœtal life. It appears that this fact was known to Valisneri in 1733; but attention was turned to this question in consequence of the writings of Carus (1837) and Ritchie (1842).[9] Several investigators have turned their attention to the subject, among whom may be mentioned Waldeyer, Beigel, De Sinéty, and Balfour. The researches of Beigel are especially interesting; for he shows most conclusively that the ova not only ripen in fœtal ovaries, but the follicles undergo retrogressive changes and form corpora lutea. I have examined systematically a very large number of fœtal ovaries, and am able to confirm the statement that the follicles enlarge, the ova ripen, and then undergo suppression. It must be borne in mind that few of these early ova are really shed into the peritoneal cavity, as occurs at and after puberty. The various changes are represented in Fig. 6. This ripening and suppression of ova is not confined to fœtal life or the period immediately succeeding birth; it goes on continuously, but at a diminished rate, from its commencement to puberty, as I have assured myself by examining ovaries of children at all ages between these two extremes. Ova shed in the interval between birth and puberty are not to be regarded as abortive, for there are instances, fortunately rare, in which girls have been impregnated at the age of ten.

FIG. 6.



Section of an ovary of a human fœtus at the ninth month. R F, Ovum in its follicle. C L, Corpus luteum. Cyst.

Having satisfied my mind beyond all doubt that this remarkable suppression of ova occurs in the human fœtus as a normal process and not an occasional event, I secured the ovary from the fœtuses of mammals as widely different as a monkey and a kangaroo, a lemur and a sloth, a Japanese deer and a cat. The species selected were the bonnet monkey (Macacus sinicus), the great kangaroo (Macropus major), the ring-tailed lemur (Lemur catta), and a deer (Cervus sika), besides other immature forms. In all these cases the ovaries exhibited follicles in every stage of development, growth, and suppression. If this process goes on in the ovaries of mammals as widely different as the species named in the above list, there can be little doubt that it is general throughout the mammalian series, and there are good reasons to believe that the process occurs in animals outside the mammalian circle. The only explanation to be offered concerning this phenomenon seems to be this: Mammals are to be regarded as derivatives from amphibian forms, which in their turn had a piscine ancestry. In order to maintain themselves in due proportion they must bring forth a large number of offspring, so as to guard against the wholesale destruction of their young by their natural enemies. The higher mammals are in a very large measure exempt from this danger, and the necessity for such extraordinary fecundity as the Ichthyopsida manifest is averted. Nevertheless, by virtue of the law of inheritance the ovary possesses an enormous number of ova. Although mammals are thus spared the trouble of bringing such large numbers of young into the world, the suppression of ova acts as an intrinsic source of danger,

[7] Johannes Müller.

[8] Proc. American Philosoph. Soc., vol. xix., p. 51, 1880-82.

[9] Tait: Diseases of the Ovary.

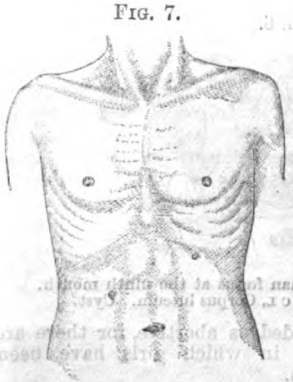
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for these unused follicles become in some instances the source of ovarian cysts, not in the human female only, but in the individual species throughout the subkingdom mammalia. It serves as an excellent instance of the application of evolution to pathology. Further evidence regarding the fecundity of the progenitors of the human species is furnished by organs other than the ovaries.

If I were asked by a student to furnish him with a single character, selected from the arterial system of mammals, which could be relied upon as a distinguishing feature in their anatomy, I should certainly choose the internal mammary and deep epigastric arteries. These remarkable vessels form a double line of communication situated on each side of the median line of the abdomen, and serve to connect the subclavian and iliac systems. The parallel offered by two main arterial stems coursing along the ventral aspect of the trunk seems to correspond so closely with the two main stems of the primitive aortæ that a morphological explanation of this character seemed irresistible. Prolonged medication and continued observation directed to this question have at length served to convince me that these arteries have some relation with the original disposition of the mammary glands. In man and many quadrumana among the higher Eutheria, and in Sirenia (manatee and dugong) among the lower, the mammæ are situated on the thorax. In the cow, mare, ass, and the like the mammæ occupy an inguinal position. The insectivorous Eutheria, as in so many other characters, hold an intermediate place in this respect, for the teats extend from the pectoral to the abdominal region. In the bats the mammæ may occupy, as in Pteropus, the axillæ; this is also the case in Galeopithecus; whilst in some lemurs these glands are placed on the arms. These last-mentioned situations are altogether exceptional; the most common regions are the pectoral, abdominal, and inguinal. These facts are suggestive of a primitive disposition of the mammary glands along the whole length of the ventral aspect of the trunk. If it be probable that this remarkable disposition of arteries is in any way related to the primitive arrangement of these glands, it would necessarily follow that in cases where the suppressed mammæ reappeared as supernumerary organs they ought most frequently to occur in relation with these vessels. This is exactly what happens. Supernumerary nipples and mammæ are by no means rare, for one observer, Dr. J. Mitchell Bruce, in a careful and valuable paper,[10] has considered sixty-five cases which came under his observation in three years. This observer informs us that out of 207 men examined in succession 9·11 per cent. presented a supernumerary nipple, and of 104 women 4·807 per cent. In the majority of cases the additional nipple was single, and without exception situated on the front of the trunk below and within the ordinary nipple, and more frequently on the left than on the right side. In more than one instance the anterior abdominal wall was the seat of the abnormality (Fig. 7). Until the appearance of Professor Leichtenstern's oft-quoted paper[11] supernumerary mammæ were believed to be extremely rare, and it is to this writer that the credit is due of exposing the fallacy. I am unaware of any observer who has personally examined sixty-five and eleven additional cases, except Dr. Mitchell Bruce; Leichtenstern's total was made up of thirteen cases noticed by himself and ninety-two recorded by others. These records clearly show that supernumerary nipples in nearly all cases follow closely the line of the internal mammary and deep epigastric arteries. The occurrence of nipples in male mammals is capable of easy explanation. Darwin was of this opinion: "If we suppose that during a former prolonged period male animals aided the females in nursing their offspring, and that afterwards from some cause (as from the production of a smaller number of young) the males ceased to give this aid, disuse of the organs during maturity would lead to their becoming inactive."[12] This view is very plausible and possible, but it is equally probable that, as every mammal at one period of embryonic life is hermaphroditic, the mammæ persist as remnants of that condition; in the same way the functional parovarian in the female represents the efferent ducts of the male gland. The fact that supernumerary mammæ occur twice as frequently in the male as in the female is to be accounted for on the principle of correlation. The female mammæ are functional, and require more blood-supply; this leads to dwarfing of the adjoining glands. The contrary of this pertains in the male. Our knowledge of accessory nipples and glands has been considerably increased since Darwin considered the matter, for, having regard to the very rare and in some instances questionable cases of supernumerary mammæ on the thigh and back, he thought that they weakened the probability of reversion. This did not prevent him ending the discussion in this way: "On the whole, we may well doubt if additional mammæ would ever have been developed in both sexes of mankind had not his early progenitors been provided with more than a single pair." No one can examine the evidence since accumulated without agreeing with this view; hence accessory mammæ must be regarded as atavistic structures in a true sense, and their occurrence is not confined to men, for they are not infrequently seen in other mammals, especially cows. The very valuable inquiry conducted by Dr. Champneys,[13] "On the Development of Mammary Functions by the Skin of Lying-in Women," adds a new interest to the matter, for it seems to prove that supernumerary mammæ without nipples may lie hidden under the skin of the axilla, and become active when stimulated by the increased function of the normal mammæ at the termination of pregnancy. Thus, the only conclusion one can arrive at from these facts is that the suppression of ova in fœtal ovaries and the very frequent occurrence of supernumerary mammæ and nipples are indicative of an ancestry from forms which not only produced a greater number of offspring, but in whom the males assisted in giving suck to the young.

It is impossible to reflect upon the preceding facts without feeling convinced of the truth of Bacon's remark: "No natural phenomenon can be studied in itself alone, but to be understood must be considered as it stands connected with all nature."

FIG. 7.



A supernumerary nipple situated on the abdominal wall of a boy.

[10] Journal of Anatomy and Physiology, vol. xii., p. 425.
[11] Virchow's Archiv, Bd. lxxiii.

DISEASE IN THE PUNJAB.

BY SIR JOSEPH FAYRER, M.D., F.R.S., K.C.S.I.

IN the annual report on the sanitary administration of that part of Northern India included in the Government of the Punjab for 1885, there are facts recorded which it may be interesting to notice.

The population, according to the last census, is 17,514,978. The deaths from all causes among these were as follows:—

		Per 1000.
Cholera	1,936	0·10
Small-pox	7,575	0·40
Fevers	346,763	18·40
Bowel complaints...	17,711	0·94
Injuries	127,606	6·77
All causes	507,140	26·90

This return shows how relatively small a part cholera plays during some years in the mortality of the population, but how very grave and important a death cause is found in climatic fevers—a subject which stands much in need of further investigation.

There are two items among the death causes which are of special interest, and therefore worthy of attention. Under the head of injuries, which gives 127,606 deaths, there are recorded 852 from snake-bite, 146 from hydrophobia, and 17 from wild beasts—the latter item being small indeed compared with the same returns from other parts of India. The deaths from snake-bite are doubtless due to Naja tripudians, or the cobra; Bungarus cœruleus, or krait; and Echis carinata, or small (carpet) viper; and must, one supposes, be considered as inevitable, albeit it is difficult not to consider them as among those deaths which should be regarded as preventable. The hydrophobia cases, which

[12] Descent of Man. [13] Med.-Chir. Trans., vol. lxix., p. 419

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seem to be on the increase, certainly suggest a similar idea; and also that here would be an excellent opportunity of testing Pasteur's method of treatment—a suggestion which may perchance be deemed not unworthy of adoption by some of our medical officers in the Punjab.

The following details are taken from the report cited; one of the last, it is to be feared, which will be drawn up by Brigade-Surgeon Bellew, C.S.I., whose retirement deprives India of one of her most distinguished sanitary officers:—

"The total deaths registered under the head of 'snake-bite' were 852, against 900 in the previous year. In the following districts the number of deaths due to snake-bite was larger than in the rest of the districts in the province: Lahore, 67; Mooltan, 61; Gujranwala, 58; Jhelum, 51; Muzaffargarh, 49; Kangra, 48; Thaug, 45; Montgomery, 42; Karnal, 41. It appears from the returns for the previous years that in these districts deaths from snake-bite are always more numerous than in the other parts of the province.

"The deaths from 'hydrophobia' have of late years very considerably increased, as will be seen from the subjoined table:—

1885	146	1881	139
1884	158	1880	107
1883	117	1879	69
1882	128		

Of the 146 deaths registered during the year under review, 20 occurred in Hoshiarpur, 19 in Lahore, 18 in Amritsar, 8 in Mooltan, 7 in each of the districts of Hissar, Ludhiana, Gurdaspur, Montgomery, and Sialkot.

"Five deaths were caused by scorpion sting—viz, 4 in Peshawar and 1 in Mooltan.

"The number of persons killed by wild beasts was as follows:—Carried away by wolves, 3; by jackals, 7; torn by a leopard, 1; by boar, 1; by bears, 3; killed by crocodiles, 2. There are comparatively few tigers in this part of India.

"The deaths registered under the head of 'other causes' were 127,604. Of this number 27,390 were due to chest diseases."

The above shows what an ample field exists for the study of disease in India, and what large opportunities our young medical officers may enjoy of prosecuting their studies in pathology, epidemiology, and hygiene in all its branches. The subject of fevers especially needs elucidation, and should be studied in a spirit of independence as regards preconceived notions of fever etiology.

Wimpole-street, W.

SOME CONSIDERATIONS IN REGARD TO THE CAUSATION OF SEX.

BY A. J. WALL, M.D. LOND.,
H.M. INDIAN ARMY.

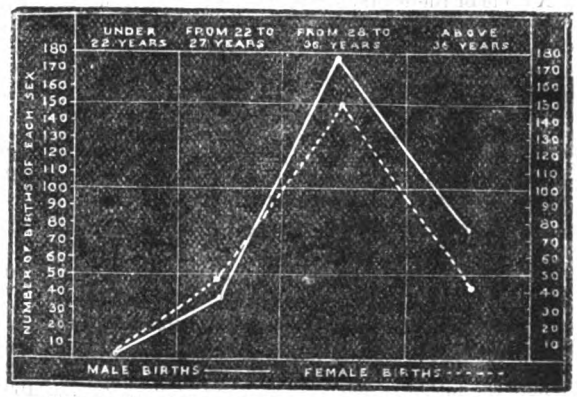
(Concluded from page 263.)

IN the cases of the fathers and mothers that have been taken it will be observed that each has been treated without reference to the other. The influence of the age of the mother has been considered without regarding the age of the father, and *vice versâ*. But though this is so, yet, as these were families whose parents married under the ordinary conditions and rules of society, it is clear that a very large proportion of the fathers were a few years older than the mother, and therefore these families must have a preponderating influence. In fact, in these statistics the age of the father was on the average 6·6 years greater than that of the mother in the whole 1200 families. But if we take the proportions obtained from all these families and contrast them with those we shall obtain by selecting families in which wide differences existed between the ages of the fathers and mothers, we shall then be in a position to see what results are due to these great differences of age.

There are in these tables 111 families in which the father was considerably younger than the mother, the differences being from nine months to ten years. In these families there were 546 children, 297 males and 249 females, or 119·2 males to 100 females, being a great excess of males over the mean proportion of 107·4 to 100. If we divide these births into periods according to the age of the mothers we obtain the following results:—In the period of immaturity only two children were born, one of each sex, showing that when the father is younger than the mother, the mother as a rule marries somewhat late in life. In the period from twenty-two to twenty-eight years there were 86 births, 39 males and 47 females, or only 82·9 males to 100 females, against 98·3 males to 100 females, which was the proportion for the whole of the families, showing again how incapable the immature male is of imprinting his sex on the offspring when the female is at her prime. From the twenty-eighth to the thirty-sixth year inclusive of the mother, 179 males

CHART 3.

Ages of Mothers.



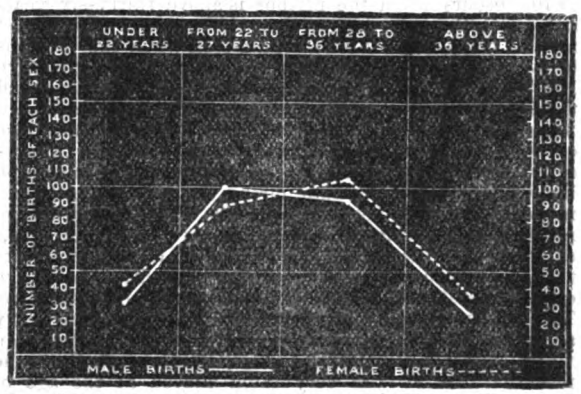
Showing the number of male and female births at different periods of the ages of the mothers in families in which the father was younger than the mother.

were born to 156 females, or 114·7 males to 100 females, or an excess of male births over the 111·6 males to 100 females occurring in all families taken together; whereas in the last period of decline of the power of the mother there were 78 males to only 45 females, or 173·3 males to 100 females, an enormous excess of males over the proportion obtained for this period at all ages of 114·2 males to 100 females. Chart 3 shows those varying proportions.

Now let us contrast this with a series of families as widely different as possible—that is, where the father is much older than the mother. In 111 fertile families in these tables the

CHART 4.

Ages of Mothers.



Showing the number of male and female births at different periods of the ages of the mothers in families in which the father was more than fifteen years older than the mother.

father was older than the mother by more than fifteen years, the excess varying from fifteen years to forty-nine years. In these families there were 519 children, 255 being males and 264 being females, or only 96·5 males to 100 females, being actually an excess of females at all the ages of the mother taken together. During the period of immaturity of the mother there were 34 males born to 39 females, or 87 males to 100 females, or an excess of females. In the period from twenty-two to twenty-seven years 100 males were born to 91 females, or 109·8 males to 100 females, or an

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excess of males. From twenty-eight to thirty-six years inclusive, 97 males were born to 103 females, or only 94 males to 100 females; whereas in the last, or declining period of life 24 males were born to 31 females, or only 77·4 males to 100 females, contrasting markedly with the proportion of 114·2 males to 100 females obtained for this period from families at all ages of the fathers, and still more strongly with the proportion of 173·3 males to 100 females obtained for the same period in families where the father was younger than the mother. Chart 4 shows the results obtained from these families, and, as it is drawn on the same scale as Chart 3, it illustrates also the relative fertility of these families, differing only in the age of the father, and shows how comparatively infertile families are when the father is aged.

A table of these varying results will enable us better to study the relation between these differences.

NUMBER OF MALES BORN TO 100 FEMALES UNDER VARYING CIRCUMSTANCES AS TO THE AGE OF THE PARENTS.

A. *At all ages of the mothers.*	
All births	107·4
Where the father is younger than the mother	119·2
Where the father is much older than the mother ...	96·5
B. *Mothers below twenty-two years of age.*	
All births in this period	114·9
Where the father is younger than the mother	100·0
Where the father is much older than the mother ...	87·0
C. *Mothers from twenty-two to twenty-seven years.*	
All births at this period	98·3
Where the father is younger than the mother	82·9
Where the father is much older than the mother ...	109·8
D. *Mothers from twenty-eight to thirty-six years.*	
All births at this period	111·6
Where the father is younger than the mother	114·7
Where the father is much older than the mother ...	94·0
E. *Mothers above thirty-six years.*	
All births at this period	114·2
Where the father is younger than the mother	173·3
Where the father is much older than the mother ...	77·4
F. *At varying ages of the fathers.*	
Where the fathers are below twenty-two years of age	71·0
Fathers between twenty-two and thirty-six years ...	109·5
Fathers from thirty-seven to forty-eight years ...	107·1
Fathers above forty-eight years	92·4

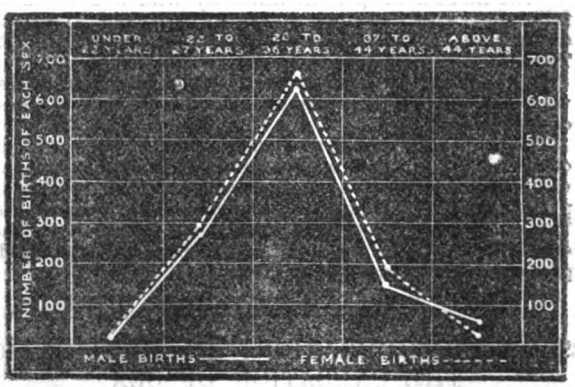
These figures speak for the most part sufficiently clearly for themselves. Thus the highest rate of male births (173·3 to 100) occurs when the mother is above thirty-six years and the father is younger than the mother. The lowest rate of male births (71 to 100) is seen when the father is below twenty-two years of age, and the next lowest (77·4 to 100) when the mother is above thirty-six years of age and the father is more than fifteen years older than the mother. A great excess of females (82·9 males to 100 females) also occurs when the mother is between twenty-two and twenty-seven years and the father is younger. It has long been known that in illegitimate births the females are more numerous than in legitimate births, and Darwin, whose notice nothing seemed to escape, in his "Descent of Man," suggests that the excess may be due to the want of care that these mothers experience during parturition, leading to excessive deaths amongst the males from their greater size. This table renders it probable that the excess may be partly accounted for by the mother being frequently at the age in which excess of females is to be expected, and partly to the fact that the male is very often indeed at the age of immaturity, an explanation to a certain extent to the credit of humanity.

But there is one portion of this table that requires notice. In all the births between twenty-two and twenty-seven years of age of the mother, the male birth-rate is 98·3 to 100 females. But when the father is younger than the mother, the male birth-rate sinks to 82·9 males to 100 females; whereas when at the same age of the mother the father is more than fifteen years older than the mother, the male birth-rate, instead of sinking further, rises to 109·8 males, contrary to all expectation. We must therefore submit the 2275 births taking place at this period of the mother's age to a more minute analysis, to which they are well entitled, as they represent nearly one-third of the entire number of births.

In the first place, the greatest proportion of female births obtains in the twenty-second and twenty-third years of the mother's age, when the proportion is 87·9 males to 100 females. In regard to the age of the father, the greatest proportion of male births for this period of the mother's age is when the father is between twenty-two and twenty-seven years. When at this period of twenty-two and twenty-seven years of the mother's age the father is younger than the mother, but only by a few months, there are only 78·3 males born to 100 females; but when the father and mother are as nearly as possible equal in age, the difference not exceeding six months either way, the proportion of males rises to 145·7 to 100 females. But when the father is older than the mother, but neither of them exceeding twenty-seven years, the male birth-rate drops to 96·2 to 100 females. Thus, we see that when the father and mother are both at their prime, the influence of the male parent in imprinting sex on the offspring is stronger than that of the mother; but let the father be even a little beyond the prime, or a little below it, and the mother is far more powerful. When the father is between twenty-eight and thirty-six years, the mother's age still being between twenty-two and twenty-seven, the birth-rate is 98·7 males to 100 females; and when the father's age rises to between thirty-seven and forty-eight years, the male birth-rate drops to 95·4 to 100 females. But after this a great change occurs, for when the father is older than forty-eight, the male birth-rate, instead of dropping further, rises to 133·3 to 100 females. Is this totally unexpected rise due merely to smallness of

CHART 5.

Ages of Fathers.



Showing the number of male and female births taking place when the mothers are between twenty-two and twenty-seven years at different ages of the fathers.

numbers, or to a real preponderance of male births under these circumstances? If we increase the number by taking all births after the father has reached forty-five years, the age of the mother remaining between twenty-two and twenty-seven, we get an increased proportion of males—viz., 138·7 males to 100 females. So also when the mother is below twenty-two and the father is above forty-five the proportion is 175 males to 100 females. It seems, therefore, in the highest degree probable that when the mother is under twenty-eight and the father is very much older a considerable excess of male births occurs. This agrees with what I have observed in private families, and historical evidence points the same way: the cases of Louis XIII., our Edward VI., the offspring of both the Napoleons, and many others will occur to every reader. *The explanation may be too obvious to require mention here;* but I do not think this. It certainly cannot be due to the father having increased sexual power in his declining years, for when the father is above forty-eight, but the mother is between twenty-eight and thirty-six years, only 88·8 males are born to 100 females. It will be far more reasonable to attribute it to the very modified sexual feeling elicited in the female when the male is "out of all reasonable match," as Touchstone says, which may produce an actual inhibitory effect on the nerves of the generative system. If this be so, it would throw an additional light on the reason why in illegitimate births there should be an increased number of females, as these conditions are there reversed. Chart 5 shows the number of

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male and female births taking place when the mothers are between twenty-two and twenty-seven years at the different ages of the fathers.

The results obtained may be briefly summed up by saying that each parent while in his or her prime has the greatest power of imprinting his or her sex on the offspring. That probably the male is the most potent when the age is exactly equal. That the immature parent has very little power of doing so, the immature male being peculiarly powerless, for of all births when the fathers were below twenty-two, the proportion of male births was only 71 to 100 females. That when there is a difference in the age of the parents the sex of the offspring is most frequently that of the parent who is nearest the prime of life; but that if the male should be much older than the female, the female being in her prime, a considerable excess of male births may be expected. Thus, males are obtained with the greatest amount of certainty with females above thirty-six years of age and males distinctly younger, and the same result is obtained with old males and disproportionately young females, and also with immature females. Whereas females are greatly in excess if we take males under twenty-two years of age and females above that age, or else males above fifty-six years of age with females about fifteen years or twenty years younger.

It may be stated in addition, as a by-product of these inquiries, that in England the peers, of whom a fair proportion marry in their prime have a considerable excess of male children. The average age at marriage of fifty peers, or eldest sons of peers, that had offspring was thirty years; not one was below twenty-one years, and thirty-two were above twenty-five years. The lowest classes in England, who exercise about as much forethought in their domestic arrangements as dogs, have also apparently an excess of males. Of fifty fertile marriages of this class taken indiscriminately, the dates being verified as far as possible, twenty-three husbands were below twenty-one years of age, and only six were above twenty-five, the average age on marriage being twenty-two; the whole of the families, it is scarcely necessary to add, were in receipt of charitable relief. In the middle classes there appears to be an increased proportion of female births through the later marriage of the males. In England, with the exception of 1884, the proportion of male births, as might be expected, has been falling for many years. The cause of the rise in that year, which may not be continued, is far too obscure a subject to be speculated on here.

In regard to the exact cause of sex, the evidence here adduced is very unfavourable to the view that it depends merely upon the number of spermatozoa that penetrate the ovum. For we see that men at advanced age are even more capable than very young men of producing males. And, again, females in their prime give an excess of females with males somewhat older, but males are more common when the father is greatly older. Not to discuss the question minutely, it would seem that the vigour of the embryo-forming tissue is a more important agent than its quantity, and that this may be modified in various ways, the female element being especially liable to modification. There are not wanting, for instance, cases in the tables that seem to imply that anything that debilitates a parent renders it far less capable of imprinting its sex on the offspring. These, however, are points quite beside the present question, which is the influence of the age of the parents. But enough has been said in this relation to prove how important a factor this is, for it can change a mean proportional birth-rate of 107·4 males to 100 females, on the one hand, to 71 males to 100 females, and, on the other, to no less than 173·3.

FRENCH HOSPITAL AND DISPENSARY.—The nineteenth annual dinner in aid of the funds of this charity took place on the 5th inst., Comte d'Aubigny in the chair. Opened in 1867 and enlarged in 1878, it has afforded relief to 4386 in-patients and to 100,175 out-patients, drawn from 24 nationalities, so that, although French in name, the charity is cosmopolitan in character. During the evening subscriptions amounting to about £2000 were announced.

THE governors of the Bedford Infirmary having determined to purchase the fields contiguous to the building from the Duke of Bedford's trustees for £3350, an intimation has been received from his Grace of his intention to contribute £1000 towards the purchase-money, and a like donation has been promised by Mr. Whitbread, M.P.

MINIMA VISIBILIA AND SENSORY CIRCLES.

BY THE LATE BRIGADE SURGEON T. OUGHTON,
ARMY MEDICAL DEPARTMENT.

HARRIS found that a black square on a white card, the side measuring $\frac{1}{70}$ in., is distinguishable as a mere speck at the distance of 40 ft. from an emmetropic eye, whilst the square is not perfectly defined in colour at a further distance than 7 ft.; he found also that these distances corresponded to visual angles of 44″ and 4′5″ respectively. Ernst Weber 's experiments on the skin elaborate a result that a circular metallic tube, the diameter measuring $\frac{1}{2}$ in., is felt as a single point when pressed against the palm of the hand, whilst its shape may be perceived with its diameter exceeding $\frac{1}{2}$ in. (sensory circle of the palm). Hence two varieties of minimal perception may be recognised—viz., points and areas (minimum visibile vel tactile et punctorum et extensionum vel formarum). Our present subject will deal with the proposition that all minima are of a secondary nature, defining and being defined by a limitation in the acuity of muscle-perception. That there is such a limitation in the apperception of visual angles is exemplified in the judgment of apparent distance being liable to error in the retina of actual objective distance, as well as in apparent relievo being less marked in a like ratio (minimum motorium). One strong argument consists in bracketing together the non-existence of minima auditoria vel objectoria with the absence of suitable motorial appendages to these senses; so by analogy physiology would probably supply no basis for dogmas on the present subject were there wanting the groundwork of a visual or tactile muscular diagnosis. Then, again, the phenomena of minima visibilia and sensory circles are so harmonious in two very diverse sensations that nothing short of a common causation can adequately solve the harmony; neither are discrepancies in these phenomena, where any exist, explicable on terms other than those of the proposition under consideration. Finally, by coupling the facts that visual angles are of muscular origin, whilst the minima of vision have been resolved into such angles by Harris ("Treatise on Vision"), the proposition as regards vision seems to be adequately verified.

Let us examine a series of ascertained data so as to institute a comparison between their solution by the hitherto prevalent and the present doctrine, simply premising that the former tenet has been constructed on the view that all sentient points exercise their directional and positional powers by an inherent faculty of primary sense—thus: "The skin is the criterion of locality" (Todd and Bowman). ..... "The simple sense-impressions of the optic nerve are colour, intensity, and direction" (Le Conte). As regards the skin, there is no cutaneous point that we can prick without producing pain; as regards the retina, a star is distinctly visible and without apparent magnitude, even though it be magnified 5000 diameters. From these data we are committed, by the former dogma, to a conclusion that each minimum punctorum corresponds with the brain by a distinct and duly insulated nerve-fibril. Dr. Young has calculated that 10,000,000 of nerve-fibrillæ pass through the contracted orifice of the sclerotic tissue, and as many are possibly transmitted by each sensory nerve. Now, such a minute subdivision into nervelets is entirely superfluous, according to our proposition. To all intents and purposes, both skin and retina may be regarded as sentient expansions or superficies, whose every minimal point is subject to a muscular surveillance. This conclusion seems to be warranted by any limit to the minuteness of visibility, with sufficient luminous intensity, having been disputed by some metaphysicians; and, additionally, by stars of the smallest magnitude being seen under the comparatively greater visual angle of 44″, whilst the smallest tactile impression is referred to the entire area of its correspondent sensory circle, equalling in apparent size the impact of numerous sentient impressions on the same area. It has been surmised, with a view of covering these peculiarities, that each visual minimum of 44″ corresponds to a single cone of the bacillar layer, so that an identical excitation is effected by the incidence of purer or more luminous raylets; but a serious objection consists in the surmise being inapplicable to the case of sensory circles—namely, that their numerous ultimate fibrils coalesce into a single sensory fibre. For, granting

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this to be so, two cutaneous points in adjacent sensory circles of ½ in. diameter would be apparently duplicate with an interval between them of only ½ in., which is not the case. Sensory circles, therefore, are mere metaphysical abstractions in the above respect, and the inextricable blending or interlacement of their impressions points only to a common muscular influence.

Then, each retinal cone must be subdivided into at least three terminal fibrils in order to explain intelligibly the perception of colours (Young, Helmholtz, &c.); there must be a blue, yellow, and red, or a red, green, and violet fibril (primary colours), whilst the function of the entire cone naturally combines these minimal colours for a sensation of minimal whiteness. I must protest against the coinage of a minute anatomy in this perfunctory manner; both matter and organisation are pliable commodities, but I think hypothesis must be stretched here. Quite sufficient difference exists in the intrinsic nature of coloured lights to explain adequately a variety of correspondent coloured perceptions without resorting to variations in nervous mechanism; neither should it be forgotten that the province of nerve organisation is to interpret rather than to modify nature, for of a truth (others notwithstanding) there is a latency in the cerebral constitution of every natural imponderable that may be transmitted thereto by natural channels. Far be it from me, nevertheless, to deny that the minimum visibile of 44″ is much concerned in the several phenomena of colouration, colour-blindness, &c. And, apart from colouration, transparencies teach us thus much about their construction—that their molecular particles fall extremely short of the minimum visibile.

Based on the evidence of apparent extension (minimum formarum) is the doctrine of the cerebral realisation of sensational points, indicating a similar mechanical deportment of nervous structures. Impressions on two adjoining minimal areas, retinal or cutaneous, give rise to the mental impression of contact, and the excitation of several contiguous areas effects an idea of coherence or extension; such experiences could not obtain, according to the above dogma, excepting on the inference that the termination of afferent fibrillæ in the brain is a precise facsimile of their origin. Bernstein says, "The representation of the surface of the body is imprinted upon our brain," so that by experience or practice (which may signify a constant repetition of primary perceptions) the brain is capable of determining any points of the skin's surface that may be touched.[1] Professor R. S. Wyld writes: "In vision there is mapped out in the sensorium a true representation, though on a different scale, of the forms, motions, and relative sizes of external objects as they exist on the retina"; [2] and he has submitted a diagram, explanatory of single and double vision, in which each retinal image is actually reproduced in the corpus quadrigeminum.[3] But, on the contrary, the idea (perception) of space or extension is as different from that of body (the sense of contact) as it is from that of a scarlet colour; it is true that a scarlet colour, like body, must have extension, but the two ideas are distinct (Locke). Moreover, since the idea of solid form (relievo) is contained by surfaces, and has been proved to be a secondary perception elsewhere, the idea of superficial extension must also be of a secondary nature. Wherefore the present proposition renders the anatomical identity of relation between the proximal and distal extremities of an afferent nerve another redundant additamentum to minute anatomy.

Nevertheless, in further elucidation of the subject, the contiguity of sentient impressions on peripheral nervous expansions is clearly a *sine quâ non* in the constitution of an idea of extension; retinal images or sensory impressions must be arranged *in ordine* for the generation of the mental idea of coherence, although we deny their reception *in ordine* by the brain through the channels of primary perception. This will be obvious on reflection that the directional influence of a voluntary muscle upon neighbouring impressional areas varies by a regulated increment, according to their regular positional relation to the dynamic centre of secondary perception. It is maintained that all ideas of extension, whether definite or infinite, may be ultimately resolved into the appreciated movements occurring in exarthrodial and diarthrodial articulations in the tactile sense, or into unfettered ocular rotations in the case of vision; and, further, the coherence of extension is comprehended ultimately by a duly perceived aggregation of what we may designate a minima motoria.

(To be concluded.)

[1] Five Senses of Man, p. 37. 1876.
[2] Physics and Philosophy of the Senses, p. 465. 1876.
[3] Ibid., fig. 40, p. 224.

ABDOMINAL SECTION FOR PELVIC SUPPURATION.

BY WM. ALEX. MACKAY, M.B., C.M.

INES D——, aged twenty-four years, gives the following history. She has been married for four years and a half, and has given birth to three children. Two days after the birth of her last child she felt a severe pain in the region of the left ovary. Since then—that is, during the last six months—she has never been free from pain and feverishness. The menses have been completely suppressed throughout her illness; no treatment has given any relief; she has been losing flesh rapidly, and feels weaker every day.

When seen the patient presented a most emaciated appearance. On examination, a hard tumour fixed and painful to the touch, could be felt in the left iliac region, filling it up and extending nearly to the middle line forward, and up to the umbilicus. Per vaginam, a rounded mass, painful to the touch, was felt to the left of the uterus, and extending round behind it. Womb fixed; cervix hard. Bimanually, indistinct fluctuation was felt in the tumour, but there was no indication of its pointing anywhere. The patient bore this examination very badly, and was very hopeless of her condition. She was put on extract of malt and allowed to rest for a week, as she had come a long diligence journey. During the week her temperature was always above normal, and her pulse between 110 and 120. Urine free from albumen and normal in quantity. Heart and other organs healthy. Motions fairly regular, and presenting nothing of note.

A second examination of the tumour revealed nothing new, and on April 29th, 1884, the following operation was performed. I opened the abdomen in the middle line, beginning about midway between the umbilicus and the pubes; the incision was carried down two inches. On opening the peritoneum, the index-finger came immediately upon the uterus and roof of the pelvis, which was raised up so as to lie against the anterior abdominal wall, but was not adherent. The uterus was quite immovable, and fixed to a large swelling, which lay behind it and surrounded its left side. Deep fluctuation could be felt at a point about an inch behind and half an inch to the left of the left cornu of the uterus. The incision was enlarged upwards to get at this point, which with the whole pelvic roof was raised to within an inch of the umbilicus. With considerable difficulty a Wells' trocar was here pushed into the tumour, a sponge having been first placed immediately behind the intended opening. About fourteen ounces of pale-yellow pus immediately ran out through the tube. On withdrawing the trocar, a little blood and pus followed, and was caught up by the sponge. On introducing the index finger into the abscess cavity, it became apparent that the trocar had traversed quite one inch and a half of indurated tissue before it entered the cavity. After clearing away the blood and cleansing the abdomen with warm sponges, the opening into the abscess was secured by a continuous suture to the abdominal wall at the upper part of the incision. This was the most difficult part of the operation. It was a belaying down of the abdominal wall to the wall of the abscess, the latter being immovable. The rest of the abdominal incision being closed with silk sutures, a drainage-tube was passed into the abscess cavity and an iodoform dressing applied, with strips of plaster and a flannel binder. The anæsthetic employed was a mixture of chloroform and ether. A good deal of vomiting followed the operation, lasting till the evening of the next day.

April 30th: Temperature normal; pulse 104. Wound dressed. Ordered a little brandy in warm water for vomiting. —May 1st: Temperature normal; pulse 88. Had a good motion. Complains of slight pain throughout the abdomen. Wound dressed.—2nd: Temperature normal; pulse 90. Wound dressed. Discharge passes freely into the dressings around the tube.—3rd: Temperature normal; pulse 114. Patient feels very well, and has a good appetite. Wound dressed. Pus of a dark-red colour.—4th: Temperature

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normal; pulse 100. Wound dressed. Pus smelling peculiarly.—5th: Temperature normal; pulse 100. Wound dressed. It is now evident that there is a communication between the intestine and the abscess cavity, as the discharge is mixed with fæces.—6th: Temperature normal; pulse 112. Patient excited and frightened, because she has felt while straining at stool that a good deal of fæcal matter comes by a tube and none by the anus. Wound dressed.—7th: Temperature 99·5°; pulse 114. The patient feels very well, and is not alarmed, as she has passed three motions by the anus and very little by the wound. Since the first passage of the fæcal matter by the tube the abdominal wound is carefully protected by an arrangement of mackintosh and adhesive plaster, and the attendant constantly renews the dressing around the mouth of the tube; also the abscess cavity is frequently syringed out with carbolic lotion.—12th: Temperature and pulse normal. Wound dressed; almost no discharge. Continuous suture removed. The abdominal incision is firmly healed. The patient eats and sleeps well.—21st: Drainage-tube removed. Cavity quite contracted. Patient sitting up in bed.

The woman went home restored to health on May 31st. Menstruation returned at the end of July and continued regular. A year after the operation I was told that the patient continued to enjoy perfect health.

Remarks.—That this case is an example of suppurating hæmatoma I think there can be little doubt; but a special interest is added by the communication, which occurred on the fourth day after operation, between the bowel and the abscess cavity. It is probable that we have here an illustration of the course of such abscesses as described by Dr. West, who says: "When suppuration takes place, the matter makes its way outwardly through the vagina or through the intestinal canal in almost all cases in which the inflammation is limited to the parts contained within the broad ligament." From the length of the illness, which lasted six months, it seems probable that the pus had begun to seek an outlet towards the bowel. On evacuating the abscess, the weakened part of the intestinal wall would yield towards the cavity, and finally give way when the patient strained at stool. No pus was at any time observed in the motions. The rapid progress toward complete recovery did not appear to be delayed by the complication which occurred.

Huelva, Spain.

CYST OF THE GREAT OMENTUM.

REMOVAL, RECOVERY.

BY J. C. GOODING, M.D.

MISS ——, in 1878, when aged eighteen years, first noticed a lump the size of a hen's egg low down in the right iliac region, which, at the monthly periods chiefly, was painful. It gradually enlarged upwards till, at the time of my first visit in August, 1879, it had attained the size of a cocoa-nut and reached two inches above and to the left of the umbilicus, and three inches below, extending back into the lumbar region. It was elastic, could be completely pushed across the abdomen to the left of the umbilicus, and pressed down to Poupart's ligament; there was most limitation to upward movement, and between it and the liver there was resonance. My first impression was that it was a renal growth, but the tumour could be moved away from the kidney without leaving any sense of void in the loin; it was freely movable in all directions, but less so from the ovarian site. The urine was healthy, and there was no constitutional disturbance. I diagnosed ovarian cyst with long pedicle. In March, 1880, the patient at my request saw Sir S. Wells, who wrote me that his impression was it was renal, but, having doubt, wished Sir W. Jenner to see the case with him, which he did a few days afterwards. The result of the consultation was that they both, "while doubting, inclined rather to the view of an ovarian tumour with a long pedicle than a renal cyst or tumour," and both agreed in advising, "in the absence of any urgent symptoms, no surgical interference."

During the summer of 1881 the patient began to suffer from sickness and occasional vomiting after meals, and a great deal of shooting and aching pain in and about the tumour. These symptoms much impaired her health; and interference, for which the patient was anxious, was determined on. The growth had now attained the size of a child's head of four years old, had equally enlarged without altering its relation to other parts, was as mobile as ever, and obviously contained fluid.

On April 27th, 1882, Mr. Cardew gave ether and Mr. C. J. Newton assisted me. When the patient was anæsthetised the tumour retreated so much under the hypochondrium that it was obviously not ovarian (a confirmation of the value of anæsthetics for abdominal diagnosis—so well known, but so seldom employed), a short incision into the peritoneal cavity, confirming this, was extended to the umbilicus, and disclosed a white cyst covered by peritoneum; this was scratched through so as to admit the finger, which was swept round, breaking down strong areolar tissue. On seizing the tumour with a vulsellum a clear fluid gushed out; then a most tedious process of separation, facilitated by holding the thin-walled cyst up against the light, was effected by scratching through dense cellular tissue, its closely fitting envelope. There was no pedicle, the tumour was embedded in folds of the omentum, having the transverse colon immediately below it. There was no hæmorrhage. The entire operation was conducted under carbolic acid spray—a practice, however, which I no longer follow.

The patient, very pallid and cold, but with fair pulse (60), was removed to bed, and after a couple of hours the extremities became warm. During the first night there was much pain referred to the left shoulder and back. For thirty-six hours there was continuous sickness. On the second day the temperature was 100° and the pulse 98-104. Barley-water and milk in small quantity were relished and retained. On the third day the temperature was natural, and the pulse 92. On the seventh day three sutures were removed, and the remainder on the tenth day; firm union had taken place. The progress to recovery continued uninterrupted, and the patient when last seen (September, 1883) was enjoying good health.

The tumour much resembled an hydatid cyst, but it was not of this nature. Its origin (obscure) might have been due to a severe blow in the abdomen sustained some months before.

Cheltenham.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. MARY'S HOSPITAL.

PARTIAL ENTEROCELE; GANGRENE; RECOVERY; REMARKS.

(Under the care of Mr. EDMUND OWEN.)

THE term here used to describe the hernia which was the cause of the symptoms in the following case is one which will probably find general acceptance. If our readers will refer to the report of the meetings at which the papers referred to (*vide infra* and page 314) were discussed, they will gain much information on the subject of this form of protrusion.

On November 30th, 1886, a spare man, aged fifty-seven years, was admitted with a strangulated femoral hernia on the left side, of the size of a large walnut. He vomited a good deal, but the ejecta had no stercoraceous odour; there was no tympanites and no hiccough, but the man was somewhat collapsed. He said that the hernia had been down generally during the past three winters, when his cough was bad, but that nearly the whole of it went away when the mild weather arrived; that there was, however, at the best of times, always a very small piece which did not go back. He said further that the hernia, in the larger mass, had been down for nearly a week, that for five days his bowels had not acted, and during that time he had been frequently sick, and in pain across the umbilicus. Without any difficulty Mr. Lloyd, the house-surgeon, returned the

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chief part of the protrusion, and then applied an ice-bag to the small piece which resisted his efforts.

Mr. Owen saw the patient some hours after his admission, and finding him free of pain and nausea, and learning that the general improvement, which set in directly after the partial reduction of the hernia, was as real as it was apparent, he decided not to cut down upon the irreducible piece, which he took to be a nodule of omentum. That decision was justified; all went well; the bowels acted nearly every day; but still the small piece remained irreducible. On the tenth day in hospital the hernia began to pain, and the ice was entirely left off; and a week later an abscess was incised over the seat of the hernia, pus and fæces escaping. After this the local pain entirely passed away, but for some weeks a fæcal fistula kept on discharging. The opening eventually closed; the remnant of the hernia has disappeared, and the man is quite well, at any rate so far as his groin is concerned.

Littre gave various important indications for recognising strangulation of a diverticulum, or of a piece of the side of the intestine, all of which are illustrated in the case just recorded. Thus: The bowels continued to act during the progress of the attack, because the channel itself was not obstructed. The bowels were confined whilst the supplemental hernia was strangulated, but they began again to act directly that part was released, although the diverticulum, or the small piece of the side of the bowel, remained so tightly strangulated that it sloughed. The man had no hiccough or abdominal distension, nor did he vomit except on one occasion—that was before the chief mass was reduced. The permanent prolapse was particularly small, and, though it was persistently and tightly pinched, the general and local symptoms ran an unusually mild course.

The small irreducible part of this strangulated hernia was, without doubt, intestinal, for on the occurrence of gangrene and abscess fæces escaped when the tumour was incised. That the strangulation did not implicate the entire circumference of the intestine is evidenced by the fact that from the very day that the chief part of the strangulated mass was returned the bowels began again, and continued, to act naturally. Possibly the piece of bowel which sloughed was Meckel's diverticulum, or an adventitious diverticulum; possibly it was a piece of the side of the bowel. But that this particular feature in the case remained obscure is probably much to the advantage of the man himself. Mr. Owen said he was not of opinion that a clinical history is complete only when a necropsy is detailed.

On April 19th, 1886, Mr. Morgan read a paper on a case of strangulated hernia without complete obstruction of the bowel before the Medical Society of London,[1] and on December 14th last Mr. Treves chose the same subject for a communication to the Medico-Chirurgical Society,[2] and on each occasion reference was made to an essay which was read by Littre in 1700 at the Académie Royale des Sciences, in which the author described a fatal case of hernia which was probably strangulation of Meckel's diverticulum. By Littre's hernia, however, one now generally understands a partial hernia of the circumference of the bowel rather than of a diverticulum. But on this matter opinions differ; and with some surgeons the name of Richter is usually associated with that condition, Littre's name being connected with diverticular protrusions. Thus what should be a tolerably simple subject has become overburdened with proper names, and terminology has become indefinite. Mr. Owen ventured to express the opinion, therefore that in the interest of surgical literature in general, and of the student in particular, it is expedient that individual names be not associated with special kinds of hernia. The surgical archæologist may dissent from this proposition, but specialism in any branch of knowledge should tend always to simplification. Indeed, in the discussion of one of the excellent papers just referred to, Mr. Hulke is reported[3] as saying that he rather thought that Richter himself did not fully comprehend the matter with which his name is so honourably mentioned. Every surgical reader, however, can understand what is meant by a "lateral hernia of the bowel," and by a "hernia of a diverticulum." The former term, therefore, or the still more comprehensive one, "partial enterocele," is preferred by Mr. Owen as the heading to this report.

[1] THE LANCET, vol. i. 1886, p. 786. [2] Ibid., vol. ii. 1886, p. 1176. [3] Ibid., vol. ii. 1886, p. 1177.

NEWCASTLE-ON-TYNE INFIRMARY.

HERNIA OF OVARY.

(Under the care of Dr. OLIVER.)

A WELL-DEVELOPED young girl, aged sixteen, a housemaid, was brought to the infirmary complaining of a painful swelling in the right groin. Ten days previously to this, when lifting a heavy pan, she felt something crack in the lower part of her abdomen. This was followed by a feeling of sickness, but she did not vomit. The bowels had been opened daily since the commencement of the illness. On examination, a tender, roundish swelling was found in the neighbourhood of Poupart's ligament on the right side, which was easily reduced. Three days after this, as the swelling had reappeared, she returned to the infirmary, having vomited a good deal. Walking was to her now a matter of great pain. She said that she suffered most pain when she lay on her left side, less when she lay on her right, but least of all when on her back. The swelling, which was about the size of a walnut, lay immediately under Poupart's ligament (right); it was soft, elastic, of firm consistence, and did not give one altogether the feeling of being intestine. It had been easily reduced in the first instance, but on now handling the swelling special notice was taken of the amount of pain which it caused, the sense of sickness complained of, the extreme pallor of the face, and the tendency to faintness. No impulse was detected in the swelling on coughing, nor in its reduction was there felt anything like a slip or a gurgle. It was regarded as a hernia of the ovary. On examination under chloroform, an ill-defined mass could be felt behind Poupart's ligament (right), which, on being displaced, fell into the pelvis to the right of the uterus. The uterus itself felt healthy, but to the right of it lay a round smooth mass about the size of a walnut freely movable, easily displaced in front of the uterus, and easily tilted upwards by and beyond the reach of the finger. A coil-like structure could be felt lying external to this smooth round mass as it lay in the pelvis, but whether it was a distended Fallopian tube or a portion of small intestine, it was impossible to say. The round mass was doubtless the right ovary. On the left side the ovary was felt to be about a quarter of the size of that on the right, while its Fallopian tube could be felt about the size of a quill. On one occasion after this, when the swelling reappeared in the groin, the ovary had evidently dragged down with it a portion of intestine, for in the reduction a gurgle was distinctly felt. The diagnostic signs of hernia of the ovary relied upon were—the dragging and pain felt by the patient when she lay on her left side, the side opposite the swelling; pain on movement of the limbs; pain of a sickening character on manipulation of the swelling; pallor of the countenance and tendency to faintness; the consistence of the swelling; and, in its reduction, absence of slip and gurgle. The house-physician, Mr. Waldy, had a proper truss made for the patient, since wearing which the displaced right ovary, still in all probability enlarged and prolapsed, has ceased to trouble her.

DUNDEE ROYAL INFIRMARY.

ACUTE SPORADIC CEREBRO-SPINAL MENINGITIS; DEATH ON THE FOURTH DAY; NECROPSY; REMARKS.

(Under the care of Dr. SINCLAIR.)

FOR the clinical record of the following case we are indebted to Mr. H. Hampden Pridie, house-surgeon; and for the notes of the necropsy to Mr. A. M. Stalker, pathologist to the infirmary.

Jessie P——, aged twenty-one, mill-worker, was admitted on the afternoon of August 14th, 1886, having been certified as suffering from typhus. There had been no typhus, however, in her neighbourhood for a long time, and there was no evidence obtained either on admission or subsequently of contact with typhus. Three days before admission, without any apparent cause in the shape of injury, overfatigue, or exposure to excessive heat, she had a rigor, followed soon after by great heat, loss of appetite, excessive vomiting, severe headache, and noisy delirium.

On admission the patient was very drowsy, and had a dusky aspect and flushed forehead. Pulse 124, bounding; respiration 28; temperature 101·4°. Tongue furred and

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beginning to dry. Spleen distinctly enlarged. No abnormal physical signs in heart or lungs.

Next day, at Dr. Sinclair's visit at noon, she was insensible, and had been having convulsions since 6 A.M. The pupils were dilated and sluggish, the pulse was 120 and bounding, and the temperature 102°. The tongue was protruded, and bore marks of biting by the teeth. She was then ordered to have half a drachm of hydrate of chloral by enema, which was to be repeated in two hours if necessary, and, if still unable to swallow in the afternoon, she was to be fed by pancreatised enemata. At ten minutes past 3 P.M. she died.

Necropsy.—On opening the dura mater, a thin layer of yellow lymph was found to be uniformly distributed all over the pia mater. No evidence of extension from the middle ear or from any part of the temporal bones. The spinal canal was opened, and lymph, continuous with that on the brain, was found all down the cord, most markedly about the middle of the dorsal vertebræ. The cranial and vertebral bones were healthy. The lungs were congested. Abdomen: Intestines congested and moderately full of semi-fluid fæces. Careful examination showed no lesions of Peyer's patches. The spleen was enlarged and pulpy.

Remarks by Dr. SINCLAIR.—There can, I think, be no doubt that this case was an example of the more severe type of cerebro-spinal meningitis. The initial and subsequent symptoms were sudden and overwhelming; the patient was evidently beyond hope when she was admitted on the third day; and the post-mortem examination showed that both the cerebral and spinal meninges had been acutely inflamed. And there can be as little doubt that the case was isolated and unassociated with any epidemic outbreak, because there had been no similar case in the neighbourhood for a long time before, and I have not been able to find any trace of a similar case up till now (Jan. 27th, 1887). No traumatic cause could be ascertained after a very careful and exhaustive inquiry. The clinical history is singularly complete except in the one respect of the absence of the eruption, which is so often associated with this interesting and fatal malady. Isolated as it is, I think it worthy of being placed on record, as a contribution to our knowledge of a very rare disease.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

"Induration" of Hunterian Chancres in the Female.—Actinomycosis Hominis.

AN ordinary meeting of this Society took place on Tuesday last, Mr. G. D. Pollock, F.R.C.S., President, in the chair.

Mr. W. E. CANT contributed a paper on some Clinical Observations on "Induration" in the Primary Lesion of Syphilis in Women. (Communicated by Mr. Holmes.) The following results were founded on about 3900 cases examined in the Royal Albert Hospital, Devonport, during a period of six and a half years. In contradistinction to the generally accepted fact that in men induration is as a rule well marked, it is so in women far less generally. The induration, which is described as being circumscribed, limited to the base of the sore, and clearly marked off from the surrounding tissue in men, in women is, about as often as not, diffused a considerable distance into the tissues around, often very widely, not sharply defined from the surrounding tissues, nor circumscribed in the base of the sore itself. The most typical form of primary sore with its induration, resembling a disc of cartilage set in surrounding soft structures, described as being frequent in men, is seldom met with in women. Every variety as to the degree of development of the induration is met with in women; but there is a large proportion in which it is very slight (about one-third). In some of these slight cases it is impossible to affirm that there is any thickening at all present, and there is a small number in which none exists throughout the whole course of the sore. Induration is present in the early stage of the sore only in a small proportion of cases. The time of its occurrence in the course of the sore varies greatly; it may occur at almost any period of its course. It becomes most marked and developed towards the middle and latter part in many cases. Tables of cases of primary sores, grouped according to their clinical character, and showing "when first apparent," "characters at earliest period," &c., and also of five cases of infecting primary sore in which there was no induration, were appended to the paper. — Dr. C. R. DRYSDALE said the subject of induration at the commencement of syphilis had at times become much confused. He had gathered much the same impression as Mr. Cant, in his observations made at a small lock hospital. The initial chancre might be but little indurated in women. The tissues in the female genital organs were rather different from those of the male, and this condition probably influenced the occurrence of induration. In a hard chancre of the lip in a woman the induration might be quite "wooden." A large number of cases in the male might exhibit but slight induration. In his own experience, of 241 cases four-fifths occurred on the labia majora and minora. The initial hard sore might occur on the os uteri. He had not seen one on the vagina.—Mr. HARRISON CRIPPS hardly agreed with Mr. Cant that the locality made no difference in the occurrence of induration. He thought position was everything. On the lip induration could easily develop. In chancre on the finger there might be absence of induration, even from beginning to end. Hunterian sores on the face and fingers indeed were generally free from induration. —Mr. T. HOLMES said the paper differed from most records of observations in being a record simply of facts. No mere opinion was expressed in the paper. Works of syphilographers gave a record of general impressions, not of actual facts of which notes were made at the time. He believed that the situations of the sores were given in the tables appended to the paper. The conclusions of the author were in accord with his own experience. He considered it a matter of regret that the Contagious Diseases Act had been repealed.—Mr. R. W. PARKER asked, if induration was not the test of a chancre, what was the test? What is the characteristic feature of a chancre? How much of the features was due to mere irritation, and how much to the action of the true syphilitic virus?—Dr. C. R. DRYSDALE said that it was not to be supposed that absence of induration meant identity of the Hunterian sore with a soft one.—Mr. CANT, in reply, said the situations of the sores were given in the paper; two occurred on the os uteri, and one on the vaginal wall. Some of the sores on the buttock were indurated—this in opposition to Mr. Cripps. Induration was the best character of a syphilitic chancre when present. His paper did not, however, deal with the characters of syphilitic sores.

Dr. R. G. HEBB contributed a case of Actinomycosis Hominis. (Communicated by Dr. Sturges.) A boy, aged eleven, was admitted into the Westminster Hospital on March 18th, 1886. He had suffered for a month previously from pains in the limbs, diarrhœa, vomiting, and "feverishness." On admission the most prominent symptoms were those of lung consolidation and pleural effusion, for which he was tapped twice. Soon afterwards pyæmic symptoms developed, and the patient died on June 2nd. The post-mortem examination disclosed abscesses of the brain and meningitis, pneumonia, excavation of the lungs, and suppurative pleuritis. A large vegetation was found on the wall of the right auricle of the heart, and in the liver an abscess and many areas of caseation. On microscopical examination of the liver, there were found numerous pigmented cells, many of which formed the centre for the departure of radiating filaments. The conjunction of these two factors gave rise to the appearance of a definite organism, for which the name of actinomycoces was adopted. In the brain and lungs collections of cocci only were found.—Dr. STURGES testified that Dr. Hebb had taken an immense deal of pains about the pathological preparations. The paper read by Dr. John Harley tried to show that the morbid appearances were due to tubercle, but he could not agree with this view. The boy came in with pneumonia, and developed hectic fever and an empyema. Three things were clear: first the pneumonia, then the wasting fever, and there were also signs in the liver, which was explored two or three times with the aspirator. There were now at least three cases of this disease starting in the lung. The clinical aspect was alike in the three cases—Israel's, Markham Skeritt's, and the present one; and a diagnosis ought to be possible from the clinical characters. The present case was shorter and acuter than the other two; the duration was two or three months. The onset was gradual, the symptoms being those of diarrhœa and loss of appetite preceding the signs of pneumonia.—Dr. T. D. ACLAND said the disease was not

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nearly so rare as Dr. Sturges thought it to be. He had seen no less than four cases himself. The disease was very common in cattle, and thirty cases of disease of the lung in human beings had been reported in Europe. In Dr. Hebb's specimen the organism did not seem to be the central point of the morbid process. It seemed as though the organisms were lying in holes bounded by fibrous tissue. He had cut sections of Dr. Hebb's specimen without being able to find any organism. Whether the disease was caused by the organism he could not say. Naked-eye appearances were not sufficient to diagnose the disease if it were called actinomycosis.—Dr. HEBB said a similar case was reported by Vacchetta in the *Veterinary Journal* of Milan for 1882; it occurred in a dog, and was thought to be a sarcoma of the lower jaw. He thought that Dr. Acland supposed that the sections were only three in number on which the diagnosis had been made.

MEDICAL SOCIETY OF LONDON.

Partial Enterocele.—Parotitis after Abdominal Operation.—Rupture of Aneurysm into Pericardium.

AN ordinary meeting of this Society was held on Monday last, Mr. R. Brudenell Carter, F.R.C.S., President, in the chair.

Mr. EDMUND OWEN read a paper on Littre's hernia, which appears in full on page 311.—Mr. BRUDENELL CARTER said the French were not alone in varying the spelling of their proper names. He objected to the use of proper names to designate diseases—a method serving to confuse students.—Dr. C. J. HARE said the nomenclature of disease as issued by the College of Physicians went far in the direction of not using proper names for designating diseases, but no doubt would go further if representation were made on the matter to the Registrar.—Mr. F. TREVES referred to the diagnosis, which was not perfectly clear from the symptoms. The extreme rarity of hernial diverticula on the left side of the body was against the diagnosis. The influence of the ice-bag in producing the abscess was of interest. He believed that the prolonged use of the ice-bag might cause abscess and gangrene. As to Littre's hernia this much might be said, that it was doubtful whether Littre had ever seen a case of partial enterocele. Richter's hernia was the best name to designate the hernia by, since he was the first actually to describe it.—Mr. STEPHEN PAGET referred to a case of incarcerated hernia in a lady which was treated with an ice-bag and followed by an abscess.—Mr. WALTER PYE considered that the phrase "lateral enterocele" was barren of meaning.—Mr. DAVIES-COLLEY asked what evidence there was that this was not an ordinary femoral hernia injured by Gimbernat's ligament; the abscess had slowly come to the surface through the crural canal.—Mr. J. H. MORGAN inquired whether there was any indication of the portion of the bowel that had been the seat of strangulation.—Mr. J. BLACK suggested that iced applications in peritonitis might increase the shock.—Mr. E. OWEN, in reply, maintained that it was a partial, not complete, obstruction of the bowel. The ileum on the side away from the mesentery was the part of the bowel affected.

Mr. S. PAGET read a paper on 101 cases of Parotitis after Injury or Disease of the Abdomen or Pelvis. He referred to Graves' 30th Clinical Lecture, on the Connexion between Diseases of Different Organs. He also referred to the fact that abscess of the kidneys and of the muscular substance of the heart is much more common in pyæmia after acute necrosis than in pyæmia after amputation. In 18 cases of pyæmia after acute necrosis, 10 had abscess of the heart, and 11 had abscess or infarction of the kidney. But in 140 cases of pyæmia after amputation, only 1 had abscess of the heart, and not one had abscess of the kidney. Another morbid sequence of a similar kind is shown in the fact that abscess of the liver or of the spleen is much more common in pyæmia after injury involving the medulla of bone, than in pyæmia after injury involving only the soft parts. In 67 cases of pyæmia after injury involving only the soft parts, 4 had abscess of the liver, and 3 had abscess of the spleen. But in 217 cases of pyæmia after injury involving the medulla of bone, 56 had abscess of the liver, and 28 had abscess of the spleen. These morbid sequences are of very great interest, as revealing relations between remote organs which are never shown in health. Physiology knows of no connexion between the periosteum, the heart, and the kidneys; or between the medulla of bone, the spleen, and the liver. Another morbid sequence is parotitis after injury or disease of the abdomen or pelvis. Out of 101 cases, 10 followed injury or disease of the urinary tract; 18 followed injury or disease of the alimentary canal; 23 followed injury or disease of the abdominal wall, subperitoneal or pelvic cellular tissue, or peritoneum; and 50 followed injury or disease or temporary derangement of the generative organs. Under "temporary derangement" Mr. Paget included such causes as slight injuries, menstruation, &c. Parotitis, after injury of the *extremities*, is always part and parcel of a true general pyæmia, with other secondary inflammations elsewhere. But this parotitis after abdominal or pelvic lesions was, in 93 cases out of 101, an isolated event, unaccompanied by any other inflammation like itself. In only 15 of the 101 recorded cases was there distinct mention of "septic symptoms," "septicæmia," or "pyæmia." Of the 101 cases, 37 died. But of these 37, 3 were over eighty, 3 had cancer, 2 had perforation, 2 had strangulated hernia; others had acute peritonitis, severe injuries, septicæmia, or pyæmia. Thus the danger is not in the parotitis itself, but in the primary lesion which causes it. This form of parotitis has no period of incubation; it has been observed on the first day after the primary lesion, and on the nineteenth, and on the intermediate days also; to say nothing of a case where it came on the morning of the day fixed for operation. It seems to come later when it is due to delivery or abortion than when it is due to operations on the generative organs. The onset of this form of parotitis is rarely attended by much disturbance of the general condition of the patient. Rigors are mentioned only in 4 cases; delirium or puerperal mania in 6 cases. In the great majority of cases there is only slight rise of temperature, no rigors, no high fever. Such cases have been well described by Dr. Macdonald of Edinburgh, Dr. Goodell of Philadelphia, and many others. As regards the termination of this parotitis, by resolution or by suppuration, there are only 78 cases which give information on this point. Of these, 45 went on to suppuration and 24 died; whereas of the 33 that were resolved without suppuration only 1 died, and she died of cancer a month after colotomy. Death in the fatal cases was due not to the suppuration of the parotid but to old age, cancer, perforation of the bowel, &c., or to septicæmia or pyæmia. They did not die because the parotitis went on to suppuration, but it went on to suppuration because they were going to die. Mr. Paget suggested that this suppuration of the parotid in cases of pyæmia might be allied to those cases of pyæmia after compound fracture where suppuration occurs round simple fractures inflicted at the same time as the compound fracture, and to the experiments of Chauveau, Loeffler, and others, who produced simple fractures in animals, then injected septic fluids into their veins, and thus produced suppuration round the simple fractures. Mr. Paget spoke of the surgical features in some cases of this form of parotitis, and of the treatment by belladonna and by incision, according to the old rule, "Parotitides omnes ante maturitatem aperiendæ." He had lately, by the kindness of Mr. Knowsley Thornton, made a post-mortem in the case of a woman who died ten days after the removal of a very large sarcoma from the mesentery. Swelling of the left parotid gland set in three days before death. The operation had been one of great severity, and she never thoroughly rallied from it. Necropsy (seven hours after death): No rigidity of limbs or of neck; jaws tightly clenched, and could not be opened. Abdomen flat and collapsed; operation wound healed. Firm non-fluctuating swelling of left parotid. Pus wells freely into the mouth, when pressure is made over the gland. The mucous membrane of the mouth is soft, clean, and wholly free from sordes or ulceration. The mouth of the duct is just marked by one or two tiny points of hæmorrhage under the mucous membrane. A bristle passes freely up the duct. The skin and loose cellular tissue over the parotid and in the anterior triangle of the neck are œdematous and full of serum; the lymphatic glands at the angle of the jaw and in the neck are much enlarged and soft. On section, the parotid is found everywhere evenly infiltrated, not with pus, but with reddish, slightly turbid serous fluid, looking like the cut surface of a spleen. There is no pus in the gland itself, but just at the proximal end of the duct, where it leaves the gland, are two or three drops of healthy pus and a minute calculus no bigger than a millet-seed. There is no general peritonitis, but a small circumscribed abscess at the seat of the operation. Spleen large and diffluent. No marked lesions elsewhere. The

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microscope showed the acini and lymph spaces of the gland invaded by masses of small round cells (lymph cells), which here and there could be seen inside the acini and ducts. The gland tissue was broken up and confused by these masses of cells; but the interlobular septa of fibrous tissue were for the most part hardly changed at all. It was a true inflammation of the gland tissue itself. As to any micro-organism, Rosenbach has grown colonies of staphylococcus pyogenes aureus from the purulent infiltration of the parotid, in a man who died with "acute septic peritonitis," after operation for strangulated hernia. But this micro-organism has no specific value. In conclusion, Mr. Paget observed that this form of parotitis, which follows abdominal or pelvic injury or disease, is, in many ways, of great interest. In 93 cases out of 101 it was an isolated event. It has no period of incubation, and no regular course. It may subside and recur and subside again, or may attend each pregnancy or each menstruation. It is rarely marked by much fever or disturbance of the system; indeed, in many cases it is "critical" rather than "symptomatic"; and out of 33 cases where it was resolved without suppuration, only 1 died, and she died of cancer. In only 15 cases is mention made of "septicæmia" or "pyæmia." Neither is it due to the spreading of inflammation from a parched and sordid mouth up the duct into the gland. In only one or two cases was the socia parotidis involved at all; nor are the mouths of patients with abdominal or pelvic lesions more parched than those of other patients. It is a pure theory, not supported by any evidence. Nor is it due to inflammation of the lymphatic tissue in the substance of the parotid. The characters and histories of the case render such a view impossible. Even although some of the cases are best explained in one or other of these ways, there are others which cannot thus be explained. But there are many reasons for believing that the reflex nervous system may, at least in part, be a cause of this parotitis. The influence of the nervous system on the salivary glands, both reflex and direct, is familiar to all. Experimentally, Paulow has found that if a loop of intestine be kept drawn out from the abdomen of a dog, the action of the gustatory nerve is inhibited, and the secretion of saliva is checked or arrested, until the loop of intestine is put back. The observations of Pasternatski on the changes of the pupils during various diseases are also of interest in this connexion. Now, if the same lesion produces salivation in one patient, arrest of salivary secretion in another, and swelling of the salivary glands in a third, must we not conclude that all three are different workings of the same agent? Thus, gastritis may cause salivation, or arrest of saliva, or parotitis. So, too, parotitis may follow gastric ulcer, gastrostomy (2 cases), duodenal ulcer, enterostomy (2 cases), herniotomy (5 cases), hepatic abscess, abdominal cancer (2 cases), typhlitis, colotomy, the removal of abdominal or umbilical tumours (3 cases), penetrating wound of the abdominal wall, and peritonitis (8 cases). It has also followed division of stricture of rectum, and operation for hæmorrhoids; and with these last two cases may be compared the fact that salivation has been observed as an early symptom of cancer of the rectum. Again, derangement of the generative organs, like derangement of the alimentary canal, may be followed either by salivation, or by arrest of saliva, or by swelling of the salivary glands. The salivation of pregnant women, and their longings for sapid food, are well known; and the same thing may occur during menstruation. Dr. Goodell gives two cases: one, of excessive salivation just before and during menstruation; the other, of a lady with a congested and tender left ovary, in whom the left parotid gland did not secrete during menstruation, so that the mouth and fauces on that side remained dry and painful. So, too, parotitis has been known to accompany each pregnancy, and to accompany or replace the menstrual flows (two cases). It has followed various trivial derangements of the generative organs (4 cases), pelvic abscess or hæmatocele (4 cases), operation for lacerated cervix (4 cases), other operations on vagina or uterus (4 cases), delivery or abortion (8 cases), the menopause (2 cases), and ovariotomy or oöphorectomy (27 cases). So, too, after lesions of the urinary passages, parotitis has followed the use of the catheter (3 cases), the use of the sound, renal abscess, and cystitis (5 cases). It is certain that, though some of these cases were due to septicæmia or pyæmia, others were not. Surely they are analogous to the retention or suppression of urine which so often follows abdominal and pelvic lesions. They are not due to a mere reflex spasm of the mouth of the duct, such as Verneuil describes; for this, as shown by many cases collected by M. Terrier, causes a mere passive dilatation of the gland, which alters with every meal, never disturbs the general health, never suppurates, and disappears when a probe or catheter is passed up the duct. Rather, while admitting the influence of the constitutional condition of the patient, we must believe that in many of these cases of parotitis there is a reflex vaso-motor constriction of the arteries of the gland itself, which, as Mr. Knaggs of Huddersfield has suggested, may be followed by a reaction going on to parotitis.—Mr. ALBAN DORAN discussed the question of the mode of origin of the parotitis. It could not be said that it was always a question of some connexion between the generative organs and the parotid gland, because injury of other parts of the abdomen was followed by parotitis. He examined the theories of simple reflex action, local septic infection, and mere constitutional debility, with attendant local conditions about the opening of the duct of the parotid into the mouth.—Mr. W. A. MEREDITH raised the question whether in parotitis after ovariotomy the parotitis occurred on the same side of the body as that whence the ovarian tumour was removed. In one case of his own the relationship was crossed—the right ovary and the left parotid.

Mr. HUGH SMITH read a case of Rupture of Aortic Aneurysm into the Pericardium. It occurred in a washerwoman aged forty-two, who died whilst working at the washtub. The specimen was exhibited, and showed dilatation of the first two parts of the aortic arch; the third part of the arch showed a saccular aneurysm, which opened into the pericardium by a rent three-quarters of an inch in length; as much as fifteen ounces of fluid and clotted blood were found in the pericardium. There was collapse of the left lung. During life signs of consolidation were noted at the apex of the left lung, but there were no laryngeal or pupillary signs.—Mr. MARMADUKE SHIELD related cases of aneurysm of the aorta in which the patients continued to go about doing their work till death occurred.—Mr. J. BLACK considered it of interest that the aneurysm should have originated in the third part of the aorta and yet have burst into the pericardium.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

AT a meeting held on January 21st, Dr. Septimus Gibbon in the chair,

Dr. C. E. SAUNDERS read a paper on "Legislation for the Purification of Rivers, and its failure." Dr. Saunders traced the abortive attempts at legislation up to the time of the passing of the Rivers Pollution Prevention Act of 1876. He showed that this Act had been scarcely better than a dead letter; that in eight years legal action to enforce its provisions had been taken only in fifty-six cases; in these, twenty-six orders had been made to restrain pollution, but a great number of such orders had never been actively enforced. Of the twenty-six orders, twelve had been obtained at the instance of two authorities. Out of the fifty-nine County Court circuits in England and Wales, in only twenty-seven had proceedings been taken; in fourteen of them there had only been one case each. No less than nineteen out of the fifty-six cases were prosecutions against the sanitary authority, the very persons to whom the exclusive carrying out of the Act is entrusted. As to any spontaneous action to prevent pollution, the rivers bear testimony of failure in that direction. Dr. Saunders considered that trade interests militated against any effective legislation, and deprecated making manufacturing pollutions the chief object of prevention, these being, in his opinion, of far less consequence from a health point of view than sewage pollutions. He, however, quoted the opinions of the Rivers Pollution Commissioners, which show that "there is not one trade pollution which cannot be kept out of the streams altogether, or so purified before admission as to deprive it of its noxious character, and this without unduly interfering with manufacturing operations, but even in some instances with a distinct profit to the manufacturers." Some streams are so filthy that they are even unfit for manufacturing purposes, and the value of clean river water in such cases is estimated by manufacturers at from £50 to £1000 a year. The author urged the importance of attacking the very filth-beginnings of rivers—sewage ditches; and pointed out the good effects

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this would have on general sanitation, as well as on river purity, especially adhering to the old view, that diphtheria is largely, if not entirely, a filth disease. He next gave the heads of a Bill which had been drafted by Mr. Willis Bund, which it was intended to introduce into Parliament at the earliest opportunity. This Bill makes it obligatory, instead of permissive, on the sanitary authority to prosecute offenders against its provisions, and if they (the sanitary authority) fail to institute, or, having instituted, fail to prosecute with due diligence, then any person having a legal right to make complaint may apply to the judge of the County Court for leave to prosecute in the name and at the cost of the sanitary authority. Dr. Saunders then sketched the machinery by which any future Act should be carried out, and advocated the establishment of a central authority, having no other function whatever than that of attending to river purification, looking to the medical officers of health of the various districts for detailed and periodical information. Dr. Saunders concluded his paper with the following remarks: "The policy of 'pass-it-on' is too great a temptation to put in the way of local sanitary authorities, for although they suffer in their turn, still it is convenient to get rid of their sewage, and the river is a costless and convenient vehicle. If I might venture to paraphrase a verse of Horace I should say—

'Sanitas exspectat dum amnis defæcat .....'

And unless more effective legislation is provided in the future than there has been in the past, one may find an application to the completion of the line and couplet—

..... 'at ille
Labitur et labetur, in omne volubilis ævum.'"

In the discussion which followed, Drs. Gibbon, Swete, and Woodford took part.

MIDLAND MEDICAL SOCIETY.

A MEETING of the Society was held on Jan. 19th, Mr LLOYD OWEN, F.R.C.S.I., President, in the chair.

Fracture of Spine.—Dr. SUCKLING showed a youth, aged eighteen, who at the end of last September had fallen twice upon his back. When seen four days after the second fall he was unable to stand, but could move his legs when in the recumbent position; he was unable to turn over in bed; had girdle pains in the upper lumbar region and shooting pains over the iliac bones. There was no anæsthesia, no actual paralysis, no bladder trouble; but the first and second lumbar spines were prominent, and great pain was elicited on light percussion over them. The right cremasteric reflex was lost, and the temperature varied from 99° to 102° for a week after admission. Under treatment by a plaster jacket these symptoms have now almost entirely disappeared. Dr. Suckling considered that there had been a fracture through the arches of one or more of the lumbar vertebræ with irritation of the last dorsal and first lumbar nerves.

Meckel's Diverticulum.—Mr. A. F. CLAY showed a specimen of Meckel's diverticulum from a girl aged thirteen. She had swallowed a number of plum-stones, and for the removal of these had taken strong purgatives. When first seen by Mr. Clay, ten days after swallowing the stones, she was suffering from peritonitis and obstruction. He opened the abdomen in the middle line and found a quantity of purulent fluid in the peritoneum, the intestines being matted together. The peritoneum was washed out, and a distended piece of intestine opened and stitched to the wound. The patient died from exhaustion thirty-six hours after the operation. At the post-mortem examination a Meckel's diverticulum was found with its ligament attached to the mesentery; a piece of the ileum below this had got under the loop, and was firmly strangulated, ulceration and perforation having taken place.

Dermoid Cyst of Ovary.—Dr. MALINS showed an ovarian cyst containing a quantity of oily material that solidified on its removal from the body, and a mass of hair.

Enlarged Ovary.—Dr. MALINS also showed an enlarged and cystic ovary from a patient aged twenty-five. Both these cases had been subjected to operation, and both had recovered without a bad symptom.

Vesical Calculi.—Mr. HASLAM showed twelve uric acid calculi, weighing altogether one ounce and three-quarters, that had been removed from the bladder of a female subject in the Queen's College dissecting-room. The bladder was much hypertrophied, but nothing was known of the previous history of the case.

Dr. FOXWELL read a paper on Acute Peritonitis in its Medical Aspect.

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

THE fourth meeting of the session was held in the Faculty Hall on Jan. 26th, Dr. Samuel Sloan, President, in the chair.

The PRESIDENT exhibited a model of the Incubator in use at the Maternity, and made some remarks upon the current experiment with Triplets.

Dr. MURDOCH CAMERON showed a Fœtus at the sixth week with Membranes, &c.; and also a Fœtus at the fourth week, with Amnion, Chorion, and remains of Umbilical Vesicle.

A Review of Thirteen Years' Private (Obstetric) Practice.—The adjourned discussion of Dr. J. K. Kelly's paper was then taken up by Mr. J. S. NAIRNE, who said Dr. Kelly was fortunate in having had no cases wherein delivery had not been possible by means of forceps. He could not imagine such an amount of distensibility as that contended for compatible with a healthy pelvis. He had never observed any "erection of the hip" during labour. Nevertheless, the pelvis was normally capable of a slight amount of distensibility; but he thought the joint most capable of it was the lumbo-sacral, which allowed, certainly not a *dilatation*, but an adjustment of fœtus to the pelvis. He objected to, and repelled, Dr. Kelly's views as to the occurrence of ruptured perineum to such an extent as to require perineorrhaphy.—Dr. PARK objected to "bad nursing" being accepted as an efficient cause of death post partum, and to Dr. Kelly's wholesale condemnation of ergot, especially for hemorrhage, and thought he had been extremely lucky in never having had either a case requiring craniotomy or a case of death from post-partum hemorrhage.—Dr. W. L. REID thought Dr. Kelly's practice wrong in respect of rupture of the perineum, and that it was dangerous practice to apply the straight forceps at the pelvic brim. He also believed first labours to be more dangerous than subsequent ones.—Dr. ABRAHAM WALLACE said that the luxation of the lumbo-sacral articulation during labour had been drawn attention to before. He thought such an amount of general pelvic distensibility as Dr. Kelly contended for was not according to fact.—Dr. OLIPHANT thought moderate ruptures healed very well without stitching.—Dr. SLOAN thought straight forceps inadequate for use at the pelvic brim, and that a double-curved instrument should always be used. He places his pad somewhat higher than "over" the uterus, and administers ergot as a routine, as it kept the uterus retracted. He had observed distensibility of a marked kind only in one case, and in it a firm binder had to be adjusted post partum, in order to enable the patient to walk comfortably. He did not reck on rupture of the fourchette as rupture of the perineum, as that occurred in almost every case. He considered there were three degrees of perineal rupture—viz, 1. Where a few fibres only were torn. 2. Where it went within a quarter to half an inch of the anus; this should be stitched *at once* thoroughly. 3. Where it passes through the anus, when, as a matter of course, stitching is necessary.—Dr. KELLY, in reply, adhered generally to the positions contended for in his paper.

Dr. GEO. HALKET then read a paper on the Obstetrical and Gynæcological Cliniques of Berlin and Vienna, which was listened to with great attention, and frequently elicited the applause of the Fellows. He also exhibited the obstetrical and gynæcological instruments in common use at Vienna.

ROTHERHAM HOSPITAL.—The annual general meeting of the subscribers to this institution was held on the 27th ult., when the committee reported that the total number of patients during 1886 was 4092, of whom 189 were in-patients and 3903 out-patients. The receipts amounted to £1571, and the expenditure to 1493. The new ward now in course of erection is almost completed, and as when it is occupied a larger income will be necessary, the committee appeal for increased support.

AT the annual meeting of the subscribers to the Tavistock Dispensary on the 25th ult., it was resolved to erect a cottage hospital in connexion with the institution.

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Reviews and Notices of Books.

The Surgeon's Pocket-book. An Essay on the best Treatment of Wounded in War. Especially adapted for the Public Medical Services. By Surgeon-Major J. H. PORTER, late Assistant Professor of Military Surgery, Army Medical School, Netley. Third Edition. Revised and edited by Brigade Surgeon C. H. Y. GODWIN, Medical Staff, Assistant Professor of Military Surgery, Army Medical School, Netley, late Medical Officer of the Royal Arsenal, Woolwich. London: Griffin and Co. 1887.

THE basis of this work was originally an essay selected for the prize offered by Her Majesty the Queen of Prussia and Empress of Germany on the "Practical Treatment of the Wounded in War." The adjudicators were Professors Billroth of Vienna, Baron von Langenbeck of Berlin, and Socin of Basle. The first edition was published in 1875, the second in 1879, with a preface by its author dated Cabul, in September of that year, where, to the great loss and grief of the army in Afghanistan, Surgeon-Major Porter soon afterwards perished of pneumonia. The present, or third edition, is in many respects another book altogether. It possesses some historical sort of interest in this respect, that it enables one to trace the progress and changes that military surgery has undergone in the interval. The first edition received the stamp of official recognition in the "Précis of Medical Arrangements," published for the guidance of medical officers in the Afghan campaign. The present editor—Brigade Surgeon Godwin—has introduced so much that is new, practical, and in our opinion sound, that we can without affectation recommend this "Surgeon's Pocket-book" as an invaluable guide to all engaged, or likely to be engaged, in field medical service; in fact, we do not know of any other book of the kind that contains the same amount of pertinent information in the same compass. The key to the changes he has effected is to be found in the substitution of antiseptic for "antiphlogistic" in the treatment of wounds and injuries. The amount of revision that the book has undergone and the new matter that has been added will be more easily appreciated by examining these a little in detail. The following may be taken as samples At page 2 a stretcher section is described. At page 17, *et seq.*, a clear and correct précis is given of the present arrangements in the army for service in the field (illustrated by the frontispiece), which is likely to prove really useful. At page 22 there are a few new remarks on "shock." At page 41 there is a short paragraph on "fat-embolism." Then follows a brief account of the theory of Listerism, with details for wound treatment in general and remarks on the chief antiseptics. At page 49 the treatment of special wounds, or those which have already taken on unhealthy action, is given, followed by Reyher's experiences and rules for treatment of gunshot injuries. At page 57 Surgeon-General Cammerer's experience in Roumania during the last Russo-Turkish war is given. The lesson to be learnt from that experience is that his success should impress the importance of surgeons at different hospitals on a long line of communications not losing heart because wounds come to them septic from exposure and inattention. There is some new matter under the head of wounds of the abdomen: for instance, at page 102, in the way of suggestion of free incision in diffuse peritonitis; and at page 103, regarding the question of laparotomy in injuries of the abdomen where viscera are injured, and where foreign bodies have penetrated and have to be removed. At page 120 some rules are offered for guidance respecting gunshot fractures of the femur, where the situation, and especially the factor of rest afterwards greatly influence the treatment. It is pointed out how nearly hopeless it is to try to save the limb if the patient has to be carried day after day, &c. At page 232 there is a useful table of water rations required for man and animals; and a typical war ration as a guide for medical officers, followed by excellent and precise information regarding air-space and ventilation. Considerations of space compel us to omit by far the larger number of revisions of and additions to the text. The four appendices are new, and contain some excellent formulæ and useful information. The third contains a translation of the orders recently issued to the Medical Department of the German Army, which is calculated to afford medical officers—serving in India for instance—useful hints of what to do when suddenly ordered to prepare for a flying column, and so forth.

Sanitary Examinations of Water, Air, and Food. A Vademecum for the Medical Officer of Health. With 110 illustrations. By CORNELIUS B. FOX, M.D., F.R.C.P. Lond., formerly Medical Officer of Health of East, Central, and South Essex. Second Edition. London: J. and A. Churchill. 1886.

DURING the eight years that have passed since the publication of the first edition of Dr. Cornelius Fox's book much valuable labour has been devoted to sanitary science and many new methods have been described. Dr. Fox has industriously studied these modern methods, and in the present edition gives us the benefit of his work. A considerable portion of this book is new, and all the leading authorities have evidently been consulted. In the section devoted to water, the most important addition is a clear and well-illustrated description of the biological methods, chiefly founded on the researches of Koch, which have attracted so much attention of late years. The field is promising, and already a crop of useful results has been gathered by Dr. Percy Frankland, Dr. Tidy, and others; but as yet no certain inferences can be founded upon the experiments, for bacteriology is still in its infancy. The influence of bacteria in nitrification and denitrification might with advantage have received more notice. To the latter process, a very important factor in the destruction of sewage matters in river water, Dr. Fox hardly alludes, and we gather from some words on page 100 that he has not read or has misunderstood the interesting results arrived at by Dr. Angus Smith in one of the latest, if not the latest, researches of his useful life. In the presence of excess of sewage, nitrates are rapidly reduced, the nitrogen escaping as gas. As in so many other cases in chemistry, oxidation and reduction seem to go on simultaneously. A section is given to the very important question of dissolved oxygen, about which, as yet, we have by no means heard the last word. Schützenbergen's process, based on the use of sodium hyposulphite (the true hyposulphite $Na\,SO_2$, and not the thiosulphate $Na_2S_2O_3$ commonly known by the name), is described with sufficient clearness. In skilful hands it is simple and satisfactory, but Dr. Fox does not sufficiently insist on the absolute necessity of working quickly and excluding even momentary exposure of the sample to the air. The velocity with which water takes oxygen from the air is marvellous, and the neglect of proper precautions for the exclusion of air has rendered mere determinations of dissolved oxygen worthless. With regard to the determination of organic carbon and nitrogen, we are inclined to think that Dr. Fox underrates the importance and overrates the difficulty of the method of Frankland and Armstrong. It is, with certain well-known restrictions, accurate as well as valuable when properly carried out. It was, however, wiser to exclude it from a manual intended for medical officers of health, who have seldom had the training of professional chemists.

The section dealing with air is about equal in length to that devoted to water. There is a great deal of valuable matter in it, particularly in regard to microscopic examination, which is constantly becoming more efficient, and therefore more important. There are some useful directions in regard to meteorology, and a chapter on ozone, in which, however, we find some serious defects. The simultaneous formation of ozone and peroxide of hydrogen is now well

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known, and should have been noticed, and to say that "peroxide of hydrogen is produced by a combination of the oxygen of the air with water" is a very loose way of stating the facts.

In the last section, which treats of the sanitary examination of food, the best chapters are those which describe the inspection of meat, poultry, and fish. In this and in the simpler methods for food analyses, the author is at home; but he would have been wise, considering his limits of space, to have omitted the complete quantitative analysis of food, for which his directions are entirely insufficient, and in some cases misleading. On the whole, however, in spite of some defects, Dr. Fox's manual is a good sound piece of work, and will be of great value, not only to medical officers of health, but to all who are interested in sanitation—that is, to the whole medical profession.

Outlines of Quantitative Analysis. By A. HUMBOLT SEXTON, Professor of Chemistry in the College of Science and Arts, Glasgow. London: C. Griffin and Co. 1887.

THE writer of an elementary text-book is nearly sure to say in his preface that he thinks his work will supply a want. Too often he is alone in his belief; and we have of late years been flooded with such books or booklets, many of them absolutely unnecessary, and many worse than useless. Professor Sexton tells us the usual story, but in his case we are bound to admit that the story is perfectly true. A compact laboratory guide for beginners in quantitative chemical analysis was wanted, and the want has on the whole been well supplied. Even among students who do not intend to make chemistry a profession there are many who can afford the time and would gladly devote the labour necessary for the study of elementary quantitative analysis. Apart from its practical utility, the mental and mechanical training gained in exact scientific work is of infinitely higher value than the careless and slovenly test-tube messing which is so often mistaken for practical science. At some few schools, notably at Epsom College, elementary quantitative analysis has been introduced among the more advanced students with signal success. To those teachers and students who are willing to devote the time necessary for real scientific work in chemistry Professor Sexton's little book will be useful. It is not quite free from faults, but as far as we have seen it is accurate; the descriptions are clear and sufficiently full, and the examples chosen are for the most part well selected. The few faults which we have to find are of a secondary character. Now and then we regret the absence of some well-known simple and useful method—such, for example, as the estimation of copper by electrolytic deposition on platinum; but more frequently we are inclined to complain of the somewhat too wide scope which the author has permitted himself. Ultimate organic analysis, for example, including combustion in oxygen and Dumas' process for the estimation of nitrogen, cannot be sufficiently explained in so short a space, and no student would attempt it without fuller directions. Then the apparatus described is often more elaborate than is really necessary; and altogether the book, good and useful as it is, will be apt to frighten students who have neither much money nor much time at their disposal.

New Inventions.

POCKET SURGICAL INSTRUMENT CASE.

MESSRS. ARNOLD AND SONS, of West Smithfield, have made us a small pocket surgical instrument case, which will, I think, be found a boon to general practitioners. The average surgical dressing case is far too large and cumbersome to be habitually carried about in the pocket, consequently it frequently happens that it is not at hand when most wanted. A case is required containing a few of the necessary emergency instruments, yet so small that it may *habitually* be carried about without causing inconvenience by its bulk. The annexed woodcut depicts such a case, containing scissors, dressing forceps, artery forceps, probe and director, abscess knife, and gum lancet, with pockets for sutures and needles. The dimensions are as follows: length, 3 in., width, 2 in., thickness, ¾ in. Pocket cases intended to answer this



purpose are sold by several makers, but the instruments being placed *in two rows* the case is rendered so thick as to entirely defeat the object for which it is made. In the above cases the few absolutely necessary instruments are laid as flat as possible *in one row*, and thus the outside thickness of ¾ in. is obtained. The case fits easily into the watch or waistcoat pocket. WILLIAM D. STEEL, M.D.

BASDON'S CHLORIDE OF AMMONIUM INHALER.

THE catarrh-producing winter through which we are passing has given unusual interest to all devices for removing aural catarrh, of which the various inhalers for the use of chloride of ammonium are amongst the most valuable. We have tried the above inhaler, and can express our approval of it. It is well made and easily used. The materials of it are good; the cork of the bottle as well as the tubes and the stopper of the sponge tube are made of fine indiarubber. It has the great advantage of cheapness, is simple in construction, and works well; one feature of it being that a prolongation of the tube holding the pumice-stone, beyond the point of exit of the tube carrying the fumes into the water, serves to receive any excess of acid and thus prevent its escaping into the water. The directions should state the strength of the ammonia and acid preparations. The agents are Messrs. J. Carr and Co., Pharmaceutical Chemists, 171, High Holborn, London, W.C.

THE "UNBREAKABLE" CLINICAL THERMOMETER IN PATENT "SAFETY" CASE.

WE consider the patent "safety" case introduced by Messrs. J. C. Fell and Co. (1, Queen Victoria-street, London) a very useful invention. The insertion of the thermometer in its case must be performed by a screwing motion in the direction of the arrow marked on the case. If the attempt be made to insert the glass by direct pressure, considerable resistance will be offered by the indiarubber flanges, and it is difficult then to ascertain when the thermometer is "driven home." Would it not be an advantage to have some means of knowing how "far and no further" the instrument should be inserted?

IMMISCH'S IMPROVED CLINICAL THERMOMETER.

To Mr. Immisch's avitreous thermometer an addition has been made which will be appreciated by clinicians as a distinct improvement. It consists of the introduction of a stop, by means of which the reading can be fixed after the temperature is taken. This object is secured by simply pulling out a knob inside the bow, the reverse action serving again to liberate the pointer.

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THE LANCET.

LONDON: SATURDAY, FEBRUARY 12, 1887.

DR. BUCHANAN has submitted a second official report to the Local Government Board as to the proceedings of his department during the year 1885. His first one related solely to cholera; the present one may be taken as his ordinary annual volume, and it deals with many matters of great interest. There is, however, one subject which may be regarded as taking precedence of all others, and that is the question of the influence of small-pox hospitals in London. Ever since the Medical Department of the Local Government Board found themselves confronted by the facts reported by Mr. POWER as to the influence of the Fulham Small-pox Hospital on the area around it, this subject has received a considerable amount of attention both on the part of experts and of the public. Former unbelievers in the influence for evil which the metropolitan small-pox hospitals have exerted have very generally come to see their error, and Mr. POWER'S contention of the mischief produced has been supported and endorsed by some of the ablest of metropolitan medical officers of health. Even those who do not agree as to the method by which the evil is brought about have been unable to deny the facts, but many have sought to reduce to a minimum the inference which it is natural to draw from Mr. POWER'S labours, and to point to side issues which, after all, do not materially affect the principal question under discussion. All the information at present available on the subject is now brought down to current date, and it is impossible to read the carefully considered document which Dr. BUCHANAN has submitted to his Board without being convinced that some radical change in the matter of isolating small-pox patients in urban districts is called for. London has always been liable to an excess of small-pox when compared with the provinces, but, as the report points out, "of recent years a new factor has come into operation." Indeed, it is shown, both by statistics and by diagrams, that, whereas in the provinces there has been a remarkable and almost steady diminution of small-pox mortality during the past ten years, no such reduction has taken place in the metropolis. It is true that improved vaccination in London has succeeded in effecting a great reduction in the small-pox deaths amongst children, but, notwithstanding this, the general small-pox rate remains so high that it is in effect sevenfold that which obtains in other parts of England. What is this new factor? None other than the establishment in London of permanent hospital centres for the aggregation of small-pox cases.

Quite recently a correspondence has been going on in the general press as to this matter, and an attempt has been made to show that even those who now condemn the London small-pox hospitals have expressed opinions to the effect that such hospitals operated for good in urban as well as in rural districts. But the principal opinion quoted was some twelve years old, and the writer who quotes it has apparently forgotten that the science of preventive medicine is progressive. The fact that Mr. POWER and others, who first ascertained the serious evils resulting from the Fulham Hospital, originally entered on their inquiries under a distinct conviction that the mischief complained of would admit of a totally different interpretation, gives special force to the altered views which they now find themselves compelled to express. These views were of such importance that they were investigated at great length by a Royal Commission, which came to the conclusion that by some means or other the London small-pox hospitals all shared the disastrous ability to spread small-pox over the neighbourhoods around them. Since then the investigation has been continued, and, instead of any discovery tending to vitiate this conclusion, the evil has become more and more evident, and it is clear that even the diminished number of acute cases which the Metropolitan Asylums Board decided to retain in London hospitals is capable of spreading small-pox, and this at a distance of a mile over inhabited urban areas. This circumstance is the more important because the mischief is maintained, notwithstanding every effort to control it. Improvements have been effected in the ambulance service, the staff of the hospitals have submitted to restrictions which were not deemed necessary before, and all the incomings and outgoings of the hospital have been placed under a rigid supervision. Indeed, those responsible for these hospitals could, in so far as administration is concerned, hardly have done more. But no effect has resulted; the hospitals, when used for small-pox, still remain centres of infection to the districts around.

We shall recur to this subject of the influence of small-pox hospitals in London when we review Dr. BUCHANAN'S report more in detail. But in the meantime we would note the curious fact that, at the request of the President of the Local Government Board, Dr. BUCHANAN has inserted in his report certain observations made by Dr. BRIDGES, of the Poor-law Department, on the same subject. Indeed, the insertion of Dr. BRIDGES' contribution is apparently intended to minimise the effect of that emanating from the Board's principal medical officer, but, as a matter of fact, it does nothing of the kind. It takes up two points. The first is, Do small-pox hospitals spread disease around them? As to this, Dr. BRIDGES accepts Mr. POWER'S facts, and admits that they "show clearly that a small-pox hospital in a populated neighbourhood has been, with all the precautions as yet devised, an appreciable source of danger to that neighbourhood." But he then proceeds, with the aid of the Registrar-General, to point out that a district which contains a small-pox hospital may possibly have the "benefit conferred upon it counterbalanced by some small disadvantage." As to this, we expect such districts as Hampstead and Fulham would far sooner have faced the "disadvantage" of having no small-pox hospital than have run the risk of such "benefit" as is here referred to. Dr. BRIDGES' next point relates to the question of the conveyance of the small-pox infection atmospherically for long distances. But this is on the present occasion entirely beside the mark, for Dr. BUCHANAN'S report does not deal with this subject at all. His contention is simply that, notwithstanding every effort to the contrary, these hospitals are in some way or other centres of infection, and that

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their establishment has coincided in point of time with the maintenance in the metropolis of an excessive small-pox death-rate.

We sincerely trust that the atmospheric theory as set out by Mr. POWER may be found to be the true explanation of the evil, for it will then still be open to the Metropolitan Asylums Board to devise means such as were brought under the notice of the Royal Commission for so constructing small-pox hospitals that no infected air shall pass out of them. But if the anti-aerial theorists are correct, then we are in an utterly hopeless state, for "with all the precautions as yet devised"—and Dr. BRIDGES has apparently no others to suggest—the danger still continues. Surely the time has come when, as Dr. BUCHANAN points out, the other means recommended by the Royal Commission for reducing the chance of spreading this infection ought to be tried. The Asylums Board are wanting to spend large sums on small-pox hospital construction at the present moment; we hope that they will be urged to carry out the views of the Commission by the erection of at least one experimental hospital which shall destroy its own infected atmosphere on its own premises. When this has failed, but not until then, they will have done all that the public can at present expect of them.

IN our last number we pointed out that the optimist conclusions with regard to the past and future of the University of London set forth in the current number of the *Quarterly Review* required very considerable modifications when examined from the point of view of the other Faculties, and we shall now show that even from a medical standpoint the results are not so wholly favourable as the writer would have us believe. No one conversant with medical studies and medical examinations during the past ten or twenty years will endorse the following opinions of the writer of the article: "It is probably in Medicine that the influence of the University of London has been most powerfully felt, and that its most conspicuous successes have been achieved. . . . . It is generally admitted that the requirements of the University have done much to encourage those higher studies and researches on which the advancement of pathological and therapeutical science most depends." Criticism of such dogmatic assertions as these is difficult, as they are obviously written without due appreciation of the means and methods by which medical science has been making such rapid strides in late years. When the University of London instituted degrees in Medicine, and raised the standard of professional and general examination, all the ambitious *alumni* of the London and provincial schools naturally endeavoured to obtain the newly made and coveted degree of M.D. Lond., and this movement went on for some thirty years, because degrees elsewhere were only to be obtained by compliance with onerous restrictions as to residence which London students could ill afford to yield. The examinations and regulations of the University of London, although stringent, were then really much less severe than those which are insisted on at the present time, and the required period of study was not nearly so protracted or attended with such great expense. The Senate, being practically a body into which only the least possible change can be introduced, looks but little at other educational institutions, and clings to the belief that all modern improvements in medical education and examination are due to the example and influence of Burlington Gardens. But in the last twenty years a great alteration has come over the spirit of medical work and responsibility throughout the kingdom, whilst the authorities of the University of London have done little or nothing to assist therein, one guiding consideration alone influencing their conduct—that to increase the stringency of its examinations was the *raison d'être* of its existence and the proof of its utility. Other Universities have enormously developed from a teaching standpoint, and have increased the number of their students; biological and physical sciences have been fostered and encouraged by them; their degrees have acquired a greater prestige in the eyes of medical students, and candidates from all schools outside the metropolitan range have been attracted to Cambridge and Manchester, until now a very insignificant number of the total body of students are to be found amongst London medical graduates; and yet the University of London is satisfied. It does not see that under its present arrangements it is fast losing its pre-eminence. "The University has probably influenced the profession profoundly and beneficially by confining its distinctions to the *élite* of medical students, and by setting up a high ideal of professional qualification. It may be doubted whether an equally useful object would have been attained if it had admitted ten times the number on easier conditions." We very much question whether it is now attracting the *élite* of the profession, and we are quite sure that it could have been much more influential by not ignoring the teachers and without any real lowering of its standard. Out of 800 students in the London medical schools only 36 obtained the qualification of M.B. last year, and 42 is the average number for the past eight years. Is this a satisfactory result after fifty years of existence? We venture to say that the result is most unsatisfactory, and that many men equal in intellectual calibre, and in many respects superior in professional acquirements, to those who have obtained a London degree, have been stopped at the threshold by the undue severity of its first two examinations, whilst the prohibitive regulations of its later ones and the length of time and cost involved in carrying out the curriculum, have deterred many others. The Senate must not conclude that it collects within its net even all the abler London men; it is well known that for many years past this has not been the case, and our columns last week afford a striking example. One candidate only out of 11 who are competing for the vacant assistant-physiciancy at St. Bartholomew's Hospital is a graduate of the University of London. In 1863 the degree of M.S. was instituted, and we have, after twenty-three years, just 16 graduates who have passed the examination for its attainment. Most of these are also Fellows of the College of Surgeons, and have passed as stringent a professional examination for this honour as for the University degree. The institution of this degree in Surgery is therefore evidently not a success. Out of 14 examiners in medical subjects in the University itself, only one-half are graduates of the University, and of 12 external examiners appointed at the Victoria University only 3 are London

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graduates, clearly showing that in medical science experts are largely found among graduates of other Universities. We believe that in a few years we shall see a further displacement of London graduates in the London teaching schools by those who, having been clinically educated in London, have sought degrees elsewhere. The *Quarterly* reviewer, whilst pointing out the desirability of a federation of the medical schools in London, says that this could not be enforced by any external authority, and could be adopted at once without waiting for a reorganised University to suggest it. This is undoubtedly quite true, but he overlooks the consideration of the assistance which an external authority like a University would be able to afford to such a movement, and we hope we may yet see a real University in London with a medical faculty under the care and guidance of the Royal Colleges of Physicians and Surgeons. The constitution of the Senate of the University of London, composed of "men of eminence in literature, in science, and in academic and public life," must be completely altered before it will pay any heed to the needs of teachers or students. It has quite lost touch with these, and its foremost considerations are given to shaping the "conditions of its examinations." For these only it exists, and to these its satisfaction is limited.

IT would seem to be possible, if not probable, that the session of Parliament now in progress will be distinguished by the passing of a Bill to consolidate and amend the Lunacy Acts. At present the Lord Chancellor's scheme has been embodied in two Bills, for the convenience of discussing the new proposals apart from the technical business of consolidating those provisions of the existing Acts concerning which there is no question. Hereafter the two Bills are to be combined; but meanwhile it must not be assumed that the Consolidating Bill contains no new and important amendments. For example, it makes the appointment of a resident medical officer essential in the case of every asylum having fifty patients. This enactment does not affect existing institutions, as the practice has outrun the law; but the substitution of fifty patients for one hundred as the limit is a notable amendment; and other changes not less significant, though more effective, will be found on close scrutiny. The Consolidating Bill will need to be carefully studied and watched.

The provisions embodied in the amending Bill are explained in a memorandum accompanying the measure as presented to the House of Lords, and are generally described as carrying out "in the main the recommendations made by the Report of the Select Committee on Lunacy Law in the year 1878," which committee, it will be remembered, the community owes to the persistent enterprise of the member for Swansea, Mr. DILLWYN. We are not able to say that the Bill as it stands is all that could be desired; but it certainly sets forth changes to be made in the law which will have the threefold effect (1) of rendering the treatment of sane persons as lunatics increasingly difficult and therefore less probable—it would be well if we could say impossible; (2) of protecting from vexatious proceedings those who have to assume responsibility in the placing of alleged lunatics under control, although in this respect the provision relates rather to the arrest of proceedings than to their prevention; and (3) of preventing the multiplication of private asylums, albeit those which exist are to be allowed to carry on their business, and any number which may be in process of establishment at the time of the passing of this Act are also to be tolerated. It is to be regretted that the rights of property, however admirable in their way, should be deemed an insuperable obstacle to the summary sweeping away of a system which is bad in principle, and admits of no defence. The change to be immediately accomplished consists mainly in the elaboration of measures whereby the now facile process of placing an alleged lunatic in confinement is to be complicated and brought under official cognisance. The main defects of the method by which this is to be done lie in details which can be modified in committee.

Speaking broadly, it may be said that the chief points gained by the reformers at whose instigation this passably liberal measure has been wrung from the Government is, that henceforth the hole-in-corner proceeding by which it is now easy to put away any weak-minded or eccentric person in an asylum as a lunatic will be, in a perfunctory and permissory fashion, brought under the cognisance of a County Court judge or a justice of the peace, who may, *if he see fit*, or if the victim of the proceeding has the wit and is able to get at the magistrate, bring about a personal interview between the alleged lunatic and the functionary appointed to protect him. What would be thought of a provision to the effect that if the judge thought fit, or a prisoner demanded it, the accused might be present at his own trial? Nothing probably will convince those who look upon the victims of mental disease as wild beasts from whom the sane are to be protected at all costs and risks that even a reputed madman has his rights. After the passing of this Act, also, it will be possible for persons to be placed under treatment of their own volition. This is a most important and useful provision. Moreover, there will be a system of visiting and reporting upon the cases of persons who are confined as lunatics, which, if only what is now permissory can be made obligatory, and some way can be devised of compelling the authorities to discharge their duty quickly as well as efficiently, will be advantageous.

We are not greatly interested to discuss the details of the Bill at this stage—first, because they have been again and again discussed, *usque ad nauseam*, in both the professional and the lay press; and second, because unless or until the measure reaches the House of Commons it cannot be held to be actually on its trial as a practical proposal. There has been so much trifling with this question of Lunacy Law amendment, that even those who regard the proposal as a threat of "wolf" have ceased to tremble at the cry too often raised in vain; while for the majority—who earnestly desire the sweeping away of a vicious system—the truckling to vested interests, and the blighting influence of officialism interfering, with the effect of taking the heart out of every measure of reform and reducing what were once spirited proposals to mere puny changes of name and form, the vexatious delay and trifling which have characterised this matter throughout its progress have proved so disappointing as to give rise to a feeling of disgust with the whole business. Hereafter it may happen that interest may be re-

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awakened by the development of a measure which at the first blush appears to be a curious crowding of elaborate detail into a crude and confined outline. Precisely that which might be expected to result from the meddling and muddling of many interested persons working together under the anxious supervision of a timid Minister, morbidly solicitous to please the majority and give serious offence to no one, this Bill certainly is. It is not possible that it should ever be a thoroughly satisfactory measure; but, on the principle that half a loaf is better than no bread, we may yet learn to take it and be thankful. Some of its provisions, if not ridiculous, are grotesque. Thus those who are wont to be thankful for the very smallest of mercies may find consolation in the proposed enactment by Sub-section 2, Section 8, that a lunatic shall not be sent to an asylum upon the *medical* certificate of his mother-in-law; but it does seem strange that, as Lord HALSBURY manifestly contemplates the rapid rise and extensive practice of feminine physicians, he has not, while protecting a lunatic from his mother and mother-in-law, also provided for his safety against the machinations of his grandmother!

As we reported in our columns last week, Professor HAMILTON of Edinburgh has recently propounded his views on some points in the anatomy of the brain, which he has studied by means of enlarged sections of the organ prepared by a special method of his own. And first, with regard to the corpus callosum, he still adheres to the view which he put forward at the Royal Society of London in the year 1884. This theory is a modification of that originally advanced by FOVILLE. It argues that the fibres which compose the corpus callosum are really derived from the basal ganglia, and pass upwards towards the cerebral cortex along the fibres of the internal and external capsules to the opposite side of the brain. We think this notion is inherently improbable. Further, it is based on a method of examination which, to say the least, cannot be regarded as altogether satisfactory. The method is that of naked-eye examination, or aided by the use of a lens, of the enlarged and prepared sections. The more careful method adopted by Dr. BEEVOR and the experiments of Mr. VICTOR HORSLEY are apparently directly opposed to the conclusions of Dr. HAMILTON. In the October number of *Brain* for 1885, Dr. BEEVOR gives the results of his investigations of sections stained by WEIGERT'S method, so prepared as to exhibit the medullary fibres. This method demonstrated that the fibres of the corpus callosum and those of the internal capsule interweaved with one another in their passage to the cerebral cortex. He could not discover any direct communication between the fibres of the capsule and those of the corpus callosum. Mr. VICTOR HORSLEY, in the last series of the Brown Lectures, explained that when the whole motor area of the cerebral cortex of one side in the monkey was extirpated, stimulation of the remaining motor area was not able to evoke cortical epilepsy of the limbs of the same side of the body as the cortex stimulated, showing, with other experiments apparently conclusively, that the fibres of the corpus callosum conveyed stimuli to the opposite cortical motor centres. The same experimenter's observations on the division of the corpus callosum in animals pointed to a similar conclusion. As to Dr. HAMILTON'S plexiform nucleus having a correlatin function situated internal to the upper part of the interna capsule near the lenticular nucleus, we can only say tha it is altogether at variance with our present notions, for i would appear to be an axiom of cerebral physiology tha a creating or a correlating function cannot take plac in the absence of nerve cells; and, if our information b correct, Dr. HAMILTON assigns such a function to a mer aggregation of fine nerve fibrils. The optic thalamus is an has been a crux to experimental and clinical pathologist for all past time. We are much indebted to him fo attempting to throw light on this most obscure subject He believes that this body is a communicating centre o association bringing the functions of sight into relatio with those of other cerebral functions. It may be so; bu such a view rests on scarcely any other basis than that o mere opinion. We cannot but think that his theories as t the relation of nerve cells and fibres are also diametrically opposed to the doctrine of continuity of structure and function. We have only the report, necessarily brief, of the meeting of the Edinburgh Royal Society to guide us. But we cannot think he is right in doubting that nerve fibres enter nerve cells, unless in the motor areas. Must we suppose that Dr. HAMILTON believes that the capsular network of fibrils which surrounds the nerve cell, but does not come into actual structural relationship with it, acts after the fashion of induction of one current on another, as in faradisation? Although we are unable to concur with Dr. HAMILTON in all the conclusions at which he has arrived, we must allow that he has displayed considerable ingenuity in his views, and has contributed largely to our practical methods of investigating the anatomy of the brain.

WE have already pointed out that the Medical Council that is to sit on Tuesday next will be largely a new body. Fully a third of its members are either new or sit for the first time in new capacities. The profession at large will have its representatives, and several Universities which have hitherto had but half a representative, or one representative between two Universities, will each have a member of the Council all to itself to defend the individual interests of his own institution in that subtlest and most pleasing of all ways —by showing that the harmony and general welfare of the universe are only to be maintained by preserving intact all its emoluments and privileges. We cannot of course say what the exact nature of the duties of this reformed Council will be at its approaching sitting, but we may be sure that it will have some new duties to discharge, arising under the very imperfect Act of 1886, as well as various duties of the old type. The clauses of the Act which create fresh duties for the Council are chiefly two. Clause 2, Section 3, declares that it shall be the duty of the General Council to secure the maintenance of such a standard of proficiency at the qualifying examinations as shall guarantee the possession of the knowledge and skill requisite for the efficient practice of medicine, surgery, and midwifery. Not only so; it specifies a new and special means by which this duty of the Council is to be discharged:—

"For that purpose (securing the maintenance of such standard of proficiency as aforesaid) such number of Inspectors as may be determined by the General Council shall be

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appointed by the General Council, and shall attend, as the General Council may direct, at all or any of the qualifying examinations held by any of the bodies."

In a subsequent paragraph, Section 3, the duties of these inspectors are defined. They are to report their opinions on the sufficiency or otherwise of examinations. Moreover, they are to report as to any other matters in relation to such examinations on which the General Council may require them to report. This is a large sentence, and may be used to make the reports of inspectors cover much. The bodies reported on are to receive copies of such reports, and so also is the Privy Council, which is further to be supplied with the answers of the said bodies. Clearly, then, the appointment of Inspectors under the recent Act is a most important—perhaps the most important—duty that can engage the attention of the Council. The duty of considering and reporting on this question in a preliminary way was entrusted to the Executive Committee, from which a report may be expected. It is of great moment that efficient men should be chosen for this duty of inspection. The words of the Act show that its framers look to inspection as the chief means of securing the general efficiency of examinations. And it is to be fondly hoped that no narrow fields or territorial restrictions will limit the purview of inspectors. We want, above all things, fair play and sound work in every division of the kingdom. We want a cessation of international suspicions and disparagements. We want the Corporations to respect the examinations of the Universities, and the Universities not to despise the examinations of the Corporations. The inspectors are expected to achieve these results, and they should be men to whom the profession and the examining authorities will look up.

Other new duties will arise under the second part of the Act, referring to the registration of *Foreign* and *Colonial* qualifications, and a report of the Executive Committee on the subject may also be expected. Further new work has been made by the recent Act not only for the Medical Council, but for all the examining authorities, in Clause 21 of Part III., which provides for the registration of diplomas in Sanitary Science. The examining bodies may all be expected to respond and to ask recognition of their examinations in Preventive Medicine. Besides these subjects, there will doubtless be a score of others to exercise the new Council and to tempt the eloquence of its members.

We bespeak, for the sake of our reporters and of our readers, speeches short and to the point. It is hard to hope that a Council of thirty or more will work better than one of twenty-four. The scheme of THE LANCET for a Council of twelve is still unrealised, as is the one-portal system of all medical reformers and even of the Council itself. Let us, however, whilst hoping against hope, give the Act of 1886 a fair trial.

On the 3rd inst. Mr. Ritchie, in reply to a deputation from the National Society for the Prevention of River Pollution, stated that the Government intended to give to the County Boards, which they hoped to establish, the power of dealing with the question of river pollution, and it was hoped that this would meet the requirements of the case; at any rate, the Government would not be inclined to go any further until the County Boards Bill had been passed and its operation tested.

Annotations.

"Ne quid nimis."

THE PUBLIC HEALTH IN 1886.

FOLLOWING closely upon the Detailed Annual Report for 1885, the Registrar-General has just issued, in his quarterly return for the three months ending with December last, a summary of the national vital statistics for 1886. The birth-rate of England and Wales was last year equal to 32·4 per 1000 of the estimated population, and no less than 2·0 below the mean annual rate in the preceding ten years; it was lower than in any year since 1848, when the registration of births is known to have been very incomplete. The death-rate of the year, notwithstanding the exceptionally trying weather in the first quarter, and a more than average warm summer that caused excessive mortality from infantile diarrhœa, was so low as 19·3 per 1000, corresponding with the mean annual rate in the preceding five years. Thus the mean death-rate in the first six years of the current decennium (1881-90) was equal to 19·3, and was 2·1 below the mean-rate in the preceding ten years 1871-80. The Registrar-General points out that this remarkable decline in the death-rate "implies that more than 339,000 persons in England and Wales were alive at the end of the six years (1881-86) whose deaths would have been recorded had the mean rate of mortality equalled that which had prevailed throughout the preceding ten years." Nearly half this reduction in the death-rate in recent years was due to decreased zymotic mortality, for it appears that the death-rate from the principal zymotic diseases, which was equal to 4·15 and 3·40 per 1000 respectively in the two decennial periods 1861-70 and 1871-80, further fell to 2·43 in the six years 1881-6. Compared with those recorded in 1886, the deaths from diarrhœa last year showed a considerable increase, and those from "fever" were rather more numerous, whereas those referred to each of the other zymotic diseases showed a decline. The death-rate from scarlet fever was considerably lower in 1886 than in any previous year on record, and has fallen year by year since 1878. Fever (typhus, enteric, or simple) mortality has been equal to an annual rate of 0·26 per 1000 in the past six years, whereas the rates in the preceding three decennial periods were 0·91, 0·89, and 0·50 respectively. Only 284 fatal cases of small-pox were reported in England and Wales in 1886; the nearest approach to so low a number, recorded in any previous year since civil registration commenced, was 536 in 1879. On the whole, this brief summary of the vital statistics of 1886 supplies a measure of the public health during last year which is full of the strongest encouragement to sanitary effort, of which the present satisfactory bulletin is undoubtedly the result.

THE DARENTH HOSPITAL DISPUTE.

THE *Metropolitan*, in discussing a recent article in THE LANCET on the reasons for the opposition which has been raised to the construction of brick hospitals at Darenth, states, as one of these reasons, that medical knowledge increases with every epidemic, and with the help of advanced sanitation is reducing the virulence of small-pox. Certainly, as the value of vaccination and revaccination is better understood, it may be anticipated that small-pox will be less prevalent in the metropolis; but, apart from this, we fear that London will continue to be visited by epidemics, which will make the existence of a hospital at Darenth or elsewhere a necessity for very many years to come. We fail, indeed, to understand the position either of the Metropolitan Asylums Board or the Local Government Board in the course they have adopted as the result of the controversy. The

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managers, in seeking to erect a permanent brick structure, were doubtless acting in accordance with the dictates of their experience of the great cost incurred in the maintenance of temporary erections. The Local Government Board, in their turn, had but too much reason for objecting to the construction of such a hospital on similar lines to those which have proved so disastrous to the metropolis. But the bargain which has been struck between the two authorities is distinctly ludicrous. The managers adhere to the use of brick, and the Board assent on the understanding that the hospital is not permanent; that is to say, the managers can now assert that the hospital is to be temporarily permanent, while the Board can plead that it is to be permanently temporary, or, in other words, they agree that the brick hospital is to be so badly built that it is warranted to fall into decay within a short period. It is clear that the speculative builder can urge that high authorities have justified his existence. The greatest hope for the reduction of small-pox in London is the present arrangement, which removes to a distance from occupied houses the majority of all persons suffering from this disease, and the aggregation of the few cases which must remain in London, under the conditions indicated by Dr. Buchanan in the report which the Local Government Board have just issued.

THE UNIVERSITY OF EDINBURGH.

THE prosperity of the University of Edinburgh continues and increases, especially in its Medical Faculty. Last year its matriculated students numbered 3635—110 more than the previous year. Of these, 1915 were in the Faculty of Medicine. In this faculty 51 candidates took the degree of M.D. and 229 the combined degrees of Bachelor of Medicine and Master in Surgery. This prosperity is attributed largely to the excellent appliances of the new University buildings. Private benefactions are always testifying to the gratitude and affection of wealthy or willing Scots, who are proud of their Universities, which have done so much for them and their countrymen. Several have been received in the last year; and one large donation is expected, to the amount of £50,000, from a public-spirited citizen of Edinburgh, which is to take the shape of a grand Academic Hall. The Fancy Fair in December, initiated by the students, proved a great success, and something like £11,000 were raised. When will London feel the true fire of this academic pride? When she does, with her superior resources and her splendid *clinique*, Edinburgh may begin to fear; but she must be in earnest, and have a real University that can win the admiration of all sorts of intellect and the gratitude of all classes.

PNEUMOTOMY IN PULMONARY ABSCESS.

DR. RUNEBERG, Professor of Medicine at Helsingfors, in a clinical lecture which has been published in a Swedish journal published in Finland, gives an account of a case of pulmonary abscess consequent on acute pneumonia, where he had performed pneumotomy with success. In addition to this he had collected notes of ten other cases. Leaving aside three of the eleven on account of uncertainty in the diagnosis, five of the remaining eight recovered, or at all events improved very decidedly, and in the rest, which were fatal, death could not in any way be attributed to the operation, so that Dr. Runeberg considers that when the diagnosis of pulmonary abscess is clear, and it is in an accessible situation, the best practice is certainly to open it. He then refers to the question of operating for gangrene of the lung. He himself had had a case of this, together with bronchitis and bronchiectasis; after the operation secondary gangrene and septicæmia occurred, which proved fatal. In seventeen other cases of gangrene he quotes from medical literature where pneumotomy was performed, seven recovered more or less completely, and the fatal termination of the remaining ten did not appear to have been attributable to the surgical interference. As to the method of opening the lung, Dr. Runeberg is in favour of resecting a rib, and then using the thermo-cautery. He does not approve of washing out the cavity with antiseptic lotions, thinking them dangerous, and believing that ample drainage is sufficient. In conclusion, he mentions several pneumotomy cases he had collected: two were for ecchinoccocus, both terminating favourably; six were for bronchiectasic cavities with gangrene; and six for tubercular cavities. In the latter two classes of cases he does not think operative procedures are advisable.

THE METROPOLITAN HOSPITAL SUNDAY FUND.

A SPECIAL conference between the Council of Hospital Sunday Fund and the managers of the various hospitals was held on the 9th inst. at the Mansion House, the Lord Mayor presiding. The following resolution was carried unanimously: "That with the view of largely increasing the Fund to be contributed on Hospital Sunday (June 19th) for the support of the hospitals and dispensaries of the metropolis, a series of public meetings be held during the two weeks preceding Hospital Sunday, and that the members of the committees of the several hospitals and dispensaries be requested to co-operate with the Mansion House Committee in organising these Jubilee Year meetings in their respective localities." The Lord Mayor will preside at a meeting arranged to be held in the Egyptian Hall, Guildhall, on behalf of the Metropolitan Hospital Sunday Fund, on June 14th, at 2.30. P.M. The meeting was originally fixed to take place on Wednesday, June 15th, but has been altered as above for the convenience of Lord Salisbury, who wishes to move the first resolution. It is expected that Lord Granville, Cardinal Manning, Canon Fleming, and many others will be present and take part in the proceedings. The London bankers and leading merchants will be specially invited to attend by the Lord Mayor. This meeting, taking place within five days of the Sunday (June 19th) on which the collection is made, should have a most favourable effect upon the amount received. We may here mention that Ernest A. Hankey, Esq., has recently contributed the sum of £495 to the Fund for this year.

DEATH BY FIRE ON RAILWAYS.

THERE can be no question as to the inexpediency of lighting railway carriages with swinging lamps burning petroleum. The risk is manifestly so great that it is inexplicable that a nation so advanced and enterprising as the American should tolerate it. The only hypothesis, which, indeed, is supported by other anomalies in the social life of that great nation, would seem to be that, however ingenious and go-a-head the Americans have shown themselves, they must be at heart a *young* people with the recklessness as to life which distinguishes the youth of communities, just as heedless daring is a characteristic of the young individual. Just outside the boundaries of strictly city life the American carries his revolver and uses it without scruple, as the juvenile employs his fists or a stick. So it is with the enterprise of this rapidly-growing people: everything must be very "big," and very "tall," and very "grand," and all risks, rational and irrational, must be dared in making it. We of England may be perverse and fatuous in the imbecility of our second childhood, but we are not quite such fools as to heat our railway carriages with swinging lamps of petroleum or by stoves. Our stupidity comes out in not heating them at all. It is quite useless trying to point the moral of the recent terrible catastrophe

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which has caused a deplorable loss of life on the Vermont Central Railway. There is nothing to be said on the subject, except that it is not less a senseless than a deplorable occurrence. Death by fire on railways can but very rarely be classed as "accidental."

TUBERCULOSIS OF THE ŒSOPHAGUS.

AT a recent meeting of the Medical Society of Vienna (*Progrès Méd.*, 1887, No. 6, Vienna Correspondence), Dr. Zemann, assistant to Professor Kundrat, read a paper on tuberculosis of the œsophagus, of which he distinguished four different forms. In the first the affection is propagated by direct extension from the bronchial glands or the lungs. In these cases the gullet may be perforated by direct ulceration, and frequently the contiguous portion of the trachea or bronchus is subsequently perforated; or the ulceration of the œsophagus may arise from tubercular deposit in its anterior wall. In the second variety the mucous membrane of the œsophagus is invaded by extension of tubercular disease of the pharynx or larynx, producing superficial ulcers which are limited to the upper third. Instances were given of a still further propagation of the disease in the œsophagus in two patients who were suffering from strictures of the tube from corrosive poisoning. They were also the subjects of tubercular phthisis, and although the larynx and bronchial glands were free, yet caseous and yellow tubercles were found in the cicatricial tissue in the œsophagus. Bacilli were detected in these tubercles. The explanation evidently lies in the fact that ordinarily, from its thick epithelial lining, the œsophageal mucous membrane is protected from bacillary infection, and a protection which is destroyed by the action of corrosives. In both the cases, it should be added, intestinal tubercle was present. The third variety is acute miliary tuberculosis, of which, however, only one case is on record—viz., by Marotti. The fourth variety, also of great rarity, is infection of the œsophagus by sputum; a condition probably only produced when the epithelium is more or less detached.

THE NON-REGISTRATION OF STILLBORN INFANTS.

A CORRESPONDENT has sent us the "return" required by the Brooklyn Board of Health in the case of every stillborn infant born within the district. How complete this return is may be inferred from the fact that there are no fewer than sixteen items to be filled up. In addition to the more obvious ones of sex, parentage, place and date of birth, name and address of medical attendant, and cause of stillbirth, we observe that the "nativity of father and mother" is required, also the name and residence of the person making the return, those of the undertaker, and the place of burial. The importance of all these details, which, more or less modified, are required in almost every civilised country except Great Britain, will be appreciated by all who have had much obstetric practice or have interested themselves in forensic medicine. Obstetric practitioners know that while a certain proportion of stillbirths are inevitable from causes both known and unknown, a very large number are preventable, being caused by want of proper attendance before and after birth, syphilis in one or both parents, neglected or inefficiently treated, and other causes. The exact determination and classification of these would be sufficient to justify the notification, if not the registration, of all stillborn infants in this country. But there are other reasons equally strong from the medico-legal point of view. It is well known that most burial authorities adopt a sliding scale of charges for the burial of newly-born infants, the difference between those for a stillbirth and those for a deceased infant being from 1*s.* 6*d.* to 7*s.* 6*d.*—a great consideration to poor people, and a strong inducement to them to make false declarations. If this sliding scale could be abolished and one uniform charge made for all infants stillborn or deceased within twenty-four hours after birth, this inducement would be lessened, if not removed altogether. But, besides this, it is imperative that there should be a register kept and returns made periodically of all bodies interred as stillbirths in every public burial-ground. A printed form of certificate should be issued by the Home Office or the Local Government Board, which should be distributed to all medical practitioners, and these as they are presented at the burial should be carefully preserved. It is, to say the least, an anomaly that, while the birth and death of a premature infant born at the seventh month of utero-gestation are each registered as solemnly as the death of the "oldest inhabitant," the State takes no heed of the many infants born dead at full time.

THE LESSON OF THE "KAPUNDA" DISASTER.

AFTER the sad teaching of experience in the case of the *Kapunda*, we may perhaps expect that the safety of passengers on board ship will be more carefully provided for than it was in this instance. As usual, after an event of the kind, suggestions are numerous as to the best means of guarding against a sacrifice of life by such a disaster in the future. Boats, folding-boats, floating seats, life-belts and buoys have figured prominently in the newspaper correspondence on the subject during the last few days. There is no want of possible appliances apparently, and there are no doubt shipping companies willing to spend freely upon them in order to assure as far as may be the safety of their crews and passengers. Still the uncomfortable fact remains that such assurance cannot always be relied on, nor is it likely to be otherwise while the law upon this subject remains as at present—notably inefficient. It is not enough to entrust a matter so serious to the private judgment of individuals. The Board of Trade already exercises a jurisdiction in such cases, and it ought, in order to justify its action, to afford to every passenger, and not only to a limited number, the means of self-preservation in case of shipwreck.

THE DIPHTHERIA EPIDEMIC AT EALING.

THE outbreak of diphtheria at Ealing, to which we called attention in our last impression, has unfortunately proved more severely fatal than was at first hoped. We referred to three deaths which occurred in the first five days of the outbreak, but we now learn the fatality went on until the record has reached eleven. The attack was singularly sudden in its appearance, and seems to have been as sudden in its cessation. Its actual course has been apparently confined within the limited period of seven days, but, as Mr. Patten, the medical officer of health for the district, reported to his board, the fatal cases were in every instance confined exclusively to persons who were the first to exhibit symptoms of the disorder, and upon whom the virulence of the poison appears to have been expended. We are glad to learn that Mr. W. H. Power has received instructions to make an investigation into the circumstances connected with the outbreak of diphtheria at Ealing. There are certain characteristics of the outbreak which are etiologically of considerable interest, and a Government inspector has special facilities for extending his inquiry beyond any defined sanitary areas if he finds reason to suspect that the cause of a disease lies outside those limits. An unanswerable exposition of the cause of the catastrophe at Ealing may be of lasting value to the whole country, and for the matter of that to the whole world. It was a deliverance of an authority not less illustrious than Sir Isaac Newton himself that no more

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causes of a phenomenon ought to be admitted than such as are true and sufficient to explain the phenomenon, and the problem in this case is how to get at the true and sufficient cause of the outbreak. Under present circumstances the cause cannot be very deeply concealed; whatever it may be, it is a cause which has operated chiefly among the well-to-do classes. It has been introduced suddenly; it has departed speedily. Taking the incubation period of diphtheria at three or four days, we may almost determine the day when the cause entered Ealing—namely, about Jan. 17th or 18th. If it had come in by water-supply, we must assume it would have affected large numbers of people irrespectively of class. If it had come in from drainage, it would most likely have affected the poorer classes rather than the richer. If it had been an atmospheric cause, it would surely have been equally distributed. If it had spread from one case to another simply by contagion or infection, it would have been traceable from one centre in definite lines. The evidence therefore points to the cause as entering through some particular article of food or drink, of which a limited number of susceptible persons partook within a very few days, perhaps hours, of each other.

SOME CHOLERA STATISTICS.

THE municipality of Marseilles has issued statistics concerning the second and last cholera epidemic which are not without interest. The number of deaths from cholera in 1884 amounted to 1781, or 4·94 per 1000 of the population. In 1885 the epidemic was not so severe; there were 1256 deaths, or 3·49 per 1000 inhabitants. During the course of the latter year the municipality organised twelve ambulances in different parts of the town, where assistance could be obtained at all times of the day and night. In this the authorities were supported by a staff of 102 doctors, 28 medical students, and 87 dispensing chemists. The total number of patients treated by the members of this service amounted to 2017, of whom 1513 were suffering from cholera. Of the remaining 504, the greater number were suffering from typhoid fever; then came, in order of frequency, cases of hæmorrhage, nervous complaints, pulmonary affections, wounds from accidents, and, above all, derangements of the digestive organs and a few cases of manifest drunkenness. Taking the cholera cases only, the males numbered 871 and the females 607. In 35 instances the sex was not indicated. This proportion is analogous to that noticed in 1884. The ages are given in all excepting 169 cases, and we find the division to be as follows: From the period of birth to the age of twenty there were 223 cases of cholera; from the ages of twenty to fifty there were 813 cases, and only 129 from fifty upwards; under the age of ten there were only 53 cases. It appears, therefore, that cholera proves most fatal in the prime of life. The nationality of 1438 patients was ascertained. There were 1081 French subjects, 272 Italians, and 85 persons belonging to various other nationalities. This shows a very great increase in the foreign elements, and helps to confirm the theory that the crowding together of the poor Italian labourers who flock to Marseilles is one of the most evident causes of insalubrity. During the epidemic of 1884, in the single district of the Bourse, out of 694 cholera patients no less than 242 were Italians. The statistics with regard to the professions of the sufferers unfortunately only refer to 798 patients. By far the greater proportion were unskilled dock labourers or navvies; these numbered 376. After this 94 cases are entered as without profession, 57 as domestic servants, 44 as charwomen, 23 sailors, 25 clerks or shop assistants, and smaller numbers as belonging to various other callings. From these statistics, though referring to only 798 out of the 1513 cases treated, it seems fairly demonstrated that those who came specially in contact with the cholera did not suffer conspicuously more than the rest of the population. But the men who were employed to bury the dead, to disinfect the houses, and to clean the sewers, and the whole of the medical and nursing staff, enjoyed remarkable immunity. It may be added, in conclusion, that the entire cost of the twelve ambulances and hospitals which supplied medical assistance to the 1513 cases amounted to £1641. For medicine and medical advice the actual outlay did not surpass the average sum of 12*s.* 6*d.* each case; but much gratuitous advice was given to the poor.

HOSPITAL SATURDAY AND THE CONTRIBUTIONS OF WORKING MEN.

WE have always felt, and candidly expressed a feeling of, regret at the inadequate collection for the hospitals of London made by its workmen on Hospital Saturday. With equal candour we have insisted that the only way to secure a fit contribution from workmen was to organise a weekly subscription. Something less than the price of a glass of beer would do it. An actual case in point is reported in the *Sunderland Daily Echo* of Jan. 24th, in a notice of the death of a local man of great worth, the late Mr. John Armstrong, of the firm of Armstrong, Addison, and Co., who is credited, amongst other good and sound work, with being the first to carry out the workmen's weekly subscriptions to the Sunderland Infirmary, which have become one of the chief sources of revenue. In the report for 1861 such subscriptions are mentioned as amounting to £45. In the following year they amounted to £200. In 1885-6 they had reached the creditable sum—in this town, whose whole population does not equal that of a large London parish, and in a time of great local distress—of £2000. All honour to such men as Mr. Armstrong, and to the working classes of Sunderland for following his lead and supporting the very best of their local institutions.

CASUAL WARDS.

THE condition of casual paupers requires serious attention, since it is possible that no more wretched set of creatures exist anywhere. Dragging out miserable existences during the day, at night they are housed in lonely dens hardly better than dog kennels, if fate keeps them in London; or if they take refuge in the country workhouse, in outhouses provided with a few sloping boards for beds. For food, a piece of bread and a basin of skilly serve for supper and breakfast. For this entertainment, however, the guest has to pay a somewhat high price, even calculated at the present low rate of wages, by having to perform a considerable amount of manual labour before he is allowed to proceed on his way and find work to support himself. Occasionally he finds that, having entered the casual ward with a light heart, he is not permitted to leave it, even supposing his daily task to have been performed, and he is constrained to remain, against his will, over the coming Sunday. Such an excess of hospitality is not, however, always well received; and the other day a "casual," much to the surprise of the workhouse authorities, refused to return to his "cell," preferring, as he said, the prison to the casual cells on Sunday. It appears that the prisoner had applied for admission on a Friday night at St. George's Workhouse, Westminster. On Saturday morning he was called out and set to work in the yard. The task given him he accomplished quietly and well, and expected the usual discharge. Instead of this, however, he was told to return at once to his cell, as no "casual" was allowed to be out on a Sunday, and as he had come in on Friday he must remain till Monday. In answer to an inquiry by the magistrate, the master informed him that according to the rules of the New Model Workhouse, the

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"casual" is locked up and kept in solitary confinement all Sunday, without exercise, but with the option of attending a short mission service of an hour's duration. In this case the prisoner had not been informed of the rule when admitted, and refused to return to his cell when requested. In consequence he was removed to the police station, where he spent his Sunday, let us hope more cheerfully than in the workhouse cells, and was discharged by Mr. D'Eyncourt on the Monday morning. Comment on such a case is hardly needed. Nothing was said against the prisoner's character or conduct; he was simply an artisan out of work. Whilst in the workhouse he behaved properly, and the authorities admit he fulfilled his tasks "very quietly and well," and yet this man is arbitrarily seized and threatened with solitary confinement and imprisonment for twenty-four hours for no offence whatever except that he came to the workhouse on a Friday instead of any other night of the week. Severe measures no doubt are required to prevent imposition and idleness, but to act in this outrageous manner to every casual who seeks shelter for a night is certainly, to put it mildly, unnecessary.

THE COURSE OF THE POSTERIOR ROOTS OF THE SPINAL CORD.

DR. ANDREAS TAKÁCS gives the following summary of the results of his investigations in regard to the course of the posterior roots of the spinal nerves and the composition of the white matter in the posterior columns of the cord. 1. The fibres of the posterior roots on their entry into the spinal cord divide into two groups; one part penetrates the grey substance, whilst another group run externally and internally into the white substance bounding the grey horns. 2. The fibres which penetrate the grey horn appear to traverse the substantia gelatinosa, and may be followed to the ganglionic column of Clarke, in the cells of which they terminate. 3. The fibres of the posterior roots, which enter Burdach's column internally and the posterior part of the lateral column externally, immediately bend upwards and run at least as far as the third root above, where they penetrate the substance of the posterior horn. 4. Part of the fibres arising from the cells of Clarke's column dip into Burdach's column, and, after assuming here a wing-like aspect in section, go to form the column of Goll. 5. Another portion of the fibres arising from the cells of Clarke's column leaves the grey substance externally, and dips into the posterior segment of the lateral column, where, bending backwards and upwards, it arches round the lateral pyramidal column, and thus forms the lateral cerebellar columns. 6. Goll's column and the lateral cerebellar columns are composed of similar fibres, which represent a continuation of the posterior root-fibres, effected through the cells of the posterior grey cornua; these fibres run without any further connexion upwards in the spinal cord, and their number therefore progressively increases. 7. Burdach's column, as well as the posterior segment of the lateral column, are chiefly formed of the immediate prolongation of the fibres of the posterior roots, yet these fibres enter into the posterior horns at variable distances above their point of entry. The increase in size of these columns is effected also by the fibres proceeding from Clarke's column and passing through them to Goll's column on the one hand and to the cerebellar columns on the other, and Takács thinks that with these may be associated the fibres which connect the different parts of the column with each other. From these anatomical and histological facts he draws the conclusion that the column of Goll and the cerebellar columns are the continuation of the posterior root-fibres after these have been interrupted by the ganglion-cells of the grey cornua. They constitute the most direct paths for the conduction of sensory impressions. The cuneate fasciculus of Burdach and the posterior part of the lateral column are chiefly transference-points, and are only mediately paths for sensory conduction. It thus becomes intelligible why in the primary stage of tabes and in the lower parts of the cord the fasciculi of Burdach are affected, whilst in the later stages and in the upper part of the cord the columns of Goll are affected. His pathological investigations show that the affection of the fibres of the posterior white columns in tabes stands in direct relation to the disease of the posterior grey cornua, and in these again essentially in relation to its changes in the cells of Clarke's column. The disease of the posterior segment of the lateral column and of the cerebellar columns is relatively less than that of the posterior white columns. He distinguishes lastly two forms of tabes.

EARLY CLOSING.

ACCORDING to the report which has just been issued by the Early Closing Association, the voluntary reduction of shop hours by various employers has been found to exercise a most beneficial effect on the character and abilities of shop assistants. Such an observation is in no way remarkable. It is impossible that work done over time can be of the best quality, or that its ultimate injurious effects can long be postponed. Trade also must suffer somewhat by the failure of energy in those who carry it on; and whatever may be said for securing custom by keeping late hours, we doubt very much whether, if a shorter working day were once inaugurated, its manifest advantages, alike for shopmen and the public, would not secure for it a wide and increasing popularity. Such an introduction has been effected by the Shop Hours Act of 1886. It is hoped that this valuable Act may be administered without any regular system of inspection. In that hope we certainly share, though not without some misgiving. In the circumstances, it is, at all events, satisfactory to learn that the majority of shopkeepers are in favour of the change which the Act is intended to bring about. They appreciate this measure in itself, but are unwilling to assume an individual responsibility in connexion with it unless assisted by a greater consensus of opinion on the subject among themselves than exists at present, and they look for more definite assurances of public support. We would recommend them not to depend quite so much upon prevailing habit. Popular custom in such matters is greatly guided by the methods of trade, and if these be determinately altered as provided by the Act we have little doubt that custom will follow suit Certainly an effort in this direction would now be well timed.

THE GORDON BOYS' HOME.

DIFFICULT as it may seem, the reclamation of the waste land of human nature by intelligent and moral culture has alway proved a success in careful hands. The history of the Gordon Boys' Home, we are pleased to note, affords no exception to this rule. Since its institution fifteen months ago, the affairs of the Home and its occupants have made material progress. The number of boys has increased from nine to eighty-seven; health has decidedly benefited by the influence of fresh air and wholesome food; schoolwork has been methodised and carried out in an efficient manner; while conduct, fair at first, has markedly improved, in spite of considerable difficulties, and without the exercise of any undue severity. The administration is conducted on the military system, and one former pupil has already taken service as a soldier. As is now generally known, however, the Home is not designed to act merely as a feeder for the army or navy; any of the ordinary trades are open to the boys, though it can hardly be doubted that the mode of their training will incline many to pursue a military life. We

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note with satisfaction that some provision is made in the school arrangements for technical education. Smiths' and carpenters' work, tailoring, shoemaking, and telegraph work are taught with more or less success, and it is significant of the proficiency attained that all the boys' clothes, with the exception of caps and socks, are now made in the establishment. It need hardly be stated that out-door recreations are not forgotten, while two rooms have been fitted up within the Home for amusement during bad weather. There is a library of general literature, and music is represented by a pianette. Friends of the institution have been commendably forward with subscriptions and with gifts, and these we sincerely hope will suffer no decrease in the future. At the same time, it is at least doubtful if, in consideration of the antecedents, age, and undecided future career of most of the boys, such a present as a barrel of beer is a wise selection. It would be well, perhaps, if some rule were made excluding the use of stimulants from the Home except under medical restrictions. So far the memorial project has evidently succeeded. With due care it should yet attain its brightest expectations, and become, in a much greater degree than at present, a trainer in strong, intelligent, and moral manliness.

IS IODOFORM ANTISEPTIC?

THE widespread employment of iodoform as an antiseptic dressing may receive a check should the conclusions arrived at by MM. Heyn and Rovsing of Copenhagen be confirmed. These observers have (*Fortschritte der Medicin*, 1887, No. 2) been making experiments with iodoform to test its value as an antiseptic, which they point out is so generally accepted that the surgeon does not hesitate to employ a non-sterilised spatula or to insufflate ordinary air with the powder, procedures which he would shrink from employing were it not for the belief that the iodoform can destroy the germs adhering to the one or suspended in the other. Yet as iodoform is rarely used to the exclusion of other antiseptics (as carbolic acid or mercuric chloride), there is never much opportunity, clinically, of testing its germicidal properties. Mikulicz, in 1881, tested the action of iodoform upon putrefaction, but with no definite result; and Rummo's experiments in 1883 were complicated by his use of oil of turpentine as a solvent for the iodoform. Meyer found in one case of abscess that iodoform had no effect in reducing the virulence of the pus, and in another that it had a slight action. The results of the research pursued by MM. Heyn and Rovsing surprised themselves. Acting on the theory that it is through liberation of free iodine that iodoform enjoys its germicidal reputation, they prepared solutions of iodoform in olive oil and in serum, and, having sterilised them, mixed them with culture media, and studied the effect of cultures of various bacterial organisms in these mixtures, as well as under iodoform powder alone. They also experimented on rabbits by mixing inoculation fluids with iodoform. The details of the experiments need not be reproduced here; suffice it to say that in no case did the presence of the substance interfere with the development of micro-organisms. So that they conclude that as an antiseptic its employment in surgery is valueless. But, more than this, its use is dangerous, for, as two of their experiments proved, iodoform itself may contain pathogenic micro-organisms; and even if all care be taken to purify it, yet it may become the medium of the conveyance of pathogenic germs introduced into it through the spray or spatula. We trust that these experiments, which have received such prominence, will be repeated, for, if confirmed, we can imagine that the use of iodoform (apart from any other antiseptic) would in certain circumstances be serious. It would be deplorable if in any such case the material upon which the surgeon relies to protect his patient from bacterial invasion should prove to be the means whereby such invasion occurred. The writers of the article themselves advise that before using iodoform (which is valuable as a dressing on other grounds than as an antiseptic only), it should be disinfected in sublimate solution.

THE POWERS OF THE METROPOLITAN BOARD OF WORKS.

THE position occupied by the Metropolitan Board of Works has long been one of a very peculiar nature, and the services rendered to the population of London and its environs by that body have been also peculiar. As a matter of history it will hereafter probably be shown that the Metropolitan Board of Works has bridged over—so to say—the gulf between an obsolete (because exhausted) system of local government and the more perfect organisation by which it is to be replaced. Just now the Board is anxious for more power. It wants to take the public buildings of the metropolis under its protection, not only as regards their construction, but as regards their management. It would like to manage everything, and do all the licensing as well. These things could scarcely be done less efficiently than at present, so that we are not prepared to check the omnivorous propensity of the Board. By all means let Sir James M'Garel Hogg and his colleagues take over the entire business, and if there be something so soporific in the police officialism of the metropolis that a Chief Commissioner must needs forget to protect the streets in the neighbourhood of a mass meeting of roughs, as Sir Edmund Henderson forgot Pall Mall and Piccadilly, and as Sir Charles Warren has since, whilst otherwise taking admirable and most necessary precautions, forgotten Goswell-road, it may become desirable that the Board should add to its other cares that of the police control of the metropolis, vice the authorities of Scotland-yard, resigned.

A NEW METHOD OF SEWER VENTILATION.

A NEW proposal has just been brought forward for the ventilation of sewers. It has the merit of originality and ingenuity. Mr. R. S. Ash has patented a system of ventilation by the force of concussions resulting from explosion automatically produced. In the man-hole of a sewer, or in the ventilating-shaft of a coal-mine, &c., he places a small cylinder where coal gas accumulates till it reaches a little hole, and there comes in contact with a jet burning outside. An explosion results and the lid of the cylinder is blown off, but counter-weights make it fall back in its place, so that all is ready again for the next explosion. Of course the air is blown out of the man-hole, and a vacuum created and filled by the air rushing up from the sewer, but this displacement is not the principal merit of the process. A ventilating fan or revolving wheel and a furnace will equally produce a current of air; but such current generally travels down the central and main sewers, and leaves almost untouched the accumulations of foul gas in the branch sewers, in the angles and in other inaccessible places. A shock, however, does not travel in a straight line, but spreads out in a circle. A stone thrown into a pool of water affords the readiest illustration of this fact. Let the edges of the pond be jagged and angular, the ripple will travel up every little crevice or opening in the banks. A current, on the other hand, even the current of a rapid stream, leaves quiet nooks made by the recesses of the embankment, where a boat may be safely moored without risk of its being borne away. Thus an explosion in a sewer will with more certainty move the air in the branch sewers and out-of-the-way passages than will a strong current down the main channel. Also it should be noted that it is precisely these branch pipes and

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sewers which are nearest to the inside of the dwelling, and therefore most urgently need ventilation. Consequently, if ventilation by concussion or explosion can be made to act without involving too great an inconvenience and expense, it is likely to prove as valuable a progress in practice as it is an advance in theory.

GASTRIC AFFECTIONS AMONGST SWEDISH PEASANTS.

DR. WIESENER mentions in the *Medicinisk Revue* that in part of Sweden gastric affections are very common. These he comprises under the general term "cardialgia." They include, however, chronic gastritis, dyspepsia, ulcer of the stomach, dilatation of the stomach, nervous cardialgia, and carcinoma. The first two of these are less common than the others. The main causes are to be found in overwork and injudicious diet—the usual lot of the poorer inhabitants. It is not that their food is actually insufficient, but it contains too little nitrogenous matter and too much carbo-hydrate, vegetable albumen taking the place of animal albumen, and quantity being substituted for quality, which impedes the mechanical and chemical processes of the stomach. Again, such meat and fish as the peasants do eat is usually salt, and their milk is sour; indeed, the fish is often in a partly decomposed condition, containing ptomaines. The porridge too, which in many places forms the staple of the peasant's dietary, is frequently insufficiently cooked, so that the starch is unchanged in the alimentary canal. These diseases are seldom met with until after the age at which young people take part in heavy out-door work. As to treatment, both of a prophylactic and curative character, Dr. Wiesener recommends more rest, attention to cleanliness (which is sadly wanting in the culinary operations), more fresh meat and vegetables, and an improved method of preserving milk &c. As to drugs, alkalies, hydrochloric acid, bismuth, magnesia, and carbolic acid may be found useful according to circumstances.

SUICIDES OF CHILDREN.

WE have no means of knowing whether suicides among children are proportionally more numerous within the last few years than they were previously. Attention has been specially directed to these most lamentable occurrences recently, and this may account for the fact that an increased number of cases are from time to time under notice. There is something especially distressing in the fact that consciousness may be, and often is, so painfully influenced by circumstances in the early stages of life that death is sought as a relief from misery. We do not think that a man or woman must needs be insane to seek death as an escape from trouble. It seems to us that well within the limits of sanity a perverse, or morally cowardly, or very much worried consciousness may reason out the proposition that life is not worth living, and conclude to die. Precisely the same processes which go on in the mind of an adult may be in operation in the mind of a child. There is, in short, no reason why the young should not commit suicide as well as the old, if only hope—which in a very practical way may be said to be an essential of life—is crushed out of existence. The mind in which hope dies may court death, and yet be in no sense *morbid*. It is difficult, but it is possible, to slay hope in the life of a child, and when this is accomplished it is not unreasonable to suppose that despair may end in self-slaughter. The intense haste of life and enterprise is doubtless one of the causes of suicide, and there can be no question that our system of forced education, and the premature imposition of hideous brain-tasks on the young, press heavily on the consciousness. We venture to think this subject of suicides among children is one which ought to be taken into very serious consideration by those who are responsible for the operation of laws which may ultimately render the population more erudite, but which will not, unless greatly modified, make them happier, or in a social sense more prosperous, than heretofore.

SUDDEN DEATH IN PLEURISY.

SOME years ago the occurrence of a series of cases where death suddenly took place during or after the operation of paracentesis thoracis led to much discussion, especially in the Paris Société Médicale des Hôpitaux, without, in many instances, clearing up the cause of the fatal event. Post-mortem examination often failed to reveal lesions, although the fatal attack was in most cases ushered in by convulsions. Of late we have heard less of such accidents; but the subject of sudden death in pleurisy is one which deserves study. Dr. Weill of Lyons contributes to the current number of the *Revue de Médecine* an essay concerning it, which hardly includes the class above alluded to where the seizure supervenes upon operative interference. He speaks rather of cases of pleural effusion that are unrelieved by art, and arrives at the following conclusions: That sudden death in pleurisy is allied to certain lesions—such as cardiac or pulmonary thrombosis or embolism; œdema of the opposite lung, and changes in the myocardium. Such derangements as grave syncope, mechanical impediment to the circulation from displacement of the heart and torsion of the great vessels, and hypothetical lesions, as multiple cerebral embolism, may be provisionally accepted, but require further investigation before being accepted as adequate explanations of the event. Sudden death may occur in various forms of pleurisy—in right pleurisies more often than in left, in acute or in chronic cases, and in cases of progressing, stationary, or absorbing effusion. The effusion is generally serous. The cases may or may not be accompanied by special symptoms, such as attacks of dyspnœa, syncope, and irregularity of pulse; but often death will occur quite unexpectedly without any premonition, and following upon some movement or effort on the patient's part. Paracentesis is the only prophylactic measure, and would be indicated by the onset of threatening symptoms, or evidence of heightened intra-pleural pressure.

PETITION OF THE BELGIAN MEDICAL FEDERATION.

THE Belgian Medical Federation, after a good deal of discussion, has agreed upon a petition, which it has addressed to the members of the legislative chambers on the subject of medical legislation. Discussing the question of examining bodies, the Federation expresses a distinct preference for the plan of a central jury, believing that it secures a fairer but more stringent and satisfactory examination than that of juries composed exclusively or mainly of the professors under whom the candidate has studied, and whose questions he can probably answer if he has merely a retentive memory. An opinion is also expressed that professors alone should not be allowed to form a jury, but that a certain number of practitioners should be associated with them. A State examination for all would, in the opinion of the Federation, exert an influence of the best kind on the instruction given in the four universities by setting up a noble emulation between them—"each of them labouring, not, as heretofore, to send into practice the greatest possible number of its alumni, with diplomas of questionable value, but to surpass its rivals by obtaining a greater amount of success at the State examinations." Of course, the Federation hopes that all foreign practitioners will, before being allowed to practise in Belgium, be obliged to go before the central jury, and, as the holders of Belgian University degrees will have to be examined, there cannot be any hardship in obliging the holders of foreign

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degrees to undergo the same test. The Federation wishes dentists to be obliged to take medical diplomas. An important recommendation is contained in the portion of the petition upon "*le stage médical.*" This *stage* is represented by the time of hospital clinical study, but according to the Federation it is much too short. No regulation insisting on a further time for clinical work appearing to be practicable at present, the Federation suggests that in view of the ever-increasing overcrowded state of the profession and the unwisdom of encouraging more young men without private means to enter it, it would be well to desist from offering scholarships to first-year's students and to employ the funds thus set at liberty in giving travelling exhibitions to those who have finished their course for the purpose of enabling them to prolong the *stage médical* with profit to themselves and their future patients. The Federation concludes by suggestions for a special education and diploma for experts in forensic medicine.

ARTIFICIALLY PRODUCED RELAPSE OF ERYSIPELAS.

DR. BORN of Cöthen contributes to the *Allgemeine Medicinische Central-Zeitung* an account of a case of erysipelas in an elderly woman, which was apparently brought on by eating some insufficiently cooked fish, which also disagreed with other people who partook of it. After the erysipelas (which had been extensive and accompanied by a good deal of fever) had disappeared, the patient remained in good health for six days, being only inconvenienced by the presence of a dried film of carbolic oil which had been used to anoint the affected surface. At the end of this time she received permission to wash herself, which she did pretty thoroughly with soap and flannel. The same evening her temperature rose again, and she suffered from rigors, heat, and headache, erysipelas reappearing the next morning, which arrived at its crisis on the tenth day and shortly afterwards disappeared. There seemed to be no doubt as to the connexion between the washing and the relapse. Dr. Born suggests that the infecting micrococci may have been lying dormant in the skin or subcutaneous tissue, the rubbing sending them into the circulation; or else that infective matter may have been external, and reintroduced by minute scratches or abrasions produced by the scrubbing. The public are, he says, known to have a great fear of washing in erysipelas, and this case would seem to show that there may be some ground for it. Dr. Born goes on to remark that medical men are told of individuals who have repeated and regular attacks of erysipelas more frequently than they see such cases for themselves, and he suggests that here it is more probable that dormant centres of infection exist in the body, which at times are brought into the circulation, and so rendered capable of causing an attack of the disease, than that the persons in whom these repeated attacks occur are again and again infected from outside.

AN EXPERIMENT ON HUMAN LIVES.

"IT behoves such populations as Ripon and York, which derive their drinking-water from a river seriously contaminated by agencies beyond their own control, to be aware that they are having an experiment performed upon their lives, an experiment contrary to the provisions of the English law." Such are the sufficiently striking terms in which Dr. Buchanan refers in the fifteenth Annual Report of the Local Government Board, which has just appeared, to the pollution by sewage of the river Ure. Strong as this language is, it is undeniably justified by the facts of the case. Briefly they are these: The Ure rises in the hilly country which lies upon the north-western border of the North Riding; it runs through Wensleydale, passing in its route through numerous villages and hamlets, and the little town of Masham. Winding on in a southerly direction, it eventually joins the Ouse, about fourteen miles above the city of York. All along its course it is used alternately as a sewer and a source of water-supply. At Masham, which lies about twenty-two miles from the source of the river, it receives the drainage of a town of 1000 inhabitants; and at Ripon, some fifteen miles further down, it supplies drinking-water to a population of nearly 8000, and receives drainage in exchange from the same town. Pursuing its course, it passes through several other villages which contribute still more sewage to the stream; and after joining the Ouse at Boroughbridge, a place situated some eight miles below Ripon, it flows on through the city of York. Mr. Sweeting, who made the inspection of the river, sums up the facts relating to York as follows: "The Ouse has, by the time it gets to York, received not only a considerable amount of impurity that has been brought into it by the Ure above Ripon and by the Swale, but also the drainage of the city of Ripon, of five small villages, and of Boroughbridge..... The sum total of contamination contributed by the Ure to the Ouse is therefore great." It is reassuring to learn that analysis seems to show that the Ouse water is not ordinarily affected to any serious extent by this abundant pollution, but it is certainly no unwarrantable use of language to describe it as an experiment upon human life.

THE ASYLUMS BOARD AND THEIR MEDICAL SUPERINTENDENTS.

A NEW discovery has been made of the extravagance and mismanagement of the Metropolitan Asylums Board. The City of London Board of Guardians have found the "painful fact" that at present there are no fewer than three medical superintendents in the employ of the Metropolitan Asylums Board for whom there is really no occupation whatever, and whose salaries range from £400 to £500 each, with rations and other privileges. The guardians can have no desire that medical knowledge shall increase, for they fail to see that the ratepayers would be distinctly benefited by the employment of medical men in investigations which would add to our means of treating disease successfully. It has been too much the custom of the managers at the close of every epidemic to dismiss a staff, some members of whom could render important service in the direction we have indicated; in times of epidemic pressure there is but little opportunity for work of this nature, but in the intervals it should be seriously undertaken, and it is a standing reproach that so little attempt has been made to turn to good account the material for study which is at the disposal of the medical officers of the managers.

ANTI-PYRETIC ACTION OF NITROGENISED AIR.

DR. FRANCISCO VALENZUELA of Madrid has made some observations (published in *El Siglo Médico*, Jan. 30th, 1887) on the effect of inhalations of nitrogen, or rather of air containing an abnormally large proportion of nitrogen, upon febrile diseases. He compared its action in reducing temperature with that of cold applications, quinine, antipyrin, digitalis, and arsenic, and concludes that the inhalation of nitrogen is the only method of treatment the cessation of which for a day is not followed by a rise of temperature to its former height. It has also, he believes, a beneficial effect on the diseased process itself. The plan adopted was to administer the nitrogen in two daily sittings of from half an hour to an hour in duration, beginning with air containing 17·76 per cent. of oxygen, and gradually decreasing this proportion till at the close of the sitting it was reduced to 12 per cent. Some few details are given of a

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phthisical case in which it was tried. At first some dyspnœa was produced, but the evening temperature at once sank to normal, in addition to which the cough decreased, the blood almost entirely disappeared from the sputum, the sweats became less frequent, and the appetite improved. This patient had been previously treated by quinine, with but little good result. No other cases are reported, though several other patients were treated in this manner, most of whom are stated to have been benefited by it.

PHYSICIAN AND PHILANTHROPIST.

THE profession in Italy has been gratified by the royal recognition of a well-known "companion in arms." King Humbert, *proprio motu*, has made Commendatore of the Order of the Crown of Italy Dr. G. B. Trombini of Milan, in consideration of his judiciously applied and munificently sustained philanthropy. Charity unless wisely bestowed has long appeared to Dr. Trombini as worse than useless, and accordingly he makes himself personally cognisant of every case that appeals to him for help. But such help should be something more than mere almsgiving, and as he has his *protégés* under his eye, so he sees to their being usefully employed with a view to their self-rehabilitation. He has thus become the patron of an establishment at Melegnano, where 800 recipients of his bounty are kept usefully at work—an institution from which society is periodically reinforced by skilled and able hands who would otherwise have been lost to it. Furthermore, by the rule of *principiis obsta*, he has just established at Melegnano an infant asylum on a magnificent scale, where every physical and mental want of the waifs and strays of fortune will be judiciously met by a well-appointed organisation. This institution, suggested to Dr. Trombini in an hour of anguish after the loss of two sons on whom he doted, has already cost him 300,000 francs, and will form the most fitting and enduring monument of a citizen whom adversity has not soured, and who values wealth only as a means of raising and reinforcing his fellow-man.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

ON the 7th inst. there died at Berlin, at the early age of forty-nine, after a fortnight's illness with brain fever, brought on by overwork, Professor Carl Schröder, one of the best-known gynæcologists in Europe. His Hospital for Women at Berlin, with which his name will always remain associated, attracted crowds of students and patients from all parts of the world. Professor Schröder was a voluminous writer, some of his works—notably, his Manual of Midwifery, including the Pathology of Pregnancy and the Puerperal State"—having been translated into English. The following deaths are also announced:—M. le Dr. Snyers, one of the best known and most highly respected practitioners of Liège. Señor Dr. Don Francisco J. de Castroy Perez, Professor of Therapeutics in the University of Madrid.

THE TREATMENT OF FRACTURED PATELLA.

IN the report of the Sabbatsberg Hospital, Stockholm, recently issued, Dr. Söderberg has collected a number of cases of fracture of the olecranon and patella, in which a cutting operation has been performed—that is to say, where an incision has been made and the fractured surfaces (after being pared if necessary) sutured. A large proportion of the cases are from English sources, but there are some reported by American and continental and a few by Swedish surgeons. Altogether Dr. Söderberg has analysed 81 cases. A good result was obtained in 51; in 9 there was ankylosis, in 5 suppuration with impaired mobility, in 9 impaired mobility without suppuration, and in 3 fibrous union, while death occurred in 3. To separate the recent from the long-standing cases: Of the 43 recent cases a good result was obtained in 37, ankylosis occurring in 1, suppuration in 1, partial mobility in 3, and fibrous union in 1. The 38 cases of long-standing showed, as might be expected, a much worse series of results, there being only 14 which could be classed as good, while 3 were fatal and 8 ended in ankylosis. The author speaks with considerable reserve about the operation. In recent cases it is naturally less dangerous, but here it is, as a rule, quite unnecessary. In such cases of long-standing as present facilities for the operation, the statistics of the future may be expected to show better results than those of the past. Where, however, there is adhesion between the posterior surfaces of the fragments and the posterior walls of the capsule, as there was in a case occurring in the Sabbatsberg Hospital, of which the details are given, little or no good effect is usually produced by the operation. Dr. Söderberg seems to have missed a good many cases published by English and French surgeons—notably some forty collected by a French surgeon, details of which appeared in THE LANCET a few years ago. Altogether the cases published up to the present time must amount to more than 120, and there are besides several successful cases known to us which have not as yet appeared in print. It may be remarked, too, that in the cases published by Mr. G. R. Turner, and referred to by Dr. Söderberg, fibrous union was obtained rather more often than is stated by the latter writer.

THE COUNTESS OF DUFFERIN'S FUND.

WE are glad to learn that the Countess of Dufferin's Fund is being well supported and likely to prove a success. The statistics of India, though far from perfect, afford evidence of a very high rate of mortality among children under five years of age, and in the female population at the child-bearing age. It is to these two classes especially that the fund will prove beneficial by providing skilled medical assistance through the medium of qualified female doctors. The rules of caste and the customs of the country deprive them of the aid of the male members of the profession. There can be no doubt that by the introduction of educated female medical practitioners a great saving of life and reduction of suffering will be effected, especially in these two groups.

THE SIGNIFICANCE OF URIC ACID DEPOSITS IN URINE.

DR. JOHANNES MYGGE, while chief of Professor Trier's clinic in Copenhagen, having repeatedly remarked abundant and persistent deposits of uric acid coinciding or alternating with albuminuria, carried out a series of examinations on the urine of the 272 male patients under his supervision. Of 3287 urines examined, 2786 from 127 patients were entirely free from uric acid deposits, while they were found in 501 specimens from 105 patients, but only in any considerable quantity in 262 specimens from 59 patients. In 43 of these last patients the deposits were of a transitory character—that is, they were only observed once or twice; while in the remaining 16 they were found to persist for a week or more. Deposits both of a transient and of a permanent character were found, especially in rheumatic affections, whether of an acute or chronic form. Transient deposits were found also in pneumonia in 11 cases out of 25. In 27 out of the 59 patients in which uric acid deposits were observed albuminuria was also present in appreciable quantity, and in many of the rest there was a doubtful trace noted. Dr. Mygge's observations confirm Dr. Dickinson's statement that deposits of uric acid of a transitory character frequently coincide with the suppression of acute albuminuria. In the majority of cases where the deposit was

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examined microscopically, casts or tubal epithelium cells were found, indicating that some connexion probably exists between uric acid deposits and functional renal disorder. In some instances, it may be supposed that a peculiar condition of urine, especially its supersaturation by uric acid or an increase in its acidity, has irritated the epithelium of the tubes, and has thus set up a renal lesion. In others, the latter condition doubtless precedes the precipitation of uric acid, and here Esbach's theory of the precipitation of uric acid being due to the existence of morphological elements in the urine may afford an explanation.

THE MOXON MEMORIAL.

A MEETING of the sub-committee appointed to determine the form of memorial best adapted to perpetuate the memory of the late Dr. Moxon was held at the Royal College of Physicians on Feb. 8th, and was very fully attended. Sir Joseph Lister proposed, and Sir Andrew Clark seconded, the following resolution, which was carried unanimously:—"That the fund raised by subscription be devoted to the foundation of a scholarship or medal, to be awarded by the Royal College of Physicians, and to the erection of a memorial of him at Guy's Hospital."

ALLEGED TOXIC EFFECTS OF COCAINE IN THE BLADDER.

IN the surgical section of the Madrid Medico-Chirurgical Academy, Dr. Call read a paper on the Effect of Cocaine on the Bladder. He found that fifty centigrammes of a 1 per cent. solution of the hydrochlorate injected into the bladder produce convulsive movements, upon which Dr. Osio remarked that this toxic action might very probably be due to the development of microbes in the solution.

"THE GRAPHIC AND GUY'S HOSPITAL."

THE issue of the *Graphic* for the 5th inst. contains a well-executed illustration of the Accident Ward of Guy's Hospital on Visiting Day, when the patients receive the members of their families from whom misfortune has separated them. The picture may, as we hope it will, enable those who are not personally acquainted with the inner life of the institution to understand a part at least of its usefulness, and stimulate the response to the appeal which has recently been issued on behalf of its funds.

THE HUNTERIAN ORATION.

THE President of the Royal College of Surgeons, Mr. W. Scovell Savory, F.R.S., will deliver the Hunterian Oration in the theatre of the College, on Monday, the 14th inst., at 3 P.M. precisely.

MEDICAL APPOINTMENTS IN INDIA.

DR. VANDYKE CARTER, we learn, has been appointed to be Principal of the Grant Medical College at Bombay, and Physician to the Jamsetjee Hospital there, in the room of Dr. Cook, F.R.C.P., retired. Mr. D. N. Parakh, M.R.C.S., L.R.C.P., has been appointed to be surgeon to the Goculdas Hospital in Bombay, in the room of Dr. Carter. Mr. J. B. Eaton, M.B., will, we believe, succeed Mr. Parakh as assistant-surgeon to the Sassoon Hospital in Poonah.

THE INTERNATIONAL MEDICAL CONGRESS.

WE understand that the owner of the steam yacht *Ceylon* is anxious to place his vessel at the disposal of members of the medical profession and their families who intend to visit America during the Congress. The cost per head (inclusive of everything) would be, we believe, £50, but at least sixty passengers would be required.

FOREIGN UNIVERSITY INTELLIGENCE.

Basle.—Dr. Bischoff, Professor of Midwifery and Gynæcology, has been obliged by ill-health to resign his post.

Brussels.—M. le Dr. Marique has been nominated chief of the post-mortem examination department. Some new courses have been recently opened on advanced toxicological chemistry, elementary biological chemistry, chemical and micrographical study of alimentary substances, and the detection of their alterations and adulterations.

Greifswald.—Dr. Grawitz, Extraordinary Professor of General Pathology and Pathological Anatomy has been appointed Ordinary Professor.

Leipzig.—Professors Olshausen of Halle, Zweifel of Erlangen, and Fritsch of Breslau, having been selected for the vacant chair of Midwifery, the offer was made to Professor Olshausen, whose name stood first on the list. He has, however, signified his intention of remaining at Halle. Dr. R. Altmann, Prosector of the Anatomical Institute, has been appointed Extraordinary Professor.

Leyden.—Dr. H. Treub has been nominated to the Professorship of Midwifery and Gynæcology, vacant by the death of Dr. S. Thomas.

Lyons.—For the chair of Experimental and Comparative Medicine, vacant by the death of M. Chauveau, M. Arloing has been selected by the Faculty of Medicine, the second name mentioned being that of M. Rodet.

Madrid.—The Minister of Education has just published a regulation applying to all Spanish faculties of medicine and pharmacy, obliging all students on their first matriculation to show that they have passed successfully through a year's course of instruction in French, but permitting the certificate of a similar amount of knowledge of German to be deferred till the end of the first year. This delay, however, will only be permitted for a short time, after which the original regulation insisting on both French and German certificates on matriculation will be enforced.

WE learn with great regret that Professor de Chaumont of Netley is seriously ill. Dr. de Chaumont is a singularly able and accomplished man, whose scientific work has secured him a deservedly great reputation, and we heartily trust to be able to announce next week his favourable progress towards recovery.

A COURSE of post-graduate lectures on Bright's Disease is now being delivered by Dr. Robert Saundby in the library of the Birmingham Medical Institute. The lectures commenced on the 9th inst., and will be continued on the next three Wednesdays, commencing each day at 4 P.M.

IN accordance with the resolution of the Epidemiological Society, the Council are about to consider the various Acts of Parliament having relation to sanitary administration, and propose in the first instance to consider the Public Health Act, 1875.

THE citizens of Nairn are about to perpetuate by a bronze statue the memory of the late Dr. John Grigor, in gratitude for his services as a medical practitioner, and for his munificence as a public benefactor.

AN outbreak of diphtheria, which has assumed formidable proportions, is reported as having occurred at Whitstable-on-Sea.

MRS. BANCROFT will give a recital on the 18th and 19th inst., at the Novelty Theatre, for the benefit of the Belgrave Hospital for Children.

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THE HIGH ALTITUDE TREATMENT OF PHTHISIS.

(FROM A SPECIAL CORRESPONDENT.)

No. II.

Davos; the Indications and Contra-indications for and against the High Altitude Treatment of Phthisis; the recent Results of Treatment at Davos; Precautions regarding the Journey.

THE high altitude treatment is still sufficiently novel to leave considerable room for doubt regarding the classes of patients which can be confidently recommended to have recourse to the Alpine health-resorts. Nevertheless, every year now adds abundant data towards the formation of a correct conclusion on this important topic, and it is much to be desired that the profession should be made acquainted with the rich results of clinical experience now being gathered at Davos and elsewhere.

In approaching this question one preliminary error must be pointed out. Some writers fail entirely to distinguish between cases which do badly at Davos and those which do badly anywhere and everywhere. It adds nothing to our knowledge to inform us that cases of phthisis complicated with albuminuria do badly at Davos, for we know that such cases are beyond the reach of all climatic treatment. As little does it help towards a clear understanding of the special function of the Alpine sanatoria to say that cases of laryngeal phthisis fare badly there, as we may pertinently ask, Where do they fare otherwise than badly? On the other hand, it is of little value to inform us that the cases for Davos are those of chronic phthisis without hereditary predisposition, where there is immunity from visceral complications and the retention of digestive and circulatory vigour, because such cases as a rule respond fairly well to any climate where the meteorological conditions are more favourable to health than those amidst which the disease was contracted. We must come to closer quarters with the problem and avoid those generalities which are part of the general prognosis of phthisis. What we want to determine is this—In what classes of case may Davos be expected to prove decidedly more efficacious than Cannes, Madeira, Algiers, or Egypt? Secondly, What types of phthisis are likely to be injuriously affected by the peculiar features of the climate of high altitudes? Let us look first at the latter question, as admitting of a readier and more definite answer.

All authorities are agreed that patients with weak circulation should on no account be sent to the mountains. Circulatory weakness is the first and most conclusive contra-indication against the high altitude, and the reasons for this rule are too obvious to need amplification. Organic heart disease, such as valvulitis, is not an absolute contra-indication. The main point is the integrity of the cardiac muscle and the degree of efficiency with which the circulation is maintained. A patient with valvular disease, but in whom compensation is well maintained, may be freely recommended to try Davos; but, on the other hand, a case in which there is no actual cardiac disease, but marked functional weakness of the circulatory apparatus, should be prohibited from resorting to the mountains.

The next most important contra-indication is the presence of senile change. No doubt this point should be viewed in close conjunction with the former one, since arterial degeneration is probably the main reason why elderly patients fare ill among the Alps.

Gout and rheumatism are contra-indications which need only be mentioned in order that their importance may be appreciated. Organic nerve disease and hysteria are also prohibitive to the adoption of the mountain treatment, no doubt because of the highly stimulating properties of the climate of high altitudes.

Cases of phthisis in which dyspepsia is a prominent symptom cannot be sent to Davos without some misgivings, although the facts do not warrant the presence of dyspepsia being regarded as an absolute contra-indication. Almost every case of phthisis is sooner or later complicated with digestive troubles, but it is only where these are very obstinate that the high altitude treatment is definitely contra-indicated. It has been remarked that some patients with whom diarrhœa has been a troublesome symptom obtain speedy relief from this annoyance at Davos. It need hardly be said that no relief may be expected if there is any reason to suspect that the diarrhœa depends upon intestinal ulceration.

The last contra-indication to which we will draw attention is that peculiar condition known to German authorities as the *eretische constitution*, or the erethic diathesis. It is impossible to define exactly what is meant by this term, but every physician has a fairly definite conception of what is included under it. Probably the main feature in a constitution of this type is some species of nervous and circulatory instability. But whatever be the erethic constitution—and each observer must form his own conception of it—its presence is an absolute contra-indication to the adoption of the high altitude treatment.

Let us now look at the converse side of the question, and inquire to what classes of the malady the mountain treatment is specially applicable. In the first place, there can no longer be much doubt that in a considerable proportion of cases of early phthisis, where there is freedom from severe pyrexia, marked emaciation, and renal complication, the high altitude treatment is not merely palliative, but actually curative. The Davos doctors claim from 10 to 15 per cent. of cures, and anyone who visits the valley will find numerous individuals who arrived there with fully-developed phthisis, but who are now either restored to complete vigour, or, at least, are succeeding in keeping the destroyer indefinitely at bay. Some of these convalescents return to the lowlands and resume their avocations with safety, but many others find themselves compelled to settle permanently at Davos. It is a point worthy of the most careful study what proportion of the alleged recoveries are absolute cures, and what proportion are contingent upon the convalescent remaining in the climatic and hygienic conditions in which the cure was effected. The latter will undoubtedly be found to constitute a considerable percentage.

Cases of phthisis which exhibit a "torpid reaction" are those most suitable for the mountains. In other words, patients should not be sent to Davos unless they are capable of supporting and responding to the high stimulating climatic conditions which there prevail. This is a very obvious consideration, but, next to indications afforded by the circulation, it is the most important clue to the proper selection of cases.

Dr. Ruedi has remarked that cases of hæmorrhagic phthisis, where the hæmorrhages are profuse and the physical signs slight, are very favourable for treatment at Davos.

Apart from phthisis, there are many morbid conditions which respond readily to the high altitude treatment. Old pleurisies and unresolved pneumonias often undergo marvellously rapid improvement—a fact which is easily explicable when we remember that the aerial rarefaction promotes lung expansion, and the general climatic conditions stimulate nutrition and tissue changes.

Asthma often does well at Davos, but every practitioner is aware that no precise rules can be laid down regarding this erratic malady.

Cases of nervous exhaustion from excessive brain work often benefit decidedly by a resort to the high altitudes. In these patients the mountain air often acts as an excellent hypnotic, and with the return of sleep the other symptoms are rapidly relieved. It is, however, a *sine qua non* in such cases that the patient shall give up all intellectual effort and take absolute rest.

As a general rule, a certain amount of constitutional vigour is necessary to enable a patient to withstand the cold of the high altitude climate and to respond to its stimulating action. On this subject, however, any hard-and-fast rule would be fallacious, as undoubtedly some patients who arrive in a state of marked prostration subsequently rally and benefit by a residence at Davos. Nevertheless, there can be no more pernicious error than to suppose that the air of the higher Alps is any specific for advanced phthisis.

Do hopeless cases of phthisis pass the remnant of their days more easily at Davos than elsewhere? I can only answer—*cela dépend*. There is no rule. Some patients, who have tried all resorts, deliberately go to Davos in order to die as comfortably as possible, but probably a still larger number of moribund cases experience some relief on removal to the softer air of Mentone or Madeira. It seems natural that the dying should seek soothing and sedative climatic conditions rather than those that are pre-eminently stimulant.

An important question arises, whether invalids should go

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direct to Davos or break the journey at some intermediate stations. Probably, if the circulation is vigorous and the nervous system fairly sound, a journey direct is the less of two evils; but if there is any reason to dread cardiac failure or severe nervous disturbance, the need for a halt at some intermediate points is imperative. The best places at which to break the journey are Ragatz and Klosters. Coire may be selected if the Landwasser route is chosen. The invalid should not stop either at Landquart or Küblis. Some German authorities urge that, whatever practice be adopted on the upward journey, there should be no exception to the rule of making the descent to the plains by several stages.

Patients begin to arrive at Davos early in October, and by the end of November the winter colony is assembled. It is one of the moot points when the patient should arrive. It used to be taught that it was a mistake to arrive before the valley was fully invested with its winter robe of snow—a rule which would delay arrival until the third or fourth week of November or later. The Davos doctors now teach that the earlier the patient arrives the better—September being a good month,—and that the more serious the case the greater is the need for a timely arrival. This seems reasonable, and English practitioners should note this point carefully, inasmuch as the neglect of it may lead to the disappointment of even well-founded hopes.

REPLANTATION, TRANSPLANTATION, AND IMPLANTATION OF TEETH.

REPLANTATION consists in the return of a tooth to the same cavity from which it has been extracted. Transplantation is the extraction of a tooth of one person and transferring it to the socket left in the mouth of another by the extraction of a tooth. Implantation is the ingrafting of a natural tooth into an artificial socket.

Replantation is performed when teeth have been knocked out, extracted accidentally or in error, sometimes to rectify malposition, and occasionally for disease. In the first three cases the tooth is simply cleansed in some antiseptic solution, forced into place, and kept fixed by means of ligatures. These cases do extremely well; even if the tooth has been out of the mouth some hours, union certainly takes place between the periosteum of the tooth and that of the socket; but whether the circulation in the pulp ever becomes re-established is not absolutely known. It has been inferred, because these teeth often lose none of their natural translucency, which is always the case when a pulp is dead; but there is no authenticated proof of this; it is therefore the practice of many to remove the pulp and fill the nerve canals before replacing. When there has been for a long time a chronic alveolar abscess, the offending tooth has been extracted; the diseased portion, which is invariably the apex, being cut off, it is put back into its socket, a hole being left through the fang to allow for drainage. This operation has not been very successful, and is almost entirely abandoned, at any rate in this country.

Transplantation is a very old operation. John Hunter, one hundred years ago, spoke of it as being in his time a habitual practice, and gave a very practical and detailed description of the procedure. When he was about to perform the operation he had half a dozen persons ready, so that if one "scion" tooth, as he called the one to be transplanted, did not fit the socket, another was at hand if required. He believed that the circulation in the pulp was restored, both from the translucency of the pulp and from the results of his oft-quoted experiment of transplanting a tooth into a cock's comb, which, by the way, he says in a foot-note, succeeded but once in a great number of trials. The objections are numerous: first, there is the difficulty in obtaining healthy fresh teeth which will fit the socket, the liability of the transmission of disease, the uncertainty of the result, and the comparatively short time the teeth last, three years being a good average. Notwithstanding, every decade the operation is reintroduced with some modifications in detail, only to fall into desuetude.

Quite recently, Dr. Younger of San Francisco brought before several dental societies, and published a monograph on, a method which he calls implantation. It is applicable to cases where teeth have been extracted and the alveolar crypt filled up with cancellous bone. An artificial socket is made with a trephine or large drills; a dead tooth, no matter how old so long as its periosteum remains intact, rendered aseptic and its pulp canal filled, is then inserted into the socket and ligatured in places. It is maintained that the great difference of this operation is that the tooth is placed in a healthy, not a diseased, socket. In his early attempts he used fresh teeth, which he obtained from other dentists, and which he endeavoured to keep alive by implanting them in cocks' combs, so that one had visions of a farmyard of cocks armed with teeth as well as spurs; but he soon abandoned this, presumably because he failed. He has performed fifty operations since June, 1885, two of which were failures. There is unimpeachable evidence that a large number of these teeth have retained their positions, but the question is how long will they continue to do so. We certainly should not expect this to be any more successful than transplantation with fresh teeth, and those that are not thrown off at once either by absolute failure to unite, or subsequently from alveolar abscess, will in time, as past experience has shown, become absorbed just as ivory pegs are in bone.

COCAINE IN DENTISTRY.

MR. MORTON SMALE, at the last meeting of the Odontological Society, made a communication on the use of Cocaine. He advocated the formation of a subcommittee of investigation to experiment with the drug in order that an authoritative utterance might go forth to the members of the Society and the profession at large as to its value; for at present, with regard to dentistry, the profession and the public are in a state of suspended judgment in relation to it. He said: "I began using cocaine early in 1884, and have used it more or less ever since. In the Westminster Hospital Report for 1885, I thus speak of it: 'In extraction, if the drug is applied to the gums surrounding the tooth (the part having been first dried and protected from saliva, or the cocaine will be washed away) the pain attending the adjustment of the forceps is obviated, but the wrench attending the fracture of the alveolus and rupture of vessels and nerve at the apical foramen is much the same. A small loose stump may be removed painlessly. In cases of fractured teeth, where it is necessary to remove the pulp, cocaine is useful. Applied to the surface of the exposed pulp it will deaden sensibility, and if applied several times at short intervals the nerve extractor can be inserted and the pulp extracted with very little pain. This drug is of distinct value in practice, and should be in every dentist's consulting-room.' The experience of injecting it into the gum tissues has caused me to enlarge very materially my views about it. I have been using 5, 10, 15, 20, and 25 per cent. solutions of hydrochlorate of cocaine; the weaker ones I have discarded in favour of the four stronger ones. Of the cocaine faintness I have seen and heard very little, except in the journals; the only case was in a man who felt faint at the insertion of the needle, and who, when he was vaccinated a year or two before, nearly fainted. I can hardly quote cases in a short casual communication, but I have used it successfully for the following purposes: extractions, torsion, removal of live pulp, inserting hickory wedge between teeth for stopping purposes. These operations, all very painful ones, have been done almost without pain, so much so that they were easily endurable. In cases of removal of pulp, I have, in addition to injection, always applied the drug to the surface of the pulp. A few days since I applied it both by injection and to the cavity in a patient who had some exquisitely sensitive cavities on the buccal surface of some molars and premolars, but the result did not come up to my anticipation. The patient said the pain was lessened, but it was still painful. I was anxious to be able to speak from personal experience, and, as I could not afford to lose a tooth, thought I would try the next most painful operation in dentistry. This, I consider, is the rapid separation of two front teeth. I therefore inserted five minims of a 20 per cent. solution into my gum over my front teeth, and placed a wedge of hickory wood between them, and drove it in with a dentist's hand-mallet, at the same time driving the wedge against the gum between the teeth. I left the wedge there for twenty

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minutes, and then slowly dragged it down between the teeth. The whole of this was done with very little discomfort, and had I a tooth that wanted removing I should be content to have it removed after the injection of cocaine."

THE SHAW-STREET HOSPITAL FOR WOMEN, LIVERPOOL.

THE annual meeting of the governors and supporters of the Hospital for Women, Liverpool, was held on the 3rd inst., the attendance of subscribers being very large. Mr. T. A. Bushby presided, and after a few preliminary remarks, in which he referred to the inquiry into the practice of the institution which has taken place since the last annual meeting, called upon the secretary, Mr. M. Guthrie, to read the report of the past twelve months' work. From this it appeared that, in spite of the disturbed state of affairs which has recently prevailed in the hospital, its general usefulness has been proved. The number of in-patients was 239 and of dispensary patients 3505. The expenditure during the year was £1759, being £47 less than in the previous year; but as there was in 1885 a deficiency of £88, the total expenditure came to £1647. Against this there was received the sum of £1074, showing a deficiency of upwards of £770. The medical board, in their fourth annual report, announce a decrease in the work done in the hospital and dispensary in the past year as against 1885, the number of in-patients showing a decrease of 108 and the out-patients a decrease of 6. To this report tables were appended which showed that of the 239 in-patients 104 were submitted to operation. Of this number 64 were minor operations, with no mortality; the remainder were major operations or abdominal sections, and resulted in a mortality of 10. This report and the balance-sheet were then adopted, and votes of thanks to the various visitors to, and officials of, the hospital proposed and carried. The appointment of the honorary medical staff was then proceeded with, and Dr. Briggs was, upon the motion of Mr. Tinne, unanimously reappointed.

Mr. LANCASTER proposed the re-election of Dr. Burton, who, he stated, had been connected with the hospital ever since its foundation; his practice as a surgeon had never been called into question; he had maintained a moderate course; he had invariably consulted according to the rules of the hospital; and he had not in a single instance brought upon himself the condemnation or the criticism of the members of the medical profession in Liverpool and elsewhere who had thought fit to criticise the operations of the other members of the medical staff.

Mr. BIRKETT seconded the proposition.

Mr. TINNE opposed Dr. Burton's re-election. He had no objection to Dr. Burton as an individual, but he considered that it would be for the interests of the hospital that the whole of the old staff should not be re-elected at that meeting.

Mr. S. S. BACON opposed, and Mr. W. OULTON supported, the proposition, and ultimately, after a few remarks from the chairman respecting the reasons which had led to the proposal of names separately, and not, as in former years, *en bloc*, a vote was taken, and Dr. Burton was declared re-elected by thirteen votes to nine.

Mr. C. JONES moved that Dr. Imlach be re-appointed as honorary medical officer of the institution. After having briefly reviewed Dr. Imlach's connexion with the charity from its foundation down to the close of the inquiry which was held last year, Mr. Jones contended that, on the strength of the report of the investigation committee, they could not dismiss Dr. Imlach—a contention which he supported by several quotations from the report. He hoped that they would not permit the great injustice of turning away one man who had done so much for the success of the hospital.

Mr. W. B. HALHED seconded the motion, and contended that in the special report of the Medical Institute there was no implication that Dr. Imlach should be turned out of the hospital. If they had wished that course adopted, he was sure that they would have said so.

Mr. GUTHRIE having opposed the motion, Mr. LANCASTER defended the Inquiry Committee, and maintained that in its deliberations no hostility was shown to Dr. Imlach or to any member of the medical staff of the hospital.

The voting then took place, when sixteen hands were held up in favour of the reappointment of Dr. Imlach and seventeen against.

Mr. C. JONES demanded a poll on account of the proxies. This was granted, and resulted in the rejection of Dr. Imlach by 272 votes to 137.

Some formal business was then transacted, and an adjournment of the meeting for the consideration of several alterations in the rules was carried. Previously, however, to the termination of the proceedings the Rev. D. MOUNTFIELD proposed a vote of thanks to Dr. Imlach, who had, he considered, been very badly treated. Mrs. ALFRED BOOTH also spoke in favour of Dr. Imlach, but the proposal was not put to the meeting.

ARMY MEDICAL SCHOOL, NETLEY.

THE fifty-third session of the Army Medical School at Netley was brought to a close on the 7th inst., when General Sir Donald M. Stewart, Bart., G.C.B., G.C.S.I., &c., late Commander-in-Chief of the Forces in India, presented the prizes gained during the term by the surgeons on probation. Sir Donald, in some remarks to the students, criticised the system at present in force in the British service, which in his opinion has one main defect—viz., the absence of any direct connexion between the medical service and regiments.

Sir JOSEPH FAYRER then announced the gift of about 350 separate works, comprising between 600 and 700 volumes, to the library at Netley School, by Dr. Waring, late of the Madras Medical Service. The collection, he stated, was specially rich in works on Materia Medica, and others dealing with foreign countries, besides several rare books of medical bibliography.

Sir THOMAS CRAWFORD thanked Sir Donald Stewart for having consented to present the prizes, and congratulated the students who had gained their commissions on the way in which they had worked through the past session, concluding by most heartily wishing them every success in the future.

Sir THOMAS LONGMORE expressed similar good wishes for the prosperity of the medical officers on behalf of the professors under whom they had studied, and the proceedings then terminated.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

West Sussex Combination.—Dr. Charles Kelly's report for 1885 reached us somewhat late. Of the eleven districts which compose it, the lowest rate of mortality was in the small district of West Worthing, where it stood at 7·8 per 1000, the highest being 16·6 in the Westbourne rural district These rates have, however, varied much during a series of years. Viewing the whole combined districts the death-rate has diminished from a mean rate of 15·4 per 1000 in the five years 1876-80, to 14·4 in the subsequent period of five years. There has been a rise in the diphtheria death-rate in this district. Taking the whole of England that rate stands at 121 per 1,000,000; in West Sussex it now reaches 170 per 1,000,000, and it is, as elsewhere, more inclined to be fatal in rural and semi-rural places than in towns. Thus, in Brighton the rate is 81 per 1,000,000, whereas in Petworth it is more than five times, and in Horsham more than three times, higher. But there are differences even in the same district, and Dr. Kelly has made it a special care to examine the influence of soil as regards this and other mortalities. The result is that he has found that the death-rate per 1,000,000 from diphtheria, being 246 on his entire area for a period of ten years, was no less than 454 on the retentive soils such as the Weald clay, the clayey beds of the lower green sand, and the gault; and only 127 on such pervious soils as the upper and lower green sands, the chalk, and the lower Tunbridge Wells sands. The influence of soil in the production of this mortality is the more striking because it appears so entirely to outweigh that which is brought about by personal inter-

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communication, which, one would have imagined, would in towns have so greatly exceeded that which obtains in rural areas. These and similar contributions to our knowledge of the etiology of disease come most appropriately from medical officers of health acting for wide areas, and they add special interest to their reports.

Huddersfield.—Dr. Spottiswoode Cameron in his report on the fourth quarter of 1886 points out that although, speaking generally, Huddersfield compares well as regards infectious diseases with the twenty-eight large towns and cities quoted by the Registrar-General, yet the rate of mortality in the borough from diphtheria has been half as much again as in the towns referred to, and that the rate from whooping-cough was three times that with which it is compared. Diphtheria is essentially a disease to be dealt with by early isolation of first attacks, and though some cases are received into the Birkby hospital, yet this sanitary institution is, notwithstanding excellent additions to it, not sufficiently complete to deal with this disease. Whooping-cough is, unfortunately, a disease which is at present almost beyond the scope of sanitary measures.

Salford.—Dr. Tatham, in reporting for the last quarter of 1886, finds it necessary to issue a warning as to the spread of scarlet fever in his district; this spread being largely due to deplorable carelessness. Of 603 cases reported to the Health Department during the quarter, 307, or 51 per cent., were removed to the infectious hospital. This is very satisfactory, but unless those responsible for the remaining 49 per cent. take note of the warning issued, especially as regards children during the school age, scarlet fever will continue to spread. The numbers of those attacked during the past four quarters have been 177, 230, 550, and 603 respectively. It is certainly time for the inhabitants to aid the health officers in controlling this scourge.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5846 births and 3470 deaths were registered during the week ending Feb. 5th. The annual death-rate in these towns, which had declined in the preceding four weeks from 26·5 to 21·1 per 1000, further fell last week to 19·6. During the first five weeks of the current quarter the death-rate in these towns averaged 22·8 per 1000, and was 1·9 below the mean rate in the corresponding periods of the ten years 1877-86. The lowest rates in these towns last week were 13·5 in Nottingham, 13·7 in Brighton, 16·3 in Norwich, and 17·1 in Birkenhead. The rates in the other towns ranged upwards to 25·0 in Preston, 25·3 in Bradford, 26·3 in Manchester, and 28·4 in Plymouth. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 485, 392, and 371 in the preceding three weeks, further declined last week to 367; they included 111 from whooping-cough, 104 from measles, 54 from scarlet fever, 40 from "fever" (principally enteric), 29 from diphtheria, 27 from diarrhœa, and 2 from small-pox. These principal zymotic diseases caused the lowest death-rates last week in Nottingham, Cardiff, and Wolverhampton; and the highest rates in Bristol, Plymouth, and Blackburn. The greatest mortality from whooping-cough occurred in Bradford, Sunderland, and Plymouth; from measles in Bristol and Newcastle-upon-Tyne; from scarlet fever in Salford, Sheffield, Blackburn, and Birkenhead; and from "fever" in Plymouth. The 29 deaths from diphtheria in the twenty-eight towns included 16 in London, 3 in Portsmouth, 3 in Liverpool, and 2 in Preston. Small-pox caused 1 death in Manchester and 1 in Blackburn, but not one in London and its outer ring, or in any of the twenty-five other large provincial towns. Only 1 small-pox patient was under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease. The deaths referred to diseases of the respiratory organs in London, which had declined in the preceding four weeks from 731 to 432, further declined last week to 364, and were 279 below the corrected average. The causes of 75, or 2·2 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Manchester, Nottingham, Leicester, and in six other smaller towns. The largest proportions of uncertified deaths were registered in Halifax, Oldham, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 23·7 and 24·7 per 1000 in the preceding two weeks, declined to 19·8 in the week ending Feb. 5th; this rate exceeded by 0·2 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 12·2 and 14·6 in Leith and Perth, to 21·3 in Aberdeen and 23·7 in Glasgow. The 495 deaths in the eight towns last week showed a decline of no fewer than 121 from the numbers in the previous week, and included 23 which were referred to whooping-cough, 12 to measles, 10 to "fever" (typhus, enteric, or simple), 8 to scarlet fever, 7 to diphtheria, 6 to diarrhœa, and not one to small-pox; in all 66 deaths resulted from these principal zymotic diseases, against 65 and 75 in the preceding two weeks. These 66 deaths were equal to an annual rate of 2·6 per 1000, which exceeded by 0·5 the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had declined in the preceding five weeks from 27 to 19, rose again last week to 23, of which 17 occurred in Glasgow, 3 in Edinburgh, and 2 in Paisley. The 12 deaths from measles showed a decline of 6 from the number in the previous week, and included 9 in Glasgow and 2 in Aberdeen. The deaths referred to "fever," which had been 5 and 6 in the preceding two weeks, further rose last week to 10, of which 5 occurred in Glasgow, 2 in Edinburgh, and 2 in Greenock. The 8 fatal cases of scarlet fever, on the other hand, showed a considerable further decline from recent weekly numbers, and included 4 in Edinburgh and 3 in Glasgow. The 7 deaths from diphtheria, of which 4 occurred in Glasgow, corresponded with the number in the previous week. The 6 deaths attributed to diarrhœa, showed a decline of 4 from the number in the previous week. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had steadily declined in the first four weeks of the year from 213 to 155, further fell last week to 126, and were 9 below the number returned in the corresponding week of last year. The causes of 76, or more than 15 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 36·2, 32·2, and 28·2 per 1000 in the preceding three weeks, rose again to 29·7 in the week ending Feb. 5th. During the first five weeks of the current quarter the death-rate in the city averaged 31·5; the mean rate during the same period being but 21·8 in London and 21·4 in Edinburgh. The 202 deaths in Dublin last week showed an increase of 10 upon the number returned in the previous week, and included 4 which were referred to scarlet fever, 3 to whooping-cough, 3 to diarrhœa, 2 to "fever" (typhus, enteric, or simple), 1 to diphtheria, and not one either to small-pox or measles. Thus the deaths from these principal zymotic diseases, which had been 21, 13, and 14 in the preceding three weeks, were last week 13; they were equal to an annual rate of 1·9 per 1000, the rates from the same diseases being 1·8 in London and 2·0 in Edinburgh. The fatal cases of scarlet fever, whooping-cough, and "fever" showed a decline from the numbers in the previous week, while those attributed to diarrhœa were more numerous. The deaths of infants exceeded the number returned in any previous week of this year, while those of elderly persons showed a further decline. Seven inquest cases and 8 deaths from violence were registered; and 54, or more than a quarter, of the deaths occurred in public institutions. The causes of 32, or nearly 16 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

Surgeon-General E. G. M'Dowell, of the Army Medical Staff, has been appointed Principal Medical Officer at Halifax, Nova Scotia.

Messrs. Wilkins, Patterson, Venour, North, and Dr. Ogilvie (all Surgeons-Major) have been appointed Senior Medical Officers to Brigades in Upper Burmah.

Mr. C. W. Owen, C.I.E., M.R.C.S., L.R.C.P., who was with the Afghan Boundary Commission, was recently presented by the Amir with an autograph letter thanking him for

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the good work which he had done in the medical treatment of Afghan officials and other subjects of the Amir.

ADMIRALTY.—The following appointments have been made:—Surgeon James J. Walsh, to the *Vernon*, additional; Mr. John V. Laverick, to be Surgeon and Agent at Skinningrove, Staitho, Runswick, Kettleness, and Hammersen.

RIFLE VOLUNTEERS.—2nd Volunteer Battalion, the Loyal North Lancashire Regiment: Surgeon and Honorary Surgeon Major R. Settle, M.D., resigns his commission; also is permitted to retain his rank and to continue to wear the uniform of the battalion on his retirement.

VOLUNTEER MEDICAL STAFF CORPS.—The Woolwich Division: William Collingridge, M.D., to be Surgeon (Supernumerary).

Correspondence.

"Audi alteram partem."

GENERAL HOSPITALS AND PARISH INFIRMARIES.

To the Editors of THE LANCET.

SIRS,—I agree entirely with the letter of your correspondent "X.," published last week, but I would go much further than he. It has always seemed to me, more particularly so in these days of hospitals partially closed for want of funds, that it is an injustice to the ratepayer to have built, and to compel him to keep up, the magnificent parish infirmaries which one may see now in the north, south, and west of London. It would surely have been no difficult matter in the case of many parishes to have subsidised the nearest general hospital, and thus to have commanded beds sufficient, at any rate, for all urgent cases of disease. And if it be objected that none of the existing hospitals could have provided sufficient accommodation, I should reply that it would have been better far to extend the already existing general hospitals, and, if need be, to build others in quarters where they were needed, than that each parish should have launched out into bricks and mortar to the extent that has been done with completely equipped establishments. It used to be the custom at Guy's, I know, to receive parish cases at so much per week, but few such are, I think, admitted now; and I am told, that in some of the large continental towns a small sum per diem is paid for each patient admitted, unless he be selected and consent to occupy a bed in the wards devoted to special clinical cases. It is difficult to see what insuperable difficulty there could have been, or would be now, with an ever-growing population, in adopting some general plan of this kind. But I venture to maintain that these large parish infirmaries are not only an injustice to the ratepayers—I do not think I should take up a pen on that score; they also do harm to the general hospitals; and, in a sense, I think it may be fairly said that they may do injustice to the patients that are admitted within their own doors. I have been told by more than one surgeon at the metropolitan hospitals that a great number of surgical cases are now diverted by the parish infirmaries. It is evident that it must be so. First-class men seek and obtain the resident appointments at these institutions, and they are not content—why should they be?—to treat only the very chronic and incurable cases; they operate on hernias, amputate limbs and breasts—in fact, do anything within the range of trodden or untrodden medicine or surgery; and as a result the practice in general hospitals is curtailed, the students suffer to a very definite extent, and again, since it is a very clinching argument, the rates are necessarily increased. Surgical skill and appliances, the latest novelty in drugs, cannot be had for nothing; and the advanced medicine and surgery (particularly the latter) of the present day are admittedly very expensive. I submit that the ratepayers are not called upon to undertake this expense until the general hospitals are unable to meet the demand, and it is safe to assume that in the present impecunious state of these, and with their many vacant beds, it could be done cheaper and more helpfully by them than the parishes can do it in their own infirmaries, when the cost of building, staff, &c., is taken into account. It may also be said that to turn the parish infirmary into a general hospital, as is done in the present day, is unjust to many of the patients.

This might seem at first a delicate matter to touch upon, but it is no more than common sense after all. Everyone will probably allow that the advanced surgery of the present day—I speak as a physician might be expected to speak!—should always, in the interest of the patient, be a matter of free consultation. Success is happily often the crown of what at the outset is but a desperate venture to the patient, and even to the surgeon hardly more than a forlorn hope, with forlorn writ very small and hope unusually big. But it is the desperate venture that requires the more consideration, and the fastest express requires the most perfect possible of brakes. Again, it is quite impossible in the present day that the one or two (able men as they are) resident medical men can work a large general hospital—such as, in fact, these institutions are becoming,—and this has of late been recognised in the proposition which has been made, that they should have a consulting staff attached to them. But I do not think that this meets the requirement. Honorary consulting physicians and surgeons are for the most part illusions, and to my mind a largely increased acting staff is what is necessary. By this means alone can any free consultation, the discussion of opinions and of proposed measures of treatment in critical cases, be guaranteed as a matter of routine. I live in hope that somehow or other, at some not far distant day, the present parish infirmaries may be linked each to its nearest general hospital, and that both will be in some measure aided by the rates. I feel sure that economy and efficiency would gain thereby, and that thus the real want of hospitals and infirmaries would be mutually supplied.

I am Sirs, yours obediently,

Weymouth-street, W., Feb. 5th, 1887. JAMES F. GOODHART.

THE CAMBRIDGE CHOLERA FUNGUS.

To the Editors of THE LANCET.

SIRS,—In a recent issue (Jan. 20th) of your contemporary *Nature*, Mr. Gardiner, who had previously suggested that the so-called Cambridge cholera fungus might be a Chytridium, has withdrawn that opinion, and now believes it to be the involution form of some bacterium. He further adds that this organism very vividly recalls to his mind the involution form assumed by Bacterium cyanogenum. I should like at once to point out that this later opinion bears out to a certain extent the conclusion which I arrived at last year. This I have expressed in the new edition of my Manual of Bacteriology, which will be issued, I hope, in a few days, as follows:—"At a meeting of the Physiological Society, May 15th, 1886, at Cambridge, a preliminary communication was made upon the investigations in Spain, referred to in the first edition of this work. The observations made by Roy, Brown, and Sherrington, rather tend in the opinion of the author, to confirm Koch's views. Comma bacilli were found to be present in some cases in enormous numbers, and the frequency of their occurrence led these observers to believe that they must bear some relation to the disease. At the same time, as they failed to find them in all cases, they regarded the existence of a causal relation as not proved. They failed to find the Naples bacterium or the small straight bacillus noted by Klein, but they drew attention to certain peculiar mycelium-like threads in the mucous membrane of the intestines. This organism, however, judging from a preparation stained with methylene blue, which was exhibited at the meeting, appeared to the author to much more closely resemble some of the involution forms of the comma bacillus, *filaments à masses globuleuses*, figured by Van Ermengen than anything else he had seen. Yet, assuming that these peculiar structures do belong, as described, to some species of Chytridiaceæ, it is very doubtful whether they can be considered to be of any significance. Methylene blue has been employed by Koch and others, including the author, for staining sections of the intestine from cholera cases, and had these structures been constantly present it is hardly possible that such striking objects could have been overlooked. Again, we must bear in mind that hyphomycetous fungi occasionally have been found to occur saprophytically in the intestinal canal, the lungs, the external auditory meatus, and elsewhere. We must, however, wait before expressing a more decided opinion until the report of these observers is published in full."

I have now before me the proceedings of the Royal

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Society (No. 247), an abstract of which was given in your issue of Jan. 29th, and I must confess that I am much puzzled by the illustrations which accompany the preliminary report on this subject. These figures, as Dr. Klein has pointed out, certainly appear to represent a branched mycelium, but they do not in the least recall to my mind the actual preparation which I had an opportunity of examining, and upon which I founded my opinion in May last. It has occurred to me that possibly Mr. Gardiner was shown the very same preparation, and hence his recent opinion that this organism is some involution form.

With regard to methylene blue having been used by Koch, I would refer those interested in this discussion to "Bacteriology," p. 141, where the method is given, as reported in the *Berliner Klinische Woch.*, No. 31 (Conferenz zur Erörterung der Cholerafrage, Juli 26, 1884). In their preliminary report, Messrs. Roy, Brown, and Sherrington state that the particular method they employed was almost identical with that of Löffler, and they add, "So far as we know, Löffler's method has not been employed to stain sections of tissues taken from fatal cholera cases," but here I must add that Löffler's method was precisely the one which I used in staining a great number of sections in July, 1885, as it had been especially recommended for that purpose by Dr. Workman in the *British Medical Journal*, No. 1280. I am Sirs, yours faithfully,

EDGAR M. CROOKSHANK, M.B.

Manchester-square, W., Feb. 3rd, 1887.

THE FUTURE UNIVERSITY OF LONDON.

To the Editors of THE LANCET.

SIRS,—In your excellent article replying to the writer in the *Quarterly Review*, you enumerate University College, King's College, the Science and Art Schools at Kensington, the Technical Institute of the City Guilds, the Royal Colleges of Physicians and Surgeons, and the Inns of Court as bodies which are not, but might be, incorporated in a true University of London. Will you allow me to ask for a reconsideration of this position? It is of immense importance that the wrong ingredients should not be mixed to form the new University. As nearly as circumstances will allow, we want *one* body of professors actually united and organised as a single corporation of teaching examiners or examining teachers to constitute the new University. The attempt which has been made by Sir George Young and one or two members of an Association which has never itself assented to such a scheme—to bring individuals from diverse and very many teaching institutions together as the basis of a new University—is, I venture to assert, a fatal error. A certain small amount of popular support may be obtained for the new University movement by thus widely throwing the net, but it is at the sacrifice of all that is worth obtaining in the foundation of a new University. The Normal School of Science has no *locus standi* in the matter. Its business is to train school teachers and to grant its own certificates. Its lecturers are paid by the taxpayers. The Technical College similarly must stand on its own bottom and grant its own diplomas, and has no claim whatever to take part in the University. Leaving aside for the moment the question of professional degrees in law and medicine, it results that for the general purposes of University training and the granting of degrees in Arts and in Science there are only two bodies in London which can claim the concession to their professors of the special favour and privilege in question. These two bodies are University and King's Colleges. The mere fact that there are *only* two such bodies is immensely important; it results in an absolute certainty that were these two bodies endowed by the Crown with the style and authority of a university, they would gradually fuse with one another and become a single corporation identical with the University. Thus we should at last see in London one powerful and authoritative body of teachers able to claim and to attract endowments whilst teaching and carrying on research on a scale worthy of the richest city in the world. The professional degrees in Law and in Medicine must, I admit, be placed on a somewhat different footing; and in the new University the Faculty of Law and the Faculty of Medicine should consist not of the professors of these subjects in the University and King's College, but of representatives of the professions of law and of medicine generally. This distinction is necessary for several reasons, but chiefly because in the case of medicine the degree has a special professional significance, and because the teaching of medicine and surgery, strictly so called, is splendidly provided for by the great London hospitals and tested by the great medical corporations. There may be a reluctance on the part of the Crown to grant the power of conferring what would purport to be an academical degree to a purely professional corporation. If so, the objection might be removed by making the new body—whatever its internal constitution may be—which is to confer the degree of M.D. on London students occupy the position of the Medical Faculty of the new University whose Faculties of Arts and of Science are formed by the professors of University and King's Colleges. It will be objected to these proposals that special privilege and favour are to be accorded to University and King's Colleges. But why should such favour not be granted to them? The essence of university foundations is the grant of a privilege of dignity and authority to a selected body. No one can maintain for a moment that University and King's Colleges are not worthy to receive this privilege, or that there is any other body in London which has any claim, except in regard to medicine and law, strictly so called, to share it.—I am, Sirs, your obedient servant,

E. RAY LANKESTER, M.A., LL.D., F.R.S.

Savile Club, Piccadilly, W., Feb. 7th, 1887.

*** We did not instance these institutions as constituent bodies in a new university, but merely to show that the existing University had done nothing to bring them into any closer union than was the case with corresponding institutions in the time of Stowe.—ED. L.

ON THE CAUSE OF MARKED HYPERTROPHY OF THE ANTERIOR WALL OF THE BLADDER.

To the Editors of THE LANCET.

SIRS,—At the meeting of the Pathological Society on the 18th ult., Mr. Fenwick drew attention for the first time to the fact that the anterior wall of the bladder hypertrophies much more than the remainder, especially in cases of unrelieved stricture of the urethra. The position of the bladder in the anterior part of the pelvis enables it, when dilated, to expand posteriorly in the direction of the rectum and upwards into the abdominal cavity, but the pubic wall flattens the anterior surface. This affords the true explanation of the phenomenon. If membranes in the shape of spheres of varying sizes enclose fluid, so that the tension is uniformly distributed along each fibre, the thickness of the membrane must by the principles of hydrostatics be exactly proportional to the radius of the corresponding sphere. Similarly it follows that the greater the flattening of the anterior wall of the bladder as compared with the curvature of the posterior and upper walls, the greater must be its thickness, in order that the pressure of the urine in the bladder may be balanced by the same tension of each muscular fibre. Hence the diminished curvature of the anterior wall of the bladder throws a proportionate increase of work on that part of the wall, and a greater thickening ensues. This is, in fact, an illustration of the general law in physics—that every limitation to the free movement of a body throws an increased strain upon the body: the pubic wall impedes the projection of the bladder forwards, and therefore throws an increased strain upon its impeded portion, the anterior wall, and this completely explains the localised thickening to which Mr. Fenwick has drawn attention. I am, Sirs, yours truly,

Jan. 19th, 1887. G. N. PITT.

THE LAW RELATING TO CORONERS.

To the Editors of THE LANCET.

SIRS,—As I have made a public promise, of which you have been kind enough to take notice, that I should bring in a Bill to amend the law relating to the election of coroners in English counties, I wish, if you can give me space in your valuable columns, to explain why I have not

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been able to fulfil that promise. I did draw up such a Bill, in which I proposed that the freeholders on the Parliamentary Register for the time being should be the electors. On consultation with several of my Radical M.P. friends, with whom I generally act, I find there is an objection on their part to conferring any special benefits on the freeholders, and they prefer that the whole of the voters on the Parliamentary Register should be the electors. This I find impossible, as the numbers which would have to be dealt with would be so large as to be practically unworkable. Another objection taken is that the freehold portion of the present Parliamentary Register will within a few years be done away with, on the principle of "one man one vote," and that it would not be likely to be kept on for the election of coroners only. It is also objected that the election of coroners for counties should be put in the same category as that for towns, which is vested in the town councils, and should in the former case be delegated to the county local boards, which are likely to be established during the present session of Parliament. Failing the support of the gentlemen with whom I usually act, I have given up the subject in despair, and written to one of the Middlesex magistrates for the information of the Bench, stating these reasons for not bringing in the promised Bill. I have always been of opinion that every coroner should be in the first place a medical man, and that an examination in the law of evidence, similar to that in State medicine, should be set on foot, in order that every medical man who aspires to be a coroner should be able to shew by passing it that he is doubly and fully qualified to discharge the duties of such a responsible post. Your powerful advocacy of such a proposition would soon bring it within the range of practical politics, and confer a great boon on the medical profession. Barristers or solicitors who hold a double medical qualification would in this case also be eligible for the post.

I am, Sirs, yours truly,

Millwall, Feb. 8th, 1887. R. MACDONALD, M.D., M.P.

LISTERIAN AND NON-LISTERIAN OVARIOTOMY.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of May 27th, 1882, there appeared an editorial note on the results of ovariotomy at the Samaritan Free Hospital in the year 1881, contrasting the results under the Listerian and non-Listerian methods of operating, and I shall be obliged by your allowing me to recall attention to the subject. In the note referred to you pointed out that the mortality under the Listerian method was very much less than that under the non-Listerian in my hands, but, unlike your contemporaries, you were careful not to draw any conclusions from the data. In the following number (June 3rd) you were good enough to publish a note of mine, in which I asked you to suspend your judgment, on the ground that it was "a very unsafe proceeding to lay too much stress on any particular series of cases, and especially on those of one year only." The reasonableness of that request will be apparent when I bring to your notice the results of the same operation during the year just past (1886), for they completely upset the fanciful conclusions derived from the results of 1881. Thus, in the year 1886 there were forty-six ovariotomies performed in the Samaritan Free Hospital by three operators, with a careful observance of all the details of the Listerian method, and of those cases seven died; while the twenty-five cases done by me without any so-called antiseptic precautions, beyond the strictest attention to cleanliness, *all recovered.*

I offer no comment, and have only to request that you will give the same prominence to this statement as you gave to that to which I here recall your attention. As the results of the work done in the Samaritan Free Hospital will not be published in the form in which they appeared in 1882, and as there will be no means of judging between the merits of the two systems in future reports, I beg to enclose the precise data for your own use.

I am, Sirs, yours faithfully,

Granville Pl., W., Feb. 9th, 1887. GEO. GRANVILLE BANTOCK.

THE FELLOWS AND MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

To the Editors of THE LANCET.

SIRS,—As the Association of Members of the Royal College of Surgeons is now taking the preparatory steps for the immediate presentation to the Privy Council of the petition which you kindly noticed in your journal about a month ago, it may interest your readers to know that we have obtained the large number of 4590 signatures of Members of the College to the same. The old taunt of the Council of the College that "some Members" only were desirous of this change in the election of the Council is thereby set at rest once and for all, for this is a very large proportion indeed of the whole number of the Members of the Royal College of Surgeons, and much larger than it seems at first sight, the calculation of the officials of the College as to the number of its own Members being hopelessly at fault. We find, and till the other day we had accepted this as correct, that the College Calendar gives a "list of Members" totalling 17,040, and most men would have thought that that was very nearly accurate. But upon reading three weeks ago that the College authorities had only sent out 987 polling papers to its Fellows, whose numbers appear on the Calendar as 1124, it occurred to us that a similar discrepancy between the actual and the *official* numbers of the Members might also exist. Nay, we expected, as we have found, a still greater difference; for whereas the Fellows are honoured by what calls itself an "Alphabetical Register," the poor Members are put off with only a "list." The distinction is most subtle. However, it may be presumed that the word "list" was chosen as not committing its promulgators to an endorsement of the accuracy of its contents. Now, we have gone most carefully through the Medical Register for 1886, published only four months before the last College Calendar, and find that the number of Members of the College upon it is only 11,821, which, to allow for errors in casting, we will call 12,000—that is to say, that five-seventeenths, or nearly a third, of the Members exist only upon that list, or in the imagination of its compilers. They *have* existed, it is true; but the College clings fondly to their memory, and mutters still, as Wordsworth's peasant child, "We are seven"-teen thousand! That our calculation is, in the main, correct is proved by an analysis of a sample of this "list." On page 89 we find 98 names of Members; of these, only 61 are on the Medical Register, to which we must add 2 who qualified in the interval between its publication and that of the Calendar, thus leaving 37 names of Members whose ghosts still linger round the College walls, awaiting the burial of their diplomas. We trust you will pardon this digression, but it is of importance with regard to the weight that the sum of these signatures should carry. That out of 12,000 Members of the Royal College of Surgeons, of whom a good 2000 are inaccessible, 4600 should have actively identified themselves with this movement by their signature should have great influence with the profession and with the Privy Council. We may, in conclusion, add that every signature is by a *bonâ fide* M.R.C.S., for we have checked each in the Medical Directory for 1887, and thus eliminated not only men who had signed before, but those few who signed in error, not holding the College qualification. We hope later to be able to give you a few local and other details of the signatures. We are, Sirs, your obedient servants,

WARWICK C. STEELE, } Hon. Secs., Assoc.
WM. ASHTON ELLIS, } of M.R.C.S.

Western Dispensary, Westminster, S.W., Feb. 9th, 1887.

A CURIOUS LACRYMAL CASE.

To the Editors of THE LANCET.

SIRS,—The following case, which in my experience I am glad to say is unique, deserves a passing record.

On Saturday, Jan. 29th, a young man came to my clinic. The whole of the right side of his face was considerably swollen, puffy, and covered with scabs in places. About half an inch below the lower lid in the angle formed by the cheek and the nose, but far removed from the position of

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the lacrymal sac, these crusts become unusually thick, and projecting from their centre was visible the upper extremity of a hollow silver lacrymal style. Struck by its unusual position, I began to seek for the distal extremity. This was found in the mouth between the gums and cheek, just above the socket of the right canine tooth. It had not perforated the mucous membrane owing to the discharge produced by its irritation having found exit through the cheek, but it could easily have been pushed through had it been of sufficient length. Any movement communicated to the cheek moved the whole tube *in situ*, and it had obviously never been in the proximity of the lacrymal apparatus or nasal duct. The way the operation must have been performed was no doubt as follows: The supposed position of the lacrymal sac having been determined, an incision through the skin was made over it. The subcutaneous structures having been reached, the style was pushed downwards, passing in front of the superior maxilla below the whole thickness of the cheek, and was there left. The tube had been in its present position for fourteen months, and it is needless to say the slight lacrymal obstruction which it was intended to have cured had derived no benefit. The case was seen by Dr. Davies, Mr. Wicks, Mr. Brewis, and other gentlemen who kindly assist at my clinic.

I am, Sirs, yours truly,

C. S. JEAFFRESON,
Sen. Surg. Northumb. and Durh. Eye Infirm.

Newcastle-on-Tyne, Jan. 29th, 1887.

EPIDEMIC DIARRHŒA.

To the Editors of THE LANCET.

SIRS,—In reference to your article in THE LANCET of last week, concerning our London water-supply as a possible source of distributing disease the following particulars may be of interest.

During the last four weeks the casualty and out-patient departments of the West London Hospital have been called upon to attend to an extensive outbreak of a severe form of diarrhœa. The cases have been very numerous, far exceeding those met with during the summer months, and also exceeding those in the severity of the attack. The symptoms in nearly all the cases have been sudden pain in the epigastrium, vomiting, incessant diarrhœa with (in a few cases) bloody stools, a rise of temperature (100·5° to 101·5°), followed by extreme prostration, and in two cases collapse. The duration of the attack has been from three to eight days. The districts affected were those of Fulham, Chiswick, and Hammersmith—an area too large for any common cause save those of atmosphere and water-supply.

I am, Sirs, yours truly,

CHAS. H. TAYLOR,
West London Hospital, W., Feb. 7th, 1887. House-Physician.

FRIENDLY SOCIETIES' MEDICAL ASSOCIATIONS: VIEWS AND EXPERIENCE OF A MEDICAL OFFICER.

To the Editors of THE LANCET.

SIRS,—Before entering a Friendly Societies' Medical Association, in which I stayed several years, I had no knowledge of such institutions, but thought they partook of the character of dispensaries and adapted for the necessities of the working classes of limited means. In this I was soon undeceived, and found it to be composed of an amalgamation of friendly societies' clubs within a radius of three miles, who sent delegates, one for each hundred or part of a hundred of its members, to form a general committee, who again appointed from their numbers annually a committee of management, consisting of president, vice-president, secretary, treasurer, trustees, three auditors, and nine members, the secretary and auditors being paid for their services. The managing committee, seven of whom formed a quorum, sat once a month, the general committee once a quarter, except under special circumstances. The medical officers were appointed by the general, after being selected by the managing committee, the senior medical officer living on the society's premises, having to sign an agreement, stringent in its particulars, such as to finding all surgical instruments, not to absent himself from work either through illness or otherwise, unless supplying his place by a duly qualified practitioner as substitute, not to practise within four miles of the town, under a penalty of £100, except he has served the society five years, there being no equivalent if he is given, with or without cause, three months' notice as by agreement. The objects of the Society were to supply certificates, examine candidates for the various societies, give advice and medicines, and to visit within a radius of three miles members at their own homes. The hours of the dispensary were from 9 to 10 morning, 1 to 2 afternoon, and 6 to 8 evening, the rest of the day being consumed by visiting the sick and attending midwifery if forthcoming. For visiting, except in cases of emergencies, notice had to be left at the dispensary before 10 A.M. This rule was never strictly carried out. Sunday, although supposed to be a day of rest, the visiting, &c., only being in cases of sudden illness, yet members would worry on that day more than any other, and that from morning till night. The only holidays in the year were Christmas Day and Good Friday, if nothing happened. The medical staff of the Society, which numbered about 4000 members, consisted of one resident, and one non-resident, there being no dispenser. The members, their wives and children, also lodgers and relatives over eighteen, and living under the same roof, paid 1*s.*, and children and others under eighteen years of age paid 6*d.* per quarter, accouchements 10*s.* 6*d.*, vaccination free. Juvenile members of the various societies could include in the benefits of the Association their parents, grandfathers, &c. Members were composed of tradespeople (some in good circumstances), clerks, artisans, and labourers, also retired individuals of various callings. Often the attendance at the surgery came to 100, sometimes 180 in the day, not counting the visits at the patients' homes. Calls for visits were frequently required for most trivial complaints. Abuses on the members' part are taken no cognisance of, in fact, no rule applied to any such charge against a member, but two rules applied to complaints made by a member or his family against the medical or other officers.

The salaries of the medical officers were the following: Resident, £180; non-resident, £120. Extras, midwifery fees paid to the officer attending, at first, 8*s.* 6*d.*, afterwards 10*s.* 6*d.*, the 2*s.* being allowed for out-pocket expenses to drivers when going long distances, cabs being on contract terms. An allowance at first of £10, then £15, per annum to resident medical officer for coals, gas, cleaning, &c., this applying to waiting-room, used also for auditors, managing committee meetings, and others; also supplying gas to surgery, consulting-room, lamp to gate, &c. Formerly, what the club doctor lost through the members he gained by the families. Now, under the Association plan, not only the families of the poorer, but those of the well-to-do portion of the members belong to it, thus seriously affecting the medical interests, as instead of about £700 being the annual receipts, as in the Society to which I belonged, and then not all paid to the medical staff under the old system, at the lowest estimate three times as much would accrue from the same numbers, and would all go to the medical profession. I am, Sirs, yours faithfully,

Feb. 8th, 1887. SURGEON.

SURGICAL TREATMENT OF HYDATID CYSTS OF THE LIVER.

To the Editors of THE LANCET.

SIRS,—Permit me to make a short comment upon your leading article (Feb. 5th, 1887) on the Surgical Treatment of Hydatid Tumours of the Liver, which is founded on my paper and the ensuing discussion at the Medico-Chirurgical Society. You say that I "did not show that this escape of contents [hydatid fluid] has been a serious sequela of the operation as more usually performed." I even went further, stating that the escape of a small quantity of saline and usually non-albuminous fluid would not in the majority of cases set up septic peritonitis, that with this fluid, however, a certain number of scolices might be carried into the peritoneum, and give rise secondarily to hydatids more or less diffused in that cavity. I would, therefore, in view of both these possibilities, avoid any effusion of hydatid fluid into the abdominal cavity. The question appears to me to be not whether a certain number of operations, otherwise performed, have terminated favourably, but whether the procedure I have advocated avoids, as I contend it does, the dangers alluded to more surely and

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completely than any other method. As for the supposed heavy price to be paid for this extra degree of safety by dividing the operation into two stages, I must point out that this price is *nil*, for the second stage consists merely of an incision not into the patient, but into an hydatid cyst. It presents itself as a detail of dressing; the parasite may perhaps feel the cut—the patient most certainly does not.

I am, Sirs, your obedient servant,

Feb., 1887. RICHARD BARWELL.

DR. BRUNTON AND HOMŒOPATHY.

To the Editors of THE LANCET.

SIRS,—You are quite right in your remark on Mr. Bateman's note that "it is not the use of any particular drugs that constitutes homœopathy"; but that is not all that we allege against Dr. Lauder Brunton in reference to his work on Pharmacology, &c. Dr. Brunton not only takes a large number of his drugs from the homœopathic materia medica, but he likewise takes his indications for the use of these drugs from homœopathic works. Where else could he derive his knowledge that pulsatilla is a remedy for acidity, diarrhœa, earache, and epididymitis; that bryonia is useful in pleurisy, pneumonia, meningitis, peritonitis, and rheumatism; that thuja is good for condylomata; viola tricolor and rhus toxicodendron for eczema; gold for ozæna; achillæa for uterine hæmorrhage; ignatia for hysteria, melancholia, infantile convulsions, and nervousness; and fifty other remedies and their indications strange to old physic? Dr. Brunton gives in his book a bibliographical index with lavish references about the medicines commonly used in your school, but not a single reference about the medicines which homœopathy has introduced into medical practice. Why is this? Did Dr. Brunton rediscover all these remedies and their indications for himself? I know Dr. Brunton is a very clever man who has made many experiments with drugs on many frogs, but if his researches in this field had taught him the above uses of these drugs, he would certainly have told us. So we are driven to the conclusion that Dr. Brunton has borrowed extensively from homœopathy, but has studiously withheld from his readers the source of these borrowings, and, for anything that appears to the contrary in his book, he assumes to himself all the credit of all these remedies and their indications, so strange to the practice of your school. Is this the right thing for a medical author to do? We may be a contemptible sect in the eyes of an orthodox author, but it is surely carrying cynical contempt for the rival school a little too far to "convey" a large number of their chief remedies into his book, and to conceal carefully the source whence he has taken them. Does not Dr. Brunton owe the profession some explanation of his extraordinary conduct.

I am, Sirs, your obedient servant,

London, Jan. 29th, 1887. R. E. DUDGEON.

INEQUALITY OF THE PUPILS IN VARIOUS DISEASES.—CAUTION IN THE ADMINISTRATION OF SALICYLIC ACID.

To the Editors of THE LANCET.

SIRS,—In your impression of last week I noticed amongst your annotations some remarks published by Dr. Pasternataki on the inequality of the pupil in certain diseases, and on careful reading I am surprised to note, although several diseases are mentioned where this phenomenon is observed, no allusion is made to its occurrence in tubercular meningitis. Now, as far as my experience goes, it is in this disease (especially in young children) that this symptom is frequently to be noticed, and is of great pathognomonic value, indeed pre-eminently so as regards diagnostic importance, where the signs of this disease are masked or obscure. I have never had a case where death has followed the diagnosis of tubercular meningitis without the inequality of the pupils having been a prominent and early symptom, so much so that I have been induced to exclude the diagnosis of this disease if this symptom is absent; and in every case that has resulted in recovery from, as I have thought, tubercular meningitis, this symptom was not present, and consequently I believed I had been mistaken in my diagnosis; and perhaps this is why I am very sceptical as to the recovery from genuine tubercular diseases of the membranes of the brain.

If it will not make my letter too long, I would wish to add I have seen no notice taken of the case you publish in your Clinical Notes of THE LANCET of Dec. 18th as to the need of caution in the administration of salicylic acid. The fatal result there mentioned, in my opinion and probably of others, was in no way due (unless the drug was impure) to the medicinal dose given (15 grs.) of that remedy. True, the symptoms did not appear to call for its administration, for there was *no fever* or history of malaria; and even if symptoms were due to latent rheumatism as was supposed, other remedies might have been preferable. It would be regrettable if, in the case published, the *post hoc* and not the *propter hoc* should cause needless fear and prevent the proper use of this very valuable medicine.

I am, Sirs, your obedient servant,

Jan. 15th, 1887. FREDK. H. ALDERSON, M.D.

DIPHTHERIA AND MILK.

To the Editors of THE LANCET.

SIRS,—The prevalence of diphtheria renders it incumbent on all who have opportunities of studying its causation or propagation to ventilate their views. I wish to offer a small but important contribution to the subject of propagation of diphtheria and other diseases by milk-supply, and also to make a suggestion with regard to preventive measures. It has frequently happened to me to see the household milk-can, supplied by the dairy, in the patient's room and in close proximity to him, and even used by him to drink from. Some residue of milk, in all probability highly infectious, is returned in the can to the dairy, where it may or may not (often, I fear, the latter), be subjected to the action of boiling water or steam. If, as must often happen, it is simply rinsed in hot water with many others, these are in turn infected, and will affect the milk supplied to various households. Medical men would be doing a great public service in the cause of disease prevention by giving orders in every household where infectious disease exists that no milk-cans be taken into such houses at all.

I am, Sirs, your obedient servant,

H. CAMPBELL POPE, M.D. Lond., F.R.C.S.

Goldhawk-road, W., Feb. 1887.

UNIVERSITY OF EDINBURGH.

To the Editors of THE LANCET.

SIRS,—With reference to your annotation in last week's issue, permit me to inform you that no "gross charges" were brought against my late assistant by me, nor were illegal charges of any kind intentionally made against him, even by imputation.—I am, Sirs, yours obediently,

Feb. 9th, 1887. W. RUTHERFORD.

THE SANATORIUM BUILDINGS OF KINGSTON-UPON-HULL.

To the Editors of THE LANCET.

SIRS,—In reference to your criticism upon the annual report of the health of the borough of Kingston-upon-Hull, which appeared in your issue of Jan. 1st, attention is directed to the new Sanatorium buildings, which are stated to be defective. The washhouse mentioned in your criticism is twenty-three feet from the road, and it is intended that all articles before being removed from the fever blocks will be disinfected by being placed in a solution of some reliable disinfectant and conveyed away in proper receptacles provided for the purpose, and its situation was so planned that persons engaged could in nowise be in communication with the hospital buildings. The wards for probationers are distant some thirty feet from the administrative department, being connected only by a covered way. The greatest care has been exercised in the construction of the building, and the plans have been submitted to various eminent authorities, also to Her Majesty's Local Government Board inspectors, during their sanitary surveys.

I am, Sirs, yours truly,

JOHN W. MASON,
Medical Officer of Health for the Town and Port of Kingston-upon-Hull.

Town Hall, Hull, Jan. 19th, 1887.

*** The publication of the above letter has been unavoidably delayed.—ED. L.

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THE PRESENCE OF BLOOD IN THE PERITONEAL CAVITY.

To the Editors of THE LANCET.

SIRS,—I can unfortunately claim no credit for the conclusions as to the necessity for reconsidering the advisability of operation in cases of extravasation into the peritoneal cavity which Mr. Lawson Tait ascribes to me in your issue of last week, and to which, by implication, he raises such strong objections. These conclusions are not to be found in my thesis, but are those of the writer of the article referred to, who has viewed my experiments and observations chiefly in their bearing on this important practical question. On the question of the advisability or non-advisability of operation in such cases, I am not qualified, nor have I ventured, to speak. My experiments, so far as they bear on this question, deal almost exclusively with the fate of the extravasated blood—the conditions influencing its absorption, and the extent to which its red corpuscles are at once absorbed back into the circulation. Any conclusions, however, which have been arrived at will be found to differ very materially from those of Mr. Lawson Tait, when he allows himself to state, without bringing forward any facts to support his assertion, that the function of the peritoneum in man differs "most materially" from that of the peritonea in dogs and rabbits.

I am, Sirs, your obedient servant,

Edinburgh, Feb. 7th, 1887. WILLIAM HUNTER, M.D.

LIVERPOOL.

(From our own Correspondent.)

THE ASSIZES.

THE South-west Lancashire assizes, which are held in Liverpool four times a year, include all local and county cases within a certain radius. Occasionally cases which should have been tried in Manchester are tried here. The present assizes commenced on the 4th inst., before Mr. Justice Hawkins, and comprise a very large number of cases, some of a very serious character. One, which is known as the Oldham poisoning case, will for several reasons assume most of the characters of a *cause célèbre*. The prisoner, who was at the time of the occurrence a nurse in the workhouse at Oldham, is charged with having murdered her daughter, a girl eleven years of age, by administering a corrosive poison. One remarkable circumstance in connexion with the case is that though the prisoner has been committed on the coroner's warrant, the magistrates dismissed the case.

FATAL ACCIDENT TO A FIREMAN AND REMARKABLE ESCAPES.

Liverpool is justly proud of its fire brigade, and, considering the very dangerous character of their calling, it is remarkable how few fatal accidents occur either to the firemen or to the police officers who assist them. At a recent warehouse fire a wall fell down, killing a constable instantaneously, and injuring, though only slightly, a number of others. It was not known that the deceased constable was at the fire, he not having reported himself, but as he was missing search was made, and his remains were found in the ruins. The escape of all those firemen on whom the wall fell is little short of miraculous.

APPOINTMENT OF OCULIST TO THE ROYAL INFIRMARY.

It having been resolved by the Committee of the Royal Infirmary to create an additional medical officer as oculist, Mr. Thomas Bickerton has been selected as the first holder of the office. Mr. Bickerton, who is the son of a former oculist in this city, is known by his painstaking inquiries into the subject of colour-blindness.

SWING-BOAT FATALITY.

An inquest was recently held at Bootle on the body of a young woman who was thrown out of a swing-boat on the 5th inst., and died soon afterwards from the effects of the fall. The police sergeant stated that five accidents from swing-boats had occurred to his knowledge within the last three months, and he had heard of numerous others. The proprietor of the swing-boat admitted that they were allowed to go level high, and it appeared that half an hour after the accident the swings were going as high as before. A verdict of "Accidental death" was returned, and the proprietor of the swing-boat was severely censured for the manner in which he gave his evidence.

THE INFECTIOUS DISEASES HOSPITAL.

The Hospitals Committee of the Corporation are advertising the office of visiting physician to the Netherfield-road Hospital, at a salary of £100 per annum. The office, which is a newly created one under the Corporation, will be of great importance, and much interest is felt as to who will be first appointed.

Liverpool, Feb. 9th.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

NEWCASTLE INFIRMARY.

THE annual meeting of the governors of the Newcastle Infirmary was held on Thursday, the 3rd inst., and in view of the proposed changes so strongly recommended by the Special Committee, and which were the subject of a previous letter from me, the meeting was looked forward to with considerable interest, especially by the medical staff and students, whom, as I have told you, the committee handled in rather an ungracious manner. The annual report showed that during the year 3175 in-patients had been admitted, being 329 more than during the previous year. The average stay of each patient in the hospital had been 29·6 days. In the four years immediately preceding it was 30·1, 31·2, 36, and 39, so that in this respect there has been a gradual improvement. The death-rate for the year had been 6·55 per cent. The average cost of each patient had been £3 17*s.* 11½*d.* This was much smaller than in some previous years. The cost of each occupied bed during the year had been £48 1*s.* 2*d.*; in 1885 it had been £50 16*s.* 6*d.* The number of out-patients received during the year had been 4641. The result of treatment of the in- and out-door patients during the year has been: in- and out-patients cured, 5490; relieved, 1697; in- and out-patients still under treatment, 421. The number of casuals that have been treated during the year is 19,624, against 27,811 in the previous year. The reason of this large diminution is that at the quarterly meeting of governors on July 8th it was resolved to charge casualty patients 3*d.* on each visit from Aug. 1st. The effect of this resolution is seen in the following figures:—From Jan. 1st to July 31st 14,178 patients were relieved, but from Aug. 1st to Dec. 31st only 5446 applied for relief. Of these, 4385 paid the amount charged, and 1061 were relieved without payment on account of their poverty. The report states that it is the opinion of the resident medical officers, to whom the care of casuals is committed, that after the charge of 3*d.* had been made a superior class of patients presented themselves, persons who would not accept of charitable assistance, but had no objection to be cured cheaply, while the very necessitous diminished in numbers. The resolution of the governors expressly provided for the destitute, but at present the report states "they appear to be scared away." The famished and ill-clad children of destitute or drunken parents, it is pointed out, are subject to a variety of diseases, for the relief of which they had hitherto resorted to the infirmary. These, the report states, are a class deserving of sympathy, and it says that the resolution imposing a charge of 3*d.* on each casual will be again taken into consideration after the plan has been in operation a year. The statistics as to the various classes of operations are interesting, but would take up too much space to record here. The report states, in speaking of the major operations, "that probably few hospitals, if any, could give so favourable a report of this serious class of operations," and that therefore "the situation of the Newcastle Infirmary cannot be so insanitary as it is supposed sometimes to be." The report then alludes to the grave pecuniary position of the infirmary. The whole expenditure of the year had amounted to £13,695, showing a diminished outlay, notwithstanding an increase of patients, of £252 10*s.*, but yet exceeding the ordinary income by £5325 6*s.* The report went on to say "we began the year with an overdraft due to the treasurer of £5403 4*s.* 4*d.* The whole of the ordinary income of the year has been used

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up, together with £141 received in subscriptions for the completion of the Ravensworth ward, in addition to this £3000 consols, part of the capital of the institution, has been sold. Notwithstanding all this, the institution finds itself at the close of the year in debt to the treasurer in the sum of £2450 11*s.* 10*d.* To meet this deficit corporation bonds to the amount of £4000, also forming part of the capital, had been sold, still leaving a debt due to the treasurer of £2450 11*s.* 10*d.* A very animated discussion took place on the reading of the report, as also on the report of the Special Committee, but this last was referred to the Medical Board and two other committees, to report to a special meeting of governors to be held on the first Thursday of next March. It is apparent that the infirmary cannot go on in its present condition, and the whole drift of its affairs is in the direction of a free hospital, and the giving none of the responsibility of its support to the artisans of the district, who more directly benefit from it than any other class.

LEEDS BOROUGH HOSPITAL.

Leeds has been of late years remarkably free from epidemics of typhus, although in past times the resources of the Fever Hospital were frequently strained on this account. Within the past few months, however, there has been a serious amount of this disease, and about sixty cases have been received in the Borough Hospital. No less than seven of the nurses have been infected, fortunately with no fatal result, and the general mortality has not been high. The Borough Hospital, lately under the management of a committee as a public charity, has been acquired by the sanitary authority, and modernised from the old "corridor" type into a building more in accordance with modern requirements. Some further improvements, however, as to warming and ventilation, are, I believe, to be considered, at the suggestion of the medical advisers of the Local Government Board.

Newcastle-on-Tyne, Feb. 7th.

EDINBURGH.

(From our own Correspondent.)

PRESENTATION TO SIR DOUGLAS MACLAGAN.

On Monday afternoon a large assembly of ladies and gentlemen gathered in the Freemasons' Hall on the occasion of the presentation of his bust and portrait to Sir Douglas Maclagan by his friends and admirers. The platform, which was tastefully decorated with palms, was occupied by a number of leading men in the city and the University, amongst them the Lord Justice-General (Chancellor of the University), Lord Balfour of Burleigh, Lord Moncreiff, the Lord Provost of Edinburgh, Principal Sir W. Muir, Professors Crum Brown and T. R. Fraser, and many others. On the motion of Sir Alexander Christison, the Lord Justice-General (Lord Inglis) took the chair. Apologies for absence were intimated from Mr. Erichsen, Sir Joseph Fayrer, Sir Noel Paton, Lord Trayner, and others. To the right and left of the chair were the bust and picture of Sir Douglas Maclagan, both veiled; Sir Douglas himself and Miss Maclagan occupied seats to the right of the chair. Lord Inglis, in making the presentation, referred to his own early comradeship with Sir Douglas when they entered the High School together, and to the long years of close friendship that have followed. He did not venture to sum up his professional attainments and achievements in the presence of so many of Sir Douglas's professional compeers, but referred to some of the special honours which those merits have won him; making mention of the fact that Sir Douglas has held the office of President of both of the Royal Colleges, and of the honour recently received at the hands of Her Majesty the Queen in recognition of his varied public services. Lord Inglis then spoke of the veteran service rendered to the University by Sir Douglas during his tenure of the Chair of Medical Jurisprudence for nearly a quarter of a century, and of the great expansion that has taken place in the practical and theoretic instruction in public health under his personal supervision. Turning to the other side of his character, the speaker described Sir Douglas as "a man of highly cultivated mind, well versed in literature, both classical and modern, a poet, a sweet singer, an ardent sportsman, a loyal Volunteer, and a great officer in Her Majesty's body guard for Scotland." He has been, and is all this, just because his habits have been so active and sprightly, because he has such a happy and lovable disposition, without the slightest trace of cynicism or gall, and because of his inclination at all times to look on the best and brightest side both of men and things." The bust and the picture were then unveiled amidst great applause, and were formally presented by Lord Inglis. Sir Douglas Maclagan, in accepting the bust, spoke of the peculiarly delicate nature of the circumstances in which he found himself, and of the difficulty of expressing adequately his sense of the kindness showered upon him in so overwhelming a manner. Referring to the proverb of the empty vessel making the loudest sound, he attributed any incompleteness of his utterance to his being replete with gratitude. On behalf of himself and Miss Maclagan, for whom the portrait was destined, Sir Douglas accepted also the remarkably faithful likeness painted by Mr. George Reid, R.S.A., to whose talent, as to that of Mr. Hutchison, the sculptor, he paid a warm tribute. Votes of thanks were accorded to these gentlemen for the admirable way in which they had carried out the wishes of those concerned in the presentation; also to Dr. Gibson, the treasurer, and Mr. Lyell and Dr. Ashdown, the secretaries, whose efforts have so efficiently realised the object in view. A similar compliment to the chairman terminated the proceedings.

THE STUDENTS' UNION.

The final adjustment of the accounts of the recent monster bazaar shows that between £10,000 and £11,000 are available for the purposes of erecting the University Union. A site in close proximity to the new medical buildings has been selected, and plans of the proposed edifice are now in course of preparation.

THE LORD RECTORSHIP.

The Lord Rectorship, vacant through the lamented death of Lord Iddesleigh, presents a question of some difficulty. It is thought very undesirable that another contested election should be fought out so soon after the last struggle. A proposal that his Royal Highness the Prince of Wales should be requested to fill the office has been very graciously negatived on his behalf. It is hoped, however, that a candidate may still be forthcoming in regard to whom there will be no clashing of party sentiment, and whose unanimous election may be secured.

ASYLUM APPOINTMENT.

The Colonial Secretary has appointed Mr. J. B. Spence, M.A., M.B., assistant-physician at the Royal Edinburgh Asylum, to be Medical Superintendent of the Ceylon Asylum.

Edinburgh, Feb. 8th.

DUBLIN.

(From our own Correspondent.)

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE question of the College forming dual combinations with the College of Physicians and the Apothecaries' Hall of Ireland was under discussion at a meeting of the Council of this College last week. Although there is no doubt that the combination would be a legal one, yet under present circumstances it has been thought advisable not to move in the matter; but there is a strong probability of a dual scheme being formed at no distant date. The College (see *ante*, page 102) have resolved to constitute a diploma in public health, and have matured a scheme of examination. Details will shortly be published, but it may be mentioned that all candidates who possess a registrable qualification will be eligible for the diploma. The Council have adopted a vote of condolence with the family of the late Mr. Denham, an ex-president of the College.

DUBLIN SANITARY ASSOCIATION.

The annual meeting was held last week, the inaugural address being given by the President, Dr. Grimshaw. He showed that Dublin alone of all the great towns of the United Kingdom had an increased death-rate, after having for ten years enjoyed in common with other cities the advantages of improved sanitary laws and the opportunities for improved administration. From the annual report of the Association it would appear to be doing good work, but the results of its operations, it must be confessed, are not very

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tangible. It will surprise many to learn that for the ten years ending 1884 about 3500 more lives were lost than in the previous decade, while in other cities the gain has been relatively greater than our loss. It must not, however, be forgotten, as Dr. Grimshaw points out, that it takes a long time for sanitary measures to make a marked impression on a previously delicate population, and a still longer time to produce a permanent improvement.

THE LATE G. E. BRUNKER, M.D., F.R.C.S.I.

At the advanced age of eighty-three years, Mr. Brunker died at his residence near Dublin, on the 2nd inst. He graduated in medicine at Edinburgh in 1826, and obtained the Fellowship of the Royal College of Surgeons in Ireland in 1844. He held the post of surgeon to the Louth County Infirmary for a considerable period, and on his retirement from practice settled in Dublin. He took a very active part in getting an alteration made in the Charter of the College of Surgeons, so as to allow provincial and other Fellows to vote for the election of President, Vice-President, and Council by voting papers. A resolution was proposed by Mr. Brunker to this effect in June, 1883, and was adopted at a meeting of the Fellows. He was for a short time a member of the Council of the College.

SIR P. DUN'S HOSPITAL.

At a special meeting of the governors, held recently, a cheque for £1000 was received, being the amount of a legacy left by a Mrs. Hughes to the hospital. The executors requested that the money should be expended towards the construction of separate wards for the treatment of fever patients, in accordance with the wish of the deceased lady. The amount has been lodged to the credit of the Fever Wing Fund. The available funds, in consequence of the difficulty of obtaining rents from the estate of the hospital, have been seriously diminished, and the governors during the past six years have been obliged to sell out stock to the amount of £3500, to meet the expenses of the institution.

HEALTH OF DUBLIN.

The deaths from zymotic diseases during the past quarter numbered 318, being 14 above those recorded for the previous quarter. Over 32 per cent. of the mortality from zymotic affections was due to scarlatina, which caused 103 deaths, or 60 in excess of the preceding three months. Six deaths were attributed to cerebro-spinal fever, a disease which may be said to have existed as an epidemic in Dublin for the past eighteen months.

THE LATE DR. O'CONNELL.

The remains of the late Dr. O'Connell of Kilmallock were interred in the family burial-ground at Ballingaddy on Saturday, the 29th ult. The deceased served as a surgeon in the British army, and took part in various engagements in Spain in 1830 to 1835. For his services he was presented with a gold medal of the Legion of Honour by Queen Isabella, and the honour of knighthood was conferred upon him (Knight of the Order of St. Ferdinand) for attending the Queen in her accouchement.

FOOTBALL.

One of the players at the International Football Match (Ireland *v.* England), which was held on Saturday last in Dublin, received a severe injury to the head, and is now suffering from concussion of the brain.

Sir George H. Porter, surgeon to the Queen in Ireland, was last week sworn in as High Sheriff of co. Wexford, in the Court of Exchequer, before the Lord Chief Baron.

Dublin, Feb. 8th.

THE SUBSOIL OF LONDON STREETS.—The Chairman of the Board of Works, Sir J. M'Garel-Hogg, M.P., has introduced a Bill for conferring further powers on the Board with respect to the subsoil of streets and the laying of mains or pipes. It proposes that without the consent of the vestry or the district board no road is to be made over land where the sand, gravel, or subsoil has been taken away. And without this consent none of this subsoil under a road already made is to be removed. In cases where this consent is given, any conditions may be imposed. But in such cases and in case of the consent being refused, an appeal is permitted to the Board itself. Similar restrictions as to obtaining the approval of the vestry or board as to depth, position, and course are imposed by the Bill with respect to laying mains or pipes under any new street.

PARIS.

(From our own Correspondent.)

THE HEALTH OF PARIS.

HITHERTO the supply of putrid Seine water in the place of that of the Vanne has not had any appreciable effect upon the mortality. Indeed, the number of deaths from typhoid recorded in the last *Bulletin de Statistique Municipale* was much smaller than usual. It is a matter, however, of common observation that typhoid has increased in frequency, and in the Montparnasse quarter more particularly bowel complaints of an unusual kind are exceedingly prevalent. According to Dr. Roussel, who is well known in England in connexion with transfusion, there is an epidemic of hæmorrhagic convulsive enteritis in this district. Whilst passing along the street a few days since he saw a child fall down in a fit and void blood. A summary inquiry elicited the fact that attacks of this kind were quite common amongst the children of the poorer classes, and further investigation showed that they only occurred in the families of those who are supplied with offensively-smelling water. I may mention, as one instance out of many, that several *employés* of a large administration are now absent on account of bowel troubles, and those who are not actually ill are suffering from intestinal irritation.

PASTEURIANA.

With the exception of the appearance of the first number of the "Annales de l'Institut Pasteur," the past week has been comparatively uneventful. The official delegate of the Portuguese Government has, it is true, made known, in a letter to the *Gazette des Hôpitaux*, his impressions upon the subject, but they are too vague to amount to an opinion. Unless I am mistaken, the writer has not yet made up his mind as to the value of the method; although he is inspired with respectful veneration for M. Pasteur himself. In my last letter the name of the physician who made the post-mortem examination in the case of Bergé was written "Peter." To M. Peter I referred a few lines further on, but the Dean of the Faculty of Bordeaux mentioned in the preceding paragraph is M. Pitres, an eminent pathologist, and one whose opinion upon the case in question will be authoritative.

CHLORAL ERUPTION.

Dr. Barbillion contributes a paper to the *Archives de Physiologie* upon a variety of erythema appearing in patients under the influence of chloral, upon the administration of alcohol. The chloral eruption was first recognised by Jastrowitz in 1869, and has since been met with by numerous observers. The point to which Dr. Barbillion calls attention is the almost mathematical regularity with which the exanthem appears under certain circumstances. Given a child of from four to eight years of age, who is taking from two to four grammes of chloral daily in repeated small doses, the administration of alcohol in the form of wine or spirit mixture will cause the appearance of the rash in from fifteen to thirty minutes.

ALCOHOLISM.

That the best remedy for alcoholism lies in the restriction of the use of alcohol seems almost a foregone conclusion. But in the present condition of public exchequers there are few ministers of finance who would venture to adopt such a measure, and hence intemperance in the use of spirituous liquors is almost universally tolerated, if not encouraged, in the interest of the revenue. And yet it is admitted in France that 40 per cent. of the cases of mental alienation, and one-half of the murders committed, to say nothing of minor consequences in disease and crime, are due to alcohol. This great question of intemperance, its causes and results, has been the subject of a number of independent studies lately by economists, humanitarians, and scientific men, and there is a growing opinion that the evil is not wholly incurable, and that there is even a possibility of dealing with it to the satisfaction of all legitimate interests. Alcoholism does not necessarily result from the abuse of alcohol. At the recent discussion on the adulteration of wine at the Academy of Medicine the speakers were agreed on this point. Excess in the use of alcoholic drinks of good quality causes simple inebriation, which has its train of morbid symptoms, but these are quite different from those

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of alcoholism. The classical drunkard, merry and expansive in his cups, the true "knight of the burning lamp," common enough in Burgundy, where the good wine is evidently kept for home consumption, is seldom met with in Paris. The *ouvrier*, who drinks in the capital, is pale and wasted, and when excited becomes aggressive. If his existence is not cut prematurely short by accident or disease—and under the former heading must be included suicide and the scaffold,—it generally ends in the hospital or the asylum, and his children, if there are any, have the same prospect for their sole inheritance. Notwithstanding the increasing prevalence of diseases due to alcoholism, it is stated by M. Aglade, who delivered a lecture on the subject a few days ago at the Sorbonne, that drunkenness is not on the increase. It is the toxic property of the alcohol consumed that has become greater, and the remedy exists in the prevention of adulteration. Formerly intoxication was induced with ethylic alcohol distilled from wine, but at the present day, of 1,872,000 hectolitres of alcohol consumed annually in France, scarcely 25,000 are extracted from wine. The remainder is derived from potato, beetroot, rice, maize, &c. Some of these so-called "higher" alcohols are extremely dangerous ones. Amylic alcohol, for instance, is seven times more toxic than the ethylic, 1·1 gramme per kilogramme of body-weight being a fatal dose. The statements of the lecturer were illustrated by experiments upon dogs and guinea-pigs, which were watched by the public with interest, and not disturbed by any hostile manifestations. A small quantity of ethylic alcohol being injected under the skin of a guinea-pig, the animal became lively, but was not otherwise disturbed. The same quantity of amylic alcohol administered in the same way to another guinea-pig was followed by paralysis of the legs, and it died, as if stunned, in a few minutes. The experiment being repeated upon dogs, gave similar results. With ethylic alcohol there was merely increased liveliness; with amylic alcohol, stupor and inertia. But when absinthe was used, the injection of less than a cubic centimetre caused death in a fit of furious delirium. The remedy for alcoholism proposed by M. Aglade is the supply of unadulterated alcohol, which should be a State monopoly, and this would not only reduce the evils of drink to a minimum, but, according to M. Aglade, the revenue would gain more than £40,000,000 a year.

MEDICAL NOTES IN PARLIAMENT.

The Lunacy Laws.

IN the House of Lords, on the 7th inst., the Lord Chancellor moved the second reading of the Lunacy Bill. He stated that with the exception of one controversial matter the measure was substantially the same as that which on two previous occasions had been agreed to in that House. He believed that no alteration of the law would be satisfactory if it did not make further provision for the liberty of the subject. The Bill made it a condition of the power of restraint that upon every person alleged to be a lunatic there should be served a notice, giving him information that if he pleased he could be taken before a magistrate.—Lord Herschell, in supporting the second reading, said he sympathised with the desire of his noble and learned friend to safeguard the liberty of the subject as much as possible, so far as it could be done with safety to the lunatic.—The Earl of Milltown hoped their lordships would take steps to prevent an abuse of the Lunacy Laws, and to increase the visiting power of the Lunacy Commissioners.—The Bill was read a second time.

The Lord Chancellor then moved the second reading of the Lunacy Bill, the object of which, he explained, was to codify the Acts of Parliament, numbering something like 30, dealing with the subject of lunacy.—The Bill was read a second time.

The discussion of the Lunacy Acts Amendment Bill in Committee in the House of Lords has been fixed for the 21st inst., instead of the 15th inst., the date to which the Committee was originally postponed.

The Military Colleges.

In the House of Commons on the 3rd inst., in reply to Sir H. Tyler, Mr. Stanhope stated that, as regards the Royal Military Academy, the provision of increased sleeping accommodation and of hot water for the bath-rooms will be proceeded with when funds are available after the completion of more urgent services. No room in Herbert's Hospital can at present be made available as an infectious ward for cadets. As regards Sandhurst, steps have been taken to carry out the recommendations that the riding school be lit with gas, that better furniture be provided for the cadets' ante-rooms, that windows be added in certain rooms, and that a dressing-room be added to the gymnasium; but funds are not as yet available for building accommodation for the servants on the college estate.

Mad Dogs and Hydrophobia.

On the 8th inst., Lord John Manners, in reply to Mr. H. S. Wright, stated that the enforcing of the regulations respecting the muzzling of dogs lay in the hands of the local authorities, and that the Government did not intend to take further steps in the matter of regulations.

In reply to Mr. Coghill, who asked whether the Government intend taking any steps to found an institution in London similar to M. Pasteur's in Paris for the gratuitous treatment of persons who have been bitten by mad dogs, Mr. Ritchie said that the report of the committee now investigating the Pasteur system would, when presented, receive careful consideration.

Dover Barracks.

Mr. Stanhope, in reply to Mr. Norris, said that since the death of Lieutenant Jarrett, in December last, a thorough inspection had been made of Dover Barracks, but no insanitary conditions had been discovered. Every precaution against an outbreak of typhoid fever had been adopted. The medical officer of the district was responsible for the sanitary condition of the barracks.

The Condition of the Thames.

Mr. Bigwood gave notice of his intention on an early day to move the appointment of a Select Committee to inquire into and report on the state of the River Thames in the neighbourhood of Richmond, Twickenham, and Brentford, and to consider what remedies might be applied.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT an ordinary meeting of the Council of the above College, held on Thursday, the 10th inst., the following motion was passed:—"That, as recommended by the Court of Examiners, it be referred to the Committee of Management to consider and report to the two Colleges on the advisability of extending the rule by which, under the old regulations, candidates obtaining fourteen out of the fifteen marks required to pass the examination in Surgery are admissible to re-examination after a period of three, instead of six, months' additional study, to those candidates examined in Surgery under the regulations of the Examining Board in England by the Royal College of Physicians of London, and the Royal College of Surgeons of England."

The report of the committee on the extension of the College premises was received, approved, and adopted. The report included the following recommendations:—

"1. That the College premises be extended in the manner proposed in the first report; but that the alterations thereby occasioned be carried out gradually, and be subject to such modificatious in matters of detail as the Council, on the recommendation of the Committee, may hereafter approve. 2. And that the Committee be authorised to make arrangements for the erection, with as little delay as possible, of an additional Museum, as shown in the plans, on the ground occupied by the back premises of Nos. 43 and 44, Lincoln's-inn-fields, abutting on Portugal-street, and for the construction of an additional storey to the main building of the College to accommodate the new work-rooms, at an approximate cost of £10,000 for the new museum, and £5000 for the new work-rooms."

To carry out Sir T. Spencer Wells' resolution the Council elected a committee, consisting of Sir James Paget, Sir T. Spencer Wells, and Mr. John Marshall, with the President and Vice-President, to confer with a deputation from the Association of Fellows and from the Association of Members on the subject of the first resolution, passed at the meeting of Fellows and Members on Nov. 4th of last year.

Mr. H. G. Howse was elected a member of the Court of

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Examiners in Surgery, in the vacancy caused by the resignation of Professor Humphry.

A communication was read from the Registrar of the Royal College of Physicians, informing the Council of the appointment of a deputation consisting of the President, Treasurer, and Registrar, to confer on the question how the two Colleges may duly celebrate conjointly the Jubilee Year of Her Majesty's reign. The Council appointed the President and two Vice-Presidents to meet these delegates.

Another communication was read from the Registrar of the Royal College of Physicians, inviting the College to associate itself with the former College in granting the diploma in public health. The invitation was accepted by the Council, and it was referred to the Committee of Management to devise a scheme for carrying out the necessary arrangements for the purpose, and report them to the two Colleges.

A communication was read from Mr. Handfield Jones, forwarding the resolutions passed at the St. Mary's Medical Society concerning the title of Doctor.

Obituary.

FRANCESCO MAGNI.

THE greatest Italian ophthalmologist since Vacca died at San Remo on the 2nd inst.

Francesco Magni was born at Spedaletto, in the Province of Pistoia, Tuscany, in July, 1828. Having completed his secondary curriculum in the Pistoiese Liceo Forteguerri, he devoted himself to the study of medicine in the University of Pisa, where he won the respect of his teachers and the affection of his fellow-students by his sedulous application and his genial vivacity. Like most of the generous Italian youth of his time, the upheaval of 1848-49 drew him into the vortex of the revolution, and he abandoned the bedside and the laboratory to assist in the patriotic campaign. He was no less ardent and effective as a soldier than as a student, and, in particular, at the stubborn fight of Curtatone, where he was wounded, he earned the honourable mention of his commanding officer. The war over, he proceeded to Florence, and at the Hospital of Santa Maria Nuova he steadily and rapidly made up the arrears of study and observation incurred by his service in the field. From Florence he started on a professional tour, and visited in succession, each time for a considerable period, the principal cliniques of Germany, France, and England. Ophthalmic surgery was his favourite branch of medicine, and the opportunities he enjoyed, particularly under von Graefe, were not thrown away upon him. On his return to Florence, where he graduated, he filled the post of director of the Anatomical School until 1859, and in the following year he was transferred to Bologna to occupy the chair of Oftalmoiatria, and to conduct the clinique attached to it. Having acquired a sound and solid reputation in the ophthalmic specialty, he proceeded to America, and in the chief cities of the northern States he enhanced his already distinguished name for the centripetal exactness of his diagnoses and the brilliant success of his operations. Fortune as well as fame attended him in his subsequent career, his increasing lucrative clientèle necessitating periodical visits to the chief cities of the Italian peninsula. With all this occupation he found time to enrich the literature of his subject with contributions to the leading medical journals, in which the student will find it worth while to refer to the following papers:—"Lezioni di Oftalmoiatria" (*Rivista Clinica*, 1861-67); "Sarcoma sulla Cornea" (*Ebdomadario Clinico*, 1861); "Lezioni teoriche di Oftalmoiatria" (Bologna, 1867); "Descrizione della Cassula di Tenone" (1868); Contribuzione alla Anatomia Patologica dello Strabismo" (1868); "Sopra alcune Anomalie di forma nella Lente dell' Occhio umano" (1868); "Contribuzione allo Studio del Glaucoma" (1871); "Sugli Effetti del Processo flogistico della Coroide" (1872) "Il Processo flogistico considerato in alcuni Tessuti dell' Organo visivo" (1877); and an able treatise on University Reform addressed to Coppino, Minister of Public Instruction (1878).

Besides being an effective clinical prelector and brilliant operator, Dr. Magni took an energetic part in politics. He was elevated to the dignity of Senator of the Kingdom in 1876, and proved of the greatest service to successive Ministries, particularly in the field of public health and State medicine. He was a consistent but independent adherent of the Italian Left, and (what in Italy means devotion to the same school of politics) an ardent Freemason. His death, which was sudden, was due to asystole, of which he had lately had many premonitory symptoms.

VINCENT AMBLER, F.F.P.S.G.

THIS gentleman, who for many years past has been known as a West-end London practitioner, died suddenly in his bed on Sunday last, Feb. 6th, at his residence, No. 14, Colville-square. He commenced his medical career in the Crimea during the war, being then a student of medicine, and received the Order of Medjidie, 2nd class, as well as English and Turkish war medals. He qualified for medicine in 1866, and became F.F.P.S., L.S.A., and L.M. He had considerable practice amongst some of the foreign legations resident in London, was appointed Physician in Ordinary to the Japanese Legation and to the Persian Embassy, and was decorated with the G.K.C. of the Ancient Order of Lion and Sun, conferred on him by the Shah of Persia. A man of artistic tastes and accomplishments, of energetic nature, and of kind, hospitable disposition, he enjoyed the society of a wide circle of friends and acquaintances. His fatal illness commenced between two and three years ago, and was marked by severe attacks of spasmodic apnœa, for which he consulted Dr. B. W. Richardson, who diagnosed thoracic aneurysm, and who obtained a sphygmographic aneurysmal tracing at a pulsating point to the right of the sternum on the level of the nipple. Quite aware of his danger, Mr. Ambler nevertheless persisted in following out his professional work, and for many months past seemed to improve, the pulsation having ceased, and being succeeded by dulness and other signs of filling of the aneurysmal sac by fibrinous deposition. He remained at work, attending regularly to his duties, public and private, until Jan. 21st, when there was a return of the spasmodic apnœa, which passed away under rest and suitable remedies. He recommenced work in two or three days, did a fair amount on Saturday, and awoke on Sunday morning in his usual state, partook of a light breakfast in bed, and, lying down again to sleep, expired while still sleeping. His remains were interred in Kensal Green Cemetery on Wednesday last.

Medical News.

BRITISH AND INDIAN MEDICAL SERVICES.—The following Surgeons on probation in the Medical Departments of the British and Indian Armies were successful at both the London and Netley examinations held on Feb. 7th. The prizes are awarded for marks gained in the special subjects taught at the Army Medical School. The final positions of these gentlemen are determined by the marks gained in London added to those gained at Netley, and the combined numbers are accordingly shown in the lists which follow:—

BRITISH MEDICAL SERVICE.

	Combined Marks.		Combined Marks
Morgan, F. J.	5785	Salmon, L. E. A.	4552
*Horrocks, W. H.	5783	Wade, G. A.	4519
Hale, C. H.	5657	Minniece, J.	4489
Thurston, H. C.	5476	Penton, R. H.	4475
Scott, B. H.	5316	Holt, M. P.	4442
Poole, W. C.	5261	Gray, W. L.	4390
Juliani, O. R. A.	5058	Browne, E. G.	4341
Raymond, G.	5050	Morgan, J. C.	4262
Burnside, E. A.	5032	Pocock, H. J.	4247
McCulloch, T. C.	5020	Hilliard, G.	4230
†Hinde, A. E.	4951	Elliott, C. E.	4193
Reily, A. Y.	4886	Young, C. A.	4179
Cockerill, J. W.	4851	Bullen, J. W.	4150
Ritchie, J.	4796	Weir, C. J.	4140
Hore, H. St. G.	4795	Inniss, B. J.	4123
Macdonald, S.	4741	Thacker, R. C.	4112
Corcoran, E.	4679	Murphy, W. N.	4109
Watson, A. C.	4628	Clark, S. F.	4073
Gray, E. W.	4621	Hassard, E. M.	4039
Stiell, D.	4605		

* Gained the Herbert Prize of £20, the Montefiore Medal and Prize of 20 guineas, and also the Martin Memorial Gold Medal.
† Gained the Parkes Memorial Bronze Medal.

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INDIAN MEDICAL SERVICE.

	Combined Marks.		Combined Marks.
*Macnamara, E. J.	5898	Dyson, T. E...	4814
†Pilgrim, H. W.	5741	Hare, E. C.	4636
French, G. B.	5449	Clarkson, F. C.	4573
Thomson, F. W... ...	5372	Jordan, J. G.	4547
Brown, E. H.	5312	Swinburne, J. D. M...	4533
Bensley, C. N.	5114	Morris, H. M.	4467
Henderson, S. H. ...	5072	Russell, A. R. P. ...	4441
Hall, G. C.	5053	Morwood, J.	4359
Grayfoot, B. B.	4949	Maidment, F. G. ...	4275
Scotland, D. W.... ...	4939	Hall, E. A. W.	4108
Green, C. R. M.... ...	4923	Blancard, J. T.	4083
Castor, R. H.	4865	Doyle, J. P.	3947
Sellick, J. H.	4819		

* Gained the Prize in Pathology, presented by Professor Wm. Aitken, F.R.S.
† Gained the Montefiore Second Prize.

THE annual ball in aid of the funds of the Newark Hospital took place on the 3rd inst.

THE death of Mr. Arthur Woolnough of Carlisle, from an overdose of chloral, occurred on the 31st ult.

THE twenty-seventh annual dinner of the old students of King's College was held on the 4th instant.

DONATION.—A. W. Shaw, J.P., has given £50 to Barrington's Hospital, Limerick.

H.R.H. THE DUKE OF CAMBRIDGE will preside at a public dinner on April 19th in aid of the funds of the Ventnor Consumption Hospital.

A DEATH from hydrophobia occurred on the 4th inst. in the Nottingham General Hospital. Muzzling regulations for dogs are in force in Nottingham.

LORD WOLVERTON has contributed £1000 to Morley House (Hospital Saturday Convalescent Home) upon condition that a four-bedded room, to be called the "Wolverton Room," shall be set apart for London postmen.

THE second annual general meeting in connexion with the Newbury District Hospital was held on Jan. 25th, when satisfactory financial and medical reports were presented.

GUY'S HOSPITAL.—A sum of £5730 has been collected among the members of the Stock Exchange in aid of Guy's Hospital, and has been sent towards the special fund of the hospital started at the Mansion House.

AT the annual meeting of the subscribers to the Ashburton and Buckfastleigh Cottage Hospital, on Jan. 28th, it was resolved that the work of erecting a new building be proceeded with forthwith.

AT the recent annual meeting of the collectors and subscribers of the Metropolitan Hospital Saturday Fund, it was reported that the committee had divided among the participating institutions £9750, or £250 more than in any former year.

PRESENTATION.—Mr. Isidore Prager, on his resignation of the post of house-surgeon to the National Dental Hospital, has recently been presented with a silver hot-water apparatus for surgery use by the staff and students of that institution.

AT a farm at Chignal, Essex, thirty-nine animals have, within the past few days, died of anthrax, and seventeen have been slaughtered; in all, fifty-nine out of sixty-two head of cattle have been lost. Every precaution has been taken to prevent the spread of the disease.

MEDICAL MAGISTRATES.—Edward England Phillips, L.R.C.P.E., M.R.C.S., L.S.A., medical officer of health to the Southend Urban and Rochford Rural Sanitary Authorities, and George Davidson Deeping, L.R.C.P. Lond., M.R.C.S., L.S.A., have been placed on the Commission of the Peace for the county of Essex.

ROYAL UNITED HOSPITAL, BATH.—The annual meeting of the supporters of this institution was held on the 24th ult. The report, which was read by the secretary, showed the receipts for the past year to have been £5676, an increase of £1328 as compared with 1885; while the legacies showed a decrease of £218, being only £649. The expenditure, amounting to £6026, exhibited an increase of £449.

THE fourth annual dinner of the members of the Association of Public Sanitary Inspectors was held on the 5th inst., Mr. Edwin Chadwick, C.B., the president of the Association, occupying the chair.

A PRIZE of fifty thousand francs is offered by the French Minister of Education for a discovery rendering electricity economically applicable in the shape of heat, light, chemical action, mechanical power, transmission of messages, or treatment of disease. A committee, with M. Bertrand, of the Academy of Sciences, as chairman, will adjudicate.

BRADFORD CHILDREN'S HOSPITAL.—At the annual general meeting of subscribers to this institution on the 28th ult., the secretary reported that the receipts amounted during the year to £552, and the expenditure to £526. The fund which was raised for the extension of the hospital amounts to over £4600, and the committee are in search of a building suitable for the purpose.

ROYAL UNIVERSITY OF IRELAND.—At a recent meeting of the Senate, the following additional Examiners in the Faculty of Medicine for 1887 were appointed:—Medicine: Stephen M'Swiney. Midwifery: John A. Byrne and H. M. Jones. Medical Jurisprudence: E. W. Davy and M. M'Hugh. Materia Medica: F. J. Quinlan and J. S. Reid.

HOSPITALS ASSOCIATION.—At the third general meeting of this Association, to be held at the Outer Temple (Room 44), 225, Strand, on Wednesday, Feb. 16th, at 8 P.M., a paper will be read by Miss E. G. Mansion, entitled "Is it desirable for Metropolitan Hospitals to possess Nursing Institutions, and to supply Nurses for Private Cases outside the Hospital walls?"

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The library of the College will be closed on Saturday, Monday, and Tuesday, the 12th, 14th, and 15th inst. for the purposes of the Hunterian Oration and Festival.—Professor W. H. H. Jessop, F.R.C.S., will deliver a course of three lectures on "The Intra-ocular Muscles," on Wednesday, Friday, and Monday, February 16th, 18th, and 21st, at 4 P.M. precisely each day.

SERIOUS EPIDEMIC OF MEASLES.—News has been received in Paris of an outbreak of a peculiarly virulent form of measles among the inhabitants of Saint Pierre and Miquelon, a couple of islands about ninety square miles in extent, situated off the Newfoundland coast. One thousand children out of a total population of 5700 are affected, and several deaths occur daily, either from the immediate effects of the disease or from secondary complications.

DURHAM COUNTY HOSPITAL.—The annual meeting of the governors and subscribers to this institution was held on the 1st inst., when it was reported that during the past year there had been 419 in- and 1513 out-patients, a decrease of 52 in-patients and an increase of 270 out-patients as compared with the preceding year. The income for the year was £2286, and the expenditure amounted to £3590, the latter amount including a balance of £1229 brought forward from the year before.

ROYAL FREE HOSPITAL.—The fifty-ninth annual meeting of the governors of this institution was held on the 3rd inst., under the presidency of Mr. James Hopgood. The receipts from all sources have, the secretary reported, amounted to £20,063, and the total ordinary expenditure to £11,121, as compared with £11,085 in 1885. The number of in-patients admitted was 1813, the daily average in the wards being 138, as against 125 in 1885. The number of out-patients who received advice and medicine was 22,191.

MEDICAL ATTENDANCE ORGANISATION COMMITTEE.—At the fourth meeting of the above committee on Feb. 8th, Sir T. Spencer Wells in the chair, the following resolution was passed: "That local committees are recommended to obtain from applicants for membership a declaration that, in the case of a single person or man and wife, their average earnings do not exceed 30*s.* per week; or of a family, 40*s.* per week; or of domestic servants, £15 per annum: those whose earnings are over this amount being, as a rule, ineligible for membership." The next meeting of the committee will be held on the 22nd inst., when they will proceed to consider the rates of contribution and benefits.

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CITY OF LONDON TRUSS SOCIETY.—Under the presidency of Mr. J. Norbury, the seventy-ninth annual meeting of the governors of this charity, the object of which is indicated by its name, was held on the 2nd inst. From the annual report, which was read and adopted, it appears that the gross income during the past year amounted to £4189, as against £4062 in 1885. The total expenditure was £4926. During 1886, 9394 patients of all ages and both sexes were relieved, being the largest number ever relieved in one year since the foundation of the charity. The total number relieved to the end of last December since 1807 amounts to 422,710 patients. The number of instruments supplied during the year was 9436. Permission was afterwards obtained to sell out the funded property of the charity to the amount of £1250, in order to pay off a loan and to meet its growing requirements.

THE JUBILEE.—At a meeting of the Blackpool Town Council on the 1st inst., it was resolved that a public hospital and dispensary should be erected in commemoration of Her Majesty's Jubilee. A sum of £9000 is, it is stated, already available for endowment purposes.—On the 3rd inst., at Folkestone, it was decided to erect a large hospital in celebration of the same event, and several large contributions have been promised.—At a public meeting at Mexborough, on the 1st inst., it was resolved that a Jubilee Cottage Hospital be erected in the town.—The inhabitants of Skipton, Yorkshire, have decided to celebrate the Queen's Jubilee by erecting a Hospital for Infectious Diseases, at a cost of £3000.—In view of the Queen's Jubilee a commemorative dinner of the friends and supporters of the Dental Hospital of London will be held at the Hotel Métropole on Thursday, March 10th, under the presidency of Sir James Paget, Bart., F.R.S.—At the annual meeting of the friends and supporters of the Queen's Hospital, Birmingham, on the 7th inst., it was resolved that an effort be made to raise a Jubilee fund of £10,000, one half to be spent in improving the building, and the other half to be kept in hand so as to avoid financial embarrassments in the future.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BRIGGS, HENRY, M.B., C.M.Ed., F.R.C.S.E., has been reappointed Honorary Medical Officer to the Hospital for Women, Shaw-street, Liverpool.

BRODIE, F. CARDEW, M.R.C.S., L.R.C.P., L.S.A., has been appointed House-Physician to the Middlesex Hospital.

BURTON, JOHN EARP, L.R.C.P.Lond., M.R.C.S., has been reappointed Surgeon to the Hospital for Women, Shaw-street, Liverpool.

CARTER, T. H., M.B.Lond., M.R.C.S., has been appointed Surgeon to the Stamford and Rutland Infirmary.

CHAMPNEYS, FRANCIS HENRY, M.A., M.B.Oxon., F.R.C.P.Lond., has been appointed Consulting Physician to the General Lying-in Hospital, York-road, Lambeth.

COSGRAVE, E MACDOWEL, M.D., M.K.Q.C.P.I., has been appointed Physician to the Heytesbury Industrial School, Dublin, vice Walter Smith, M.D., resigned.

EDIS, J. BUTLER, L.R.C.P. Ed., M.R.C.S., has been reappointed Honorary Assistant Medical Officer to the Hospital for Women, Shaw-street, Liverpool.

JORDAN, FURNEAUX, F.R.C.S.E., has been appointed Consulting Surgeon to the Queen's Hospital, Birmingham.

PHILLIPS, EDWARD ENGLAND, L.R.C.P.Ed., M.R.C.S., L.S.A., has been re-elected Medical Officer of Health for the Southend-on-Sea Urban Sanitary Authority, Essex.

POLLARD, REGINALD, M.B.Dur., M.R.C.S., has been elected Physician to the Western Hospital, Torquay, vice Nankivill, resigned.

RAMSAY, R. HAMILTON, M.D., C.M.Glas., has been elected Physician to the Western Hospital, Torquay, vice Hounsell, deceased.

ROBERTS, THOMAS A., L.D.S., has been appointed Honorary Dental Surgeon to the Pimlico-road Free Dispensary, vice G. W. Payne, L.D.S., retired.

SHORT, THOMAS SYDNEY, M.B., M.R.C.S., L.S.A. Cert. San. Sci. Camb., has been appointed Resident Medical Officer to the Jaffray Hospital, near Birmingham.

SPENCE, J. B., M.A., M.B., Assistant-Physician, Royal Edinburgh Asylum, has been appointed Medical Superintendent of the Ceylon Asylum.

STEELE, CHARLES E., M.R.C.S., L.S.A., has been reappointed Honorary Assistant Surgeon to the Hospital for Women, Shaw-street, Liverpool.

STEWART, JAMES, L.F.P. & S.Glas., &c., has been appointed Poor-law Medical Officer for the District of Rotherham, and also Public Vaccinator, vice D'Oyley Foote, M.D., M.R.C.S., L.M., deceased.

WHARRY, H. G. O., M.R.C.S., L.S.A., has been elected House-Surgeon and Secretary to the Scarborough Hospital and Dispensary, vice Kenneth Frazer, B.A., M.D. Dub. Univ.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

BIRMINGHAM GENERAL HOSPITAL.—Two Assistant House-Surgeons. No salary, but residence, board and washing, will be provided.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, London, S.W.—Three Clinical Assistants. Salary £5 5s. for a period of three months.

GLAMORGANSHIRE AND MONMOUTH INFIRMARY AND DISPENSARY, Cardiff.—Ophthalmic Surgeon.

PRESTON AND COUNTY OF LANCASTER ROYAL INFIRMARY.—Senior House-Surgeon. Salary £100 per annum, with lodging, washing, and board.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, London.—Junior House-Physician. Salary £25 for six months, with board and lodging.

ST. ASAPH UNION.—Medical Officer. Salary £83 per annum.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Honorary Visiting Physician.

WEST HERTS INFIRMARY, Hemel Hempstead.—House-Surgeon and Dispenser, to also act as Assistant-Secretary. Salary £100 per annum, with board, furnished rooms, fire, lights, and attendance.

Births, Marriages, and Deaths.

BIRTHS.

COWARD.—On the 29th ult., at Burdett-road, Limehouse, the wife of Christopher T. Coward, L.F.P.S.Glas., L.S.A., of a daughter.

CROSSFIELD.—On the 1st inst., at Broadstone House, Dartmouth, the wife of A. Kyffin Crossfield, L.R.C.P.Ed., L.R.C.S., of a son.

SHERWOOD.—On the 2nd inst., at Eastbourne, the wife of Arthur P. Sherwood, L.R.C.P., of twins (daughter and son).

SKINNER.—On the 16th ult., at Dagshai, Punjab, the wife of Surgeon Bruce M. Skinner, L.R.C.P.Ed., M.R.C.S., Army Medical Staff, of a son.

SMITH.—On the 6th inst., at Kensington-gardens-square, the wife of E. Stanley Smith, L.R.C.P.Ed., M.R.C.S., of a daughter.

WYLIE.—On the 30th ult., at Dyneley House, Skipton, the wife of William Wylie, M.D., of a son.

MARRIAGES.

CAUDLE—BARTON.—On the 3rd inst., at St. John's Church, Calcutta, Charles E. Caudle, M.D., to Agnes, second daughter of the late Rev. R. G. Barton, late Rector of Etchingham, and of Urmston, Eastbourne.

DOUTY—CAZALET.—On the 29th ult., at the Parish Church, Leigh, near Worcester, by the Right Rev. the Lord Bishop of Worcester, uncle of the bride, assisted by the Rev. B. H. Sheppard, Rector, and by the Rev. W. G. Cazalet, brother of the bride, J. Harrington Douty, M.R.C.S.Eng., &c., Medical Superintendent (elect) of the Berks County Asylum, Moulsford, to Madeline, only daughter of Major G. H. Cazalet, of Bransford Court, Worcestershire, late of the 1st Royal Surrey Militia.

DOYLE—STEELE.—On the 3rd inst., at St. Luke's Chapel, Norwich Cathedral, Charles William Doyle, M.B., to Emma, daughter of the late Adam Rivers Steele, Barrister-at-law.

HALFORD—HOSE.—On the 2nd inst., at the Parish Church, Ealing, Edward Halford, M.D., to Latitia Thomasine, third daughter of the late Rev. Fredk. Hose, M.A., Rector of Dunstable, Beds.

O'CONNOR—RICHARDSON.—On the 5th inst., at the Parish Church, Chatteris, Cambs., Martin O'Connor, L.K.Q.C.P.I., L.R.C.S.I., to Julia Temperance, only surviving daughter of the late Fryer Richardson, Esq., of Fortrey House, Chatteris.

ROWLEY—FORDE.—On Dec. 21st, 1886, at St. Peter's-in-the-Forest, Bombay Settlement, Great South-road, Auckland, New Zealand, by the Rev. E. J. Macfarland, B.A., Charles Rowley, M.R.C.S.Eng., of Bombay, eldest son of Charles Octavius Rowley, M.R.C.S.Eng., of Barnsley, to Lilian Louisa, second daughter of the late Frederick Forde, J.P., of Bombay Settlement.

DEATHS.

FOOTE.—On the 3rd inst., at Croft's House, Rotherham, Yorks, Harry D'Oyley Foote, M.D., M.R.C.S.E., L.M., in the fifty-third year of his age. Friends will please accept this the only intimation.

GASKOIN.—On the 5th inst., at The Priory, Caerleon, Mon., George Gaskoin, M.R.C.S., late of Westbourne-park, London, aged 70.

HOWARD.—On the 6th inst., at New Buckenham, Norfolk (of diphtheria); Herbert Howard, M.R.C.S., L.R.C.P.Lond., in his 26th year.

MATHESON.—On the 5th inst., at his residence, Granville-place, Portman-square, Duncan Matheson, L.R.C.P.Ed., L.F.P.S.Glas.

SMITH.—On the 27th ult., at Portland House, Cheltenham, Thomas Smith, M.D., M.R.C.P.L., aged 74.

UNDERHILL.—On the 1st inst., Emily Margaretta, the beloved wife of William Lees Underhill, Surgeon, of Tipton.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

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BOOKS ETC. RECEIVED.

ALLEN, E. W., Paternoster-row, London.
Electricity in the Treatment of Disease. By Jas. R. Tumner, M.R.C.S. pp, 108.

CASSELL & Co., London, Paris, New York, & Melbourne.
The Year-book of Treatment for 1886. pp. 304.

CHURCHILL, J. & A., New Burlington-street, London.
On Aphasia; being a Contribution to the Subject of the Dissolution of Speech from Cerebral Disease. By James Ross, M.D., LL.D.Aber. pp. 128, Illustrated.
Year-book of Pharmacy, 1886. With the Transactions of the British Pharmaceutical Conference held in Birmingham. pp. 672.
Prelectiones Anatomiæ Universalis. By William Harvey. Edited, with an autotype reproduction of the Original, by a Committee of the Royal College of Physicians. pp. 98, quarto, 52s. 6d.

DEIGHTON, BELL & Co., Cambridge; G. BELL & SONS, London.
The Croonian Lectures on Some Points in the Pathology of Rheumatism, Gout, and Diabetes. By P. W. Latham, M.A., M.D. &c. pp. 123.

DULAU & Co., London. BRAUMULLER, Vienna. VAIL & Co., New York.
Anatomy, Descriptive and Topographical. By Carl Heitzmann, M.D. English Edition by Louis Heitzmann, M.D. pp. 306, with 625 Illustrations.

GRIFFIN, C., & Co., Exeter-street, Strand, London.
The Surgeon's Pocket-book. By Surgeon-Major J. H. Porter. Third Edition. Revised and Edited by Brigade-Surgeon C. H. Y. Godwin. pp. 257, with Illustrations.

HIRSCHWALD, A., Berlin.
Studien über Stoffwechsel im Thierkörper. Gesammelte Abhandlungen von. Prof. Dr. J. Seegen. S. 660, mit 2 litho. Tafeln.
Die Chirurgisches Behandlung des Kropfes. Von Anton Wölfler. S. 90.

LEWIS, H. K., Gower-street, London.
A Text-book of Medicine. By Dr. Adolf Strümpell. Translated by permission from the Second and Third German Editions by Dr. H. F. Vickery and Dr. P. C. Knapp. With Editorial Notes by Dr. F. C. Shattuck. pp. 981, with 111 Illustrations.
Outlines of the Pathology and Treatment of Syphilis, &c. By H. v. Zeissl, M.D. Second Edition, Revised by M. v. Zeissl, M.D. Authorised Edition, Translated with Notes, by H. Raphael, M.D. pp. 402.
What to do in cases of Poisoning. By Wm. Murrell, M.D., F.R.C.P. Fifth Edition. pp. 220.
Massage as a Mode of Treatment. By Wm. Murrell, M.D., F.R.C.P. Second Edition. pp. 100.

LONGMANS, GREEN, & Co., Paternoster-row, London.
Anatomy, Descriptive and Surgical. By Henry Gray, F.R.S. Eleventh Edition. Edited by T. Pickering Pick. pp. 978, profusely Illustrated. 36s.

NISBET, J. & Co., Berners-street, London.
Forbidden Fruit for Young Men. By Major Seton Churchill. pp. 269. 2s. 6d.

OLIVER & BOYD, Edinburgh.
Sputum: its Microscopy and Diagnostic and Prognostic Significations. By Francis Troup, M.D. St. And., &c. pp. 263, with 36 Plates.

PENTLAND, YOUNG J., Edinburgh.
The Science and Art of Obstetrics. By Theophilus Parvin, M.D., LL.D. pp. 701, with 214 Woodcuts, and a Coloured Plate.
Practical Medicine and Medical Diagnosis. By Byrom Bramwell, M.D., F.R.S.E. pp. 149, with 41 Illustrations.

SMITH, ELDER & Co., Waterloo-place, London.
St. Bartholomew's Hospital Reports. Edited by W. S. Church, M.D., and John Langton, F.R.C.S. Vol. XXII. pp. 455—106.

SMITHSONIAN INSTITUTION, Washington, U.S.A.
Researches upon the Venoms of Poisonous Serpents. By S. Weir Mitchell, M.D., and E. T. Reichert, M.D. pp. 186, with five Coloured Plates.

THORP & GODFREY, Lansing, Michigan.
Thirteenth Annual Report of the Secretary of the State Board of Health of the State of Michigan for 1885. pp. 294.

WILLIAMS & NORGATE, Henrietta-street, Covent-garden, London.
The Factors of Organic Evolution. By Herbert Spencer. pp. 76.

On Antiseptic Surgery; by Surgeon-Major J. Martin (Churchills).—Journal Akusherstva i zhenskikh Boleznei, Tom. 1, No. 1 (Russian Journal of Obstetrics and Gynæcology).—Index Medicus, Vol. VIII., No. 12.—Lists of Publications and of Foreign Correspondents in connexion with the Smithsonian Institution, Washington, U.S.A.—La Circulation des Forces dans les Etres Animés; par le Dr. L. Natanson.—Par le Dr. Jules Félix: Etude sur les Hôpitaux et les Maternités; De l'Assainissement des Villes et des Habitations; La Question des Hôpitaux; Etude Clinique la Fistule à l'Anus; Tumeur Carcinomateuse du Sein; Des Avantages du Pansement Métallique.—Causation and Treatment of Congenital Club-foot; by Frederick Churchill, M.B., F.R.C.S.—A Raiva; por Eduardo Abreu (Lisboa).—Magazines for February:—Good Words, Sunday Magazine, Leisure Hour, Sunday at Home, Boys' Own Paper, Girls' Own Paper.

Medical Diary for the ensuing Week.

Monday, February 14.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesdays, same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.
SOCIETY OF ARTS.—8 P.M. Mr. W. Y. Dent: Building Materials (Cantor Lecture).
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Leopold Servais of Antwerp will read a report on Two cases of Enormous Tumours of the Face, treated by Removal of both Superior Maxillæ.

Tuesday, February 15.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 1.30 P.M. Skin Department. Mondays and Thursdays, 9.30 A.M.
ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Prof. Arthur Gamgee: The Function of Respiration.
SOCIETY OF ARTS.—8 P.M. Mr. Allan Ransome: Some of Our Colonial Woods.
PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Hale White: On the falling out of Teeth in Tabes Dorsalis.—Mr. D'Arcy Power: Intermuscular Synovial Cysts.—Dr. Hyla Greves: Endothelioma of Dura Mater.—Dr. Semon (for Dr. Jacob): Syphilitic Hyperplastic Laryngitis.—Dr. Hadden: Mitral Aneurysm in a Child.—Mr. Shattock: Ectopia Vesicæ.—Mr. Clutton: Retro-pharyngeal Abscess.—Mr. Gould: Horny Growth on Penis.—Mr. Godlee: Adeno-sarcoma of Tongue with Calcifying Nodule in Centre. Card Specimens:—Dr. Hadden: Perforation of Large Intestine in Enteric Fever.—Mr. Fenwick: Renal Carcinoma.—Dr. Mott: Myxo-fibroma compressing the Spinal Cord.—Mr. Clutton: Congenital Abnormality of Lower Lip with Cleft Palate.

Wednesday, February 16.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesdays and Thursdays, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; and on Friday, 2 P.M.; and Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M.; Saturday, same hour.
SOCIETY OF ARTS.—8 P.M. Mr. Henry H. Cunynghame: Uses, Objects, and Methods of Technical Education in Elementary Schools.

Thursday, February 17.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Prof. A. W. Rücker: Molecular Forces.
PARKES MUSEUM OF HYGIENE.—5 P.M. Mr. Charles E. Cassal: Food Adulteration and Analysis.
HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Mr. Sedgwick: Notes on the Collapse of Cholera.—Dr. Sidney Phillips: Some points in the Treatment of Fever.—Dr. A. H. N. Lewers: The best means of Dilating the Cervix Uteri.

Friday, February 18.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
SOCIETY OF MEDICAL OFFICERS OF HEALTH.—7.30 P.M. Mr. C. B. Paget: A Practical Illustration of the Protective Influence of Vaccination.
ROYAL INSTITUTION OF GREAT BRITAIN.—9 P.M. Mr. William Crookes: Genesis of Elements.

Saturday, February 19.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Mr. Carl Armbruster: Modern Composers of Classical Song—Jensen, Lassen, Holstein, Berlioz, and Wagner (with Vocal Illustrations).

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, February 10th, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Feb. 4	30·34	W.	53	51	...	54	50	...	Overcast
,, 5	30·39	W.	47	45	...	55	45	...	Fine
,, 6	30·71	E.	40	38	...	45	37	...	Hazy
,, 7	30·75	S.E.	36	35	...	43	34	...	Foggy
,, 8	30·74	E.	32	32	...	42	30	...	Hazy
,, 9	30·71	E.	35	32	...	38	31	...	Overcast
,, 10	30·55	N.E.	31	Froz.	...	37	30	...	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

SHOULD MEDICAL AID FRIENDLY SOCIETIES NOT BE SUPERVISED BY THE MEDICAL COUNCIL?

Philalethes, in a letter too long for insertion, draws a terrible picture of the evils likely to result if no legal check is put to the tendency of friendly societies to combine and exact heavy and responsible duties from medical men on grievously low terms. He thinks the Medical Council might supervise such societies in regard to their medical affairs, and see that they select proper officers and pay them properly. We lament with him the evils of the existing system, and we urge all medical men to decline those appointments; but we are of opinion that the profession must in this matter protect itself. The Legislature is too helpless just now, even if it had the wish, to do any such useful work as regulating the medical service of the friendly societies.

Ambulance.—Probably Furley's horse ambulance carriage would be found suitable. Our correspondent would do well to communicate with Mr. Furley on the subject.

Mr. Shelswell.—The paper is marked for early insertion.

WARMING OF RAILWAY CARRIAGES.

To the Editors of THE LANCET.

SIRS,—On reading last week's issue of THE LANCET I noticed an article on the above important subject, both as regards the health and comfort of railway passengers. It may not be known to very many, if to any, of the readers of THE LANCET that an apparatus for the warming of railway carriages has been invented and patented by Mr. Foulis, the engineer to the Glasgow Corporation Gasworks, and that experiments have taken place with it on the Glasgow and South-Western Railway which have proved it to be a great success. The following is an account of the apparatus which I have taken from the *Railway Review* of Jan. 21st.

"The heat is obtained from the gas-lamp in the roof of the carriage. At the top of each lamp there is a small water-heater, and from this the hot water descends by means of two small pipes about a quarter of an inch in diameter, encased in the panelling of each compartment. The pipes pass into heaters placed beneath the seats in the carriage, and these are so arranged that the air entering at the bottom of the heater, where it is coldest, passes up and leaves the heater at the top, where it is hottest, discharging a constant glow of hot air into the carriage. The heaters have fan-shaped mouths, so that there is no intermittency in the supply. Only one carraige has been fitted with the apparatus, but this has proved successful beyond anticipation. If this apparatus becomes general, railway passengers will have to thank Mr. Foulis for one of the greatest boons conferred upon them." I am, Sirs, yours truly,

Wednesbury, Feb. 8th, 1887. HENRY E. BLACKWOOD.

DRUNKENNESS IN BELGIUM

ACCORDING to statistics, Belgium is the most drunken country in Europe Where in 1850 there were 53,000 public-houses, there are now 195,000—that is to say, one for every 44 of the population. The Government is, however, taking steps to repress and prevent drunkenness. Should the Bills be carried, publicans who supply drink to persons obviously drunk, or to anyone under sixteen years of age, will be liable to a fine not exceeding £1 for the first offence, while if they cause a minor to drink to intoxication they may be fined £4. Whoever is responsible for serious illness resulting from intoxication may be fined from £2 to £80, with from a week to two years' imprisonment, according to the gravity of the case. Should death ensue, a fine varying from £10 to £200, and from five to ten years' imprisonment, may be imposed. Public-house debts are no longer to be recoverable.

Mr. Wm. Luks.—We have no knowledge of the "remedy" or of the person who advertises it.

K. K. might write to the bankers of the Fund, Messrs. Coutts, Strand.

SEA-SICKNESS.

To the Editors of THE LANCET.

SIRS,—Having had occasion last week to escort a patient to the Continent, I had two rough journeys across the Channel to encounter. Most of my fellow-passengers paid a tribute to the power of Father Neptune. I escaped by a method which I should like to discuss, if you think it worth your space, which is so valuable.

I take it that all are agreed that in some way the nervous system is the primary cause of sea-sickness. I have heard it argued that this distressing malady is the consequence of variations in the pressure at different parts of the cerebro-spinal fluid, consequent on the varying position of the ship. My own notion is that a sort of vacuum is created in the abdominal cavity. Suppose, for instance, the ship is descending into the trough of a sea, the lower limbs feel the effect of the descent before the upper. The contents of the abdominal cavity are likewise drawn downwards, the uppermost contents being the last to feel the effect. Suppose at the same moment an expiration takes place, the diaphragm is at its highest. Under ordinary circumstances the viscera would be steadily pressed by the abdominal muscles, but in this case the diaphragm rises at the moment that the intestines tend to fall. The result is a momentary removal of pressure from the solar plexus and splanchnic nerves, followed by an unusual pressure. The result must be excessive action, followed by complete arrest of action. All rhythm must be lost before long under such circumstances. The result must be, it seems to me, that wild, inhibitory messages are sent to the heart, amongst other organs, resulting in the pallor which precedes each access of sickness. The directions to the various organs are equally excessive or equally wanting. At one moment saliva, bile, and other secretions are set flowing with extraordinary vigour; at the next arrested. The peristaltic action of the intestines becomes confused, and at times reversed, and the bile finds its way into the stomach. The action of the diaphragm becomes spasmodic, and sickness ensues. Assuming this theory to be correct, how does it throw light on the treatment? The method I adopted was this: Whenever the cockleshell in which I was travelling gave an extra roll I held my breath and contracted my abdominal muscles as much as I could. In this way I kept up a steady pressure on my solar plexus. When the boat travelled comparatively steadily for a moment or two, I breathed again. If for a moment I was off my guard and relaxed my abdominal muscles, that moment I felt that singular sinking sensation at the pit of the stomach which heralds *mal de mer*. Of course, this method is only applicable to short trips, such as that across the Channel. If the methods in vogue for treating sea-sickness be considered, it will be seen that many of them are explicable on my theory. When I was a ship's surgeon the plans most recommended by travellers were to administer bottled stout or champagne. In either case the gas evolved distends the stomach, and so keeps the pressure uniform. Another plan I have heard recommended is to eat pickled onions freely before going on board. Probably, in that case, too, indigestion produces evolution of gas, and so steady pressure. Could not an elastic belt be tried to help to keep up even pressure?

I am, Sirs, your obedient servant,

Southborough, February, 1887. E. PAGET THURSTAN, M.D.

"OBSTINATE CONSTIPATION IN AN INFANT."

To the Editors of THE LANCET.

SIRS,—In answer to your correspondent, "O. P. Q.," who sought in your issue of Jan. 29th suggestions on the treatment of the above, I would advise him to eschew the administration of purgative medicines and enemata. He should try massage—gentle kneading of the abdomen, and friction over the region and in the direction of the colon, by which means muscular action is stimulated and the desired result produced. The process should be repeated once or twice, at fixed times, daily, until regular action of the bowels results. Of course, the diet has to be attended to, and the feeding regulated as to time and quantity. The child should be given passive exercise in the fresh air daily. Other readers might also, I venture to hope, try, and pronounce their opinions upon, this plan of treating obstinate constipation.

I am, Sirs, yours very truly,

Ramsgate, Feb. 3rd, 1887. JOHN LUCAS, M.D.

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PROVIDENT DISPENSARIES SUICIDAL TO THE PROFESSION.

To the Editors of THE LANCET.

SIRS,—Your correspondent, Dr. Dickinson, not long ago stated that the Wandsworth Medical Aid Society—and I take this one simply as a type of all the others—provides medicines and medical attendance, either at the patient's house or the doctor's surgery, for 5000 people for one year for £350. In my district they do the same. Besides, a host of letters are given away, so that almost anyone can attend a local hospital for nothing. Again, the London hospitals are within a cheap ride. And I quite agree with your correspondent that it is usual for half a dozen of the oldest practitioners in the district to allow their names to be placed on such a list. They really ought to be ashamed of it. Why do they do this? Because they want to keep all the patients on their own books; and they would attend the whole lot for nothing rather than let them go to a fresh man. These old practitioners have secured the best class of patients, and to prevent opposition they will attend the ragged lot for next to nothing. Under the cloak of charity it is a lever to try to starve a new man and give vent to their professional jealousy. How is a doctor to start a practice, and who are likely to be his first patients? These are the very people upon whom he depends; yet they are to be gathered into the old practitioner's net, and treated for an ignominious fee to prevent any other doctor having them on better terms. The people who pay these pence regularly are those who can very well afford to pay a shilling or two each time the doctor attends them. The other class will not subscribe. Then, the sole gives less than 4*s.* a year for each patient. Now, if a patient but went to the doctor, say, for a couple of bottles of physic, he would pay that amount. If it be necessary to have this sort of charity, let the public bear the burden of it, and not medical men. For every member who pays 4*s.* let the public add 6*s.*, so as to offer something like a fee to which a doctor is entitled. On what grounds is a doctor always to be a tool of charity? The poverty of the profession flourishes on the jealous suicidal policy of its members. They endeavour to grasp each other's patients by offering skill at a lower fee. Even then, not content, they play the *rôle* of cat's paw to the parson's monkey. Who gets the chestnuts? The public. Who gets the honour? The parson. Who does the work? The doctor. What other professional man works seven days and two nights a week? What other professional man has so poor an income and such ill-proportioned expenses? At this rate a doctor's income should be double a lawyer's. But it is not. There is talk of increasing the student's period of study by a year or so. What is he to have afterwards? The dignity attached to attending and supplying patients with physic for 4*s.* a year. Happy man! Your correspondents are usually well-to-do men, of position and ability, and who have sufficient from practice or otherwise to keep them. Therefore you rarely hear from my class, and rarely hear how the beneficent system takes the butter from the struggling doctor's bread. There is very little *esprit de corps* in general practice, and we wage a war of extermination against each other with kid gloves on. Those who support and encourage these clubs and charitable associations are working against the mass of doctors for the good of a few. As you undoubtedly support all forms of charity, I trust you will bestow a little of it, by inserting this in your journal, on

Yours faithfully,

Dec. 13th, 1886. A GRUMBLER.

S. P. J.—General Maxwell's treatise, entitled "The Beaufort Artificial Arms and Legs for the Crippled Poor," is printed for private distribution, and will be freely sent to all applicants who are interested in the charity. Requests for copies should be addressed to General H. H. Maxwell, C.B., R.A., Villa Gamberini, Via Palestro, Rome.

Enquirer.—The best inhaler for the administration of the A.C.E. mixture is the perforated leather cone, containing a sponge and lined with flannel. Several layers of lint may be used, and even Junker's apparatus in operations of the face and mouth.

U. V. is referred to announcements in our advertising columns.

AN IMPROVED TRICYCLE.

To the Editors of THE LANCET.

SIRS,—May I call your attention to a tricycle which I saw at the Stanley Show last Saturday, and which seems to me to be a great improvement on the ordinary kind of machine. Certainly it is so from a medical point of view. We have all noticed how the ordinary tricycle—and, for the matter of that, the bicycle as well—tends to round the shoulders and contract the chest. In the machine to which I wish to call your attention this evil is entirely removed. The action which propels this machine is precisely that of rowing. The rider sits upright, and literally rows himself along, and that at a first-rate speed. Instead of only a few groups of muscles being brought into play, all the muscles of the body are, as in rowing, at work. The advantages of the sliding seat are obtained by means of a moving stretcher, this movement itself aiding in the propulsion of the machine. Dr. Richardson has often written about the advantages of tricycle exercise. I wish he would try this new machine, as I feel sure he would endorse my views. The machine has been invented by Mr. J. Inglis Mitchell, C.E., and is being exhibited by Mr. A. Doman. It is called the "Jubilee" tricycle.

I remain, Sirs, yours faithfully,

Holloway-road, N., Feb. 1st, 1887. W. HENRY KRETZEMER.

THE VACANCY AT ST. BARTHOLOMEW'S.

THE name of Dr. W. E. Steavenson was placed amongst the list of candidates for the post of assistant-physician to this hospital in our last issue. This was a mistake, as Dr. Steavenson is in charge of the electrical department, and did not apply for the appointment.

Dr. R. W. Foss.—The paper was published in the tenth report of the Medical Officer of the Privy Council. We do not know whether this volume is out of print.

Mr. C. S. Jeaffreson.—As early as possible.

"THE GENERAL MEDICAL COUNCIL AND UNQUALIFIED ASSISTANTS."

To the Editors of THE LANCET.

SIRS,—Your correspondent, "Unqualified Assistant," asks, in your last issue, if "scores of hard-working and valuable unqualified assistants are to go to the workhouse" because the General Medical Council is proposing to abolish their further use, and mentions their "long and faithful" services to the profession, and concludes by suggesting that a special Register should be made for their peculiar benefit. This is simply the wildest nonsense that could be penned in support of an abuse that ought never to have been allowed. No such unqualified man can engage in practice without palming himself off as a "doctor," and as such he is, in plain words, deceiving the public, with the sanction of the greater offender, who knowingly employs him. Would the public receive an unqualified man if he went to them in his true colour? Certainly not. And why should they? The law has a test which the public generally expect medical men to comply with. So long as this abuse is tolerated by the General Medical Council it will only put a premium upon ignorance, and encourage the idle and lazy among *chronic students* who have neither the brains nor the perseverance to work for a qualification to become what is erroneously called an "unqualified assistant." It is not fair or just to the young qualified man, who has after hard work reached the required standard and gained his legal status, to be check mated by a hybrid who is neither student nor qualified. At the present time, as matters stand, a man may graduate in the best university and become duly registered, and the only return he gets from the Medical Council is simply a copy of the Register containing his name and degree, &c., with no protection whatever against any poacher, no matter how unqualified he may be. There are in the kingdom very many entrances into the medical profession, and the highest standard required in the best of them is not too severe for an ordinary student who shows a desire to obtain the distinction. Ordinary men have obtained these distinctions, and can still obtain them if they only try in the proper way.

I am, Sirs, yours faithfully,

Feb. 7th, 1887. NUDA VERITAS.

An Old Assistant, in a communication on the above subject, writes:—"There are men on the Medical Register who have no diplomas and possess no legal qualification, but are registered for service. On the Medical Register for 1884 are about twenty such men. They are registered for services variously obtained—the army, navy, public service, and as surgeons, under the 46th Section of the Medical Act, 1858. If the 46th Section admitted these unqualified men on the Medical Register, why not make the same use of that Section and admit all old assistants of approved education and antecedents, and allow them to act as assistants, or, if possible, if their private means allow, to gradually improve their positions and become legally qualified? I am an old assistant myself, am now running on fast to the age of threescore years, have liked my vocation, and could have legally qualified nearly thirty years since; but forty years and more have gone since I became a probationer, previously to apprenticeship under the Act of 1815. In due time I completed my apprenticeship, and gained in the seven years and a half an insight into practice which has stood me in good stead. I was then a fair all-round practitioner. I tried to gain employment, but was told that if I 'legally qualified' I must 'be gone.' I was left a parentless youth with only a small patrimony. Still, I am a man of full curriculum, and of a university to boot. I considered, and made a resolution, upon which I have acted for forty years, that it was better to be a rich assistant than a poor principal; and in my case it has paid. I only held two assistancies in thirty-six years, was employed in first-class situations, loved my work and all its surroundings, obtained good salaries, worked hard, and merited my masters' approbation, keeping my bonds never to injure my masters or their families by proceeding to qualify and register. Such has succeeded well with me. In my sere time of life a place on the Register will avail nothing. I have lived a life free from disputes and tergiversation; but I have been spared the bitterness of non-success. I am in comfortable circumstances. My masters are both dead. I have stood a guardian's part to the last master's widow and family. I married at thirty years of age, or a little under that age, and have brought up a family of three daughters and one son. My son is a university undergraduate, who will soon obtain his degrees in medicine and surgery. The experience I have gained has been of great value in knowing how to handle the reins. I have given my children good education, and do not regret in one particle the plan I have followed. Had I my time over again I should follow out the same plan. I am fully aware that a man cannot do now as a medical assistant what was done twenty, thirty, or forty years ago. A more advanced curriculum is demanded, and an extended compulsory classical and mathematical examination is required. But are the medicos of the present day better men? I think not. If all circumstances are fairly balanced, I think the same standard of perfection would have been reached. The Medical Council ought to take a fair percentage of those who matriculate, and take an estimate of causes of failure to pass the finals, and in all fit and proper cases allow a man to work as an assistant under a legally qualified practitioner, or, if experienced and above a certain age, to be registered under the 46th Section of August 1st, 1858."

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DROWSINESS ACCOMPANYING DYSPEPSIA.

To the Editors of THE LANCET.

SIRS,—I shall feel obliged if some of your numerous correspondents will give me their views as to the actual cause of the extreme drowsiness and torpor that one meets with in some cases of dyspepsia. Is it due to anæmia, or congestion of the brain, or to some poisonous product in the blood, the result of mal-assimilation? I am not speaking of that lesser degree of drowsiness which most people experience after a heavy meal, but a state of what one may call almost constant sleep, not confined to gross eaters or to those who lead sedentary lives. Some of these people will sleep all day, even after breakfast the desire for sleep being almost irresistible. Treatment in the way of drugs seems to be of little avail. Any information on the subject, as well as any treatment that has been found successful, will be very acceptable.

I am, Sirs, yours faithfully,

Jan. 29th, 1887. L.R.C.P. LOND., M.R.C.S.

Asclepiad.—The latest contribution to the literature of malaria in its nature and its etiology is the paper read at the Roman Academy of Medicine on Jan. 23rd, 1887, and published in the Transactions of that body.

Mr. H. Sergeant.—The alterations in the matriculation to which we referred were adopted at a meeting of the Senate on Dec. 22nd, 1886, but we cannot say how soon they will be embodied in the official regulations, or take effect.

Circocele.—All forms of medical treatment aim at securing obliteration of the affected veins, and we know of none which succeed without this.

Mr. H. Fenwick.—Yes.

G. P.—The question has been repeatedly answered.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Bland Sutton, London; Dr. Cullingworth, Manchester; Mr. M. Handfield Jones, London; Dr. C. West, London; Dr. Dowding; Mr. Fitzroy Benham, London; Dr. Cosgrave, Dublin; Dr. Goodhart; Dr. Murray Mackenzie; Dr. J. Williams, London; Dr. Macdonald, M.P., London; Dr. Steavenson, London; Dr. Ray Lankester, London; Dr. Percy Boulton, London; Mr. S. Snell, Sheffield; Mr. Noble Smith, London; Mr. J. Marshall, Dover; Mr. J. Clerk, Glasgow; Dr. Campbell Pope, London; Dr. C. H. Taylor, Hammersmith; Mr. Pink, London; Mr. H. Sergeant, London; Dr. E. P. Thurstan, Southborough; Mr. Barwell, London; Dr. J. B. Potter, London; Dr. Park, Glasgow; Mr. Clement Lucas, London; Mr. R. W. Murray, Manchester; Dr. A. G. Williams, Brixton; Mr. F. J. Smith, London; Mr. W. Luke, London; Mr. H. Simmons, London; Mr. E. M. Crookshank, London; Mr. A. Drysdale, Cannes; Dr. Foss, Stockton-on-Tees; Dr. Lucas, Ramsgate; Mr. S. W. North, York; Dr. Oliver, Newcastle-on-Tyne; Surgeon-Major Dobie, Kamptu; Mr. H. C. Arnold, Vienna; Dr. Lindsay, Belfast; Mr. E. E. Phillips, Southend; Mr. Leeming, Kendal; Mr. Finley; Dr. Beavan Rake, Trinidad; Mr. Whyte, London; Mr. Woodd; Messrs. Kuhner and Co., London; Mr. Storey, Stroud; Mr. Yeatman, Auburn, South Australia; Mr. Williams, Oxford; Mr. Glatz, Champel; Messrs. Lee and Nightingale, Liverpool; Dr. Sanctuary, Salisbury; Messrs. Blake and Co., Leeds; Dr. W. J. Collins, London; Dr. Branthwaite, High Shot House; Mr. Elton, Clifton; Mr. Ernst, London; Dr. Jamieson, Shanghai; Dr. Burn, Stafford; Mrs. Gray, Banff; Messrs. Dawson Bros., Montreal; Mr. Barnes, West Hartlepool; Messrs. Summer and Co., Castleford; Mr. Patterson, Butterknowle; Messrs. Whitfield and Co., Birmingham; Messrs. Bradshaw, Notts; Messrs. Oliver and Boyd, Edinburgh; Mr. Boyd, Wandsworth; Mr. Tunmer; Mr. Van Voorst, London; Mr. Manwaring, Kensington; Messrs. Condy and Co., London; Mr. Moring, London; Mrs. Pratt; Dr. Walton, Hbden Bridge; Mr. Groves, Dorchester; Mr. Daws, Wandsworth; Mr. Lace, Hemel Hempsted; Mr. McNunn, Islington; Messrs. Maythorn and Son, Biggleswade; Dr. Leichman, Buchin; Mr. Jacob; Messrs. Bolt and Cross, London; Mr. Sturmfels, London; Messrs. Peebles and Co., London; Mr. H. G. Phillips, Biggleswade; Messrs. Wyley and Co., Coventry; Dr. Thos. Reid, Lochmaben; Messrs. Wright and Co., Bristol; Mr. Owthwaite, London; Mr. Gibson, Bromley; Dr. W. Hunter, Edinburgh; Mr. Annandale, Edinburgh; Messrs. Billing and Son, Bristol; Mr. E. A. Thompson, Ripley; Messrs. Hunter and Co., Aberdeen; Mons. C. Eloy, Paris; Dr. Squire, London; Mr. J. S. Wood, London; Mr. Hornibrook, London; Mr. MacDonald, New Abbey; Mr. Cooke, Lowestoft; Mr. Colman, Cardiff; Mr. Smith, Evesham; Dr. Ridge, Enfield; Mr. Moss, London; Mr. Poole, Shrewsbury; Dr. Needham, Gloucester; Mr. Blackwood, Wednesbury; Mr. Haslam, Birmingham; Mr. Hackett, Manchester; C. J. E.; Circocele; Ambulance; A Victim; Enquirer; Traveller; Unqualified Assistant; K. K.; M.D.; B., Dawlish; E. O.; Medicus, Monte; Nuda Veritas; B., Bournemouth; A. G.; Matron, Bristol; Secretary, Milton Chemical Co.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Powell, London; Sir J. Sawyer, London; Mr. Logan, Glasgow; Mr. Smith, Manchester; Mrs. Wontner, St. Leonards-on-Sea; Messrs. Symes and Co., Liverpool; Mr. W. Thompson, London; Messrs. Zimmermann and Co., London; Messrs. Black, Edinburgh; Messrs. Richardson and Co., Leicester; Mrs. Bellamy, Grantham; Messrs. Slinger and Co., York; Mr. Boyveau, Paris; Mr. Warman; Mr. Furneaux, Forest Hill; Mr. Finlay, Germany; Mr. Geddes, London; Messrs. Burgoyne and Co., London; Mr. Morris, Swansea; Mr. Brockelbank, London; Mr. Cowan, Bridgwater; Dr. Russell, Wickham; Messrs. Kilner and Co., London; Mr. Bean, Plymouth; Mr. Maycock, Staffs; Mr. Reid, Canterbury; Mr. Bruce, Dingwall; Mr. Bell, Dover; Messrs. Hooper and Co., London; Dr. Hudnott, Brooklyn; Messrs. Benjamin and Sons, London; Mr. Shirtliff, Kingston-on-Thames; Messrs. Bullock and Co., London; Mr. Unsworth, Liverpool; Dr. Adye, Bradford-on-Avon; Mr. Fuge, Taunton; Mr. MacMordie, Belfast; Dr. Williams, London; Dr. Fulton, Toronto; Mr. Smith, Finsbury; Mr. White, Bayswater; Mr. Webb, Bury; Mr. Baker, Dawlish; Mr. B. Carpenter, London; Miss Chreiman; Dr. Taylor, Nottingham; Messrs. Sherwood and Co., Manchester; Mr. Little, Cymmer; Mr. Rowley, Auckland, New York; Dr. Pope, Eardisley; Mr. Davis, Worcester; Messrs. Goddard and Massey, Nottingham; Mr. MacLehose, Glasgow; Messrs. Smith and Son, Liverpool; Dr. Arnison, Newcastle-on-Tyne; Messrs. Webb and Co., Kingsbridge; Mr. Chamberlain, Harleton; Messrs. Loeflund and Co.; Dr. Ritchie, Otley; Dr. Alderson, Hammersmith; Mr. Van Praagh; Mr. Rhydl, London; Mr. Galloway; Messrs. Mackey and Son, Morpeth; Dr. Smith, Leamington; Mrs. Stirling, Portsmouth; Dr. Fletcher, Highgate; Mr. Hitchin, Nottingham; Messrs. Giles and Co., Clifton; Mr. Furness, Wigton; Mr. Brown, Hull; Mr. Piesse, London; Mr. Crossdale, Colne; Mr. Gilyard, Bradford; Mr. Stewart, Rotherham; Mr. Robertson, Edinburgh; Miss Proctor, Middlesbrough; Larynx; M. A.; Medicus, Chesterton; Salopian, London; Medicus, Banbury; Nucleus; Vicar, Ilfracombe; M.D., Leeds; Secretary, Marylebone; Dr. M., Accrington; H. P. H., Sydenham; Imogene, Folkestone; Coca; R. A.; A. X. L., Lambeth; Z. Y. X.; Medicus, Brockley; Epsilon, Newcastle-on-Tyne; Alpha, Stamford; W. H. L., Derby; Alpha, Brighton; Surgeon, Pontypridd; X. Y.; Medicus, Buntingford; M. I.; Surgeon, Redcar; X., Carlisle.

Birmingham Daily Gazette, Liverpool Courier, Western Morning News, Middlesex Chronicle, Liverpool Mercury, Liverpool Daily Post, Pendleton Reporter, The Methodist Times, &c., have been received.

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The Hunterian Oration

DELIVERED AT THE

ROYAL COLLEGE OF SURGEONS OF ENGLAND,

Monday, February 14th, 1887,

BY WILLIAM S. SAVORY, F.R.S.,

PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND, SURGEON TO ST. BARTHOLOMEW'S HOSPITAL.

GENTLEMEN,—No word of defence can be needful for the form in which English surgeons have chosen to celebrate the memory of Hunter; but an apology may be offered by one who now attempts the task of speaking of him. The duty of reviewing in this place the life and work of Hunter has been so often and so ably performed that it seems to me I can do but little else than incur failure by any effort to tread in such familiar footsteps. But although tempted, as I may have been, by this and other reasons to turn aside into some less known path, yet a natural sense of loyalty to the great surgeon and of responsibility to the trust I have accepted has constrained me, and so Hunter in his work must be again the subject of what is called with oppressive grandeur the "Hunterian Oration."

Surgeons with one voice have proclaimed the supremacy of Hunter above all who have ever studied surgery. Students of science have acknowledged him to be among the chief of those who have in any age advanced human knowledge. Yet although his claims have been often examined, and many students and surgeons have been engaged in the task, his greatest to the high place he holds is not always recognised, perhaps not even always understood. May I stand excused, then, for asking once more, and attempting to answer the question, What has Hunter done?

It has been well said that when we attempt to estimate the achievements of the foremost men of past ages too often we see them only in eclipse. A large part—it may be much the larger part—of what they did is too often hidden from us. The proportion of sudden, or what may now appear as sudden, discoveries may be seen, though from afar; they may still strike us even from a distance. But we can now no longer adequately appreciate the conditions under which the pioneers of knowledge laboured. In the light of the present day it is difficult to realise the darkness of past times, or to measure fairly the part they played in dispelling it. We may diligently trace the course they took, and become familiar with every step of it, and yet fail to understand that they not only trod, but actually made the way.

But was Hunter a great discoverer—I mean in the ordinary sense of the word? For we speak of discoveries in science, sometimes forgetting that all real progress involves discovery. What are the particular discoveries, then, or improvements in the art of surgery, which are now recalled by the mention of his name? We quote at once, as an instance, the operation for aneurysm, known to all as the Hunterian, and then—we pause. What else shall be declared upon which his fame particularly rests? Anyone, indeed, who has but a passing acquaintance with the works of Hunter can speedily furnish a long list of important papers in which many new and valuable facts are revealed, and knowledge largely increased, not only in anatomy and physiology, but in pathology and surgery. More than one or two of these would alone suffice to establish the author's claim to ability and industry of no common order; but in none of them can be pointed out, I think, any particular discovery in surgery from the loss of which Hunter's fame as a surgeon would materially suffer.

But let us go further. As a surgeon was Hunter pre-eminently skilful in practice? Was he, beyond all other surgeons of his time, sagacious in diagnosis or successful in treatment? Was he even dexterous in operation? I do not know where to find the evidence upon which these questions can be answered in the affirmative; indeed, on the latter point there is evidence to the contrary. Or, once more, was he a learned man in his profession, as the phrase is commonly understood? Was he, as we say, a "well-read" man? Was he fully informed of the labours of others? I fear it must be admitted that the testimony in favour of this belief is very slender too. The introduction of the operation for aneurysm which bears his name was indeed a great step onward. In taking it he gave ample proof of rare foresight, which could proceed only from sound apprehension of some important facts in pathology and surgery, and a masterly grasp of some of the leading truths of physiology. Yet we bear witness to Hunter's fame when we acknowledge that even this grand discovery, among the chief in surgery, adds comparatively little to it.

What more, then, did Hunter achieve? What was he, therefore? Wherein consists his greatness? He was, and is, beyond and above all surgeons, a philosopher in surgery. His idea of the subject of his thoughts was far more adequate than that of other men. He was supreme in the scope and method of his work. He understood much better than those around him how to engage in the interpretation of Nature; he knew best how to approach and to disclose truth; for he not only understood that the problems which lay immediately before him were of all the most complex and difficult to solve, but he could see also that they were not isolated, but dependent ones. He saw in the necessary relation in which they stood to others the only means by which they could be worked out, and on this understanding he resolved to investigate the questions he desired to answer. But consider for a moment what, with the light in which Hunter then stood, that resolution involved. Remember how often, in more recent times, have able men doubted the doctrine, hesitated to accept the idea of that intimate relationship between the various forms of life—of their continuity, of that harmony of plan, of that unity of design, which Hunter not only clearly conceived, but so accepted as a vital truth that he made it the foundation of all his labours; and, after all, the only sure test of genuine and thorough belief is the work which comes out of it. This was the principle on which Hunter never wavered; it was the star that guided him—without haste, without rest—through all the work of his life.

But observe, I pray you, further, how Hunter proceeded in his work, for this is eminently characteristic of the man. He is not fond of starting propositions, which are then supported by arguments and made plain by illustrations; but his practice is to demonstrate in their order, without comment or dissertation, the facts which reveal knowledge. His habit appears to be, not to say to us, "I am convinced of this, and I will tell you why there can be no doubt about it," but rather to place the premisses before us—sometimes, it may be, with indifference, certainly without regard to effect, or any attempt at direction. His purpose appears to have been uniformly not to support a conclusion, but rather to make way for one. This, I think, is inscribed on the proudest monument of his genius—his Museum. May I ask you, only for a few moments, to look once more at it?

The passion of Hunter for collecting is well known; it has often been the subject of comment. His Museum included not only, to use the words of Professor Flower, "illustrations of life in all its aspects, in health and in disease; specimens of botany, zoology, palæontology, anatomy, physiology, and every branch of pathology; preparations made according to all the methods then known; stuffed birds, mammals and reptiles, fossils, dried shells, corals, insects, and plants; bones and articulated skeletons; injected, dried and varnished vascular preparations; dried preparations of hollow viscera; mercurial injections, dried and in spirit; vermilion injections; dissected preparations in spirit of both vegetable and animal structures, natural and morbid; undissected animals in spirit, showing external form or waiting leisure for examination; calculi and various animal concretions; even a collection of microscopic objects: but it extended to minerals, coins, pictures, ancient coats of mail, weapons of various dates and nations, and other so-called 'articles of vertu.'" Yet I do not doubt that, notwithstanding the apparently miscellaneous character of a great part of his museum, this vast collection was very far from being what could be called an empirical one. Save in material, it had nothing in common, as some would suggest, with an old curiosity shop. For myself, I believe that even the objects found there, which appear most foreign to the

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subject of his thoughts and work, were not introduced from mere idle fancy, but for the purpose, either at once clearly or dimly seen, or, if otherwise, at least conceived possible, of throwing light in some way upon the great questions of which his mind was full. I submit that this view is worthier than the prevailing one of the character of Hunter; and it is fortified by evidence of the strongest kind. Look at that section of his Museum which, as Professor Flower truly says, is most characteristic of the man—that which is called, and I venture still to think well called, the physiological. Had it been somewhat more fragmentary than it was when he left it, had not a fuller light been thrown on the truth it illustrates by the masterly labours of von Baer, the brilliant exposition of Milne Edwards, and the thoughtful volumes of Carpenter, how much longer would the great idea, that governs this unrivalled series, have remained concealed? Nay, even still, how often in the comments made on it, is this idea unheeded or overlooked? It is a magnificent collection of comparative anatomy, or, as we may speak now, of morphology. It sets forth the variations in form which the different organs undergo in different species, or in the same species under different conditions. But, above all, it introduces us, in the happiest way, to the study of comparative physiology. It demonstrates the great law of progress from the general to the special; the law of evolution from the simple to the complex; the principle of elaboration, and advancement of function by division of labour. Or, again, as Professor Flower admirably puts it—and need I apologise for quoting him here in reference to the Museum?—it throws "light upon one of the great biological problems, classification; which, when rightly interpreted, means nothing more or less than a statement of the order in which living beings have been evolved from one another." I know not, indeed, whether Hunter ever formulated this idea. He has not laid down the law in explicit terms. I can find no distinct expression of it in any sentence he has written which has reached us. But, then, hasty generalisation was no habit of his mind. I do not doubt that, in some large degree, he grasped it, and had he lived on, as the truth became established, he would have made it plain to all. When his labour ceased, he was working out the great idea. But by such glimpses as we thus obtain of the character of his mind and the method of his inquiry, of the way of his genius to begin the search for the truths he sought at the furthest outposts, and thence, so to speak, to work inward and upward, I cannot regard the possession of any facts or illustrations which he was enabled to collect, but had not time to place, as wanton or purposeless, or even merely curious. To me they are wonderful, but withal most suggestive, that the great mind of Hunter was not only far in advance of his own age, but is hardly overtaken by this.

The same method of work is plain in Hunter's labours in surgery. He was ever searching for principles, but strove to reach them only through facts. Facts always first; but never facts only. From facts to principles. He understood that all progress mainly depends on the power of grouping and uniting for some new purpose facts that have been discovered independently, and that are daily being revealed, yet with little or no reference to the principles they are found to support. And here, again, after a careful examination of Hunter's work in surgery, it is necessary to pause and review it in relation to the knowledge of his time. Then I think we are impressed, not so much by the actual advance he made in the art, as by the degree in which, through the character of his work, he raised surgery to the level of a science. I would almost venture to say that he effected more by the nature of the questions which he set than by the answers which he worked out. Surely his conception of surgery, of its possibilities in the future, of its relation to the sciences, of the plan—the only sure one—upon which it could be advanced, went very far beyond that of any surgeon before him—shall I say has gone far beyond that of most surgeons after him? But if he could thus estimate the task before him, what shall we say or think of Hunter as we watch him, with unexampled diligence and patience, pondering over the preface? Never turning a page of the great book of Nature, which he had set himself to read, until each sentence before him had been duly weighed, and all that he could learn from it had been secured. But this was not enough. He not only saw that surgery, to be soundly established, must rest upon pathology, but that the language of pathology required an interpreter; that its problems could be solved only by the light of physiology. Where in any work before his—nay, where in any since—shall we find such a union of physiology and surgery? In the pages of Hunter, but there I think only, are they found, as they should be, literally woven into one. We study his chapters on the Blood, on Inflammation, and on Gunshot Wounds, and acknowledge that nowhere else are the principles of pathology so supported and illustrated by the facts and truths of physiology. Yes, as no one before him has given proof of so clear and ample a conception of the relation of surgery to natural science, so in no one since has it borne such fruit. Hunter not only saw more fully than anyone who preceded him the way in which the art of surgery, through a knowledge of physiology, could be advanced, but he possessed the happy power of working to far better purpose upon this understanding than any of his successors. Nay more, the same power of mind which gave him a larger grasp of surgery raised him to a loftier view of the science on which it is founded. He knew better than other men in what direction to look, and when he turned his eyes thither he could see further.

So now, as we stand upon higher ground on this side of it, we can discern, I think, the idea which pervaded Hunter's work. He saw that surgery in his time was but a rude empirical art, consisting of little else than a knowledge of many facts which stood in no visible relation to each other, and of many more opinions which, for the most part, had no relation, or but a very distant one, to any facts whatever; that surgery should be raised from a collection of such creeds to the rank of a science; but this could be only by founding its practice upon sound principles. The discovery of some at least of these principles was Hunter's final aim. But these principles could not be reached by guessing; they could be approached only through the orderly investigation of facts. But then an explanation of these facts themselves could be only through the truths of physiology. The signs of disease could be understood only by him who had studied the laws of life and health. An intelligent interpretation of the one could only be in proportion to a previous knowledge of the other. But the problems of life and health are presented to us in man in their most complex form—in a form so difficult that even Hunter could not solve it. They must be reduced to simpler terms through a study of the lower forms of life. Thus, with the ultimate aim of relieving human suffering, Hunter studied the phenomena of motion in plants. Nay, he went further—to crystals and other forms of inorganic matter,—and he says: "The better to understand animal matter, it is necessary to understand the properties of common matter, in order to see how far these properties are introduced into the vegetable and animal operations." Note the characteristic thought at the end of the sentence. He does not start with a denial or an assumption, but he is anxious to "see how far." And if it must be said that in his attempt to grapple with the crucial problem of life Hunter failed, it must be acknowledged that he failed only in the task where none have hitherto succeeded. And the weakness he exhibits here appears chiefly in the fact that he encountered this, the greatest of all questions before him, not always according to his wont, by careful, patient, and impartial investigation of the facts which lead up to it; but it must be confessed that the dominant idea of a living or vital principle was too ready to do duty for causes that were to him then, as they are to us now, obscure. Yet, even here where Hunter is tried by the severest of all tests, one cannot but observe in what favourable contrast he stands to others who have attempted to solve the problem; how determined he is, for instance, to depend for the most part on experiment, and how comparatively trivial has been the advance in actual knowledge of the subject since his time. Recently we have learnt, indeed, to recognise more fully the play in the living body of the common forces or forms of force of nature; and hence we have been led to suppose that the forces peculiarly vital may hold the same relation to them as they do to each other; that all the distinctive phenomena of vital action may depend on the transformation of force with which elsewhere we have become in effect more or less familiar. But beyond this attempt to see, as Hunter put it, how far the common forces of nature are concerned in the phenomena of life, and the reasonable conjecture that has hence arisen of the relation of the vital within us, and the forces around us, how much further have we gone? Yes, Hunter stood before the crowning mystery of life, and could not raise the veil. But, then, to whom

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amongst the sons of men has it been yet given to draw it aside? Let the darkness which, after another century of thought and work, still enshrouds the subject be the comment on Hunter's reflections on the nature of life.

Now, perhaps the question may be worth asking, How far is it practicable in the present day to turn to good account the priceless legacy which Hunter has left us in the record of the plan on which he studied surgery? How far is it possible to follow now, at however great a distance, the example which he set? Or to put it thus:—Supposing Hunter to have lived in our day, could the range of his work have been still as ample? How much of what he did depended for its scope on himself?—how much on the scanty state of knowledge of his time? If Hunter lived amongst us now, his grasp of natural science and of surgery would, of course, be very different from what it was in the last century. It is common to remark that knowledge in this, as in other directions, has increased so largely that the relation in which any man can stand to the whole of it must be very different now from what it was a hundred years ago.

As knowledge advances, and the sum of it accumulates, the share which any one man can appropriate must of necessity gradually grow less, and become a smaller fraction of the whole. There can be no help for this or remedy, save in a corresponding advance in the development of the human mind. What reflection is more familiar to us than that on the progress of knowledge? But is the power of apprehending it greater now than it was in the days of Plato or Aristotle? This must mean that, as the world goes on, the attainments of even the foremost in intellectual power must become more partial. Who now would dare to talk of taking all knowledge for his province? It involves the fact of greater individual incompleteness. In the old days, the best men could be more on a level with the knowledge of their time. Thence every year onward places even these further below it, and the great law of division of labour prevails. Yet for this there is a gracious law of compensation. For while, on the one hand, there is now so much more to be seen; on the other, the master minds of previous ages have made it much easier for us to see. For by the establishment of principles, the outcome of their labours, we are raised, as it were, upon the shoulders of our ancestors, and the horizon of our vision is more comprehensive than theirs. For as facts accumulate and principles become moulded out of them, not only does the apprehension of these principles enable us, except for special purposes, to dispense with many facts, but such expansions of knowledge have a value far beyond this. Principles are the means by which important facts are fixed and registered. They are means by which our knowledge of the facts they embrace are secured and made available for the future. Disconnected, isolated facts—facts which are not orderly arranged and assimilated into principles—are in constant danger of dying out. Very greviously, I imagine, has the practice of medicine and surgery suffered from this loss. It is painful to think of the multitude of facts which must have been known to the older physicians and surgeons that either have been, or are being, from time to time mislaid by us. Many of these no doubt, in the course of knowledge, have become worthless, being superseded by others, but many, too, had probably a value that now we can neither appreciate nor understand.

Let us look at this matter more closely in its relation to surgery. What place should physiology, for instance, occupy in the study of surgery? I am not speaking now of physiology as a chief instrument of education (a very different matter), but I ask what share it should receive of the time and attention of the student of surgery? Some knowledge of physiology is essential to the surgeon. This statement, I suppose, will be generally accepted. At all events, those who may think otherwise will hardly care to say so in good company. But then how much of physiology is needful for the surgeon? What parts of it may safely be left alone? I would answer shortly, that the principles of physiology should be thoroughly understood by the surgeon, and with these, perhaps, what may be called the leading facts.

For instance, with reference to the circulation, it seems to me that every surgeon should understand the function and mode of action of the heart, arteries, veins, and capillaries; but I do not think that every surgeon need be able throughout his life to state the facts and observations upon which the conclusions are based. I think he should understand the meaning of the capillary circulation and its relation to the other parts of the circulatory system, and the conditions by which the pressure of the blood is regulated; but I should not think it necessary for him to be able always to follow the impressive series of facts through the vegetable and animal kingdom upon which these conclusions are founded. Thus he takes advantage of great principles which have been established on a multitude of facts; and, by intelligent study of a few weeks, he may be spared many months of what might, perchance, prove to him tedious detail.

So with respiration. He should understand, I think, not only the mechanism of the process in man, but the principle on which a respiratory organ is constructed; which are the essential and which the accessory parts. But he need not be called upon to remember always the various forms of the respiratory apparatus in the animal kingdom.

So with digestion. He should, I think, understand what is known of the function of different portions of the alimentary canal, and of the organs accessory to it; but he need not be able to recognise at a glance through the microscope a particular section of every part of it.

Now, assuming, as we have done, that some knowledge of physiology is necessary to the surgeon in ordinary, have his labours in this science, if properly directed, been extended, do you imagine, by its advance? I should say, on the contrary, that they have not only been reduced and shorn of many difficulties, but that, if only his studies be conducted with moderate judgment, he can now acquire much more than formerly upon far easier terms. If any doubt exists in the mind of anyone of what has thus come of the enunciation of principles, or of what I would call leading facts in physiology, let him look over the history of our knowledge of the great subject of development. Of what a mass of hard, dry, almost unintelligible statements it formerly consisted. Now, I do not mean to say that our present knowledge of this subject is free from all intricacy; but as much that was mysterious and doubtful has become clear and plain, I appeal to all who have studied it whether the task has not only been made far more agreeable and profitable, but whether it is not now easier to get it all "up," as the phrase is, in a shorter period of time. And, further, this applies not only to the surgeon properly so called, not alone to one who studies physiology only as a means to an end, but it applies also to those who would study physiology, as Hunter did, with the pure view of its advance. That which occupied Hunter years to unravel may now be gathered up in a few days, and from the point so readily reached the work may still be carried on. The field of labour, the ground which has to be upturned, is happily now no longer the same; but what change is called for in the method of work, what improvement can be suggested of the plan which Hunter pursued?

Now, while for the scientific surgeon a knowledge of the principles and leading facts of physiology will suffice, for the practice of surgery a knowledge is required not only of the principles of surgery, but of as many facts as possible and of detail of every kind. But although in the practice of surgery acquaintance with every fact and familiarity with every detail is of importance, inasmuch as it may be useful in some degree in promoting recovery or alleviating distress, yet in surgery, as in physiology and other sciences, and for the same reason, a knowledge of principles must be always paramount, and it is only by their discovery and establishment that its advance will be secured. Principles are in the practice of surgery what grammar is to language. Men may talk without grammar, speak even good English without knowledge of grammar, and men may practise surgery with little or no knowledge of its principles, just as a mariner may sail in familiar waters without compass or quadrant. But what if strange difficulties should arise?—and is it unusual in surgery to encounter them? What when we pass, as often we are driven, from the well-worn track of every-day experience!

Surely, the great lesson which Hunter taught and teaches, the example he set in the study of surgery, was never more needful than it is now, when every year the strain in this direction becomes more urgent. I think from the time of Hunter to the present we can trace his influence upon the scientific study of surgery through a long line of distinguished men. But the improvement of surgery as an art is not altogether favourable to the progress of surgery as a science. For as the art of surgery advances, and skilful management of detail involves more and more of every surgeon's care and time, the study of principles is in danger of being neglected. There may be less of science because there is more of art. And then the art of surgery is—apparently,

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at least—the more immediately important. Its application to practice is more obvious and, to the general view, more useful. Above all, it leads to an end by a shorter path and easier steps. To study surgery as a science, and to master its principles, makes a far larger demand on the intellect, and involves higher and rarer qualities than to acquire technical skill in the form, not only of mere manual dexterity, but also in that of familiarity with routine. In a word, the knowledge of the art of surgery means far less expenditure of that which most men are most loth to yield than a study of the science, and secures always a more immediate, and usually, in one sense, a more substantial return. Hence it is popular, and is likely to become still more so. This may be from a certain point of view—which is not the finest—of temporary advantage to particular surgeons, but in the highest sense it is bad for surgery. Moreover, the truth is, that science is never able to accomplish much when held in bondage by the immediate wants of life. Its investigations are successful only when they are pursued with indifference to the uses to which they may be applied.

This suggests, then, a question for the future, the answer to which seems to be hardly an encouraging one. As in each successive year facts and details in every direction—all of more or less immediate importance in the practice of surgery—accumulate, less and less time and attention are likely to be spared for the study and apprehension of its principles, to say nothing of the neglect of the sciences upon which these principles are founded. Is not surgery itself, then, as a science, it may be asked once more, in danger from the extension of surgery as an art? I can imagine there are some who will admit that this is so with very sinister complacency. But what would Hunter have said to it? And, unfortunately, in the present tendency of affairs, what he does say and teach is likely to become unheeded, for it can hardly be expected that the study of his works will survive the decline of scientific education.

The law of division of labour is oftentimes appealed to in this matter, but I venture to think this is not, or at least ought not to be, a case in point. It is often said that as surgery advances, and the art grows more extensive, it becomes more impracticable for anyone to entertain the whole of it. Thus then, first of all, the study of surgery as a science must be set aside by practical men, and then the art must in turn be broken up, the several portions of it being assigned to different practitioners. Now with regard to what is called specialism, let me say at once that I have no word to utter in disparagement of that form of it which consists in a man, first of all, studying and duly qualifying himself in the principles and practice of surgery as a whole, and then at length devoting his attention more especially to the cultivation of some particular department of it. This is not the form of specialism against which I would protest. In my humble opinion, it is in no way an unworthy one, and, if it were, it is by no means frequent. It is no illustration of the law of division of labour as commonly understood, for excellence is not here obtained solely by exclusiveness. But the kind of specialism which should be denounced, and which it is to be feared is not very rare, is that which consists in the practice of some particular portion of surgery without adequate attainment in, or continued study of, surgery as a whole. This is a form of exclusiveness detrimental, I think, to the progress of surgery, and therefore to our profession, both from a scientific and social point of view, and to the public. This I take to be a false application of the law of division of labour, which in manufacture and in many branches of skilled labour is so advantageous, and even inevitable, for ease, rapidity, and cheapness of production, and by which every day human hands are being superseded by machinery. The law of division of labour is, indeed, generally recognised and very useful here, but it is not known, and has no place, in the noblest science or in the highest art.

While, then, we contemplate the genius of Hunter in his works, he has left us an example which is not altogether out of our reach, in his conception of the subject and his idea of the plan of studying it. His view of surgery was more comprehensive, far worthier than that of others. Had he lived with us, would his views, do you suppose, have become narrower? would they have been less remote from specialism? Is it now no longer practicable to study surgery as Hunter studied it? Ay, but to study surgery as Hunter studied it means more than this. For he was great, not only in his understanding, in his apprehension of the nature of the task which lay before him, or in his appreciation of the difficulties of research, but he was great in the spirit with which he encountered them. His patience in ascertaining facts, in investigating questions of every kind, seems to have been wellnigh inexhaustible. It was certainly no habit of his mind to take anything for granted, or, when he could help it, to accept any statement at second-hand. And this was the more remarkable in a man whose mind was ever on the alert for the larger truths beyond, to which facts are but the stepping-stones; for the titles of his various papers very often convey no inadequate notion of their contents. He writes on some fact in natural history which is carefully and accurately described. But very soon it is used in illustration of some principle which is forthwith expounded, or in evidence of some original view which is then set forth, or in suggestion of some further research. Thus the fact, of which only the title speaks, becomes the text of a very valuable discourse. Yet Hunter was also remarkable in this, that the ideas which constantly occupied his mind, and on which he was always at work, still left him with the keenest eye for every novelty which his labours incidentally disclosed, although it lay altogether outside the current of his thoughts. Thus, in addition to the progress he made in the main subject of his labours, he was always accumulating a multitude of what, for the time being, were isolated facts. In this way he must have added largely to his wealth of knowledge.

If there is any point clear in the character of Hunter's work, it is that it was real, genuine, thorough. It may be said, indeed, that this must be true of all good work; but not, I think, in the degree in which it is obvious in his. He is never content with a cursory glance or a superficial view. Even when questions arise in the course of some inquiry, which, so far as that end is concerned, may be lightly disposed of, Hunter almost invariably dwells on them, sometimes at such length and so exclusively as to suggest that he has forgotten the purpose on which he set out. But it is evident that he could not bear to go on his way passing by so much that was undone. This gives a singular character to many of his papers. Much of the apparent want of skill in arrangement and exposition, and the seemingly purposeless way in which oftentimes statement of facts are scattered through his writings, is, I think, due to embarrassment from the riches he had gathered. And the singleness of purpose with which he worked is made evident, not only in the actual result of his labours, for no human being with divided interests could rival such achievements; but in the record, as we have it, of the life he led. He gave not only the whole of his time—yes, the whole of it in no mere conventional sense—and all his great powers, his mind and body alike, to the one object of his life; but to this he sacrificed all that he possessed, all that he could gain. To this he devoted, without stint or scruple, his money, his friendships, all his other interests. What any other man would have consideted impossible he made practicable. And this to no personal end. Careless of all reward save that which was to him paramount—the discovery of truth.

A noteworthy point in the character of Hunter appears to me to be found in the relation which in him thought bore to action. He combined in himself, in a very eminent, I had almost said in a singular, degree, the power of conception and of execution. He not only saw much further, but he was able to do much more than most others. He saw, as Bacon saw, and the idea was probably as original with him as with Bacon, that the systematic and thorough examination of facts was the first thing to be done in science, "and that till this had been done faithfully and impartially, with all the appliances and all the safeguards that experience and forethought could suggest, all generalisations, all anticipations from mere reasoning, must be adjourned and postponed; and further, that, sought on these conditions, knowledge, certain and fruitful beyond all that men then imagined, could be obtained." But he went immeasurably further than the great prophet of science in putting his conceptions to the proof in imperishable work on the lines he had laid down. "I only sound the clarion," said Bacon proudly, "but I enter not into the battle." Hunter sounded a clarion the echoes of which are reverberating still, but he entered into the battle also, was always found where the blows fell thickest, and we are in possession of the spoils. In his Museum there is at once the clearest evidence of the idea and the richest fruits of

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execution. Bacon, we know, has been compared to Moses on Pisgah surveying the promised land, and Newton to Joshua, who began to take possession of it. But Hunter saw the Canaan of surgery, and took possession of it too.

The mode in which Hunter conducted his investigations in physiology and surgery reminds one of the scientific work of an engineer in laying siege to some fortress. He begins by examining in every way he can the character of the defences; he studies, by every means in his power, its strength of resistance; he measures, to the best of his ability, the difficulties before him. Then, when all this is done, and in nowise previously, he draws out deliberately the plan of attack, arranges the whole scheme of action, and works steadily, patiently, and persistently upon the lines so laid down. It may seem to those who look on in ignorance that time and force are wasted in such elaborate care and toil. But all this means that each step forward shall be well assured, and that there shall be no risk of having to fall back. Ever ready to take advantage of surprises or of dashing assaults, he does not reckon upon these, or allow any part of his design to be made dependent on their success. He goes in to win, not by chance, but by method, and the flag of his country at length floats upon the battlements, not as the trophy of the courage of a forlorn hope, but in triumph of scientific forethought and calculation.

The study of Hunter in his work is instructive, in view not only of what he was, but also of what he was not. What Hunter's acquirements were when he commenced the study of anatomy is not quite clear, and cannot be determined with precision now; but this, at least, may be considered certain—that he could not, at that time, have been called a man of good general education; and it appears certain also that never, at any subsequent period of his career, could he have devoted any care or time to attainments in literature. One result of this defect in him is evident, not only in the absence, in all he wrote, of that which is termed style, but even in the want of power of lucid expression. He cannot always say clearly what he means. His thoughts are too frequently involved in obscurity and confusion.

Very much has been said and written on the rival claims and opposing merits of science and literature; but surely to very little purpose. To compare or contrast the advantages of literature and science—to discuss their relative value even as instruments of education—appears to me to be as futile as to consider the relative advantages or proportionate value of the forces of Nature. Each has its place, its power, and its claims. Each by itself is incomplete, defective. But they are in their purpose correlative, each supplying that which the other lacks, and together, but together only, making the circle of knowledge and education complete. When the champion of science thinks lightly of attainments in literature, or the master of letters speaks with disdain of scientific knowledge, each, I take it, shows only that he cannot appreciate what he does not understand. It is, perhaps, the most conspicuous instance of the evil of that one-sidedness which springs from the inevitable division of labour; of the want of sympathy which is too common in distinguished men with any kind of work outside their own. It is, indeed, natural and necessary that men should become chiefly interested in that which is the daily occupation of their life, that they should prefer, before every other, their own pursuit. But it is unfortunate that we should grow so indifferent, as we commonly do, to the claims of branches of knowledge that we do not possess; and it is still worse if, instead of devoting any spare time at our command to their study, we employ it in denouncing the effort or in expressing contempt for them. In the example of Hunter, one passes over with impatience the numerous disquisitions in which attempts have been made to prove the enormous advantage that Hunter derived from want of education; how much less a man he would have been had he learnt more in his boyhood. No doubt very much depends on the nature of the subjects taught, and still more on the method of instruction. But I confess that to me it seems the education, of whatever kind, must indeed be a very bad one which is not better than none at all. My conviction is that if Hunter had received a good general education in early years, he would have been all the better for it. He would have lost nothing; his mental powers could have been in no way impaired—on the contrary, enhanced. He would have recorded the result of his labours in better order, with more light and greater effect; and we should have had the advantage of a clearer revelation of his thoughts.

But all this is very far from saying that Hunter was not, in the strictest sense, an educated man. He was not, indeed, a scholar. If the subtle rendering of a Greek poet or the skilful turning of Latin verse be the sole test of culture, he gave no sign of it. Of ancient lore he was sadly destitute. In *literis humanioribus* he could have had no place. But if a transcendant knowledge of Nature and her ways, if a firm and ample grasp of her noblest truths, be accounted education, if the devotion through a lifetime of gigantic intellectual powers and of a truly loving heart to the reverent study of God's works be culture, then Hunter, though not a man of letters, was surely a highly educated man.

I do not think that we can now obtain a closer view of the character of Hunter and of his habit of work than that which is afforded by his letters to Jenner. How entirely destitute they are of any trace of literary skill. Even after some correction, how clumsily and awkwardly they are for the most part expressed; evidently not a passing thought bestowed on their composition. But how they always struggle, often how straight they go, to the point. Always full of the subject of his work, they must thoroughly reflect the disposition of his mind at the time he wrote them. Careless of all form, and of everything else, save to get out of Jenner some information he wanted; now seeking directly for some knowledge which he believed Jenner to possess; now suggesting some inquiry that Jenner might make for him; sometimes plainly dictating the method of it; then begging boldly for some animal or other specimen which he coveted; occasionally only a word of persuasion or encouragement, or even an attempt at bribery, lest Jenner should grow weary of well-doing. All outside matters, whether public or private or domestic, ignored; except at rare intervals, when it is comical to see, as anyone may easily, that a sense of unbecoming neglect of these small ceremonies strikes him, and then we are surprised by some polite sentence in conclusion. Once, indeed, there is an attempt to console Jenner for some disappointment in love by the assurance "I shall employ you with hedgehogs." But the whole correspondence tells a simple tale of indefatigable industry, of unquenchable energy, of singleness of purpose and unbounded sacrifice; of determination, heedless of cost and difficulty and all else, to seize every possible opportunity of accumulating knowledge.

The fame of Hunter, after all, falls far short of him. It may, without exaggeration, be said that he is really greater than to most men, even to most surgeons, he appears to be. And the reason of this is not far to seek. Neither the genius nor the labour of Hunter is of a kind that at once strikes the inquirer, or can be readily understood by the student. He made no startling discovery, in the popular acceptation of the term, which can be discerned at a glance and appreciated by everyone. As we follow, one after another, the successive, or oftentimes, as they really were, the simultaneous works of Hunter, we may remark the absence of any apparently great intellectual feats; we are never dazzled by the brilliancy of particular achievements. We may, indeed, say of very much of what he did that it might have been produced by any very intelligent, thoughtful, and industrious man devoted to his subject. With regard to separate portions of it, we can very rarely go beyond this, and exclaim, as a famous author tells us that he did, as he threw down his pen over one of his own passages, "By Jove, that is a stroke of real genius." In this respect, Hunter will not compare favourably with some far below him in scientific rank. His work, in order to be fully appreciated, must be studied throughout. It is not, of course, of uniform excellence. But Hunter's fame does not rest altogether on any particular part; indeed, it may be said that any particular part might be withdrawn without any material loss to our estimate of his power. We might select examples of it to illustrate his ability in this or that direction—as, for instance, his skill in inquiry, to his researches on the increase of temperature in inflammation, and his experiments on the transplantation of the cockspur, and on the growth of bones; his sagacity, to his inference, from the character of their contractility, that the arteries are muscular; the soundness of his judgment, to his reflections on the coagulation of the blood. But I venture to think that no separate fraction of his work will enable us to grasp his conception of the plan on which surgery should be studied, or the progress which, in a few short years, he actually made in its execution. It is only after a review of the whole of his vast labours in their mutual relation—not merely after a study of the merits of his numerous papers, each taken by itself, but in an attempt

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to apprehend the scheme to which, as it appears to me, all his labours were subservient—that we are, in any measure, able to realise the strength of Hunter's genius.

Then, as the chief merit of his work is not of a character to catch at once the eye, even of one who searches for it, so his subject is not one of widespread or popular interest. I can well imagine that, of all men who have achieved greatness, Hunter requires to be studied with most diligence. The more so because of the absence of all literary skill. And there can be no doubt that he shared the fate of all those who have been, like him, in advance of their time. He was so far beyond his contemporaries as to be, for the most part, out of their reach, and therefore they left him alone. And even his successors have not always found him out. It may, indeed, be said to have been almost by an accident that in association with the possession of his Museum we have periodically a festival in honour of his memory. Yet, even with all this, how much time is devoted at the present day to the study of his works? Nay, dare I ask the further question here, Can every one of us who call ourselves surgeons say that he has read them?

Such then, at least in the eyes of one who, though from afar, has long and earnestly looked up to him, was John Hunter. Beyond all cavil, if the word have any meaning for us, a man of genius; a man supremely endowed with power and faculties for the discovery of truth. With little education at the outset of life, without the advantage of the schools, he found himself face to face with the deepest and most mysterious problems of Nature. And he was forthwith able to take full measure of the magnitude of the task. It seems never to have occurred to him that he could snatch an answer by surprise; that a solution could be reached by any short or sudden means. But his survey assured him that upon one plan only, but by that abundantly, could success be made certain. So with patience, which of itself has been called genius, he went back to the beginning. It was genius, too, and that of the highest order, to discern at so vast a distance where that beginning lay. But there he placed himself, and from that point went forward only when he had made each footstep sure. Who shall say that his imagination was not fertile or that he faltered in the use of it? Yet no seductive theory tempted him into undue haste; and though sometimes drawn aside by a specious speculation, he seems hardly ever to have been lost in an unsound conclusion. And when he fell, the treasures he had won were found not only in the multitude of facts he had garnered, or even in the principles, which by virtue of the facts he had discovered were made plain; but also in the very plan and purpose of his work. For from the height on which at length he stood, not only can the path he trod be clearly traced, but the highway thenceforward is disclosed. So is the greatness of John Hunter to be estimated, not only by what he discovered, but rather by the lesson and example of his work. Truly it may be said of him that he did much. Truly it may be said of him that he showed how much more is to be done.

"He, being dead, yet speaketh"—still speaks to us as no other man before or since has spoken. But when and where can his voice be heard most plainly? Are the spirits of those who have shaken off "this muddy vesture of decay" permitted to revisit the scenes of their earthly labours? Can they still be with us on our way? If the soul of this mighty son of science is ever in our midst, surely his favourite haunt must be now within these walls—in the Museum which will soon almost surround us—at once his most graphic and glorious monument. The memory of Hunter, like the memory of the greatest men of every age, is imperishably enshrined. Art, in her noblest efforts, has striven to make his form familiar to us. His name is stamped in indelible characters on the records of human progress. But, before all, he lives in and draws the breath of life from his own immortal works; and of these, none can be so truly a memorial of the very man as this; no other can so resemble him, can possess so much of him, can tell so fully of what he was; can so perpetuate him in the vast store of facts, in the purpose for which they are set forth, in the illustration of principles, in the suggestion of truths beyond those it can show, above those it can reach; in all this, I say, no memorial, however majestic, can rival our Museum. The foundation of this with his own hand and his whole heart he laid; it has grown, and still is growing, from his strength, and it must be made for ever worthy of his name.

Harveian Lectures

ON

CANCER OF THE UTERUS.

BY J. WILLIAMS, M.D. LOND., F.R.C.P.,
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LECTURE III.

(*Concluded from page 303.*)

MICROSCOPICALLY, there are two forms of cancerous disease of the body as of the cervix—adenoma and true cancer. The changes in the glands in adenoma are of two kinds: the cells may retain pretty much the character of the epithelium of the glands in health, or they may be somewhat smaller, but regularly formed, or they may be larger. Dr. Matthews Duncan first described a case of adenoma of the body of the uterus; the disease was polypoid, and was removed. In true cancer, the cells lose their shape, becoming angular, many-nucleated, and fill the lumen of the glands. The changes often call to mind scirrhus; and Mr. Stanley Boyd, after examining such a case for me, and finding in the growing part that the disease grew from the glands, suggested that all cancers of the body were columnar epithelioma. This has been shown to be so; for of all the cases examined by Ruge and Veit and myself there was no instance in which the disease grew from anything but the epithelium of the glands or of the surface. The direction which the growth takes is similar in some respects to that taken when it attacks the cervix primarily. It involves the whole surface of the body, but tends to respect the cervix. In the later stages, however, it passes beyond the inner orifice and attacks the cervix, and extends down as far as the os externum. It spreads deeply, involves the muscular wall, and may pass through it, giving rise to inflammatory exudation on the peritoneal surface and adhesions to neighbouring organs, and then it invades the adherent parts. In one of my cases it had opened the intestine; in another it had all but caused a fistula between the small intestine and uterus; and in one it had passed through the uterine wall into the broad ligament, where it had formed a considerable tumour. The glands affected are those in the broad ligament and those along the spinal column. Secondary deposits may be present in many organs—as the lungs, liver, and kidneys. Its structure is always glandular.

In all my cases the disease began after the menopause. One patient was fifty-three years of age, one fifty-four, and one sixty-three. Of Ruge and Veit's cases two were under forty, the youngest being thirty-two. One was between forty and fifty, six were between fifty and sixty, and seven were between sixty and seventy. So that the disease is rare under fifty and before the menopause, and about as frequent between fifty and sixty as between sixty and seventy.

With regard to childbearing, five women had never been pregnant, four had had one child, and nine had been pregnant twice or oftener. So that we find thirteen out of eighteen had been pregnant and five had not, showing a much larger proportion of sterile women suffering from cancer of the body than from cancer of the cervix.

Hæmorrhage is the symptom which usually attracts the patient's attention and points to the existence of the disease. After the menopause bleeding sets in, and frequently returns at tolerably regular intervals, and women think that menstruation has returned. It is often profuse, but sometimes only slight. It is said to increase as the disease progresses. It is, however, not characteristic, for it is present in the endometritis of old age, and in certain forms of ulceration of the cavity of the body called lupus. There is generally present an offensive discharge.

Pain is a common symptom; and in some cases it comes on at stated hours and lasts for a longer or shorter time, and is of great severity, as was pointed out by Simpson. It is believed to be due to contraction of the uterus. In all my cases cachexia was present in a marked degree.

I regret to have to pass over these matters so briefly, but it appeared to me that the questions I have discussed in the previous lectures are of far greater importance in their bearing upon the great aim of practitioners than the

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enumeration or the discussion of symptoms to be found in all works on the diseases of women, and I therefore felt it necessary to devote most of the time at my disposal to them. I must now point out the bearing of what I have already said upon treatment.

I do not propose to discuss the palliative treatment of cancer of the uterus. With this you are all well acquainted from experience in your own practices. It is the common property of all practitioners, and is in the main fully given in all works on medicine, and the part of it which is specially applicable to cancer of the uterus is given in all works on the diseases of women. It consists mainly in the relief of pain and the practice of cleanliness, while in some special cases particular means may be called for to arrest hæmorrhage and other discharges. These I pass by, and proceed to discuss the radical methods of treatment which have been practised during the last ten years. These methods are two—the supra-vaginal amputation of the cervix and the total extirpation of the uterus. Freund of Strasburg introduced or reintroduced total extirpation into practice some dozen years ago. He practised it by abdominal section, and the results of this method proved disastrous, the mortality from it amounting to 72 per cent. at least. This method was modified by Czerny and others, who amputated the cervix by the vagina first, and then performed abdominal section to remove the remainder of the uterus. Schroeder subsequently described what is known as the vaginal method, in which the whole of the organ is removed through the vaginal canal; and by this method much greater success has been obtained, so far as the immediate mortality after the operation is concerned, than by the abdominal, for about 72 per cent. of the cases operated upon recover from the operation.

Amputation of the cervix has been practised for many years, but only recently in the way it is done now. I am not going to describe these operations further than I am obliged to, but I want to show the bearing of what I have told you in these lectures upon the application of the two methods—total extirpation and partial extirpation of the uterus. That you may follow me, I must remind you of what I said about the sites of origin of cancer and the lines of its growth. And, in the first place, cancer of the vaginal portion begins in the squamous epithelium; it is superficial, and remains superficial for a long time; it spreads towards the vaginal vault and along the vaginal walls superficially. In these cases the whole of the disease, provided it is limited to the uterus, can easily be removed; indeed, in most cases, if the lower half of the cervix be removed, the disease will be extirpated from the uterus. The difficulty arises after the disease has spread beyond the limits of the portio vaginalis into the vaginal vault, and lies in the obstacles to the removal of a large superficial area, owing to the conformation of the parts—the near proximity of the bladder and ureters especially. Many cases have been cured by amputation of the cervix, or of a portion of it, with the écraseur. Recurrence takes place superficially at the edge of the cicatrix, and not in the deeper structures, and consequently no advantage would be gained by total extirpation of the uterus.

In the next place, we have to discuss the applicability of total and partial extirpation to cases of cancer of the cervix proper, first of all, in the light of pathology. In the last lecture I pointed out that cancer may begin in the cervix in two situations—in the lower part near the external orifice, or in the upper part near the internal orifice. I showed that the tendency of the disease was to grow downwards towards the portio vaginalis, and outwards towards the parametric connective tissue. It does not spread upwards into the body of the uterus except in rare instances and in the late stages of the disease, when no operation can be undertaken with any hope of effecting a radical cure. Before it has involved the whole of the cervix, it has probably in some places invaded the parametric tissues, and this is the case long before the body is attacked. Under these circumstances, what are the advantages, if any, of total over partial extirpation? The lines of incision in the vaginal walls can be made in the same situation in amputation of the cervix as in the operation for total extirpation, so that in this respect total extirpation has no advantage over the minor procedure. Then, in both operations the dissection in front is made in the cellular tissue between the uterus and the bladder. It is generally advised to tear through this tissue after the vaginal walls have been cut through. The dissection can be made in both operations as far as the reflexion of the peritoneum from the uterus on to the bladder. On the sides, again, the dissection can be made at the same distance from the uterus in amputation of the cervix as in total extirpation. With regard to the dissection posteriorly the proceeding is usually somewhat different in the two operations. In the minor operation the vaginal wall is divided as far as the peritoneum, but the peritoneum is not opened; it is peeled off up to the point where it is firmly adherent to the wall of the uterus. In the major operation the peritoneum is opened over the place where the incision is made in the vagina. This in many cases—cases in which the disease has involved the posterior wall of the cervix deeply, and invaded the parametric tissue—is a distinct advantage. It is, however, an advantage which can be made available in the minor operation; for in amputation of the cervix the peritoneum is often deliberately opened, and this does not appear to add greatly to the risk incurred. As far as we have gone, then, total amputation presents no advantage over supra-vaginal amputation.

But what are the facts with regard to the entire removal of the disease from the uterus itself, and the prevention of recurrence. How much of the uterus can be removed by the minor or less severe operation? Can enough be removed to ensure prevention of recurrence? In reply to the first question, I say the whole of the cervix can be easily removed, and a great part of the body can also be removed. When the reflexion of the peritoneum has been reached, the dissection can be carried up in the uterine wall near the peritoneal surface, and a cone-shaped piece of the body reaching up to the fundus can be cut out. This was done in Case 16. In that instance the mucous membrane of the fundus was removed, together with that at the internal orifices of the Fallopian tubes. This was done without injury to the peritoneum; so that the entire uterus can be removed, except a shell of the upper part of the body. But is this sufficient to prevent recurrence? Is the risk of recurrence greater or not when a part of the uterus is left behind? I believe it is not any greater, and on grounds which appear to me to be sufficient; for in six cases in which recurrence took place, in four the stump remained healthy, and in one it was superficially and clearly secondarily affected. In all recurrence took place in the parametric tissue, and in four in that only. This evidence points clearly to the possibility of extirpating cancer entirely from the uterus by supra-vaginal amputation, and shows that, in so far as the prevention of recurrence in the uterus is concerned, total extirpation of the uterus presents no advantages over partial amputation. But how about recurrence in the parametrium? Will total extirpation help us to prevent this mode of recurrence more than amputation of the cervix? I think not. I have shown that the line of dissection around the cervix up to the level of the inner orifice or the reflexion of the peritoneum is the same in both operations; that the peritoneum can be and often is opened at the same level frequently in amputation of the cervix, as in the operation for removal of the whole uterus; that, in fact, the tissues in the area of recurrence are cut through in the same planes in both operations, and therefore that one presents no advantage over the other. It has been suggested, however, and I believe practised, to remove a portion of the bladder when the cancer has invaded the connective tissue between that organ and the uterus. This could be done in the minor operation without increased risk; but I imagine that it would greatly enhance the danger of the operation for total removal of the uterus. So that, if anything is to be gained by such a procedure, this gain would be in favour of the minor operation. I doubt, however, whether such a proceeding would be likely to possess any advantage over the ordinary method.

In so far, then, as the natural history of cancer of the portio vaginalis and of the cervix throws light upon the value of operations for its cure, it appears that supra-vaginal amputation of the cervix is quite as satisfactory an operation as the removal of the entire uterus. But what does the experience of operators tell us on this point? Does it accord with the conclusions we have arrived at upon pathological grounds? A large number of patients have been operated upon for cancer as well as for other conditions, and the results of the operation have been recorded in societies or published in journals soon afterwards, and long before the cases were completed by observation of the permanent results. All these cases are absolutely of no value for our purpose. I cannot conceive any good object in operating upon a patient

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on a Monday and reporting the case on a Thursday and then burying it out of sight for ever. The cases which have been watched for years after operations for cancer are comparatively few. I do not profess to know them all, and I shall therefore take the results obtained in the Vienna Hospital published by Pawlik and those of Schroeder published by Hofmeier. They are the largest and most complete. Those of Martin of Berlin and those of Fritsch of Breslau are for my purpose and for purely scientific purposes valueless, because the cases had not been watched for a sufficient length of time to determine whether recurrence took place or not. They are useful for the purpose of estimating the mortality of total extirpation only.

Recurrence may take place early or late, but if a considerable time has elapsed before its appearance it may be inferred that the reappearance is not a recurrence, but a new development; for just as a new development of cancer may take place in a part of the body quite independently of cancer in another part, so may a new growth appear in the stump of a uterus whose cervix had been amputated for cancer independently of the cancer which was removed. I consider, and I believe justly, that if recurrence does not take place in the course of two years a cure has been effected, and that should the disease break out after the lapse of that time the new growth is not a real recurrence, but a new development. Bearing this in mind, we find that Pawlik reports thirty-one cases of cancer of the portio and cervix which were cured by amputation of the cervix. One hundred and thirty-six cases were operated upon. Of these thirty-three remained in good health at periods varying from one to twenty years after the operation. Pawlik operated by means of the galvanic écraseur, and opened the peritoneum thirty-nine times. Of 105 partial operations performed by Schroeder ten died; the fate of seven is doubtful; recurrence took place in forty-three during the first year, and forty-five remained well; thirty-one remained well at the end of two years; twenty-three remained well at the end of three years; one had died of cancer of the bones, one of cancer of the ovary, and three had recurrence, the state of one was doubtful, and two were lost sight of. If we now compare this result with that of total extirpation in Schroeder's hands, we find the uterus extirpated during the same period in forty cases, with ten deaths. Recurrence took place in fifteen during the first year, and one was lost sight of, leaving fourteen healthy at the beginning of the second year. Recurrence took place in seven during the second year, and in one case the point was doubtful. Four were known to be healthy. We have therefore about 30 per cent. in good health after partial operation, and only ten after total operation—that is, of those operated upon; and nearly 35 per cent. of those who recovered after partial operation, and 13 per cent. after total extirpation. It should not be forgotten that these cases of total extirpation were cases of more advanced disease than those in which partial extirpation was performed; or, at least, that they were cases in which the disease had involved the uterus to such an extent that partial amputation was thought to be insufficient.

Hofmeier, who reports Schroeder's cases, divides cancer of the lower segment of the uterus into cancer of the portio, cancer of the mucous membrane of the cervix, and cancer of the cervical tissue. For cancer of the portio he advocates amputation of the cervix; for the other forms, total extirpation of the uterus. All the cases in which he had observed a long and lasting recovery after total extirpation were cancer of the mucous membrane. The results obtained in cases of cancer of the cervical tissues are much more unfavourable. He states that "this form of cancer is not discovered until it has existed for a long time, until ulceration has taken place, total extirpation is indicated for the disease may have extended into the body. The prognosis is very unfavourable, and recurrence is most frequent in them." I cannot accept Hofmeier's classification of cancer of the lower segment; but it should be said that his paper is purely clinical, and not in any sense pathological, so that I lay but little stress upon his division. He does not describe the seat of the recurrence, but as the whole uterus was removed it must have taken place in the parametrium, and in so far his observations are in accord with mine; and as the recurrence takes place not in uterine but in connective tissue, it cannot be said that total extirpation is indicated in these cases. Moreover, he shows that of the forty-three cases in which recurrence took place during the first year after partial amputation, in only two did the recurrence take place in the uterine stump. In all the others its seat was the cellular tissue, and therefore, as a rule, total extirpation is not indicated. Clinical experience appears, therefore, to point to the same conclusion as pathological investigation—that is, that in cancer of the portio vaginalis and cervix total extirpation of the uterus possesses no advantages over supra-vaginal amputation of the cervix, because the tendency of the disease is, not to invade the body of the uterus, but the parametric tissues. In cancer of the uterine body there is but one operative procedure which holds out any hope of a radical cure, and that is total extirpation.

There is one other question in connexion with the operative treatment of cancer of the uterus upon which I wish to make a few observations, and that is the indication for operating. All cases of cancer should be operated upon provided they are met with at a period sufficiently early to justify the hope of effecting a radical cure. But what are the physical signs which justify this hope? The pathological condition which justifies it—be the cancer in the portio vaginalis, the cervix, or the body—is that the disease has not passed beyond the uterine tissues. This, however, is not easily discovered either before or during the operation. Frequently, indeed, the after-results prove that it was too late, even in cases which appeared to be favourable. The physical signs generally relied upon are mobility of the uterus, absence of induration around it, and absence of affection of the glands. In endeavouring to establish these points, the examination should be made under an anæsthetic, and the whole pelvis should be explored by the vagina and by the rectum. In spite of every care, however, clinical investigation may mislead, because the disease may have passed beyond the limits of the uterus and yet give rise to none of the physical signs mentioned. The pathological condition present is most easily established by clinical examination in cancer of the portio, for when the disease has reached the vaginal vault it gives rise to superficial induration at the place invaded, and this is more easily discovered than when induration of a slight degree is present in deeper tissues. In such cases, and indeed in all cases, the rule should be to make the incision in the vaginal wall wide of the indurated part. In this means alone lies any hope of preventing recurrence.

In cancer of the cervix proper the investigation is much more difficult, for the uterus may be freely movable, the mobility of the organ may be unimpaired, no indurated tissue may be discovered, and no enlarged glands may be found, and yet the disease may have passed into the cellular tissue around the cervix. I have seen several such cases, and in them the tissues through which the incisions were made appeared to be healthy. I know of no way in which the difficulty can be overcome. Coarse induration can be readily discovered—that points to an advanced stage of cancer; but the commencement of infection of the parametric connective tissue will escape the most sensitive and cultivated touch. If the parametrium is free, no anxiety need be felt about the degree of extension of cancer upwards towards the body. It can be entirely extirpated in that direction. The difficulty is to extirpate it in a lateral direction, according to both pathological and clinical research. The difficulty is sometimes just as great in cases of cancer of the body. The tendency in these cases is to invade the broad ligaments and peritoneum or adherent intestines. I have seen one case in which the uterus was movable without surrounding induration or large glands, and yet the fundus was adherent to a coil of small intestines, and the disease had invaded the wall of the intestine and almost formed a utero-intestinal fistula. This patient was examined under ether, and yet the condition escaped detection. In spite of these difficulties, and in spite of recurrence, the operative treatment of cancer gives in many respects satisfactory results, and this is especially true of cancer of the portio vaginalis and cervix. Sometimes permanent cures are effected, while in a large number a respite for one or more years is given. In Schroeder's cases the respites were as follows: Of 105 partial operations, 10 died, the fate of 7 was doubtful, and recurrence took place in 43 during the first year; so that 45 had a respite of one year, 41 of eighteen months, 31 of two years, 27 of two years and a half, 23 of three years, 17 of three years and a half, 10 of four years, 7 of four years and a half, 7 of five years, 3 of six years, and 1 of seven years. Besides these cases, which remained under observation, many were lost sight of and their fate was not known. Of 40 total extirpations 10 died, 14 had a respite of one year, 8 of eighteen months,

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4 of two years, 2 of three years, 1 of three years and a half, and 1 of four years and died of apoplexy.

I thought at one time that recurrence caused more and earlier suffering than the primary disease, because it affected the deeper tissues sooner than the primary disease would have done, but a larger experience of such cases has convinced me that I was in error, and that the pain depends on some peculiarity in the patient or in the disease, for many recurrences are painless. I cannot speak of the duration of the disease after recurrence. I have not a sufficient number of cases, but I have seen it last from four to eighteen months. It is not impossible that a more careful study of the pathology and natural history of cancer of the uterus will help us much further in its diagnosis and treatment, and the earlier we are enabled to make the diagnosis the more successful will our treatment prove. No haphazard and blind procedures of treatment will prove of any avail; the only method which can give us a sound and firm basis upon which to build is patient study in the laboratory as well as at the bedside; and although I would in no way depreciate clinical research, yet I cannot help thinking that the investigations conducted in the laboratory, in the present state of our knowledge, are the more likely means to give us light upon cancer of the uterus—to elucidate the laws which govern its development and growth, as well as those which should guide us in our treatment.

CASES OF GALL-STONES, WITH REMARKS.[1]

BY J. S. BRISTOWE, M.D., LL.D., F.R.S.

THE subject of gall-stones is always one of great practical interest, but it is much too large to be dealt with exhaustively in a short paper. I prefer on this occasion only to bring under notice two cases of special interest which have come under my care during the last year or two—cases which illustrate in different ways the phenomena which attend the escape of gall-stones by ulceration from the cavities or channels in which they are formed. The first case is one in which jaundice (due to partial obstruction to the flow of bile from the liver) of twenty years' duration was followed by the formation of an abscess in the lower part of the right side of the abdomen, and the escape, together with pus, of large quantities, not of true gall-stones, but of biliary gravel. The second case is one of the escape through an ulcerated opening of a large gall-stone from the gall-bladder into the duodenum, and of death from consequent obstruction of the small intestine.

CASE 1. *Gall-stones and gravel causing suppuration, and discharged through the abdominal walls below the level of the umbilicus.*—Ann A——, unmarried, a governess, aged thirty-eight, came under my care on May 16th, 1884. Had always had weak health. Had rheumatic fever when six years old, and when twenty a second attack followed by typhoid fever. As long as she could recollect she had been liable to "spasms" commencing in the left hypochondriac region, and extending thence obliquely into the right lumbar region. Had been jaundiced for twenty years, the jaundice varying in intensity, but never disappearing. Her illness dated from the previous October, when she had an attack of "spasms" lasting for ten days, which left her very weak. After this she first discovered a small lump on the right side of the abdomen. This tumour had been enlarging ever since. Owing to constant pain in the situation of the tumour and to debility, she took to bed, and only left it in order to come from the country to the hospital. The journey caused great aggravation of pain.

The patient was spare, but not markedly emaciated; pale, and quite obviously, though not deeply, jaundiced. The conjunctivæ were yellow. The abdomen was not generally distended or hard; but on the right side, extending vertically from a little above the level of the umbilicus above to the groin below, transversely from the left of the mesial line to the anterior superior spine of the right ilium, and having a superficial extent about equal to that of the palm of the hand, was a hard mass, the edges of which were not very well defined, and which appeared to be incorporated with the deeper parts of the anterior abdominal walls. It did not move with respiration or under the skin; but it moved with the movements of the abdominal walls. It was slightly nodulated, the more prominent parts seeming to infiltrate the parietes as if coming to the surface. It was dull on percussion, and no resonance could be obtained between it and the liver. She complained that it was tender, and after it had been handled she suffered from much lancinating pain in it. Tongue clean, appetite poor; thoracic organs all healthy. Catamenia regular; urine of specific gravity 1030, and containing neither sugar, albumen, nor bile. No enlargement or disease of any organ within the abdomen could be detected; and at this time it was uncertain whether we had to do with a malignant tumour invading the abdominal walls or a suppurating inflammatory mass. Against the latter view were the facts that the tumour had been growing for six months, that it was uniformly hard and free from all sense of fluctuation, and that the temperature was scarcely above the normal.

During the ensuing twelve days the patient's general health improved; and, indeed, on the whole she seemed fairly well, excepting that she suffered at times from severe pain in the tumour, which had to be allayed by morphia injections. During this time, however, the tumour got more tender, and therefore more difficult to examine; it enlarged somewhat; it became more definitely adherent to the skin at two or three points, and the skin in these situations presented a blush of redness. At length one of the prominences became somewhat yielding, and, although it did not fluctuate, it was thought well, on consultation (on March 27th) with Mr. Sydney Jones, to make an exploratory puncture. A small incision was made, and a few drops of thick pus oozed away. A probe was then inserted for a couple of inches or so. It passed pretty easily in two or three directions, not into any definite cavity, but apparently through tissues infiltrated with pus. A deep incision about two inches long was then made; and thence a considerable quantity of thick pus escaped.

Up to this time the temperature, though generally normal, had been in the habit of rising occasionally to 100° or 101°; but after the operation all traces of fever disappeared; the health and appetite improved; she lost the abdominal pain; a slight discharge of pus continued; and the tumour diminished markedly.

On the morning of June 3rd, on removing the poultice, several rounded black bodies, varying from the size of a coriander-seed downwards, were for the first time found in the discharge. These were rough on the surface, and readily crumbled between the finger and thumb into a coarse powder. They were insoluble in ether and in chloroform, and gave the reaction of bile when treated with nitric acid; they were obviously biliary concretions. From this time scarcely a day passed in which a greater or smaller number of biliary concretions failed to be discharged. They varied from mere dust to friable masses as large as a small pea, and, like those first observed, were always black and structureless, and formed essentially of biliary colouring matter.

As (although the patient's health continued to improve, and the abdominal pain, tenderness, and lump had all much diminished) the discharge of pus and of biliary concretions continued, it was determined at a second consultation with Mr. Jones to enlarge the incision (now partly healed) in the upward direction towards the gall-bladder, in order, if possible, to remove the accumulation of concretions which were obviously retarding the patient's recovery.

On June 24th the patient was put under the influence of ether, and Mr. Jones passed a probe through the wound upwards and to the left to a point two inches to the right of the umbilicus and half an inch below it. He then slit up the sinus, and from its upper point passed his finger into a prolongation of it, which extended upwards in the presumed direction of the gall-bladder. The tissues around were dense and cicatricial in character; and in the sinuses themselves, and mainly in the upper one, were found large numbers of friable calculi and much biliary gravel of the same kind as those that had been previously discharged. The wound and its diverticula were washed out freely with a weak solution of carbolic acid, and a drainage-tube was then inserted. The patient took the ether badly, became very blue during the operation, and at the end of it almost ceased breathing, and had to be revived by artificial respiration. She fainted several times during the evening, and afterwards suffered from sickness. A good deal

[1] Paper read at the meeting of the Hertfordshire District of the Metropolitan Counties Branch of the British Medical Association, Nov. 20th, 1886.

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of biliary fluid was discharged from the wound in the course of the afternoon and evening.

For about a fortnight after the operation she continued very weak, suffered a good deal from pain in the wound, and in the abdomen in its neighbourhood, and often fainted two or three times a day. Then she began to improve in health manifestly, and to gain flesh and strength, and on August 10th sat up for the first time. After this her progress towards health was rapid, and almost uninterrupted.

Notwithstanding the great amount of calculous matter removed at the operation, large quantities of calculi, varying from rounded aggregates a quarter or one-third of an inch in diameter to grains like those of ground pepper, escaped daily from the wound with the fluid discharge. From twenty-five to fifty were not unfrequently discovered daily. The abdominal hardness gradually decreased, and the wound healed excepting at its upper point, where a drainage-tube was retained, and the fluid discharge escaped. The yield of stones diminished latterly, and none were observed after Sept. 19th. The sinus remained open, however, and discharged a good deal of thin colourless fluid as long as the patient remained in the hospital.

On Sept. 10th she had an attack of severe lancinating pain in the left hypochondrium, which lasted for about an hour and a half, and was followed by diarrhœa, and it was thought some increase of jaundice. She said the attack was exactly like those to which she had been liable.

The patient left the hospital on Sept. 30th, still with a small weeping sinus, but in good flesh, much improved in strength, and able to walk about, healthy in appetite, free from abdominal pain, and cheerful. But she was still jaundiced, as she had been all along. The skin had a pale brown tint, and the conjunctivæ were distinctly yellow. But there was not, and there never had been, any bile in the urine. The concretions discharged from the wound on several occasions were very carefully examined, both chemically and microscopically, and proved to consist almost exclusively of biliary colouring matter. I have not seen, but have several times heard of, the patient since she left the hospital, and believe that she remains well.

It is, of course, not uncommon for ulceration to take place in the gall-bladder, in consequence of the presence of stones in it, and for these to be discharged from an ulcerated opening over the site of the inflamed cyst. But the case just narrated is not an ordinary one of this class, because: first, there was a history of biliary obstruction of twenty years' duration, which was not removed by the treatment which relieved the patient in other respects; second, the local evidences of inflammatory thickening and suppuration appeared at a considerable distance from the situation in which they might have been expected to show themselves; and third, the concretions which escaped were not ordinary gall-stones, but amorphous granules of biliary colouring matter.

Abscesses arising in the abdomen not unfrequently present in situations which are remote from their seat of origin, and especially have a tendency to gravitate into the venter ilei or pelvis. And more than once I have seen an abscess of the liver which had communicated with the cavity of the lesser omentum, or had opened into its substance, lead to considerable inflammatory thickening of the implicated tissues and their permeation with sinuses, to adhesion between them and the abdominal walls, and finally to perforation of the latter at or near the umbilicus. In this case the inflammatory phenomena corresponded in the main with those just described; and I am inclined to think the abscess had been conducted downwards by the tissue of the great omentum, and that the peculiarities which were observed were largely determined by this circumstance.

The concretions were amorphous, and presented a vitreous fracture; and, if cholesterine was present in them at all, it was present in exceedingly minute quantities. I never saw such concretions in the gall-bladder, and am inclined to think they are never found there. They were such concretions, however, as not unfrequently form in the gall-ducts, and tend to coalesce or grow into calculi, which become moulded to the channels in which they lie, and usually present a more or less tuberculated surface. I am consequently inclined to think that in this case the gravel came, not from the bladder, but from the ducts; and that the abdominal abscess originated in ulceration of one of the ducts, probably the hepatic or common duct.

The long duration of jaundice in this case cannot, I think, be directly explained by the passage of gall-stones, unless, indeed, as sometimes happens, the irritation caused by them determined the formation of a stricture at the point at which the common duct opens into the bowel. But if such a stricture had been an early result of the passage of a gall-stone from the gall-bladder, one might have expected that the passage of subsequent stones from the gall-bladder into the bowel would have been prevented, and that their accumulation in the common duct would long ago have led to absolute obstruction, and to a fatal issue. But I could not satisfy myself that the spasms to which the patient was liable were typical attacks of gall-stones, or that there was any clear evidence that the jaundice commenced with such an attack. I am inclined, on the whole, to think that her illness began with a seizure of catarrhal jaundice, which induced permanent thickening and stricture, but not complete obstruction of the lower end of the common duct, and that, following upon that, permanent yet variable jaundice supervened, associated with general dilatation of the hepatic ducts, and tendency for the retention of bile in them, and for the deposition of its solid constituents in a granular form. If this view be correct, the spasms might be referred to the occasional passage of gravel.

I recollect a patient of mine, a middle-aged man, who was suffering from jaundice of some years' duration, but who still passed bile in variable quantities into the bowel, and died ultimately from profuse hæmorrhage (I think from the nose), whose jaundice we found after death to have been caused by such a stricture as I have assumed to exist in the present case, a stricture barely admitting the passage of a very fine probe.

I may here add a remark with regard to the abundant presence of cholesterine in gall-stones formed in the bladder. The general belief, I think, is that this substance is precipitated from the bile around solid nuclei, the origin of which I need not now consider. But cholesterine forms a very minute proportion of the solid constituents of the bile; and it is odd, therefore, that the great bulk of these calculi should consist of cholesterine with only a trace of other bile constituents, and sometimes even of pure cholesterine; and it becomes especially odd when we bear in mind that biliary concretions formed in the ducts generally consist of the solid constituents of the bile, and present little or no cholesterine. Many years ago I examined a patient in whom there was a contracted gall-bladder with extremely thick walls. Embedded in these walls were a considerable number of cavities varying between the size of a pea and that of a bean, which were evidently dilated mucous crypts. And within each one of these were large crystals of pure cholesterine. These were colourless, rhomboidal, varied from $\frac{1}{8}$th to $\frac{1}{4}$th of an inch in breadth, and were about the $\frac{1}{10}$th of an inch thick. I was led from the facts of this case to assume, and I am inclined to think, that the bulk of the cholesterine in gall-stones formed in the gall-bladder is derived, not from the bile, but from the secretions discharged from the mucous surface.

CASE 2. *Obstruction of ileum by a gall-stone: death; necropsy.*—Ann S——, a married woman sixty-five years of age, was admitted under my care on March 24th, 1885. Her history revealed nothing of any importance, excepting that she had had no symptoms at any time pointing to affection of the liver or its excretory apparatus. Her illness began on March 20th with retching and vomiting, which continued, with varying, but on the whole increasing, severity up to the time I saw her. The vomit during the last two days had been offensive. The bowels had not been relieved for two or three days previously to the onset of her illness, and they had not been relieved since. She had passed little urine, and passed it only on one occasion since the 22nd. It was then small in quantity, high-coloured, and turbid. She is said to have had three fits on the morning of the 23rd, in which she became cold and unconscious, but was not convulsed. She did not seem to have had any pain.

On admission she appeared to be well nourished, but her face was pinched and anxious-looking, and her eyes were sunken; her tongue was thickly furred; her abdomen was full, but flaccid, and free from tumour, tenderness, and pain; she had no hernia; the heart and lungs and her temperature were normal. She was admitted in the evening, and the next morning (March 25th) the following notes were taken:—"The patient slept well till 4 A.M., after which she was restless; has vomited much black grumous-looking fluid, and had some hiccough; had an enema last night, which did not act; has not rambled. She is now very

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weak; still suffers from sickness, and complains of pain across the upper part of the abdomen; she looks vacant, and is fretful. Pulse 88; temperature 96·4°." Later in the day (thirty hours after admission) she passed for the first time a few ounces of urine; it was high-coloured, presented a trace of albumen and a deep indigo reaction, and its specific gravity was 1030. Her temperature at this time was normal, her pulse 90, feeble and regular, her tongue dry and thickly coated. The sickness continued.

March 26th.—Vomiting ceased at 10 P.M. yesterday; she slept till 3 A.M., after which she rambled a good deal. Now she seems feeble-minded and incapable of concentrating her thoughts or of recollecting. She complains of feeling sick, and of pain in the epigastrium on breathing deeply, and is extremely feeble. Pulse 88, weak; temperature 96·4°. A catheter was passed yesterday evening, and twenty ounces of urine were withdrawn. She died in the course of the morning. She was treated mainly with opium.

Necropsy.—On opening the abdomen, the stomach and small intestine in the greater part of its length were found moderately distended, but the last few feet of the ileum were contracted to the thickness of the little finger. The duodenum was adherent to the gall-bladder and liver in the neighbourhood. The gall-bladder itself was much contracted and difficult to make out. Its cavity communicated by an irregular orifice with the duodenum. The stomach and upper part of the bowel contained thin stercoraceous fluid. In the duodenum were two small faceted gall-stones, and one or two other similar ones were discovered lower down. Between six inches and a foot above the spot at which the contraction of the ileum commenced was a rounded gall-stone about as large as a walnut. It filled the bowel in this situation, but was not impacted in it. The intestines above the obstruction presented small areas of inflammation, as if the stone had been impacted from time to time in its course downwards, and had thus irritated the mucous membrane. The contracted portion of bowel and the large intestine contained mucus only. All the other abdominal viscera and the peritoneum were healthy. The lungs were deeply congested and œdematous. The heart was soft, and there was a good deal of atheroma of the mitral and aortic valves (which, however, were competent), and of the aorta.

The case just narrated is, I take it, a typical example of obstruction of the bowel by a large gall-stone. It is noteworthy, that (as I think usually happens in such cases) there was nothing in the previous history pointing to the passage of gall-stones; that the stone, although it had clearly caused obstruction of the bowel, was scarcely so large, one might have thought, as to forbid its ready transit and ultimate escape from the anus; that there was never any evidence—such as pain, tenderness, or distension—of the presence of abdominal inflammation; and that not only was there absence of fever, but the temperature was generally subnormal. The patient died apparently partly of asthenia and partly of collapse, determined by the concurrence of inflammation of the mucous membrane of the upper part of the small intestine, with obstruction of bowel, vomiting, and incapacity to take nourishment.

Burlington-street, W.

TRANSPLANTATION BY EXCHANGE.

BY C. B. KEETLEY, F.R.C.S.,
SENIOR SURGEON TO THE WEST LONDON HOSPITAL.

THE title of this paper is the name I would apply to an operation by which two portions of living tissue are made to exchange places. The following case will illustrate the procedure and the kind of circumstance in which it may be advantageously employed.

In March, 1886, a female infant, aged two or three weeks, was brought by a neighbour of its mother's to the West London Hospital with a request that a hairy mole covering nearly the whole of the left cheek might be removed. I explained that the result would be a contracting scar worse than the mole, and sent the child away. Next week the neighbour returned, and said that the mother could not endure the sight of the large mole, and would prefer a scar. I placed the infant's arm against its face, and was rather dismayed to see that all the skin of the outer side of the upper arm, from the shoulder down to the elbow, would be required to replace the mole should I cut away the latter and then fill in the flap by transplantation. Upon reflection, I resolved to *exchange* the hairy mole of the face and the smooth white skin of the arm. The advantages of this plan are obvious, and especially the consideration that the mole would give useful skin for the upper arm; but it will be better to defer enumeration of them till the operation and its results have been described.

On April 2nd, the little patient being anæsthetised, I first thoroughly cleansed and disinfected the cheek and arm with liquid potash soap (Duncan's) and solution of perchloride of mercury, successively. Next I marked out the flaps in the following manner. A straight ink-line was drawn from A to B (see illustration). The arm was then placed in comfortable position, arching upwards over the face and head. The wet ink on the line A B printed a second line on the arm at C D. A paper pattern of the flap to be removed from the face was cut, and with its aid an exactly similar flap was marked out on the arm, so that C D H G on the arm corresponded to B A E F on the face, each letter to each respectively. Though this is a very simple matter, some care is required in practice to avoid confusion. The knives, scissors, sutures, needles, forceps, &c., to be used lay in a tray of carbolic lotion, but were dipped in boiled (not boiling) water immediately before use and replaced in the carbolic tray when not actually in use. The object of this was to take care that no erysipelas or other specific infection should be carried by the instruments, and yet to prevent the flap and raw surfaces from being irritated by the carbolic. The sponges had all



been thoroughly disinfected, although they were now placed in water only. The face flap was reflected first. It included the subcutaneous fat proper, which had to be carefully separated from the cushion of fat which swells out into the middle of the cheek from beneath the ramus of the jaw; and it was necessary also to cut very carefully and *see* everything which was divided near the parotid and some of the branches of the facial nerve. The structures in an infant's face are, of course, comparatively small and near to each other, and the amount of fat is, comparatively, very considerable. Almost all the cutting throughout the operation was done with scissors, and not very sharp ones either. The main object of this was that bleeding might stop rapidly, and thus dry surfaces be obtained speedily—a very important matter in a plastic operation. This object was entirely attained in the case I am describing. The arm flap also included the fat down to the deep fascia. As I thought it would be somewhat difficult to put in the sutures when the arm was up against the face, I applied entirely distinct, but corresponding, sutures to the arm flaps and edges of the arm wound on the one hand, and to the face flap and edges of the facial wound on the other, and afterwards lifted the arm to the head, placed the arm flap in the facial wound and the face flap (containing the mole) in the arm wound, finally using the ready-placed sutures as "tags," which, twisted together each to each, fixed everything with absolute security and accuracy. But this plan, though excellent in suitable cases, was scarcely necessary in this, and was, indeed, a little too elaborate. The angles between the arm and face, near the flaps, were now packed with iodoform gauze,

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and the whole arm was most carefully fixed to the head and neck with good strapping. Finally, over sufficient flannel and wadding, the head and thorax and *both* arms were rigidly secured in plaster-of-Paris. The whole had somewhat the appearance of a large egg with an infant's face peering out of a hole near one end and its hips projecting and legs kicking freely out of the other end. The child's conduct showed that it was free not only from pain, but even from discomfort.

The following notes of the after-treatment were made by the house-surgeon, Mr. Harold Des Vœux:—April 9th (seven days after operation): Part of case removed; dressings found to be very offensive. Both flaps looking well, though the face flap is red and the stitches along its anterior border have given way. Dressed as before.—13th: Whole case removed and bases of flaps cut and sutured respectively to face and arm. This, of course, liberated the arm from the head and severed each of the two transplanted flaps from its original connexions, completing the exchange of places. At the lower and outer border the flap upon the face was found to be not adherent and partially redundant, owing to cicatricial contraction of the face wound; it was therefore pared to fit, and re-sutured to the face. Wounds dusted with iodoform; both arms strapped to body to prevent child from scratching the wounds.—20th: The face flap not fitting perfectly in one or two places, it was there refreshed, adjusted, and fixed with fine horse-hair sutures.

The result bids fair to be excellent, though not perfect, owing to the fact that a certain amount of cicatricial contraction had taken place in each wound. I feared this would pull the mouth to one side eventually; but it appears now, nine months afterwards, that this has not occurred. The following account of the present state of the case is written by Mr. C. H. Taylor, house-physician to the West London Hospital, who has just visited the little patient to report on it:—"The child is much fatter and healthier in appearance; the transplanted skin on the face is of the same colour and appearance as the rest of the face; all that is noticed is an incomplete irregular ring of depressions or dimples and linear scars, these being slightly paler in colour than the surrounding skin. At the outer and lower edge nearest the ear are two small patches of mole, one about the size of a pea and the other smaller;[1] they are pale brown in colour, and have a few silky hairs growing from them. The arm is much fatter, and the mole upon it is more raised and movable than it was upon the face, but it remains the same in size."

There can therefore be no doubt about the satisfactory results attained by this mode of operating, which is, to the best of my belief, new. It is obviously a very great advantage to be able to anchor, so to speak, the arm to the head by the strong sutures which unite the former to the transplanted mole. It is thus rendered needless to put any except fine sutures into the face. Secondly, the bases or necks of the two flaps, lying with their raw sufaces in mutual contact, help to keep up each other's warmth and nutrition. Thirdly, not only is the risk of sloughing diminished, but should the part removed from the arm slough, the mole saved from the face is there covering the arm wound with healthy and supple, though discoloured and abnormal, skin. I cannot help thinking that this plan of preserving what might be termed "healthy disfigurements" of the face, such as hairy moles, and *exchanging* them for skin taken from parts usually hidden by the clothes, to be a great improvement on the practice of excising such moles and wasting them.

[1] These small patches lay near the border of the large mole when it was transplanted, and were left behind.

SANITATION AT SHREWSBURY.—The Shrewsbury Corporation at the quarterly meeting on the 14th inst., considered reports of the borough surveyor for a new water-supply and a new drainage system which would carry the whole of the town drainage into the Severn at a point below the town. The water scheme proposed to take the water out of the river above the town, and after filtering it to pump it into a service reservoir, from which the whole of the town could be supplied by gravitation. The estimated cost was £26,000. The sewage scheme would entail, when complete, an expenditure of £16,000, but at present only £7800 of this was to be laid out. Both plans were agreed to.

MINIMA VISIBILIA AND SENSORY CIRCLES.

BY THE LATE BRIGADE SURGEON T. OUGHTON,
ARMY MEDICAL DEPARTMENT.

(*Concluded from p. 310.*)

THERE is an idea of motion when an image traverses the retinal disc of a motionless eye, or when the finger is passed over the surface of the skin; the prevalent doctrine accords the resultant perception to a consecutive excitation of impressional areas. Advantage may be taken of the present opportunity to instance a few arguments justifying the classification of apparent motion with the secondary perceptions.

1. No progressive motion is experienced in a train passing along a dark tunnel, or in a ship's cabin, because the muscular system is quiescent. But our progression when walking in the dark is quite perceptible. How is this? It cannot be due to the tactile impressions made on the feet, even granting them to be unlike, since no idea of motion is presented by a succession of dissimilar sounds, or by the different thoughts of ideation. Neither can it be explained by noting the time that it occupied in each step, since time and motion are not to be confounded (Locke). This philosopher imagines the sun to be a fire lighted in the same meridian every twenty-four hours, and asks whether such a regular appearance would not serve to measure duration as well without motion as with it. No solution is available saving that of muscle-perception.

2. Apparent motion is realised by the aid of the thaumatrope or zoetrope; but it is inconceivable (as with different sounds or thoughts) that the retinal representations of a number of successive attitudes—the consecutive phases of a horse leaping a gate, say—should generate the mental notion of a motion, inasmuch as there can be no possible relation primarily between any two such mechanical representations. Contrariwise, however, as the hand perceives an object in two positions by movement of the arm through a certain angle, so the secondary perception of the horse in one position is amalgamated with a similar perception of the horse in another position. It is the linking of these like perceptions that is essential to the idea of a perceived motion.

3. Objects are perceived to gyrate round the individuality after rapid rotation of the body, notwithstanding their retinal images are fixed. The general rotatory muscles, in this case, cause the centre of perception to spin round in one direction, whilst (by sympathetic secondary abeyance) the straight muscles of the eyeball give rise to objective gyration in the opposite direction; when walking rapidly along a road, in like manner, the adjacent hedge-rows seem to move oppositely. Here is evidence that the secondary perceptions of vision are persistent after absolute cessation of the antecedent bodily movements, and we have already employed this principle of persistence in the formation of visual angles.

4. Let a traveller by train fix his optical axes on an object some 300 yards distant, he will observe that the near hedges move rapidly in one direction, whilst the more distant trees move slowly in an opposite direction; this effect may be likened to the arms of a balance swaying horizontally about the binocular centre. It is true that the nearer objects are depicted on the upper and those more remote on the lower retinæ, but the main incident resides in the images of both sets of objects floating over the fundus in the same course; how, it may be asked, are such contradictory results to be reconciled excepting by some process of secondary perception? Whilst confessing that the paradox awaits a definite solution, I cannot omit to note its striking analogy to the twofold forms of monocular relievo, wherein a superficial extension is seen to face towards the right under one form and towards the left under the other form (conversion of phase).

Resuming our data, when the points of a pair of compasses are applied to the skin of a blindfold person, they require to be separated by a certain interval—the diameter of a sensory circle (Ernst Weber)—before they can be identified as being duplicate. Apparent number, consequently, has been viewed as resulting from the intervention of one or more sensory circles or retinal cones; but our proposition makes it to consist in the appreciation of two or more distinct directions, and the phenomena of single and double vision or

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touch (already cited) are a sufficient illustration. Number, indeed, is related to two classes of perceptions entirely distinct; it is a secondary perception in connexion with extension and form, and primary in its relation to time—so many sounds striking the tympanum per minute. This distinction between the mental ideas of number is important, furnishing a satisfying clue to the paradoxical impossibility of squaring a circle; thus, a ring of thread is readily convertible into the square formation (secondary), whilst the feat is impracticable by mathematics (primary); a straight line, again, is unity in a secondary aspect, but it may be abstracted into any number of primary measures (and the same for a superficies). Take another example of number: a printed word appears *per se* to be a unite (secondary), although its several letters may be counted; the mental idea of number, in this instance, is *primâ facie* so many distinct volitional impacts, but it is really a question of time together with a succession of primary perceptions.

Sensory circles vary in size in different parts of the body. The adjoining table gives their apparent diameters according to different authorities:—

	Weber.	Le Conte.	Bernstein.
Tip of tongue ...	½ a line	$\frac{1}{30}$ in.	·039 in.
„ fingers ...	1 to 2 lines	$\frac{1}{16}$ to $\frac{1}{8}$ in.	·079 in.
Palm of hand ...	5 lines	¼ in.	—
Back „ ...	14 „	⅛ to ¼ in.	·157 to ·196 in.
Arm	30 „	⅛ to ¼ in.	—
Back	30 „	3 in.	1·97 to 2·36 in.

Fineness of tact conjoined with correspondent mobility in various parts has long been recognised, as in the elephant's trunk, the beaver's tail, &c.; such a constant ratio between sensory and muscular acuity (well shown by the table) has been viewed in the light of a mere coincidence; but it is offered as verifying a motor causation. The dimensions of sensory circles have been attributed to textural fineness of nervous organisation; thus, if we suppose one hundred tactile papillæ to exist in a circle of the back (3 in. diameter), there will be a like number in a circle of the palm of the hand (½ in. diameter), whereby the hand's sensibility is so many times greater than that of the back. But, by the proposition, the cutaneous nerve-expansion may be universally equisensitive in so far as the present phenomena are concerned; and what are the practical facts concerning increments of sensibility? I consider that sensibility is best measured directly by passing the forefinger lightly over different surfaces of the skin. If we adopt this method, a tolerable equality of sensation will be felt between the palmar aspect of the forearm and hand; these surfaces appear to be more sensitive than that of the forefinger, whilst the back and flanks are highly sensitive. Then, touching another point, it has been assumed that one hundred cutaneous corpuscles in a sensory circle really signifies a corresponding number of fibrillary terminations in the brain; how is the single impression disposed of? Mental essence, according to the *adhuc* highly mechanical but rather speculative neurologists, now steps in with its stately faculty to charm away every dilemma; the mind, it is said, whilst it can readily identify each fibrillary stimulation, is limited in its differentiation of an aggregation of impressions unless more than a certain number (a hundred say) of fibrillary insertions are excited. I am not aware that it has been decided whether or not the fibrillary insertions are more compressed in some cerebral areas than others; but here, in the absence of an explanatory *modus*, I contend that the foregoing hypothesis is foundered. Truly says Locke, "In bare naked perception the mind is passive, and what it perceives it cannot avoid perceiving." In truth, physiology points everywhere to conscious mind as being an impressional resultant rather than an impressional generator or modifier.

Proceeding next to examine a few data which seem to be intelligible only on the terms of the proposition, the first remark is that the minimal visual angle of 44″ is an invariable value in every part, lateral or direct, of the retina. On the terms of Le Conte, however, (1) that the size of the cones determines the minimum visibile, and (2) that the cones of the macula lutea are far smaller and more numerous than elsewhere, it will result that minimal angles are more acute in the axis, rather than that a hyperæsthesia ensues. Sensory circles are of variable, and visual angles of uniform, value; in the latter case, because ocular rotations affect equally the entire retinal expansion.

The following facts, lastly, refer especially to the tactile faculty, and possess a marked significance: — (*a*) Sensory circles differ in size in different individuals, well shown in the above table. Does a more close disposition of nervelets in some persons offer a satisfactory reason for the difference? (*b*) They differ in size in the same person at different times. Has the mind an influence to contract or dilate cerebral impressional areas, and irrespectively of volition? (*c*) They are developed by assiduous exercise—e.g., the blind man reading with his fingers, or the armless woman sewing with her toes; the sensibility in these cases is increased in an equal ratio with the mobility. Is this a mere coincidence? Let us draw a simple parallelism in reply to these queries. Thus: Some persons play billiards better than others; they are in a better cue for play at some times than others; they profit by practice. Well, then, has primary sensation any causative bearing on either parallel?

Addendum.—At the close of a protracted investigation concerning the nature and various phases of the secondary perceptions, comprising several memoirs which have been honoured by insertion in these columns, I may be permitted to add a few general remarks. My hypotheses on erect and single vision, visual reliefs, &c., have been present to my mind in a more or less imperfect shape for upwards of a score of years. These several subjects tend to elucidate, and have been elucidated by, what a strict inductive system seems to justify me in styling a theory of secondary or acquired perception. The main feature of the theory consists in a brainward transmission of the *vis insita* of voluntary muscular tension, to enter into a combination therein with relational centripetal currents of primary perception for the evolution of appropriate forms of secondary perception—that is, for the mental declaration of the primary qualities existing in natural bodies. I am happy to say that the theory does not seem to be invalidated by, but rather harmonises with, the experimental researches of Professor Ferrier on the motor areas of the cortex. Professor Wyld states for instance, in reference to the faradisation of the anterior lobes giving rise to contractions of the head and limbs of animals, that he is not disposed to surrender his admiration of the forehead as the seat of intelligence; I cannot subscribe to his position, however, seeing that by far the major part of intellectualism is a motor process. The following remarks of Dr. James Davey bear directly on the context, and I cordially endorse them. He writes: "The application of stimuli to portions of the cerebral surface beget, as a matter of necessity, certain and defined muscular movements; but such are no kind of proof that a centre or source of mere motive power has been reached or excited to action. The movements observed are, to all intents and purposes, due to another cause, and that a psychical or mental one."[1] Then he points out that this must be so, since the stimuli may produce like motor results indirectly through the instrumentality of one or more of the external senses—the sense of sight, or touch, or sound, and so on.

One or two words more. The muscle sense of Sir Charles Bell has especial reference to a recognition of the position of the limbs and other movable parts of the body, together with sensations of solidity or impenetrability (not solid form), the weight and other resisting properties of essences; hence it is a line of research having only a remote connexion with the various doctrines enunciated in these columns. It might repay investigation to trace the reason that a Chinese or Japanese painting exhibits such vivid colouration, whilst their crude notions of perspective clearly evince a defective or modified secondary perception; their statuettes, too, are such grotesque contortions. Is it dependent on their sedentary habits co-operating with a perfunctory exercise of secondary attention, or are their muscular dispositions irregular? Not the least claim of the above theory is that it establishes a sound substantive basis for positive or realistic metaphysics; its obvious tendency is to deal a heavy blow to every ideational and intuitional form of philosophy as touching initial conscious states.

[1] Journal of Psychological Medicine, vol. ii., p. 253.

THE SANITARY ASSURANCE ASSOCIATION. — The sixth annual meeting of the members of this Association was held on the 14th inst., Sir Joseph Fayrer in the chair. Mr. Joseph Hadley, secretary, read the annual report, from which it appeared that the business of the Association during 1886 had been much greater than in any previous year, the income having been £804, as against £462 in 1885.

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Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

SUBMAXILLARY CALCULUS.

BY COLLIS BARRY, L.K.Q.C.P.I., M.R.C.S.

THE following case is worthy of record on account of the unusual size of the calculus and the gravity of the symptoms resulting from its presence.

R. W——, aged sixty-six, consulted me early in September last concerning a swelling beneath the lower jaw on the right side, which caused him extreme difficulty in swallowing. Flashing pains came on at intervals, and extended radially from the swelling upwards into the face and head, inwards towards the tongue, and downwards as far as the right shoulder and arm. These symptoms had existed for about eight months, becoming gradually more severe; latterly the patient had begun to lose flesh, and his friends became alarmed at his condition.

Upon examination I found a hard substance corresponding in position with the submaxillary gland placed just below the ramus of the inferior maxilla, rounded in form, and more easily distinguishable from the outer side than from the interior of the mouth, and about the size of a small walnut. By pressure from the outside a few drops of purulent discharge appeared at the orifice of Wharton's duct. There was no hardness or concretion at the mouth of the duct, as usually met with in cases of salivary calculus, and there was no induration of the cervical glands. Taking into consideration the gravity of the symptoms and the increasing loss of strength, I suggested early removal, but requested a consultation. Dr. Ainsley of Hartlepool saw the case with me and confirmed my suggestion. On Oct. 12th, chloroform being administered by Dr. Ainsley, I proceeded to cut down upon the submaxillary gland by a vertical incision about a quarter of an inch anterior to the facial artery as it crosses the inferior maxilla, extending downwards about two inches; a second cross incision was made to make room. There was considerable hæmorrhage from the submaxillary and other small branches of the facial. The whole of the gland superficial to the mylo-hyoid was removed, and the calculus could then be distinctly felt at the commencement of the duct, and apparently embedded in the gland. A few of the posterior fibres of the mylo-hyoid were divided, and the calculus seized with vulsellum forceps and removed. Upon examination after removal, the calculus proved to be phosphatic, and measured one inch by half an inch approximately (the exact measurement in length being uncertain, owing to the crumbling of a portion of the calculus beneath the vulsellum forceps). The wound was plugged with lint soaked in turpentine, eucalyptus ointment and iodoform being substituted upon the following day. The subsequent history of the case was one of uninterrupted recovery, the wound granulating freely and becoming entirely healed in three weeks from the date of operation, all the symptoms previously complained of having entirely disappeared.

Remarks.—The ordinary method of removal by incision of the mucous membrane was impracticable in this case owing to the depth of the calculus from the surface of the mucous membrane. Erichsen mentions, as the largest calculus removed, one of the size of a small damson-stone; but, so far as I can ascertain, no mention has been made of a calculus of this size occupying so deep a position.

Castle Eden, Durham.

ERUPTIVE ECCENTRICITIES.

BY J. G. MARSHALL, M.B. CANTAB.

MRS. Q——, aged forty-eight, married, living alone, had been a sufferer from chronic rheumatism for several years. She had an attack of facial erysipelas some time back, but could not fix the date. She was subject to occasional severe attacks of neuralgia, for which I could find no visible cause. About two months ago she presented the symptoms of erythema nodosum, and went through the illness in a severe and typical form, the patches being very large and painful, leaving the shins, back of forearms, and inside of thighs covered with livid marks, as if she had undergone a beating. At the end of a fortnight this eruption seemed to have run its course; but the patient still seemed very unwell, and complained of stiffness about the neck and jaws, with continual pain in the head. She maintained that she had been suffering from erysipelas, though she acknowledged that she had not been like it before. Two days after the last crop of erythematous lumps had disappeared she was seized with erysipelas of the head and face, and had it very severely, with high fever and extensive swelling of the face and neck.

She was for two or three days in a very critical condition, the features being almost obliterated, and the infiltration of the tissues of the neck deep and extensive. One morning when she was getting better she complained of intense itching of the back of the forearms and hands, which on examination presented the unmistakable white "wheals" of urticaria. There was little or no redness of the skin; the eruption was confined to the extensor surface, did not reach above the elbow, and died away in forty-eight hours. There had not been a trace of erysipelatous rash on the body during the attack of that disorder. A short time ago I congratulated her on getting on so well, when she said that she had another attack of erysipelas at the bend of the elbow. On examination of each elbow-joint, on the flexor side, and nowhere else, I found a patch of typical eczema, the vesicles being perfectly unmistakable, with watery exudation and shiny redness. She had been scratching with her nails, which she had not done before. Fresh patches of eruption appeared at the wrist. Both yielded readily to treatment, and now nothing is left but a little branny desquamation.

The case is such a remarkable one that I think it deserves publication. I have not the smallest doubt as to the several characters of the eruptions, which I observed most carefully. Unfortunately I am at a disadvantage in being at a distance from any of my own profession, or I should have exhibited the case. I am quite prepared to see this lady shortly with a fine development of herpes zoster, or exhibiting patches of psoriasis to complete the series. She is of a highly nervous temperament, and occasionally subject to fits of great excitability.

St. Margaret's Bay, Dover.

THE TREATMENT OF MALARIAL DISEASES BY PICRATE OF AMMONIA.

BY H. MARTYN CLARK, M.B., C.M. EDIN.,
IN CHARGE OF THE AMRITSAR MEDICAL MISSION.

PICRATE OF AMMONIA possesses valuable therapeutical properties, though it does not seem to have received the attention which it deserves. The characters, properties, and uses of this substance were carefully investigated by Dr. Dujardin-Beaumetz, and the results were communicated by him to the Therapeutical Society of Paris in 1872.[1] The salt had previously been successfully used in the treatment of intermittent fever by Drs. Braconnot, Calvert, Aspland, Bell, and others. Dr. Beaumetz's investigations confirmed the results at which these observers had arrived, and showed that in this substance we have a valuable, and efficient substitute for quinine in the treatment of malarial diseases. It appears to have passed out of mind, and, as far as I can gather, has never been used in India. My attention was directed to it accidentally in the following way. I had a patient under my care at a hill sanatorium who had suffered for seven months from severe intermittent fever of the quotidian type. Quinine, arsenic, and other antiperiodics had been, and were, freely used, but failed to give relief. After ten days' treatment the fever still recurred daily with its accustomed severity. At this juncture the local chemist told me of a remedy for fever, which he had received some years previously, but had never tried. This I found to be picrate of ammonia. I gave it to my patient, with very gratifying results. The fever did not recur next day, nor did it do so at any time during the three subsequent months in which she remained under my observation. I have since then constantly used the picrate of ammonia in the treatment of malarial diseases. There has been ample opportunity to test it fully, for Amritsar is notorious in the Punjab for its unhealthiness, and diseases of this kind are severe and frequent. During a period of four years and a half, I have treated over

[1] THE LANCET, Oct. 12th, 1872.

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10,000 cases of these diseases with this agent, with the happiest results. So uniformly successful has it been that I have in our very extensive practice here, given up the use of quinine and the cinchona alkaloids for the treatment of intermittent fever, and have substituted picrate of ammonia for them. A record was kept of 5000 cases of intermittent fever treated with this agent. Of this number, in nine cases only did it fail to cure, and in these quinine succeeded at once. I usually give it in doses of from one-eighth of a grain to a grain and a half four or five times a day in pill. Half a grain is a fair average dose. Thus given the result is soon visible. In the great majority of the cases treated, half-grain doses in the interval prevented the recurrence of the next attack of the fever, while in about 20 per cent. of the patients two or three attacks followed before the fever ceased. In one case of quartan ague, despite large doses of the salt, the fever recurred for six periods, gradually diminishing in intensity, and then yielded to it. It is equally successful in all the forms of ague, but it is a curious fact that the cases in which it failed to cure were all of the tertian variety. I have also employed this agent in the treatment of twenty-five cases of malarial neuralgia of various nerves, six cases of malarial headache, and one of malarial colic. In all these instances it cured completely and speedily. In remittent fever it does not appear to be of use; six cases of a severe type were treated with it without any effect. Neither is the enlarged spleen of ague benefited by it. I have given it in numbers of such cases in conjunction with ergotine with good results, but such results are secured equally by the use of the ergotine alone.

My experience leads me to the conclusion that in all varieties of intermittent fever, and in malarial neuralgias, picrate of ammonia is a valuable antiperiodic, and it is an efficient and perfect substitute for quinia. It has the following advantages over quinine:—1. It is much less expensive. This is an important consideration where, as in Indian practice, hundreds of cases of malarial diseases have to be treated annually. 2. The dose given is very much smaller. 3. It does not produce the unpleasant effects that quinine does—headache, deafness, tinnitus, &c.; nor does it disorder the digestion or cause nausea, as quinine is apt to do, in the doses in which it has to be given in India.

Amritsar, Punjab, Northern India.

CASE OF TRAUMATIC TETANUS; RECOVERY.

By JOHN WELPTON, L.R.C.P.L., M.R.C.S.

IN THE LANCET for 1886 two cases of recovery from tetanus (traumatic) are referred to. I had myself a short time ago a successful case.

On Sunday evening, Nov. 7th, I was called to B. B——, a tall powerful man about the age of thirty, and found him suffering from pronounced tetanus, with eyes fixed and staring, hands clasped behind the neck and quite rigid, and opisthotonus so strong that four people could with difficulty keep him down when the spasms were violent, those of the diaphragm being agonising. I placed him under the influence of chloroform, and administered within a short time two drachms of bromide of potassium, together with one drachm of chloral hydrate. I remained with him nearly three hours, when he became quieter and had no more spasms. He was quite well in two or three days. His friends did not know of any wound, but the man explained that in cutting a corn under the right great toe he had cut painfully into the quick three or four days ago. He was a night watchman at that time and much exposed to the weather.

Ravensthorpe, Yorks.

CASE OF MELANOTIC SARCOMA.

By J. N. BREDIN, L.K.Q.C.P.I., &c.

THE patient, a lady, aged fifty-four, first noticed a little spot on the right heel about the last week in October, 1886, thinking it was merely a chilblain or occasioned by a tight boot; it gradually, however, became troublesome, though entirely free from pain, and she then consulted my predecessor Mr. Holt, who advised a consultation. Accordingly, Mr. Rivington was called in, and advised an operation which was performed on Nov. 29th, and seemed effectually to remove the mass. I saw the patient on Dec. 2nd. The growth had none of the characters whatever of melanosis—in fact, up to this time nothing showed itself from October to lead one to be certain. Meanwhile, Mr. Holt and Mr. Rivington suspected melanotic sarcoma. About eight days after the operation several spots of unmistakable melanosis appeared, first on the outside and subsequently on the inside of the thigh, and afterwards on the heel, and was now covering the cicatrix of the wound, which healed without intermission. All these places on the thigh and heel are now becoming confluent and extending and growing rapidly on the skin, without pain. One spot identical in character appeared on the head, and a single one on the back. Neither of these has increased in size, nor have any fresh ones appeared. This is, I presume, a most interesting and remarkable case, and may be seen by any medical man who may appoint an hour with me, as the patient is most willing to be seen by anyone.

Norton Folgate, E.C.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

GUY'S HOSPITAL.

SEVEN CONSECUTIVE CASES OF CHARBON TREATED SUCCESSFULLY BY EXCISION.

(Under the care of Mr. BRYANT.)

WE are able to publish a series of cases of malignant pustule which have occurred in the wards of Guy's Hospital during the course of the last few months, all of them under the care of one surgeon, and successfully treated in a similar manner, by excision, followed in some instances by the application of caustic. This disease is one of which during the last few years several examples have presented themselves in London, chiefly at Guy's and the London Hospitals, and much has been done by the surgeons of these institutions to advance our knowledge of it. The cases, two of which we give this week, will be read with interest, and the difference in the local and constitutional symptoms carefully noted.

CASE 1.—*Charbon of right temporal region, with lymphatic enlargement; excision; skin-grafting; cure.* (From notes by Messrs. Du Boulay and F. P. Sarjant.)—Chas. A——, aged twenty-nine, a labourer at a hide warehouse, was admitted on Jan. 21st, 1885. The patient's father died of aneurysm of the heart; his mother is living and well. He has been a hard worker, and steady in his habits. Had measles when a baby, and rheumatic fever when he was a boy (this lasted six weeks). About four years ago he was ruptured, and ever since has been wearing a truss. He has of late had some palpitation and nervousness. The patient, who works at a hide factory, was sent to the hospital by the manager (who, he thinks, had the disease himself some years ago). About Christmas last he came as an out-patient with a swelling like a boil on his left cheek. This was opened, and he got well. He was in his usual health up to Monday, the 19th ult., and was at his ordinary occupation, which consisted in handling hides of all kinds, which had come from all parts of the world; they were cow, ox, buffalo hides, and rabbit and opossum skins. While he was at work he felt an itching on his left temple, and putting up his hand felt a small pimple about the size of the head of a pin. He felt dull, depressed, and cold that day. On the Tuesday he still felt poorly, the pimple had increased to about the size of a pea, and the surface was black. On the Wednesday it was blacker and larger. During the whole time he had felt cold and unwell, but had kept at work until he was admitted into hospital.

Condition on admission.—The patient is a well-built, healthy-looking young man. When placed in bed he shivered and complained of bad headache. Temperature

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99·8°; respiration 20; pulse 88. The pustule was situated on the left temple, about an inch behind the outside of the eyebrow and above the zygoma. The central slough measured one-eighth of an inch in diameter, and was circular. It was surrounded by a rim of vesicles whose long diameter—namely, in the horizontal direction—was three-eighths of an inch; in their short diameter—the vertical—a quarter of an inch. The vesicles were more marked above, and at the back there was redness of the skin for about two inches and a half from above downwards, which faded away gradually; the pustule was not raised above the skin more than one-sixth of an inch. The glands at the angles of the jaw were enlarged on both sides, particularly on the left. His teeth were bad. There was a swelling on the left side of the face just below the angle of the mouth. There was also a pimple on the left side of the back of the neck, about the size of a pea, red like a boil, without perceptible black centre. The patient was unable to open his mouth very widely.

At about 7 P.M. on the day of the man's admission, Mr. Du Boulay, by Mr. Bryant's instructions, removed the pustule. Chloroform was administered in the ward. A skin incision, elliptical in shape, was made behind the eyebrow to about half an inch in front of the ear, extending in depth to the deep fascia over the zygoma. The skin and tissues beneath, between the incisions, having been dissected away, the raw surface was thoroughly cauterised all over with Paquelin's thermo-cautery; the wound was then dressed with terebene oil and a pad of lint bandaged over it. The patient took chloroform very well, and was not sick after it. He was ordered five grains of sulphate of quinine every four hours, four ounces of brandy, and full diet.

Jan. 22nd.—The patient was restless during the night, as he said, from headache and the effects of chloroform. Temperature 97·2°. He seemed fairly comfortable. His bowels were open twice yesterday before his admission. Urine limpid, clear, and of a light straw colour, much lighter than normal. Sp. gr. 1017; slightly alkaline reaction; no albumen, mucus, blood, or pus; on boiling there was a slight whitish precipitate, which disappeared on the addition of nitric acid. At 2 P.M. the patient was much the same; his face was red and puffy, and he had headache, and a singing or buzzing noise in his head. Wound painful. Evening temperature 98·8°. Wound dressed. No bacilli could be detected in the urine.

23rd.—The patient passed a good night and feels comfortable. He is better than yesterday. The pimple on the back of the neck is not a charbon. There has been no rise of temperature.

24th.—The patient feels only a little soreness about the wound; slight headache. His bowels have not been open since his admission. Urine of normal colour; sp. gr. 1024; no albumen, but some phosphates; slight acid reaction; no bacilli could be detected, although the examination was carefully made.

25th.—The patient passed a fair night. Complains of increased soreness in the wound and shooting pains across the back. In the evening he seemed worse. Temperature 102·5°. The quinine was omitted, and ten grains of calomel and colocynth given at night; also twenty grains of salicylate of soda in orange flower water every three hours.

26th.—Passed a restless night; has great pain in the head and across the back and chest; temperature 99·2°; bowels open. Pulse 84; respiration 20. Urine: sp. gr. 1025; normal colour; no albumen; could find no bacilli.

27th.—Bowels open this morning. Not much alteration in patient's condition.

28th.—Passed a good night. Great soreness in the wound. Patient says he feels better. Pulse 72. Wound dressed in the evening.

30th.—Patient doing fairly well; bowels open daily. The wound itches and smarts very much.

31st.—The salicylate of soda ordered three times a day. Patient much the same; takes his food well. Urine straw-coloured; acid; no albumen; sp. gr. 1021; reaction of salicine.

Feb. 9th.—Has been getting up daily since the 4th, and is making good progress; there is still a quantity of discharge from the wound. Patient feels fairly well in himself. Ordered fifteen minims of tincture of perchloride of iron three times a day, with glycerine and chloroform water.

10th.—Five pieces of skin were grafted.

12th.—Three of the above have taken; the skin looks healthy, and less flabby than it was some days ago.

15th.—Three more pieces of skin were grafted to-day and the wound dressed; the skin is beginning to spread over the upper edge of the wound. Ordered a mixture, with cinchona as a tonic.

24th.—Patient progresses but slowly. The sore is not much smaller than it was on the 15th; it looks rather pale and flabby.

March 14th.—The patient was discharged to-day; wound not quite healed.

CASE 2. *Charbon of face, with enlargement of lymphatic glands; excision and cautery; recovery.* (From notes by Messrs. Beard and D. T. Jones.)—J. N——, aged thirty, living at Walthamstow, was admitted on Sept. 5th. On the previous Wednesday a small lump appeared on the left cheek; it gradually increased in size. On the Friday following she called in a medical man, who told her she was suffering from blood poisoning. She had had nothing to do with cattle, and she had a baby vaccinated recently.

Condition on admission.—The pustule is half an inch in diameter, with a black depressed centre, surrounded by a ring of vesicles containing red serum. There is a brawny hardness in the surface around for the radius of one inch; there is great swelling in the submaxillary region, where the glands are enlarged and tender.

Sept. 5th.—Urine nearly colourless; no mucus; acid; sp. gr. 1005; no sugar, blood, or albumen.

6th.—Mr. Clement Lucas examined the patient, and recommended excision, which was performed this morning by Mr. Beard. Two incisions were made, one on each side of the pustule from a point about a quarter of an inch above the side of the nose down to a point at the lower margin of the inferior maxilla about an inch and a half from the median line; then, holding the skin at the upper end with a tenaculum forceps, the skin within the margins of the incisions and a quantity of muscular substance were cut away. Two vessels were twisted. The deepest incision was near the angle of the mouth, extending at this point nearly to the mucous membrane. The wound was oval in shape, three inches long by an inch and a half broad; it was cauterised by Paquelin's thermo-cautery, and left open.

7th.—The wound appears fairly healthy; the swelling in the submaxillary region has decreased in size. Patient has been ordered a mixture containing iodide of potassium. Urine of a bright yellow transparent colour, containing a small quantity of flaky mucus; reaction decidedly acid; sp. gr. 1033; no albumen or blood; five grains of sugar to the ounce.

9th.—It should have been remarked that lymph was running from the arm before the lump appeared. Patient's baby is eight months old, and is still suckling. Fresh serum was examined for anthrax bacilli, but none were found. One of the patient's breasts was beginning to get tender, and a lotion of belladonna and glycerine was applied. The urine is of a dirty yellow opaque colour, containing a large quantity of mucus, which is of a buff colour; sp. gr. 1031; acid; sugar still present.

13th.—The wound was dressed this morning. When the dressings were taken off one of the vessels began to bleed; this was at once twisted by the dresser. She is allowed to get up an hour every evening after tea.

16th.—Ordered a ten-grain aperient pill at night; middle diet.

22nd.—Patient is taking perchloride of iron and cinchona mixture. She left this afternoon. Wound smaller, and looking healthy.

NORTH-EASTERN HOSPITAL FOR CHILDREN.

A CASE OF ACUTE MENINGITIS IN WHICH COMPLETE RECOVERY TOOK PLACE.

(Under the care of Dr. C. E. ARMAND SEMPLE.)

FOR the following account we are indebted to Mr. C. D. Green, late house-surgeon.

William C——, aged seven years, was admitted, under Dr. Semple, on May 13th, 1886. The child was said to have been quite well until May 10th (three days before admission), when, on returning from school, he vomited and complained of headache. The following day he was drowsy, and at night became delirious. The next day (May 12th) he was brought to the out-patient department; he was then somewhat drowsy and moved with difficulty; pulse 108°; temperature 101°; tongue coated and rather brown. Whilst

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waiting he appeared to become unconscious for a few minutes once or twice. As there seemed some probability of the patient being in the early stage of an acute specific fever, he was not admitted. The next day (May 13th) the mother came to say he was much worse, and, she thought, dying. He was visited, and found to be in a condition of active delirium, throwing his arms about wildly, and screaming loudly "Mother, mother," although his mother was standing close to his bedside at the time. The skin was hot and dry; there was no eruption save that produced by insects, and no inflammation of throat. His removal to the hospital was directed. Both parents living and healthy; no history of phthisis in their relatives. There were three other children, two of whom are living and healthy; the third was taken ill some two weeks before the patient, and died during his (patient's) illness. The symptoms were pain in the head, vomiting, and rapid wasting. Optic neuritis was observed; the diagnosis was tubercular meningitis, but we were, unfortunately, unable to obtain a necropsy.

State on admission.—A fairly well nourished child, complaining of headache. He was in a semi-conscious condition, but could be roused when spoken to loudly. The muscles at the back of the neck were contracted and rigid; the head was retracted, and could only with difficulty be moved. Abdomen somewhat retracted; *tache cérébrale* well marked. Pupils equal and acting to light; no oculo-motor paralysis; no nystagmus. No paralysis of limbs, and no evident loss of sensation. No abnormal physical signs in chest or abdomen. Tongue covered with a brown fur and rather dry. Temperature 101°; pulse 112, regular. Urine clear; acid; no albumen. The right optic disc appeared a little blurred.

During the night the patient was wandering and noisy, frequently screaming loudly. The following day (May 14th) he complained much of headache. There had been no vomiting since admission; he answered questions and obeyed directions. The urine and fæces were passed into the bed. During the next few days the more acute symptoms subsided somewhat; the patient became conscious, and, though he still complained of headache, slept fairly well at night. (He had been kept in a dark room.) The temperature chart showed evening exacerbations, with morning remissions, but rising slightly higher on successive nights (maximum 103°). On the morning of May 20th the temperature fell to 99°, and remained below that until the evening of May 21st, when it rose suddenly to 103°. The patient was rather drowsy, and still complained of headache. He lost flesh rapidly; his weight, which on admission was 38 lb., on May 22nd had fallen to 34 lb.

During the next month the symptoms were drowsiness and indifference to what took place around him, disinclination to take food, and progressive emaciation; there were frequent complaints of headache, and occasional screams and cries of "mother," once or twice repeated; seemed only semi-conscious, and would not answer questions. Superficial reflexes exaggerated; knee reflex and ankle-clonus not obtained. Pulse variable in frequency, and at times irregular. Bowels confined. With the exception of a slight convergent squint, which was noticed the day after admission and only lasted a few days, no local paralyses were observed. Temperature below 100° from May 27th to June 15th. On June 16th the weight was 29½ lb., the patient having thus lost 8½ lb. in thirty-four days. On the morning of June 22nd the patient, for the first time since admission, had a fit, in which there was general rigidity with complete unconsciousness; he had vomited twice during the morning. On the 25th he had three similar fits, the fits lasting each about fifteen minutes. No fits occurred after this date. He was at this time very feeble and extremely emaciated; was usually in a drowsy, apathetic condition, but was occasionally noisy, constantly repeating the cry "mother." He could, however, be roused to some extent when sharply spoken to. There were occasional evening rises of temperature from June 14th to July 11th, after which the temperature remained below 100° until August 9th. The patient remained in a similar condition for about a fortnight; he was markedly emaciated, and so feeble that his death was daily expected. The malar and jaw bones were extremely prominent, and the outlines of the limb bones plainly visible. No bedsores had formed at any time (he had been kept on a water-bed). There was a purulent discharge from the right ear, which was noticed for the first time a few days after admission, and no history of its presence previous to the onset of the illness could be obtained.

July 17th.—His weight was again 29½ lb. He had not been weighed for a month, appearing too ill to be moved, but had evidently still further lost flesh during the first part of the interval. Began to take his food better.

20th.—Would answer questions, but not intelligently; vomited twice on the 21st.

27th.—No complaint of headache; no vomiting.

29th.—Vomited three times; answers questions intelligently; takes food well; does not complain of pain.

Aug. 5th.—Now considerably improved; plays with toys, and takes much more notice of his surroundings; does not complain of headache; still vomits occasionally; bowels regular; gaining flesh.

On the evening of Aug. 8th the temperature rose to 101°, and the patient again complained of headache; the discharge from the right ear, which had persisted to a slight extent since it was first noticed, increased somewhat (the ear had been syringed out twice daily with boracic acid lotion, and iodoform powder had been blown in, but no other local treatment had been adopted. On the following day the temperature fell to 99·2°, and the patient ceased to complain of headache. From this date convalescence was uninterrupted, and the patient left the hospital on Sept. 23rd. His weight was then 42½ lb.; there was no mental deficiency, and the general health was good. He was seen again at the end of a month, and appeared to have no ailment; the discharge from the ear had quite ceased; the membrana tympani was not destroyed, nor was the hearing very much impaired in that ear. There was no defect of vision.

Remarks by Dr. SEMPLE.—Cases of recovery from a severe attack of meningitis, however caused, are, I think, sufficiently uncommon to make the above case worthy of record. When the patient was first admitted, the diagnosis made was tubercular meningitis (the more so as the brother was at that time under observation, who, as mentioned in the history, died of what was believed to be tubercular meningitis), and the extreme and rapid wasting which took place was certainly in favour of tubercle; the appearance of the diarrhœa, however, suggested another explanation of the case, and the slight relapse which took place associated with an increase in the discharge from the ear, and also the fact that the patient recovered, were more compatible with its being a meningitis caused by extension from the tympanum rather than due to tubercle; it must be borne in mind, however, that there was never any swelling or tenderness over the mastoid process, that the otorrhœa completely ceased without any treatment beyond syringing out the ear and dusting in iodoform powder, and that the discharge never became offensive; moreover, it appeared after the commencement of the patient's illness, so that, although tubercular meningitis could not with certainty be diagnosed, there were some points in favour of that explanation. In THE LANCET of Jan. 8th, 1887, there is an account of a case brought by Dr. Carrington before the Pathological Society in which recovery from tubercular meningitis was inferred from post-mortem evidence. In Jaccoud's "Dictionnaire de Médecine et de Chirurgie," article Méninges, are quoted two remarkable cases of complete apparent recovery after tubercular meningitis, in which a second attack of meningitis occurred after a long interval—in one case five years, and in the other one year—after the first attack; in both cases the diagnosis was confirmed by a necropsy, but, unlike Dr. Carrington's case, the exact appearances are not described, the reference to the post-mortem examinations being as follows:—In the first case, ... "Les méninges offraient des lésions évidemment graves et fort anciennes que remontaient certainement à la première attaque"; and in the second case ..... "et mourut ..... d'une tuberculose méningée avec un fort épanchement hydrocéphalique fait dont nous pûmes nous convaincre à l'autopsie." In the same article is quoted another case more exactly bearing on Dr. Carrington's case, in which a girl aged thirteen was observed to recover from an attack of meningitis "caractérisée par les symptômes les plus classiques et survenue graduellement," and who died some years afterwards of pulmonary phthisis; no reference, however, is given to any post-mortem evidence, and the writer of the article remarks that the inference that the meningitis was of tubercular origin did not appear to him to be legitimate. I have thought the case worth quoting, however, on account of its resemblance to that brought forward by Dr. Carrington.

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Medical Societies.

CLINICAL SOCIETY OF LONDON.

Discussion on Nephro-lithotomy.

AN ordinary meeting of this Society was held on the 11th inst., Dr. W. H. Broadbent, F.R.C.P., President, in the chair. The whole of the evening was occupied with an interesting discussion on Nephro-lithotomy, of which the following is a full report.

Dr. GEORGE JOHNSON said nothing could be more satisfactory than the case read at the last meeting by Mr. H. Morris. The patient had suffered for nineteen years, had had to take enormous quantities of alcohol and morphia, and yet was relieved in a short time by a simple and safe surgical procedure. He had altogether given over to surgery five cases of renal calculus, and with complete success in all the cases. Three were operated on by Mr. Knowsley Thornton, one by Mr. T. Smith, and one by Mr. Morris. One of the cases was thought by a medical man to be chronic Bright's disease, but for this opinion there was not the slightest ground; yet even after the removal of a calculus the medical practitioner remained incredulous, and hinted that the stone shown him by the patient was of fraudulent origin. The case of a little girl, eleven years of age, who suffered from pyuria and hæmaturia with renal colic in the left side was narrated. Mr. Thornton operated by the combined abdominal and lumbar method, and, strange to say, removed five stones, not from the left, but from the right kidney. Had the lumbar operation been performed this case would have been set down as a failure of renal surgery. Dr. Johnson remarked that now the physician could have recourse to other measures than lithotripsy, passage of stones *per vias naturales*, and encystment before or after suppuration, with destruction of kidney, and, looking to the serious effects and dubious prospects of success of such methods, he thought the profession and the public were to be congratulated on the new aid that was afforded by surgical interference.

Mr. KNOWSLEY THORNTON gave the history of his own practice in renal nephro-lithotomy. In 1879 or 1880 he made his first attempt at lumbar nephro-lithotomy. After making the lumbar incision a large tubercular kidney was discovered. This was drained in the loin; some relief of symptoms was obtained by the patient for a time, but suppression of urine supervened, and the patient died. The necropsy showed that both kidneys were diseased. This operation suggested the necessity for a thoroughly exact diagnosis. In future Mr. Thornton resolved to secure greater accuracy of diagnosis by an exploratory abdominal section, and if a stone were found, to make a separate clean incision in the loin for its extraction. By employing Langenbeck's incision for abdominal section, he thought it would be possible to explore the kidneys and the ureters, and thus make certain of the state of both organs as well as of the position of the stone, should one be present. It was not until the year 1883 that Mr. Thornton had the opportunity of putting these principles into practice. In December, 1883, the combined method was successfully employed upon a woman aged twenty-three, with right renal calculus. She was in a bad state of health. Her father had died of renal calculus. The combined method was practised; the abdominal incision allowed of the examination of the other kidney. The left hand was used to fix the stone in the pelvis of the kidney, whilst the right hand made a clean incision in the loin straight down on to the stone. The patient did remarkably well. The overlooking a stone was illustrated by the third case, which was performed in February, 1884. This was a lumbar operation. A second smaller stone, situated higher up in one of the calyces, was overlooked. Drainage was practised, and gave some relief for a time, but suppression of urine followed. The other kidney was of considerable size. In April and in June, 1884, Mr. Thornton had two successful cases of nephro-lithotomy by the lumbar incision. In the first case the incision healed rapidly; in the second the healing was slow, and the sinus frequently reopened, but eventually the case got well. The fourth case was that of a French woman, aged fifty-nine, who was in a bad state of health. Mr. Thornton returned to the combined method in this case. But death occurred with suppression of urine in less than twenty-four hours. The fatal result was largely to be attributed to the exhausted state of the patient. She had taken a considerable quantity of morphia; the operation was prolonged; the stone was but a small one; the urine fairly healthy. The fifth case was a second operation on Case 1, reported in the *Medical Times and Gazette*. The sixth case was begun as an abdominal nephrectomy, but the kidney was found not to be removable; it contained a large stone; a counter-opening was made in the loin; the case eventually did well, though the sinus remained discharging for some time. The seventh case was that of a military officer, seen in consultation with Mr. Morrant Baker; the combined method was practised with perfect success. The other two cases were also completely successful. In discussing the general question, Mr. Thornton said that surgery should be exact. The more exact it was, the more successful would be the results. The lumbar nephro-lithotomy never will or can be exact. Surgeons have even failed by it to reach the kidney. For example, both he himself and Mr. Morris had missed the stone by this method. Though the kidney tolerated the knife, still we should all agree that it should not be needlessly incised. It was doubtful what the effect of puncturing the kidney was; punctures and incisions might lead to deleterious changes in the organ; the ultimate history of cases that had been submitted to the punctures would prove of value and interest. The more common the operation of nephro-lithotomy became, the more kidneys would be unsuccessfully explored, the greater would be the mortality, and renal surgery would lose in reputation. Mr. Thornton referred to his previous position with regard to the two operations as expressed at the Royal Medical and Chirurgical Society last session, and said he now felt disposed to go further, and to assert that the combined operation was the correct one, for we should never fail to find the kidney, never cut into a healthy one, and leave the one with the stone; never damage the peritoneum, as by puncture, without knowing it, and we could examine the other kidney and both ureters. The stone would be removed through a small clean cut in the loin, which was far preferable to the method of dissection, since this latter allowed of infiltration of tissues and favoured the chances of severe inflammation and septicity; and, finally, the combined method allowed of a thorough examination of the kidney, so that a decision could be come to which was the best operation—nephrotomy or nephrectomy—for the individual case. He said that Mr. Morris had objected to the abdominal exploration as being inefficient for perfect palpation, but his own experience did not bear out this belief. The whole investigation could be carried out with much less doubt and with greater safety for the patient, for a fairly accurate knowledge of the state of the other kidney would be ascertained. The only possible objection to the combined method was that it made two wounds; but counter openings were made everywhere in surgery, and why not in renal surgery also? The real objection was doubtless a dread of the peritoneum, but this was unfounded, and his own experience was that with strict asepticity the peritoneum tolerated operations as well as, if not better than, any other tissue of the body. Finally, Mr. Thornton made some remarks on the subject of referred pain, and said that in some of his cases the pain was referred to the other kidney, and might have led to the wrong kidney being operated on, with possible disastrous results. Ovarian pain was sometimes referred to the side opposite to that of the diseased ovary.

Mr. BERNARD PITTS briefly referred to three cases of exploration of kidney by the lumbar incision that had recently been under his care. The first was that of a woman with large suppurative scrofulous kidney; here no stone was found, but great relief was given by the drainage, and but little discomfort was occasioned from the resulting urinary fistula. In the second a stone was discovered and removed, but there was also a suppurative condition of the kidney. For one month the patient did well, but there was a constant discharge of pus from the lumbar wound, though no urine was ever detected with this discharge. This patient then suddenly developed inflammatory symptoms, and died after several weeks of continued fever; and it was found that there was a diffused suppuration behind the kidney, which extended along the aorta into the thorax. A second small stone was found embedded in the upper part of the organ. In the third case, which had been explored through the loin six weeks ago, a calculus was removed, and again a suppurative pyelitis was present. Great relief was

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given by the operation in this case, but suppuration still continued, and no urine had been detected with the discharge from the loin. Mr. Pitts would like to ask those who had had experience in these cases whether one might assume that a kidney was no longer active if, after incision into its suppurating pelvis, no urine escaped at any time with the discharges. He regretted that in the second case he had not removed the organ, and so possibly saved the patient, and stated that in the last case he had felt it right to advise the man to have the kidney excised, since he believed it to be useless, and likely to continue to suppurate. Owing to the enlargement of the kidney, and to the narrowness of the interval in this case between the ribs and the crest of the ilium, it would be difficult to remove the kidney from the loin; and if the abdominal cavity was opened, it would be difficult, with the suppurating sinus present, to ensure perfect antisepsis.

Mr. MORRANT BAKER referred to a case, which he showed as a living specimen, of a young man aged twenty-three who had suffered from hydro-nephrosis for some years before 1881, when the large cyst was opened and drained. The patient was subsequently shown at the International Medical Congress, at which time he was wearing, slung to his side, a leathern bottle, into which several ounces of urine were discharged daily. Subsequently his health began to fail, and in Dec. 1882 the kidney was removed; the large cyst, the boundaries of which were beyond the reach, not only of the finger, but of a long metal sound, was left, Mr. Morrant Baker thinking that any attempt at its removal in its suppurating and probably adherent condition might involve wide exposure of the peritoneal cavity, and be very perilous. He thought, also, that the removal of the secreting organ might lead in time to withering of what would become a useless receptacle. The patient recovered well from the operation of nephrectomy, and the ultimate result justified the plan adopted, for in about two years after the nephrectomy the cyst had contracted to about the size of an orange, and was found filled by a quantity of offensive putty-like material, the removal of which with free drainage was followed by complete recovery.

Mr. GODLEE said that although he was not much enamoured of the so-called combined operation, and not eager to perform it, he thought it only right to mention two cases which might be adduced as favouring the position held by Mr. Thornton. The first of these cases was that of a young man, who had come from South Africa for the relief of most urgent symptoms pointing to stone in the right kidney, and was under the care of Mr. Marcus Beck at University College Hospital. Mr. Beck exposed the kidney fully and punctured it freely with needles, but detected no stone. The wound closed readily and rapidly, but the patient was unrelieved. Afterwards he came under Mr. Godlee's care, and the kidney was again exposed, incised, and carefully explored with the finger, but no stone was found. A few days later this patient passed a small stone. It was conceivable, though not certain by any means, that, through an abdominal incision this stone might have been detected in the opposite kidney, supposing it possible, as Mr. Thornton suggested, that a stone in one kidney may cause colic on the opposite side. He observed, in passing, that considerable fibrous thickening around the kidney had resulted from the first operation. The second case was that of a young man who had a stone impacted in the right ureter, which led to disorganisation of the kidney. An abscess formed around this kidney, which was opened; but at the operation it was impossible to discover the kidney itself. Some months afterwards the patient died of suppression of urine, coming on during one of his frequent attacks of colic, and no doubt partly caused by the opium taken to relieve the pain. Even at the post-mortem the kidney could hardly be detected, as it was reduced to a flabby bag of pus. The other kidney was enlarged and fairly healthy. Here, again, it was possible that an abdominal incision might have resulted in the discovery of the stone in the ureter, and thus have led to an incision being made into the suppurating kidney, and the evacuation of the pus might conceivably have again started the secreting action of the sound organ. On the other hand, there appeared to be objections to the abdominal incision, besides the one on which Mr. Thornton had specially dwelt. To begin with, a danger to which he had alluded was a very distinct one—viz., that of causing a ventral hernia by incising the tight muscular abdominal wall of a strong man. But, besides this, it was possible that whilst a number of stones might be cleared out of a kidney which were causing no symptoms, a small one might escape the detection even of the experienced hand in the opposite kidney, which, after all, had been the cause of the colic; and, lastly, it was surely possible, if a stone can escape detection through a lumbar incision, when the organ can be felt above and below, and behind as well as in front, it might fail to be detected when the finger can only reach the anterior aspect. A case to illustrate this position was then detailed, in which a patient had for years suffered from symptoms referred to the bladder, which at last gave way to those of marked right renal colic. Mr. Godlee cut down on the right kidney, which was quite imperceptible on abdominal palpation, and found it lying very high up under the ribs. A stone of the size and shape of a tiger's claw was found quite at the back of the gland, and it was held that this would in all probability have been quite imperceptible on feeling the organ through an abdominal incision. He maintained that it was almost certain that the abdominal method would occasionally fail when the fact was borne in mind that the most urgent renal symptoms may be caused by stones of very minute size.

Mr. BRUCE CLARKE related a case bearing on the diagnosis of renal calculus. For one year the man had suffered from occasional attacks of left renal colic, and just before admission to the hospital had a typical attack, in which pains radiated along all the branches of the left lumbar plexus. Fortunately, before thinking of an operation, the tortuous state of the arteries was observed, and a considerable pulsation was noticed in the abdomen. Abdominal aneurysm was diagnosed, and at the necropsy it was found that the aneurysm had burst into the left psoas muscle and dissected out all the branches of the lumbar plexus of nerves. Death had resulted from rupture of the dilated aorta into the pleura. A second case was related as tending to show the value of an abdominal incision with preliminary exploration. The patient had passed several stones. A lumbar incision was made, but an hour elapsed before the kidney could be found. The patient was greatly wasted and cachectic. It would have been wiser to perform the abdominal operation. A small amount of calculous matter escaped from the lumbar incision. Death followed in three days from anuria. At the necropsy fatty and amyloid degeneration of all the viscera was observed, and many disseminated stones were found in the kidney, but no distinct calculous mass. It would have been more satisfactory if the whole kidney had been removed at an earlier period.

Dr. BURNEY YEO asked the surgeons to answer the question, what were the precise indications for physicians to give up their own "unprecise" method and take to the precise method of surgery. He was not so fond of precision as to be enamoured of it. At Contrexéville patients were known to pass large numbers of calculi under the treatment pursued there. This treatment consisted largely of free drinking of the waters, some patients taking as much as six quarts of water a day.

Mr. PEARCE GOULD mentioned the case of a woman, forty years of age, from whom he removed a renal calculus last November. The history was that fifteen years before she had struck the right loin, the blow being followed by hæmaturia lasting a week. Ever since that she had had recurring attacks of renal pain, and for five years had been conscious of a swelling in the loin. When admitted to Middlesex Hospital she presented a fluctuating renal tumour in the right loin, with pyuria. The kidney was opened by the lumbar incision, and in the distended pelvis of the kidney an oval uric acid stone was found and removed. After three days urine ceased to flow through the loin, and within a month the wound was all firmly healed. The patient was shown before the meeting. Mr. Gould referred to the statistics given by Dr. Brodeur in his work on the Surgery of the Kidney. He had found 25 cases of nephro-lithotomy for simple renal calculus, with 2 deaths—the cases of Durham and of Bennett May; 66 cases of calculous pyelitis had been submitted to operation; in 44 of these nephrectomy had been performed, 34 by the lumbar incision, with 19 recoveries, 10 by the abdominal incision, with 5 recoveries; 16 had been treated by nephro-lithotomy, 13 by the lumbar incision, with 6 recoveries, 3 by the abdominal incision, all fatal; 6 had been treated by nephrotomy, only 4 of which had recovered. These statistics, like others, were not complete, as many cases had not been recorded; but they were the most recent and the most important that had been compiled. He referred to the fact that many cases had occurred where the

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diagnosis of renal calculus had been made by competent observers, and on exploring the kidney no stone was detected, but the operation was followed by complete relief of the symptoms. Two such cases had occurred in his own practice. On the other hand, all must have met with cases of renal calculus which had not given rise to any symptoms during life. In reference to the abdominal operation, he thought Mr. Thornton was disposed to regard too lightly the importance of opening the peritoneal cavity, and his assertion of the tolerance of the peritoneum to operation, provided the wound was kept aseptic, applied equally to all other tissues.

DR. S. COUPLAND thought that the method of treatment known as lithontripsy might have to be practised for months and years before any appreciable effect would be made on the size of the stones, and during all this period the patient might have to suffer from severe symptoms, whilst the kidney would be injured by the presence of the foreign body or bodies. Post-mortem experience showed how injurious the effect of stones in the kidney could be. He considered that the remarkable success of surgery of the kidney ought to encourage physicians and patients alike to resort to the simple surgical method of removal as infinitely preferable to the slow, uncertain, and possibly perilous methods of medicine.

Mr. T. SMITH thought it was easy to generalise too positively, and to regard certain methods of operation as infallible in ascertaining whether there was a stone. If it were Mr. Thornton's contention that by the combined method it would be impossible to overlook a stone, he could not concur; for he knew of cases in which most careful palpation of the kidney, and even pressing it against a solid table, was unable to diagnose the presence of a stone in the removed organ. It was possible, also, that the peritoneum would not behave with equal benignity to all surgeons as it did to Mr. Thornton. He thought that Dr. Coupland took too gloomy a view of the patient's condition in cases of renal calculus. At Contrexéville, as Dr. Yeo had related, patients passed stones and led comfortable lives—nay, even lived to form other stones. A kidney that had once formed a stone was very likely to form another, thus requiring repeated operation. A three weeks' course at Contrexéville might effect wonders for the patient. He had no objection to perform the operation of nephro-lithotony; in fact, was yearning to do it. But having three near relatives suffering from renal calculi, and knowing that they had passed several stones and yet lived a fairly happy life—one relative was so little injured in general health as to be able to ride forty miles on a tricycle,—he should hesitate to resort to surgery when such simple means as abundant drinking of water would effect so much relief. One of his relatives drank six pints of warm water every day, and described the effect of drinking it as refreshing and exhilarating. This patient had had plugging of the common iliac vein, and an abscess had burst into the intestine. Yet he now led a comfortable existence. As to the water, the only precaution to observe with regard to it was that it should be drunk whilst it was very hot, and on an empty stomach.

Mr. K. THORNTON believed that it would be easier to detect a stone in a living kidney than in one that was removed from the body, and in which the circulation had ceased.

Mr. HENRY MORRIS said that in the five minutes at his disposal it would be impossible to reply adequately to all the observations that had been made, so he should confine his remarks to the question of the relative merits of the lumbar and abdominal methods and to the point raised by Dr. Burney Yeo. As to Mr. Thornton's objections to the lumbar nephrotomy, he admitted that some of the objections might hold good, but contended that even by the combined method the stone could not be located with certainty, and that, indeed, there was nothing very advantageous that could be claimed for the abdominal incision. The lumbar wound might heal as rapidly as possible, so that he could not concur in Mr. Thornton's remarks about the necessarily slow healing of this wound. He illustrated the rapid healing of the lumbar wound by reference to cases that had been under his care. The freedom from fatality and misfortune, the absence of any difficulty in finding the kidney, and the ease with which the various surfaces of the kidney could be palpated were some of the advantages of the lumbar operation. What was wanted was greater precision in diagnosis, and he suspected that some cases of failure to find the stone might be attributed to this want. When the kidney was thought to be the seat of mischief, in cases of pain resembling renal colic, he thought that the directing of the attention to the prostate in the male, and to the ovary and Fallopian tubes in the female, would lessen the chances of making an erroneous diagnosis. The more accurate the diagnosis, the fewer would be the failures to find the stone. In answer to Dr. Yeo, he would say that when the Contrexéville and water-drinking treatment had been tried and the patient still possessed the symptoms of stone, then the physician might reasonably, and without fear or trembling, call in the surgeon, who would in a short space of time effect far more for the benefit of the patient than would any amount of water.

Mr. BENNETT remarked that the direct sounding of the kidney by freely puncturing the organ was a frequent practice at St. George's Hospital, and the results of this practice were most encouraging.

Mr. Howard Marsh did not reply owing to the lateness of the hour.

The following living specimens were shown:—Dr. A. H. Robinson: Case of (?) Congenital Cretinism and Myxœdema in a man aged twenty-three. Mr. H. H. Clutton showed a case of Lupus with Ulceration of Palate and Phthisis, and a second case of Tubercular Ulceration of Palate. Mr. H. Morris: A successful case of Nephro-lithotomy. Mr. Battle, for Mr. Sydney Jones: A case of Rheumatoid Arthritis in a girl aged six. Sir Dyce Duckworth: A case of Heart Disease with Rheumatic Nodules.

MEDICAL SOCIETY OF LONDON.

Removal of both Superior Maxillæ.

AN ordinary meeting of this Society was held on Monday last, Mr. R. Brudenell Carter, F.R.C.S., President, in the chair.

Dr. LEOPOLD SERVAIS (of Antwerp) read a paper on Removal of both Superior Maxillæ for large tumours of the face. The first case was that of a boy aged nine years, living at Wouroo, Holland. The operation was performed on Oct. 10th, 1883. The tumour had developed at the expense chiefly of the right superior maxilla. Fergusson's method of operation was adopted. The cautery was used to stanch the bleeding. The roof of the orbit, the orbital plate, the nasal process of the right superior maxillary bone, and the larger part of the malar bone were preserved. Recovery was rapid. There has been no recurrence. The second case was that of a woman. The tumour had been slowly growing for eleven years; it was of enormous size and extremely painful. It had been treated by caustics. The tumour was successfully removed, and the patient was now completely well. The operation took five hours.

Mr. F. BOWREMAN JESSETT read a case of Sarcoma involving both superior maxillary bones and hard palate, with removal of the tumour, together with great part of both bones, ending in recovery. The patient was a woman, aged thirty-five. She first noticed a lump in the hard palate twenty-one months ago; it grew rapidly, and projected considerably into the mouth and interfered with eating and speaking. At the end of six months she went to Guy's Hospital, under the care of Mr. Lucas, when the tumour —a myeloid sarcoma—was excised, and its base scraped and cauterised. In June, 1886, she was in St. Thomas's, under the care of Sir W. Mac Cormac, with an extensive recurrent growth, which proved to be a very vascular sarcoma. In October, 1886, she came under Mr. Jessett's care. The whole of the hard palate and most of the soft palate were implicated. Respiration could not take place through the nose. On Nov. 9th the operation was performed. Two incisions were made extending from either angle of the mouth upwards and outwards towards the outer angle of the orbits. The whole flap, which included the nose, was reflected upwards over the forehead, and the whole of the tumour was thus freely exposed to view. With a fine narrow saw both superior maxillary bones were divided about half an inch above and parallel to the alveolar process. With a raspatory used as a lever this portion of the bones was separated from the upper and remaining parts. The separated bone was then seized with a lion forceps and the whole growth was gradually removed, with the exception of that portion which had grown into the left antrum. This was afterwards easily removed by the use of a Volkmann's spoon. There was scarcely any hæmorrhage. The skin flaps were brought together with hare-lip pins and the wound dressed with iodoform. She was fed with nutrient

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enemata for the first twenty-four hours. The patient, who was shown, made an excellent recovery, and was still quite well three months after the operation. The growth was a mixed-celled sarcoma.

Mr. BRUDENELL CARTER spoke of the value of the revolving circular saw in the division of bone.

Dr. ANGEL MONEY said the tumour was a mixed-celled sarcoma, having a plexiform or columnar arrangement, and with some distinct myeloid cells.

Mr. MARMADUKE SHEILD said the tumour had an alveolar structure, and was composed of mixed cells, some of which had something of the appearance of myeloid cells, though they did not appear to have many nuclei.

Mr. J. H. MORGAN spoke of the historical value of Dr. Servais' paper, and congratulated him on the success of his courageous surgery.

Mr. H. ALLINGHAM referred to a case of removal of a tumour from the superior maxilla by Mr. Pick.

OBSTETRICAL SOCIETY OF LONDON.

THE annual meeting was held on Feb. 2nd, J. B. Potter, M.D., F.R.C.P., President, in the chair.

The following specimens were shown:—Dr. Amand Routh's specimen, which was exhibited at the last meeting of the Society, was reported by Mr. Alban Doran and Dr. W. S. A. Griffith to be a fibroid growing from the undeveloped horn of a uterus unicornis. Mr. F. A. T. O'Meara showed a Fœtus with the bladder so dilated and thickened that it nearly filled the abdominal cavity; the urethra was impermeable. Dr. John Phillips showed a dissection of a Fœtal Heart with two auricles and one ventricle, taken from a dicephalous monster. Dr. Horrocks exhibited an infant a week old suffering from Spina Bifida; the cyst had contained 50 oz. of fluid. Dr. M. H. Jones read remarks on the case.

Unilateral Galactorrhœa.—Dr. GIBBONS described this case. A lady, aged twenty-three, who had ceased nursing for six weeks, complained of constant running of milk from the left breast. After her first confinement she had nursed for five months with both breasts, when she had to give up on account of weakness, and an abscess formed in each breast and discharged for eleven months. After this, her second confinement, she at first nursed with both breasts, but the milk disappeared from the right one, and she continued with the left breast only for four months, and then discontinued, as it was thought that her milk disagreed with the child. Menstruation had not reappeared. There was no reason to suspect pregnancy, and there was no uterine disease. Although she was anæmic, the milk was of good character, and the amount that flowed was twenty ounces in twenty-four hours. Dr. Gibbons then enumerated the various remedies which he had used to arrest the secretion of milk, without result. These included arsenic, iron, strychnine, iodide of potassium, belladonna, bromide of potassium, quinine in large doses, compression of the nipple, opium, galvanism, faradism, rest and a dry diet. Menstruation appeared eleven months after the birth of the child, being preceded by a gradual diminution of the flow of milk, which continued over the second period and then ceased altogether, and the patient's condition became one of natural health. The author drew attention to the following facts:—(1) That the galactorrhœa was unilateral; (2) that the milk was of normal quality and quantity; (3) that there was no stimulus of nursing or of the genital organs; (4) while resisting all this treatment, it ceased spontaneously on the occurrence of menstruation. Authors were quoted as to the value of certain drugs in galactorrhœa, and cases were given illustrative of treatment by galvanism and faradism. Reference was made to the experiments of Roehrig to determine whether the nervous or vascular element has the greater influence over the secretion of milk, and resulting in favour of blood-pressure as the chief factor. Sinéty was also quoted, and, in conclusion, the speaker remarked that he had failed to find any case similar to the one brought forward. It was proposed and seconded that the discussion of this paper should be postponed till the next meeting of the Society.

The treasurer's report was adopted on the motion of Mr. Doran, seconded by Dr. Clapham, as were also the report of the hon. librarian, on the motion of Dr. Herman, seconded by Dr. Keele, and that of the Midwifery Board, on the motion of Dr. Playfair, seconded by Dr. Malins.

It was proposed by Dr. J. Williams, seconded by Dr. W. Black, and carried, that an alteration in the law regarding the meetings of the Society in January and October be made so that these meetings shall be held on the first Wednesday in each month, unless for some reason the Council should alter it—e.g., on account of the first day of the new year falling on a Wednesday.

The scrutineers (Drs. M. H. Jones and E. S. Tait) declared that the list of officers and Council as proposed had been adopted.

The President then delivered the annual address, which will be published in a future number.

A vote of thanks to the President for his address, and to the retiring officers and members of the Council, concluded the proceedings.

ACADEMY OF MEDICINE IN IRELAND.

Conservative Surgery in Diseases of Foot and Ankle.

AT a meeting of the Surgical Section held on Dec. 10th, 1886, Mr. WHEELER read a paper on Conservative Surgery in Disease of the Foot and Ankle-joint, in which he recorded several successful operations, including excision of the os calcis, of the astragalus, scaphoid, cuboid, middle, cuneiform, and metatarsal bones; also resection of the first phalango-metatarsal articulation. He described in detail the diseases requiring excision of the os calcis, the form of incision, and after-treatment. He condemned the subperiosteal operation in such cases. All his excisions of the os calcis were successful, and the locomotion of the patients was but little impaired. One of the cases he operated on died seven years after the operation from phthisis. The case of excision of the astragalus had been seen within a very recent period. The lady had a movable joint between the os calcis and malleoli, and possessed nearly equal powers in the foot operated on and in that unoperated on. In the case in which he removed the astragalus, os calcis, and the malleoli, with articular surface of the tibia, for disease of the bones, the patient had left for India last October, at which time he was able to wear a well-adapted boot and walk with the aid of a stick. Mr. Wheeler emphasised the necessity for carefulness in diagnosing the seat and cause of disease in the foot, likewise the stage the disease was in before undertaking partial operations.—The PRESIDENT had not found cases in which the disease was sufficiently limited to ensure satisfactory and permanent results by partial excision, and the want of such limitation was the chief reason why Pirogoff's operation was abandoned. Indeed, he was himself one of the first, if not the first, in this country to perform excision of the ankle-joint for caries, and he obtained what seemed to be a successful result—the wound healed and the patient had the use of his foot for two years; but at the end of that period the disease manifested itself again, and contemporaneously with it there was also evidence of tubercular disease of the lungs, which prevented further operative measures. Mr. Wheeler seemed inclined to disparage the subperiosteal method, without giving definite reasons. While the advantage of some excisions by that method were exaggerated, as in excisions of the elbow-joint, yet in others there was no doubt that it was useful, especially in the shoulder-joint, and the excision of shafts of bone, as the fibula, radius, and ulna; for in the young the preservation of the periosteum was of great importance. In excision of the elbow he did not think that better results were obtained by this than the older method.—Mr. CROLY had performed a great number of operations for disease of the ankle-joint, and he did not like the operation for excision of the os calcis. He had not had success in saving the foot where the disease seemed to be confined to the os calcis. He removed the os calcis by a horse-shoe incision where the rest of the bones seemed sound, but it turned out that they were infiltrated. He had had, however, a most successful case in private practice of excision of the os calcis for gunshot injury where the bone was shattered and shot had lodged in it, and the gentleman now had a useful foot. He had met with another case of great interest. A man fell off a horse injuring his ankle-joint, which exhibited all the evidence of compound fracture. Amputation was proposed, but the man refused to allow it. Months afterwards, when under his care, he cut down under the ankle-joint and found the astragalus was detached, and that the tibia had come down and accommodated itself on the os calcis. The man was now engaged as a coachman and

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groom with a useful foot. The advantage of saving the periosteum of the os calcis bore no comparison to that of saving the periosteum of the shaft of the bones.—Mr. BARTON distinguished between caries from disease of the bone and that from accident, which was approached by the surgeon on different lines. The experience of the practical surgeon was unfavourable to gouging or partial operations where there was extensive caries or the disease was diffused. Hutton, who had operated as Mr. Wheeler did, discountenanced the then new procedure as leading to an unsatisfactory result, and yet Mr. Wheeler, by removing a similar amount of bone without following the same line of incision, had obtained success. He himself had attempted to save a foot of which the disease was only partial, and his experience was that while he had been successful in some cases, yet in a great many he had been unsuccessful, and it would have been better for the patients had he performed Syme's operation at first.—Mr. FRANKS said the unsatisfactory results of partial excision were due in the first instance to foci of disease being left untouched, and, secondly, to operating on patients who had sunk so low in health that they had no recuperative power in them. At the same time, the condition of the patient was often made too much of in these days of antiseptic surgery, and therefore conservative surgery might be adopted with more hope than before. In tubercular disease, however, health was a great factor: everything depended on the constitution of the patient, and caries sometimes got well without operation at all. The tendency of surgery was to the partial excisions, especially in view of the success achieved by Ollier of Lyons, who was a great advocate for subperiosteal operations. It was obviously better to leave a periosteum that could develop bone rather than excise it with the bone, and hope for a pad of cicatricial tissue to walk upon.—Mr. HENRY FITZGIBBON remarked that, in considering the question of excision, the main point was what was the primary cause of disease in the bones. The great distinction was between disease of bones resulting from accident and disease arising from constitutional cachexia.—Mr. WHEELER replied.

Addison's Disease.—Select Clinical Reports.

At the meeting of the Medical Section held on Dec. 17th, 1886, Dr. DOYLE read a paper on a supposed case of Addison's Disease occurring in a dark-complexioned female somewhere between twenty-two and twenty-five years of age, having brownish and bronze-looking pigmentation of the temples, cheeks, backs of hands, and front of legs. Constitutional symptoms preceded the pigmentation by nearly three months. Ill-health first commenced with an unhealthy ulcerated condition of one of her fingers. This patient was said by her friends to have recovered, but that slight discolouration remained along attachment of the hair to the temples. The chief interest connected with the case was to discover the primary disease that gave rise to weakness, lassitude, vomiting, cough, fever, and discolouration.

Dr. A. W. FOOT read a communication styled "Notes of some Unusual Cases observed in Hospital Practice." One was a case of obstinate vomiting from "land-sickness," which continued for nine days after the man had come ashore. Another was a case of mistaken identity on the part of four persons. The man was living, but comatose from alcohol. A husband, wife, and two of their daughters claimed him as their son and brother—wrongfully as it turned out. There was a case of well-marked articular gout in a hospital patient, very corpulent, and long addicted to porter-drinking. The series concluded with an account of a man who was firmly convinced that he was the source of an offensive effluvium which made his presence unbearable and even injurious to others—animals as well as men. Dr. Foot called this, and some similar cases which he alluded to, by the provisional name of "subjective osmidrosis." The question was discussed of an hallucination of smell or organic irritation of the sensory centre.—Dr. COX said he had himself a tendency to sea-sickness which lasted for some hours after he came on shore. He had had two cases of acute articular gout. One was that of a butler, who was considerably improved under a treatment of colchicum and lithia, and subsequently iodide of potassium. The other was that of a policeman; bromide of lithia gave him considerable relief, and the administration of salicylic acid seemed decidedly beneficial. Other patients he had seen relieved by ointment of belladonna and iodine, with powder of opium or the extract of opium. With reference to the curious case of delusion, he might state that at present he had under treatment a man who was sensitive of emitting a disagreeable smell, which might be the result of disease of the bones of the nose or of mischief at the back of the pharynx.—The PRESIDENT had himself been consulted three years ago by a gentleman on account of a bad smell which, he said, emanated from his body and made him offensive to everyone around him. He saw that the gentleman was under a delusion, and endeavoured to convince him of the fact. Once afterwards he again saw this gentleman, who had, he believed, given up the idea. As to remedies against hallucination, even specialists seemed to have forgotten the great results published many years ago by Seymour of London as to the value of opium in cases of hallucination and melancholia.—Dr. FOOT replied.

MIDLAND MEDICAL SOCIETY.

A MEETING of this Society was held on February 2nd, Mr. Lloyd Owen, F.R.C.S.I., President, in the chair.

Gunshot Wound of Vertebra.—Mr. J. T. J. MORRISON showed a man aged twenty-five who nine weeks ago, in a fit of depression, shot himself in the mouth, discharging a No. 7 conical Eley bullet from an ordinary revolver. On admission there was some shock, but no loss of consciousness. The tongue and palate were blackened with powder; the soft palate presented a round perforation, through which the tip of a finger could feel an opening in the bony wall of the pharynx; a probe passed through this aperture, traversed a canal about an inch in length in the bone, and impinged on a hard substance at the bottom. There were no signs of spinal concussion or hæmorrhage. No operative treatment was adopted for the extraction of the bullet. The patient is now in excellent health, the hole in the vertebral column being filled up and its place indicated by a slight elevation.

Fractured First Rib.—Mr. A. F. MESSITER exhibited a specimen of fracture of the first rib from a man aged seventy, who had been run over by a cart, and died shortly after admission from collapse. At the post-mortem examination the sternal end of the right clavicle was found to be dislocated forwards; the first rib was broken at the spot where the subclavian artery passed over it; the second was fractured at its middle, and the third and fourth behind their angles, the latter wounding the lung; there was no other injury. Mr. Messiter considered that the clavicle after dislocation was pressed down on the first rib, thus fracturing it by direct violence. The periosteum was torn on the under surface of the bone, but was intact on its upper surface.

Mr. J. W. TAYLOR showed some Female Catheters made of Glass. He uses them for operation cases whenever a catheter is required, and finds them very clean and inexpensive. He also exhibited his "Artificial Amnion," a simple form of uterine dilator and tampon. Both instruments may be obtained from Messrs. Mappin of Birmingham.

Rupture of Abdominal Aorta.—Mr. L. TAYLOR showed for Dr. Oliver Field a specimen of Rupture of the Abdominal Aorta, taken from a boy aged eight. Half an hour before his admission to the hospital he was run over by a brewer's cart. On admission he was suffering from great shock and was much blanched, the abdomen being moderately distended; he died in an hour. On post-mortem examination a considerable quantity of blood was found extravasated behind the peritoneum, and there was a large rent in the abdominal aorta, where it divided into the two common iliacs, the abdominal viscera being uninjured.

Mr. DONOVAN read a paper on "Some points in Therapeutics."

WOLVERHAMPTON AND DISTRICT MEDICAL SOCIETY.

A MEETING of this Society was held on Jan. 4th, Dr. S. A. Smith, President, in the chair, when the following specimens were exhibited:—

Mr. VINCENT JACKSON showed a girl aged fourteen, sent to him on account of alarming symptoms occasioned by the presence of a large adenoid bronchocele. To relieve her symptoms of asphyxia Mr. Jackson completely divided the very broad isthmus, and removed a small portion. The operation was followed by complete departure of the distressing symptoms, and by a visible diminution of the size

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of the tumour, amounting, as ascertained on measuring the circumference of the neck, to one inch. The wound healed quickly.

Dr. EVANS showed a case of Splenic Leucocythæmia in a child aged twelve. The spleen extended down to the pubes, and occupied the greater part of the left side of the abdomen; it had grown rapidly during the last two months whilst under observation.

Mr. VINCENT JACKSON exhibited (1) a large loose cartilage removed from the right knee of a gentleman aged thirty-two. Its removal was accompanied by a free incision of the skin and capsule of the joint. A rapid recovery followed in fourteen days. The operation was done with antiseptic precautions. A drainage-tube was kept in the joint for two days. Also (2) a large multilocular ovarian tumour of almost solid character successfully removed from a woman of fifty-two years of age. It was connected by tough adhesions to the walls and contents of the abdomen, and an innumerable quantity of bleeding points required deligation, including some on the intestinal walls. Rapid recovery followed the operation. A glass drainage-tube, withdrawn at the fourth day, was used.

Intestinal Obstruction and the Difficulties in the Way of Diagnosis.—Dr. TOTHERICK read a paper on this subject, and remarked that in this respect age had an important bearing, for in children the cause was generally either intussusception or peritonitis, and in aged persons either impaction of fæces or malignant diseases. He advocated the use of repeated enemata of water or oil in those cases due to impaction of fæces. In acute cases, where the diagnosis is uncertain but the fatal termination sure, exploration by abdominal section was advised. Of all drugs opium was most generally useful, and in cases of impaction saline aperients might do good. In simple inertia of the bowels due to repeated constipation and over-distension he had found faradaism very useful.

PLYMOUTH AND DEVONPORT MEDICAL SOCIETY.

THE monthly meeting of this Society was held at Plymouth on Wednesday, Feb. 2nd, Dr. C. Aldridge presiding.

Mr. W. J. SQUARE read an interesting paper on Cystic Tumours of the Breast, and related a recent case of Lymphatic Cyst treated by Evacuation, followed by the continued application of a liniment after Sir B. Brodie's formula, with excellent result.

Dr. BAMPTON opened a discussion on the Treatment of Typhoid Fever, advocating the use of quinine in large doses and cold applications to combat hyperpyrexia, where the cold bath treatment was not practicable, or where tepid sponging was insufficient. The administration of antipyrin had in his hands been followed by marked lowering of temperature, accompanied by profuse sweating, and succeeded by refreshing sleep. No untoward symptoms were manifest. Maltine was suggested as a valuable dietetic adjuvant. Stress was laid upon the cautious return to farinaceous food or fish at a considerable interval after the normal temperature had been reached. The routine treatment of cardiac exhaustion in the later stages of the fever with brandy was pointed out to be a mistake, and a more scientific and rational discrimination, based upon a knowledge of the different qualities and properties of the various alcoholic liquors, in the selection of so potent a remedy, was pleaded for. The more highly etherised wine, as old sherry, was indicated in cases of cerebral or cardiac exhaustion. Surgeon Russell, A.M.D., bore testimony to the efficacy of the cold bath treatment, not only in controlling and lowering hyperpyrexia, but also its ability to prevent its access. An interesting discussion followed, to which a large number of members and visitors contributed.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.—The annual festival in aid of the funds of this institution was held on the 9th inst., the Right Hon. the Lord Chancellor (Lord Halsbury) occupying the chair. During the evening, the secretary, Mr. Burford Rawlings, announced that the subscriptions received towards the Jubilee Fund amounted to £1183. The object of this fund is to enable the whole of the hospital accommodation to be taken into use, wards containing fifty-five beds out of a total of 180 not having been as yet in occupation.

THE GENERAL COUNCIL OF MEDICAL EDUCATION & REGISTRATION.

TUESDAY, FEBRUARY 15TH.

SIR HENRY ACLAND, PRESIDENT, IN THE CHAIR.

As soon as the Council was formed,

Dr. MCVAIL, on a point of order, said he desired to raise a question with reference to the appointments of several of the members, which he said had been made by the Senatus Academicus of the Scotch Universities.

The PRESIDENT interposed, and stated that the question about to be raised by Dr. McVail could not be brought forward without notice of motion.

Dr. MCVAIL said he would give the requisite notice.

The PRESIDENT then delivered his address to the Council. He said:—"The difficulty of condensing within reasonable space the topics which demand the attention of the Council has never been as great as on this occasion. The Council now meets, for the forty-first time, enlarged, under the Medical Act of 1886, by seven members, with the addition, since the Act passed, of a representative from the Victoria University. These eight members, with a newly-appointed Crown Nominee for Ireland, and a new member for the Apothecaries' Society of England, form almost a third of the entire Council. It would seem, therefore, culpable not to endeavour to place before you a short statement of the work that lies before us. This is the less easy, because, although every member of the Council is acquainted with our duties, yet most would admit that we do not all look at them from the same point of view. Of this, however, I am sure, that you will believe in my earnest desire to place before you, as briefly as possible, such facts only as have a practical bearing on the important work that brings us together to-day. We meet in the present year under conditions which have no precedent, and which can never recur. The year of the Queen's Jubilee, with all that this implies, suggests to every body of Englishmen who have been charged with national duties thoughts of change from the known to the unknown, even though they are, in the main, thoughts of thankfulness and hope, of progress and peace. In no public body can these thoughts, and the questions which attach to them, be more important and more deep than in one which fixes its attention on the changes which medicine has undergone in the last fifty years." The President then touched upon what he termed the progress of health notions during the Queen's reign, in regard both to curative and preventive medicine, and passed on to consider the progress of legislation in respect of medical education during the same period. "As regards the history of the duties assigned to the Medical Council," he said, "there is little need to concern ourselves. We have the power and duty to see (1) that no one legally enters the medical profession who is not fit for it; (2) that no one remains in the profession whose conduct has been professionally infamous; (3) that all necessary medicines may be officially sanctioned and scientifically prepared; (4) that due rights and privileges are accorded to all properly educated Colonial and foreign practitioners who are legally qualified in their own countries. It has taken seventy years of discussion to come thus far. An opportunity was lost in 1815. The agitation for comprehensive medical legislation began in earnest after 1830. A Bill was laid before Parliament in 1840. Principles of union were agreed upon by the great London authorities in 1848. In this same year a Bill was brought forward in vain by a powerful Minister, Sir James Graham, in concert with Sir Benjamin Brodie. Sir Benjamin's correspondence, consisting of hundreds of letters, about that date, is still in existence. All these and many other movements resulted, in 1858, in the Act which, constructed on broad principles, empowered, and therefore required, all the bodies connected with the legal authorisation of practitioners in medicine throughout Great Britain to place their education on adequate and uniform grounds. Twenty-nine years have passed, and now only last year has this been effected. Over the melancholy history of this delay a veil had best be drawn. Of the Act of 1858 we cannot, on the whole, speak too highly. Where it failed, it has failed through and by

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reason of one canker of our nation—*amor sui, non patriæ*. Two expressions have been rife in this regard—and they have given rise to comment, and have caused offence on opposite grounds—the one, 'moral suasion'; the other, 'the battle of the shops.' These terms represent great forces in nowise peculiar to medicine. The former appeals to individual and to corporate conscience. The latter asserts the claim of supposed corporate interests. Seeing that neither of these forces rectified acknowledged evils, in 1870 the Government made an attempt to institute national licensing boards. The principles of the Government proposals were accepted by the Medical Council. These were to enforce uniform and adequate examination for entrance into the medical profession. Much fruitless labour has been expended in the sixteen years that followed, involving loss of time to the Council and to Parliament, and some loss of character to our profession. It is a sad chapter in the history of Parliamentary government and of free institutions. But this chapter is now closed, and closed in a remarkable way. There were two principles on which most persons with knowledge and of calm judgment seemed in 1870 to be thoroughly agreed—viz., (1) that the present Council was too numerous for the best form of executive, though perhaps this was an unavoidable evil in our day, pre-eminently a time of 'representation'; and (2) that the examining and licensing institutions were too numerous for uniformity of action. The Act of 1886, to which all who did not oppose it are practically parties, increased by a full fourth the number of this Council; and the institutions, with power to license separately, are more numerous by one than they were before. This is surely a strange result. It teaches a profound lesson for the future of medicine and of science. It is the lesson that it is an evil thing for a free country when its people and its institutions depend on Parliaments, and not on themselves, for matters which they themselves can, without compulsion, adjust and rectify. There are now, therefore, *twenty* independent bodies with power and duty to certify the fitness of the medical practitioners of Great Britain to practise every part of their profession; to grant higher titles to those who possess knowledge, general or scientific, or practical, higher than is essential for the generality; and to combine together for this national end in whatsoever manner they may severally determine. Once again the institutions are free, and, being free, are once more on their trial. It is almost needless to state here that while eleven universities still remain separate, the licensing corporations have combined, or are combining, into one in Scotland; they aim at becoming either two or one in Ireland; and they are two in England. When this is done there will be in all sixteen separate examining boards. A movement is in action in England to make a sixth degree-giving body, to be designated a university. Should this be accomplished, there will then be in England only one medical corporation. Whether these arrangements will hold, whether they are the best, whether some Government will arise to constitute three divisional licensing boards, as recommended by the Royal Commission on the Medical Acts, are matters on which it were idle now to speculate, and which do not concern this Council as a State-appointed Council of Education. We here lament the time that has been occupied, though necessarily occupied, in doubtful questions, administrative and political. These belong to another arena, and to voluntary associations. The work of regulating education by calm consultation of representative teachers from every part of the country has become great enough when we consider the vastly increased mass alike of medical knowledge and of opportunity. But it cannot be said that the principles of medical education are altered. That education must always be, as it always has been, though in varying proportions and of various quality, threefold—general, scientific, and practical. As regards the course of discussion and action which led up to the Act of 1886, it would improperly waste the time of the Council to say much. Not that the Governments of this period are justly to be blamed. The two great political parties have faithfully striven to do their best for us. Four Government Bills have passed the House of Lords, each of a more or less complete character. Discussions within the profession have practically checked the full proportion which these Bills proposed to give to a national system of medical education and examination. Voluntary boards, more or less complete, in England, in Scotland, and in Ireland, have been formed, dissolved, and in other guise formed again. And at length the Act which brings us together with our present numbers is law. As I have already said, eleven universities and nine licensing corporations are free to act as they will, within certain conditions. These conditions are practically defined by this Council, or by the Privy Council, or by both. They are chiefly to enable and require every body to examine and to license in every department of medicine: Universities in all subjects; Surgeons in medicine and midwifery, as well as surgery; Physicians in surgery and midwifery, as well as medicine; Apothecaries in all. As heretofore, any combinations may be made among the bodies with the view of combining and nationalising institutions still separate and numerous. And so ends the system of double and treble qualification, which has been the result of accident and the imperfect knowledge of former days, and the source of heartburning and confusion in our own. It remains now for this enlarged Council to bring clear and harmonious effort to a national task of interest and importance, interest and importance which are ever growing as biological science extends, as conceptions of national life and national conscience rise, and as the relations of the human family throughout the globe, and especially of the English-speaking race, are drawn more close, and are better understood."

The President then referred to the educational inquiries of the Council from its commencement, and to the business to come before the present Council, pointing out that the Council could delegate whatever it pleased of its multifarious business, except its judicial functions and condemnatory representations to the Privy Council, to the branch councils or special committees. He concluded thus: "I am painfully aware of the hopeless task which I undertook in making the abstract of medical progress in England which I have presented to you to-day. Of foreign countries I have not attempted to speak. Still, it seemed to be a clear duty, at this stage of the Council's history, to attempt a rough catalogue of the chief points which this Council has had before it during the last twenty-nine years, in its endeavour to establish the basis of a sound and uniform training for the medical student of the future. It has had much support from Government, and whatever aid can be derived from abundant criticism. This last would have had more real value had it fully appreciated the difficulties of a period of progress never equalled, and of changes in institutions naturally tenacious of their past. In dealing with the education of the medical student, we now are dealing with a subject which depends on some of the most difficult departments of science. For the science of medicine is in touch, on the one hand, with the science of many of the inorganic constituents of our earth, on whose nature there have of late been made fresh revelations from day to day; on the other, with the world of mind wherever manifested in living things. It is daily face to face with the tyranny of everlasting all-pervading Law, and yet is open to every ray of light by which from time to time is darkly shown the Cause of all. It cannot overlook the actions and reactions of matter and mind. It is entangled among the mysteries of Evolution and the effects of Heredity. It must note the decay as well as the growth of the individual and of the races of men. It revises with unsparing hand the data on which have rested the *juvantia et lædentia* of life which had the blind faith of our fathers before experiment altered some foundations of accepted clinical fact. It has to recognise as a stern reality that in some manner the laws of all other living things are the laws by which, free-will notwithstanding, we also have our being. It explores what connexion may be found in the origin and development of all living things. It has to struggle for the alleviation, though it does not trouble itself to solve the mystery, of pain. It seeks to appreciate what are the principles of the universal pathology which underlie the life history of the vegetable world, and the bodily sufferings and the mental agonies of man and brute alike. It is the function of this Council to represent interests intimately connected with all these topics through the seats of universal research and universal learning. It considers the long experience of the institutions which watch over the practical and beneficent exercise of the healing art, and which are in sympathy with the whole body of faithful workers among practitioners. The Council has to contract the impossible and unnecessary in education into that which is possible and necessary; it must so limit purely scientific studies that they may be directly subservient to the health and the wants of the public as distinguished from the profession of medicine—

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that public whose welfare is here expressly represented by the Crown. We live, in short, in a constant endeavour to advance the study of an art which ultimately will rest on science, and to ensure such progress and knowledge as will give us scientific practice not divorced from rational empiricism. It is no slight happiness to those who have long watched the changes of our time to know that there are now in our medical schools many who, judged by the tests of love for truth, desire for knowledge, and benevolence of purpose and personal character, may stand comparison with any youths of any place or any profession. To them belongs the task of reaping the harvest of knowledge which this age has sown, and which cannot yet be fully gathered in. Many have the temper of reverent and earnest inquirers into the order of things under which, for a little span, we have all been placed, and in which they, being in constant contact with the sufferings of other men, have deep concern. In their progress and in their lives will be the great reward of the Court of Education."

It was moved by Mr. MARSHALL, seconded by Dr. HUMPHRY, and agreed to—"That the President's address be entered in the Minutes, and that the thanks of the Council be accorded to the President for this address."

The Finance Committee having been appointed, a table showing results of professional examinations held in 1886 for qualifications granted under the Medical Act by the bodies named in Schedule A of the Act, also a table showing results of preliminary examination in 1886, compiled by the registrar from such returns as have been supplied by the examining bodies, pursuant to the Council's request, were presented.

With reference to the latter table,

Dr. A. SMITH called attention to the fact that the Apothecaries' Society of London had passed 214 candidates and rejected 447, and that the Faculty of Physicians and Surgeons of Glasgow had passed 65 and rejected 159. These results, he said, showed either that the examinations of the bodies in question had become much more stringent, or that the education of the candidates was very defective.

Mr. MACNAMARA called attention to the circumstance that in regard to the highest percentage of marks obtained by the candidates, several of the universities had stated that information could not be supplied, and he urged the desirability of returns being made as to the lowest amount of information considered satisfactory by the examining bodies in preliminary education.

A table was then received showing the number of exceptional cases that occurred during the year 1886 in regard to the length of the course of professional study, together with a statement of the action taken thereon by the several licensing bodies; and another table showing results of professional examinations held in 1886 for qualifications granted under the Dentists Act.

With regard to the former table,

Dr. STRUTHERS said it would be observed that the number of exceptional cases had greatly decreased since last year. The only bodies in which they had occurred were the Royal College of Physicians of London and the Royal College of Surgeons of England, in which the number of cases was 39 and 22 respectively. That number seemed to be large, and to require some explanation.

Sir DYCE DUCKWORTH said that the cases that had occurred in the College of Physicians related chiefly to Colonial graduates. Only three or four had come from foreign universities, and in those cases the diplomas had been closely scrutinised, not only to ascertain that they were themselves genuine, but that the education was satisfactory.

It was resolved that the registrar should be directed to inquire in future into the details of such exceptional cases.

The usual communications were received from the Army and Navy Medical Departments, in answer to the applications of the Council.

A preliminary report by a subcommittee of the Executive Committee on the Visitation and Inspection of Examinations was presented, together with certain suggestions by Mr. Simon on the subject, and recommendations by the Executive Committee.

Mr. MARSHALL, in bringing up the report, suggested that the subject was so urgent and important that it ought to be dealt with by a larger body than the Executive Committee; and he proposed that the subject should be referred to a committee of the Council for consideration and report during the present session.

Dr. [illegible] WATSON seconded the proposal.

Dr. STRUTHERS said that the report proceeded on the assumption that the inspectors should be appointed only with reference to medicine, surgery, and midwifery in their limited sense at the final examination. He thought that the words of the Act had a more extended sense, and should be regarded as referring to all that led up to those subjects. It was as important to inquire into the earlier examinations as it was into the final. They were in reality the foundations on which the later subjects were built. He quite agreed with the suggestion of the committee that there should be inspectors for the three divisions of the kingdom, and that they should not be limited to one division. An international arrangement would certainly be the most satisfactory. As to the nature of the inspection, it should not be of so detailed a character as some former inspections.

Dr. HAUGHTON thought that the inspections should be confined to the final examinations. In the case of the universities, at any rate, the preliminary examinations might be left to take care of themselves.

Dr. QUAIN, in supporting the motion, said that the inspectors were not to be mere visitors, but were required to examine into the question whether the standard of proficiency was such as "sufficiently to guarantee the possession of the knowledge and skill requisite for the efficient practice of medicine, surgery, and midwifery."

Sir WILLIAM GULL moved as an amendment that the Council should on the following day take into consideration Section 2, Subsection 3, of the new Act with reference to inspection. If that course were adopted, the report of the committee could of course be considered.

Dr. MATTHEWS DUNCAN said that the old visitations might still continue with regard to preliminary subjects, and that the inspection required under the new Acts should have reference to medicine, surgery, and midwifery.

Sir WILLIAM TURNER said he concurred in the suggestion of Sir William Gull that the Council should take the special clause of the Act into consideration. If Mr. Marshall would embody in his resolution a reference of that clause to the proposed committee, it would be more satisfactory.

Mr. TEALE supported the same view.

Mr. SIMON thought that the Council ought at an early period to decide the question of the narrow or the enlarged meaning of the words "medicine, surgery, and midwifery," and not refer it to a committee for solution. That, he thought, would save time, and facilitate the labours of the committee. He should like at the proper time to move as a rider to Mr. Marshall's resolution, "That it be an instruction to the committee that the Council desires its inspection of examinations to cover the entire range of those branches of knowledge which it has declared in its Recommendations to be essential constituents of the qualification of a candidate for licence."

Dr. HUMPHRY said he would propose as a substitute for Mr. Simon's proposed rider the first recommendation of the Executive Committee—namely, "That, reserving for future action the visitation and inspection of the examinations in the earlier subjects of professional education, the Executive Committee recommends to the Council that the first year's appointment of inspectors provide for the inspection of examinations in medicine, surgery, and midwifery."

Sir WILLIAM GULL said he was willing to withdraw his amendment if it were understood that under Mr. Marshall's motion the whole bearing of the subsection of the Act would come before the Council.

Mr. MARSHALL said he was willing to include the consideration of Sections 2 and 3 in his resolution.

The motion was then put and agreed to in the following form:—"That Sections 2 and 3 of the Medical Act of 1886, together with the foregoing preliminary report by Dr. Humphry and Dr. Quain, on the Visitation and Inspection of Examinations under the Medical Acts of 1858 and 1886, with certain suggestions by Mr. Simon for the Council's future Inspection of Examinations, and the recommendations by the Executive Committee, be referred by the Council to a committee, to report on the subject to the Council at its present session."

The committee was then appointed, and Mr. Marshall was requested to act as chairman.

Mr. MARSHALL brought up various communications on the subject of diplomas in Sanitary Science for entry on the Minutes. He stated that the schemes and curricula all coincided in requiring that the candidates presenting themselves should be registered practitioners, and in some instances the candidates were required to be graduates in

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medicine of the university giving the diploma, or of some other body.

A communication was received from the University of New Zealand, applying for the recognition of its diplomas. It was ordered to be entered on the Minutes.

Communications were also received from the Apothecaries' Hall of Ireland, and the King and Queen's College of Physicians in Ireland, with reference to a conjoint scheme of education and examination, and ordered to be entered on the Minutes.

The remainder of the sitting was held in the absence of strangers.

WEDNESDAY, FEB. 16TH.

SIR HENRY ACLAND, PRESIDENT, IN THE CHAIR.

The Apothecaries' Hall of Ireland and the Conjoint Scheme.

Dr. STRUTHERS brought forward the following motion:—"With reference to the 'scheme for constituting an Examining Board in Ireland by the King and Queen's College of Physicians and the Royal College of Surgeons in Ireland,' received and entered in the Minutes of Nov. 20th, 1886, page 154; and to the communications to the Council from the King and Queen's College of Physicians in Ireland of Nov. 10th, 1886, and the Apothecaries' Hall of Ireland of Nov. 9th, 1886, received and entered in the Minutes of Nov. 19th, 1886, page 145; and to the 'Remarks,' with Appendix, by the King and Queen's College of Physicians, of date Dec. 31st, 1886, transmitted to the President by the College on Jan. 5th, 1887, and the 'Comments' thereon by the Governors and Court of the Apothecaries' Hall of Ireland, transmitted to the Registrar of the Council on Feb. 3rd, 1887, and received and entered in the Minutes of Feb. 15th, 1887: that the Council request the King and Queen's College of Physicians and the Royal College of Surgeons in Ireland to reconsider the scheme, in the strong hope that they may be able to arrange with the Apothecaries' Hall of Ireland a scheme which shall include the Apothecaries' Hall with the two Colleges." He said he did not appear in any way as a special pleader for the Apothecaries' Society, but as performing what he considered a public duty. It was somewhat difficult to frame the motion because there was not now before the Council any motion for the approval of the scheme; but they had the scheme on their Minutes, and therefore could deal with it. The motion was simply that the Council should advise the two Dublin Colleges to reconsider the scheme with a view of admitting the Apothecaries' Hall into a triple scheme. If the apothecaries were left out of the scheme what was to happen? By the Act of 1886 it was provided that a medical corporation might apply to the Council to have examiners appointed, and if the Council declined to do so the body might go to the Privy Council, and if it appeared to the Privy Council that the General Council had failed to secure the maintenance of sufficient examinations, or that occasion had arisen for the General Council to appoint assistant examiners, then the Privy Council might notify their opinion to the General Council, and if the General Council failed to comply with such directions of the Privy Council, the Privy Council might themselves appoint assistant examiners, and the Apothecaries' Hall of Dublin might be started as a new and independent licensing body for medicine, surgery, and midwifery. That was the prospect before them, and if that were the case they might have the profession in Ireland and England flooded with practitioners, whatever their professional knowledge might be, under the name of "apothecaries." This question had been discussed very elaborately on former occasions by the Council; and in 1863, in answer to an application from the War Office, the following resolution was agreed to: "That this Council is of opinion that the registered licentiates of the Apothecaries' Company of Dublin are as apothecaries entitled to practise medicine in Great Britain and Ireland." The result was that the army and other boards received the apothecaries' diploma on the same footing as any other medical licence. After tracing the history of the establishment of conjoint examinations, he said that the other Colleges of Physicians and Surgeons must make up their minds to part with a few of their privileges and fees, and that the examinations must be made, though upon "reaonable terms." He made the motion on three grounds: first as a measure of justice due to the apothecaries; secondly, as a matter of expediency to the other bodies; and thirdly, as a public duty. It was not for the interests of the public that these bodies should be tolerated as independent licensing bodies, flooding the country with practitioners with their name and qualification. He moved this as a measure of peace. If they had the three corporations united into a conjoint board, they would have an end to contention; if not, it would be every man for himself.

Dr. BRUCE seconded the resolution.

Mr. SIMON, in supporting the motion on the ground of the demands of public duty, said: Could any reasonable person say that it was for the public interest that a separate and competing examining board should be set up in Dublin? No one would contend that it was. In proportion as the College of Physicians felt itself stronger and higher than the Company of Apothecaries, it was bound to adopt the course which was urged upon it. *Noblesse oblige.* They ought not to allow any narrow personal feeling to stand between them and the completion of a scheme that would be for the general good of the country. It could never be for the public benefit that the two corporations should force the Company of Apothecaries into a position in which they would have to take refuge in the power of the Privy Council or the Medical Council to appoint assistant examiners. The Apothecaries' Company had been legally recognised, whether wisely or not, as a medical authority, and the question was whether they were prepared to assent to a course which would make that body a competing authority against the two Colleges in Dublin.

Mr. WHEELHOUSE maintained that the Company of Apothecaries in Ireland did not give a really full qualification. If, therefore, the Council advised the Colleges in any other sense than that of Dr. Struthers' resolution, it would be favouring the establishment of a new corporation very ill equipped for its purpose. He accordingly supported heartily the proposal of Dr. Struthers, believing that if the Apothecaries' Company were not admitted to the conjoint examination infinite harm and mischief would be done.

Mr. TEALE said he desired emphatically to endorse the motion, believing that its rejection would be a public calamity.

Dr. BANKS also supported the motion, and said that it would be discreditable to the Council if it favoured the creation of a new body in Ireland.

Sir WILLIAM GULL, in supporting the motion, said that the same principle would equally apply to this side of St. George's Channel. The Apothecaries' Company had a distinct function to perform, and on public grounds therefore it ought to be maintained. The Council, he thought, would stultify itself if it did not adopt the motion of Dr. Struthers.

Dr. GLOVER said that recent legislation did not contemplate the destruction of existing bodies, but rather their continuation. As therefore the number of bodies could not be diminished, the only hope they had was in their fusion. With that view, and believing that, after all, the pharmaceutical side of medicine was very important, perhaps more important than ever, he was quite prepared to give a hearty vote in favour of the motion of Dr. Struthers.

Dr. KIDD said that the feeling of the profession in Ireland was that the three bodies ought to be fused, and that it would be a very serious injury to the community if a body were established to compete with the two Colleges in their conjoint scheme. Such a rivalry would be a competition downwards, and not upwards. As to the legal position of the Apothecaries' Company, he would remind the Council that the College of Physicians accepted the first examination of that body as equivalent to their own first examination. He did not see how the dignity of the College of Physicians was affected. The intention of the Act of 1886 was to include the Apothecaries' Hall in any conjoint scheme, and it was the duty of the Council to encourage such inclusion.

Sir WM. TURNER said Dr. Struthers' statement was so convincing that he felt there was nothing left for him but to support the motion. There was one aspect of the case which was of very great importance—viz., what was in the mind of the legislature as regards this question when they framed the Act of 1886? They necessarily put into the front rank that which they considered to be the most important, and that was "combination." The mind of the Legislature was that combination should take place wherever it was possible, but that if through any difficulty combination did not take place, then that a body which could show that it was doing its duty efficiently should not be extinguished. What, therefore, they should urge upon the

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bodies was that they should strive to carry out what he believed to be the prime meaning of the Act, and that the alternative proposition should not be required to come into operation if combination could be performed.

Mr. COLLINS hoped that the Council, if it passed this resolution, would also pass a resolution of which he had given notice—that they should nominate one examiner in surgery for the Apothecaries' Hall of Dublin, which he represented. If this was not done, and the recommendation of the Council was not adopted, the effect would be that that body would be disfranchised, at any rate till the next meeting of the Council in June. The Apothecaries' Hall were most anxious and willing to form a tripartite scheme, or if not a tripartite scheme a dual scheme, with the College of Surgeons.

Sir DYCE DUCKWORTH said he could not follow Sir William Gull in regarding this question as having brought before the consideration of the Council the other question which had to do with London. The question of the Apothecaries' Hall in Dublin, and its relation to the Royal College of Surgeons, was not at all on all fours with the question of the relations of the English bodies. The action taken by the London Colleges was perfectly well known. It had been taken after very full and careful deliberation. He entirely disagreed with the bugbear that had been held out as to the terrible consequences that they were to expect. They were told that a great injustice would be committed, that the country would be flooded with an inferior order of practitioners, and the public would suffer. He denied that the public would suffer from anything of the kind, because by the Act of Parliament it would be the duty of the Council to see that any other examination which might be adopted was one worthy the confidence of the public, and, therefore, if the Council did its duty the public would not suffer.

Mr. MACNAMARA said, as representative of the College of Surgeons in Ireland, it could not be expected that he should give a silent vote. The Council of the College of Surgeons had on several occasions gone to the College of Physicians to represent the justice of admitting the Apothecaries' Society into the conjoint scheme. He thought the resolution proposed by Professor Struthers, and for which he would vote most heartily, that the scheme should be sent back for the consideration of the College of Physicians, was a most desirable one, and it would be a sad thing if the College of Physicians would not listen to the voice of the Council on this point. A competing body would then be established in Ireland. He did not want to say that it would be an unworthy competing body, but it would become the duty of the Council to see that it was not so, and that would throw a great expense upon the Council.

The Council then rose for its customary ten minutes' adjournment, and on resuming held a private sitting, at which Mr. Muir Mackenzie attended for the purpose of giving legal advice. On the admission of "strangers,"

Dr. A. SMITH resumed the discussion on the motion of Dr. Struthers. After quoting from evidence given by Mr. Macnamara in 1874 to the effect that he considered that the present system of licensing in Ireland had been attended with a paralysing effect on the promotion of pharmacy, and that the Apothecaries' Company had abnegated their functions in becoming examiners in medicine, he proceeded to give an account of the proceedings taken by the two Colleges in reference to the application of the Apothecaries' Company to be admitted to the joint examination. When that application was received the Council of the College of Physicians held a special meeting, at which it was decided, *nem. con.*, that the Council of the College regretted its inability to accede to the proposal, because it believed that the intentions of the Medical Act were best carried out by the arrangement that had been made in accordance with that in force in England. In consequence, however, of a letter received from the College of Surgeons suggesting a modification of the scheme with a view of including the Apothecaries' Hall, another special meeting of the Council was held, and a resolution was carried by 17 to 4 declining to reopen the question of the constitution of the joint examining board. Under these circumstances he (Dr. A. Smith) thought it was hopeless to send the matter back to the College of Physicians for reconsideration.

Mr. BRUDENELL CARTER said he had for some time been familiar with the matter that had been brought before the Council by Mr. Muir Mackenzie, and he was quite prepared to hear that the Council could in no way control or influence the combinations of corporations. It would, he thought, be unworthy of the dignity of the Council to address a petition to the College of Physicians the prayer of which it had no power to enforce; he was therefore unable to vote for the motion of Dr. Struthers.

Dr. STRUTHERS briefly replied. He said that the opinion of Mr. Muir Mackenzie had nothing to do with the matter. The Council was only offering a piece of advice, and not seeking to exercise control.

The motion was then put and carried by 19 against 4, five members not voting.

The Council then adjourned.

THURSDAY, FEB. 17TH.

After a short sitting in private, Mr. Collins proposed a resolution for the appointment by the Medical Council of an examination in surgery for the Apothecaries' Hall in Ireland; but after discussion he ultimately assented to an amendment by Dr. Struthers deferring the consideration of the question until the result of the previous motion on the subject had been ascertained.

The Council then considered the subject of a memorial sent to the Privy Council, and thence transmitted to the Medical Council, complaining of the inefficiency of the clinical teaching of the Royal University of Ireland and of the inaction of the Medical Council. After some discussion the question was referred to a committee to report to the Council. On the motion of Dr. Heron Watson, a resolution was passed expressing the desirability of obtaining an opinion from the legal advisers of the Government in regard to the position of the Council in relation to medical authorities combining for examinations. Some discussion then took place in regard to the subject of dental finance, and the Council adjourned.

[A fuller report of this day's sitting will appear in our next issue.]

ON THE CAUSE OF MARKED HYPERTROPHY OF THE ANTERIOR WALL OF THE URINARY BLADDER.

To the Editors of THE LANCET.

SIRS,—On Jan. 18th I brought before the Pathological Society for criticism a novel and, I believe, an important fact which I had noticed whilst cutting frozen sections of pathological urinary bladders—namely, the increased muscularity of the anterior wall as compared with the posterior in certain cases of obstructive hypertrophy. In THE LANCET of the 12th inst. Dr. G. N. Pitt has given a very clear and certainly a very plausible explanation of that phenomenon. At the same time that I would acknowledge its partial value and partial truth, I would give my reason for having rejected the hydrostatic law that explanation is based upon, as being the sole cause for the production of the localised hypertrophy. Dr. Pitt says, "If membranes in the shape of spheres of varying sizes enclose fluid, so that the tension is uniformly distributed along each fibre, the thickness of the membrane must, by the principles of hydrostatics, be exactly proportional to the radius of the corresponding sphere"; and thus it is that the anterior wall, having a greater curvature than the posterior, must be thicker than the posterior in order that "the pressure of urine in the bladder may be balanced by the same tension of each muscular fibre." If, however, we carefully inspect the hypertrophied anterior wall more closely, we shall see that its composition does not conform with the law just enunciated. There are two main muscular strata—the circular and the longitudinal. Which has the greater curvature? The longitudinal. According to Dr. Pitt's explanation the longitudinal layer should be the thicker. But this is not so. If we examine any frozen section, we shall see that it is the *circular* stratum which has so greatly hypertrophied, and that it is often twice as thick as the longitudinal. I remain, Sirs, yours truly,

George-street, Hanover-square, Feb. 12th. E. HURRY FENWICK.

SIR HENRY THOMPSON has just been elected "un Membre Associé" of the Société de Chirurgie de Paris, having for some years been a corresponding member.

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THE LANCET.

LONDON: SATURDAY, FEBRUARY 19, 1887.

THE General Medical Council has again returned to its labours, and this time strengthened by those of its members who represent the great body of the profession throughout the three kingdoms. Its President (Sir HENRY ACLAND) inaugurated the session by the delivery of an address on the work of the Council, past and present. His discourse, not unnaturally, included a brief summary of the progress in medical and surgical knowledge since Queen VICTORIA came to the throne, and here he was able to show that a notable advance had been made. In his account of the progress of legislation in respect of medical education and examination, he had no alternative but to tell the story of numberless failures, of prolonged delays, and finally of but partial success. The blame cannot rest upon Parliament, for, as Sir HENRY ACLAND stated, the two great political parties have faithfully striven to do their best. The troubles have been created by the profession itself, or, rather, by those corporate bodies which have for years been held to represent its views. In the rivalry and the jealousy which they have shown towards each other is to be found the cause of the difficulties which have prevented medicine taking her proper place in this country.

We would gladly have seen Sir HENRY ACLAND lay greater stress on that great political change which enables the profession to be directly represented on the General Medical Council, and which recognises that there are rights and privileges to be guarded which are greater than those which have been held in view by the bodies whose representatives have heretofore determined all questions relating to the welfare of the profession and of the public. No doubt, as the President pointed out, the Council was already too large for the performance of effectual work; but so long as the system of representation is maintained this obstacle is insuperable. We believe, however, that the additions which have lately been made to its number will be found of value, if not in accelerating the work it has before it, at any rate in bringing it into more immediate relation with the majority of those who are actively engaged in curing disease.

The first important decision at which the Council has arrived will undoubtedly give almost universal satisfaction, and will raise the hope that the corporate bodies will not be deterred by a mistaken vanity from adopting a course which is urgently needed in the public interest. The decision was taken, upon a motion by Dr. STRUTHERS, that the Council should request the King and Queen's College of Physicians and the Royal College of Surgeons in Ireland to reconsider their scheme of amalgamation, in the strong hope that they may be able to arrange with the Apothecaries' Hall of Ireland a scheme which shall include the Apothecaries' Hall with the two Colleges. The admirable argument of Dr. STRUTHERS was practically unanswerable, and was obviously accepted in this light by the great body of the Council. The unfortunate results which would follow from the existence of separate licensing bodies if the Colleges persisted in their refusal to allow the Apothecaries' Hall to unite with them were amply dwelt upon by the speaker, and he further showed that the Council had itself, in a communication addressed to the military authorities, expressed their opinion that the licentiates of the Apothecaries Society in Dublin are, as apothecaries, entitled to practise medicine in Great Britain and Ireland. Of the twelve speakers who followed Dr. STRUTHERS, not one could be said to adduce any substantial argument against his proposal. The College of Surgeons themselves were in favour of the amalgamation; it was only the College of Physicians that held aloof, and Dr. AQUILLA SMITH appears to have contented himself with statements to the effect that the College he represented disapproved of the proposed union. The only pertinent objection to the adoption of the resolution came from Mr. BRUDENELL CARTER, who, while fully sympathising with Dr. STRUTHERS' views, was unwilling to see the Council exceed its statutory powers, and recommend the adoption of a course which it was unable to enforce. Eventually the motion was adopted by a large majority, and it remains for the Irish Colleges to determine the final issue.

It is sincerely to be hoped the Colleges will take advantage of this further opportunity for the reconsideration of the question, and that they will learn from the decision of the Council that the Apothecaries' Hall are not likely to apply in vain for the appointment of assistant examiners should it be necessary for them to make such application to the Council. We would hope, further, that the English Colleges will learn, from the events of this week, that it would be well for them to regard as assured the appointment of the London Society of Apothecaries as an independent examining body should they continue to refuse to allow its union with themselves. Sir DYCE DUCKWORTH announced his ability to show that the controversy in England was not altogether comparable with that in Ireland. That there are some differences in detail we are prepared to admit; but the broad principles are the same, and will afford sufficient reason for the Council to arrive at a similar conclusion when the subject comes under their consideration. The only hope that can be entertained is that a golden bridge may yet be found by which opportunity may be given for the Colleges to retrace their steps. Dr. GLOVER forcibly showed that the desire to preserve the existence of the Apothecaries' Societies as examining bodies did not emanate from the Council, but was given by law, and that the duty which devolved upon the Council was to carry that law into effect. Of the intention of the Legislature on this point there can, indeed, be no doubt; and we would protest against "the battle of the shops," to which Sir HENRY ACLAND referred in his address, being further continued to the detriment of the profession.

The many reasons which exist for the adoption of the principle of unity have been so fully discussed in these columns that it is needless now to consider them further. If the corporations had been less desirous of their own welfare than that of the profession, there would be less urgency for the demand for a reconstitution of their governing bodies. But this demand has now been made, and will

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receive fresh impetus if, in the face of the recent decision of the General Medical Council, the English and Irish Colleges refuse to modify their policy.

LAST week we referred in general terms to the subject of the influence of small-pox hospitals in London, to which so prominent a place is given in Dr. BUCHANAN'S last report to the Local Government Board on the proceedings of his department. It is sincerely to be hoped that this report will lead to some final decision as to the attitude of the Government towards metropolitan small-pox hospitals, and since the material which is so ably put together in it on the subject cannot fail to exert an important influence on medical and public opinion, we now recur to the matter in some detail.

The immediate cause of this report was the receipt from Mr. W. H. POWER of a further account of the influence of Fulham Hospital down to the end of 1884-85, that account showing once more that the use of that hospital for the reception of small-pox cases at times when that disease was about to assume epidemic proportions led to an excess of small-pox around the hospital, that excess being graduated according to the proximity of the houses to the institution. And this repeated experience is the more important because it has taken place in the face of every effort to remove the conditions by which infection might be spread along lines of communication between those inside and those outside the hospital. In spite of every possible restriction, the fact remains that houses within half a mile of the hospital have been attacked at three times the rate of those between half a mile and a mile of it, and at nearly four times the rate of the parts beyond. If Fulham stood alone, it might be possible, even in the face of the overwhelming statistical evidence which has been repeated year after year, to express some doubt as to whether this fatal influence was a necessary result of these London small-pox aggregations; but similar evidence as to the effect of the other metropolitan small-pox hospitals has, during recent years, been flowing in apace, whether it come from Deptford, Stockwell, Homerton, or Hampstead, or, again, from Highgate or West Ham. As Dr. BUCHANAN points out, metropolitan and registration districts exhibit a change of rank, *qua* small-pox, when a small-pox hospital is established in them, this change of rank varying, again, according as the hospital is used or not. Thus Hackney and Camberwell, which for twenty years stood high in rank in regard to the freedom of their inhabitants from small-pox deaths, needed but a small-pox hospital in their midst to be relegated to a place among the worst districts. The Registrar-General, in his annual summaries for 1881 and 1884, basing his argument on registration districts, tries to console the sufferers from small-pox in these special areas by telling them that though "that district which contains the small-pox hospital may be the one which derives on the whole the least benefit from it, or rather which has the benefit conferred by it counterbalanced by some small disadvantage," yet the absence of a hospital may be a greater evil by leading to a disinclination to use it. And, indeed, using for this purpose groups of registration districts, he lays it down as "probable" that those districts are worst off which neither have hospitals of their own nor make use of the hospitals outside, whereas those districts are best off which have no hospitals within their own areas, but make use of hospitals outside their borders. So, after all, those who suffer do so for the public benefit. This seems the only crumb of comfort which Dr. BRIDGES can provide in the report to which we referred last week. But unfortunately Dr. BUCHANAN'S inferences are based on the experience of definite circular areas round the hospitals themselves, whereas the Registrar-General's "probable" inferences are based on districts which, as Dr. BUCHANAN shows, have no fixed relation to hospital areas, and as such should not for a moment be compared with Mr. POWER'S areas.

But, leaving these special areas, Dr. BUCHANAN next considers the small-pox death-rate all over the metropolis, and he compares this with that prevailing in the provinces. Both in London and in the provinces generally there have been improvements in vaccination, and in both the small-pox mortality amongst children has in consequence been reduced below any former experience. But in the provinces the general small-pox death-rate has also been greatly reduced since the European epidemic of 1871, whereas in the metropolis there has been no such reduction. In fact, although before 1871 the London small-pox death-rate "only once reached the double of the provinces, it has in the last two five-year periods been maintained at a point sixfold and sevenfold that which has affected other parts of England." Taking a long group of years, from 1850 to 1874, the mean annual small-pox rate per million would be some 380 in the metropolis and 225 for the provinces; for the period 1875-84 it has been 268 in the metropolis and only 41 in the provinces. Some "new factor has plainly come into operation." Indeed, this changed attitude of London towards the provinces dates from the time when London, and not the country, became plentifully supplied with hospitals for small-pox, which, when in use, have again and again caused an excess of disease about them, this excess having amounted to a threefold incidence of small-pox upon the three nearest square miles as compared with its incidence on the remainder of the circumjacent districts.

The Royal Commission on Small-pox and Fever Hospitals believed that thirty or forty acute cases of small-pox might safely be treated in each of the metropolitan small-pox hospitals. Mr. POWER has shown conclusively that the evil influence of these hospitals can be, and has been, exerted with a much smaller number of cases, and it is obviously this influence which is largely contributing to maintain small-pox as an endemic disease in our midst, whilst it is disappearing elsewhere.

The closing paragraph of that portion of the report which deals with this subject of the diffusion of small-pox urges action on the part of the Metropolitan Asylums Board towards reducing the chance of spreading infection, such as was indicated by the Royal Commission. That Commission had taken into consideration Dr. BURDON SANDERSON'S scheme of a hospital so contrived that it should be artificially ventilated, and that its air should, after passing through the hospital, be subjected to a high temperature for the purpose of destroying its dangerous qualities before it was discharged and they distinctly place amongst their "practical recom-

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mendations" one which advocates the adoption of this system, which they "fully believe" might be devised. But as yet nothing has been done in this direction. Surely here is a line of action which is plainly indicated, and we trust that all who have influence with the Asylums Board will press its adoption on them, for the only other alternative seems to be the entire abandonment of small-pox hospitals, at least in populous districts.

CREMATION is rapidly making its way in some civilised communities. Sensational objection to it is subsiding, and the gentler part of the creation, to whom not long since it was most objectionable, has, so to speak, come round to it with such effect that at a meeting of the Ladies Somerville Club, held a year or two ago, with one of the representatives of medicine in the chair, a resolution in favour of cremation was carried by a large majority. For many and sufficiently valid reasons we have been most careful in these columns not to favour cremation until we could see how it might be carried out, *cito, tuto*, and like the Latin poet, have felt our anxiety, "*tuta timens*," to the extent of fearing safety. For this there was abundant cause in one danger alone—namely, that men inclined to commit murder might find in the crematorium the easiest concealment of their guilt. At the same time we never doubted the value of cremation as a sanitary measure, and now that some of the more serious difficulties surrounding it are passing away, we are open to all fair discussion of its progress. In New South Wales the practice is gaining favour so freely that a Public Bill authorising cremation passed through the Legislative Chamber on August 5th for presentation to the Legislative Assembly, and has probably by this time become the law of the land. This Act is called the Cremation Act, 1886, and in its construction the word "crematorium" means a place furnished with apparatus in accordance with the provisions of the Act for the purpose of reducing the human body after death to its mineral constituents. Subject to the provisions of the Act, any person may establish a crematorium provided the site and place be approved by the Board of Health constituted under the authority of the Infectious Diseases Superintendent Act of 1881; but a licence must be obtained by the constructor, and be signed by the Governor with the advice of the Executive Council, and the burning of the dead body of any human being in a place that is not licensed is declared illegal. It is further rendered illegal to burn a dead body except under one of the following three conditions: (*a*) The receipt by the registrar of a certificate from some legally qualified medical practitioner, stating that such practitioner has been in professional attendance on the deceased for at least four days immediately prior to the day of death, and that the deceased died from natural causes; (*b*) a certificate of a legally qualified practitioner, after a post-mortem examination, that the deceased died from natural causes; and (*c*) a certificate from a coroner or justice of the peace who has held an inquest or inquiry as to the cause of death, conveying to the registrar that such cause has been inquired into and that no further examination is necessary. Some further rules of a more stringent kind are added relating to the responsibility of all who are concerned in carrying out a cremation. The registrar who improperly issues a "cremation permit" may be subjected to a fine not exceeding £500, or imprisonment for any term not exceeding two years. The relatives of a deceased person, such as a widow or next of kin, may prevent a cremation, unless the deceased has left an attested memorandum directing that his body shall be cremated, when it is the duty of the executor or administrator to see that the direction is duly carried out if there be a licensed crematorium within twenty miles of the place where the death occurred. As a protection against crime, there is a clause to prevent persons from giving, or joining in giving, certificates for cremation after the death of anyone in whom the said person has an interest or expectancy. There is also a clause by which the Governor, acting on the advice of his Council, may suspend cremation for sanitary reasons in the event of a great epidemic if the suspension be considered advisable; and there is another clause enabling the Minister of Justice to forbid cremation under certain circumstances. There are some other minor provisions in this Act which are important for local reasons, but which may be passed over here. We have presented the leading principles of the measure, and we are bound to admit that they are as sound as they are vigorous and effective. The provision which makes it impossible for anyone who has an interest or expectancy in a deceased person to obtain a "cremation permit" removes the one great objection, which we have always enforced, more efficiently than any other plan that has hitherto been proposed, and seeing that cremation is apparently already recognised by the law of England, we should be glad to see an Act passed in this country on the same lines; for it seems to be proved by recent cremations that there is no real obstacle to cremation in England in the present state of the law, and there was no real obstacle in New South Wales. But, with much common sense, our colonial brethren have preferred to proceed in this matter by virtue of an affirmative rather than a negative law, and they are unquestionably in accord with the spirit of the times in carrying out this principle. They have, in short made the law on a great sanitary question intelligible and fresh, so that everyone can understand it and act upon it. We must not conclude this article without claiming for the profession of medicine in the Antipodes considerable credit for the part it has played in the matter of cremation legislation. To one of our medical *confrères* in Sydney, the Honourable JOHN MILDRED CREED, who, in a speech exceedingly able and exhaustive, moved the second reading of the Bill in the Legislative Council of New South Wales, a tribute is due for the success which so far has been achieved towards bringing cremation into a legal and safe practice on the other side of the globe.

THE Presidential Address of the Rev. Dr. DALLINGER, F.R.S., who has had the distinguished honour paid to him of being for the fourth time elected President of the Royal Microscopical Society, possesses more than usual interest, for it treats of a series of experiments which he has conducted for nearly seven years without intermission, having for their object the determination of the extent of change of temperature to which the lower forms of organisms can be adapted by slow modifications. The problem which Dr. DALLINGER set himself to solve was first investigated

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in placing various species of monads in a medium, the temperature of which, by an ingenious arrangement devised by Professor SCHÄFER, could be gradually altered at the will of the operator. The mechanism worked so well that the variations in temperature in the course of twenty-four hours were less than one-sixth of a degree Fahrenheit. Commencing at the normal temperature of 60° F., the first four months were occupied in raising the temperature 10° without altering the life history. When the temperature of 73° was reached, an adverse influence appeared to be exerted on the vitality and productiveness of the organisms. The heat being left constant for two months, they regained their full vigour, and, by very gradual stages of increase, 78° was reached in five months more. Again a long pause was necessary, and during the period of adaptation a marked development of vacuoles was noticed, which again disappeared when it was possible to raise the temperature still higher. The further history of the experiments presented practically the same features—long pauses, vacuolation, slow advance,—until at last the high temperature of 158° was reached, when the research was accidentally terminated.

It need hardly be said that great care, skill, and patience are required to conduct experiments extending over so long a period, but the interest attached to them is fully proportionate to the time and labour expended upon them. The capability of organisms to adapt themselves to their environment has hitherto been a postulate rather than a proved fact on the part of HERBERT SPENCER and DARWIN, and much still remains to be shown in regard to the influence such changes effect in the structure and composition of the body; but it must be acknowledged to be a striking fact that organisms which normally live and multiply at 65° F. and are killed at 140° F. should by gradual adaptation become capable of living at 158°, whilst on their return to their original temperature they die. The slowness with which cosmical changes of temperature occur, and the possibility that living organisms are capable of gradually adapting themselves to such changes, was not overlooked by DARWIN, but the difficulty that confronted him, with other naturalists, was the number of generations required to be investigated before any conclusions could be drawn in regard to the effects of change of temperature on the race under observation. Dr. DALLINGER has overcome this difficulty. The monads he examined incessantly multiply by division, the longest interval being four minutes. He must, therefore, have observed something approaching half a million generations of the organisms under consideration. This is not far short of the "countless generations" required, and it is surely a matter of great interest to find that at the close of the series the organisms are found to have undergone such modification either in their composition, structure, or functions, as to enable them to flourish under circumstances that at first proved fatal.

IT is proposed to form an Anatomical Society, which shall meet about four times a year for reading papers, and discussing subjects bearing directly, on Human Anatomy, Embryology, &c. The first meeting will probably take place in April.

Annotations.

"Ne quid nimis."

DEGREES FOR LONDON STUDENTS.

THE various methods which have been suggested for procuring degrees for London students have practically resolved themselves into two—viz., the professional as advanced by the Royal Colleges, and the academical as put forward in the programme of the promoters of a Teaching University. The authorities of the existing University are too much bound to the examination-groove and standard which they have inherited from its founders to be expected to make any but minor changes in their regulations, and Convocation (which must be consulted in respect of a new Charter) is too jealous of the teaching influence to allow any new step of importance to be taken, even if the Senate were inclined to take such an initiative. The Colleges are steadily pressing forward their movement, and will soon be in a position to make application to the Crown for permission to grant degrees under their joint authority and regulation. We are sorry, however, to have to again urge the Association for Promoting a Teaching University in London to put forward its views quickly and in some authoritative manner. It is evidently at the crisis of its existence. The small attendance of members at its general meeting shows that its protracted deliberations, conferences, and waitings on other bodies have wearied many of its members, and a large secession of others may be expected if something earnest be not soon undertaken. The teachers in the Arts and Science Faculties of University and King's Colleges, who constitute the largest proportion by far of the Association and its executive committee, must agree at once on some combined line of action, if they wish to be credited with any real desire to form the academic side of a new university, and to shape the movement in that direction. The Colleges will apply to govern the professional faculty, and it will be entirely due to the supineness of the teachers in the literary and scientific chairs of London if the basis of the movement is not made sufficiently wide to embrace them also. The Colleges have a well-defined claim and a definite aim in view; the Association seems at present merely a collection of well-intentioned gentlemen with a far-reaching ideal of some great university before it; but the ideal does not yet appear to present itself to all the members in the same light. This want of agreement will merely lead to obstruction towards the Colleges, and be no gain in any other line. It is imperative, therefore, that the Association should take some tangible step at once or quietly dissolve. The teachers at the Bristol School of Medicine are alive to the necessity of prompt action, and will either oppose or assist the Colleges, according to whether residence in London be made imperative in the schemes, or whether the provincial schools, not affiliated to a university, be included in the application. At present, the report of the delegates leaves this to the discretion of the future managing body.

MILK EPIDEMIC OF TYPHOID AT YORK.

THE epidemic of typhoid fever in York, the prevalence of which we recorded a short time since, has been made the subject of a very elaborate report by Mr. S. W. North, medical officer of health to the city. York has a system of compulsory notification of infectious diseases, and under it 243 cases of typhoid fever were reported during 1886, 29 terminating fatally. Of these 243 cases, 210 came under notice during the last four months of the year, and the great incidence of the disease was in the Micklegate district, where, subsequently to Oct. 16th, no less than 119 cases occurred. In this district there are three dairies, each of which was, before the outbreak, in the habit of receiving

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milk from a dairy-farm at Osbaldwick. One of these dairies had used no other milk than the Osbaldwick supply; another mixed the supplies; and a third, the Cleveland Dairy Company, kept their several sources, as a rule, distinct. Considerable suspicion attached to this Osbaldwick milk, and hence Mr. North visited it. He found that the owner had been ill with some fever, and that his wife was then in bed with a similar disease; and he gives it as his opinion that the whole family had suffered from typhoid fever. The symptoms described are not sufficiently detailed to convey a decided opinion on the subject, but Mr. North's conclusion was doubtless founded on sufficient data. The dairy pump was found to have a privy on one side, and an open ashpit on the other, together with other conditions that ought never to prevail at a dairy-farm. The analysis of the well water did not prove much, but since typhoid excreta can be purposely mingled with water without causing special suspicion on the part of the chemist, this goes for little. But the slops and excrement from the house had gone into the ashpit or privy, or on to a slop stone near the pump, and it is added that "the arrangements of the premises and the habits of the people are such as to render any mode of contamination possible." The whole course of this milk through the tradesmen taking it and on to the public is discussed at length, and, by way of additional danger, it was found that, as a result doubtless of the use of the infected milk, there were on the Cleveland Dairy Company's premises two unreported cases of typhoid fever, and this whilst the manager was passing from the sick room of his children to distribute the milk to his men and to the shops. Between October 16th and December 18th a total of 168 cases were reported, and of these 111 are proved to have used the suspected milk. An Inspector having secured a sample of this Osbaldwick milk, it was stated to contain 10 per cent. at least of added water. And taking the three dairies distributing this milk, whether alone or mingled with other milk, it was found that 42·4, 38·5, and 21·7 per cent. respectively of their customers were ill with typhoid fever. In confirmation of this view as to milk infection, cases are cited showing how the disease picked out of families, not otherwise exposed to the infection through the use of milk, single individuals who had used it; and in one charitable institution, where only one out of forty-seven took the fever, the single case was that of the only child who had milk in an uncooked form. But all the typhoid fever in York has not been due to infected milk. It will be remembered how serious an epidemic took place in the autumn of 1884, and from what Mr. North says it is clear that, notwithstanding the severe lessons which the city has had, it still remains a town specially adapted to favour the spread of such an infection when once received into it. It is essentially a midden town, several hundreds of these structures having more than one privy in connexion with them, and their cleansing is greatly neglected, such work being mainly done at the discretion of the inhabitants. Then, again, the sewers are largely liable to deposit, and only under special circumstances and in limited areas are they either flushed or ventilated; they are also blocked by back-water in flood times. The street gullies and old sewers also admit of leakage of contents. Such an array of conditions favourable to enteric fever may well account for the fact that the disease is endemic in the city. But it is unfortunately supplemented by the suspicious circumstances attaching to its water-supply. Mr. North does not credit it with any share in spreading this epidemic, but its use involves, as we pointed out last week, a dangerous experiment on human lives. We hope that we may soon be able to report some substantial progress towards removing the dangerous conditions to which we have adverted, and which Mr. North has more than once brought prominently before the Town Council.

THE VOLUNTEER MEDICAL SERVICE IN PEACE AND WAR.

DR. W. P. MEARS has just been lecturing at Newcastle-on-Tyne on the Volunteer Medical Service, and his lectures have created much interest there. He shows that the Medical Department is almost in the same condition as it was in 1859. One surgeon only is carried on the establishment of each corps, however large it may be, even where, as in Edinburgh and Cardiff, there is an administrative battalion of 2000 men. The surgeon, Dr. Mears points out, has no duties laid down for him beyond attendance at ranges and in camp. He is not responsible in any way for the physical fitness of recruits, the sanitation of drill-sheds or corps buildings, for the sites and surroundings, the food, water-supply, or drainage of camps. His interference in such matters, unless asked for courtesy sake, might not improperly be considered impertinence, and his presence (personal considerations of course aside), except in an ornamental capacity, is apt to be thought of as a necessary inconvenience. He has nothing to do, does not know where to go, gets in everybody's way, and, as Dr. Mears points out very forcibly, is thus more likely to prefer the social to the military duties of volunteering. He is not even required to pass an examination, and his optional examination is more or less a form. Until last year he could not, like other officers, go to a school of instruction where alone he could learn anything of military medical work, and permission was granted him last year only on condition of paying his own expenses. That condition, we are glad to say, has just been removed. Dr. Mears, in his excellent lectures, fully points out the anomalous and indifferent state of the present Volunteer Regimental Medical Service, of which he is himself an active and enthusiastic member, and he makes some valuable and practical suggestions for its reform, which should have more than a local effect. We are pleased to see that he believes that the present unsatisfactory state of things is due to want of knowledge of medical requirements on the part of combatant officers, and not to want of good-will. In this view we entirely concur with Dr. Mears, and that much good might be done if the subject could be similarly brought forward in other Volunteer centres.

INDICATIONS FOR THE USE OF NITRO-GLYCERINE.

DR. TRUSSEWITSCH, in an instructive paper on the use of nitro-glycerine published in the *St. Petersburger Medicinische Wochenschrift*, points out that the value of this drug in various affections—angina pectoris, migraine, and neuralgia (which he describes as angioneuroses), as also in sea-sickness, some forms of anæmia, faintness, palpitation, and other diseases—depends upon the existence of an irregular distribution of blood, which condition may be inferred from a certain degree of pallor of the skin, especially of the face, often coexistent with a weak pulse and a small rigid radial artery, which frequently is situated at some depth. When, on the other hand, headache and neuralgia occur in patients with chronic congestion of the subcutaneous veins of the face, nitro-glycerine is to be avoided; and similarly it is of no use in asthma, when the face is reddened in consequence of emphysema. If, however, a pale face exists with angina pectoris, migraine, giddiness, shock, toothache, or sea-sickness, the best results may be looked for by giving nitro-glycerine. The regulating effect of the drug exercises an influence over the congestion of internal organs similar to that brought about by bloodletting; and in these congestions, whether of lung, brain, or kidney, when they are of a temporary character, the pulse is generally found to be slow and of low tension—a fact which, as the author remarks, is sufficiently well known in reference to the fever-free periods of acute

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hyperæmia of the lung and kidney. Dr. Trussewitsch lays down as a rule that the condition of the pulse is the best indication for the employment of nitro-glycerine, and the most trustworthy guide as to the dose with which to commence the treatment. The smaller the radial artery is, the more rapidly it dilates under the action of the drug, and the less the secondary effects proceed; on the other hand, the fuller the pulse with a distended radial artery, the less it is affected; and finally, the softer the artery, with a weak pulse, the greater the secondary, and the less the general, effects. Single-drop doses of the 1 per cent. solution are sufficient in cases of small pulse, but with a full pulse it will be found that the full effects cannot be produced with less than two-drop doses. When there is a soft artery with a weak pulse, subnormal doses only should be given—a quarter to half a drop. After the trial dose is given, the patient's sensations of pulsation and pain in the head, as well as the distension of the radial artery under the finger of the physician, will be the guides for increasing the dose. The author finds that the best modes of administering nitro-glycerine are the simple dropping of the solution on the tongue, and by means of tablets; much less satisfactory results were obtained when given mixed with water.

THE BIRKENHEAD AMPUTATION CASE.

On Jan. 28th an inquest was held at Birkenhead by Mr. Churton, coroner, touching the death of Mary Murray, fifty-four years of age. The facts of the case were very simple. The deceased was subject to fits. On Jan. 5th she was found lying on the floor, with a shawl which she had round her neck on fire. Whilst she was an in-patient at the Borough Hospital gangrene of the foot and leg set in. The mortification spread so rapidly that it became necessary, in order to save the woman's life, to amputate the limb without delay. A messenger was sent to the husband to seek his consent to the operation, but on its being found that an answer could not be obtained for three hours, the staff of the hospital decided not to wait but to amputate at once. This was accordingly done. At the inquest the husband of deceased complained that he received no intimation that an operation would have to be performed, and one of the jurors considered "that great laxity existed on the part of the doctors in not consulting the deceased's relatives with regard to the operation to be performed." It might possibly be contended that legally an assault had been committed upon the deceased in that her leg had been amputated without the husband's consent; but such a charge would fall to the ground inasmuch as the woman was taken to the hospital to be treated for her injuries, and that, too, without any limitation or definition of the kind and extent of such treatment. Had it not been for the burns we doubt if the gangrene would have set in; and as, therefore, on this assumption the burns constituted the *causa causans* of the death, we maintain that the authorities were within their rights in doing whatever they deemed necessary to relieve suffering and to save life. Yet there is a general understanding that where any serious operation, as one perilous to life or involving mutilation of the body, becomes necessary or advisable, the immediate relatives of the patient shall, if possible, be made aware of its intended performance. Now, considering the extremely rapid course of the gangrene in this case, we are of opinion that had the Birkenhead surgeons waited for three hours they would have been guilty of dereliction of duty; for their first duty was to ward off impending death, and how could they be said to be doing so if they allowed the disease to progress for hours merely because they had not obtained the husband's sanction for amputation to be performed? It is just to suppose that so serious an operation was not anticipated by the magnate in charge, or he would have got provisional permission for its performance. In a still more recent case within our knowledge the husband refused to allow the gangrenous limb of his wife to be removed. Such refusal, we imagine, would make one answerable for being a party to acceleration of the death, in the same way that the "Peculiar People" are amenable to the law for neglecting to call in medical aid where it is by professional and common consent avowedly necessary. The coroner complained of the house-surgeon not giving notice of the death, but the latter gentleman replied that, believing death to have been due to natural causes, he did not think such notice necessary. We cannot help thinking, however, that where any kind of violence has been sustained shortly before death, it is well to give the coroner an opportunity of holding an inquisition if he deems it advisable, even if the medical man who attended deceased believes that the injury had nothing to do with causing the death. Where a patient, fifty-four years of age, sustains burns and is subsequently attacked by gangrene of the leg, it may be very difficult to say with certainty that the gangrene arose independently of the burns.

CATHETERISM OF THE AIR PASSAGES.

THE introduction of a catheter into the larger air passages, for the purpose of local medication or mechanical dilatation, or to obviate recourse to tracheotomy, has been much facilitated since the introduction of cocaine into laryngeal surgery. A paper recently read before the Medical Society of the Charité Hospital at Berlin by Dr. Landgraf, clinical assistant (*Berl. Klin. Woch.*, 1887, No. 5.), illustrates the ease with which the procedure is effected. He described a case presenting symptoms of stenosis of the left bronchus; the symptoms, which had gradually increased in severity, dating over two years. When admitted into the hospital last July, the patient was liable to dyspnœal attacks; and physical examination led to the above diagnosis. The constriction was at first thought to be due to compression, a view which was borne out by the presence of a small area of dulness over the manubrium sterni and to its right. There was no evidence that this was due to a tumour arising in the bronchial glands. The long duration of symptoms negatived the existence of a malignant tumour, and the absence of bacilli in the sputum set aside the notion of tubercular disease. Aortic aneurysm was more probable; but this diagnosis lacked confirmation, the only positive sign being the area of dulness. It was therefore thought to lie between syphilitic stricture (the patient had contracted syphilis twelve years previously) and aneurysm; and, since the former gave a more hopeful prognosis, the patient was placed under anti-syphilitic treatment. But the dyspnœal attacks increased in frequency, and measurement of the chest showed a diminishing capacity of the lungs. Further, an examination made at the beginning of October revealed what was thought to be a membrane deep down in the trachea. This appearance supporting the endo-bronchial character of the stenosis, it was resolved to resort to catheterism. The larynx was anæsthetised by a 20 per cent. solution of cocaine, and a 10 per cent. solution was injected into the trachea. The catheter was easily passed to a distance of 28·5 centimetres from the teeth (found subsequently to correspond to the tracheal bifurcation) without meeting any constriction. The catheterism was repeated at intervals, and on several occasions to a depth of 35 centimetres, with a view to traverse the left bronchus. The measure produced so much relief that at the end of the month the patient was well enough to leave the hospital. Unfortunately the diagnosis of stricture, which had been apparently confirmed by the relief of the symptoms, proved incorrect; for in a few weeks he returned, having had a severe asphyxial seizure, and shortly after died. The

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cause of the stenosis proved to be—what is by far the most common cause of such a condition—an aneurysm of the aorta, which compressed the left bronchus. The condition which was mistaken during life for a membrane was an anæmic part of the right wall of the trachea. Although during life some irregularities in the mobility of the vocal cords were observed—on one occasion the right cord moving less on respiration and phonation, and on another the left cord appearing immobile in middle line,—yet the dyspnœal attacks could not be referred to involvment of the vagus. They must have been due to the compression of the bronchus, for they disappeared directly the narrowing produced by that compression was mechanically relieved. Dr. Landgraf fully recognised the danger of resorting to such mechanical dilatation in aneurysmal cases, and he would hesitate to catheterise in any case in which aneurysm could be suspected. Nor is it quite easy to account for the great relief temporarily afforded by the measure in this case. The valuable point learnt from it is the ease with which the air passages can be catheterised with the aid of cocaine, thus affording means to relieve strictures, as well as to apply remedies locally to ulcerated surfaces on the respiratory tract.

"VENT—NOT VENTILATION."

IT is encouraging to find that the particular, if not peculiar, views of the sewer-air and drain-ventilation question, which have for many years past been put forth in these columns, are at length becoming popular—at least, so far popular that a leading sanitarian is pleased to adopt and enforce them. In his lecture on "The Laws of Nature in relation to Health," recently delivered before the Hertfordshire Natural History Society, Professor Attfield, F.R.S., denounces the absurdity of ventilating at a low level close drains, and shows clearly enough what ought to be evident to every common-sense observer—namely, that (1) directly in proportion as we make "openings" at a low level for the escape of air from sewers do we return to the open ditch system; and (2) that there is really no need for the ventilation of drains—it is only a vent to avoid back-pressure in the drain that is required. These two propositions should not need even to be formally stated. It goes without saying that to make in any pipe which is designed to carry away a noxious material such an opening as will admit of the escape of its contents, whether solid, fluid, or gaseous, must needs be to destroy its character as an apparatus for the removal of offensive matter. As well put an air-tube in the cover of a close-stool as ventilate a drain. Who first evolved the absurd notion that drains should, or *could with impunity*, be ventilated by openings at a low level we do not know. That there must be some sort of safety-valve for the escape of small quantities of air or gas when over-pressure occurs from back-flow or the sudden influx of storm-water cannot be doubted. If no such provision were made, the foul gas in the sewers must be forced back through the water-traps into our houses. The obvious mode of supplying the air-vents necessary is to erect pipes at suitable points reaching to high levels, and there affording a way of escape for air or gas in the drain at a safe distance from windows and chimneys. The notion of ventilating drains for the sake of ventilating them is so absurd that it can be compared to nothing but a special provision for the dissemination of pestilent gases and vapours in the atmosphere, and only the most perverse ingenuity could be supposed to intentionally and consciously propose the construction of openings into drains on the level of streets, and in the proximity of houses and thoroughfares. Professor Attfield's perspicuous and attractive mode of presenting the facts in his recent lecture is much to be commended, and we gladly welcome him as an advocate in a cause in which we are much interested.

AN OBJECTIONABLE "PLEBISCITE."

IT is greatly to be regretted that an enterprising contemporary could not, in the fertile ingenuity of its resources, discover some less objectionable subject for a prize than that which it recently proposed as a "timely plébiscite to its readers"—namely, the mention of names under the following extraordinary headings: (1) "The best doctor of all," (2) "the best ladies' doctor," (3) "the best surgeon," (4) "the best dentist," (5) "the best-managed hospital," (6) "the best watering-place for convalescence," and (7) "the best nursing establishment." "The usual prizes of £2 and £1 will be given to the two competitors whose coupons agree most nearly with the opinion of the majority." A plébiscite such as this can but be most repulsive to the feelings of the medical body as a whole, as well as of those selected. It is a grievous annoyance that practitioners should be subjected to freaks like this. The vagary to which we now direct attention is probably without its equal. "The winter," says the evening paper referred to, "is the doctor's harvest time ..... During the bitter winter months few of us escape the doctor's clutches, and there are few households in the metropolis to which he is not called." Upon this ground the plébiscite is regarded as "timely." Whether our contemporary thinks the "bitter winter months" are past and this is the time to return thanks for the blessing of a good doctor, or if he looks forward with dread to a wintry March and April, so that the opinions he proposes to elicit are likely to be presently applicable, we do not know; but it matters little to our immediate concern whether the gratitude which is to find this strange expression be for favours past or to come. Under any conditions, the scheme is a bad and offensive one, and we can only regret the adoption of a device so obviously objectionable.

THE GERMAN MEDICAL CONGRESS.

THE sixth annual German Medical Congress is announced to be held at Wiesbaden from the 13th to the 16th of April, under the presidency of Prof. Leyden, of Berlin. The following are subjects already notified: The Treatment of Phthisis, to be opened by Dr. Dettweiler (Falkenstein) and Dr. Penzoldt (Erlangen); Localisation in Cerebral Disease, by Professor Nothnagel (Vienna) and Dr. Naunyn (Königsberg); the Pathology and Treatment of Whooping-cough, by Dr. Vogel (Munich) and Dr. Hagenbach (Basle). Besides the foregoing set discussions, papers are promised on Pernicious Anæmia, by Dr. Lichtheim (Berne); on the Pathological Anatomy of Tabes Dorsalis, by Professor Rindfleisch (Wurzburg); on Experimental Epilepsy, by Dr. Unverricht (Jena); on the Physiological Import of Migrating Leucocytes from the Tonsils and Lingual Glands, and on Chyluria, by Dr. Rossbach (Jena), who will also describe a chair he has devised for aiding respiration (*Athmungsstuhl*) in cases of emphysema and asthma. The secretary of the Congress is Dr. Emil Pfeiffer, of Wiesbaden.

ON THE ETIOLOGY OF THE UTERINE SOUFFLE.

WEHMER contributes to the *Centralbl. f. Gyn.*, March 13th, 1886, an interesting case in which the seat of origin of the ordinary form of uterine souffle could be clearly and experimentally demonstrated. A. Z——, multipara, pregnant nine months; abdomen very pendulous. The recti muscles were so widely separated as to leave below the umbilicus an interval of twenty centimetres (eight inches) between one another. In this interval the abdominal walls were extremely thin and translucent, so much so that through them a large pulsating bloodvessel could be seen on the left side running in the uterine wall and followed for a distance of ten centimetres (four inches). On auscultating this vessel, a distinct

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whizzing bruit was audible synchronous with the maternal pulse, and the movements of the arterial wall could be readily felt with the finger. Pressure with the stethoscope or the finger completely silenced the bruit. Anæsthesia also brought it to a standstill, owing probably to the coexisting fall of intra-abdominal pressure; the bruit returned when the woman regained consciousness. During the labour-pains the note of the souffle reached a higher pitch and became musical. After delivery it continued audible for two days with diminishing distinctness. Wehmer believes this to be the first case in which the seat of origin and the various circumstances affecting the souffle have been so capable of demonstration, and here they were so owing to the existence of an unusually large branch of the uterine artery.

INFANT MORTALITY AT WORKINGTON.

THE *Times* comments on the "remarkable report" of the medical officer of health of Workington, in Cumberland, and quotes the comments it contains on the extraordinary infantile death-rate, which is stated to have amounted in 1886 to 136·2 children under one year of age per 1000 registered births. This mortality is regarded by Mr. Lowe as due to a series of causes, and notably to tea-drinking, patent medicines of a "soothing" type, and to the neglect of children whilst their mothers are engaged at meetings of the Salvation and the Church Armies. The statements which the report contains as to scarlet fever, and the threat of resignation which Mr. Lowe commits himself to because he will not be a party to "wilful murder" if his advice as to school-closing should be disregarded, probably have reference to a fatality amongst children at the school age and not to young infants. The School Board, he alleges, "prefer to save money at the expense of human life," a statement which we assume, relates to the frequently experienced desire of School Boards to look with disfavour on anything which lessens the school attendance, and so interferes with the Government grant. But as to children under one year of age, we think Mr. Lowe bases his scathing condemnation of Workington on insufficient data, for at Workington the infantile death-rate under one year—that is, 136 per 1000—fell short of that for England and Wales during the same period, and indeed during any recent period. For the whole country the corresponding rate was 150 in 1886, 147 during 1885, and 149 for the ten years 1871-80. Whilst we have no wish to detract from efforts to reduce the deaths amongst infants in Workington, we feel bound to point out that the rate there experienced is by no means extraordinary. If Mr. Lowe had turned his attention to the 178 per 1000 rate in the twenty-seven provincial towns quoted by the Registrar-General, or to the 200 to 250 rate in some selected towns, we could have better understood the terms of his report.

BORACIC ACID AS A PRESERVATIVE OF FISH.

THE preservation of fish, and especially herrings, by boracic acid is a matter of considerable economic importance, and one which cannot fail to have an interest from a medical and hygienic point of view. The subject naturally divides itself into two distinct departments—the influence of the preserving agent on the fish, and the effect of fish so preserved on the human economy. As often happens in questions of the kind, accurate scientific data are not available for the discussion; so that we have to trust to *a priori* reasoning and to common sense. That boracic acid cannot improve the quality of the tissues of the herring as a food goes without saying, and we have the actual evidence of the senses to prove that its savour and appetising qualities are deteriorated by this method of preservation. That the acid used efficiently and in sufficient quantities will prevent septic decomposition may be granted, but this is hardly all that is required of a preservative of fish. From long experience we have learnt that preservation by common salt and by wood smoking is not deleterious, but we have yet to learn whether fish can with impunity be kept in boracic acid for a long period of time. However, in the absence of accurate experimental data, it is impossible to assert positively that minute doses of boracic acid can prove deleterious to the healthy action of any or all of the organs of the body, though the inference may fairly be drawn that the use of the drug can neither be truly preservative of all the qualities of fresh fish nor altogether innocuous to the physical welfare of man.

SCIENTIFIC TERMS.

IT has sometimes been questioned whether the use of Latin or Latinised Greek as the language of scientific nomenclature is not open to the accusation of pedantry. Some would prefer a system like the German, which to a large extent employs, besides the usual classical expressions, a set of names belonging to the native tongue. This plan has no doubt some value with a view to popular instruction; apart from this consideration it is needless and cumbersome. On the other hand, the revival of the dead languages for the same purpose has distinct advantages. Possessing a vocabulary copious, definite, and familiar to educated persons, they afford to all such the easiest means of arriving at a common understanding as to scientific facts. It cannot be denied, however, that the wish for precision does sometimes lead to wordiness. Natural history, botany, medicine even, but above all organic chemistry, can show instances in which a term has so excelled in lengthy conciseness of learned description that its fitness for general use is absolutely gone. Such terms in combination would almost constitute a new language in themselves. It is needless to say that their proper place is in purely technical records. Thus placed, they actually assist the expressions and understanding of the erudite. They have no convenient place in every-day life, and we find accordingly that as soon as they have to travel beyond the precincts of the laboratory they are superseded by terms which, if less fully descriptive, convey some definite idea in a simpler form.

THE MOSCOW MEDICAL CONGRESS.

THE second congress of Russian practitioners has just been held in Moscow (the first having taken place at St. Petersburg last year), and seems to have been a great success, the great hall of the University being crowded at the two general meetings by hundreds of medical men from all parts of Russia. It had been previously announced that the sections to which most prominence would be given would be those of Public Medicine, Pharmacology, Balneology, and Electro-therapeutics, and the Pharmacy and Pharmacognosis of Ophthalmic and Children's Diseases. General subjects were, however, by no means excluded, many burning questions connected with both medical science and medical politics being discussed. At the final general gathering, Professor V. V. Pashutin congratulated his audience on the increased number of members whom this congress had succeeded in attracting, there being no less than 1300, whereas last year there were only about 500. The number of papers, too, was double that which was communicated to the St. Petersburg meeting, being 200 against 100 last year. Remarking on the general interest of these papers, he mentioned as particularly valuable those on the treatment of phthisis, the various operations for stone, Cæsarean section and abdominal section, Pasteur's inoculations, the need of raising the level of pharmacists' education, the possibility of admitting properly educated women to

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the examination for dispensers, over-pressure in schools, the want of revision of medical legislation, the definition of the position of medical experts in legal practice, &c.

MORTALITY IN PUBLIC LYING-IN HOSPITALS OF GERMANY.

DOHRN, in *Zeitsch f. Geb. und Gyn.*, p. 121, 1886, draws attention to the great diminution in the mortality of lying-in women which has taken place in the above-mentioned establishments since the introduction of antiseptics. He selected the period of 1874-83, since in 1874 antiseptics were scarcely used anywhere, while in 1883 they had become very general. The total number of cases of labour was 104,287, and 1429 women, or 1·37 per cent., died. The vast improvement indicated by this percentage will be clear on comparison with the statistics of previous years. Thus, in 1866, Lefort found the average mortality in the lying-in hospitals to be 3·4 per cent., while Winckel in 1869 calculated the mortality on 500,000 births to be 3 per cent. Even this great improvement, however, in lying-in institutions leaves their mortality far behind that of women attended in private practice; in the latter the percentage of deaths is only ·6 to ·7 per cent. Various influences contribute in bringing about this result: 1. The large proportion of primiparæ in public lying-in hospitals, puerperal fever being, as is well known, unusually common after a first confinement. 2. The clinical instruction given in public hospitals, which is invariably accompanied by special dangers in spite of every precaution. 3. The numerous complicated cases that are sent to such establishments. 4. The fact that many women are admitted who have been examined and exposed to septic infection before admission. Dohrn further investigated the question as to how the mortality was affected by the clinical use made of various lying-in hospitals, and he found that the mortality in those in which no instruction was given was ·56 per cent.; in those where midwives were trained, 1·13 per cent.; in those where midwives and students were trained, 1·42 per cent.; in those where students were trained, 1·90 per cent. This shows, as Semmelweiss pointed out long ago, that students, who are much in contact with septic matters, are a great source of danger to lying-in women, even more so than midwives. Dohrn is of opinion that the recent decreased mortality in public maternities is solely due to the introduction of antiseptics, and that the mortality will be low in proportion to the conscientiousness with which the antiseptic system is carried out.

TREATMENT OF HÆMATOMA OF THE EAR.

DR. A. LEBRUN, in a clinical lecture published in the new Brussels journal, *La Clinique*, says that after having tried various plans for the treatment of hæmatomas of the ear, including free opening as well as Follin's method of making a number of punctures, and having found them all very unsatisfactory, he has latterly injected iodoformed ether with complete success. For this two needles are inserted into the tumour at opposite points; through the larger one, No. 3 of Dieulafoy's aspirator, the contents are drawn off, the puncture being closed by means of iodoformed collodion. Then through the remaining needle, which is that of an ordinary hypodermic syringe, from fifteen to sixty minims of a solution of iodoform in ether, of a strength varying from 2 to 10 per cent., is introduced into the cavity of the tumour. This injection causes some pain, which, however, soon passes off. No dressing is required, and a complete cure results. In one case M. Lebrun twice injected a saturated solution of iodoform in ether without evacuating the contents of the tumour. This occasioned severe and prolonged pain, an eschar of the size of a half-franc piece formed, and although this healed, the process required more than three weeks. The comparatively unsatisfactory result in this case is considered by M. Lebrun to have been due to the escape of a large part of the first injection, and to over-distension of the tumour.

ANIMAL LYMPH.

A PARAGRAPH which emanates from the Central Press has appeared in many newspapers, to the effect that the Local Government Board have issued, or are about to issue, a circular letter enjoining precautions to be taken with regard to vaccination, and recommending a more general use of calf lymph. We disbelieve the latter part of this story. The Local Government Board have recently published the report of their medical officer, Dr. Buchanan, in which he states that as Dr. Cory "has previously established an identity between calf lymph and humanised lymph in the degree of their 'insertion success' when both are used in a fresh condition, so now he shows (at all events for English practice) that there is much less difference than at one time was believed to exist between the two kinds of lymph, in respect of the degree of success obtainable from them after keeping during ordinary periods of time." Thus, calf lymph may be relied upon to produce results similar to those of humanised lymph, but it would be disastrous if the use of stored calf lymph were to replace direct arm-to-arm vaccination. The reports of the Local Government Board have amply shown that direct vaccination arm-to-arm or calf-to-arm should be performed wherever this is possible, and if direct vaccination is replaced by the use of stored lymph, as would be the case if calf lymph were "generally" used, the protection of the population against small-pox would be greatly diminished, for the results obtained by the latter process would give an insertion success of some 20 or 30 per cent. less than direct vaccination.

THE JUBILEE YEAR AND THE HOSPITAL SATURDAY FUND.

A DAILY contemporary reports a public meeting in Bethnal-green to promote the collecting of voluntary contributions in aid of the metropolitan hospitals, dispensaries, and convalescent homes. The collection is to be by boxes in all conceivable places, to be spread over fifty days, and is to take the place of the annual demonstration and collection of the East-end of London in aid of the Hospital Saturday Fund. Two-thirds of the sum raised are to be given to the Hospital Saturday Fund, and the remaining third to the Working Men's Morley Convalescent Home near Dover. This is a Jubilee movement, but is scarcely to be distinguished from the ordinary Hospital Saturday methods. We repeat what we said last week and often before, that systematic weekly payments by the working classes should be organised by the Hospital Saturday Fund.

UNQUALIFIED ASSISTANTS.

ON the subject of unqualified assistants we continue to receive communications, urging two very sharply different views. According to one set of writers, unqualified assistants are an unmitigated evil and almost an imposition on the public. According to another, they are an old institution to be retained, if not defended. We have not further space for this controversy. The general conclusion in our mind is that the day of unqualified assistants is wellnigh over. A few old members of the class are to be pitied, and some of them are even to be respected for their abilities and character. Such men will still find employment—perhaps should find employment under the immediate eye of good practitioners. But their prospects and position will be increasingly unsatisfactory. Public opinion demands that

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all men who practise medicine should be qualified, and the profession feels that it is injured by the competition of unqualified assistants. All young men who are shirking their examinations and threatening to drift into the position of unqualified assistants should take warning in time. If they cannot see their way clear to gain medical qualifications, they should abandon all thoughts of medical assistantship and take to other callings.

NEURASTHENIA — NOT HYSTERIA.

MR. HOVELL returns with unabated ardour in a pamphlet before us, published by Churchill, to his favourite occupation, that of defining the conditions of neurasthenia, and combating the theory that it is represented in the term hysteria, which he would like to see abolished from medical language. He has no patience with material views of the causation of such states, whether tending to locate the material injury in the nervous or the uterine system. He complains that the effect of shock, especially moral shock, has been much overlooked in this connexion, and would have us regard neurasthenia as essentially a psychological condition in which no lesion can be detected. He claims for such patients more patience and sympathy than he thinks they receive under the old theories of their disease. He admits the cures wrought by Dr. Weir Mitchell and Dr. Playfair, though he thinks the cases of the latter physician savour more of coercion than is desirable, considering that he is dealing with patients of the feminine gender. His guiding principles of treatment are to remove all causes of irritation and to build up the strength. The one point on which all seem agreed nowadays is the existence of a veritable weakness in such cases. This should be considered and treated. It is equally undeniable that some degree of firmness in the physician is beneficial, though this should never be allowed to exceed proper limits. A third point is that the uterus has no such special culpability in these cases as has been assumed, and that the use of the term "hysteria" as involving an exploded notion should be discontinued. Possibly finer researches in pathology than have yet been realised, or are even now practicable, may show positive physical lesions in many of these cases.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE following deaths are announced:—M. Bechard, Professor of Physiology and Dean of the Faculty of Medicine of Paris; he was also permanent secretary of the Academy of Medicine. Dr. Jos. Zit, *Privat-docent* of Children's Diseases in the Bohemian Faculty of Prague. Dr. F. von Jäger, former Chief of the Medical Senate, aged seventy-three. Dr. F. Sutkovski, Professor of Surgery in Kazan. Dr. Miltiader Weligelos, Professor of Midwifery at the University of Athens.

DAMP BEDS.

A CORRESPONDENT, "Traveller," in despair of finding any means which will prevent the use of damp beds, asks us to name an antidote which will protect the sleeper so unfortunate as to occupy one. A reply in the terms he suggests is for us, we fear, impossible. His question will be better answered if we follow the guidance of common sense than by an appeal to any purely professional dictum. In so far we differ from our correspondent, that we still believe in the preventive power of care on the part of travellers and hotelkeepers. Without this, indeed, no other remedy can have much efficacy. Neglect in this particular has been followed by the most serious consequences, and there is no detail in hotel management which more deserves the attention of the directing authority, or which, if its due execution were assured, would better repay the pains expended on it. The dampness of beds is usually in their sheets. Blankets and mattresses are not changed with every occupant, and are therefore less liable to this defect. Whenever, therefore, a traveller has reason to doubt if his bed has been duly aired, he should insist that the sheets be thoroughly warmed forthwith by hot bottles or some other mode of applying dry heat.

HERPES ASSOCIATED WITH LOCOMOTOR ATAXY.

IT is stated in *O Correio Medico*, of Lisbon, that there is now in the wards of the hospital of St. Sebastian of that city a patient suffering from locomotor ataxy, who in addition to joint affections as described by Charcot, and loosening of the teeth while quite sound, has developed herpes zoster, extending from the cervical to the lumbar region, the eruption spreading outwards in the directions of the intercostal spaces, and being accompanied by severe neuralgia and hyperæsthesia of the skin over all the region affected. A few previous cases of herpes associated with locomotor ataxy have been mentioned by Fournier, Charcot, and Buzzard, and by Portalier in his thesis (Paris, 1884). In all these, however, the herpes seems to have been developed in the pre-ataxic period. Similarly as to the falling out of the teeth which is also rare, Fournier only mentions one instance, and in this it occurred before the manifestation of ataxic symptoms. *O Correio Medico* refers to a thesis by Dr. H. Bonnieux (Paris, 1883) on this subject.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

AT the last meeting of the Society a resolution was adopted expressing approval of a scheme for amalgamation with the provincial Societies of Health Officers, as proposed by the President, Dr. Alfred Hill. A committee consisting of the president, ex-president, the treasurer, and the two honorary secretaries, was appointed to consider the details. The Council is about to report to the Society on the amendments which experience has shown to be necessary in the Public Health Act, 1875. Health officers who have found the Acts faulty in any particular should communicate at once with Dr. C. E. Saunders. This duty, it should be observed, is being undertaken by the Society of Medical Officers of Health, and not by the Epidemiological Society, as inadvertently stated in last week's issue.

BRIGADE-SURGEONS IN INDIA.

WE understand that the case of the Brigade Surgeons in India will shortly be brought before Parliament by Colonel Hughes-Hallett. We have repeatedly noticed the injustice done to officers of this grade by the denial to them of the advantages of pay and allowances which ought to attach to the rank. We trust that their claims may be so strongly pressed home upon the Government as to lead to an early redress of their grievances. Copies of the statement of these claims may be obtained by any person interested in the subject on application to Messrs. Holt, Lawrie, and Co., the Army Agents, in Whitehall-place.

THE CONTAGIOUS DISEASES ACTS.

THE Woolwich Board of Guardians was specially summoned last week to consider a letter received from the Portsea Island Union with respect to the spread of contagious disease since the suspension of the Contagious Diseases Acts, asking the Woolwich Board to appoint a deputation to co-operate with them in waiting upon the Local Government Board with a view to restoring the operation of the Acts. The chairman (the Rev. S. G. Scott, Rector of Woolwich) read a letter from the principal medical officer of the Woolwich district, in answer to a request for information which he had addressed to him. This letter gave ample evidence of the

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lamentable results of the suspension of the Acts. The Board then questioned the relieving officers of the union, and they all, with a single exception, bore testimony of a similar character, as did likewise Mr. Boulter, the medical superintendent of the infirmary. One of the guardians, a local chemist, said that his "business experience" since the suspension of the Acts had furnished him with such overpowering evidence of the resulting evils, that he was now as strong an advocate for the restoration of the Acts as he had formerly been for their repeal. The Board unanimously resolved to give the co-operation asked for by the Portsea Island guardians.

HONOURS TO MEDICAL MEN.

THE Queen has been pleased to make the following, among other appointments, to the Most Eminent Order of the Indian Empire:—Sir George Christopher Molesworth Birdwood, M.D., C.S.I., Special Assistant in the Statistics and Commerce Department of the India Office, and Surgeon-General Benjamin Simpson, M.D., Sanitary Commissioner and Surgeon-General with the Government of India, to be Knights Commanders; and Thomas Beatson Christie, Esq., M.D., Medical Superintendent of the East India Asylum at Ealing, to be a Companion of the said Order. The Queen has also been graciously pleased to give directions for the following appointment to the Most Distinguished Order of St. Michael and St. George:—Surgeon Charles William Owen, C.I.E., to be an Ordinary Member of the Third Class, or Companion of the said Most Distinguished Order for services rendered on the Afghan frontier.

EXCISION OF CHANCRES.

DR. ANDRONICO claims to have entirely eradicated the syphilitic virus in four cases by excising the primary chancre. He believes that if the sore is situated in a locality such as the nymphæ or the prepuce, where excision is possible, and if the operation is performed within forty-eight hours, or at the very latest three days, from the first appearance of the chancre, success may be hoped for. The operation is, he says, contra-indicated if a longer time than this has elapsed or if the glands are enlarged.

RESPITE OF THE CONVICT THOMAS THOMPSON.

WE are glad to find that the representations we made as to the doubtful sanity of Thomas Thompson, sentenced to death at Durham for the murder of his child, have been so far confirmed by the experts to whom the question was referred that the Home Secretary has felt warranted in advising Her Majesty to respite the prisoner.

FOREIGN UNIVERSITY INTELLIGENCE.

Breslau.—The students have arranged a public presentation of thanks to Prof. Fritsch for declining an invitation to the chair of Midwifery at Leipsig.

Cracow.—Dr. Mikulicz, Professor of Surgery, who received recently an invitation to Konigsberg, at first accepted it, but subsequently withdrew his acceptance, preferring to remain in Cracow.

Dutch Universities.—The total number of medical students during the present session is 1254, Amsterdam having 462, Leyden 346, Utrecht 247, and Groningen 198.

Giessen.—Dr. H. Steinbrügge has been nominated Extraordinary Professor of Otology.

Halle.—The 14th inst. being Professor Krukenberger's 100th birthday, a grand assembly of his old pupils was held in his honour.

Italian Universities.—The total number of medical students at present is 5195. Of these, 2073 belong to Naples.

Nancy.—M. Spillmann has been selected for the chair of Clinical Medicine, and M. Alphonse Herrgott for that of Clinical Surgery.

Paris.—M. Guignard, Professor of Botany in Lyons has been appointed to replace M. Chatin in the École Supérieure de Pharmacie.

SIR HENRY THOMPSON has requested us to call attention to the unauthorised use of his name in widely circulated advertisements respecting Friedrichshall Water. He feels aggrieved, first, because he invariably refuses the use of his name to all applicants for recommendations in any form; and, secondly, because in this case he does not hold the opinion attributed to him. Nearly twenty years ago he named with approval, in a lecture at University College, the water in question—a period at which not more than two or three natural aperient waters were used in this country. Since that time several others have been imported, and he no longer endorses the original statement. The advertisers disregard this fact. There is never any clue to them in the announcements, or he would have sent an earnest protest against the practice. He has no other resource than to make one in public, and this we willingly afford him an opportunity of doing.

La Province Médicale (Lyons), referring to an American paper which had expressed an opinion that practitioners in France are less handicapped by public charities than in England or America, remarks that if the author fancies that French medical men are less put upon (*exploités*) than their American *confrères* he is quite mistaken. It is true that there are fewer dispensaries, but the multiplication of specialists and the opening of departments for patients to be visited at home fully make up for their absence. Then too, there are the mutual aid societies, whose system is to obtain advice, not gratis, but for very little.

ON Monday last the examinations for admission into the Army, Navy, and Indian Medical Services were commenced at the London University. Seventy-three candidates presented themselves for twenty-five commissions in the army, the same number for twenty-eight in the Indian service, and twenty-five for eight in the navy.

IT has been determined that the testimonial subscribed by past and present King's College students on the occasion of Dr. George Johnson's resignation of the Chair of Clinical Medicine shall take the form of a portrait, and Mr. Frank Holl, R.A., has accepted the commission.

IN our announcement in our last issue respecting the forthcoming meeting on behalf of the Hospital Sunday Fund on June 14th, it was stated inadvertently that the meeting would be held in the Guildhall instead of at the Mansion House.

THE Sanitary Registration of Buildings Bill to be introduced by Mr. C. C. Lacaita, M.P., will, we understand, be backed by Dr. Farquharson, M.P., Sir W. Guyer Hunter, M.D., M.P., and Dr. Cameron, M.P.

THE Queen has intimated her intention to become a patron of the National Hospital for the Paralysed and Epileptic (Albany Memorial), Queen-square.

THE 150th anniversary of the founding of the University of Gottingen is to be celebrated next year.

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Pharmacology and Therapeutics.

ERGOTINE IN INTERMITTENT FEVER.

DR. S. L. SAVITSKI, writing in the *Vrach* on the value of ergotine in the treatment of intermittent fever, remarks that the drug has been used with success in the treatment of many affections—e.g., by Vidal in prolapsus recti, by Hunt and Pepper in diabetes, by Saunders, Murrell, and Noakes in diabetes insipidus, by Allan for the cough in some lung affections, by Granzio in obstinate constipation, by Gauldmel in the night sweats of phthisis, by de Martini in spermatorrhœa, by Demange in some forms of typhoid fever, and by Girma in general paralysis. It has been also employed in chorea and in dysentery. The theory of its action in these diseases he does not pretend to expound, but he calls attention to the similarity of the action of quinine and ergotine. Both, he says, undoubtedly cause contraction of the uterus and the spleen, the effect of quinine on the uterus having been scientifically worked out in a dissertation published by T. T. Smolski in 1876, and that of ergotine on the spleen having been shown by Dobodchiki (*Vrach*, 1880) and by Semchenko (*Vrach*, 1883). This similarity led him to think that one of these drugs might serve as a substitute for the other, and he therefore made a large number of observations on the effect of ergotine upon the cases of intermittent fever occurring in the Lubinski regiment with excellent results, especially where an enlarged and tender spleen was present. He finds that a combination of ergotine with quinine acts very satisfactorily, and that in this way considerable quantities of quinine can be saved, as half the dose of quinine which would be required if given alone will suffice if combined with ergotine. The preparation of ergotine used was Bonjean's, the dose in chronic cases being about a grain three times a day.

SPARTEIN.

Dr. Gluziniski, in a preliminary note published in the *Przeglad Lekarski*, gives the results of some observations, both physiological and clinical, on the action of sulphate of spartein. Its main action is to slow the heart; besides this, it raises the blood-pressure. On cold-blooded animals it acts with a greater degree of intensity than on mammalia. The action on mammalia may be divided into three periods or stages, during the first and last of which the effects are more marked than during the second. Indeed, in some cases the heart is even quickened during the second period. This may be explained by the existence of some abnormality or pathological change in the irritability of the vagus or of the heart muscle. The reflexes are at first increased, afterwards diminished. Death occurs from asphyxia, and is due not only to the effect on the medulla, but to that experienced by the respiratory muscles. The therapeutic use of spartein is limited to the first stage of its action. Its value consists in the rapidity with which it acts. In some cases, within an hour after the first dose the pulse begins to improve, as well as the subjective sensations of the patient, and no irregularity is produced. Spartein has not so powerful an action as digitalis. It may, however, be useful in cases where the condition of the patient renders it unadvisable to wait for the more tardy effect of digitalis, and it may therefore be used as an adjunct to the latter drug, besides which it may be prescribed where circumstances exist which contra-indicate the use of digitalis.

EUCALYPTOL IN PHTHISIS.

Bouveret has employed hypodermic injections of eucalyptol in the treatment of phthisis. The daily dose of the antiseptic has varied from one gramme and a half to two grammes and a half. The duration of the treatment has been from fourteen to sixteen days. Sixteen cases of phthisis were treated by this method; six of the number had fever, and the remaining ten were without fever. There was rarely any local disturbance at the site of injection. It was certain that the antiseptic was absorbed; it could be detected in the breath, but not in the urine. Albuminuria was not observed as the result of the treatment. It is very doubtful whether the number of bacilli was altered in any way by the method of treatment. Sweating, as a rule, was diminished. Its chief effect is as a balsamic preparation on the bronchial secretion, which it influences favourably. MM. Perret and Chabbannes have made experiments with the 5 per cent. solution of eucalyptol, injecting a mixture of it with tuberculous matter under the skin of guinea-pigs. The general conclusion at which they have arrived is to the effect that the antiseptic is utterly insufficient to prevent the activity of the micro-organism that causes artificial tuberculosis.

HYDRASTIS IN UTERINE HÆMORRHAGE.

Dr. L. Göth has employed the tincture and fluid extract of hydrastis canadensis in various forms of uterine hæmorrhage, especially in disordered menstruation, metrorrhagia, hæmorrhage following abortion, and that occurring at the change of life. The best results were obtained where no organic disease existed, and in the climacteric hæmorrhages. Less satisfactory effects were observed in the menorrhagia of chronic metritis, and no effect at all was produced on hæmorrhage due to erosion of the os uteri or on the secondary hæmorrhage following abortions. The dose of the fluid extract used was twenty drops, and this amount was given several times a day.

HYPNONE.

MM. Mairet and Combemale have published a full account of their investigation into the physiological and therapeutical action of aceto-phenol or hypnone in the current number of the *Archives de Neurologie*. They are forced to conclude that it has no hypnotic action whatever; in this they differ from Dujardin-Beaumetz.

BISMUTH SUBIODIDE.

This is intended to replace iodoform. Iodine fused with bismuth forms bismuth iodide. Boiling the latter with water leads to the precipitation of the subiodide as a fine powder. It, like iodol, is said to be inodorous, and yet to be equally as effective as iodoform as an antiseptic.

HEALTH OF THE NAVY.

THE statistical report on the health of the Navy for the year 1885, which has just been presented to Parliament, shows, on the whole, a very favourable state of the sanitary condition of the force. The average strength afloat during the year was 46,670; the cases of disease or injury amounted to 1103 per 1000 of the strength, the deaths to 7·04, the invalided to 35·65, and the daily sick to 46·28 per 1000. These ratios are all considerably under those of the preceding year, and are also under the average of the last ten years. The marked reduction in the invalided, however, is probably due to an alteration in the returns under that head; for, if we understand rightly the remark on page xvii., "invalided" has hitherto included men sent home from foreign stations for change, as well as those discharged the service on account of disability; but on the present occasion only the latter are shown in the tables. We would suggest that the heading "discharged as invalids" would more accurately define the nature of the proceeding. Compared with 1884, the reduction in the admissions has taken place chiefly in paroxysmal fevers, rheumatism, syphilis, and injuries; in the deaths, in those from fevers and injuries; and in the invaliding, from fevers, debility, and injuries. The reduction in the death-rate has been well marked on the Home, Pacific, African, and East Indian stations. On all the others there has been an increase, though in none of them to any very marked extent.

The strength of the force afloat on the home station was 23,100; the cases amounted to 880, the deaths to 4·76, the invalided to 26·53, and the mean daily sick to 45·09 per 1000 of strength. These are all lower than the corresponding ratios in 1884. The reduction in the deaths, amounting to 3·47 per 1000, occurred chiefly in those from injuries, which were raised to an abnormal amount in 1884 by the loss of the *Wasp* on the Irish coast; in the present report only 10 deaths are returned in this class, as against 65 in the preceding year. Fifty-two cases of scarlet fever were reported, of which 35 occurred in the *Britannia* training-ship. The disease appears to have been brought by one of the cadets on his return from leave; he was attacked on Feb. 6th; on the 19th 10 cases were sent to hospital, on the 20th there were 8, and the others between that date and March 7th; they were all sent to the Cadets' Hospital on shore and recovered. The ship was cleared out and disin-

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fected, and there was no recurrence of the disease. In June and July 10 cases of rötheln occurred on board the same ship. Twenty-two cases of enteric fever are returned on the home station, but 6 of them were contracted at Malta. Most of the cases occurred singly in ships; 4 only terminated fatally. Mumps prevailed to a considerable extent, 166 cases having been treated; of these 129 were on board the boys' training-ships. One of these, the *Lion*, also furnished a high proportion of cases of diseases of the respiratory system, including 38 of pneumonia, and the medical officer remarks that "damp decks, from too frequent wettings, with defective ventilation and overcrowding at times, have been, to a great extent, factors in the excess of this disease." A death from pyæmia occurred in the person of the junior medical officer of the *Ganges*, the result of an accidental puncture in the forehead by a suture needle while engaged in a post-mortem examination. On the Mediterranean station an average force of 5360 furnished 1342 cases, 8·02 deaths, 79·66 invalids, and 53·94 daily sick per 1000. The cases were considerably under, and the deaths 2·03 above, the ratios in 1884. The reduction in the cases was chiefly in those of rheumatism, syphilis, and diseases of the respiratory and digestive systems; and the increase in the deaths in those from continued fevers, diseases of the nervous system, and injuries received in action, the latter being from spear wounds in the attack by the Soudanese near Suakim on the 22nd March. There were 55 cases of enteric fever, with 12 deaths, in the squadron; of these 45 cases occurred at Malta during the last quarter—3 in October, 3 in November, and 37 in December. This outbreak was believed to have been the result of a contaminated water-supply, and it is stated that "one of the naval tanks—that, in fact, from which the water was at the time being taken for the ships—had not been cleaned out for a number of years, and the water, on being examined by the Government analyst, was found to contain a large quantity of albuminoid ammonia, and pronounced unfit for drinking." There seems good reason, however, to think that the water contamination was much more widespread, and that the disease was contracted, "not on board the ships, not by the drinking-water brought on board, and not by the stagnant air of the Grand Harbour, but by the impure water that the men drink when on shore on leave." The quality of the water from wells and the storing tanks is said to be most unsatisfactory, and enteric fever to have been prevailing as an epidemic among the troops and civil population at the end of the year. When it broke out in the fleet an order was issued by the commander-in-chief "that only condensed water was to be used in Her Majesty's ships until further orders." Works are in progress for an improved water-supply, and a new system of drainage is being carried out, which it is hoped will prove successful in reducing the prevalence of fever in the island. There were only 3 deaths from injuries, omitting those received in action already noted; one was by drowning, and 2 were from fractured skull by falls from aloft.

The force on the North American and West India stations averaged 2400; the cases were in the ratio of 993, the deaths of 5·0, the invaliding of 23·75, and the daily sick of 35·47 per 1000. These very closely correspond with the results of the preceding year, but contrast favourably with the average of the last ten years. The only disease requiring special notice was yellow fever, which appeared in Jamaica about the end of September. One case occurred in an engine-room artificer of the *Tyne*, and 9 cases with 3 deaths among the crew of the *Urgent* in Port Royal Harbour, contracted apparently on shore. No information is given as to any sanitary measures being adopted, nor does the *Tyne* appear to have been sent to sea—the usual course followed on such occasions. Of the 12 deaths which occurred on the station, 4 were from accidental drowning, and one from fracture of the skull by an accidental blow.

On the South-east Coast of America station, in a force of 510 the cases amounted to 1208, the deaths to 5·88, the invalids to 25·49, and the daily sick to 37·13 per 1000. The cases and mean sick were higher than in 1884, but all the ratios were under the average of the last ten years. Seven cases of enteric fever, with 2 deaths, occurred in the *Ready*, at Monte Video, between Feb. 4th and March 5th, evidently the result of a contaminated water-supply. The description given by the medical officer of the sources of supply and the condition of the storing reservoir is such as would warrant a prohibition to water ships there until some efficient steps have been taken to prevent contamination.

The Pacific station, from a force of 1710, had 1140 cases, 2·33 deaths, 32·16 invalided, and 46·07 daily sick per 1000 of strength. The cases and daily sick were higher, but the deaths and invaliding lower than in the preceding years, and the cases and deaths under the average. There was nothing in the returns which calls for special notice.

The African station, including the West Coast and Cape of Good Hope, had an average force of 1750. The cases were 1084, the deaths 4·57, the invalided 34·85, and the daily sick 36·13 per 1000 of the strength—all lower than in 1884, and under the decennial average. The cases of paroxysmal fever were less numerous than in the preceding year, but above the average; none of them terminated fatally. The disease was contracted chiefly on the West Coast. Quinine was given as a prophylactic, but does not appear to have been successful. Of the 8 deaths, 3 were the result of accidents.

On the East Indies station the average strength was 1900; the cases were in the ratio of 15·66, the deaths of 16·31, the invalided of 60·52, and the daily sick of 51·24 per 1000. These ratios are all much under those of 1884, and, except the deaths, are under the decennial average. Of the 31 deaths, 8 were by cholera, 4 from the *Briton* in Bombay Harbour, and 4 with the Field Force expedition in Burmah; and there were 7 deaths by drowning. The death-rate by disease, exclusive of cholera, was only 8·42 per 1000; diseases of the digestive system were the most fatal, giving a ratio of 3·68 per 1000.

In an average force of 3670 on the China station, there were 1556 cases, 9·26 deaths, 22·34 invalided, and 46·19 daily sick per 1000 of strength. There were 12 cases, with 2 deaths, returned as enteric fever, and 7, with 3 deaths, as typho-malarial fever, but the latter appeared to have been enteric. Eight of the cases, 4 of which terminated fatally, occurred in the *Audacious*, and 6 cases, with 1 death, in the *Cleopatra*. All but two occurred in officers, and were believed to have originated at Nagasaki. The exact source of the disease is doubtful, but it is suggested that it may "be accounted for by the fact that the officers made use of the hotels situated in the heart of the native town, and often dined there, these hotels being in a sickly state at the time." There were 10 cases of cholera, with 4 deaths, all of which appeared to have been contracted on shore at Hong Kong, Shanghai, and Nagasaki. "Cholera seems to be deeply rooted in all the Chinese ports, and must be expected to remain there until the value of sanitation comes to be appreciated in China." Diseases of the digestive system, especially diarrhœa, were unusually prevalent in the Japanese ports and at Hong Kong, the cases having amounted to 323 per 1000 of the strength.

On the Australian station the strength was 1420; the cases amounted to 1195, the deaths to 7·74, the invalided to 30·28, and the daily sick to 39·02 per 1000—all, except the daily sick, higher than in 1884, but under the average. Two-thirds of the deaths and upwards of one-fourth of the cases were returned under the class of injuries. Fourteen cases and 2 deaths of enteric fever occurred, of which 13 were contracted at Sydney and one at Brisbane. The disease at Sydney was believed to have been caused by defective sewerage and scanty water-supply. "Sydney still holds its position ... ... as the chief source of enteric fever in the squadron on the Australian station."

The Irregular Force, in which were included the Nile Expedition for eight months, and the Marines serving in Egypt and the Soudan for a little over six months, averaged 4850 strong. The cases furnished by it were 1385, the deaths 15·05, the invalided 40·82, and the daily sick 53·74 per 1000; one-third of the deaths were of men killed in action; of the 26 reported under this head, 17 occurred in the Nile expedition, consisting of 90 officers and men, and 9 at the zereba near Suakim, the former mostly by spear and sword wounds, and the latter by gunshot. Twenty-six cases and 12 deaths of enteric fever were returned; 5 of these, all fatal, were in the Nile expedition, and the greater part of the rest at Suakim and Alexandria. Twenty-one cases of heatstroke were recorded, of which 19 occurred among the men employed in Egypt and in the Nile expedition; only one terminated fatally. In addition to the 26 deaths in action, there were 13 by injuries, of which 6 were from fracture, 5 by drowning, and 2 by suicide.

The strength of the Royal Marine Divisions at headquarters, not included in the returns of men afloat, was 4880; the cases among them were 1293, the deaths 5·53, the

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invalided 55·5, and the daily sick 62·42 per 1000 of strength, all in excess of the proportion in the preceding year. The admissions were much higher than among the troops serving in the United Kingdom, but the deaths and daily sick correspond very closely in the two branches of the service.

THE INFIRMARY FOR CONSUMPTION, MARGARET STREET.

WE regret to learn that through the apathy of the main body of the governors of the above institution, the homœopathic party were enabled at the special general meeting on Wednesday, to outvote by three the old body of governors, including the majority of the executive committee and medical staff.

After the notice convening the meeting had been read, the Rev. W. R. Mowll, M.A., moved a resolution to the effect that Drs. Jagielski and Marsh should cease from practising homœopathy at the Margaret-street Infirmary; further, that Dr. Jagielski should take his name from the Homœopathic Directory, and that Dr. Marsh should resign his appointment at the Homœopathic Hospital, or resign their appointments at this infirmary. This was seconded by Captain Hunter Baillie, and spoken to by Dr. Cholmeley, one of the consulting physicians, who in an able speech pointed out the incongruity of the present state of things, and said that nowhere in the United Kingdom was there an institution officered by a mixed staff of allopaths (so called) and homœopaths. He also stated that, should the resolution be lost, he and the six members of the staff who thought with him could no longer conscientiously retain their appointments, and read a letter from Dr. T. Hawksley, the senior consulting physician (who was too ill to be present) in favour of the resolution.

An amendment was moved by Dr. Dudgeon (a governor of only six months' standing), and seconded by Mr. D. Bryant (a governor of about three months' standing), which was spoken to by Drs. Jagielski and Marsh, and carried by twenty against seventeen.

Of the twenty who voted for the amendment in support of homœopathy, we understand that several have only recently become governors of the institution—that is, between three and six months, and since the question in dispute has been on the tapis. Of the seventeen who voted in the minority, all are old governors, and have for years given their time and services to the institution, and one of them, Mr. W. H. Baillie, for about forty years.

Lord Grimthorpe was in the chair, but voted with the homœopathic party, as did also Dr. Cooper Torry.

The seven gentlemen of the staff who have decided to resign are Dr. T. Hawksley and Dr. W. Cholmeley, the consulting physicians; Mr. F. Carr Beard, F.R.C.S., the surgeon; and Dr. Featherstone Phibbs, Dr. Julian Willis, Dr. Robert Walford, and Dr. Scudamore Powell, the visiting physicians. The majority of the executive committee also intend to resign—viz., the Rev. J. J. Coxhead, M.A., Rev. W. R. Mowll, M.A., Lieut.-Colonel Hollway, treasurer; Joseph Lott, Esq., solicitor; Captain W. Hunter Baillie, J. A. Pepys, Esq., and St. Leger Bunnett, Esq.

In again expressing our regret, we would warn other institutions by the fate of this one (an infirmary which has been of immense value to the suffering poor), so that they may be on their guard against this thin end of the homœopathic wedge.

THE SEAMEN'S HOSPITAL, GREENWICH.

THE annual meeting of the governors of and subscribers to this institution, which takes up the work carried on by the late *Dreadnought*, was held on the 16th inst, under the presidency of Sir Andrew Clark, Bart., M.D. The sixty-sixth annual report, which was read by the secretary, stated that though the institution had suffered severely during the great commercial depression, the committee had not been compelled to draw upon their reserve funds in order to make the income meet the expenditure. The number of patients treated last year was 2267, and of these 1452 were discharged cured and convalescent, 477 had been relieved, 87 died, and 194 remained under treatment at the close of the year. There were also 5359 out-patients during 1886, making a total of 269,782 patients treated at the institution since its foundation. Sir Andrew Clark gave an account of a visit of inspection he had paid to the hospital, and, commending its management, he urged its claims to the support of the charitable public. The report was adopted, and the customary votes of thanks brought the proceedings to a close.

PROSECUTION OF ORIGINAL RESEARCH IN EDINBURGH.

THE committee appointed to consider and report on the Prosecution of Original Research in connexion with the Royal College of Physicians, Edinburgh, have issued their Report to the President and Fellows of the College. The committee recommend (1) that the College establish and maintain in the neighbourhood of the infirmary a laboratory for the prosecution of original research; (2) that the College vote £1000 for the establishment of this laboratory, and, year by year, a sum not exceeding the third of the clear surplus of annual income over annual expenditure for its maintenance, including the payment of salaries. It is suggested that the laboratory be placed under the care of a curator and committee, with a scientific man as superintendent, at a salary of not less than £200 per annum, and an assistant, to reside on the premises, at a salary of £80; (3) that the laboratory be open without fee to Fellows and Members of the College, and to any investigator, on certain conditions; and (4) that the committee should be empowered, if sufficient funds be at its disposal, to offer yearly a medal and money prize (not exceeding £21) for original work conducted within the laboratory or elsewhere, the results to be embodied in essays to be submitted to the committee, and to be specially connected with medicine, therapeutics, gynæcology, and psychiatric medicine.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5788 births and 3453 deaths were registered during the week ending Feb. 12th. The annual death-rate in these towns, which had steadily declined in the preceding five weeks from 26·5 to 19·6 per 1000, further fell last week to 19·5. During the first six weeks of the current quarter the death-rate in these towns averaged 22·3 per 1000, and was 2·2 below the mean rate in the corresponding periods of the ten years 1877-86. The lowest rates in these towns last week were 14·9 in Nottingham, 15·3 in Leicester, 16·1 in Derby, and 16·9 in Leeds. The rates in the other towns ranged upwards to 25·8 in Manchester, 26·9 in Liverpool, 27·1 in Wolverhampton, and 30·1 in Huddersfield. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had declined in the preceding four weeks from 485 to 367, further fell last week to 340; they included 95 from whooping-cough, 77 from measles, 61 from scarlet fever, 43 from diphtheria, 32 from diarrhœa, 31 from "fever" (principally enteric), and only 1 from small-pox. No death from any of these zymotic diseases was registered last week in Derby, whereas they caused the highest rates in Norwich, Liverpool, and Huddersfield. The greatest mortality from whooping-cough occurred in Oldham, Sunderland, Huddersfield, and Norwich; from measles in Halifax, Bristol, and Huddersfield; and from scarlet fever in Birkenhead, Liverpool, and Sheffield. The 43 deaths from diphtheria in the twenty-eight towns included 17 in London, 4 in Liverpool, 3 in Birmingham, 3 in Manchester, 3 in Huddersfield, 2 in Portsmouth, 2 in Norwich, 2 in Oldham, and 2 in Hull. Small-pox caused 1 death in Manchester and 1 among the residents of London and its outer ring, but not one in any of the twenty-six other large provincial towns. Only 3 small-pox patients were under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease. The deaths referred to diseases of the respiratory organs in London, which had declined in the preceding five weeks from 731 to 364, rose again last week to 373, but were so many as 244 below the corrected average. The causes of 89, or 2·6 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical

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practitioner or by a coroner. All the causes of death were duly certified in Leicester, Nottingham, and in four other smaller towns. The largest proportions of uncertified deaths were registered in Oldham, Bradford, Sheffield, and Liverpool.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 24·7 and 19·8 per 1000 in the preceding two weeks, rose again to 22·0 in the week ending Feb. 12th; this rate exceeded by 2·5 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 13·0 in Perth and 14·4 in Greenock and Leith, to 24·7 in Glasgow and 27·4 in Paisley. The 550 deaths in the eight towns last week showed an increase of 55 upon the low number in the previous week, and included 28 which were referred to whooping-cough, 16 to measles, 14 to diarrhœa, 13 to scarlet fever, 3 to diphtheria, 2 to "fever" (typhus, enteric, or simple), and not one to small-pox; in all 76 deaths resulted from these principal zymotic diseases, against 75 and 66 in the preceding two weeks. These 76 deaths were equal to an annual rate of 3·0 per 1000, which exceeded by 1·1 the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 19 and 23 in the preceding two weeks, further rose last week to 28, of which 19 occurred in Glasgow, 3 in Aberdeen, and 3 in Paisley. The 16 deaths from measles showed an increase of 4 upon the number in the previous week, and included 12 in Glasgow and 4 in Aberdeen. The deaths from scarlet fever, which had been 16, 15, and 8 in the previous three weeks, rose again last week to 13, of which 7 occurred in Edinburgh and 4 in Glasgow. The 14 deaths attributed to diarrhœa showed a considerable increase upon recent weekly numbers, and included 5 in Glasgow and 3 in Dundee. The deaths referred to diphtheria and "fever," on the other hand, had considerably declined; 2 fatal cases of diphtheria were returned in Edinburgh. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had steadily declined in the first five weeks of the year from 213 to 126, were last week 133, and were 11 below the number returned in the corresponding week of last year. The causes of 71, or nearly 13 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 28·2 and 29·7 per 1000 in the preceding two weeks, declined again to 27·3 in the week ending Feb. 12th. During the first six weeks of the current quarter the death-rate in the city averaged 30·8, the mean rate during the same period being but 21·1 in London and 21·4 in Edinburgh. The 185 deaths in Dublin last week showed a decline of 16 from the number returned in the previous week, and included 5 which were referred to scarlet fever, 4 to "fever" (typhus, enteric, or simple), 4 to diarrhœa, 3 to whooping-cough, 1 to diphtheria, and not one either to small-pox or measles. Thus the deaths from these principal zymotic diseases, which had been 14 and 13 in the preceding two weeks, rose last week to 17; they were equal to an annual rate of 2·5 per 1000, the rates from the same diseases being 1·5 in London and 2·8 in Edinburgh. The fatal cases of scarlet fever, which had been 6 and 4 in the previous two weeks, were 5 last week, and the deaths from both "fever" and diarrhœa also showed an increase upon the numbers in the previous week. The fatal cases of whooping-cough and diphtheria corresponded with the numbers in the preceding week. The deaths both of infants and of elderly persons showed a decline from the numbers in the previous week. Six inquest cases and 5 deaths from violence were registered; and 51, or more than a quarter, of the deaths occurred in public institutions. The causes of 23, or more than 12 per cent., of the deaths registered during the week were not certified.

VENTNOR HOSPITAL FOR CONSUMPTION.—On Monday last, at the annual general meeting of the governors of this hospital, it was announced that the Duke of Cambridge would preside at a festival dinner at the Hotel Métropole on April 19th, and that in the summer Princess Beatrice would, on behalf of the Queen, open a new block of houses for twenty additional patients.

Correspondence.

"Audi alteram partem."

MEDICAL TREATMENT AT HOSPITALS AND DISPENSARIES.

To the Editors of THE LANCET.

SIRS,—I observe in the report of the proceedings of the Medical Attendance Organisation Committee that a resolution was passed calling "the attention of the governing bodies of hospitals and other public authorities to the necessity of some check on the indiscriminate provision of medical treatment at hospitals and dispensaries." Some years since this question forced itself on the notice of the managers of the Children's Hospital in Great Ormond-street, where the number of out-patients had become so large as to be entirely unmanageable. I have described in my book on Hospital Organisation[1] the manner in which this difficulty was dealt with, and so successfully that the number of out-patients, which had been 13,000 in 1874, was reduced to 9000 in 1876, and might, I believe, have been reduced still further, without inflicting real hardship on any deserving applicant. As the book is now out of print, I ask permission to state the details of the plan, which might, I think, with some possible alterations, be advantageously adopted in London.

The regulations were as follows:—All applicants were entered by the house-surgeon in attendance into two classes—viz., those of slighter ailments to be treated as casualties, and graver ailments to be entered on the register, and to be supplied with letters entitling the bearers to attend for a period of two months. The register and also the letters bore a record of the name and residence of the patient, as also of the occupation and weekly earnings of the parent; and no child whose parent was in receipt of more than 30*s.* per week was considered eligible for permanent treatment. These letters had to be submitted to the secretary or other officers of the Charity Organisation Society of the districts in which the patient lived, and to have the stamp of the Society in verification of the facts stated in the letters, before the patients were considered eligible for *permanent* treatment. Persons in the receipt of parish relief, and those whose income exceeded 30*s.* per week, were considered ineligible, but the medical officers were authorised on *purely medical grounds* to dispense with these regulations; they entering the reasons for so doing in a book provided for the purpose. A further regulation provided for the continuance of a patient for a longer period than two months, at the discretion of the medical officer.

It will be observed that in the first attendance every applicant was admitted without any question, and it happened very rarely that mothers came saying that they had no wish to attend permanently, but desired an opinion on some points concerning which they felt doubts or anxiety. Further, to provide against the exclusion of any on purely social grounds, the medical officers had a dispensing power wherever a case was of special medical interest, or where the treatment it required would be either costly or protracted. The regulations then applied, in reality, to those only who sought for permanent relief in ordinary ailments, and the aim was to deal with them as wisely, and at the same time as gently, as possible. The wife in almost every instance gave an answer, though often not an exact one, as to her husband's earnings, and it was at first attempted to control this statement by requiring that before presenting themselves a second time each letter should be countersigned by some householder, clergyman, city missionary, or other minister of religion. The regulation turned out a farce; the clergy of no persuasion cared to be guilty of the apparent unkindness of refusing their signature to a person asking for it merely to obtain hospital relief, and the small shopkeepers in a poor district did not dare to disoblige their customers. Theoretically, this test of fitness seemed to conciliate kindness and discrimination; practically, it was worthless.

At the time that the help of the Charity Organisation Society was sought for, though no longer on the medical staff of the hospital, I took an active part in its manage-

[1] On Hospital Organisation, with special reference to the Organisation of Hospitals for Children. London, 1877.

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ment. Soon after my connexion with the institution ceased, the old system was once more resorted to; and the last report of the hospital shows a total of 14,281 new out-patients in the year 1885. This total represents an annual attendance of 85,686, on the assumption that each child attends six times, or a daily attendance of 279; of whom 46 would be new cases, deduction being of course made for fifty-two Sundays, Christmas Day, Good Friday, and four Bank Holidays. If we reckon that properly to investigate each case, new and old, three minutes is a reasonable time to allow, it appears that fourteen hours would be required; on dividing the labour among four, we find that three hours and a half must be devoted by each medical officer. It is needless to dwell on the time required to supply these patients with the necessary medicines, even though the dispensing arrangements were very good. The failure of the plan was at once assured when the original scheme was departed from, and in deference to the representations of the house-surgeons (who objected to be called on to put questions to the mother concerning their husbands' earnings or concerning any matter not purely medical) the preliminary inquiry at the hospital was given up. The officer of the Society was at once placed in an entirely different position when called on not merely to verify a statement, but to institute an entirely new inquiry for the conduct of which he had no data. He at once was placed in the offensive position of the relieving officer of the parish, who is supposed popularly to derive his name from its being his duty to refuse relief. The failure of the plan was secured by this apparently insignificant change, just as surely as the upset of a carriage by the removal of the lynch-pin. It would probably not have been difficult to entrust the preliminary inquiries at the hospital to others than the house-surgeons; but unfortunately the diminution of the number of out-patients was not seen with friendly eyes by many. The medical officers for in-patients did not like a scheme by which the field whence cases of medical interest were gleaned was diminished in extent; the subscribers sometimes objected to their letter of recommendation being submitted to inquiry; while the committee fancied that the larger the number of out-patients, the greater the claim of the charity to public support. A few complaints, too, were made by the patients themselves of the inquisitorial nature of the questions put by the agents of the Charity Organisation Society. Very few indeed of these complaints were well substantiated: while, to the best of my recollection, none were made during the time when the preliminary inquiries were made in the first instance at the hospital, and were referred for verification only to the Charity Organisation Society. The difficulty is one felt in France as well as in this country. My excuse for occupying so much of your valuable space is that I have seen no other plan proposed for dealing with it, and that, while it no doubt may be altered for the better, it at least attained the object for which it was started.

I am, Sirs, yours faithfully,

CHARLES WEST, M.D.,
Founder of the Hospital for Sick Children.

Harley-street, W., Feb. 7th, 1887.

"GENERAL HOSPITALS AND PARISH INFIRMARIES."

To the Editors of THE LANCET.

SIRS,—Allow me to make a few remarks in criticism of Dr. Goodhart's letter in your last issue respecting general hospitals and parish infirmaries. As the medical superintendent for nearly ten years of the largest of these infirmaries, I may perhaps be considered to have some slight special knowledge on the subject.

Dr. Goodhart's objections range themselves under the following heads:—1. It is an injustice to the ratepayer to have built, and to compel him to keep up, magnificent parish infirmaries. 2. That they do harm to the general hospital. 3. That they do injustice to the patients that are admitted within their doors; and he instances this result especially in surgical cases.

Take the first objection—that of injustice to the ratepayer (although, further on, Dr. Goodhart naïvely confesses he does not care much about him if his own hospital is not affected injuriously). I maintain the present system is not so. It is not expensive for the work done. The ratepayer has his work done for him much cheaper and quite as efficiently as at the general hospitals. I believe that the public has not much idea, after all, of how little is the actual cost for the maintenance of the sick poor. I have before me now the Local Government Board's "Return of Expenditure at the various Metropolitan Infirmaries," and I find that the total actual cost per head per week, including salaries, drugs, stimulants, and, in fact, every expense, is at St. Saviour's Infirmary 8*s.*, at St. George's, Hanover-square, 13*s.*, Lambeth 14*s.* 2*d.*, Kensington 14*s.* 2*d.*, and at St. Marylebone, which is admittedly, if I may use the expression, an extravagant infirmary, 15*s.* 10*d.* I have no means at hand of knowing myself the cost per head in the general hospitals, but I should imagine in most cases it much exceeds this. The reason why St. Saviour's is so low is that most of the labour is done by pauper help, and that there are many inmates who by rights should not be in the infirmary proper, but rather in the infirm wards of the workhouses.

The second objection of Dr. Goodhart I would reserve for the moment, simply remarking that from the point of view of the ratepayer, or of the sick actually in the infirmary, "doing harm to the hospitals" does not concern them.

Thirdly, that they necessarily do injustice to the patients, especially in surgical cases, I emphatically deny. If there is one branch of practice in which we have had the most satisfactory results, it is in surgery. I have not had leisure, for various reasons, during the last few years, nor have I time just at present, to publish my surgical statistics; but I hope to be able to do so at no distant date, and the results will be found to bear very favourable comparison with those of any general hospital. One would imagine that all surgical skill and knowledge is monopolised by *hospital* staffs! I don't believe it. I could tell more strange stories from personal experience of patients who have come under my care from general hospitals. One perhaps I may be permitted to quote. An old man who had fallen heavily on his side was carried to a certain hospital, complaining principally of pain in the left knee. For this the knee was carefully strapped and bandaged, and the patient sent home. The next day he was admitted here, when I found the knee absolutely uninjured, but there was a comminuted fracture of the left hip, with extensive bruising of the soft parts. On his death, a few days afterwards, from the effects of chronic bronchitis and severe fog, the diagnosis was fully verified at a necropsy, and the head and neck of the femur were found broken into four pieces! To anyone who has a bent for surgery, with a fair surgical education, it is absurd to suppose that he is not quite capable of undertaking any ordinary surgical operation. As for very rare or special cases, we seldom see them; these are too readily snatched up at hospitals; but, when we do come across such a one, some of us are quite able to undertake it, with, perhaps, some little extra assistance in the form of advice and opinion, which I have never found any difficulty in obtaining, even from some of the most eminent surgeons.

Surgical appliances are admittedly very expensive. Some certainly are, but I will not admit that they are always necessary, certainly not as a rule in parish infirmaries. I am often astonished, on visiting hospitals, to see the amount and quality of the dressings and appliances used. No wonder that under such conditions surgery is expensive and hospitals poor. Gauze dressings, gauze bandages, strapping, complicated splints, expensive drugs and appliances, are used with a reckless disregard to cost which is appalling to an onlooker. I can get quite as good results with some marine lint, a little Gamgee tissue, a very few layers of gauze, an ordinary calico bandage, and such cheap drugs as terebene, carbolic acid, iodine water, corrosive sublimate, and such-like. I have been answered by hospital surgeons: "Oh, yes, it is all very well for you, with healthy wards not crowded with surgical cases, to use simple appliances and dressings; but we cannot, with our surroundings." Well, this may be so, but I doubt it.

Dr. Goodhart says that the advanced surgery of the present day should always be a matter of free consultation. I entirely agree with him. I have always maintained that a patient has an absolute claim to it. I should like to ask him, however, how often amongst his surgical colleagues does this free consultation ever take place. When I was at the hospital I should say almost never, or "hardly ever." Look, on the other hand, at St. Bartholomew's, where there is a regular consultation of the staff once a week openly in the theatre. Could one find a proceeding more conducive to the welfare of patients and to the interest of the students?—not only to the benefit of the students from hearing the

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various opinions expressed, but also in acquiring a notion of the forms and etiquette of consultation, a knowledge which cannot but be of great advantage in after-life. Again, on operation days at Guy's some years ago, one always saw two or three at least of the surgeons in the operating-room, assisting, at any rate, by their presence. Students liked to see them; it showed an interest in the hospital, it helped to develop an *esprit de corps* in one's *alma mater*. I remember how glad and proud one used to feel to be able to point out to strangers coming to operations, That is Mr. A., who wrote such-and-such a book, a great man on so-and-so; or, That is Mr. B., a very clever man—splendid fellow; why, he actually removed a kidney! And one felt a glow of pride in thinking what wonderful men *our* hospital possessed! Now, I regret to see that much of this has changed. The surgeon who is operating is generally without a colleague present; one may occasionally drop in apparently accidentally, look over the operator's shoulder, and walk out. Or operations are going on in three or four wards at once, and one never knows where any operation on the list is likely to be performed. This, I urge, is not just to the students, all of whom have a sort of pre-emptive right to an opportunity of seeing every operation, except of course those in which the patient might suffer from his presence, and it is, I am sure, a real grievance. As a matter of fact, the patients here have the advantage always of two opinions, and in very critical or doubtful cases one frequently calls for other advice in the persons of various consultants, whom I have always found most kind and willing with advice, and to many of whom I am much indebted. The proposition of having a consultant staff is more particularly because, as far as the medical officers are concerned, we feel we should not be dependent on the courteous kindness and gratuitous services of eminent medical men. It is only just and right that they should receive some fee, and that the pernicious system of continually enlarging the sphere of unpaid medical services should be avoided. Undoubtedly, there is a great deal of work in these infirmaries, and an increase in the medical staff is desirable. It must be remembered, however, that although we have a great number of cases, many of a serious nature, involving much time and attention, there is a large proportion of trivial ones, trivial at least as far as actual work in treatment goes, although perhaps not so in respect of pathological interest. A large proportion of our cases consists of chronic ulcers, chronic bronchitis, chronic gout, chronic rheumatoid arthritis, forms of paralysis in old people, and bedridden cases from senile decay. All these do not entail a large expenditure of time, so that to say that we have large general hospitals is not exactly correct. Two resident medical officers (and in every infirmary there are now two), not engaged in other practice and devoting their whole time to the duties, can get through a great deal of work.

I am afraid that I have already trespassed too much on your space, and will leave the questions as to the utilisation of these infirmaries for clinical studies, as to their proposed affiliation to the general hospitals, and as to the merits and demerits of the present system, to another letter, should you be willing to accord me space at a future opportunity.

I am Sirs, your obedient servant,

CHARLES GROSS, M.D. Lond., F.R.C.S. Eng.

St. Saviour's Union Infirmary, Walworth, Feb. 15th, 1887.

*** We have received several other letters on the above subject, for which, however, we cannot find room this week.—ED. L.

MEDICAL CORONERSHIPS.

To the Editors of THE LANCET.

SIRS,—Will you allow me to make a few remarks in reference to this subject, as suggested by Dr. Macdonald's letter which appeared in your issue of last week. Having been a candidate for the last appointment, until promised the deputyship by Mr. R. Collier should he have proved successful, he having held that post for ten years, and having on that promise withdrawn my name from the contest, and now being a candidate and having issued my address in your columns, my remarks may be pardoned on the subject. I quite agree with Dr. Macdonald that the medical and not the legal profession are the proper persons to act as coroners. Dr. Macdonald may not be aware of one clause which now stands in the new Coroners Act, and which I believe has passed the second reading, to the effect that the appointment of coroner should be *only eligible* to barristers or solicitors. Surely this clause has crept in unchallenged. I have seen no allusion to it at all, and therefore draw attention to it. The legal profession are so inundated with appointments that they can well give up their absolute claim to such a post. I quite agree with Dr. Macdonald, that the coroner should, if possible, combine a medical and legal knowledge. Having graduated both in law and medicine, I felt that I had unusual demands for such an appointment. As to the election, I think that it should rest with the Middlesex magistrates, and not with, as has proved to be the case, members of the Odd Fellows, Foresters, and Druids, because they were members of these respective halls, which were in the eastern division of Middlesex; and also with boatmen, who, mooring their boats on the foreshore of the Thames, claimed a privilege to vote. Such farcical nonsense ought surely to be put a stop to, and some Act of Parliament passed to legislate in these matters.

I am, Sirs, your obedient servant,

Feb. 15th, 1887. L. FORBES WINSLOW, D.C.L. Oxon.

"EPIDEMIC DIARRHŒA."

To the Editors of THE LANCET.

SIRS,—We also have been visited in this neighbourhood (St. James's) with an epidemic of diarrhœa—"winter cholera," as the people call it. The attacks come on with great suddenness, often after the evening meal, and, in most of the cases I see, the symptoms become aggravated at night after the patient goes to bed. Severe pain is, as a rule, a prominent symptom, but I have seen more than one case in which, whilst the intestinal catarrh has been profuse, there has been no pain from first to last. I am disposed to attribute the outbreak to atmospheric influences solely.

I am, Sirs, your obedient servant,

Piccadilly, Feb. 15th, 1887. T. BROWNE O'CONNOR.

To the Editors of THE LANCET.

SIRS,—Within the past fortnight several cases of diarrhœa have occurred in my practice in this neighbourhood (Bayswater, W.). Some of the cases have been of extreme severity. The symptoms in all were: pain of a griping character, referred to the region of the umbilicus; frequent diarrhœa of, at first, bilious matter, subsequently becoming of a watery nature; vomiting, thirst, loss of appetite, and general prostration. In one case the symptoms were much aggravated, having, in addition to those above, cramps in the muscles of the abdomen and lower extremities, pulse small, weak, and frequent, almost complete suppression of urine, sunken eyes, and general depression of strength. The attacks lasted from three to six or seven days, and recovered under appropriate treatment. As other districts were affected in a similar manner, perhaps atmospheric influences and water-supply have had a good deal to do with this (at this season of the year) unexpected visitation.

I am, Sirs, yours faithfully,

Pembridge-gardens, W., Feb. 15th, 1887. JOHN WHEELER, M.D.

*** On the above subject Dr. Shirtliff of Kingston-on-Thames also sends a communication, in which he mentions cases that have occurred in his district exhibiting symptoms similar to those described above, and expresses the opinion that the disease is attributable to cold.—ED. L.

THE UNIVERSITY OF EDINBURGH.

To the Editors of THE LANCET.

SIRS,—I have read in THE LANCET of the 12th inst. Professor Rutherford's letter of the 9th inst. I am exceedingly reluctant to enter upon any correspondence in reference to the attack made upon me by Professor Rutherford, more especially after the remarks made by him to his class on the 28th ult. In the course of these he is reported to have said that the time would come when all the facts of the case would be known, and until that time he asked his students to suspend their judgment. I looked upon this statement as an intimation by Professor Rutherford that an inquiry will be made by the Senatus Academicus, or by the University Court, into the whole matter. I can only say that I shall hail such an inquiry with much satisfaction, more especially after what Professor Rutherford

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has said and written since his letter of apology was given to me. As regards Professor Rutherford's letter of the 9th inst. to THE LANCET, I think it only necessary for me to send you, as I do, a copy of his letter of apology to me of the 17th ult., which speaks for itself. I shall merely further add that immediately after the incident of the 11th of December last, I put the matter into the hands of my solicitors in order that they might take what proceedings they thought necessary for my complete vindication, and that the conclusion of the correspondence with Professor Rutherford's solicitors was that, after consultation by him with his solicitors and counsel, this letter of apology, written by Professor Rutherford's own hand, was received by me.

I am, Sirs, your obedient servant,

Edinburgh, Feb. 15th, 1887. HERBERT H. ASHDOWN.

THE PRESENCE OF BLOOD IN THE PERITONEUM.

To the Editors of THE LANCET.

SIRS,—I am amazed that Dr. Hunter should be so ignorant of the facts of the surgery and pathology of the human peritoneum—he a graduate of the University in the city where Keith lives. He seems to have squirted blood of various kinds and from various sources, foreign and domestic, into the peritoneal cavities of dogs and guinea-pigs without ill results. We, on the contrary, cannot even allow a small quantity of a woman's own blood to remain in her abdomen without fear of trouble; so, following Keith, we clear it out by sponging, washing, and the drainage-tube, with every possible care we can exercise. Then we get good results; and Dr. Hunter ventures to say I have not adduced facts in support of these views. I have been doing as much as I can in this direction for the last twelve years. It is in the human subject, and in that only, that we must look for guiding facts for human surgery. We have been led astray too far and too long by experiments on dogs and guinea-pigs. I am, Sirs, yours &c.,

Birmingham, Feb. 12th, 1887. LAWSON TAIT.

"DR. BRUNTON AND HOMŒOPATHY."

To the Editors of THE LANCET.

SIRS,—In the preface to the third edition of my Pharmacology I have discussed various criticisms of earlier editions, and have also expressed my opinions regarding homœopathy. As the book will be out in a few days, I think it unnecessary to occupy your columns with extracts from the preface.

I am, Sirs, your obedient servant,

Welbeck-street, W., Feb. 14th, 1887. T. LAUDER BRUNTON.

NORTHERN COUNTIES NOTES.

(*From our own Correspondent.*)

THE NEWCASTLE DISPENSARY.

THE annual meeting of this old institution has been held, and it has presented its 109th annual report, which shows that the number of letter patients showed a decrease of 826 as compared with the previous year. There was, however, an increase of 2722 in the number of casual patients, and this was the largest number of patients of this class admitted in any one year. The medical report showed that 6201 patients had been admitted by letter, while the total number treated had been 22,936. The medical officer (Dr. Beatley) suggested a closer inquiry into the circumstances of patients by donors of letters of recommendation. The increase of casual patients was in a great measure due to the adoption of a charge in these cases at the Newcastle Infirmary, which had caused an unusual influx at the Dispensary. This gave rise to some remarks from the chairman, Mr. R. H. Holmes, who suggested that it would perhaps become necessary to appoint an officer to make inquiries into these cases. The financial statement was satisfactory. A vote of thanks was given to the medical staff, and the chairman especially referred to the loss the institution was about to sustain in the services of Dr. Beatley, who is retiring to commence practice in this city.

THE CHEST HOSPITAL.

The annual meeting of the Chest Hospital has also been held here. The report showed that 596 patients in all had been treated during the year. An increase over the previous year. This institution is doing as much good as possible within its limited means, but if it is to move with the times and keep pace with the other charities of the city it must throw itself on the public, and at once abolish the "letter" system with which it has been hampered since its birth.

GATESHEAD DISPENSARY.

At the annual meeting of the Gateshead Dispensary just held the medical report showed that the number of patients treated during the year by letter had been 2733; of this number 995 were treated at the hospital and 1738 at their own homes. The total number of patients treated during the year was 13,265, against 12,974 in 1885. The town, it was mentioned, had been wonderfully free from infectious diseases during the past year. The financial statement was satisfactory; there had been an excess of income over expenditure of £166. The chairman, the Rev. Moore Ede, said he believed the time was come when the provident system should be tried side by side with the charitable elements in dispensary management. This brought up Dr. Green, a practitioner in the town, who pointed out that at least one-half of the medical men in Gateshead took patients already on the provident system, a system under which, in the form of a club they paid 3*d.* per week. He (Dr. Green) protested against what was called "the provident system" becoming introduced in connexion with charities, which he contended had their endowments for charity alone. At the suggestion of Dr. Newcombe a committee was appointed in connexion with the dispensary to consider the question of having nurses on its staff in order to attend on patients requiring their aid.

THE MATCH POISONING CRAZE.

Dr. Philipson, in submitting the last annual report of the infirmary, referred to "a remarkable feature in the social history of Newcastle"—namely, the so-called "match-poisoning craze" which has characterised the past year, nine cases of poisoning by phosphorus from a solution of match heads having been admitted into the infirmary, all of which recovered, but after suffering intensely. I may state, in connexion with this "craze," that many cases ended fatally in this city, and in its vicinity the mania had a very rapid "run," so to speak, cases for some time being reported weekly. Happily it now seems to have died out.

Newcastle-on-Tyne, Feb. 14th.

EDINBURGH.

(*From our own Correspondent.*)

THE NEW UNIVERSITY BUILDINGS.

LAST Monday the Chancellor of the Exchequer had an interview with a deputation from the University, consisting of the Principal, the Chairman of the Buildings Committee, and several noblemen and gentlemen, in reference to a proposed grant of £12,000 from Government for the completion of the new medical buildings. Owing to the munificence of a private donor, the University has already at its disposal a sum of money considered adequate to complete the graduation hall and the tower, but as yet no provision has been made for the purchase of the site on which these parts of the original plan of the building are to be erected. In addressing Mr. Goschen, Sir W. Muir and Sir W. Turner laid stress upon the fact that but for lack of means to purchase the site the buildings themselves would already be in course of erection, and urged the desirableness of a Government grant to aid in the completion of works of such national importance. It is feared that the reply of the right honourable gentleman does not indicate any immediate intention on the part of the Treasury to accede to this request, for, while expressing his regard for the interests of the University, Mr. Goschen hinted that there were difficulties of a serious nature in the way of making the grant, chiefly in regard to other claims likely to be strongly represented should the present action give a precedent for such demands. At the same time, he promised that the subject should receive his best consideration; and with this ray of consolation the deputation withdrew. There seems to be a possibility that a much smaller grant than that asked for may be given, on the condition that the remainder of the sum required shall be forthcoming from other sources.

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In any case, the University authorities deserve high commendation for their energetic efforts. The building, which is a remarkably beautiful piece of architecture, still lacks the balance which a whole additional wing would give it, and in the internal economy of the University the absence of any hall for academic ceremonials is constantly felt to be a pressing want. Now that interest is so thoroughly awakened in the matter, one may fairly hope that at an early date this want will be satisfied.

SCARLET FEVER IN EDINBURGH.

For some weeks scarlet fever has been present in Edinburgh in an epidemic form. All parts of the city and all classes of the community seem equally affected, and the City Fever Hospital is crowded with patients of all ages and conditions, for since it has ceased to be a purely charitable institution, but has been supported by borough rates, it has been much more largely made use of by patients of the upper classes, greatly to the benefit of the public health. At present there are 202 patients in hospital, of whom 150 are suffering from scarlet fever. There is considerable discussion as to the cause of the outbreak. The city medical authorities have not as yet published any special recommendations on the avoidance of infection beyond the directions as to procedure in cases of infectious disease, of which a most useful code has been in the hands of the public for some years. They are, however, very alert in the visitation and isolation of suspected cases, having a most complete system for carrying this out. Failing any special order on the subject from the authorities, Dr. Foulis has written to the local papers recommending that all milk received for domestic consumption should be boiled for five minutes before it is used, and that the vessels containing it should be scalded thoroughly, with the view of destroying the specific virus of the disease. He points out that such a process in no way detracts from the character of the milk as an article of diet, while it is calculated to destroy the germs of most infective diseases. At the meeting of the Town Council, held on Tuesday, Bailie Russell, M.D., convener of the Public Health Committee, announced that the Fever Hospital was filled with patients beyond the limits of its intended accommodation, and that the Council must at once undertake to furnish additional wards. This was agreed to, and relegated to the Public Health Committee, with full powers to act. A large addition has also been rendered necessary in the nursing staff. Up to the present there has been a daily increase in the extent of the epidemic.

Edinburgh, Feb. 15th.

DUBLIN.

(From our own Correspondent.)

ALLEGED ILL-TREATMENT OF A PATIENT IN MERCER'S HOSPITAL.

IN the Green-street Court-house last week, before Mr. Justice Murphy, Dr. B. Kennedy, resident surgeon of Mercer's Hospital, was indicted for having assaulted a patient named Farrell, in August last. Dr. Kennedy had been indicted for manslaughter, but the bill had been thrown out by the grand jury; after some evidence had been given, the jury were of opinion that the case should not go on, to which his lordship agreed. He said that Dr. Kennedy would not have been warranted in leaving a delirious man among the other patients, for if anything had happened in consequence he would have been censured. He could not say from the evidence that he had used unnecessary violence. The case had been got up against Dr. Kennedy by witnesses obtained here and there, and suggestions made by a man who was expelled from the hospital, but who did not now appear. However, it was best for the accused that an open investigation in that court should be held. The jury acquitted Dr. Kennedy, and appended the following rider to their verdict :—"We consider that, according to the evidence, Dr. Kennedy should not have been subjected to the hardship of a prosecution." All must sympathise with Dr. Kennedy in the anxiety, annoyance, and expense to which he has been so unjustly subjected.

THOMPSON MEMORIAL HOME, LISBURN.

This institution, founded in 1885 in memory of a distinguished surgeon, was established for the admission of patients suffering from incurable diseases. The Home was founded by the widow, daughter, and son-in-law of the late Dr. Thompson. I may state that the site, grounds, furniture, and fittings cost £23,767. The second annual meeting was held last week, when it was shown that at the close of 1886 there were thirty-six patients in the Home, while the income exceeded the expenditure by about £300. To the sum of £60,000, set apart by the promoters of the charity, Mrs. Bruce has added £10,000 in memory of her mother (Mrs. Thompson), and also a sum of £5000 in memory of her brothers. It is contemplated to admit deserving cases until the inmates number fifty-five. The memorial is a magnificent one, considered as the outcome of generosity on the part of a single family.

CITY OF DUBLIN HOSPITAL.

This morning I had an opportunity of seeing some very interesting cases at this hospital. A tumour of the occipital region with marked head symptoms, which probably will require Mr. Wheeler to trephine; and a patient of the same surgeon with aneurysm, for which he may be obliged to ligature the subclavian or arteria innominata. An obscure tumour (probably malignant disease of the pancreas), under Mr. Henry Fitzgibbon; also under the latter gentleman's care a case of a child who some time since fractured his thigh, and though union has taken place, there exists a piece of bone the size of a walnut, which freely moves about, and yet there is no shortening. There is also under Mr. H. Gray Croly a case of lumbar colotomy, with interesting details, this being his ninth successful case. The same morning Mr. Fitzgibbon operated for external piles, with Smith's clamp, knife, and thermo-cautery.

NATIONAL EYE AND EAR INFIRMARY.

The performance of the "Sleeping Beauty," held last month in aid of the funds of this hospital, has realised a sum of £62 13*s.* 11*d.*

KILKENNY TOWN COUNCIL AND ANALYST'S FEES.

At the quarterly meeting of the Town Council last week a notice of motion that the services of Sir Charles Cameron be dispensed with was under consideration. The majority of the Council appeared not to value the services of the eminent medical officer of health and city analyst for Dublin; they considered that the local medical practitioners were sufficiently skilled to undertake analytical duties, probably forgetting that a special course of study is absolutely necessary, and that the salary attached to the post (£5 per annum) would not defray the interest on the cost of the necessary instruments. The resolution, however, was adopted by eleven votes against three.

Dr. C. Nixon has been appointed a member of the Senate of the Royal University of Ireland, vice Dr. Lyons, deceased.

Dublin, Feb. 15th.

ROME.

(From our own Correspondent.)

OUR Lady of Snow paid a memorable visit to Rome on August 5th, A.D. 352, and the miracle—a snow-heap on the Esquiline, near the market of Livia—caused the reigning Pope Liberius to erect in her honour the Basilica of Santa Maria Maggiore, which, says Freeman, "remains to show what a Christian Church looked like in the days of the first triumph of the faith." Hardly less of a miracle in modern Roman eyes—though certain to have no such august commemoration—has been the two days' snowfall which has just given the Eternal City the aspect of a Swiss town in midwinter and converted the surrounding hills into a bijou Bernese Oberland. Nonagenarian survivals from last century can recall no similar portent in the Urbs Septicollis, while the latest accessions to the English-speaking garrison flock to every elevated point within or without the walls to enjoy a panorama as magnificent as it is unique. "Ave Maria" tolls from a hundred belfries, but groups of spectators yet linger on the Loggia of the Pincio, or the esplanade of San Pietro in Montorio, to revel in the solemn sunset, or to draw from its "mighty missal-page" a lesson or homily not unbefitting the devotional hour.

Another phenomenon much more familiar, though scarcely less picturesque, is apt to follow from heavy snowfall on the Umbro-Sabellian uplands. The Tiber, swollen by the

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melted snow, has only to be impeded at its outlet by a steady west wind, and its regurgitant waters flood the city and reduce it for a time to something like Venice. For such an invasion—the only one that King and Consul, Emperor and Pope, have alike failed to repel—experience has provided palliatives, if not remedies; and the pontoon service, patrolling the nocturnal streets with flambeaux, and, in the Jews' quarter, filling with bread the baskets lowered from second and third storeys for the refection of the isolated inmates, will add another to the picturesque situations which somehow never fail the visitor in Rome. Meanwhile, the health of the city is admirable; hardly a case of fever has been known for weeks; and if the magnificent weather, with its skies of azure and its lovely spring sunshine, have tempted enthusiastic archæologists or artists to outstay their strength in damp ruins or gusty basilicas, the result has been oftener seen in catarrhs or mild bronchitic attacks than in any more serious ailment of the respiratory or circulatory systems.

Not Rome, but Florence, has this season been the centre of sanitary interest; and now that the City of Flowers has been able to clear herself of the imputations directed at her by non-professional censors, it is again the turn, not of Rome, but of Umbria and Upper Italy, to attract the attention of the hygienist. A trichina scare has just been averted from Camerino and that populous agricultural neighbourhood by the prompt intervention of the municipality. A man suffering from aggravated trichinosis died in spite of skilled medical treatment, and immediately the Town Council forwarded an arm of the deceased to Professor Perroncito, the distinguished helminthologist of Turin, for examination. The Professor's report declared that microscopic inspection revealed extensive inter-fibrillary trichinosis in the limb; and, acting on this indication, the health officers of Camerino and district microscopically examined the wares of the pork-butchers' shops, and, as a result, redoubled their vigilance at the slaughter-houses for the supply of such meat. It was proved that, in the fatal case just mentioned, the pork consumed had been of foreign importation; and so, in this direction likewise, a strict surveillance is reimposed on all swine-flesh of non-Italian origin.

A yet severer scourge, for the most part confined to Northern Italy, has also been the subject of preventive legislation. The Chamber of Deputies has now before it the Bill of Signors Grimaldi and Magliani (the Ministers of Commerce and Finance) for excluding from the alimentation of the peasant unsound wheat, or rather maize, the nearest equivalent for the Italian "gran turco." Such food, the chief cause of pellagra, will be put out of reach of the poorer population of the agricultural districts by the establishment of "essiccatoi," or desiccating apparatus, by which the maize is presented for food only when by evaporation it has been deprived of all pellagra-causing elements. Where communes are unable to provide such "essiccatoi" for themselves, they are to be aided towards that end by State subsidies, the aggregate of which shall not exceed 50,000 lire (£2000) annually. This seems a small sum for such an object when we consider that the pellagra-stricken communes in Italy amount to 2453, according to the last returns in 1881. But Signors Grimaldi and Magliani set forth in their Bill that in some of these communes desiccation of the maize is effected without special apparatus, and that in others private enterprise or benevolence provides such apparatus gratuitously. There remain of the communes that require State help for the supply of "essiccatoi" not more than the subvention will amply cover, an "essiccatoio" costing on an average some 2000 lire (£80).

Italy, more than any other European country, is lavish of honours to her great physicians and surgeons. Francesco Puccinotti, the classic historian of medicine, the translator of Aretæus, the acutest intellect ever applied in Italy to medical jurisprudence, author of memorable treatises on epidemics peculiar to the nineteenth century, and in all respects exemplary as a citizen, is about to receive in the Santa Croce of Florence (the Walhalla of distinguished Italians) the tribute of a monument in bronze. Urbino, his native town, heads the subscription-list with 1000 lire (£40), and the Universities of Pisa and Macerata, with the Institute of Higher Studies in Florence, are combining to augment it by their own contributions and those of other seats of learning.

An important addition has just been made to sanitary literature by Dr. Giuseppe Pinto. "I Rioni di Roma, considerati dal Lato Igienico" (The Regions of Rome considered in their Hygienic Aspect). Dr. Pinto's work will be found to warrant the high expectations formed from his previous contributions to the same interesting discussion.

Rome, Feb. 12th.

THE SERVICES.

WAR OFFICE. — Army Medical Staff: Surgeon-Major Gough Ashton, M.B., is granted retired pay; Surgeon-Major Sandford Moore, M.B., is granted retired pay, with the honorary rank of Brigade Surgeon.

ADMIRALTY. — The following appointments have been made:—Surgeon P. E. Maitland, to the *Acorn;* Surgeon S. T. O'Grady, to the *Lion;* Surgeon J. J. Walsh, M.B., to the *Vernon*, additional; and Patrick J. Sheridan to be Surgeon and Agent at Kilmore.

YEOMANRY CAVALRY. — Royal East Kent: Honorary Brigade Surgeon Owen William George, M.D. (late 1st Life Guards) to be Surgeon.

ARTILLERY VOLUNTEERS.—2nd Volunteer (Devonshire) Brigade, Western Division, Royal Artillery: Frederick Adams Dawson, M.D., to be Acting Surgeon.

MEDICAL NOTES IN PARLIAMENT.

Army Medical Officers.

IN the House of Commons, on the 15th inst., Sir G. Hunter asked the Secretary for War whether, in the recent Army Warrant, any alteration had been made in the relative rank, position, or titles of medical officers to those heretofore held by them. Mr. E. Stanhope replied that relative rank has been abolished for all departments; but medical officers retain all the privileges heretofore attaching to it, and that in other respects their status is unchanged.

Police and Sanitary Regulations.

On the 16th inst., on the motion of Mr. Stuart-Wortley, it was resolved that the Committee of Selection should appoint a committee, not exceeding nine members, to whom should be referred all private Bills promoted by municipal and other local authorities, by which it was proposed to create powers relating to police and sanitary regulations which deviated from, or were in extension of, or were repugnant to, the general law.

Open Spaces.

Leave was given to Sir J. Lubbock to bring in a Bill for extending certain provisions of the Metropolitan Open Spaces Act, 1881, with amendments, to urban sanitary districts throughout England and Wales. The Bill was read a first time.

Obituary.

PROFESSOR BÉCLARD.

M. JULES BÉCLARD, who died somewhat suddenly last Wednesday, was the son of the celebrated anatomist Pierre Augustin Béclard. He was born in 1818. After passing through his medical curriculum in Paris, he became house-physician to the Asylum of Charenton, where he remained for three years. In 1842 he took the degree of Doctor of Medicine. His first scientific publication was "Les Eléments d'Anatomie Générale," which had been left in manuscript by his father. Pursuing the same line of study, he published in 1864 the results of his researches on the Cartilaginous System. These were followed by memoirs on "Muscular Contraction in its relation to Animal Temperature," "On the Influence of the Temperature upon the Comparative Development of Organic Systems," "On the Functions of the Spleen," "On the Influence of Light," and "On the Development of Animals." Besides these, M. Béclard furnished numerous contributions to the "Dictionnaire Encyclopédique des Sciences Médicales," and at one time was a frequent writer in the *Gazette Hebdomadaire.* But his principal work was his "Traité de Physiologie Humaine," which has reached its seventh edition, having now been for more than thirty years the standard

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text-book for French students. At the University, Béclard obtained his first success in the competition for the Assistant Professorship (*Agrégation*) of Anatomy and Physiology, the unsuccessful candidate being the illustrious Claude Bernard. Two years later, in 1846, being at the time only twenty-eight years of age, he competed for the chair of Anatomy unsuccessfully, and in 1852 he again failed to secure the lectureship on Hygiene. The *concours*, or public competition, being afterwards abolished, Béclard was obliged to wait until the death of Longet, whom he succeeded as Professor of Physiology in 1871. Elected to the Academy of Medicine in 1862, he was at once named annual secretary, and the remarkable panegyrics which he pronounced in this capacity designated him in advance for the functions of perpetual secretary, to which post he succeeded on the death of M. Dubois. In 1881 he became Dean of the Faculty of Medicine, after the death of Professor Vulpian, a dignity which he held at the time of his death.

Béclard had studiously abstained from practice, and devoted all his energies to his duties as a professor and to his functions as perpetual secretary of the Academy of Medicine. When he was nominated Dean of the Faculty his talents as an administrator became evident, and upon the expiration of his first term of office its renewal was claimed by the unanimous vote of all the members of the Faculty, both professors and *agrégés*. His extreme affability, his impartiality, and his well-known kindness made him a favourite with all classes, and no Dean was ever more regretted, both by his colleagues in the professoriate and the students placed under their tuition. In fact, it may be said that Béclard had none but friends—a happy fate for a man of perfect integrity, and who never failed to defend what he thought to be the right.

Medical News.

SOCIETY OF APOTHECARIES.—The following gentleman passed the examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received a certificate to practise on the 3rd inst.:—

Chapman, Robert Hugh, M.R.C.S., Halford-road, Richmond.

Passed on the 10th inst.:—

Skelding, Henry, M.R.C.S., M.B., B.C. Camb., Euston-square.
Bartholomew, Alfred Adam, Crowle, Doncaster.

A BALL was held at the Bristol Lunatic Asylum on the 9th inst.

THE annual ball in aid of the funds of the Liverpool Stanley Hospital was held on the 9th inst.

DR. W. SEDGWICK SAUNDERS, medical officer of health and public analyst for the City of London, last week celebrated his silver wedding.

THE annual meeting in connexion with the South Devon and East Cornwall Hospital was held on the 8th inst., Sir Massey Lopes presiding.

THE Right Hon. G. Sclater-Booth, M.P., has accepted the Presidentship of the Congress of the Sanitary Institute of Great Britain, to be held at Bolton in September next.

UNDER the will of the late Mrs. Elizabeth Hughes, the City of Dublin Hospital has received a sum of £997 2*s.* 5*d.* Mr. Alexander Finlay has given £50 to the Belfast Royal Hospital.

The annual Hospital Sunday collections in aid of the medical charities of Manchester and Salford were made on the 14th inst. The Hospital Saturday collection is to be held on the 19th inst.

ARRANGEMENTS have been made for holding this year a Hygienic Exhibition at Warsaw. The exhibition will be divided into five groups, comprising respectively the hygiene of food, of dress, of dwellings, of schools, workshops, and hospitals, and, finally, statistics and meteorology. The opening is fixed for May 15th, the closing for July 1st.

AT the annual general meeting of the governors of and subscribers to the Nottingham Coppice Hospital on the 10th inst., satisfactory medical and financial reports were presented and adopted.

THE annual meeting in connexion with the Essex and Colchester Hospital was held on the 10th inst.

BRADFORD INFIRMARY AND DISPENSARY.—The sixty-second annual meeting of the governors of this institution was held on the 8th inst. The total number of in-patients during the past year was 1511, and of out-patients 5330, as compared with 1385 and 5137 respectively in 1885. The income amounted to £8110, and the expenditure to about £7842.

ROYAL GENERAL DISPENSARY.—The annual meeting of the governors of this institution was held on the 14th inst., when the report showed that during the past year 11,050 cases had come under the notice of the medical officers, 3684 being new cases, and 2178 visits had been made to 546 patients at their own homes. The statement of receipts and expenditure was satisfactory, there being a balance at the bankers of £62.

THE thirty-fourth annual meeting of the Manchester and Salford Sanitary Association was held on the 4th inst.

HOSPITALS ASSOCIATION.—The third general meeting of the members of this Association was held on the 16th inst., when a paper written by Miss Manson, Matron of St. Bartholomew's Hospital, entitled "Is it Desirable for Metropolitan Hospitals to possess Nursing Institutions, and to supply Nurses for Private Cases outside the Hospital Walls?" was read by Dr. Bedford Fenwick.

BROMPTON CANCER HOSPITAL.—The annual meet- of the governors of this charity was held on the 16th inst. From the report of the committee, it appears that during the past year 1028 new patients were received, 652 being in-patients, and 976 out-patients. The total number of visits of new and old out-patients was 6276, against 5360 in 1885.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Professor Charles Barrett Lockwood, F.R.C.S., will deliver a course of three lectures on "The Development and Transition of the Testicle, Normal and Abnormal," on Wednesday, Friday, and Monday, Feb. 23rd, 25th, and 28th, at 4 P.M. precisely each day. Students desirous of attending these lectures are admitted on the introduction by a Fellow or Member of the College.

THE JUBILEE.—At a meeting at Chipping Norton on the 8th inst., it was decided to erect a cottage hospital to commemorate the Queen's Jubilee. A site of land has been presented and several subscriptions are already promised. A suggestion has been made that the Children's Hospital in Great Ormond-street be completed by means of a subscription raised among the children of England in celebration of the Jubilee.

GUY'S HOSPITAL.—Mr. J. S. Morgan has promised £10,000 in aid of the funds of this hospital, on condition that the amount required to put the institution into a state of thorough efficiency—viz., £100,000—be secured on or before the 1st day of May next. A grand afternoon concert in aid of the Special Fund will be given at Willis's Rooms on the 22nd inst., when Mdlle. Antoinette Trebelli, Madame Patey, Mr. Edward Lloyd, Mr. Santley, and other distinguished artists will appear.

THE TRAINED NURSES' ANNUITY FUND.—The Committee of the Trained Nurses' Annuity Fund desire to call the attention of lady superintendents and matrons of hospitals, infirmaries, &c., to the existence of this fund, which was founded in 1874, and has been steadily increasing ever since. At this moment twelve annuities of £15 per annum have been permanently founded, and above £4000 is invested in the hands of trustees, the interest of which pays the annuitants, so that there is no danger of an annuity failing through lack of funds; but the number of applicants is daily increasing. It is calculated that there are now about 10,000 nurses in the United Kingdom. If each would give 1*d.* a month or 1*s.* a year towards the fund, its powers of usefulness would rapidly increase. Lady superintendents and matrons would therefore do well to bring this matter before the nurses on their staff, and to plead on behalf of their sisters whose health has broken down under the fatigue and anxiety of their arduous profession. Communications may be addressed to R. Gofton Salmund, Esq., hon. secretary, 73, Cheapside, London, E.C.; or to Lady Bloomfield, Shrivenham, Berks.

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DEATHS FROM CHLOROFORM.—On the 10th inst. an inquest was held at Sheffield on the body of a woman who had died from the effects of chloroform, which had been administered for the performance of an operation. A verdict of death from syncope was returned. On the 14th inst. an inquest was held at the Ipswich and East Suffolk Hospital on the body of a man who had died at that institution while under the influence of chloroform. The jury returned a verdict in accordance with the evidence, and exonerated the medical man from all blame in the matter.

CITY OF LONDON LYING-IN HOSPITAL.—The 136th annual meeting of the governors of this well-known and deserving charity was held on the 9th inst., when the Committee of Management submitted a report stating that the year 1886 had in many respects been a satisfactory one. There had been an increase in the number of both in- and out-patients, an increase which had been accompanied by a reduced mortality. The number of in-patients delivered during the year had been 283; 287 children had been born—viz., 131 boys and 156 girls; 15 children were still-born; 3 women and 5 children had died. In the out-patient department 1249 women had been delivered, as against 1118 in 1885. The income for the year from all sources, together with the balance left over at the end of 1885, was £3166, while the expenditure amounted to £2925.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BROOK, W. F., M.R.C.S., L.S.A., has been appointed Clinical Assistant in the Ear Department of St. Thomas's Hospital.

BROWN, C., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant in the Throat Department of St Thomas's Hospital.

BULSTRODE, H. T., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant in the Ear Department of St. Thomas's Hospital.

CALVERT, J. T., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant in the Skin Department of St. Thomas's Hospital.

CLARKE, FREDK. H., M.B., C.M.Ed., has been appointed House-Surgeon to the Great Yarmouth Hospital.

DAVIES, E. T., M.D., C.M.Ed., has been reappointed Assistant Surgeon to the Hospital for Women, Shaw-street, Liverpool.

EVANS, C. S., M.B.Cantab., M.R.C.S., L.S.A., has been reappointed Resident House-Physician to St. Thomas's Hospital.

FITZGERALD, G. C., B.A., M.B., B.C.Camb., M.R.C.S., has been appointed Junior Assistant Medical Officer to Cane-hill Asylum, Surrey, vice H. Gardiner Hill, promoted.

HAWKINS, H. P., M.R.C.S., L.S.A., has been appointed Assistant House-Physician to St. Thomas's Hospital.

HINSHELWOOD, JAMES, M.A., M.B., C.M., has been appointed House-Surgeon to the North Riding Infirmary, Middlesbrough-on-Tees, vice Fraser, resigned.

HUTTON, J. S., M.B. Lond., L.R.C.P., M.R.C.S., has been appointed House-Surgeon to St. Thomas's Hospital.

MACEVOY, H. J., L.R.C.P., M.R.C.S., has been appointed Resident Accoucheur to St. Thomas's Hospital.

MONTAGUE, A. J. H., M.B.Dur., L.R.C.P., M.R.C.S., L.S.A., has been reappointed Non-resident House-Physician to St. Thomas's Hospital.

O'BRIEN, P. M., M.R.C.S., has been appointed Resident Medical Officer to the North London Hospital for Consumption, Hampstead.

PESKETT, ALFRED FREEMAN, M.R.C.S., L.S.A., has been appointed Medical Officer of Health for the Leyton Urban District, and Surgeon to the Master Bakers' Almshouses, vice A. Peskett, M.D., deceased.

PHILLIPS, H. HEYGATE, M.D., L.R.C.S.I., has been appointed an Honorary Consulting Surgeon to the Reading Dispensary.

SANSOM, H. A., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant in the Throat Department of St. Thomas's Hospital.

SKELDING, H., M.B., B.A.Camb., M.R.C.S., L.S.A., St. Bartholomew's Hospital, has been elected Resident Surgeon to the Bedford General Infirmary, vice Pynsent C. Smith, whose term of office has expired.

SOLLY, E., M.R.C.S., L.S.A., has been appointed Clinical Assistant in the Skin Department of St. Thomas's Hospital.

STABB, H. C., L.R.C.P., M.R.C.S., L.S.A., has been appointed Assistant House-Surgeon to St. Thomas's Hospital.

STACY, J. H., L.R.C.P., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator to the First District of the Henstead Union, Norfolk, vice T. W. Richardson, M.R.C.S., L.S.A., resigned; also Medical Officer to the Sixth District of the Norwich Union, vice C. W. Doyle, M.B., resigned.

STAVELEY, W. H. C., L.R.C.P., M.R.C.S., has been appointed House-Surgeon to St. Thomas's Hospital.

SYMES, E. WEST, M.D.Edin., M.R.C.S., has been appointed Medical Officer to the Halifax Post Office, vice Solomon Smith, M.R.C.S., &c., resigned.

SYMES, G. DICKINSON, M.R.C.S., late Clinical Resident, Bethlem Royal Hospital, has been appointed Assistant Medical Officer to the Lancashire County Asylum, Rainhill.

TONKING, J. R., L.R.C.P., M.R.C.S., has been appointed Assistant House-Surgeon to St. Thomas's Hospital.

WALDO, F. J., M.A., M.D Cantab., M.R.C.S., has been appointed Assistant Physician to the Chelsea Hospital for Women.

WHEATLY, A. W., M.B., S. Sc.C. Dur., M.R.C.S., has been appointed Surgical Registrar and Anæsthetist to the National Orthopædic Hospital.

WHEATON, S. W., L.R.C.P., M.R.C.S., has been reappointed Resident House-Physician to St. Thomas's Hospital.

WILLOUGHBY, EDWARD F., M.B.Lond., M.R.C.S., has been appointed Chief Medical Officer to the Sanitary Assurance Association, vice Stevenson, resigned.

WINFIELD-ROLL, G., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been appointed Second Ophthalmic Clinical Assistant to St. Thomas's Hospital.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

DUMFRIES AND GALLOWAY ROYAL INFIRMARY.—Assistant House-Surgeon (qualified or unqualified). Board and washing, but no salary.

ECCLES AND PATRICROFT HOSPITAL, near Manchester.—House-Surgeon. Salary £60 per annum, with board and rooms.

ROYAL PIMLICO DISPENSARY.—Medical Officer.

SALFORD AND PENDLETON ROYAL HOSPITAL.—District Surgeon. Salary £80 per annum, with board and lodging.

Births, Marriages, and Deaths.

BIRTHS.

BUSHE.—On the 10th inst., at Beaufort Lodge, Hounslow, the wife of Surgeon-Major Cecil Bushe, M.B., Medical Staff, of a son.

CHAPMAN.—On the 11th inst., at Denham House, Goldhawk-road, W., the wife of C. W. Chapman, L.R.C.P.Lond., M.R.C.S., of a son.

GAIRDNER.—On the 10th inst., at Gibson-square, N., the wife of John Gairdner, M.R.C.S., L.S.A., of a son.

HENTSCH.—On the 11th inst., at Portland-place, Camberwell, S.E., the wife of John Page Hentsch, M.R.C.S., of a daughter.

OGILVY.—On the 9th inst., at Bournemouth, the wife of Surgeon-General Ogilvy, of a son.

TRIPP.—On the 5th ult., at Herat, Institution-hill, Singapore, the wife of C. Ll. H. Tripp, M.R.C.S., L.R.C.P.Lond., L.S.A., of a daughter.

MARRIAGES.

BERRY—BALDWIN.—On the 8th inst., at St. Saviour's, Paddington, F. C. Berry, M.D., to Charlotte Meers, daughter of the late G. T. Baldwin, Esq., of Fakenham, Norfolk.

BLANCARD—TAYLOR.—On the 9th inst., at St. George's Church, Ramsgate, by the Rev. C. E. Shirley Woolmer, Vicar of Ramsgate, Surgeon J. T. Blancard, Indian Medical Staff, to Edith Emma Mary, younger daughter of Charles Taylor, Esq., late of Ealing College.

BRADBURN—CHILCOT.—On the 14th inst., at Christ Church, Ealing, W., by the Rev. J. S. Hilliard, M.A., James Denham Bradburn, F.R.C.S.Edin., eldest son of James Bradburn, Esq, of Monks' Hall, Eccles, Lancashire, to Emily Victoria, widow of the late Jas. Chilcot, M.R.C.S., of Mere, Wilts.

DYSON—WALL.—On the 10th inst., at Stoke Prior Church, by the Rev. Harcourt Aldham, B.A., Thomas Edward Dyson, M.B., I.M.S., to Annie, eldest daughter of the late Wm. Wall, Esq., of Stoke Prior, Worcestershire.

GOSTLING—PARKINSON.—On the 10th inst., at St. Mark's, West Hackney, by the Rev. J. G. Pilkington, M.A., Vicar, William Ayton Gostling, M.D., of Worthing, Sussex, to Frances Marion, only daughter of Mr. G. H. Parkinson, of the Royal Courts of Justice, London.

HOLT—BUSTEED.—On the 9th inst., at Isleworth, Percy Holt, Army Medical Staff, to Sarah, only daughter of T. M. Busteed, Esq., Barrister-at-Law, Indian Judge, retired.

STEDMAN—BUCKLEY.—On the 10th inst., at St. James's, Norlands, John Buck Stedman, F.R.C.S., to Emma Buckley, widow of the late John Buckley, Esq., of Manchester.

DEATHS.

AMBLER.—On the 6th inst., at Colville-square, Bayswater, Vincent Ambler, M.D.

BRADDON.—On the 5th inst., suddenly, at his residence, Ham House, Upton-on-Severn, Charles Braddon, M.R.C.S., aged 71.

BUTT.—On Dec. 20th, 1886, at Blenheim, New Zealand, the Venerable Archdeacon Henry Francis Butt, M.R.C.S., in the 71st year of his age.

GIBSON.—On the 16th inst., at Kirkland, Campbeltown, Argyllshire, Gregory Gibson, Medical Student, aged 23.

PRENTIS.—On the 14th ult., at Calcutta (on his way to England), Surgeon-Major Chas. Prentis, Bengal Medical Service, M.R.C.S., F.L.S., &c., late of Gorakhpur, in his 52nd year.

RIDER.—On the 10th inst., John Rider, of Wellington, Shropshire, M.R.C.S., L.S.A., aged 64.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

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Medical Diary for the ensuing Week.

Monday, February 21.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M; Thursday, 2.30.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. E. Milner: On the Different Modes of Administering Mercury in Syphilis, and the Indications for their Application.
SOCIETY OF ARTS.—8 P.M. Mr. W. Y. Dent: Building Materials (Cantor Lecture).

Tuesday, February 22.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 1.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.
ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Prof. Arthur Gamgee: The Function of Respiration.
SOCIETY OF ARTS.—8 P.M. Mr. J. Starkie Gardner: Wrought Ironwork.
ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8.30 P.M. Prof. Ferrier: The Functional Topography of the Brain.—Mr. H. D. Rolleston: Description of the Cerebral Hemispheres of an Adult Australian Male.—Mr. Sören Hansen: On a Fossil Human Skull from Lagoa Santa, Brazil.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. Henry Morris: A case in which the Urinary Bladder was twice Ruptured, the first time by an Injury, the second time—seven years after the first—by the giving way of the Cicatrix.—Mr. W. H. Bennett: A case of Extra-peritoneal Rupture of the Urinary Bladder, the Direct Result of Aspiration above the Pubes, with Remarks on Some Objections to the Use of the Aspirator as a Means of Evacuating the Bladder, and Suggestions for the Treatment of certain cases of Retention of Urine.

Wednesday, February 23.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M.; Saturday, same hour.
SOCIETY OF ARTS.—8 P.M. Mr. John W. Urquhart: Recent Advances in Sewing Machinery.
HUNTERIAN SOCIETY.—8 P.M. Dr. Scarth: A Review of Forty Cases of Diphtheria, illustrating its Manner of Spreading, and its Relations to other Fevers, to Diathesis, and to Neurotic and Paralytic Conditions.
BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens will be shown. Adjourned Discussion on Dr. Fitzgerald's paper on the Use and Abuse of Pessaries. Council at 8 P.M.
NEUROLOGICAL SOCIETY OF LONDON.—8.30 P.M. Exhibition of Clinical Cases.

Thursday, February 24.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Mr. Edmund Gosse: The Critics of the Age of Anne.

Friday, February 25.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
SOCIETY OF ARTS.—8 P.M. Mr. Holt S. Hallett: New Markets and Extension of Railways in India and Burmah.
QUEKETT MICROSCOPICAL CLUB.—8 P.M. Annual General Meeting for Election of Officers. President's Address.
CLINICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Hughlings Jackson: A case of Paralysis of Left Leg from Subcortical Disease.—Dr. Carrington: A case of Rheumatic Hyperpyrexia treated by the Cold Bath.—Dr. Hadden: A case of Epilepsy following an Injury to the Leg.—Mr. Bowlby: Cases of Profuse Hæmaturia in connexion with Granular Kidney. Living Specimens: Dr. Arthur Davies: Two cases of Myxœdema (male and female).
ROYAL INSTITUTION OF GREAT BRITAIN.—9 P.M. Captain W. de W. Abney: Sunlight Colours.

Saturday, February 26.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. The Right Hon. Lord Rayleigh: Sound.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments)

THE LANCET Office, February 17th, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Feb. 11	30·38	E.	35	33	...	41	31	...	Overcast
,, 12	30·47	N.E.	36	35	...	45	35	...	Cloudy
,, 13	30·48	N.E.	33	35	...	42	34	...	Cloudy
,, 14	30·25	N.E.	35	34	...	41	33	...	Overcast
,, 15	30·34	E.	39	39	...	41	35	...	Overcast
,, 16	30·46	E.	30	...	...	42	27	...	Foggy
,, 17	30·44	S.W.	25	...	...	...	24	...	Foggy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

THE EFFECTS OF ALCOHOL.

A. G.—It is not possible to state with arithmetical precision the proportion of diseases due to alcohol. It is certainly very large. Medical opinion on the diseases due to alcohol is to be gathered from various quarters, rather than from any one book. The views of many eminent medical men may be found in the evidence taken on the subject by the Committee of the House of Lords in 1878–9. There is a preponderating amount of medical opinion to the effect that all but a very moderate amount of alcohol to the majority of people is injurious.

WILL *Medicus* (Salford) kindly forward his card, as the one sent has been mislaid.

NIGHTMARE.

To the Editors of THE LANCET.

SIRS,—I should be much obliged to any *confrère* who would kindly advise me what to do for nightmare, greatly affecting sleep and proper rest. I have no sensation of fright, but wake up after distressing dreams, with disturbed heart's action, flushed face, &c. The amount of nightly disturbance varies; but the shortest interval between falling asleep, dreaming a long dream, and waking has been as little as five minutes. No particular symptoms referable to any special organ in fault. Proximate cause probably due to liver disturbance. I am fifty years of age, and have some lung trouble of five or six years' standing, now quite chronic, and limited to slight expectoration and occasional slight hæmoptysis. I am, Sirs, yours faithfully,

February 15th, 1887. M.D.

ONE REASON FOR AN URGENT CALL INTO THE COUNTRY.

A FRENCH practitioner received a call one afternoon, about five o'clock, from one of his country patients, a farmer who had been in town at market all day, who requested him to drive over at once to see a member of his family. The case not appearing to be urgent, the doctor replied he would go in the morning. "Oh, that will not do at all," said the farmer. "I ask you to go now because I want a lift home, and to hire a trap will cost more than your visit."

Dr. Reihlen (Stuttgart).—We cannot exchange.

COLORADO.

To the Editors of THE LANCET.

SIRS,—I would feel thankful if some of your numerous correspondents would give me their experience of the climate of Colorado for consumptives, and also their opinion of its relative advantages as compared with other climates. I am, Sirs, yours truly,

Feb. 14th, 1887. A PHYSICIAN.

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HEAT HOLIDAYS.

WE extract the following paragraph from the *New York Medical Record* of Feb. 5th:—"In Switzerland and some parts of Germany the law provides that all schools, public or private, must give the scholars a holiday whenever the temperature reaches a certain height. The regulations in Basle are that when the temperature reaches 77° F. in the shade by 10 A.M. the school must be closed until the late afternoon. These heat holidays are very popular among the scholars."

Dr. Thos. Reid.—The R.C.P. Edin. does not pretend that its licence is a qualification in surgery as well as physic, as the London College has always maintained is the case with its licence, and as the public bodies have recognised. This statement virtually answers all our correspondent's other questions.

M.D.—The statements contained in the extract from the "chatty letter" are so completely at variance with the results of our own inquiries that we cannot undertake to publish it without more precise and detailed information.

WE have received from *Messrs. Ellis and Steele*, hon. secretaries of the Association of Members of the Royal College of Surgeons, a communication for which we regret we are unable to find space this week.

"DROWSINESS ACCOMPANYING DYSPEPSIA."

To the Editors of THE LANCET.

SIRS,—Drowsiness accompanying digestive troubles is very common; but I think your correspondent, "L.R.C.P. Lond., M.R.C.S.," will find it most extreme in cases resembling the following:—The patient is anæmic and irritable, troubled with palpitation, and sensation of fulness after meals caused by flatus. Bowels may be constipated or not. Used to a sedentary life. The principal points, however, to be looked to are the teeth and urine; the former are bad, and the latter scarcely acid, or else alkaline, and often phosphatic. Alkalinity or deficient acidity is probably present in the stomach, and germs from the teeth swallowed in the saliva. In the stomach, as a rule, the trouble commences; hence the distension and, from pneumogastric irritation, the palpitation. Pepsine can only act in an acid medium, and so the food undergoes some abnormal decomposition, with the production of gas, instead of normal digestion. It is not difficult to imagine that the products of such changes, taken up and passing through the liver into the general circulation, would produce toxic symptoms. The brain, already badly nourished and anæmic, cannot work with blood deficient in oxygen-carrying corpuscles and loaded with morbid products as well. It therefore "sleeps," disturbed, however, by fitful dreams as more or less irritating matter is supplied to it.

What should be the treatment of such a condition? Simply supply what is deficient. If there be constipation, a mild aperient—say, ext. cascar. sag., gr. iii., o. m. ante cib. Attend to the teeth. For the alkalinity and palpitation the following:—℞. Acidi hydroch. dil., m. xv.; tr. nucis vom., m. x.; tr. columbæ, m. xv.; aquam ad ℥i; ter die post cibos, with or without succus taraxaci, ʒi., or vin. pepsin., ʒi., as required. Limit smoking. Stop all tea, coffee, cocoa, and hot fluids. Let the patient drink cold water for breakfast, light ale, claret, or water at dinner—say, at 2.30—and a light supper at 8 P.M., with the same drink, and no fluid between meals. Nearly finish every meal before drinking. Advise friction with a towel over the abdomen, sufficient out-door exercise, and early bed.

I am, Sirs, yours faithfully,
Feb. 14th, 1887. F. T. S.

"PASSING RICH ON £40 A YEAR."

[THE guardians of a Norfolk union advertise for a district medical officer for ten parishes at a stipend of £40 a year, with extras, he to supply all medicines.—*Local paper.*]

The country parson who, in olden days,
Formed the choice subject of a poet's praise
Spent a calm life of usefulness and cheer,
And thought him "passing rich on £40 a year."

Now Poor-law surgeons, rich in physic's lore,
For arduous work in places half a score,
All drugs supply, the sick poor's ills allay,
And £40 a year's the bounteous pay.

The parson lived in frugal days of old;
His wants were few, hence scant was then his gold.
Not so the doctor of the present day:
His wants are many, small howe'er his pay.

Eastern Daily Press.

A QUERY.

To the Editors of THE LANCET.

SIRS,—I have had twenty years of grilling in India, and am now on my way home, with the intention of spending a year or two there. I fear the cold of the home winter unless I can get some sheltered spot by the sea, wherein to pass the cold season under favourable circumstances. I do not care whether the time be passed in England or Ireland, if I can only be sure of a mild and tolerably equable temperature by the sea. I shall feel much obliged if some of your readers will favour me with advice as to the best place to go to which shall fulfil the foregoing conditions and be tolerably cheap.

I am, Sirs, yours faithfully,
February, 1887. J.

A ROMAN SKELETON FOUND AT PLUMSTEAD.

A SHORT time since a most interesting discovery was made by some workmen in a field at Plumstead of a leaden coffin containing a skeleton. Various persons, more or less learned in antiquarian matters, all coincided in placing the date of the leaden coffin about 1500 years ago, and as being probably of Roman workmanship. The owner of the ground promised to give the remains to a medical man for a museum, but was unable to carry out his intention, as the Vicar of Plumstead had the relics buried privately in the parochial churchyard, and now refuses to reveal their present position. This action of the vicar was discussed at first in a tone of banter, and afterwards with more seriousness, at the last meeting of the Society of Antiquaries. The remains had fortunately been sketched by Dr. Caw, assistant medical officer of the Plumstead Infirmary. It is, however, to be feared that unless the vicar should see fit to relent, or the Home Secretary to order exhumation, these interesting relics will be entirely lost to science.

H.—A note on Saccharine appeared in our issue of Dec. 18th last, page 1193; one on Antifebrine in THE LANCET for Sept. 4th, page 462, and another on Oct. 2nd, page 645.

SEA-SICKNESS.

To the Editors of THE LANCET.

SIRS,—Dr. Paget Thurstan, while offering an explanation of the cause of sea-sickness, has certainly hit upon a very old and usual mode of treatment. That it is the abdomen, rather than the brain or spinal cord, which requires treatment I feel convinced. On short voyages the best preliminary is, no doubt, a good meal of cold meat, and then in a couple of hours or so the application of a broad belt of webbing or rubber. It appears to me rather the up-and-down pitching movement of the vessel than the side-to-side rolling action which invokes the sensation. The supine position is a distinct advantage, and serves to keep off the sickness more permanently than anything else. Dr. Gowers says that "sea-sickness is not improbably due to the oscillations of the endolymph in the semicircular canals"; but, surely, this oscillates freely enough in ordinary locomotion. The puzzle is, why do some people always suffer and others never? And who are most exempt, the stout or thin, the tight-laced or the rationally dressed?

I am, Sirs, yours faithfully,
Feb. 12th, 1887. J. RUSSELL HARRIS, M.D.

To the Editors of THE LANCET.

SIRS,—Dr. Paget Thurstan's letter to THE LANCET last week is one of great practical value. I have always thought a great deal might be done in the way of alleviating sea-sickness by mechanical means. It may interest your readers to hear how I prevented myself from being ill last time I crossed from Boulogne to Folkestone. I am a very bad sailor. My method was as follows:—I stood up erect in the cabin, near the door, where I was at the same time protected from the weather and had plenty of fresh air to breathe. I kept tight hold of one of the pillars supporting the deck overhead with one hand, and as the boat heaved upwards and down again as it went over a wave I took a few rapid paces, between a walk and a run, uphill as it were. In this manner I deceived my stomach. That organ imagined the motion was due to my own exertions, which it did not object to submit to, and never found out that at the same time that I walked or ran uphill the boat was playing all sorts of tricks with me. I stood with my face in the direction the boat was going. The passage was an unusually bad one, nearly everyone on board being affected; but I escaped. The method I have endeavoured to describe is rather fatiguing, as it involves standing during the whole passage. It is therefore only suitable for a short sea passage. I have tried other mechanical means to prevent sea-sickness, but have never found one equal to this in efficiency for a short passage.

I am, Sirs, your obedient servant,
Richmond-terrace, S.W., Feb. 15th, 1887. HENRY SUTHERLAND, M.D.

To the Editors of THE LANCET.

SIRS,—At page 350 of your last issue is an interesting note upon the above affliction by Dr. Thurstan, who suggests whether a belt that keeps up pressure on the stomach might not be useful. A reference to Section 862 of the "Medical Digest" will show that this plan has many advocates. One gentleman advises collodion applied to the abdomen. Singing has been affirmed to prevent an attack, evidently acting by fixing the abdominal muscles. Lying on the right side is also stated to be a specific.

I am, Sirs, yours truly,
Boundary-road, N.W., Feb. 14th, 1887. RICHD. NEALE, M.D. Lond.

"FISSURED LIP."

To the Editors of THE LANCET.

SIRS,—If those gentlemen who advocate the heroic treatment of paring the edges and putting in harelip pins for fissure of the lip would try keeping the part moist with vaseline or other greasy application, and forbid all sources of irritation, smoking especially, they would find the fissure rapidly heal.—I am, Sirs, yours truly,

T. GRANT LANGHORNE, M.R.C.S., &c.
St. James's-square, W., Feb. 15th, 1887.

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THE JACOB TESTIMONIAL.

THE sum subscribed to this fund now amounts to about £431. We are asked by the honorary treasurer to remind gentlemen of their subscriptions promised, in the hope that they will forward them immediately, so that their names may appear in the address about to be presented.

Mr. E. H. Hackett.—The literature of the subject is scattered about in pamphlets and publications. Our own columns have contained a large amount of information on Pasteur's method.

Mr. G. W. Parker.—1. We think not.—2. Scoresby Jackson's work on Medical Climatology might be consulted.

TREATMENT OF DIPHTHERIA.

To the Editors of THE LANCET.

SIRS,—Having regard to the present prevalence of diphtheria, I hope you will allow me to call the attention of the profession to the very valuable and, I believe, specific effects of sulphite of magnesia upon this disease. I was first indebted to Dr. Lewis of Dalbeattie, N.B., for my introduction to the drug, and have used it during the past eight years with unfailing success. I first drew attention to the remedy in a paper I read some few years ago before the Bradford Medico-Chirurgical Society. I use the sulphite in the proportion of 1 ounce to sixteen ounces of water as a gargle every hour (directing the bottle to be well shaken before use, as the substance is but sparingly soluble), a little to be swallowed after each gargling. In children and bad cases I likewise apply the powder direct to the diseased fauces by immersing a damp throat brush in some of the powder, thus being able to get a considerable portion clinging to the brush, which I then apply direct to the fauces, where I leave as much of the powder as possible. I unhesitatingly state that this drug in my hands has been the means of saving several lives. An arrest of the disease may be looked for within a few hours of its use and the commencing disappearance of the membrane within from twenty-four to forty-eight hours. Without at present entering into the theory of the cure, I should like to state that I am of opinion that the comparatively speaking insolubility of the powder is an important factor in its action, and that the object to be chiefly aimed at in its application is to leave as much of it as possible clinging about the throat.

I remain, Sirs, yours faithfully,

Bradford, Feb. 14th, 1887. W. GILCHRIST BURNIE, M.R.C.S.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Lauder Brunton, London; Dr. F. Warner, London; Prof. Attfield; Dr. John Williams, London; Mr. Erichsen, London; Mr. St. Clair Buxton, London; Dr. Jacob, Leeds; Dr. Saundby, Birmingham; Mr. Lawson Tait, Birmingham; Dr. Hughes-Bennett, London; Dr. J. R. Harris, London; Dr. Quinlan, Dublin; Sir Dyce Duckworth; Mr. Bland Sutton, London; Dr. Forbes Winslow, London; Mr. Roger Williams, London; Dr. Dowding, Bournemouth; Dr. Illingworth, Clayton; Dr. W. B. Fergusson, Newtown; Dr. J. Lucas, Ramsgate; Mr. W. H. Bennett, London; Mr. A. M. Sheild, London; Mr. T. B. O'Connor, London; Dr. J. F. W. Silk, London; Mr. F. C. Turner, London; Mr. Langhorne, London; Dr. J. K. Fowler; Mr. W. Gem, London; Mr. Keetley, London; Dr. Linde; Dr. Davies-Colley, London; Dr. Beverley, Norwich; Mr. Karkeek, Totquay; Mr. T. W. Reid, Canterbury; Mr. B. H. Fenwick, London; Mr. Linnington Ash, Holsworthy; Dr. Railton, Manchester; Dr. Scilla; Mr. John Marshall, Dover; Dr. Neale, Hampstead; Dr. Solomons; Dr. Ward Cousins, Southsea; Mr. W. H. Ellis, Shipley; Messrs. Wright and Co., Bristol; Mr. G. W. Parker, Christchurch; Messrs. Mawson and Swan, Newcastle; Dr. Fraser, Salford; Mrs. De Vere Mathew; Mr. T. Smith, London; Mr. T. F. Raven, Broadstairs; Messrs. Willing and Co., London; Mr. W. R. H. Stewart, London; Lady J. Manners, London; Mr. Easterbrook, London; Dr. Rayner; Messrs. Harris and Son; Mrs. Rees, Pimlico; Mr. Bunting, Notts; Messrs. Kuhner and Co., London; Dr. Wise, Walthamstow; Mr. Casella, London; Mr. J. W. North, York; Dr. Wilks, London; Mr. Poole, Malden; Messrs. Beale and Sons, Brighton; Mr. Burgess, Manchester; Messrs. Boulton and Paul, Norwich; Dr. Tomkins, Leicester; Mr. Somerville, Edinburgh; Mr. Favell, Sheffield; Dr. Mitchell, Manchester; Messrs. Ferris and Co., Bristol; Mr. Jennings, Lambeth; Mr. Archer, Marseilles; Mr. C. Boyce, Maidstone; Mrs. Thompson, Oldham; Messrs. Hopkinson and Co., Nottingham; Mr. Armstrong, Manchester; Messrs. Brown and Co., London; Mr. Evans, Oswestry; Mr. Pitman, Biarritz; Dr. J. P. Glover, Brixton; Mr. Wright, Derby; Mr. T. D. Cook; Dr. Fleming, Glasgow; Mr. Stokes, London; Mr. W. G. Dickinson; Dr. Shirtliff, Kingston; Dr. Wheeler, London; Mr. Lister, Burnley; Mr. Gourlay, Glasgow; Dr. A. Blomfield, Exeter; Mr. Elliott, Carlisle; Mr. W. H. Hughes, London; Mr. Denman, Beaconsfield; Mr. Carless, Liverpool; Mr. Hornibrook, London; Dr. Phillips, Egham; Mr. Bilton Pollard, London; Dr. H. H. Ashdown, Edinburgh; Mr. A. Gresswell, Louth; Dr. Nicholas, Wandsworth; Mr. R. Harrison; Dr. Thursfield, Bridgnorth; Dr. G. Stoker, London; Mr. A. W. Burrell, London; A. J. L.; T.; R. L. E.; M.R.C.S., L.S.A.; Vicar, London; Glasgow Apothecaries' Company; A Physician; Assistant, L.K.Q.C.P.; Pro Bono Publico; M.R.C.S.; Z.; H.; M.D.; M. O. F. S. M. Assoc.; M.D. (Hastings).

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Hope, London; Mr. Dennis, Limehouse; Mr. Macpherson; Messrs. Smith and Son, Birmingham; Dr. Seaton, Sunbury; Messrs. Macfarlan and Co., Leeds; Mr. Hendry, Eastbourne; Dr. Beaman; Messrs. Simpson and Co., Leeds; Mr. Collins, Saxmundham; Dr. McNaughton, New Church; Mr. Miller, London; Mr. Petter, Yeovil; Messrs. Wyley and Co., Coventry; Mr. Alderwood, Battersea; Messrs. Oliver and Boyd, Edinburgh; Mr. Johnston, Glasgow; Dr. McLintock, Church Stretton; Dr. Hicks, Hendon; Mr. Lloyd, London; Messrs. Gale and Co., London; Mr. Macpherson, Middlesbrough; Messrs. Davies and Co., Warrington; Mr. Phillips, Kidderminster; Messrs. Woolley and Sons, Manchester; Mr. Crisp, Keynsham; Mrs. Hitch, Hollington; Mr. Tweed, London; Mr. Horton, Exeter; Mr. Birtwhistle, Barton-on-Humber; Dr. Rayner, Ealing; Dr. Eberle, Thirsk; Messrs. Bell and Bradfute, Edinburgh; Mr. Maclaren, Stickney; Mr. Bentley, New Wortley; Dr. Harris, Pembroke; Mr. Aylen, Fareham; Mr. Proctor, Shifnal; Mr. Smith, Evesham; Dr. More, Kettering; Mr. Cherry, Worcester; Mr. Sargeant, London; Mrs. Brust, London; Mr. Conyers, Leeds; Mr. Mason, London; Mr. Deacon, Leicester; Messrs. Mertens and Co., London; Mr. Gilbert, Hammersmith; Dr. Hilliard, Aylesbury; Mr. Aiken, Aberdeen; Dr. Lindsay, Belfast; Dr. McLennan, Nairn; Mr. Haywood, Manchester; Miss Reall, Matlock; Mr. Rhydial, London; Mrs. Ellis, Grimsby; Mr. Kneebone, Bedford; Mr. Fraser, Clitheroe; Mr. Emminson, Haxey; Mrs. Maitland, London; L. O.; Miss B., Birmingham; M. G., Whitechapel; Secretary, Wrexham Infirmary; Epsilon, Newcastle-on-Tyne; Medicus, Newport; Lady Superintendent, London; M. M.; J. H., Reading; Horace; M.D., London; A., Kingsbridge; Medicus, Ponder's-end; Medicus, Birmingham; J. A. W.; O. K., Peterborough; Surgeon, Eastbourne; Lady Superintendent, St. John's Wood; G. N. G., Uxbridge; Alb; Surgeon, Kirton Lindsey; Matron, Eastbourne; Practitioner; Alpha, Reading; M.D., Swanage; E. L., Manningham.

Western Morning News, Southport Visitor, Bath Chronicle, Bristol Mercury, Hampshire Independent, Oldham Daily Standard, Malton Messenger, Dumfries and Galloway Courier, Dumfries and Galloway Standard, Devon Evening Express, Kent and Sussex Post, Ilfracombe Estates Gazette, Bournemouth Visitors' Directory, &c., have been received.

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ABSTRACTS OF THE

Erasmus Wilson Lectures

ON

EVOLUTION IN PATHOLOGY.

Delivered at the Royal College of Surgeons of England,

BY J. BLAND SUTTON, F.R.C.S.,

ASSISTANT-SURGEON TO THE MIDDLESEX HOSPITAL.

LECTURE III.

REVERSION OR ATAVISM (GER. RÜCKSCHLAG).

MR. PRESIDENT AND GENTLEMEN, — By reversion or atavism is usually understood a tendency in the offspring to resemble its grandparents or more remote ancestors instead of its immediate parents. To the consideration of this interesting and important subject the present lecture will be devoted, but attention will be more particularly directed to reversion as it affects structural aberrations.

Few persons competent to form an opinion on the matter will deny that in the embryological history of a given animal we read a brief epitome of its ancestry—in fact, its evolution. Nothing represents this so forcibly as the following quotation from Von Baer: "In my possession are two little embryos in spirit, whose names I have omitted to attach, and at present I am quite unable to say to what class they belong. They may be lizards or small birds, or very young mammalia, so complete is the similarity in the mode of formation of the head and trunk in these animals. The extremities are still absent in these embryos; but even if they had existed in the early stage of their development, we should learn nothing, for the feet of lizards and mammals, the wings of birds, no less than the hands and feet of man, all arise from the same fundamental form." This striking passage from the writings of the great father of embryology has been rendered more forcible by the efforts of modern investigators in this the most difficult of all departments of biology.

Structural aberrations of congenital origin must be divided into three main classes: 1. Persistent fœtal conditions. 2. The attainment of a functional or more or less full development of structures which for a given animal are normally suppressed during embryonic life. 3. Malformations: spurious atavism. Each of the three classes will be considered in detail.

1. *Persistent fœtal conditions.*—To this class belong the various forms of cleft palate, whether it vary from a bifid uvula to a cleft extending the whole length of the roof of the mouth. In fish the buccal and nasal cavities are a common chamber; in lizards and most birds the hard and soft palates are normally cleft, whilst in the young kangaroo the uvula is bifid. The funicular pouch of the peritoneum is a case in point. Normally it becomes closed in its abdominal segment, leaving the tunica vaginalis testis as an isolated sac. Frequently it fails to obliterate in any of its course. In this respect it conforms to the condition of the pouch found in the majority of mammalia. Up to the present time, although I have examined all the more important mammals specially in regard to this point, I have never yet found the pouch closed. Sometimes it will only admit a thin probe, but in others the index-finger could be easily accommodated in the peritoneal recess. Numerous examples suggest themselves of arrest in development—e.g., malformations of heart, uterus, intestinal canal, &c.

2. *The attainment of a functional or more or less full development of structures which for a given animal are suppressed during embryonic life.*—In my first lecture—that on suppression of parts—a number of examples were given of organs or parts of organs which became arrested during embryonic life, which later on may serve as germs of various pathological growths. In this place we shall have to deal with certain of these structures in a functional condition. It is important for us to bear in mind that, as Gegenbaur points out,[1] "atavism consists not in the existence of a latent germ, but in its becoming perfected and further developed." The facts relating to the os centrale of the carpus, as described in the first lecture, is a good example of what is to be understood by the preceding sentence. It is also essential to bear in mind that in the majority of cases of reversion the atavistic parts do not belong to forms palæontologically remote or systematically far distant. (Hensel, Gegenbaur.) In the case of the os centrale we know that it occurs among the higher apes, for the orang and gibbon present this bone well pronounced in the carpus. The clearest instance, and one which is also interesting, is that furnished by the manus of the horse. It is a well-established fact that Hipparion, the immediate ancestor of the modern horse, possessed three functional toes of the character represented in Fig. 8. Hensel's investigations appear to show that the inner toe was the last to abort when the equine manus assumed the condition shown in Fig. 9. Theoretical reasons would lead us to suppose that if any of these toes reappeared as abnormalities, the one which was the last to disappear would be that most frequently represented atavistically. This is precisely what occurs, and numerous specimens preserved in museums and reported in periodical literature attest the fact. By far the most remarkable of these cases is that reported by Marsh[2] in an important paper on "Horses recent and extinct." Here he gives an excellent account of a case exhibited as the Cuban pony, in which this inner digit had reappeared in a functional form on both hind and fore limbs. The skeleton of a manus of this nature is given in Fig. 9. In such cases as these there seems to be little difficulty in clearly assigning the deformity to atavism; but that the difficulty may not be under-estimated, let the student carefully consider the

FIG. 8. FIG. 9. FIG. 10.

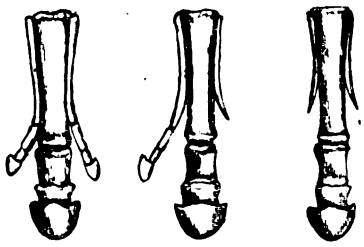


FIG. 8.—The manus of Hipparion, with three functional toes.

FIG. 9.—The manus of a horse with an extra digit functional. (After Marsh.)

FIG. 10.—The manus of the modern horse. One toe functional.

remarks made further on regarding another mode by which the horse may acquire an additional functional digit. In the spider monkeys the thumb is usually represented by a mixture of fibrous and cartilaginous tissue, yet a perfectly developed thumb is occasionally developed in these quadrumana.

3. *Spurious atavism.*—Twenty years ago, anyone writing upon this subject and regarding abnormalities such as we have been considering as reversions to lower forms would have been looked upon in a very unfavourable light. Fortunately the aspect of things has changed, and the discussion of such matters is admissible even in polite conversation. It is exceedingly necessary to guard against running into the opposite extreme, for there is a decided tendency at the present time, when anything unusual occurs in the conformation of the parts of an animal, to find out some corresponding condition in lower animals, and at once to pronounce it as a reversion. This is, of course, erroneous, and an attempt will be made to bring under notice some examples of this false and unsatisfactory form of reasoning. One of the clearest instances known to me is that abnormality of the stomach called congenital contraction. Why it should be termed congenital is not very evident, since no anatomist or pathologist who has studied this matter or described specimens of this nature makes any mention of such a condition being found in the fœtus or young child. A typical form of the malformation is represented in Fig. 11. We see midway between the pylorus and cardiac extremity of the stomach a contraction which divides the viscus in two distinct parts, causing it to resemble somewhat a rudimentary condition of the complex stomach of

[1] Polydactyly as Atavism. Morph. Jahrbüch, Bd. vi., S. 584. (See also Journal of Anatomy and Physiology, vol. xvi., p. 615.

[2] American Journal of Science and Art, 1879.

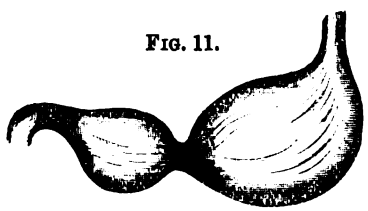
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the ruminant, or an approach rather to that of the genus Cervulus. Carefully bearing in our minds that a reversion consists in a reappearance of a lost character, we shall have to show phylogenetically that man's immediate ancestors possess such a stomach; but we know full well that a complex viscus of the character exhibited by the ruminant stomach is an exceedingly specialised arrangement, reaching its maximum among this division of the Ungulata, and in its most complex form confined to it. Certainly on phylogenetic grounds the argument cannot be upheld. Again, in by far the greater number of cases, atavism consists in retention of fœtal characters, and the atavistic type is, as I have been so careful to point out, due to the retention of fœtal characters which attain a functional condition. If during its embryonic stages the human stomach presented such a shape as that represented in Fig. 11, it could easily be understood that in some cases it would be permanent; but this we know full well is not the case.

Phylogeny and embryology are both eloquent in furnishing denial on this subject; therefore it is illogical, and as unreasonable as it is unscientific, to regard this malformation of the stomach as a reversion. We must also be careful not to confound physiological types with reversions. For example: an erectile tumour is structurally similar to the comb of a cock, yet no one would venture to suggest that the nævi which occur so frequently in infants, immediately over the anterior fontanelle, are to be regarded as reversion to a cock's comb.

A like instance is furnished by the submaxillary gland of the armadillo. In this edentate, the duct, soon after it leaves the gland, dilates into a salivary bladder, serving as a reservoir of some capacity. How easy it would be to say that in cysts of the mouth produced by obstruction and subsequent dilatation of the salivary ducts we have a good instance of reversion to the armadillo type. The thing at

FIG. 11.



So-called congenital contraction of the human stomach.

once strikes us as absurd. Take the case of those remarkable bodies found in some of the ganglia or cysts occasionally connected with the tendons of the flexors and extensors of the hand. Now bodies exactly resembling these occur constantly in connexion with the jaws of sharks. Professor Charles Stewart has shown that immediately above the mandibular articulation in the skate there is a recess where concretions exactly resembling the melon-seed bodies are formed and passed down into the joint through a narrow opening. In this instance we may use these as physiological types of the melon-seed bodies found in ganglia, but the latter must not be regarded as reversions. It must not be concluded from this that I object to descend to fish to find reversions; on the contrary, the human body abounds in structures decidedly piscine—e.g., the enamel and dentine of teeth and odontomata, and our primitive cartilaginous skeleton; in the possession of membrane, bones, branchial clefts, and the like. In these cases, however, we can trace them in mammals, thence to reptiles, downwards to amphibians, and so on to fish; but if a character appears in man which, so far as we know, occurs not in the intermediate forms, and especially those closely allied, then objection must be taken to it as being atavistic.

Let me now select an example which will serve to show how much care is requisite in determining reversions. The possession of lanugo by the fœtus, which is as a rule shed *in utero*, is a clear indication of a lost adult character merely persisting in the embryo in obedience to heredity. Occasionally, however, the lanugo, instead of being shed, attains full development. This excessive growth may perhaps only affect a patch half an inch square, but it may extend over half the body, as in Fig. 12. Such overgrowths are known as moles. This is true atavism, for we have only to descend to man's nearest neighbours, the anthropomorphæ, and the truth is evident. But every abnormal hairy patch is not due to overgrowth of lanugo. It has long been known, and Hunter was well aware of it, that when parts have long been irritated, as by the prolonged use of poultices &c., an abundant crop of hair has been produced around the part. But there is a more subtle form of hairiness which leads to some very remarkable speculations.

There is a variety of spina bifida known as "occulta," the chief peculiarity of which consists in the non-existence of

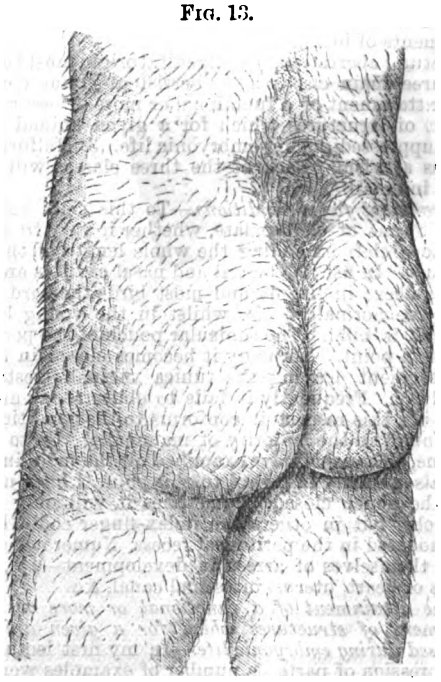
FIG. 12.



A hairy mole on a man. It had become the seat of an epithelioma. (From a drawing presented by Mr. George Lawson to the Middlesex Hospital Museum.)

any external tumour, but a membranous spot may be detected in the vertebral column, as described in the first lecture. Associated with this is some thickening of the membranes, an accumulation of fat, or mixture of fat and striped muscle fibre in relation with the spinal cord. The irritation leads to the development of an abundant crop of

FIG. 13.



Abnormal hairiness of the loins, due to the irritation of a spina bifida occulta. (After Recklinghausen.)

hairs, as shown roughly in Fig. 13, the hirsutes being most abundant in the vicinity of the defect. The case in question was reported by Recklinghausen,[3] but it is not the most perfect one that could have been selected, for a tumour had been removed in early childhood from the patient. However, it serves well to illustrate the point.

[3] Virchow's Archiv, 1886.

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Darwin[4] draws attention to the curious variety of fowls which possess a topknot of feathers, as shown in Fig. 14, familiar to poultry breeders as the Polish fowl. The skull underneath this tuft exhibits a remarkable deviation from the ordinary form seen in fowls. The deformity will be best understood by a glance at the skull of a Polish fowl, shown in longitudinal section in Fig. 15. The summit of the protuberance in the Polish fowl often presents irregular membranous spaces. Virchow[5] regards the cranial deformity as of the nature of a hereditary encephalocele, and the luxurious overgrowth of feathers is associated with it, in the

FIG. 14.

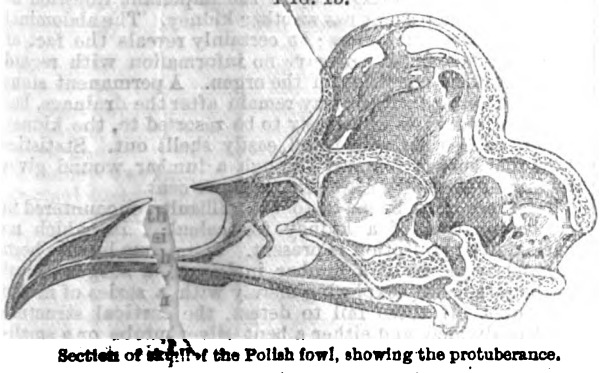


Head of a Polish fowl with feathery tuft. (After Darwin.)

same way that excessive growth of hair is a concomitant of spina bifida occulta in man, and even ordinary spina bifida.

Polydactyly.—Supernumerary fingers and toes constitute a class of malformations which give rise to great difficulty to those who have devoted attention to reversionary phenomena. A very large number of cases of increase in the number of digits has been recorded and carefully described by teratologists, anatomists, and surgeons; the extra digits varying from one or two phalanges, encased in tissues, and hanging by a pedicle from a complete finger, or as a complete finger articulating with, or ankylosed to, a

FIG. 15.



Section of skull of the Polish fowl, showing the protuberance.

metacarpal or metatarsal bone. Darwin was of opinion that supernumerary digits are atavistic in the sense that they are to be regarded as a process of budding similar to that found in the limbs of amphibians. This view, however, has not found favour. In order to find a vertebrate ancestor with more than the typical number of five digits in manus and pes, we should be obliged to descend to fish or such fossil reptiles as the ichthyosauri for types. From such forms to man the gap is too enormous, and the modifications of the limbs so extensive that misinterpretation is unavoidable. It has already been indicated that when atavism occurs, although it may occasionally reproduce a remote ancestral character, it with far greater frequency represents those of its more recent ancestors. If all cases of supernumerary digits are reversions, where are we to go for types with double hands, double feet, and so forth? A broad survey shows that there is a tendency to reduplication in many parts of the body. Thus, in lizards, reptiles, or amphibia double tails are not unknown; even reduplication of the vertebral column occurs, not only in man, but in many vertebrates. Interesting examples of the bifurcation of the axis of a limb have been described by Albrecht in the mud-fish, Protopterus annectans, and in Ceratodus by Howes. A good example of the tendency exhibited by digits to bifurcate is represented in Fig. 16. It is the manus of a horse preserved in L'Ecole Vétérinaire de Lyons. In this case the phalanges attached to the main (third) metacarpal have bifurcated. If these are to be regarded as examples of atavism, we shall be obliged to find animals with two tails, any number of spare digits, or even limbs. To insist that such examples are to be regarded as reversions is certainly inconsistent with sound reasoning.

The following example will serve to show to what extent care is necessary in deciding whether a given abnormality is atavistic or otherwise. In the Teratological Collection of the Museum of the College of Surgeons is the interesting specimen shown in Fig. 17. It consists of the skeleton of the right manus of a horse, with an additional largely developed digit intercalated between the inner splint bone and the middle toe. The second row of carpal bones is preserved, and exhibits an additional bone. The animal was shod on both toes. A superficial glance at once suggests that we have here one of the horse's lost digits reappearing. A critical examination reveals, however, that, if this is a case of atavism, the splint bone on the inner side must represent

FIG. 16.



Bifurcation of the third digit of a horse. (After Chauveau.)

FIG. 17.



A similar specimen. (Museum of Royal College of Surgeons.)

the thumb. This is contrary to what has been already expressed—viz., the parts last suppressed are those most prone to reappear by reversion. If we take the pains to compare this specimen with Chauveau's case represented beside it, there remains very little doubt that it is not atavistic, but a reduplication of the middle digit—in fact, a malformation.

In concluding these lectures, permit me to make the following remarks:—How many have felt, as the yearly total of facts make their appearance in the volumes known as the Transactions of the Pathological Society and Virchow's *Archiv*, that many wearisome details of the minute structure of tumours and other morbid changes are recorded again and again, until it seems that the description of the histology of a diseased structure marks the finality of pathological science. Pathology is sufficiently hampered with isolated facts already, and it is time that those who have the energy and leisure should employ them in searching for some laws whereby to regulate this accumulation, which bids fair to bring discredit on the pathologist. Comparative pathology, studied from the standpoint of evolution, offers every inducement in this respect, and will yield a fruitful harvest to those willing to toil in this fertile field.

Note.—That part of the lecture devoted to "Branchial Fissures and Supernumerary Auricles" appears in full in the January number of the *Journal of Anatomy and Physiology*. The theory advanced to explain the transmission of male or female characters, and a full discussion of the morphology of the prostate, will appear in the Proceedings of the Zoological Society for December, 1886. The discussion regarding parasitic fœtuses in the sacral region, with full illustrations, will appear in the *Gynæcological Journal*, vol. ii. The explanation of "meningocele" in the occipital region was published in *Brain* (October, 1886).

[4] Animals and Plants under Domestication, vol. i., p. 262.
[5] Onkologie, Bd. ii., S. 274; and Archiv, Bd. cili., S. 11, 1886, Descendenz und Pathologie.

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A Clinical Lecture
ON
RENAL SURGERY.

Delivered at the General Hospital, Birmingham, on Nov. 25th, 1886,

BY T. F. CHAVASSE, M.D., C.M., F.R.C.S. ED.,
SURGEON TO THE HOSPITAL.

GENTLEMEN,—The surgery of the kidney has made of late years many and great advances, but there are still practical points open to discussion and to improvement. Some of these I propose to consider with you. As a basis, and in order that the examination may be made more complete, I have selected fatal cases in which post-mortem examinations have afforded opportunities of verifying our diagnosis and discovering sources of error.

CASE 1.—A warehouseman, aged twenty-seven, was admitted to the General Hospital on July 6th, 1886, under the care of my colleague, Dr. Saundby. For three years, on and off, pain had been experienced in the left side, but latterly the pains had been centred in the back.

On admission, there was a slight swelling, more or less lobulated to the feel, and dull on percussion, to be detected in the left flank, extending forward to a point below the umbilicus. An examination of the urine showed that the average daily quantity passed was thirty-five ounces, that the reaction was acid, the specific gravity 1014, and that it contained albumen, blood, and pus. With regard to the pus, Dr. Saundby noted that the quantity was about one-fifth of the deposit in a conical glass—viz., two ounces out of ten. At this stage of the proceedings the patient declined to submit to any operative treatment, and left the hospital on July 12th.

He was readmitted on August 4th, as the tumour had increased in size, and a few days later came under my care. After consultation, as a renal calculus was suspected to be the cause of the swelling, it was decided to explore the kidney through a lumbar incision. This was accordingly done on Aug. 10th. On exposing a portion of the viscus, it appeared firm, but somewhat tense. The organ was incised, and more than eighteen ounces of purulent fluid were evacuated. The forefinger introduced into the wound, after a little search, detected this rough tuberculated calculus, somewhat triangular shaped, weighing 30 gr. It was removed, and careful examination, made by my own finger and that of my colleague assisting, failed to detect anything further. I was then warned by the anæsthetiser that the patient was much collapsed, and that the operation had better be concluded as rapidly as possible. The kidney was therefore irrigated by means of a tube introduced into the wound with a weak warm solution of boracic acid, and a large drainage-tube inserted. The whole operation only lasted half an hour, but the patient when removed to bed was in a state of extreme collapse. After the application of restoratives his pulse improved somewhat, but life was with difficulty maintained. Great pain was complained of in the region of the wound two hours after the operation, and one-eighth of a grain of morphia was administered subcutaneously. The discharge was profuse, and necessitated a change of the dressings eleven hours after the operation. After this the cold perspirations and other symptoms of shock seemed to be improving, but sixteen hours after the operation he suddenly but quietly died. A few ounces of bloody urine were passed per urethram between the time of death and the completion of the operation. Unfortunately the friends declined to permit any regular examination of the body. The left kidney had therefore to be removed by merely enlarging the lumbar wound. The condition of the other organ could not be ascertained. The kidney here presented shows total disorganisation; it is enlarged and divided by septa into numerous abscess cavities. Practically no cortical substance exists. From the recesses of the pouches numerous small calculi (about fifty) were washed out. Here are some of them, varying in size from a millet-seed to a pea. The organ itself was hardened in spirit for a month and then laid open. Another and a larger calculus than the one removed was disclosed firmly impacted in the top of the ureter, and virtually obliterating this tube. Its weight was 38 gr.

In this case surgical treatment was too long delayed. To obtain the greatest possible benefits from operative measures, renal calculi must be sought for and removed before destruction and consequent abscess have resulted. Doubtless, reference to cases within one's own knowledge, and to the literature of the subject, shows that a suppurating kidney may contract and heal marvellously well after efficient drainage has been established and all irritants removed, but then it can only work as a very much damaged organ, while an earlier operation may be the means of restoring its powers to nearly normal. Surgically speaking, the signs and symptoms most to be relied upon for the diagnosis of renal calculus where no tumour exists, the patient being otherwise healthy, are the following:—1. The presence of blood in the urine, especially after exertion. 2. Unilateral pain passing down the ureter towards the testis. 3. Pain elicited by deep-seated pressure in the lumbar region, between the last rib and the iliac crest, just external to the erector spinæ muscle. 4. The presence of uric and oxalate crystals in the urine as revealed by the microscope. With such symptoms the surgeon is fully justified in making a lumbar exploration of the kidney, as he is also, I think, in those cases of chronic nephralgia depending on uncertain causes which milder means and medicines have failed to remedy. Even if no stone be detected, instances are on record in which the patient has obtained prolonged relief. The explanation may be that the division of the lumbar tissues and of the renal capsule lessens the existing tension.

The shock following a surgical examination of the kidneys varies very much. In some instances I have seen it marked; but in an individual otherwise healthy and free from any renal suppuration it is generally slight. The death of this patient was somewhat of a surprise, and it is a matter of regret that a complete post-mortem examination was not permitted, in order that the conditions of the opposite viscus might have been ascertained. According to the statistics of Professor Gross, based upon seventy-two cases of incision and drainage, thirteen fatalities occurred. In 32·20 per cent. of the remainder a renal fistula resulted.

In suppurative lesions of the kidney permitting operative interference it is, I think, better that nephrectomy and drainage should first be undertaken, and the course of events watched. The surgeon is then afforded an opportunity of seeing the effects produced upon the opposite kidney. If the pus soon diminishes and disappears from the urine, the organ is probably sound. The lumbar incision, at the time of the operation, throws no light upon the important question as to whether the patient has another kidney. The abdominal does not assist much more; it certainly reveals the fact of bare existence, but it can give no information with regard to the working condition of the organ. A permanent sinus of a troublesome nature may remain after the drainage, but if nephrectomy has ultimately to be resorted to, the kidney is more or less shrivelled and easily shells out. Statistics show that such a removal through a lumbar wound gives the lowest mortality rate—viz., 9·33 per cent.

Reference must be made to the difficulty encountered in an examination of a kidney for calculus in which no marked disorganisation is present. The viscus having been exposed by means of a lumbar incision, the surgeon must not be satisfied by exploring merely with a series of needle punctures. If these fail to detect, the cortical structure must be divided, and either a bent silver probe or a small-sized child's sound introduced into the pelvis of the organ, and the whole of its interior investigated. This incision need not be large, and may be made either at the outer border, or, as suggested by my friend Mr. Lloyd, at the lower edge of the organ. This little wound, it is true, causes a slight hæmorrhage, but it can be easily restrained by sponge pressure. In a case reported by Dr. Tiffany[1] the hot blade of the thermo-cautery was successfully substituted for the knife in order to avoid this bleeding.

CASE 2.—On May 12th, 1885, I exposed the right kidney of a woman, aged twenty-two, who had suffered from pyuria for nearly three years, and at times from pain referred to the regions of the right kidney and ureter. The pus in a conical urine glass formed a deposit of one inch and a half, and the patient was much emaciated. I "needled" the kidney in nearly a dozen places, either to find

[1] Transactions of the American Surgical Association, vol. iii., 1885.

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a stone or to tap an abscess. The patient suffered a good deal from shock, but recovered from this to sink later on from exhaustion.

At the necropsy, on section of the right kidney, an abscess cavity the size of a walnut was found at the head of the organ, occupying the portion of three pyramids and their expanded medullary substance. This abscess cavity communicated with the ureter. To the top of one of the pyramids a small phosphatic stone was found adhering. The capsule of the organ could be readily removed, and its surface was smooth and pale. Numerous small abscesses could be seen in the cortex. The lower portion of the kidney looked fairly healthy, and, although pale, the cortical substance was of good thickness and consistence. The ureter was greatly thickened and adherent to surrounding structures; its lining membrane was thickened and studded with minute soft bodies the size of a millet-seed, intimately adherent to, and apparently in the substance of, the mucous coat. The opening into the bladder was unobstructed. The left kidney weighed 6 oz., and was deeply congested, but the pyramids appeared normal. The bladder was much contracted.

At the time of this operation I did not fully appreciate the necessity of incising the cortex and sounding the pelvis in those cases where the exploring needle failed to detect any abnormality, and, as a consequence, a fair-sized abscess and a small piece of stone remained undetected. For the want of a sufficiently thorough examination of the pelvis of explored kidney by means of an incision and a sound I have no doubt that other operators have met with the same ill success that I did in this instance. The ultimate result would probably have been the same; but the condition of the urinary tract, as revealed by the sectio cadaveris, proves the uselessness of resorting to nephrectomy in cases of so-called tubercular kidney. The affected organ may be removed; but the disease is present in other parts of the urinary apparatus, and the whole disease is not removable. This thorough examination of the kidney pelvis by incision of the cortex is a decided advance, but may sometimes prove fallacious.

CASE 3.—The enlarged kidney here shown is the right viscus of a man, aged thirty-one, who had suffered with marked symptoms of renal calculus for ten years. Through an oblique lumbar incision I failed with needling to detect any stone. The cortex was therefore incised for three-quarters of an inch near the outer border of the organ, and with a large bent probe I explored the pelvis, as was thought at the time, most thoroughly and effectually, yet no calculus was detected. Unfortunately the man died some days after the operation with symptoms of septic poisoning. Plenty of urine was passed after the exploration, and at the end of the second day most of it, to the naked eye, was free from blood.

The following is the report of our pathologist, Dr. Crooke:—"On introducing the hand into the incision in the right loin, the kidney could be felt, and an incision into its substance, through which the forefinger could be pushed for about an inch. On removing the abdominal viscera, the right kidney was seen in position, lying somewhat loosely in its renal cushion, and greatly enlarged. Coloured water injected through the wound distended the peri-renal cellular tissue and oozed simply by force of pressure through the peritoneum into the peritoneal cavity, but there were no evidences whatever of any opening into the peritoneum. Right kidney enormously enlarged, weighing 1 lb. 3 oz., and measuring 9½ in. by [illegible] in. The pelvis was extensively dilated and sacculated, its walls considerably hypertrophied, and its lining membrane smooth and shining; with it communicated a considerably dilated and hypertrophied ureter. Lying at the bottom of the lowest sacculus, into which opened the ureter, was a large flattened convex stone, measuring 1⅞ in. by 1⅛ in., and weighing 288 gr. Besides the large stone, eight smaller ones, brownish in colour and all facetted, were found; these weighed together 30 gr. The kidney substance, which was uniformly hypertrophied, looked fairly healthy and normal. All that remained of the left kidney was a small thickened and dilated sac filled with a turbid secretion; at the upper part there were a thin crust of atrophied renal tissue and several small cysts. Intestines: Walls thickened, and somewhat sodden with œdema. The coils were much distended with gas and liquid yellow fæces; the peritoneal coat showed here and there the lines of hyperæmia indicative of early peritonitis. The parietal peritoneum was also hyperæmic in patches, especially over the region of the right loin and right abdominal wall. The bladder and rectum were normal. The heart weighed 15 oz. The left ventricular wall was much thicker than normal, and generally hypertrophied. The valves and cavities were normal. The bases of the lungs were somewhat congested and œdematous, the upper lobes were quite normal."

Now, at the time of the operation the tip of my own forefinger and that of my colleague assisting passed into a cavity which was considered by us both to be the pelvis of the kidney, and a probe travelled freely upwards and downwards in this space. As a matter of fact, as you now see, the finger and the probe never reached the pelvis, but were separated from it by its lax hypertrophied lining membrane, and the instrument in its course separated this thickened tissue from the cortex without entering the interior of the organ. If in this particular instance the exploration had taken place through an abdominal incision made at the edge of the rectus muscle, there is little doubt that the stone would have been readily detected and removed; as it was, owing to the great enlargement of the viscus, the sulcus containing the calculi lay sheltered in the upper part of the pelvic cavity, and the incision into the renal substance was more than six inches away from the object of the search. The features of interest in the whole case are so numerous and abnormal that in the present imperfect state of renal surgery they appear worthy of special note.

A few words on those cases in which nephrectomy may be performed. Professor Gross, in an able paper[2] showing a wide range of research on this subject, says: "From an extensive acquaintance with the literature of the subject, I have been long convinced that the kidney has been too frequently removed." This is very probable; and in our zeal to test the efficacy of a new operation for the relief of very painful disorders perhaps a few kidneys have been sacrificed. But now that Professor Gross can present a list of 233 cases, and tabulate the diseases, the operation performed, the number and causes of death, together with, in many instances, the results of post-mortem examinations, I think surgeons are in a position to judge more or less accurately what cases are fitted for the operation and what are unsuitable. The statistics show that the lumbar operation is safer than the abdominal. I would not say that on this account it is *always* to have the preference, as due allowance must be made for the nature of the case and the dexterity of the particular operator; but in the majority of instances it is the best operation. It may be resorted to, *after* nephrotomy and drainage have failed to relieve, (*a*) in suppurative lesions depending upon a local irritant, (*b*) in hydronephrosis, and (*c*) in traumatic rupture of the kidney. The operation is also justifiable (*d*) in cases of painful floating kidney, when the attempt to fix the organ has failed and the symptoms are still urgent (the abdominal method to be preferred); and (*e*) for any very troublesome fistula, either renal or ureteral. Nephrectomy is a very doubtful expedient—in fact, I believe it to be contra-indicated in (1) tubercular disease, (2) carcinoma of adults, and (3) sarcoma of children.

CASES OF PERITONITIS.

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THE subject of peritonitis is not one upon which there is anything new to be said, nor one into which any novelty of handling can be well introduced; but it is one which presents points of difficulty in practice which are weighty if they are but few; and some of these will bear reiteration, even allowing that we are not all agreed upon their importance or their bearing. I do not, of course, propose to deal with the subject of peritonitis in all its aspects, but only to touch upon some few of the more salient and, to my mind, disturbing elements in the matter of diagnosis and treatment. I shall probably best carry my readers with me if I say that the points to be insisted upon mostly concern suppurative peritonitis, and if I let cases as far as possible tell their own tale.

Some short while ago I saw a young married lady with what at first seemed to be like intestinal obstruction. She

[2] American Journal of Medical Sciences, July, 1885.

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was six months pregnant, and her bowels were by habit much confined. The constipation had been worse than usual, and she had taken some pills to overcome this without medical advice. These had caused a great deal of pain, but had produced an evacuation at first scybalous and then loose. She vomited soon after the aperient had acted, and continued to do so, and for five days after she passed nothing, not excepting flatus. The abdomen had become much distended and the vomit had assumed a stercoraceous appearance. But there was another element in the history of the case which is important to the formation of a diagnosis. She had had during two or three years repeated attacks of pain in the right iliac region, with considerable thickening there at times; and for this she had been obliged more than once to take to her bed and couch for two or three weeks at a time. She had had an attack of this kind two or three months before her last illness, but was supposed to be now well of this. She had a most pinched and collapsed appearance, her eyes being sunken, her voice low and hollow; pulse 120 to 130, of good volume; the tongue foul. There had been no vomiting since the morning, but a constant tendency to retch. The bowels had acted fully that morning. *The temperature was normal.* The abdomen was distended with flatus, but it was quite soft and easily palpated. There was, perhaps, slight induration in the right groin, not much, and some tenderness in that region. She vomited while I was in the house, the vomit being a dirty-brown thick fluid, but having no offensive smell. Now, this case much resembled a case of intestinal obstruction, and all the more closely from the fact of the existence of pregnancy. The diagnosis rested upon the constipation, the vomiting, the distension of the abdomen, and partly, I think, upon the normal temperature. But none of these things are reliable means of distinction between the paralysis of peritonitis and mechanical obstruction; and the old history that existed of cæcal inflammation, or rather of inflammation in that region, made the peritonitic hypothesis far more probable. I heard of her from time to time during the next few days, the account always being that her temperature was normal; there was a yeast-like diarrhœa, which was difficult to control, but that, on the whole, she was doing well. The diarrhœa went on, and caused considerable anxiety. Then it was controlled, and again she was doing well, with a "but"—"the pulse kept up so quick," and on the ninth day it became unsteady, and the patient sank. The necropsy revealed what was expected: some old disease in the right broad ligament and in the cæcal region, with a local abscess and general suppurative peritonitis.

With this case let me tell of another. A girl of thirteen, of healthy but neurotic parentage, was quite well till a certain day, and she then complained of pains in the stomach, but nothing much, and no notice was taken of it. Next day she was at a children's party, and the same evening she was decidedly unwell and had much more pain. The next day she was sick several times, but it was supposed to be a mere bilious attack, and no medical man was called in until the fifth day. During all this time she had been vomiting—a decidedly illegitimate extension of the meaning of "bilious,"—and she had also marked tenderness in the right iliac region. In two or three days after her medical man first saw her she still continued to vomit, and the bowels were confined. She then had two or three doses of castor oil, after which she had what was described as "not diarrhœa, but a continuous oozing from the rectum." This had been considered to be the result of nervous exhaustion, it being argued that the absence of pyrexia, which had been a notable feature throughout, negatived the existence of inflammation. I did not see her until the twenty-sixth day of her illness. I had heard the whole history, and the special object of my visit from the parents' point of view was to suggest something to control the diarrhœa. They rested on the idea that if only the food would lodge somewhere and become digested, instead of running out at one end as fast as it was put in at the other, the child would quickly rally. But the history I have given seems to me all too plain, except in one respect to be mentioned directly. I could not doubt that the case was one of typhlitis and peritonitis, and the latter all the more ominous in that its symptoms had been somewhat masked, and that it was now associated with diarrhœa. The child was not pinched and hollow-eyed like a bad case of peritonitis, I must admit, but she had a tense moderately distended abdomen, lay with her legs drawn up, and the muscles of the abdominal wall were exceedingly irritable. In this case I was uncertain whether there was any thickening in the cæcal region, but I thought I could detect something. No complaint of pain in the abdomen was made now, but there was much in the chest. The temperature was 103·4°, and the pulse 140; the lower two-thirds of the left side of the chest were dull, and there was a dry rub round the diaphragmatic edge in front. The heart sounds were excessively muddled and murmurous, but there was no decided murmur, pericardial or other. The view I took of the case was that there had been peri-typhlitis, general peritonitis, quite possibly suppurative, and extension of the inflammation to the left pleura, and possibly to the pericardium also—a condition obviously of the gravest possible danger. I must candidly admit that the medical gentleman in attendance—of great ability, and, as years go, of larger experience than my own—was not very ready to concur in this opinion; but I cannot even now see any other alternative which gives nearly so adequate an explanation of the later complications as the diagnosis above stated.

Great stress was laid upon the absence of fever in this case, as in the last, but it is untrustworthy as an indication if taken by itself. In the first case I have narrated, a post-mortem examination demonstrated the existence of diffuse suppurative peritonitis, and the temperature was never above normal; and the second case appears to have been like it. I have repeatedly seen the same thing in hospital practice; and whether from acute plastic peritonitis—as is well known—or suppuration in the peritoneum, the temperature may give no sign. I do not say that it never does; I will not even say that in the majority of cases it never does. I think it is the other way; but the temperature of peritonitis is an uncertain one, and in a good number of cases it is not raised. But this question of temperature is worth consideration in another way. These cases simulate intestinal obstruction—nay, to speak more truly, they often are cases of intestinal obstruction, but it is the obstruction of paralysed peristalsis, not the mechanical obstruction of volvulus, band, and so forth. But what we have to determine—and it is most important to determine—is, which of these conditions exists. If a volvulus or internal hernia be present, the sooner the condition be relieved by the surgeon the better. Well, now, I believe the temperature will sometimes help us. A few weeks ago I saw a case with Dr. Culver James where this point, rightly or wrongly, greatly determined our decision. A healthy youth of seventeen was suddenly taken with vomiting and abdominal pain after his tea. He had had nothing of a notably indigestible nature to eat. He continued to vomit, and next day walked to see Dr. Culver James at his own house. The bowels were confined; an enema on the third day produced a copious ordinary lumpy stool; after that the rectum remained empty, and no flatus passed for more than twenty-four hours. The temperature was 101·5°. Here, then, was a case of acute pain, vomiting, and constipation. So far it might well have been either some internal hernia or a case of local peritonitis. There was no decided local thickening, although Dr. James had at one time felt a something in the cæcal region, to which spot all the pain was referred. We, however, agreed that the malady was probably inflammatory and typhlitic, because of the pyrexia and because of the comparatively moderate urgency of the symptoms. The subsequent progress of the case, I think, confirmed this view. He continued to vomit occasionally, but the rectum slowly filled with fæcal material, showing that there was paralysed action, and not obstruction. The temperature fell, the bowels then acted daily, and he seemed almost out of the wood. Suddenly, although he had been most carefully tended and treated, in the disappointing way these cases sometimes terminate, at the end of ten days the temperature ran up again to 103°; sickness again came on; there was more increase of pain in the abdomen, accompanied by distension; the pulse became peritonitic, and he died within a few hours of acute peritonitis. By no powers of persuasion could we get a post-mortem.

(To be concluded.)

AT the annual meeting in connexion with the Bideford Infirmary and Dispensary on the 17th inst. it was reported that the total cost of the new hospital will be £2135, and of this a sum of £1711 has already been collected. The new buildings will be opened on the 31st prox.

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ON

DISPLACEMENT OF THE INTER-ARTICULAR CARTILAGE OF THE LOWER JAW, AND ITS TREATMENT BY OPERATION.

BY THOMAS ANNANDALE, F.R.S.E.,
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THAT the proper movements of the temporo-maxillary joint may be interfered with by conditions inside the articulation is a fact recognised by all surgical authorities. That a displacement of the inter-articular cartilage—the "subluxation" of Sir Astley Cooper—may be one of these conditions is also recognised. But most modern works on surgery describe this affection as being generally due either to relaxation of the ligaments of the joint allowing a too free movement, or to inflammatory changes of a simple, gouty, or rheumatic nature. Heath[1] writes upon the subject thus: "It is an affection occurring principally in delicate women, and has been thought to depend upon relaxation of the ligaments of the joint permitting a too free movement of the bone, and possibly (though this is conjecture) a slipping of the inter-articular cartilage." Believing with Mr. Heath and other authors that inflammatory results may cause interference with the movements of this joint, I feel further convinced that, as in the case of the semilunar cartilages of the knee, the inter-articular cartilages of the temporo-maxillary joint may become displaced either from a sudden tearing of their connexions or from a gradual stretching of them.

But the chief object of this short paper is to advocate a new method of treating by operation cases of this condition which resist counter-irritation and the other means usually advised, and in which there are symptoms of a too free movement of one or both of these cartilages. The operation is upon the same principle as that which I have described and successfully carried out in connexion with the displacement of the semilunar cartilages of the knee-joint. The method is as follows:—An incision slightly curved, about three-quarters of an inch in length, is made over the posterior margin of the external lateral ligament of this joint, and is carried down to its capsule. Any small bleeding vessels having been secured, the capsule is divided, and the inter-articular cartilage is seized, drawn into position, and secured to the periosteum and other tissues at the outer margin of the articulation by a catgut suture. The following two cases illustrate the condition, and also the good result obtained by the operation suggested.

CASE 1.—Mary M'C——, aged thirty-eight, was admitted into my wards on March 2nd, 1886. Nine years before her admission she injured her temporo-maxillary joints during an attack of vomiting. The joints remained "locked" for a few minutes, but after a little manipulation she herself put the condition right. Ever since this time she has suffered great discomfort in the joint upon the left side, for whenever any extra movement of the jaws was made this joint became fixed, and remained so until she had practised some manipulations, when movement returned. Frequently also, when she tried to open her mouth, she found that she could only do so to a limited extent, but by using the manipulations the proper separation of the jaws was completed. On March 12th an incision was made over the left temporo-maxillary joint, and, its capsule having been divided, the inter-articular cartilage was found to be loosened from its attachments, and much more movable than usual. The cartilage, having been seized with artery forceps, was drawn into position, and a catgut suture passed through it and the periosteum and other tissues at the outer margin of the joint. The wound healed rapidly, and she left the infirmary on March 25th. At this time the movements of the joint were natural, and she could close and separate the jaws perfectly, without any locking or catch.

CASE 2.—Ann M——, aged eighteen, admitted on Jan. 20th, 1885. Two years before admission, the patient when yawning found her jaws fixed. After a little manipulation she was able to close the jaws, but with a "click" on the right side. Since then she has suffered from pain and stiffness upon the left side, and the movements of the joint were constantly interfered with by something "slipping" in it. She had been treated by blistering and other remedies without obtaining any relief. On July 23rd the usual operation was performed, and the left inter-articular cartilage, being found loosened, was stitched in position with a catgut suture, as in the former case. The wound was healed at the end of a week, and she left the infirmary on July 31st, with perfect and proper movement of the jaws.

[1] Injuries and Diseases of the Jaws, third edition, p. 415.

PHOSPHATIC DIABETES.[1]

BY CHARLES HENRY RALFE, M.D. CANTAB., F.R.C.P.L.,
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AMONG the numerous investigations that have engaged the attention of physiologists during the last fifteen years, few yield in interest and importance to the study of the part played by the inorganic constituents of the body in histogenesis, and their influence in producing the daily and hourly variations which occur in the chemical composition of the secretions. Although this branch of animal physiology is only partially developed, yet our knowledge in this direction is steadily and constantly advancing, and the advance will be more rapid when it becomes clearly perceived how greatly minute variations of the inorganic constituents conveyed by the blood plasma to the cells influence for good or evil the processes of nutrition going on in the tissues. I can here only glance at some of the more important facts that have been established in this direction, and touch only on those points which are most closely related to the subject matter of the present paper.

Twenty years ago it was stated in most text-books that inorganic substances passed unaltered through the body, and that the same weight of saline constituents was recoverable from the urine and fæces as was introduced during the same period with the food and drink. The first advance on this simple view was made when it was discovered that chloride of sodium was retained in the body, and consequently disappeared from the urine, in certain diseases attended with increased cell-formation; and that even under normal conditions only four-fifths of the common salt ingested left the body as such, the remaining fifth being decomposed and altered in constitution within the system. Further researches led to the important discovery that whilst inorganic salts pass with immense and usually uniform rapidity into the circulation, and thence to the tissues, their discharge is by no means so regular, and they are detained for very unequal periods, which apparently depends on the need of the tissue to which they are supplied. Thus both Hoffmann and Lascar have shown that, however great the tendency of the alkaline bases is to combine with acids and acid salts, these cannot be withdrawn from the alkaline blood, but are powerfully withheld to maintain its alkalinity. And this fact is illustrated by what occurs in scurvy, for, as I pointed out in 1877,[2] and it has since been corroborated by Zuelzer,[3] as soon as the alkaline carbonates cease to be supplied by means of vegetables, the alkaline phosphates begin at once to disappear from the urine, evidently to maintain the alkalescence of the blood diminished by the withdrawal of the alkaline carbonates. In connexion with this it is interesting to notice that Dr. Gee[4] has likewise called attention to the remarkable fact that in ague, on the days of the paroxysms, the phosphates almost entirely disappear from the urine; and although Dr. Gee has not attempted an explanation of the phenomenon, still it is not unlikely that this is again an instance of a salt being withheld to supply a special requirement, whilst another is being discharged in excess; for it is important to notice in connexion with this withdrawal of phosphoric acid during the ague fit that the chlorides are at that time eliminated in considerable excess. It would be easy to multiply examples, but enough has been said to emphasise the importance of the *rôle* played by the inorganic substances in the economy.

Of all inorganic constituents phosphorus has always been regarded as holding the prominent position. When first separated from the urine by Brandt (1669) it was at once hailed by the physiologists of the day as the "blood of

[1] Read before the Medical Society of London, Jan. 10th, 1887.
[2] General Pathology of Scurvy (Lewis, London, 1877).
[3] Untersuchungen über die Semiologie des Harns; Berlin, 1884.
[4] St. Bartholomew's Hospital Reports, vol. viii.

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nature," and quacks held forth that their "wonderful shining pills" contained the true elixir of life. The discovery, at the commencement of this century, by Wollaston that certain calculi were composed, some wholly, others in part, of phosphate of lime and ammonio-magnesium phosphate, led to further inquiries as to the conditions that cause the deposition of these substances in the urinary passages; and to Dr. Prout and Dr. Golding Bird we are indebted for the discovery of many important facts connected with phosphaturia. Unfortunately at first sufficient care was not taken to discriminate between the conditions which led to the deposition of phosphate of lime, and that which caused the precipitation of ammonio-magnesium phosphate; and as the latter was often associated with paraplegia, or followed after spinal injury, the idea that phosphaturia was caused by irritation or disease of the nervous system became dominant, and it was taught that the phosphates in the urine were derived chiefly, if not entirely, from the phosphorus of the disintegrated nervous matter. Dr. Owen Rees was the first to combat the view that phosphaturia was caused in all cases by excessive elimination; and pointed out that so far as deposition of triple phosphate was concerned, it might be accounted for by the secretion of abnormal mucus, which, owing its alkalinity to fixed alkali when mixed with urine, united with the acids of the ammoniacal salts and set free ammonia, with consequent deposition of ammonio-magnesium phosphate. Dr. Bence Jones went further than this: he showed, first, that causes of the deposition of the triple phosphate were due entirely to local conditions, which brought about an ammoniacal state of the urine from decomposition of the urea; and the admixture of calcium phosphate with the triple phosphate (mixed phosphates) was caused simply by precipitation from alkaline urine, and not due to the presence in excess of the phosphates themselves. Moreover, in that form of phosphaturia in which calcium phosphate was deposited alone from the urine, he declared the deposition was caused solely by precipitation from urine whose alkalinity was due to the presence of fixed alkali. Besides this, he stated that no increase of quantity in the amount of phosphates in the urine takes place in spinal diseases; nor in chronic diseases of the nervous system generally; nor in chronic cases of general paralysis, mania, or melancholia; nor in chronic diseases in which the nervous system is not specially affected; nor in fevers, or acute inflammations of fibrous, muscular, or cartilaginous tissues; and that the only decided increase of the phosphates noticed occurred in acute inflammation of the brain substance, not of the membranes unless the brain was likewise affected. He also stated that there was not the least reason to believe that there was any constitutional state specially characterised by an excessive excretion of phosphates, and that the so-called phosphatic diathesis was simply alkaline urine.

These views have been generally accepted in England, and the teaching as laid down in leading modern text-books is that the phosphaturia in which calcium phosphate is solely deposited depends on urine alkaline from fixed alkali, and denotes nothing more than some disturbance of digestion in which the *alkaline tide* of the urine becomes exaggerated; that the phosphaturia in which both kinds of phosphates are deposited depends on urine alkaline from volatile alkali which arises from decomposition of urea in the urinary passages, and which is mainly brought about by local conditions; and, lastly, that the excretion of phosphates, even if in excess, has no special pathological significance. In Germany, however, the importance of the excretion of phosphoric acid has attracted more attention; for whilst observers there admit the facts connected with the deposition of phosphates from alkaline urine both fixed and volatile, they maintain that the study of the daily variations of the amount of phosphoric acid, especially as regards its relationship to the excretion of urea, has an important bearing on various questions connected with tissue metabolism, both normal and abnormal. They have shown, further, that Dr. Bence Jones was mistaken when he stated that no excessive elimination took place in chronic nervous disorders, since it is exactly in this class that the greatest increase has been found, especially in "depressed states." Besides this, they maintain that the fact of there being no absolute increase in the excretion of phosphoric acid does not disprove the view of an increased elimination of phosphorous bodies, since they have very conclusively shown that in many nervous affections phosphorus appears in the urine, not in its fully oxidised state as phosphoric acid, but as lecithin, or as glycerine phosphoric acid. In France Professor Teissier of Lyons, who has paid considerable attention to the physiological conditions which regulate the elimination of phosphoric acid from the body, has described a condition to which he has applied the term, "phosphatic diabetes," and which consists in the continuous and excessive discharge of phosphates by the urine, attended with symptoms not unlike those of saccharine diabetes. This condition, Professor Teissier states, may be observed (1) in certain functional derangements of the nervous system; (2) it may precede or accompany certain affections of the lungs; (3) it may coexist with glycosuria, or alternate with it; or (4) it may run a course distinct by itself. As I have seen a few cases like those described by Professor Teissier, I have ventured to bring them before the consideration of the Society to-night, in the hope that by attention being drawn to the subject it may be more closely investigated than has hitherto been the case. In relating the cases, I intend to keep to Professor Teissier's classification; not because I altogether agree with him, but for convenience of reference and discussion. And again, in order to obviate the necessity of constantly reading figures of analysis and referring to the amounts of phosphoric acid passed, I may say that no case has been admitted to this series in which the daily average excretion has fallen below two-thirds more than the ordinary normal secretion.

GROUP 1. *Increased excretion of phosphoric acid associated with disturbance of the nervous system.*—The first case is that of a lad, aged sixteen, who was under my care at the Seamen's Hospital in 1876. When admitted he was in a stupid, semi-comatose condition, much emaciated and very feeble. He was passing considerable quantities of slightly acid urine of medium specific gravity containing a slight trace of albumen, but no sugar. In this case the excretion of phosphoric acid was for some time more than double what a lad of his age and weight (9 st.) should pass under ordinary circumstances. No other morbid conditions could be detected; and, after remaining in bed several days, he gradually brightened and began to gain in weight, whilst the excessive excretion of phosphoric acid fell at first to two-thirds and then to one-half more than the normal, at which point it remained till the patient's discharge.

The next case is the lad whom I have brought before the Society to-night. I first saw him in September of last year, in consultation with my friend Dr. Allt of Clapham. The symptoms were considerable and progressive emaciation and a dull lethargic condition, sitting for hours by himself doing nothing, and being roused to speak only with great difficulty. He also obstinately refused at times to take food, which had to be forced on him. No other special morbid condition could be detected. The urine was highly acid, normal in quantity, about forty ounces, with a specific gravity of 1036. The urea was in excess, whilst the amount of phosphoric acid was in considerable excess. Complete rest (either in bed or on a sofa), country air, and massage were advised, and for treatment bromide of potassium, nux vomica, and cod-liver oil. The patient then went to Melton Mowbray, where he has been under the care of Dr. Powell, who has kindly from time to time kept me informed with regard to the case, and sent me samples of the twenty-four hours' urine to analyse. The treatment has been varied from time to time, mineral acids with strychnine and small doses of opium being that generally persisted in. Till just before Christmas no improvement was manifested, though the patient was certainly less dull; still the high specific gravity was maintained, and the emaciation was very marked. But about three weeks since the patient began to take his cod-liver oil more regularly, and Dr. Powell soon after noted an increase of weight, whilst the excretion of phosphoric acid fell to 3·9 grammes daily, which for the boy's age and weight still represent very nearly two-thirds more than what the normal excretion should be. I may mention that the patient has been at times troubled with boils.

In another case, in which the patient was passing on an average six grammes of phosphoric acid in the twenty-four hours, a small syphilitic growth was found post-mortem at the base of the brain, with some softening of the brain substance round. As, however, there was an intense polyuria amounting to thirteen pints a day, with a specific gravity of 1002 to 1004, I think some of the increase in this case was due to the washing out of phosphoric acid from the tissues

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by the drainage going on through the body, and is not an instance of increased tissue metabolism.

GROUP 2. *Increased excretion of phosphoric acid associated with pulmonary disease.*—I have met with three cases. The first, a young gentleman, aged nineteen, who was living in London engaged in mercantile pursuits. When I first saw him there was nothing definite to be made out, except that he complained greatly of lassitude and aching pains round his loins. A careful examination of the chest revealed no disease. The urine was normal in quantity, of high specific gravity, very acid, but occasionally becoming alkaline, when it deposited dense masses of calcium phosphate. The urea was in excess and the daily elimination of phosphoric acid considerably above the normal. This patient was frequently troubled with boils. As he became weaker, and it was evident that London life did not suit him, I advised a sea voyage, which I believe he took. Three years later I heard through a friend that the patient was dead, that two years after I had last seen him symptoms of pulmonary disease manifested themselves, which ran a rapid course and terminated fatally.

The second case was sent me by Surgeon-General Balfour. A gentleman, aged forty-nine, who had spent the greater part of his life abroad, was in 1881 troubled with polyuria, passing about eighty ounces of urine a day. This urine was acid, and had an average specific gravity of 1015; there was some excess of urea, and a considerable increase in the daily excretion of phosphoric acid. He suffered from thirst, loss of flesh, and complained of severe rheumatic pains in the loins and pelvic regions; he also was troubled with boils. On my advice he left London and went to reside at Brighton, and shortly after the urinary flux fell from eighty to sixty ounces, whilst the excessive elimination of phosphoric acid was also reduced. After he had resided at Brighton about a year he began to suffer from cough, and again to lose flesh. Before this he had exhibited no signs of lung mischief, but now on examination I found a patch of consolidation in the apex of the right lung. As it was then autumn I advised him to winter either in the south of France, Algiers, or Sicily. He chose the latter, and I heard nothing more of him till the other day, when Dr. Balfour told me he died the next year at Naples of typhoid fever, contracted at the same time as the fatal seizure of Professor Munro of Cambridge.

A third case was observed in a tubercular lad who was under my care at the Seamen's Hospital in 1877. He was admitted suffering from severe debility and prostration, complaining of pain in all his limbs, and especially across the loins, and some coarse râles were heard in the bronchial tubes. The urine was clear, acid, and abundant, averaging about six pints daily, with an average specific gravity of 1016, urea was in excess, and the phosphoric acid excreted amounted on more than one occasion to over nine grammes in the twenty-four hours; whilst the average of several observations gave nearly seven grammes. Previously to the commencement of the illness, about three weeks before admission, he had always enjoyed good health. During the attack he had lost 18lb. in weight. After being kept a week in bed the râles in the chest cleared up, and he was not so prostrate, but several boils made their appearance. He regained a greater portion of his lost weight whilst in hospital, and the urinary secretion was diminished from an average of six pints to barely four, and the phosphoric acid from 9·6 to 4·8 grm. *(To be concluded.)*

A CASE OF

PARTIAL ENTEROCELE (IRREDUCIBLE) ASSOCIATED WITH DOUBLE HERNIAL SAC; OPERATION.

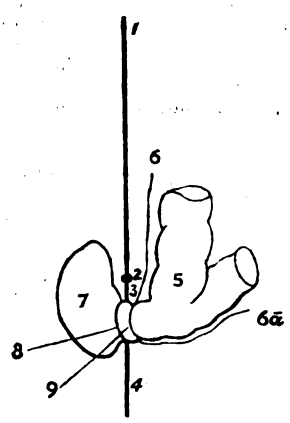
BY WILLIAM HENRY BATTLE, F.R.C.S.,
RESIDENT ASSISTANT-SURGEON TO ST. THOMAS'S HOSPITAL.

IT is now nearly two years since the patient whose case is related below came under observation, and during that time I have been unable to find any record of a similar condition. A good deal of attention has been drawn to the rarer forms of femoral hernia by the discussions which have taken place at the various Medical Societies during the last few months, and I hope that the publication of this case will elicit information with regard to others resembling it.

Mrs. D——, aged forty-five, married, and the mother of several children, was sent to me from the country on Monday, March 17th, 1884, for irreducible hernia. She had had a hernia in the right groin for five or six years, and had worn a truss, the hernia being always reducible until lately; she could not state the exact time that it had been irreducible. Pain was first felt in the swelling on March 10th, but as this was slight she did not send for her medical attendant until the 14th, when there was much more pain, the swelling was larger, and she felt anxious about it. There had been no vomiting, and the bowels had acted naturally. Ice was applied and the diet restricted, but there was no improvement.

When she came under my care there was a femoral hernia on the right side the size of a large duck's egg, fluctuating, but without any particular pain or tenderness. There was impulse on coughing, which was probably conveyed from the abdominal wall. It was dull on percussion, and extended outwards to within two inches from the anterior superior spine. There was no abdominal distension, and no vomiting. The bowels had acted three days before. The tongue was slightly furred. The pulse was quiet and the temperature normal. There was no albuminuria, and the internal organs appeared healthy. Ice was applied and the legs flexed over a pillow, milk only being given.

On the 21st there had been no improvement, the swelling had not diminished, and the patient was anxious to have some-



Vertical antero-posterior section.

1, Aponeurosis of the external oblique. 2, Poupart's ligament. 3, Falciform process. 4, Fascia lata of thigh. 5, Intestine with lateral projection into the canal. 6, 6a, Peritoneum. 7, Larger sac. 8, Firm fibrous membrane separated from the adherent intestine by the fluid contained in the smaller sac, 9.

thing done for her relief. Accordingly, with the assistance of Mr. Edmunds and Mr. Tyrrell (who administered ether), an incision was made, about two inches long, over the sac and rather to its inner side, the dissection carried down to the sac and then opened on a director, when there was an escape of from three to four ounces of yellowish fluid, which soon coagulated after removal from the body. A small projection about the size of a filbert was then seen occupying the position of the femoral ring, the surface of which was dull-purplish in colour, smooth, but slightly irregular, and quite adherent all round. It did not appear to be intestine. Careful incision proved this to be a thin, tough, fibrous membrane, which was separated by a layer of fluid from a small projection of the intestinal wall, which was firmly adherent to the crural canal all round and irreducible, purplish in colour, in a good state of vitality, but with less than the usual clearness of polish. As this was evidently not strangulated, and there appeared considerable danger of tearing it by any attempt to separate the strong adhesions, it was left *in situ*. The membrane was removed with scissors, the sac wall dissected up, excess cut off, and the remainder closed over the adherent intestine by means of catgut sutures. Two split drainage-tubes were employed, one being placed under the new sac and the other in the space left after the dissection of the old one; these were brought out below and the wound closed with catgut and silk sutures. No vessel required ligature. The carbolic spray was used when the sac was opened, and full antiseptic dressing employed. The patient was rather faint towards the close of the operation, but soon recovered.

The after-progress of the case was satisfactory and

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recovery uninterrupted. The wound was dressed twice, the inner tube being removed at the first dressing on the evening of the following day, and the outer with the sutures at the second dressing a few days later. A pad and bandage were then applied for a time. The patient was not advised to wear a truss, and left my care on April 6th.

The rough diagram on the preceding page will probably assist in understanding the condition of the parts as found at the operation.

We have here three conditions which in my opinion deserve special comment, and are each of great rarity: (1) The partial enterocele; (2) the membrane which by its position divided the sac of the hernia into two parts; and (3) the distension of these sacs by fluid.

Before the operation my diagnosis was, distension of the hernial sac by fluid, secondary to the blocking of the canal by a piece of omentum. The complete absence of symptoms in connexion with the intestinal tract made it unlikely that there was intestine present, and the absence of resonance on percussion pointed in the same direction. At the operation the condition described above was revealed, and from the small amount of the intestinal protrusion, and its firm adhesion without the causation of any symptom, there can be no doubt but that it was a partial or lateral enterocele, or, as some have preferred to call it, Richter's hernia.

It is difficult to account for the presence of a membrane of such perfect formation in the interior of the sac of a hernia; tough, fibrous, and inelastic, it did not give the impression that it was of recent date, and this makes the explanation of the pathology of the case less easy. It has appeared to me that possibly its origin was due, in the first place, to a limited but complete inflammatory adhesion of the neck of the sac just external to the canal, following irritation produced by the pressure of a truss, subsequent stretching of this adhesion by internal and external pressure, the former caused by the frequent attempts of the gut to descend the canal, and that from without by the pressure of the truss aided by the presence of fluid in the old hernial sac. There was, however, no evidence of this, and the membrane, which was of the thickness of writing-paper, did not appear to slope away at its insertion, but was as distinct as the attachment of the parchment of a drum, and was smoothly lined on both surfaces. By the presence of this membrane, whatever may be the explanation of its origin, and by the adhesion of the intestine to the crural canal, two sacs were formed, each of them being in a condition for the production of what is known as hydrocele of the hernial sac—a condition so rare that Mr. Langton, in his remarks on a case,[1] stated that he had only found a record of the one case which he was describing out of almost 7000 cases of femoral hernia recorded by the Truss Society during a period of eighteen years. The fluid in these sacs was probably much of it the result of recent irritation, but there was no evidence of actual inflammation at the time of operation.

[1] St. Bartholomew's Hospital Reports, vol. x., 1874.

PYREXIA AND HYPERPYREXIA.

BY T. J. MACLAGAN, M.D., M.R.C.P.,
PHYSICIAN IN ORDINARY TO THEIR ROYAL HIGHNESSES PRINCE AND PRINCESS CHRISTIAN OF SCHLESWIG HOLSTEIN.

THE physiological facts which have to be kept before us in considering the theory of fever are as follows:—1. Two main processes are constantly going on in the system—tissue formation and tissue disintegration. 2. During tissue disintegration there are formed various products destined for elimination; the chief of these are urea, carbonic acid, and heat. 3. Urea is eliminated by the kidneys, carbonic acid by the lungs, and heat by the skin. 4. In the case of each, production and elimination are so well balanced that no accumulation takes place in the system. 5. In the case of heat this balance is so well maintained that the normal temperature is always the same (98·4° F.).

In fever the whole process is disturbed; there is increased formation of urea and carbonic acid, and the temperature rises above 98·4°. This rise of temperature is regarded as the pathognomonic feature of the febrile state, and its extent as the index to the amount of febrile disturbance. All theories of fever essentially consist in an attempt to account for this rise. The readiest and most natural way of doing so is to attribute it to increased activity of the processes which keep up the normal temperature. We accordingly find that the most generally accepted of the modern theories of fever—the so-called combustion theory—is that which attributes it to such increase. "Fever," says Virchow, "essentially consists in elevation of temperature, which must arise from an increased consumption of tissue." Liebermeister defines it "as a symptom-group, at the foundation of which is an elevation of the temperature of the body produced by a morbid general increase of metamorphosis."

The evidence of increased tissue metamorphosis in fever is the wasting of the tissues, and the increased elimination of urea and other excretory compounds. This distinct evidence of increased tissue metamorphosis, and the undoubted competence of this to cause a rise of temperature, are the foundations on which this theory of fever rests. If this expressed the whole truth, and if fever simply consisted in increased heat due to increased tissue metamorphosis, the amount of febrile disturbance ought to bear a direct relation to the extent of the tissue disintegration, and the quantity of excreta eliminated would be directly as the amount of fever. The fact that such is not always the case, and that the amount of urea excreted does not always rise and fall with the rise and fall of the temperature, has cast doubts on the accuracy of this theory, and led observers to seek for some other explanation of the rise of temperature. The combustion theory is not discarded, but it is regarded as inadequate to explain all the phenomena which present themselves in fever; and the more one studies these phenomena at the bedside, the more apparent does it become that increased tissue metabolism is not enough to explain them all.

In 1863 Traube advanced the hypothesis that the rise of temperature was due to retention of heat consequent on contraction of the minute arteries. Liebermeister and Leyden demonstrated the inaccuracy of Traube's hypothesis, and by a series of careful observations showed that the febrile body does give off more heat than the non-febrile—a fact already made familiar to every clinical observer by the greater sense of heat felt by the hand placed under the bedclothes of a patient suffering from fever, as compared with that felt in the case of the non-febrile. Ten years later Senator revived Traube's hypothesis in a modified form. He supposed that there are periodic diminutions of loss of heat, together with a constant, though not great, increase of heat production. But this is mere hypothesis, and is opposed to the facts observed by Liebermeister and Leyden.

It seems to me that there is really no valid reason for supposing that during fever the mutual relation of heat-production and heat-elimination is materially altered. That there is increased production of heat is undoubted; but a careful consideration of the facts with which we have to deal shows that increased production is met by increased elimination. The range of the temperature in fever has its limits, just as that of health has; the range is wider and more variable, it is true, but still it has its recognised limits. It could not be so limited were the increased production of heat which causes the rise not met by increased elimination. In health an adult produces in half an hour heat enough to raise the temperature of his body 1°C. Were heat to go on being formed uninterruptedly at this rate, without any elimination, the body would rapidly become very hot, and would reach the boiling point in thirty-six hours.[1] As it is, the heat does not exceed 98·4°. In fever the amount of heat produced is much greater. Were this increased production to go on with only the normal elimination of health, the range of febrile temperature would have no limits—the temperature would go on rising day by day till it reached a point which was incompatible with the continuance of life. As it is, the temperature in fever rarely reaches 106° F., and the immense majority of fever patients recover. In typhus fever the maximum temperature is reached by the fifth or sixth day, but the fever goes on for a week or ten days more, all the symptoms increasing in severity; but in very few cases is a higher temperature noted during the second week than was observed before the completion of the first, and yet all that time there is marked wasting of the nitrogenous tissues and increased elimination of urea. The fever process, with its increased metamorphosis and increased heat production, con-

[1] Landois' Physiology, p. 445.

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tinues in full swing, but the temperature does not rise—clearly showing that there is no accumulation of heat, and that increased production is met by increased elimination. In typhoid fever the same thing is observed. By the tenth day, or even earlier, the temperature generally reaches a height which is not exceeded during the remaining course of the fever, and an attack of typhoid may go on for three, four, or five weeks without having a higher temperature than was noted at the end of the first: clear evidence that the increased formation of heat, which keeps the temperature up, is counterbalanced by increased elimination. Why is this? Why should the temperature rise rapidly during the first few days and not go on rising? The same cause which made it rise during these days continuing in full operation, why should there not be the same result? The stage of invasion of a febrile attack is that at which the first symptoms of the action of the poison on the system are felt. The earliest indication of this action is a feeling of cold and misery—a desire to hug the fire. The cause of this is contraction of the minute arteries of the skin. The feeling of cold to which this contraction gives rise is a mere subjective sensation; at the time at which it is felt the temperature is really above the normal—may be, several degrees. Besides this subjective sensation, another result of this spasm of the minute arteries of the skin, that which concerns us at present, is decreased elimination of heat. It is by the skin that heat is normally eliminated; contraction of the cuticular arteries, by diminishing the flow of blood to the surface, produces a corresponding and consequent decrease in heat elimination. While the condition of the cuticular vessels thus interferes with the free elimination of heat, the fever-producing cause is at work in the system, causing heat to be produced there in more than normal amount. The inevitable result is the undue accumulation of heat in the system and a rise of temperature.

This is what takes place during the early days of a febrile attack. In the course of a few days the spasm of the minute arteries passes off, the blood again flows freely through them, the heat-eliminating function of the skin is thus restored, and keeping pace with heat production, prevents a further rise of temperature. Thus is to be explained the fact that in typhus fever the temperature reaches its maximum by the fifth or sixth day, rising little, if at all, after that time. It rises up to that point because there is increased formation of heat, and because the condition of the skin renders impossible a corresponding increase in elimination; it ceases to rise after that time, when the blood again circulates freely through the skin—not because the fever-producing cause has ceased to act, but because the mutual and normally counterbalancing relations of production and elimination are restored, and increased production is met by increased elimination. When the fever comes to an end, and heat production returns to the standard of health, there is still in the system a more than natural amount of the excretory products formed during the last days of its continuance—the chief of these are urea and heat; we consequently find that the phenomena of defervescence essentially consist in increased action of the kidneys and skin, the former evidenced by the loaded condition of the urine, the latter by the perspiring skin and rapidly falling temperature. Taking this view of the nature of heat—regarding it as an excretory product requiring to be eliminated,—it is evident that increased formation of heat must give rise to increased elimination so long as the skin can perform its functions. Increased formation of any excretory product leads to stimulation and increased activity of the organ by which it is eliminated. Urea is the natural stimulant to the kidneys, and its injection into the circulation gives rise to increased activity of these organs and an increased flow of urine. Carbonic acid excites the respiratory centre, and its increase in the blood causes increased activity of respiration. In the same way increased formation of heat gives rise to increased activity of the heat-eliminating function of the skin; hence it is that before an attack of fever has lasted many days increased formation of heat is balanced by increased elimination, and no further rise takes place, though the fever process continues unabated.

Such are the facts. During the continuance of the febrile process there is increased tissue disintegration and consequent increased formation and elimination of the products of such disintegration. The chief of these are urea, carbonic acid, and heat. The so-called combustion theory is simply an exposition of these facts. It is not a theory of fever in the sense of being an explanation of the mode of production of the febrile state; it is merely an attempt to explain one of the phenomena of that state—increased body heat. But a theory of fever to be satisfactory must not only tell us what are the essential phenomena of the febrile process; it must tell us also how the process is originated. If the first step in the production of fever be increased tissue-change, the first requisite to a satisfactory theory of fever is that it should account for this change; this the combustion theory as hitherto expounded fails to do; it gives a reasonable explanation of the leading phenomenon of fever—rise of temperature; but offers no explanation of what, according to this theory, is the cause of this rise, and therefore a prior step in the production of fever—increased tissue change. We accept the combustion as a fact, but in accepting it we ask for an explanation of its occurrence. We see that the fire is burning, and we recognise the results of the combustion; but we want to know how it originated, and who applied the match that set it a-going? This manifest shortcoming of the combustion theory did not escape the observation of even those who are its chief exponents. To his definition of fever, that it "consists essentially in elevation of temperature, which must arise from an increased consumption of tissue," Virchow adds the rider that this increased consumption "appears to have its immediate cause in alterations of the nervous system." But whence these alterations, and what are they?

It has been suggested by Dr. Ord[1] that the rise of temperature in fever may be partly due "to the persistence in the form of heat of energy which should have taken another form." In fever, tissue-formation is practically in abeyance, and his suggestion is that, as in health the process of tissue building uses up heat, its cessation leads to the liberation of heat enough to raise the temperature of the body. But does the process of tissue-building use up heat and its cessation liberate it? In support of his assumption that it does so Dr. Ord adduces no evidence, and frankly admits that there is none. That a small amount of heat may be absorbed during the formation of some of the intermediary products of tissue metabolism is generally admitted, but the question raised by Dr. Ord is not whether or not heat may be absorbed during the formation of these products, but whether or not it is absorbed during tissue formation—a totally different question. It is contrary to all physiological law to assume that a product of retrograde tissue metamorphosis, an excretory product, as heat undoubtedly is, should be freely used in tissue formation. The position is essentially and physiologically unsound; and Dr. Ord's suggestion that by the cessation of the processes of tissue formation heat is "left to run wild" cannot but be regarded as an exaggerated and inaccurate estimate of anything that can possibly take place in the way of heat liberation. His observations on the relative temperatures of growing and ripe cucumbers are beside the mark. We are dealing with animal heat, and even in this the question for consideration is not so much whether heat may be absorbed, but *whether during tissue formation it is absorbed in quantity sufficient to lower the temperature of the whole body several degrees.* If there is not absorbed during tissue formation enough heat to lower the temperature several degrees, there cannot, when tissue formation ceases, be liberated enough to raise it several degrees. But even the acceptance of Dr. Ord's hypothesis would not materially better our position so far as our knowledge of the causation of fever is concerned. "Rise of temperature," says Dr. Ord, "results partly from the cessation of tissue formation." But why does tissue formation cease? Dr. Ord's hypothesis is based on an unsound physiological assumption. There is no good reason to regard heat as other than essentially excretory in nature; and the more we keep this physiological fact before us in investigating the phenomena of the febrile state, the less liable shall we be to fall into error, and the more likely to interpret aright the complex and varied phenomena which go to constitute that state. Dr. Ord's hypothesis, though it cannot be accepted as tenable, or as affording any relief to the difficulties by which we are beset, is an expression of the existence of these difficulties, and of the fact that there is much in the phenomena of the febrile state which the combustion theory does not suffice to explain. It is a call for more light.

It is since the combustion theory of fever was pro-

[1] Brit. Med. Journal, vol. ii., 1885.

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pounded that the thermometer has come into general use as a means of clinical research. By its aid we have not only acquired a more accurate knowledge of the range of temperature in ordinary febrile and inflammatory ailments, but have also gained much information regarding the clinical history of other morbid conditions. Among the most important of the results which have accrued from its use is the recognition of the condition to which the term hyperpyrexia has been applied. In ordinary fevers and inflammations the temperature rarely reaches 106°, and 105° is looked upon as very high. Hyperpyrexia essentially consists (1) in a temperature which runs up, generally very quickly, to 107°, 108°, 109°, 110°, or even higher; and (2) in the coincident development of alarming nervous symptoms, usually resulting in death by coma. Hyperpyrexia is not a disease *per se*, but an incident occurring in the course of other ailments. The recognition of this condition, of the circumstances under which it arises, and of the phenomena which go to constitute it, has probably done more than anything else to shake confidence in the combustion theory of fever; and no wonder, for it is apparent that, while that theory of fever may afford a fairly adequate explanation of the rise of temperature which occurs in ordinary pyrexia, it is quite incapable of explaining the condition which has to be dealt with in hyperpyrexia. The rapidity with which the temperature attains such a height, the absence of the other evidences of such increased tissue disintegration as should from this view accompany so great a rise, and the fact that hyperpyrexia rarely occurs in those fevers in which the evidence of increased tissue disintegration is most pronounced, show that the combustion theory of pyrexia does not suffice to explain the phenomena of hyperpyrexia. Pyrexia and hyperpyrexia have been linked together clinically and pathologically, and looked upon as different degrees of the same condition, allied both in nature and causation. The inadequacy of the combustion theory to explain the occurrence of hyperpyrexia has thus materially weakened its foundations as a theory of pyrexia, and the necessity for finding some other explanation of the very high temperature of the former has led to the enunciation of new views as to the causation of the more ordinary temperature of the latter.

But it is by no means certain that we are right in thus linking these two conditions so closely together, and in looking for one common explanation of both. Their clinical histories are so distinct, and the circumstances under which each occurs so different, that we are scarcely warranted, without some very special reason for doing so, in assuming similarity of causation. No such special reason exists. The only bond between them is the occurrence in each of a higher than normal temperature; but our knowledge of the mode of production of febrile temperatures is not such as to warrant us in saying that there is only one way in which a rise can be produced, that all rises of temperature are due to one cause, and that pyrexia and hyperpyrexia are due to the operation of this cause acting in different degrees. Were this the case—were hyperpyrexia merely an exaggeration of pyrexia, and produced by the same agency,—we should find pyrexia running into hyperpyrexia much more frequently than it does, and hyperpyrexia would be most common in ailments in which pyrexia is most pronounced and most a source of danger. Typhus, typhoid fever, relapsing fever, cerebro-spinal fever, scarlet fever, measles, pneumonia, peritonitis—those diseases, in short, in which pyrexia is most pronounced, prominent, and prolonged—are the ones in which hyperpyrexia would most commonly occur were this view of its nature the correct one. But it is rarely met with in these maladies, and when it does occur is regarded as not only a rare but an accidental complication. The physician finds hyperpyrexia occur, not in connexion with the continued fevers or severe inflammations, but in cerebral hæmorrhage, in heat apoplexy, and in those cases of acute rheumatism which are accompanied by cerebral symptoms—what used to be called cerebral rheumatism. The surgeon finds it not in long-continued or severe inflammations of wounds, bones, veins, &c., but in certain injuries of the cervical cord involving little or no inflammatory disturbance. One point in the clinical history of hyperpyrexia is specially prominent—the association with the very high temperature of prominent nervous symptoms. This association is all but invariable, and such symptoms are as essential a part of the morbid condition to which we apply the term hyperpyrexia as is the very high temperature to which it owes its name.

The question at once arises, What is the mutual relation of the high temperature and the cerebral disturbance? There are two views on this point: one, that the high temperature is primary and the nervous symptoms secondary; the other, that the nervous disturbance is primary, and the high temperature a consequence of it. According to the former, the high temperature of the blood causes disturbance and ultimately paralysis of the nervous centres.[3] But were this the sequence of events, the prominence of the nervous symptoms would be directly as the height of the temperature, and such symptoms would be most marked in ailments in which the temperature runs highest; but such is not the case. Isolated cases of disease are on record in which very high temperatures have been noted without coincident nervous symptoms; but, leaving out of account these rare and exceptional cases, we need only turn to the clinical history of relapsing fever for decided evidence that high temperatures do not necessarily produce serious disturbance of the nervous centres. In that fever it is not an uncommon thing for the temperature to run up to 106°, 107°, or even 108°, without the occurrence of any symptom other than this high temperature to distinguish cases in which it occurs from cases in which the temperature never exceeds 103° or 104°. "A circumstance of some importance in the pathology of pyrexia is the fact conclusively established by many independent observers that these high temperatures in relapsing fever entail little or no danger to the patient, and do not produce serious cerebral symptoms" (Murchison). Did a high temperature of the blood have on the nervous centres the disturbing influence attributed to it by Liebermeister and others, head symptoms would be a prominent feature in these cases of relapsing fever with high temperature. But such is not the case; for head symptoms are much less prominent in them than in typhus and typhoid fevers, in which the body heat is several degrees lower.

(To be continued.)

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

SEVEN CONSECUTIVE CASES OF CHARBON TREATED SUCCESSFULLY BY EXCISION (*continued*).

(Under the care of Mr. BRYANT.)

IN the last issue of THE LANCET (pp. 367–8) we published cases which form the commencement of the series which is here continued. The period which had elapsed from the apparent beginning of the disease until the patient came under care varied from one to six days, and the efficacy of the treatment by excision is again confirmed by the marked improvement which immediately followed its adoption, and the ultimate good result in each case.

CASE 3. *Charbon of neck with great œdema and lymphatic enlargement; excision, followed by severe pyrexia; cure.* (From notes by Messrs. Beard and J. W. Roberts.)—J. M——, aged fifty, a waterside labourer (and he occasionally has to handle foreign hides), was admitted on Oct. 31st. Family history good. On the previous Tuesday (Oct. 27th) the patient felt a pimple situated about the angle of the jaw on the left side. The swelling increased very much in size on the Friday and Saturday following. He does not remember having scratched or cut himself. He had the same clothes on the day that he noticed the pimple as he was wearing a month previously, and then he had been handling some hides from foreign parts.

On admission the patient looked a strong healthy man. There was a swelling on the left side of his face about the angle of the jaw; it presented a dark central spot surrounded by a circle of vesicles, and beyond this the

[3] Liebermeister: Deutsch. Arch. für Klin. Med., vol. i., 1856.

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swelling was red and œdematous. Mr. Targett found abundant bacilli anthracis in the discharge.

Oct. 31st.—Mr. Bryant at 3 o'clock this afternoon removed the pustule and a good deal of the surrounding structures; one artery had to be twisted. The wound was afterwards washed with carbolic acid, 1 in 1, dressed with dry gauze, and a sponge placed over it. Evening temperature 104°.

Nov. 1st.—Ordered five grains of sulphate of quinine every four hours until the temperature falls; to have milk and ice, and four ounces of brandy. The patient to be sponged if his temperature goes up to 104°. Ten grains of colocynth and hyoscyamus to be given at once, also fifteen grains of antipyrin, to be repeated in four hours if necessary.

2nd.—12.30: Ordered eight minims of kinate of quinine (solution of kinate of quinine, one grain in four minims). *3.45*: Injection of eight minims of kinate of quinine. The patient has had ice applied to his head; his bowels are open.

8th.—Ordered compound acid mixture.

9th.—Patient got up in the evening for the first time; he felt rather weak. Temperature normal. There is a slough at the bottom part of the wound; the upper part looks very well. There is still œdema below the wound.

Dec. 3rd.—The skin below the wound became undermined, and a large slough formed. This has been coming away in small pieces with the discharge for the last three weeks; it has now nearly all gone, and the wound looks quite healthy.

5th.—The slough has now gone, and there is only a slight discharge from the wound. The inflammation around the wound has subsided.

CASE 4. *Charbon on right cheek, with œdema of neck; excision; application of pure carbolic acid; cure.* (From notes by Messrs. Elliott and H. P. Ainsworth.)—W. H——, aged fifty-one, a skin porter, was admitted on Jan. 21st. The patient carries hides; these are from China, Australia, Bombay, the Cape, &c. On January 16th he noticed a stiffness and tightness of the skin on his right cheek; on the 17th this was more apparent, and on the 18th a vesicle formed. On the 19th this burst and some watery fluid came away. There was but little pain in the cheek. The patient kept at work until the 20th. Poultices had been applied to his cheek.

On admission the temperature was 99°. The patient has not been sick. On his right cheek, about one inch in front of the lobule of the ear, is a circular patch three-quarters of an inch in diameter. There is a small black eschar in the centre of the patch about the size of a pea; around this, especially at the anterior and lower parts, is a zone of vesicles, becoming confluent; around this, again, is a zone of redness, which gradually fades off into the surrounding parts, which are œdematous. The œdema extends forwards to the angle of the mouth and backwards and downwards into the neck. An enlarged gland can be felt below the body of the jaw.

Jan. 21st.—Chloroform was administered; Mr. Bryant cut out the skin and subcutaneous tissue around, including the eschar, by an incision about one inch in diameter and three quarters of an inch in front of the lobule of the ear; there was very little bleeding and only one vessel was twisted. Pure carbolic acid was applied to the raw surface, and the wound was then dressed with iodoform strips and gauze. Several attempts were made to find bacilli in the serum exuding from the vesicles, but none could be found; at last, however, three were found in one slide, but they were not certainly anthrax.

22nd.—There was but little bleeding; the wound was dressed to-day and looks clean and well. Patient is not in much pain. He was ordered quinine and iron mixture with infusion of calumba three times a day.

26th.—The small gland near the angle of the jaw has increased in size and become very hard; the skin over it is tense. Evening temperature 100°, the highest recorded.

31st.—The discharge from the wound is very slight; the enlarged gland is slowly decreasing in size.

Feb. 8th.—The wound is circular, about the size of a penny, and the granulations are small, healthy, and level with the surface. The enlarged gland is still firm and hard, but seems to be decreasing.

12th.—The wound is now about the size of a halfpenny, the redness around the wound is fading away, and the enlarged gland is much smaller and softer.

16th.—The patient went to a convalescent home to-day. The wound is about the size of a sixpence, and covered with healthy granulations; the gland behind the jaw is smaller, and soft.

CASE 5. *Charbon on the left side of the neck; excision; application of carbolic acid; cure.* (From notes by Messrs. Taylor and Coombe.)—J. B——, aged thirty-two, a skin-dresser, was admitted on April 14th, 1886. On April 5th the patient felt a pain on the left side of his neck. This pain seemed to pass down his neck. He thought it was only a stiff neck. On the 8th he noticed a small pimple in the region of the pain; the pimple was about the size of a pin's head, and was painful. The following three days the pimple increased in size, and became more painful. On the 12th he saw a doctor, who treated him for carbuncle, and ordered poultices to be applied. He got no relief from the poultices. On the 13th he went to work, but was obliged to leave off. When he woke on the 14th he was unable to raise his head, and had great pain in his neck.

The patient is a strong, healthy-looking man. On the left side of the neck, at the posterior margin of the sterno-mastoid, and about two and a half inches below and behind the lobule of the ear there is a swelling about the size of a florin, slightly raised above the surrounding skin. There is a black spot in the centre surrounded by a zone of redness, outside of which, entirely surrounding it, is a complete circle of vesicles containing clear serum; the tissues around are all swollen, and have a red brawny appearance; the swelling extends some three or four inches around. Shortly after admission chloroform was administered, and a circular incision was made round the swelling, and the whole removed. There was not much bleeding. Pure carbolic acid was applied.

April 15th.—The patient seems much relieved since the operation. Ordered sulphate of quinine (three grains), with dilute sulphuric acid and infusion of gentian, three times a day.

16th.—The patient slept better last night, and says he feels better.

27th.—The patient now gets up every day, and has gone out of doors for a short time. Wound looking well; granulation healthy.

May 8th.—The patient is not so well this morning; complains of headache, and has occasional shivers; he is thirsty. Temperature 100°. There is a little redness to be seen round the wound, but its extent is very small. To keep in bed.

CASE 6. *Charbon on the right cheek, with lympathic enlargement; excision, and actual cautery.* (From notes by Messrs. Metzgar and Meares.)—W. D——, aged fifty-four, a labourer in a hide warehouse, was admitted on June 10th. On the 9th he noticed a small lump on the right cheek, about an inch above, and external to, the corner of the mouth; it was hard, and had a bright-red spot at the apex; it was not painful, but irritating. On examination of the cheek, there was seen a small elevated papule; it consisted of a small, dark-coloured central spot, surrounded by a ring of vesicles secreting a clear serous fluid, outside which was an area gradually running down to the surrounding skin levels, and outside this again a third circle, which showed a reddish, bluish colour, gradually fading out into the surrounding tissues. The patient was put under chloroform at once, and the papule dissected out, and removed between two circular incisions. There was slight bleeding from a small artery. The actual cautery was applied to the wounds.

June 12th.—The patient feels weak and sick; his submaxillary glands, especially on the right side, are enlarged. Temperature 99·6°. Urine clear, and light in colour; reaction acid; sp. gr. 1008; no albumen, sugar, blood, or pus.

13th.—Temperature 99°. Patient is sick and weak, glandular swelling less. A sixth of a grain of morphia was given subcutaneously, and aperients ordered.

14th.—Temperature 99·6°. Patients says he feels weaker and not so comfortable. Bowels very confined; no action since admission.

15th.—Bowels opened last night and again this morning. Temperature 100°. Glands smaller. Patient's appetite poor. He is in pain if he moves his jaw. There is a strong history of gout. He has gout in the right knee and foot; ankle a little swollen and inflamed; knee is not swollen. A mixture containing vinum colchici and alkalies ordered.

17th.—Knee painful. Temperature 99·6°.

25th.—Wound healthy; granulating freely.

July 1st.—Patient got up for an hour or two yesterday.

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CASE 7. *Charbon of face, with surrounding œdema; excision; cure.* (From notes by Messrs. W. F. Clarke and W. C. Swayne.)—F. T——, aged twenty-three, a worker in a dye-house of a leather merchant, was admitted on Dec. 23rd, 1886. On Dec. 20th a small pimple came at the root of the nose. On the 21st, whilst at work among leather, he picked the top off the pimple, and he says a hard morsel like a crystal of brown sugar came away (possibly hardened serous effusion); after this his eyes began to ache, and were swollen under the lower lids. On the 22nd the pimple became more painful, and the swelling under the eyelids increased.

There is a small sore at the root of the nose in the median line, about the size of an ordinary shirt-button in circumference, and for a small area around the part affected it is indurated and swollen. Underneath the eyes it is much puffed, and the parts are very painful. No enlarged glands. No vesicles to be seen around the sore. Some of the fluid from the sore was examined, but no bacteria could be found. Urine acid; sp. gr. 1015; no albumen or blood. Temperature 99·4°.

After admission, chloroform having been administered, a circular incision three-fourths of an inch in diameter was made round the sore, and the whole of the tissues excised down to the bone. Very little bleeding occurred. The wound was washed with iodine lotion, and iodine dressings applied.

Dec. 25th.—Wound looking well; no pain. The swelling under the eyelids is almost gone. Temperature normal.

29th.—The patient gets up and remains about the ward all day. No sign of inflammation around the part. The œdema of the face has entirely disappeared.

Jan. 4th, 1887.—The patient has been going on very well. Wound looking healthy and filling up; but at 7 o'clock this morning he had a rigor, and was put to bed, with hot-water bottles to his feet. 11 A.M.: Still has a fit of shivering come over him now and then. Temperature 99·2°; skin feels hot and moist.

7th.—Patient discharged well.

DEVON AND EXETER HOSPITAL.

UNILOCULAR OVARIAN CYST IN A GIRL AGED THIRTEEN; OVARIOTOMY; REMARKS.

(Under the care of Mr. BELL.)

FOR the notes of the following case we are indebted to Dr. A. Blomfield.

Edith G—— was admitted on Aug. 19th, 1886, with a fluctuating abdominal tumour. The girl was very small and undeveloped for her age, and had never menstruated. About four months before her admission she complained of pain in the left iliac fossa, which she describes as "like stomach-ache." The pain was afterwards felt higher up and on the opposite side of the abdomen. She is certain that there was no enlargement at this time, but that shortly afterwards the abdomen began to enlarge and increased somewhat rapidly to its present size. There has been no jaundice, vomiting, or œdema of the legs.

State on admission.—The abdomen is much enlarged, presenting a somewhat barrel-shape appearance. The superficial veins are not prominent, nor is there any œdema of the walls. The circumference of the abdomen, one inch above the umbilicus, is thirty-two inches; the left side measuring three-quarters of an inch more than the right, and the measurement from the left anterior superior iliac spine to the lower border of the sternum is half an inch more than from the opposite spine. There is complete dulness over the part of the abdomen to the level of the lower border of the sternum; the left flank is quite resonant, the right somewhat less so. There is resonance over the left iliac region, but the right fossa is absolutely dull. There is a distinct free wave of fluid from side to side through the swelling. On placing the hand on the abdomen, a sensation of crepitus can sometimes be felt.

The case was sent into the hospital as probably ascites, but from the examination it was evident that the fluid was encysted, and the opinion given was that the case was one of ovarian dropsy.

On Aug. 28th, under chloroform, Mr. Bell, through a small incision (three inches), removed a unilocular ovarian cyst. The cyst weighed twelve pounds, and contained eight pints and a half of fluid. The pedicle was broad, and sprang from the right side; it was tied in two parts with thick silk, and returned. There was one long thin omental adhesion, which was easily separated. The intestines did not come into view. The left ovary appeared healthy. The abdominal wound was brought together by silk sutures, which were removed at the end of the week, when the wound was found healed. Gamgee tissue was used as a dressing. The girl made an uninterruptedly good recovery.

Remarks by Mr. BELL.—The points of interest in the case seem to be the age of the girl, her small size for her age, the size of the cyst, and its somewhat rapid growth.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Rupture of the Urinary Bladder.

AN ordinary meeting of this Society took place on Tuesday last, Dr. J. W. Ogle, F.R.C.P., Vice-President, in the chair.

Mr. HENRY MORRIS read a case in which the Urinary Bladder was twice Ruptured, the first time by an injury, the second time—seven years after the first—by the giving way of the cicatrix. A man aged thirty-six, had been drinking at a public-house on the evening of June 4th, 1879, when a struggle ensued, and his opponent threw him and knelt with violence upon his abdomen. All the symptoms of peritonitis and rupture of the bladder were excited, and the patient was admitted into the Middlesex Hospital on June 6th, 1879. The treatment consisted of hot fomentations to the abdomen, half a grain of opium in a pill every six hours, and the retention just within the neck of the bladder of a gum-elastic catheter. He recovered perfectly, and left the hospital on July 10th, 1879. He applied at the hospital again on August 4th, 1886, and gave the following account:—On August 2nd he had been at a "beanfeast." On the following morning his bowels acted and he passed some urine, but the latter act was attended with some pain. From this time pain increased, and in the evening he was unable to micturate. He vomited frequently, and had had hiccough since the onset of pain, until the afternoon of August 4th, 1886, when a catheter was passed and nearly three ounces of bloody urine were withdrawn. He was then admitted as a case of peritonitis and suppression of urine. On the 5th about one pint of thick, purulent, and slightly blood-stained urine was drawn off. At 7 A.M. on August 6th he passed a little flatus and a large quantity of urine, and suddenly became very sick. Soon afterwards he was quite collapsed; his abdomen became very distended; he never rallied, and died at 11.5 A.M. on the same day. At the necropsy recent general peritonitis was found, and in the pelvis there were fifteen ounces of purulent urine and a quantity of lymph. A band an inch and a quarter long united the fundus of the bladder with the rectum. The vesical end of this band was hollowed out into a slender funnel, and through a rupture in it close to the bladder a string of mucus was projecting. Slight pressure caused purulent urine to ooze from the bladder through the rent into the peritoneal cavity. The rectum, bladder, and penis were removed *en masse*, and were submitted to a committee consisting of Mr. Savory, Mr. Bryant, and Drs. Goodhart and Kingston Fowler, who reported that in their opinion "the specimen exhibits all the features which might be expected at a remote period after a rupture of the bladder." This case, in the first instance, was reported in 1879 as one of recovery from rupture of the bladder. It is now brought before the Royal Medical and Chirurgical Society because in its completed form it affords conclusive proof that an intra-peritoneal rupture of the bladder is not necessarily fatal, but may be recovered from under the simple treatment employed in this case, provided the urine at the time of the rupture is of normal composition. The case is believed to be unique in that it furnishes us with the post-mortem appearances of the bladder some years after recovery from an intra-peritoneal rupture of the coats of that organ.

Mr. W. H. BENNETT read a case of Extra-peritoneal Rupture of the Urinary Bladder, the direct result of aspiration

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above the pubes, with remarks on some objections to the use of the aspirator as a means of evacuating the bladder, and suggestions for the treatment of certain cases of retention of urine. The author stated that he had always objected to the aspirator as a means of relieving a distended bladder, excepting in a very limited number of cases, as he believes that its use directly tends, in a large number of instances, to rupture of the organ, or oozing of urine by the side of the needle, in consequence of the immediate relief to the vesical tension being insufficiently afforded by the small instrument commonly employed. The question of vesical tension was discussed as having an important bearing on the subject. The case was then described of a man, aged thirty-eight, who came under the author's care on Sept. 19th, 1886, with retention of urine of three days' duration consequent upon a stricture which had existed for fifteen years. The house-surgeon, having failed to pass a catheter, aspirated the bladder above the pubes. Rupture of the organ immediately followed. The abdomen was laid open by the author, and a large quantity of urine escaped from a cavity in the pelvis and hypogastric region. The bladder was subsequently drained through a perineal incision. The patient progressed satisfactorily till November 6th, when an opening formed between the bowel and the peri-vesical cavity, after which he sank. The preparation and a drawing of the parts were shown. Three other instances in which complications happened were referred to. In conclusion, the following propositions were submitted:—1. Aspiration of the bladder for the temporary relief of retention of urine can only be resorted to with absolute safety for cases in which the bladder walls are presumably healthy. 2. The operation is inadmissible in cases of retention consequent on long-standing stricture, the bladder walls being diseased and often rotten; the appropriate treatment in such cases, if the stricture be impassable, being drainage of the bladder through a perineal incision. 3. The aspirator can be used only with some risk in cases of distended bladder where there is reason to suppose that the urine is foul, unless the organ is washed out with an antiseptic solution before the withdrawal of the needle, and even then aspiration is only applicable to certain cases of retention from prostatic obstruction not associated with long-continued previous cystitis or irritable bladder, such cases being properly treated by prostatotomy and perineal drainage. 4. In any case of bladder-distension where there is reason to suspect disease of the coats of the organ, if tapping be performed at all, a large trocar and cannula should be used, and not a small aspirating needle. 5. In the event of aspiration being followed by pain, supra-pubic dulness, and rigidity of more than a temporary character, incision above the pubes should be practised, the bladder being drained through the perineum if the urethral obstruction be still impassable.

Mr. T. BRYANT thought there could be no doubt that Mr. Morris's was a case of repaired rupture of the bladder, in which in the course of seven years an acquired hernia or sacculus had developed. The case also showed the importance of not interfering with an opening that was in process of repair, and thus suggested a practical hint to the surgeon to be careful in dealing with the bladder so as not to reopen a wound that was already healing. Mr. Bennett's paper gave clear evidence to show that there was some danger in aspirating the distended bladder. He did not remember to have written lightly in his text-book of aspirating the bladder for retention of urine. His own experience had taught him that such a method of treatment might be of a serious character. He alluded to two cases:—1. A man, aged thirty, was seen in 1883, with retention from urethral stricture relieved by supra-pubic puncture; afterwards it was found necessary to perform perineal section, but death followed. Evidences of suppurative peritonitis, with a diffuse sloughing abscess, the result of extravasation of urine, were found at the post-mortem examination. 2. This was the case of a man aged seventy-eight; there was retention from an enlarged prostate, which was relieved seven or eight times by supra-pubic puncture. At the necropsy made by Dr. Goodhart six distinct punctures were visible from the bladder surface, and each opening would allow of the escape of urine into the peritoneum. Even with a healthy bladder there was risk in tapping if the viscus were over-distended. There was an analogy between the aspiration of a tight hydatid tumour and that of a full bladder.

Professor HUMPHRY said that Mr. Morris's case showed that healthy urine could enter the peritoneum without necessarily leading to lethal effects. He considered that the specimens showed that a sinus rather than a sacculus had formed as the result of the original accident. He related the case of an elderly man who had retention of urine from enlarged prostate. Aspiration was performed, with the result of extravasation of urine and fatal consequences. Had the surgeon who aspirated been aware of the possible dangers of aspiration, perhaps the patient's life might not have been sacrificed. He endorsed the importance of the facts brought forward by Mr. Bennett.

Mr. RICHARD BARWELL said that in his experience ruptures of the bladder were usually very large, and that any attempt to treat such cases by the expectant method would not usually be attended with satisfactory results. The diagnosis of a case of extensive from a small rupture of the bladder was very difficult, for the signs of peritonitis might be as marked in the latter as in the former. In order to aid in the diagnosis, the catheter need not be pressed so far as to reopen a rupture. The rate of flow of the urine through the catheter might help in the diagnosis; if the flow increased during inspiration and decreased with expiration, the surgeon should not wait, but perform abdominal section, for if such a flow of urine be obtained, a large rupture might reasonably be concluded to exist. He concurred in the views expressed by the previous speakers on Mr. Bennett's paper.

Mr. J. W. HULKE said it was very difficult to obtain clear and decisive evidence of a large vesical rupture. Mr. Morris's case was valuable, as showing that even adverse circumstances were not absolutely hopeless. He had long been convinced of the dangerous practice of aspirating a distended bladder. The mechanism of escape of urine from the bladder he did not feel convinced about; but that was hardly the practical matter. Aspiration was only to be regarded as safe where the bladder and urine were healthy.

Mr. W. RIVINGTON had examined the specimen shown by Mr. Morris, and he considered that a rupture of the bladder had occurred, though he did not agree with the conclusions of the committee who had reported on the specimen. There was no evidence that the bladder had been ruptured by a vertical rent, which would be intra-peritoneal, though this term was not used in the report. Again, there was no evidence of any cicatrix on the mucous or peritoneal surfaces of the viscus, and he did not believe that such evidence would be obliterated in the course of seven years. He would be prepared to admit that there had been a local peritonitis, which would be well explained by a *subperitoneal* rent. He did not think that a true intraperitoneal rupture had occurred. He also considered that there was not much urine in the bladder at the time the original injury was received. Commenting on Sir W. Mac Cormac's cases, he contended that the amount of fluid passed through the abdominal drain was so large that it could not be ascribed to the flow of urine, and must be set down to serum exuded from an irritated peritoneum. Experimental research also showed that normal urine was not innocuous to the peritoneum.

Mr. CHRISTOPHER HEATH said that in the fresh state the bladder showed an undoubted cicatrix, and he fully concurred in the view of Mr. Morris.

Mr. J. K. FOWLER thought there was no doubt whatever of the bladder having been ruptured, and the presence of a distinct though distended and atrophied cicatrix was the evidence of this at the time he made the necropsy.

Mr. HENRY MORRIS, in reply, said that he had merely placed the facts before the members of the Society that they might form their own opinion. He submitted the specimen to a committee of Fellows of the Royal College of Surgeons, so that there should be an unbiased opinion. His case showed at least this—that the continued use of the catheter could be followed by a favourable result, even when there was no doubt clinically of the occurrence of vesical rupture. The infundibuliform adhesion he took to be the actual cicatrix, altered by circumstances in the course of time. The early history of the case, he contended, justified the conclusion that the bladder was distended at the time of rupture.

Mr. W. H. BENNETT, in reply to Mr. Hulke's objections to his explanation of the mechanism of production of the extravasation, said that he believed that a circular opening in the bladder was formed by the aspirator at the time of puncture, but that later on a slough separated from the bladder wall at the site of the vesical puncture.

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PATHOLOGICAL SOCIETY OF LONDON.

Shedding of Teeth in Tabes Dorsalis.—Intermuscular Synovial Cysts.—Endothelioma of Dura Mater.—Syphilitic Hyperplastic Laryngitis.—Mitral Aneurysm in a Child.—Ectopia Vesicæ.—Retro-pharyngeal Abscess.—Horny Growth on Penis.

AN ordinary meeting of this Society was held on Tuesday, Feb. 15th, Sir James Paget, Bart., President, in the chair.

Dr. HALE WHITE read a paper on the Falling of Teeth in Locomotor Ataxy, and related the case of a man, aged forty, who had had the first symptoms of locomotor ataxy eight years earlier; ataxy had been present for one year, and the lightning pains for nine months. When admitted taste was impaired, there was anæsthesia in various parts of the body, and girdle pain; all the reflexes were absent, there was loss of sexual power, and some diarrhœa. A wisdom tooth was exhibited which had fallen out two years ago without any previous signs of decay; it was quite healthy. The other teeth were ground down, but otherwise quite healthy. He was treated with iodide of potassium, and went out of the hospital after showing some improvement. Dr. Hale White mentioned some references to this subject. Thus, Richardière (*Rev. de Méd.*, No. 2, 1886, p. 170) related how in a patient suffering from tabes the mouth and face swelled; all the teeth of the upper jaw fell out one by one without any previous caries; after this a few pieces of bone came away from the palate. Hoffman (*Berlin. Klin. Wochen.*, No. 12, 1885) mentioned a case in whom all the teeth fell out of the upper jaw without any apparent cause, and two years after tabes dorsalis showed itself. Dr. Lewis (*Amer. Journ. Nerv. and Mental Dis.*, No. 2, 1885) also gave cases. Dr. Hale White considered that before allowing that this was a definite symptom of tabes dorsalis we should notice many more cases, for the teeth were liable to fall out from so many causes.—Dr. F. SEMON said there were two varieties of shedding of the teeth—one in which the tooth simply drops out, and in the other where part of the alveolus breaks off as well. In cases of gastric and laryngeal crisis such teeth and bone changes should be specially looked for, in view of Dr. Buzzard's theory of the association of the trophic bone centre with the pneumogastric centre.—Mr. BENNETT spoke of an affection of middle life in which from the socket of the teeth a discharge of serum or pus took place, and in some of which cases nodules of tartar developed on the periosteum, and fragments of dead bone came away. It was an absolutely painless affection, the pathology of which was much disputed. Gout and imperfect nutrition were ascribed as causes.—Dr. G. N. PITT referred to two cases of tabes in which a larger number of teeth had been lost than was usual at the age at which the patient had arrived.—Dr. ORMEROD alluded to a case of well-marked tabes in which a part of the alveolus with three teeth had spontaneously broken off. The man had had syphilis. The neurologists considered the fracture due to tabes, but some others—syphilographers—thought the case was due to the syphilis.—Mr. BLAND SUTTON referred to four cases of disease of the spinal cord in animals which had perforating ulcers and nerve troubles. They were carnivora, and all had softening of the alveolus with shedding of teeth, though they were animals who should have had a full supply of teeth.—Sir JAMES PAGET thought it was a subject of much importance, and required further investigation.

Mr. D'ARCY POWER showed some more specimens of Intermuscular Synovial Cysts. After alluding to the examples already brought before the Society in 1885, he said that the present series confirmed in all respects the theories he then advanced. He showed a preparation of a knee-joint from a patient who died of phthisis in St. Bartholomew's Hospital. The joint presented an irregular hourglass-shaped cyst situated over the inner side of the knee, and communicating by a contracted channel with a second enlargement situated in the loose connective tissue of the popliteal space. The bursa beneath the popliteus was also greatly dilated, though not connected with the other swelling. Neither of the cysts communicated with the knee-joint. Mr. Power commenced in an almost bursæ in the neighbourperhaps on some form of then opened one into the line of least resistance. He further pointed out that this was the first case he had dissected in which there was absolutely no communication between the cysts and the synovial cavity of the articulation near which they had formed. In a second specimen in which the joint was extensively diseased, there was a cyst in the same situation as in the first case, but it opened directly into the knee-joint. An especial point of interest consisted in the fact that there was a partially pervious cord connected with the cyst; it represented the remains of a pre-existing cyst, which had been aspirated with antiseptic precautions sixteen months before amputation of the joint. In the third specimen exhibited by Mr. Power the cystic enlargement was due to a hernia of the synovial membrane of the elbow, and not to the distension of any bursa. It was a significant fact that in two of the three cases the cysts occurred in cases associated with tubercular disease of the neighbouring articulation.—Mr. R. J. GODLEE asked for the experience of members of the Society as to the relationship of ganglia on the back of the wrist to tubercular disease of that joint.—Mr. CHARTERS SYMONDS mentioned a case of swelling of solid nature, part of which was composed of caseous material, and referred to a second case of solid growth on the inner surface of the sheath of the tendon of one finger, which proved to be of tubercular structure. He asked Mr. Godlee whether his cases were true ganglia or solid tubercular masses, to which the reply was that reference was made to the sequence of apparent ganglia on the back of the wrist and tubercular disease of that joint.

Dr. HYLA GREVES showed a specimen of Endothelioma of the Dura Mater, removed from a lady aged sixty, who had had attacks of headache localised by tenderness to the right parietal bone. Spasms of epileptiform kind occurred in the left face and hand, sometimes with loss of consciousness, and followed by paresis, but not complete paralysis. Giddiness, vomiting, and double optic neuritis had been noticed. The case lasted fifteen months. The memory was deteriorated. Operative interference was not accepted by the patient or her friends. The tumour was found to have the dura mater adherent over an area the size of a shilling. The external surface of the dura was rough and thickened, and the bone thinned. A branch of the middle meningeal crossed the tumour, which was deeply embedded in, but displaced and depressed, the convolutions about the fissure of Rolando. The tumour had a crenate margin, and was an inch and a half thick. It had a fibrous and greyish aspect, and was blood-stained. A delicate membrane, probably the pia mater, separated it from the brain substance. Cell nests with reticulated strings or bands of cells and a fibrous margin formed the histological structure. The strings or bands were composed of flattened cells arranged in reticulated layers. Many distended blood-vessels were seen, whose walls were composed of flattened cells circularly arranged, and in some places having an ampulla-like appearance, but no separated portions, as described by Cornil and Ranvier in angeiolithic sarcoma. The specimen shown resembled those described by Ziegler as endotheliomata.—Mr. F. S. EVE asked for the precise relations of the tumour to the dura mater, for Dr. Goodhart had presented to the museum of the Royal College of Surgeons a large intracranial tumour growing from and into the bone; the dura mater covered, but was not attached to the growth. He had been surprised to find that the growth was an angeiolithic sarcoma; it consisted of small connective tissue cells, which in places formed whorls, which he thought originated in abortive vascular bands.—Mr. JONATHAN HUTCHINSON thought there was much to be gained by dropping the term "psammoma," and using in its place the term "calcifying endothelioma." The growths differed from sarcoma in their tendency to remain isolated. He recalled a case which he had reported to the Society of calcifying endothelioma, arising in connexion with the vertebral column, which had entirely compressed without invading the cord.—Dr. HYLA GREVES said the dura mater lay external to the growth, and was only attached over a small area.

Dr. F. SEMON showed, for Dr. Jacob of Leeds, photographs and microscopic specimens of Hyperplastic Syphilitic Laryngitis. The patient was a child five months old, who had, from a fortnight after birth, suffered from manifestations of congenital syphilis, and who was admitted into the Leeds Infirmary in November last with cough and huskiness of voice. Laryngeal obstruction soon supervened, tracheotomy had to be performed, and the patient died the same day. At the necropsy no marked change was observed in

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the upper compartment of the larynx, but below the cords the lumen was reduced to a mere chink by swelling and thickening of the mucous membrane, which extended about three-quarters of an inch downwards, and terminated rather abruptly. The thickening, on section, was of a deep-red colour. Microscopically it was seen to consist of a mucous membrane greatly thickened by interstitial deposit of connective tissue, as well as by hypertrophy of the gland tissue. The vessels were greatly distended. The lungs showed a few patches of lobular pneumonia; the liver an increase of connective tissue, and some small aggregations of leucocytes. Dr. Jacob drew attention to the differences which this case presented from the somewhat similar ones reported by Dr. F. Semon in vol. xxxi. of the Society's Transactions, in that the localisation of the tumefaction was different, and that there was entire absence of ulceration.

Dr. HADDEN showed an Aneurysm of the Mitral Valve removed from a female child, aged two years and three months. There was no history of syphilis or rheumatism. The child became occasionally blue, but no murmur existed. She was taken ill with bronchitis, and suddenly became worse and died. Some blood-stained mucus was found in the larynx, and a caseous mass in the upper part of the right lower lobe. The posterior flap of the mitral valve was the seat of an aneurysm the size of a nut; it measured half an inch in diameter, and bulged into the ventricle. At its auricular orifice there were a few pale firm vegetations; the anterior flap and chordæ tendineæ were healthy. The chief interest was the rarity of the case and its unexplained etiology.—Dr. S. COUPLAND remarked on the rarity, and said, the aortic valves being quite healthy, it was impossible to ascribe the formation of the aneurysm to secondary infection of the mitral valve from the aortic.

Mr. S. G. SHATTOCK showed a specimen of Ectopia Vesicæ from a male child. He said that no adequate explanation had been offered of the occurrence of ectopia vesicæ, which was looked upon as of the same order as ectopia cordis—a deficiency of growth of the mesoblastic basis of the abdominal wall. The explanation submitted by him was that the primitive cloacal invagination of the surface, which normally lays open the lower end of the rectum and the lower end of the urogenital sinus, in these cases, by an undue extension forwards and upwards, lays open the anterior wall of the urogenital sinus and the anterior wall of the bladder. There would thus result a complete fissure of all the parts in the middle line as high as the umbilicus, and the rudimentary penis or clitoris would be on its first appearance completely cleft.—Sir JAMES PAGET remarked on the ingeniousness of the explanation, which he considered to be a highly probable and correct interpretation of the deformity or malformation.

Mr. H. H. CLUTTON read a case of Retro-pharyngeal Abscess that occurred in a man aged twenty-four, who was subject to epileptic fits, during one of which, he asserted, the abscess in the neck formed, or rather, the pain and swelling in the neck were first noticed. But the patient could not give an intelligent account of himself. He had been spitting up a quantity of muco-purulent fluid mixed with blood, which clearly came from the abscess opening into the pharynx. When first seen, the head was retracted, and there was dysphagia, apparently from inability of the larynx to move in the act of deglutition. The larynx appeared to be fixed. There was a rapid subsidence of symptoms. Over the right carotid artery a soft and flaccid area was felt, but it was not thought advisable to incise it. On October 6th, two days after dismissal from the hospital, a sensation of crackling or crepitation could be felt, and the tumour disappeared on pressure. Mr. Semon said the larynx was normal, but there was a small red swelling below the larynx, which was probably a communication with the abscess cavity and the trachea. Nine days after leaving the hospital the patient seemed quite well. On October 23rd he was readmitted with bronchopneumonia, and died on November 3rd. Some retinal hæmorrhages were discovered by Dr. Mackenzie. The patient had albuminuria, but there were no casts in the urine. The left tonsil was in a chronic state of hypertrophy; the right had an abscess which did not communicate with the thin-walled cavity, which reached downwards to the level of the clavicles. The origin of this chronic abscess was uncertain. It opened by three rounded smooth orifices into the pharynx, and by one into the trachea, which, with the larynx, was acutely inflamed. One lung had gangrenous pneumonia. There was no trace of glandular enlargement. He did not know whether the abscess could have originated from a pouch of the œsophagus, but there was no trace of an epithelial lining to the abscess cavity. Reference was made to retro-pharyngeal abscesses of children. — Dr. ERNEST CLARKE remarked on the chronicity of the case. He had had to perform tracheotomy on a child eight months old, who died. The necropsy showed a large post-œsophageal abscess, which, on careful examination, proved to be connected with the third cervical vertebra by a sinus that led into the intervertebral disc.—Mr. M. SHEILD asked whether the abscess could have had its origin in a hæmorrhage in the neck, resulting from straining in an epileptic fit. This blood clot might have become septic and suppurated. Some cases in children might be due to scarlet fever, which had been overlooked.—Dr. ANGEL MONEY remarked that a large majority of the cases occurred in infants a few months old.—Mr. H. H. CLUTTON, in reply, thought the fits were not sufficiently severe to have caused a hæmorrhage into the neck.

Mr. PEARCE GOULD read a case of Epithelioma of the Penis with a horn growing from the glans. The patient, aged fifty-two, had had congenital phimosis, for which he was circumcised only four years ago. The wound healed, except in one place in the middle line, where a small granulation remained. Here a small wart developed, and was followed by a second by its side. The first wart began to discharge, and continued to do so ever since. On the middle of the upper surface of the glans was a sessile truncated horn, hard in consistence, of yellowish colour and translucent, the size of a small marble. The penis was amputated, and large inguinal glands were removed, the patient rapidly recovering. Sections prepared by Mr. L. Hudson showed the usual epidermic structure, the cells being flattened, nucleated, and arranged in regular superposed layers. There were no enlarged papillæ entering the base of the structure. The ulcer was a typical globular epithelioma. The glands showed no secondary deposit. Ninety cases of horns were collected by Erasmus Wilson, of which five were penile. Lebert collected 109 cases, of which six occurred on the penis. A committee of the Royal Academy of Medicine collected seventy-one cases of horns, three penile. This was the fourteenth case. Some of the horns have reached a great size. In Jewett's case the horn was 3½ in. long and ¾ in. in diameter. In Pick's case the horn was 2½ in. long. In Gould's case the corn was regularly pared down. Horns have been shown to start in three different ways: some grow from the interior of sebaceous cysts—the most frequent mode of origin; some develop from the matrix of the nails; and others by some change occurring in warts. Those on the glans penis belong to the last group. Histologically, they may be divided into papillary and flat. The present specimen was of the latter kind.

The following card specimens were shown:—Dr. Hadden: Perforation of Large Intestine in Enteric Fever. Mr. E. H. Fenwick: Renal Carcinoma. Dr. Mott: Myxo-fibroma compressing the Spinal Cord. Mr. Clutton: Congenital Abnormality of Lower Lip associated with Cleft Palate. Dr. Pitt (1) Ulcer of Vagina, possibly tubercular; (2) Two cases of Hydro-salpinx.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

Small-pox Hospital Influence.

AT a meeting of this Society, held on Friday, Feb. 18th (the President, Dr. Alfred Hill, medical officer of health for Birmingham, in the chair), Dr. SEPTIMUS GIBBON proposed the following resolution:—"That this Society, having heard that a proposal will be made to the Metropolitan Asylums Board at their next meeting to close the hospital ships and to admit cases of small-pox into the London hospitals, desire to express their hope that the Board will not adopt the proposed motion, which, in their opinion, is not conceived in the interests of the public health."—The motion was seconded by Dr. WOODFORDE, medical officer of health for Berkshire, who said that, as a provincial officer, he was much interested in small-pox, as, whenever an epidemic occurred in the metropolis, it invariably affected his and other districts in the country.—The resolution was adopted, and a copy was ordered to be communicated to the Metropolitan Asylums Board.

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Reviews and Notices of Books.

The Healing Art; or, Chapters upon Medicine, Diseases, Remedies, and Physicians—Historical, Biographical, and Descriptive. Two Vols. London: Ward & Downey. 1887.

THE history of medicine is a subject which has been strangely neglected in this country, and yet it is one which well repays profound study and investigation. No English author has yet appeared to give us works like those of Haeser and of Hirsch; but such works are the product of a lifetime devoted to literary research, and we have no provision for that in England. There is no University endowment here for the prosecution of these higher studies; but we would fain hope that the day is not far distant when such a defect will be remedied. To trace the evolution of medical knowledge, the rise and fall of doctrines and theories, the growth of pathological science, the development of rational therapeutics, and the remarkable advances in surgery, would be an arduous but grateful task to one who had the ability, as well as the opportunity, to undertake it. There is much to be learnt from the study of such a fruitful topic, whilst in interest it can have few equals. Pending, however, the appearance of a work of this wide scope, we must be content to receive such minor contributions as the present volumes typify. The author does not lay claim to have written an exhaustive treatise, whilst he deserves credit for having compiled a most interesting, intelligent, and entertaining book. The main basis of it is biographical, the story of the origin and progress of medicine being told in the lives of its more notable professors, from Hippocrates to the present day. In spite of the diligence exhibited in the collection of materials to fill these volumes, we regret that the names of the leaders of the great continental schools, which signalised the early decades of the present century, should only receive the barest mention, attention being almost exclusively bestowed upon the English leaders in medicine and surgery. In respect of earlier times, however, the writer is more cosmopolitan, so that we have accounts of Vesalius, Fallopius, and Eustachius, but Ambrose Paré is dealt with in too cursory a manner to be satisfactory. On the Alchemists and the birth of chemistry there is an entertaining chapter, which contains admirable accounts of the history of Paracelsus, who, in spite of his empiricism, did medicine some service in the introduction of chemical compounds into therapeutics; and also of Jerome Cardan, mathematician and physician, some of whose precepts are reproduced in these pages. In the chapter dealing with English physicians of the sixteenth century, it is rather surprising to find Sir Kenelm Digby, the advocate of the virtues of the sympathetic powder, dealt with in company with such illustrious men as William Harvey and Thomas Sydenham. Surely a more suitable place for him would have been in the previous chapter, which treats of Animal Magnetism, Mesmerism, and Faith Healing. A graphic account is given of Mesmer and his following; but why did not the author pursue the subject to our own day, and tell us how Elliotson was duped, and how at length hypnotism came to be studied scientifically by physiologists and neurologists? The biographical record is very rich in the second volume, and no exception can be taken to the way in which the lives of Radcliffe and Mead, of the Hunters and Edward Jenner, of Baillie, and many others nearer to our own time, are given; but we can imagine that there is room for cavil at the biographical notes of "eminent contemporary practitioners" which conclude the work, for such selection requires more discrimination than the writer has evinced. One very interesting chapter is devoted to the lives of members of the medical profession who have made their mark in literature; such as Sir Thomas Browne, John Locke, Garth, Akenside, Crabbe, John Brown, and Oliver Wendell Holmes. From the goodly list, of which we have only cited a few, we miss one notable name—that of John Keats. Other chapters interpolated in the chronological sequence are those on great Epidemics and on Mesmerism in the first volume, and that on Herbs and Simples in the second. The book contains some inaccuracies of statement, one of the most striking being that the duct which bears the name of Eustachius connects the ear with the thoracic duct, and a few in the matter of dates, and the spelling of names; whilst it will be news to Dr. Matthews Duncan to hear that he has taken up his residence in Bath. Still these are comparatively trifling errors, and the book on the whole is one which will repay the reading, for it is well written and full of spirit, with a very just appreciation of the mingled truth and error that characterise the development of the art of medicine. If, as we infer, the author does not himself practise the "healing art," he is all the more to be congratulated upon the fairness and impartiality, as well as upon the technical knowledge, which he evinces in his lively and interesting pages.

A Commentary on the Diseases of India. By NORMAN CHEVERS, C.I.E., M.D., F.R.C.S. Eng., Deputy Surgeon-General H.M.'s Indian Army, &c. London: J. and A. Churchill. 1886.

THIS large and handsome volume of 816 pages is an outcome of a study of Indian disease maintained for thirty-eight years, upwards of twenty-four of which were mainly devoted to clinical observation in Bengal. In publishing this volume, its author has told us in his preface that he brings "to an end a course of observation, thought, and study which has occupied the whole of a professional lifetime"; and his lamented death followed its publication so quickly that a mournful sadness attaches to his words. It is a voluminous book, dealing with a vast number of subjects, and all from the clinical point of view. There is, no doubt, a great deal of information that is not clinical in character—statistical, topographical, and anecdotal to wit; still, it all has a bearing that way, and is indicative of the bent of the author's mind. Dr. Norman Chevers must have resembled, we imagine, a lately deceased statesman in that he was eminently fair-minded and truthful, gentle and erudite. The perusal of this book leaves that kind of impression on the mind. It is the record of a worthy professional life, and contains a large amount of information based upon the results of his own experience and observation, which, by his extensive reading, he was enabled to compare with those of other labourers in the same field.

The Asclepiad. No. 13, Vol. IV.

THE most interesting contribution to this number appears to us to be the biographical one on John Mayow, a neglected genius, of whom a portrait is given. We cannot assent to the classification of purpura hæmorrhagica and the scorbutic diathesis, for the reasons that we are unable to recognise properly the differences between aqueous, saline, and vascular purpura. This division does not commend itself to us on account of its clinical value or its pathological significance. As doubtless the author and editor of the *Asclepiad* attaches some importance to the article which occupies the place of honour in the current number, we may examine his position a little. He states that "the pathological character of this [aqueous] type is special. The blood of the patients who are subject to it is in a state of extreme fluidity, the fluidity being due to an excess of water, so that the colloidal parts of the blood are diluted to an unnatural degree." Of saline purpura we read that there is in this type no deficiency of fibrin, but as a colloidal substance it is held in a fluid state by an excess of soluble saline material. The vascular variety of purpura is said to be characterised by the perfectly natural state of the blood, which coagulates firmly and

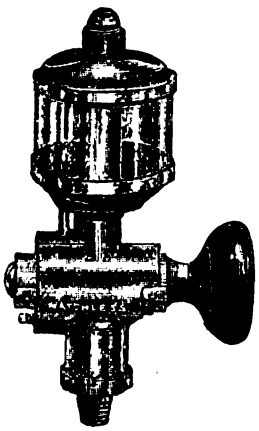
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quickly. There is much to be said for the ingenuity of these views, but when we come to inquire on what scientific data the clinical distinctions are based, the ground on which Dr. Richardson's classification is made appears to us to be of an unsafe and theoretical kind. The Opuscula Practica are of the customary useful kind, and the article on Practical Biometry, or the Measurement of Life in Health and Disease, is of a high intellectual order.

New Inventions.

THE "MATCHLESS" SELF-LIGHTING GAS-BURNER.

THIS contrivance was originally brought out in America, and is now in general use there in all places where an immediate light is wanted for a short time. The lighting is accomplished by means of a small concealed flame constantly alight, but so small that the amount of gas it consumes is imperceptible. Medical men who are liable to be called up in the night will find this appliance most useful, and as its price is moderate and it is easily adjusted, there can be no doubt that it will be extensively used. The patentees and manufacturers in this country are the G. K. Cooke Manufacturing Company, 73, Cowcross-street, E.C.



A NEW PATENT "BROUGHAM HANSOM."

MESSRS. W. AND F. THORN, of 19, Great Portland-street, have under the above name introduced what is practically a single brougham on two wheels. The term "Hansom" is, we think, inappropriate, as this carriage in no way resembles in appearance the familiar two-wheeled cab, over which it has the distinct advantage of being a really comfortable closed vehicle—a desideratum which the Hansom, useful enough in many ways, entirely fails to supply. The driver, instead of being behind, has his box in front, and the passenger enters the cab from the back, the door opening outwards in the middle, and the corresponding portion of the seat being kept raised when unoccupied by a spring. When the passenger is seated, a simple but effectual arrangement ensures that the door cannot become unfastened by accident or from the outside. We have had an opportunity of personally trying Messrs. Thorn's new "Brougham Hansom," and can speak to its comfort and to the remarkable absence of "knee motion." The weight is only 6½ cwt., at least 2 cwt. less than that of an ordinary Hansom, and the cab is very roomy. A little recess between the front windows would afford a convenient place for stethoscope, &c.; indeed, taken altogether, we think that this two-wheeled brougham is likely to prove a very convenient and comfortable carriage for country practitioners.

FATAL ATTACK ON A DOCTOR IN ROUMANIA.—A Roumanian general, thinking that his wife's doctor was to blame for her death, attacked the unfortunate practitioner at a railway station and cut off his nose, a wound which subsequently proved fatal. The irascible general, on being arraigned before a court-martial, explained that he had not intended to murder the doctor! The deceased was an Austrian by birth, and it is probable that some diplomatic correspondence is taking place on the subject. The result of the trial has not yet been published.

THE GENERAL COUNCIL OF MEDICAL EDUCATION & REGISTRATION.

THURSDAY, FEBRUARY 17TH.

SIR HENRY ACLAND, PRESIDENT, IN THE CHAIR.

THE Council sat for some time in private to consider a communication from Mr. M'Vail.

Mr. COLLINS moved the following resolution:—"That, in conformity with the request of the Governor and Court of the Apothecaries' Hall of Ireland of November 9th, 1886, already entered on the Minutes of the Council, this Council will proceed to appoint an Examiner in Surgery to entitle the Apothecaries' Hall to issue registrable qualifications in conformity with Clause 5 of the Medical Act, 1886." He asked the Council not to allow the Apothecaries' Hall in Ireland to be without a registrable qualification until the Council met again. The Apothecaries' Hall was quite willing to co-operate with the other bodies, and that desire would still remain even if it continued an independent body. He hoped the Council would nominate an examiner to complete the educational examination of the Apothecaries' Hall.

Dr. HAUGHTON seconded the motion.

Sir WM. GULL pointed out that the Corporation itself ought to have made the application. The motion of Mr. Collins was only a personal request from that gentleman.

Mr. COLLINS said he proposed the motion as the representative of the Apothecaries' Hall.

Sir WILLIAM TURNER said the motion could be put in order by a reference to the letter of the Apothecaries' Hall on the subject.

Dr. LEISHMAN called attention to the peculiar construction of the motion, which was, he said, really a request of of the Examiners and Court of the Apothecaries' Hall, and not in the form of a resolution of the Council itself.

Sir W. FOSTER thought the resolution was premature. It related to a great question which would have to be decided by the Council. The intention of the Act of 1886 was to force combinations on all the corporations of the United Kingdom, and he hoped that that result would be obtained. It was important that the contention between the parties concerned should be settled in a friendly manner. If the motion were passed, Mr. Collins would be in the position of a Bismarck, and would be able to take up an antagonistic position at once. If the negotiations failed, the Council could take the matter into consideration, but at present the granting of the request would not be likely to promote the friendly spirit to which they desired to appeal.

Dr. STRUTHERS moved, as an amendment, "That the Council defer giving a decision on the motion of Mr. Collins, in order to give the King and Queen's College of Physicians, the Royal College of Surgeons in Ireland, and the Apothecaries' Hall in Ireland time to consider the resolution passed by the Council yesterday on the motion of Dr. Struthers."

After some further discussion the motion of Mr. Collins was altered in the following form: "That in conformity with the request of the Governor and Court of Apothecaries Hall, Ireland, of the 9th of November, already entered upon the Minutes of the Council, this Council will proceed to appoint an examiner in surgery, to entitle the Apothecaries' Hall to issue registrable qualifications in conformity with Clause 5 of the Medical Act of 1886."

Mr. TEALE, in seconding the amendment, said that if the question were not settled in a friendly way, the Council would no doubt have to meet again for the purpose of appointing an examiner.

Sir WILLIAM TURNER said that in passing the proposed motion the Council would be stultifying itself. The motion was altogether premature, and the amendment was the only logical sequence to the resolution passed on Wednesday.

Dr. WILLIAM MOORE thought that the Irish bodies should have time given them to consider the question.

Dr. GLOVER asked if there were any chance of the Council receiving an answer from the College of Physicians in Ireland during the present session of the Council. The necessity of another meeting of the Council in June to settle the question would be simply deplorable.

Dr. A. SMITH said there was no possibility of getting an answer from the College of Physicians during the present session.

Mr. COLLINS and Dr. HAUGHTON stated that they would

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accept the amendment, in the hope that the Council would, if necessary, meet in June to settle the question.

Mr. MACNAMARA said that the College of Surgeons was most anxious to bring in the Apothecaries' Hall. Dr. Kidd could bear him out in that statement.

Dr. HERON WATSON supported the proposal of Dr. Struthers. The Council could not act in the direction required without knowing something of the terms that had been discussed between the bodies themselves. It might, after all, turn out that the Apothecaries' Hall had been unreasonable in its demands.

Dr. QUAIN protested against the further discussion of the matter (Mr. Collins having accepted the amendment), and stated that the Council was sitting at the enormous expense of £1 a minute.

The amendment was then put and carried, and it was also unanimously agreed to as an original motion.

A communication was received from the Lord President of the Privy Council, forwarding a memorial presented to the Lords of the Council by Mr. Laffan of Cashel with respect to the efficiency of the qualifying examinations under the Medical Acts, and requesting the Medical Council to favour his lordship with their observations on the memorial. The memorial called attention to the Report of the Visitors on the Examinations of the Royal University of Ireland, with a view of showing that the candidates for the degrees of the University were shamefully deficient in clinical training. Complaint was also made that the University had declined to recognise the union hospitals for clinical purposes.

Dr. BANKS explained the action of the Royal University in the matter, and read the following regulations of that body: "In the case of a hospital seeking recognition as a school for clinical teaching, the Senate will require evidence that it contains at least sixty beds in constant occupation; that at least ten beds are provided for the treatment of cases of fever; that it possesses a suitable lecture theatre and other appliances necessary for clinical teaching; that a roll of attendance is strictly kept, which shall be open to the inspection of any person delegated by the Senate." He moved that the following resolution be transmitted to the Lord President: "That this Council, having before it the regulations of the Royal University with respect to the attendance of students of hospitals, is of opinion that it is not expedient to take any action on the subject."

Dr. KIDD, in seconding the motion, said it was the opinion of the Royal University and the College of Surgeons in Ireland that the union hospitals were quite inadequate for the due teaching of clinical medicine or surgery. They were receptacles of the aged, the poor, and worn-out subjects not presenting features of active disease.

Dr. HAUGHTON suggested that the matter should be referred to a committee acquainted with hospital teaching, with a view, not of controlling any university or corporation, but of laying down some such principle as that, if the teaching of any hospital school in the country were efficient and the field of practice good, it should be partially recognised.

Sir WILLIAM GULL concurred in the suggestion that the matter should be referred to a committee to report to the Council.

Mr. SIMON, in supporting the proposal, expressed a hope that the committee should not be an exclusively Irish one.

Dr. HERON WATSON also supported the proposal.

Sir WALTER FOSTER hoped that the committee would consider not only the memorial, but all the documents entered on the Minutes in connexion with it.

Mr. MACNAMARA referred to a visit made by him and Dr. Banks to the Galway Infirmary, with the admirable appearance of which they were both greatly pleased. He protested against the allegations made by Mr. Laffan against the honour of the medical men on the Senate of the Royal University, who were men of the highest rank, and wholly above any sordid considerations such as those charged against them.

Dr. BRUCE called attention to the fact that the Act of 1886 had only just come into operation, and said it was hardly time to consider the action of the Council under that Act.

Dr. BANKS expressed his willingness to accept the amendment referring the subject to a committee, and said that the University had acted on the knowledge of the fact that the workhouse hospitals did not provide proper materials for clinical teaching. There was no intention, however, to cast the slightest slur upon the medical officers of those bodies.

Dr. KIDD read a description by the Visitors of the Dublin Hospital, stating that the patients were mostly old and worn-out persons, too stupid or deaf to hear and answer questions, and might almost be regarded as specimens in a pathological museum.

The proposal to refer the subject to a committee was then agreed to, Sir William Gull being the chairman.

Dr. HERON WATSON moved: "That, considering the somewhat anomalous position in which the General Medical Council is placed by the opinion given by Mr. Muir Mackenzie on the clauses of the Medical Act referring to the qualifying examinations held by a combination of medical authorities, and the relation of the General Medical Council to such contracting bodies as may agree to hold qualifying examinations under such scheme, it is desirable that a further opinion from the responsible legal advisers of the Government be obtained before the Council proceeds to take any steps arising out of the interpretation of Sections 15, 18 and 19 of the Medical Act, 1858, construed along with Sections 1, 2, 3, 4, 5, and 6 of the Medical Act, 1886, together with the consideration of any other points which may arise within this reference, and that it be referred to the Executive Committee to take the requisite steps to give effect to this." He said that the opinion of Mr. Muir Mackenzie as to the duties of the Council in reference to combination had placed the Council in a very distressing position. The Council ought to be quite certain as to what constituted a qualifying examination and what it might be required to do with reference to any body excluded from combination; and although not wishing to doubt the ability and acumen of Mr. Muir Mackenzie, he thought that the matter should be referred to the legal advisers of the Government in order that the Council might know the exact position in which it stood and what was the true interpretation of the Medical Acts.

Dr. STRUTHERS seconded the motion.

Dr. A. SMITH thought that the Council should be satisfied with the opinion expressed by Mr. Muir Mackenzie. He moved as an amendment, "That the Council, in accordance with the opinion of its law adviser respecting a Conjoint Board for Ireland, do proceed to the next order of the day."

This amendment was put and negatived.

Dr. MCVAIL said if it should turn out that Mr. Muir Mackenzie was right, he thought it would be desirable that the Council should memorialise the Government to introduce a Bill to give it the power which it had lost. A short Bill with one clause would be sufficient.

Dr. QUAIN brought up the Finance Committee's report, which showed that the income of the General and Branch Councils for the past year was £9741 6*s.* 4*d.*, an amount which was less by £1372 2*s.* 5*d.* than in 1885. The expenditure during 1886 was £8991 3*s.* 3*d.*, which was less by £3092 13*s.* 1*d.* than in 1885. With reference to future expenditure, it was estimated that the enlargement of the Council would necessitate hereafter an increased annual outlay, on account of fees and other expenses, of about £1200.

Sir WM. TURNER said he wished to draw attention to the subject of Dental finance. In January, 1881, the Dentists' Fund amounted to £9824, in 1883 to £9220, in 1885 to £9017, in 1886 to £8445, and in 1887 to £7465. Therefore during the six years it had sustained a diminution of £2359. If that process went on in anything like the same proportion, the vanishing point of the fund was almost within measurable distance. This was an especially serious matter, as the dentists had no representative on the Council. The method of administration was imposed upon the Council by Act of Parliament, and he thought something ought to be done in the way of diminishing the ratio of expenses, so that a balance might be obtained between income and expenditure.

Dr. QUAIN said that if the Council wished to diminish the dental expenditure it must be done at the expense of the medical profession. He quite agreed that some means must be adopted, if possible, to prevent a final catastrophe in connexion with the Dental Fund, but he could not see how the expenditure was to be lessened. The proportion of expenses paid by the dentists had been fixed at one-sixth, but as they were 6000 as against 24,000 it ought to be one-fifth. The dentists were advised originally to allow the Council to appoint a board composed of eminent dentists and of some members of the Council, but the dentists expressed themselves as having so much confidence in the Council that they were perfectly willing to put the whole matter into their hands.

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If they had accepted the principle of the Duke of Richmond's Bill and appointed a Dental Board, they could have worked with one-tenth part of the expensive machinery.

Dr. A. SMITH said that he believed there had only been one special meeting of the Dental Committee. On all other occasions the business had been transacted as supplemental to that of the Executive Committee.

Mr. MARSHALL thought that the dentists should be encouraged to sever themselves financially from the Medical Council. At present their registration was at a very low ebb, twenty-five or twenty-six a year, but students were coming on to the Register at the rate of from seventy-five to a hundred a year, and therefore in a few years the dentists would have increased resources, and that ought to encourage them to feel that by and by they might be able to run alone.

The Council then adjourned.

FRIDAY, FEB. 18TH.

SIR HENRY ACLAND, PRESIDENT, IN THE CHAIR.

Mr. MARSHALL said he had thought it his duty on the previous day, as chairman of the Business Committee, to ask the Council to suspend the printing of a communication received from Dr. McVail, wishing to see whether any irregularities had been committed. He had now unreservedly to say that there had been no irregularity, and he therefore moved that the letter be now entered in the Minutes.

Dr. HERON WATSON seconded the motion, which was agreed to.

The following is the letter:—

DEAR SIR,—The point of order that I rose to speak to yesterday concerned the commissions of the representatives of the Scottish universities, as read by the Registrar.

These commissions in all four instances are from the Senates of the universities; in three of them this is formally expressed; and in the case of Glasgow, although not definitely stated in the document, yet the Senate alone made the appointment.

I desired to call your attention to the circumstances—first, that the Medical Act of 1886 does not, in the case of any one of these universities, restrict the power of election to the Senate; and second, that the Scottish Universities' Act of 1858 is likewise without any such limiting provision.

I hold that in the Scottish universities the duty of electing the representatives to the General Medical Council falls on the same constituencies that return the representatives to the Imperial Parliament.

I therefore regard the returns read before the General Council yesterday as being quite invalid.

I am, dear Sir, yours faithfully,

To Sir Henry W. Acland, President of the General Medical Council. O. C. MCVAIL.

Dr. HUMPHRY moved, "That a committee be appointed to consider the past and prospective income and expenditure of the Council, and to report to the Council whether any, and, if so, what, diminution can be made in the future expenditure of the Council." In doing so, he said when the Council was first constituted they had to settle the fees and expenses to be paid to the members; therefore one of the first actions of the newly constituted Council should be to take the same subject into consideration. The expenses of the sittings of the Council amounted to about £2000 a year, and any opprobrium cast on the old Council should not be fixed on the new one. The excess of income over expenditure during the past seven years averaged £1400 annually, and the estimated increase of expenditure in the years to come would be £1200. That would bring expenditure and income within close relation to one another. Additional expenses must, however, be expected. It would be an unusual thing for a large number of men to do business in a shorter time than a small number. He therefore thought the Council should seriously consider whether any diminution could be effected in the various expenses.

Mr. WHEELHOUSE seconded the motion, believing that the action of such a committee would be some guarantee to the profession that an eye was kept on the expenses, and that the Council was not inclined to spend its funds recklessly.

Dr. MCVAIL thought that the committee should also consider the question whether the meetings of the Council could not be held in rotation in London, Edinburgh, and Dublin. No one could doubt that there must be some rearrangement with regard to fees, and it would be absurd to propose that they should be reduced below the present scale for gentlemen living out of the country in which the meetings were held. He would therefore move as an amendment that the committee be asked to consider also whether the meetings could not be held occasionally at all events, in Edinburgh and Dublin.

The PRESIDENT ruled that Dr. McVail's proposal was not an amendment to the motion.

Dr. QUAIN strongly opposed the suggestion. There were sixteen English members, and if they had to travel to Scotland and Ireland the expenses would be doubled, and the funds would be utterly inadequate.

Dr. HAUGHTON said he might add the additional reason that the Irish members were so hospitable that if the Council came to Dublin they would be broke in entertaining it. (Laughter.)

Mr. MACNAMARA suggested that the following words should be added to the motion: "And also whether and in what manner its income may be increased." He had very strong views upon the subject as to a method and way in which the income of the Council might be substantially increased, and he should be prepared to state them when the time arrived.

Dr. HUMPHRY said he would accept Mr. Macnamara's suggestion, and add those words to the motion.

Mr. SIMON said the financial position of the Council was only one part of a large subject. The primary question was the organisation of their work, because if their work was well organised he believed that great economies would result. The Council was not nearly strict enough in distinguishing fancy work from statutory work. The Council met for definite duties—happily now much more definite than they formerly were. He had handed in a notice of motion expressing what he thought the better view to take for the present of this finance question—namely, that it be referred to a committee to be appointed to consider under what rules of meeting and procedure and with what appointment and authorisation of standing committees and sub-committees the Council might best provide for the regular, effective, and economical discharge of its statutory duties, the committee to report to the Council at its next meeting and to bring up a draft of any standing orders which it might deem desirable. If a reference of that sort were made, then on the report of the committee the Council would be in a position to reconsider their finances; but at present he thought they were not in a position to do so.

Dr. PETTIGREW agreed with Mr. Simon that the present motion was premature.

Dr. AQUILLA SMITH supported that view.

Dr. BRUCE thought that until they knew what their expenditure was to be they could not deal with ways and means.

The motion, with the addition of the words suggested by Mr. Macnamara, was then carried and the committee was nominated.

Mr. MARSHALL, in furnishing information in regard to some exceptional cases which the Council had directed to be inquired into, said it appeared that twenty-two such cases had occurred at the College of Surgeons and thirty-nine at the College of Physicians, but he wished to point out that a certain number of those were duplicate representations of the same persons. In every instance the men were graduates of Indian, colonial, or foreign universities, and he was prepared to state that they had all studied medicine for the required period of forty-five months.

Sir DYCE DUCKWORTH corroborated Mr. Marshall's statement, and said that all the cases had been carefully scrutinised by the Registrar of the College of Physicians.

Dr. HERON WATSON asked if in the case of graduates of an Indian university English was regarded as a good substitute for a classical language.

Mr. MARSHALL said that it was.

The next subject on the agenda was the final report from the Visitation of Examinations Committee.

Mr. MARSHALL, in moving that it be received and printed, and appended to the Minutes, expressed his deep regret that Dr. Haldane was prevented from being present at this meeting of the Council, and his extreme sorrow at the unexpected death of Dr. Lyons. In addition to a historical summary of facts, the report contained a commentary in which care had been taken not to express decided opinions that would create any adverse criticism, but rather to balance and weigh and see where hints could be obtained for future examinations. The report terminated with a series of "conclusions," not "recommendations."

Mr. TEALE seconded the motion.

Dr. HAUGHTON bore testimony to the extreme accuracy and care with which Mr. Marshall had prepared the report. He thought the committee might perhaps see their way to add a statement as to the sufficiency of the examinations.

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Dr. STRUTHERS thought it would very much detract from the value of the report if any such addition were made.

Mr. MACNAMARA, while expressing his admiration of the report, said it was very remarkable that the alumni of Trinity College were not thoroughly grounded in Latin.

Dr. GLOVER heartily joined in thanking Mr. Marshall and his colleagues for their enormous labours in regard to the report. At the same time he thought the conclusion of the whole matter was rather impotent and disappointing. Considering the great cost of these visitations, he thought the committee might have given a more definite deliverance, and ventured a little bold criticism in the way of either endorsing the complaints of the Visitors or acquitting the universities. The Privy Council had sent some very serious observations for the consideration of the Council, and unless some reply was given the Lords of the Council would think that the General Medical Council had rather evaded the expression of a definite opinion upon the truth or untruth, the justice or otherwise, of the charges which had been made. It was also a serious thing for it to go forth to the world as presumably the expression of the Council's opinion that prescriptions might be written either in Latin or in English at the option of the candidate, yet Oxford University appeared to be indifferent on this point.

Dr. MCVAIL dealt at considerable length with the details of the report, and quoted the papers contained therein with a view of showing the character of the teaching in the schools, and insisting upon the urgent necessity of the Council going into the matter much more fully than was proposed. He was proceeding to refer to the character of the examinations in operative surgery in the University of Glasgow, when

Dr. LEISHMAN interposed, and said the University of Glasgow was the only body which for the M.D. required examinations in operative surgery. There was no law which obliged them to give any such examination whatever, and he could not submit to the very elaborate attack which was being made upon certain portions of their examinations, which were in excess of what the law required of them. He could conceive of nothing that would be a stronger illustration of a reckless waste of time, but if Dr. McVail was allowed to make his statement, he might have to ask the indulgence of the Council to say a word in defence of his university.

The PRESIDENT said the Council must clearly see that if Dr. McVail's course was pursued it meant an elaborate discussion upon the whole merits of the report.

Dr. MCVAIL said the document required much more consideration than could result from the adoption of Mr. Marshall's motion with regard to the insinuation that he was attacking any university. He said he was speaking of facts alone, and was giving figures that could be got by all the members.

The PRESIDENT having ruled that Dr. McVail could not be heard unless he moved an amendment,

Dr. MCVAIL said he would conclude with the amendment, "That the Council proceed to consider the conclusions of the report *seriatim*."

Dr. QUAIN protested against this expenditure of the time of the Council, and with that of the funds of the profession. (Hear, hear.) The report would be sent to the various institutions for consideration, and that would do infinitely more good than all the discussion that could take place at that Council. He therefore pressed the Council to follow the advice given by the committee to send the papers to those bodies who would be influenced and guided by them, and then to wait the result.

Dr. STRUTHERS said the whole matter had been threshed out at the November meeting.

Dr. MATTHEWS DUNCAN said he entirely disagreed with the general tenour of Dr. Glover's remarks, as well as with those of Dr. McVail. Dr. McVail seemed to think that the opinions of the Visitors carried authority. The Council had never given them any authority; its responsibility ended with sending the Visitors and receiving and printing their reports. This subject had been very carefully dealt with by the Council, and he considered it was a very good resolution that was arrived at that the reports of the Visitors, beyond being responded to by the bodies visited, should not be further dealt with. The Council by the representations which it published had done and was doing an infinite amount of good, and anybody who could give a good picture of the examinations of the Faculty of Physicians and Surgeons a few years ago and contrast them with the present examinations would find the enormous improvement that had been effected in consequence of the representations of the Council.

Mr. MARSHALL protested against the irrelevant discussion raised by Dr. McVail, and said the Council was altogether out of order in going into details till the report had been ordered to be an appendix to the Minutes.

Dr. HERON WATSON said he intended to give notice of motion that the Council should resolve itself into committee on the following Tuesday for the purpose of considering the conclusions of the report in detail.

Mr. SIMON hoped that in that case Dr. Humphry would move the suspension of standing orders with reference to fees received by members of the Council, if that subject was to be gone into.

The motion proposed by Mr. Marshall was then put to the Council and agreed to.

On the motion of Dr. STRUTHERS, seconded by Sir WILLIAM TURNER, the best thanks of the Council were accorded to the Visitation of Examinations Committee, and also to Mr. Marshall for the great labour and care he had bestowed in preparing the report.

The report by the Sub-committee on the Registration of Colonial and Foreign Titles and Foreign Degrees, as adopted by the Executive Committee, was then, on the motion of Mr. MARSHALL, seconded by Mr. SIMON, received and adopted.

Mr. MARSHALL then proposed the following new Standing Orders suggested by the Solicitor, by direction of the Executive Committee, as arising out of the recommendations of the above report:—

(*a*) When an application is made, under the provisions of Section 16 of the Medical Act, 1886, by a medical practitioner—already on the Medical Register by virtue of an English, Scotch, or Irish qualification—to have the description of a foreign degree in medicine possessed by him to be added to his name as an additional title in the Register, the Registrar shall require from the applicant satisfactory proof of the date of the grant of the said degree, and also such further information as may be necessary, in order that the General Council shall be satisfied before the title is registered that the degree was obtained after "proper examination." (*b*) Any application by a registered medical practitioner for removal of his name from the Medical Register shall, in the first instance, be referred by the Branch Registrar to the medical authorities who granted the applicant his qualification or qualifications, to ascertain whether there is any valid objection to such removal. The General Registrar shall bring such application before the next meeting of the General Council, who will consider the application and any objections thereto, and the President may put from the chair to the General Council the question—Whether the Registrar shall erase the applicant's name from the Medical Register. The General Registrar shall, upon the removal of the applicant's name from the Register, send notice of such removal to the applicant by a letter addressed to his registered address.

Mr. SIMON seconded the motion.

Sir WALTER FOSTER said, as the first of these Standing Orders was rendered necessary by a section included in the Medical Act of 1886 on his motion in the House, he should like to have some little understanding of how it would work. In introducing that section, he was anxious that nothing but good sound foreign degrees should obtain access to the Register, and would therefore like to know what steps the Council proposed to take under the new Standing Orders to secure that end.

Mr. MARSHALL said the Registrar would have to be satisfied that the applicant had obtained such degree after proper examination, and prior to the passing of the Act.

The motion was then agreed to, and the Council adjourned.

SATURDAY, FEB. 19TH.

SIR HENRY ACLAND, PRESIDENT, IN THE CHAIR.

The Society of Apothecaries and the Conjoint Scheme.

Mr. BRUDENELL CARTER moved:—"That inasmuch as the Master, Wardens, and Society of the Art and Mystery of Apothecaries of the City of London, having used their best endeavours to enter into a combination with some other corporation or university for the purpose of holding a qualifying examination in accordance with the provisions of the Medical Act of 1886, and having reported to the Council that they have been unable to enter into any such combination, have in consequence, and in further compliance with the Medical Act aforesaid, made application to the Council for the appointment of assistant examiners in surgery, the Council do now appoint such examiners accordingly." He said he should have thought the motion would have been nothing more than a formal one, were it not that he had received an intimation that in the judgment of some of the members the precedent which had

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been set in the case of Dublin ought to be applied equally in the case of London, and that expression of opinion had taken definite shape in the two amendments that had been placed on the programme. It was a very significant matter that the amendments were to be moved by gentlemen who were not resident in the metropolis, and who might therefore be supposed to be not so familiar as some of them with the precise tendencies of the currents of forces which there existed with regard to this matter. The Apothecaries were now, as they always had been, perfectly willing to enter into combination with the Royal Colleges. The difficulty which had arisen had not arisen from them, but on the part of the Royal Colleges. If it was the pleasure of the Council to defer the matter, the Society would not protest against its being so deferred, and if the bodies which had refused to enter into combination with the Society were to come forward and say that in deference to the view of the Council they would reconsider the position, no possible difficulty would be placed in the way of such combination on the part of the Society. It was also due to the Society to say that as a self-respecting body they could not be expected by that Council to approach again those universities or corporations which had already in so decided a manner refused to combine with them. If in deference to the opinion of the Council the question was postponed, then he thought it would be for those other bodies to approach the Apothecaries' Society, and not for the Society, having fulfilled its statutory and moral obligations, to go round to the different corporations once more to receive the same answer. As a member of the Council, he protested very strongly against what seemed to him a waste of time—namely, the proposition to adopt in the case of the London Society the same course as had been done in the case of the Dublin Society, and refer the subject back to the Colleges for their reconsideration. The differences between the two cases of Dublin and of London were very great. The London Society stood in a somewhat stronger position than the Dublin Society, in the fact that its privileges rested upon the wide basis of parliamentary enactment and long usage, and that during the seventy years of its licensing and examination career it had given its licence to no less than 22,000 general practitioners. Then, again, the two Royal Colleges having received the consent of the Council to their present amalgamation, how could the Council go back from the sanction which it had already given to a particular combination and say that that combination was to be altered? He thought it would be useless for the Council to endeavour to put pressure upon constitutional bodies with a union already sanctioned in order to induce them to take into that union a third body which they had already refused. The Council had no *locus standi* whatever, and no power of influencing the results. Another point of difference was that in Dublin the College of Surgeons was willing to admit the Irish Apothecaries' Hall into combination, and the difficulty arose only with the King and Queen's College of Physicians. In London precisely the contrary was the case. The matter had been under consideration for eleven years, and when the conjoint scheme was agreed upon the two Royal Colleges joined hands and excluded the Society of Apothecaries from their combination, and did so in the most deliberate way. Both Colleges were governed by men of profound sagacity and sound judgment, and they must be taken to have considered the matter in all its bearings. Looking at all the facts, he thought it would be utterly useless to refer the question back to them for reconsideration. Referring to the history of the Apothecaries' Company, he claimed that it had fulfilled all the conditions laid down in the Act of 1886. During the seventy years of its existence it had continually raised the standard of medical education. During the first fifty of those seventy years every general practitioner held its licence. During the last five years it had licensed annually 250 persons on an average, and had recently, in compliance with the recommendations of the Council in 1884, added to its examining body examiners in surgery and midwifery. Their examining board was composed of gentlemen of the very highest standing. He hoped that his application would be a merely formal one; in fact, if it was carried he should ask the Council to nominate as examiners in surgery the gentlemen who now filled the post with such distinguished ability.

Dr. [illegible] seconded the motion. The proposition was that the Colleges should do their statutory duty, and he thought they were bound upon to do it without delay. It would be useless to refer the matter back to the Colleges. It was not possible, knowing the deliberate action of those Colleges, to suppose that they would reconsider the question; they had considered it for so many years that they would be wrong in reconsidering it. The proposals, therefore, put forward in the amendments on the programme were simply to defer the question until it was too late to be of use.

Mr. MITCHELL BANKS had given notice of the following amendment: "That the Council postpone coming to a decision on the motion of Mr. Brudenell Carter, and earnestly request the Royal College of Physicians of London and the Royal College of Surgeons of England to reconsider their action with reference to the admission of the Apothecaries' Society of England to a joint examining board."

Dr. STRUTHERS had also given notice of an amendment, seconded by Mr. TEALE: "That the Council, being of opinion that it would be contrary to the interest of the public to have two competing examining boards sitting in London, and that it is desirable that the Royal College of Physicians of London, the Royal College of Surgeons of England, and the Apothecaries' Society of London should arrange to hold a qualifying examination conjointly, strongly recommend to these medical authorities to reconsider their position with a view to such an arrangement; and meantime defer coming to a decision on the application from the Apothecaries' Society of London of 12th February."

Mr. MITCHELL BANKS said the two amendments had practically the same tendency, and he would be glad to merge his with Dr. Struthers', or to abandon it in favour of the latter. He admitted the services which the Apothecaries' Society had rendered to the cause of medical education, but the only reason for its continuance was the memory of its past deeds. It had been suggested that the existence of another examining body would mean a wholesome rivalry, but he thought it would be a competition downwards.

Mr. WHEELHOUSE was prepared to second the amendment. There was among the profession generally a most earnest desire for the suggested combination.

Sir DYCE DUCKWORTH said that in one important particular the College of Physicians had never recognised the Apothecaries' Society as qualifying for its licence. When the two Colleges agreed to combine for the purpose of holding a qualifying examination the Apothecaries' Society was left out of the combination. The Apothecaries admitted that the Conjoint Board of the two Colleges was complete and wanted no adding to, and he was quite sure from the character of the examiners of the two Royal Colleges in the subject in which the Apothecaries claimed to take part, that the examination was second to none, not even to that of any of the universities in the United Kingdom. What did the Society want? They offered to examine in botany, chemistry, and pharmacy. It would naturally be asked, Who were the men whom the Apothecaries' Society would be likely to appoint to those important functions. Far from being able to find amongst its own members persons qualified to examine, they had to go outside and take six or seven of the Fellows of the College of Physicians to do the work for them. In preliminary and scientific subjects the two Colleges took the greatest pains to secure examiners of the first eminence, and he did not see what particular benefit would result from granting the claim of the Apothecaries' Society. It would be a great disaster to have another competing licensing body. A good deal had been said about the dignity of the College of Physicians. It was a body which respected itself, and therefore respected all other bodies. He was authorised to say that it was absolutely useless to refer the matter back to the College, because he was perfectly certain that its deliberate action would be sustained.

Dr. STRUTHERS said he had very serious objection to sending a body of men out into the profession with the title simply of Licentiates of the Apothecaries' Society. It might be that the Privy Council would yield to the request, but he himself could never be a party to lending crutches to the Apothecaries' Society.

Sir W. FOSTER, as a direct representative of the profession, opposed the multiplication of portals to the profession.

Dr. HAUGHTON thought the Apothecaries had made out a fair case for considering what examiners should be appointed, and should therefore vote for the resolution.

Mr. SIMON hoped that the two amendments would be amalgamated.

Mr. TEALE seconded Dr. Struthers' amendment, and after

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a short discussion Mr. MITCHELL BANKS withdrew his amendment in favour of that by Dr. Struthers.

Dr. GLOVER regretted exceedingly that at the advanced stage of the proceedings of Council they were spending three hours in discussing a question which ought not to have presented any difficulty. He should be no party to asking the Apothecaries' Company to put itself into the attitude of knocking at the doors of all the corporations and universities of England again. It had gone through a process very painful to those who held its licence, and certainly they could not ask it to continue that attitude. The profession had never been in such a complicated state as at present, when they had universities competing with corporations, and corporations desiring to assume university functions, while the united Colleges were repeating the action of the College of Physicians in 1815—that of disregarding a very extensive feeling in the profession that the body which had had so much to do with the general practitioners ought not to be treated coldly, nor, at present at any rate, to have its existence discontinued. The situation was still further complicated by the Act of 1886, which did not appear to give the Council the power which it had hitherto possessed of expressing its opinion upon conjoint arrangements. They might assume, however, that the Royal Colleges would not disregard the strong expression of opinion of the Council, and he therefore hoped that Dr. Struthers' amendment would be adopted. The Council might only get another proof that it had lost its power, but the sooner they got that proof the better.

Sir DYCE DUCKWORTH asked Mr. Carter what was the significance of a rather minatory clause in the letter addressed to the Royal Colleges of Physicians and Surgeons, which did not appear in any of the letters addressed to the universities—viz.: "Nor should it be forgotten that, if the Colleges be unwilling to combine with the Society, there is still open and possible to the latter a very formidable combination, which in this alternative would equally cause a very serious competition to arise, to the prejudice of the Colleges."

Mr. CARTER said that the letter was written before he was the representative of the Society, and he had no knowledge of what was in the mind of the writer. The applications made to the Universities of Oxford and Cambridge were regarded as merely *pro formâ*, but it was thought possible that those addressed to the Victoria and Durham Universities might lead to combination, and a deputation was sent to Durham to discuss the matter with the authorities.

Mr. MARSHALL said that he felt a difficulty, owing to the position which he occupied in relation to the College of Surgeons, in voting for the amendment, and at the same time he could not oppose it. As a member of the Council, his sympathies were in favour of the amendment. The argument now brought forward was, not that it was necessary for the purposes of examination that the Society of Apothecaries should be taken into the Conjoint Scheme, but that it was necessary for the public good; and that was an argument that, as an honest member of the Council, he could not oppose. Under those circumstances he thought it best to give no vote on the subject.

Dr. DUNCAN said that, while intending to vote for the amendment, he entirely disapproved of the tone of many of the remarks that had been made. He saw no reason for the mock humility displayed by Mr. Carter in reference to the Society of Apothecaries, which might hold up its head as an equal with the Colleges of Physicians and Surgeons, and not as an inferior. Though he proposed to vote for the amendment, he was no advocate for the one-portal system, which he thought was the worst of all systems. Competing bodies he considered to be of great advantage. But there would be a benefit, in the present crisis of affairs, in the union, not the absorption, of the Society of Apothecaries with the two Colleges. It had been said that if the Medical Council did not do it the Privy Council would. He did not take that view. He had no doubt that the Privy Council would treat the decision of the Medical Council with profound respect. If he thought that the exclusion of the Society of Apothecaries would tend to a competition downwards, and to a lowering of the qualification, he could not vote for its continuation. But its past history had shown that it had generally kept pace with improvements in teaching and examination. One of his reasons for voting for the amendment was that if the Council now appointed examiners for the Society of Apothecaries in England the Colleges in Dublin would hardly listen to the advice which had been given to them, and to which he hoped they would listen.

Dr. HUMPHRY agreed with Dr. Duncan that in rejecting the amendment the Council would be acting inconsistently with the vote it had passed in reference to the Apothecaries' Hall in Dublin. But he had no great hope as to the result.

Dr. BANKS supported the amendment.

Mr. B. CARTER, in replying, said he believed that the power to compel combinations was designedly withheld from the Medical Council. The power of appeal to the Privy Council was inserted at the request of the Society of Apothecaries. He wished to ask what security the Society had that the Council would meet in May, because unless there was some assurance to that effect it might be their duty to appeal before that date. They had acquired a vested interest in English medical education and examination, and no Government or Parliament would ever dream of extinguishing it without compensation.

The amendment proposed by Dr. Struthers was then put to the Council and carried, 24 voting in its favour and 4 against.

Mr. BRUDENELL CARTER asked what course would be taken with regard to the resolution just agreed to.

Sir WM. TURNER said he was just about to ask the same question, not only with regard to this matter, but also as to communication with the Irish bodies.

The PRESIDENT said after consultation with the Chairman of Business he should be prepared to suggest the course that should be taken at their next sitting.

On the motion of Mr. SIMON, seconded by Mr. MARSHALL, it was resolved: "That it be referred to the Business Committee, with six additional members to be appointed by the Council for the purpose of the reference, to consider under what rules of meeting and procedure, and with what appointment and authorisation of standing committees and sub-committees, the Council may best provide for the regular, effective, and economical discharge of its statutory duties; the committee to report to the Council at its next meeting, and to propose for consideration of the Council the draft of any new Standing Orders which it may deem desirable."

Dr. HERON WATSON then moved: "That, having received the final report of the Visitation of Examinations Committee, the Council determine that it resolve itself into a committee to consider the report of the Visitors appointed by the General Medical Council, together with the answers of the several universities, in the light of the report, and that it do so resolve itself into committee upon Tuesday next." He said he moved the resolution simply with the view of putting the Council in line with the mode of procedure adopted in connexion with previous reports of visitations. The report in question was of a most admirable character, and it would be a pity for it to be handed over to a remote shelf of the office without any further expression of opinion on the part of the Council with regard to it.

Dr. BANKS seconded the motion.

Dr. AQUILLA SMITH thought the motion a very undesirable one, because if the Council resolved itself into committee it was impossible to say how long the discussion would last. There was no necessity at all for it, as all good that could possibly be derived from it would arise from its study by the various bodies.

Dr. HUMPHRY also opposed the motion.

Dr. BRUCE moved as an amendment: "That, in receiving the final report from the Visitation of Examinations Committee, the General Medical Council is happy to find that all the universities do provide a sufficient guarantee that their graduates possess the requisite knowledge and skill for the efficient practice of their profession."

Dr. HAUGHTON seconded the amendment, and moved the adjournment of the debate.

Dr. STRUTHERS gave notice that at the next sitting he would move the previous question.

The Council then adjourned.

MONDAY, FEBRUARY 21ST.

SIR HENRY ACLAND, PRESIDENT, IN THE CHAIR.

The Apothecaries' Societies and the Conjoint Scheme.

The PRESIDENT said that, in accordance with the wish of the Council, he had consulted with the Chairman of Business and also some other members of the Council as to the mode to be adopted in bringing the resolutions of the Council before the Royal Colleges, and, with the permission of the Chairman of Business, a resolution would be moved on the subject.

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Dr. STRUTHERS proposed: "That the President be requested to communicate to the King and Queen's College of Physicians and the Royal College of Surgeons of Ireland, and the Apothecaries' Hall of Ireland, the resolution of the Council of Feb. 16th, and to communicate to the Royal College of Physicians of London, the Royal College of Surgeons of England, and the Society of Apothecaries of London, the resolution of the Council of Feb. 19th, and to take such further action as he may see fit towards the attainment of the object of those resolutions, to which the Council attaches great importance, in the interest of the public."

Mr. WHEELHOUSE seconded the motion.

Dr. AQUILLA SMITH could not agree with the motion. He objected to the idea of personal influence being brought to bear, which seemed to be the object of the resolution, and at the same time thought it would be very unfair and very unreasonable to impose upon the President the duty of entering into oral communication with these Colleges.

Mr. BRUDENELL CARTER said he should move an amendment—viz.: "That the letters, if any, to the Royal College of Physicians, London, and the Royal College of Surgeons, England, be addressed to the Presidents of those Colleges respectively, with the request for immediate reply, and that those replies be considered by the Council during its present session."

Mr. MARSHALL said, if an amendment was to be moved, it could not be be discussed without being on the programme.

The motion and amendment were therefore adjourned to the following day.

Dr. BRUCE then moved the amendment (of which he had given notice) to the motion of Dr. Heron Watson with regard to the report of the Visitation of Examinations Committee. He said they had had a valuable report from the committee, and it was quite unnecessary to go over again all the points raised in that document. Indeed, it would not be courteous to the committee to do so; and no one would care to sit upon a committee if every point discussed by it was taken up again by the Council. Unless Dr. Watson was prepared to move an amendment to some of the rules and regulations of the Council, which would be the logical sequence of his proposal to go into committee, the course he had suggested would be a mere waste of time. It had often been said to the direct representatives on the Council during the progress of their election that they ought to take care that no man who was not a gentleman and had not the making of a good doctor in him should be admitted to the profession. But that was not the function of the Council. No resolution of the Council and no Act of Parliament would make a man a gentleman. The Council was not a patent machine for turning out irreproachable doctors. All that it could do was to see that candidates came up to a certain minimum in their examinations.

Dr. HAUGHTON, in seconding the amendment, said it had not been proved to the satisfaction of the Council that any one corporation or university in the three kingdoms was letting loose upon the world men who were not safe practitioners. That was their business, and that alone. On reading over the reports, he did not see that any case had been made out to satisfy any individual member, much less the Council as a whole, that in any instance these bodies had passed men who were incompetent to practise.

Mr. SIMON said he could vote neither for the motion nor the amendment. The amendment stated that the amenders were "happy to find." He rejoiced in their happiness. (Laughter.) They were happy to find what, in point of fact, was not to be found in the report. On the contrary, he was correct in saying that in the Visitors' report there were passages as strongly as possible in an opposite direction, and in three cases it was stated that the degrees ought not to admit to the Register. He did not think it would be right to meet this with the "previous question." Here were three courses proposed, and he thought the Council could not take any one of them. There was a fourth course, although that was going beyond the usual quantity of option, and perhaps it would not be irregular if he read what he thought that course should be: "That the Council, intending shortly to begin its inspections under the Medical Act of 1886, will, when it enters on that duty, particularly direct the attention of its inspectors to all points at which the late Visitors of the final examinations of the universities take exception more or less to the sufficiency of certain of those examinations, and will on the same occasion take a like course in respect of the reports which it last received on the examinations of the medical corporations."

Dr. MATTHEWS DUNCAN said he should be prepared to second that amendment.

Sir WM. TURNER agreed that the two amendments before the Council hardly met the motion, and was quite prepared to support Mr. Simon's amendment. He could not accept what he understood to be the proposition laid down by Dr. Heron Watson—viz., that these various documents had not been properly discussed in the Council, because on page 3 of the revised reports he found that the documents which the committee had before it consisted of certain instructions prepared by order of the Medical Council for the instruction of their Visitors; secondly, of the reports of the Visitors; and, thirdly, of the discussions held on June 7th, 8th, 9th and 10th, in committee of the whole Council. He could not see any reason at all why Dr. Heron Watson should now ask them to go into committee on documents on which the Council had sat in committee on four full days in the month of June. He submitted that the Council ought not to take up such a position as to render it necessary for members to remain away from their home duties any longer than was absolutely necessary.

Dr. BRUCE said he was willing, with the permission of the Council, to withdraw his amendment in favour of that proposed by Mr. Simon.

Dr. STRUTHERS said he had intended to move the previous question, but he would refrain from doing so, in favour of Mr. Simon's amendment, if it could be disposed of without waste of time.

Sir W. FOSTER said he would himself move the previous question in the interests of economy of time, which had been for days past neglected by the Council.

Dr. MOORE said he would second the previous question.

The PRESIDENT ruled that the previous question could not be moved until Mr. Simon's amendment (which had been substituted for Dr. Bruce's) had been disposed of.

Dr. GLOVER contended that the subject had not been fully disposed of at the last meeting of the Council, but had been distinctly postponed. If there was one party in the Council more than another that should have favoured the fullest discussion of the reports of the university examinations, it should, he thought, be the representatives of the universities themselves. The amendment of Dr. Bruce (which damned the universities with faint praise) was a very inadequate outcome of the visitations which had taken place by men of the highest eminence. In one of the reports it had been distinctly stated that the examiners had erred on the side of leniency, and in three cases, as Mr. Simon had pointed out, the examinations were not considered sufficient to guarantee the requisite knowledge on the part of the persons passed. Under those circumstances time was not being wasted in properly disposing of the reports. He should, however, vote for Mr. Simon's amendment, seeing that the Council was about to turn over a new leaf and to undertake very critical inspections with a view of securing a more severe standard than formerly existed.

Dr. MCVAIL said that the majority of the Council had evidently made up their minds not to deal with the reports, because if any opinion were given by the Council a number of institutions would be severely censured before the profession and the public. ("No, no.") If there was any waste of time, it would be in not considering the reports, the drawing up of which had involved so much trouble and expense.

Mr. MACNAMARA said he accepted the principle of Mr. Simon's amendment and should vote in its favour.

Dr. LEISHMAN said that Mr. Simon's amendment had relieved him from a great difficulty. He sympathised with a good deal of Dr. Heron Watson's statement, but if the subject were to be fully discussed, he did not know when it would be ended. With regard to the University which he himself represented, nothing would give him greater pleasure than to hear anything that could be said against it, provided he had the right to reply. He repudiated the idea of being influenced by any such motive as had been attributed to the representatives of universities.

Dr. BANKS stated that one of the three cases cited by Mr. Simon had reference to the University of Dublin, and that in that case the examination was for physicians, and not for general practitioners. The visitors stated that they were favourably impressed with some portions of the examinations, and could conscientiously commend the specially medical portions.

Sir WALTER FOSTER said that the statement made by Dr. Banks was a good illustration of the fatal course on

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which the Council was entering in discussing the reports. If all the points were to be taken up in the same way there would be no end to the discussion. They were, in reality, doing nothing more than discussing an entire Blue-book.

Dr. DUNCAN said that some members of the Council had entertained the false impression that the reports had not been already discussed. In truth, they had been considered for a period of four days at the June sitting of the Council.

Dr. STRUTHERS said that the whole subject had been thoroughly threshed out, and he repudiated the insinuation that he was afraid of further discussion.

Dr. HERON WATSON having briefly replied, Mr. Simon's amendment was put and carried, and it was also carried *nem. con.* as a substantive motion.

The next business was the following motion, of which notice had been given by Mr. Teale: "That in the opinion of the General Medical Council it is desirable—(*a*) That, in the interest of students whose place of medical education is at a distance from the seat of examination, the written portion of the examination should be conducted at the place of education; (*b*) that a sufficient time should intervene between the written and the oral portions of an examination to allow the examiners to read over and judge the written answers of every candidate, and to confer upon doubtful cases before the commencement of the oral examination; and (*c*) that candidates who in the written examination have failed so completely as to have forfeited all chance of passing by the aid of the oral shall be 'stopped' from passing on to the remaining portion of the examination. This step ought to be granted as a matter of economy of money in the cases of students, and as a matter of economy of time in the case of examiners."

Mr. SIMON rose to order. He said it was the duty of the Council to mind its own business, and this was not its business. It was a question in contest between parties independent of them, and over whom they had no control. It was merely as to questions of internal economy between independent examining boards and their students.

The PRESIDENT ruled that the motion was in order. It was merely another form of recommendation, and that was a matter quite within the province of the Council.

Mr. TEALE, in moving his resolution, said that in order to shorten the proceedings he would reduce it to the first paragraph. This was a subject clearly within the cognisance of the Council, inasmuch as there were remarks of the Visitors of corporations in which it was referred to very distinctly as an opinion which they had arrived at during their visitations. He urged that a step such as he proposed would be of great value in certain portions of the kingdom, but it would be of most conspicuous value in England, because a great number of students were licensed every year by the two great corporations in London, and a very large proportion of students were educated at a great distance from London, which involved on each occasion of examination a necessity for coming up from their proper work and remaining in London for some days till the oral examination took place. Students were now brought up for their first or semi-first examination early in the course of their first year, when their examinations might possibly be divided into seven different portions, so that students might have to come up seven different times. A memorial had been made on this subject to the examining bodies initiated by the medical department of the Yorkshire College, and signed by other teaching bodies. If there was one thing that struck the Visitors more than another, it was that examining was becoming more laborious, and if done well would require much longer time, and therefore if time could be gained from the paper examination and given to the oral it would be a great advantage to the students; he therefore hoped that the Council would accept the resolution.

Mr. MITCHELL BANKS seconded the motion. He thought that in justice to the provincial students in England some means should be adopted by which their examinations might be lightened. Examination papers could be easily and safely sent through the Post Office, and the heads of the colleges and schools might be thoroughly trusted to see that the examinations were fairly conducted.

Dr. MOORE said that there were practical difficulties in carrying out Mr. Teale's proposal. Students sometimes, while writing their papers, would ask for some explanation respecting a question, and if the examiner were not present the explanation might not be satisfactorily given.

Dr. HAUGHTON said that in Dublin it was always considered necessary to have the examiner present at an examination for honours; but that was hardly necessary in the case of a pass examination.

Dr. DUNCAN said he had never known a student undeservedly rejected, but he had known some students undeservedly passed. The plan recommended by Mr. Teale had been adopted by the University of London and other bodies, including the Obstetrical Society of London, and had been found to work satisfactorily.

Dr. BANKS referred to the dangers attending the transmission of the papers. In order to obtain absolute security in this regard, the authorities at Trinity College, Dublin, had decided to have a printing press on the premises.

Mr. WHEELHOUSE said there was a very strong feeling amongst provincial students that injustice was done them in regard to their written examinations. Even when there was no chance whatever of their passing in their written papers they were detained in London for days to go through the oral examination, which could only be a farce. The present method, he considered, added at least £10 to the cost of a diploma for a provincial student.

Dr. HERON WATSON moved the previous question, and said he considered it a waste of time to discuss the subject. Application should be first made to the Colleges, and distinct evidence should be given of any injustice done to the students. When that was done, the Council might be in a position to take steps in the matter.

Mr. SIMON seconded the motion for the previous question.

Dr. HUMPHRY pointed out certain practical difficulties which, he said, would arise in carrying out Mr. Teale's proposition. He considered that it would be very undesirable to prevent a student from coming up to the oral examination in consequence of his failure at the written examination. Nothing could give a student more permanent information than that which he obtained at an oral examination.

Sir DYCE DUCKWORTH said this question had already come under the consideration of the Colleges in London. There was little doubt that after due deliberation some course of action would be decided upon. He did not agree with Mr. Teale's motion. He believed it was a very good thing for the students to come up to the Colleges and to see London. He was somewhat surprised to learn for the first time that there was a want of confidence as to the manner in which the proper work in the examinations was conducted by the examiners on the Conjoint Board. As one of those examiners, he could only say that an amount of time was given by examiners to their work which perhaps would surprise some members of the Council. The papers were most religiously and carefully read, at a very great expenditure of time, and no candidates were rejected on any one paper. Practically it came to this, that in each subject every man had a *vivâ voce* examination.

Mr. SIMON, while sympathising with Mr. Teale's motion, thought the Council had no authority with the licensing bodies in this matter.

The vote was then taken on the previous question, which was carried by 11 votes against 9.

On the motion of Mr. MARSHALL, seconded by Dr. HERON WATSON, the report of the Executive Committee in regard to Dr. Day was adopted. The committee recommended that "before proceeding further in the matter, it would be desirable to refer the papers on Dr. Day's case, with the Report on the Uses and Abuses of Unqualified Assistants presented by the committee appointed by the General Council on July 3rd, 1882, and the resolution passed by the Council on April 21st, 1883, to the Privy Council, and to communicate the result of such reference to a future meeting of the General Council."

Mr. MARSHALL then moved: "That the diplomas in Sanitary Science, Public Health, and State Medicine, granted after examination (see pp. 46-71 of the Minutes for Feb. 15th, 1886) be recognised by the Council for purposes of Registration in the Medical Register, under Section 21 of the Medical Act, 1886."

Dr. HAUGHTON seconded the motion.

Dr. GLOVER asked if anything could be done to introduce something like uniformity in the titles.

Mr. MARSHALL said they had taken a legal opinion on the subject, and were distinctly instructed by their solicitor, and also by Mr. Muir Mackenzie, that they had no power in the

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matter. They were compelled to use the title that the body itself used. If it was an evil, it was not an evil of the Council's creation, and it was not for them to exercise any influence on the matter.

Dr. HERON WATSON read a letter from a graduate of science with reference to the subject under discussion. It pointed out that in one of the bodies granting diplomas in public health—viz., the University of Edinburgh—residence was required, and a special course of study in laboratory work; while in many others that was not required, so that any registered practitioner could present himself for examination when he felt competent to do so. If a man were put to the trouble and expense of residence for a degree, the writer considered that the degree should not rank with certificates not so obtained. He would call each degree or certificate by the title given it by the authorities. Dr. Watson thought it would be a misfortune to depart from the plan hitherto followed in the registration of other qualifications.

The motion was agreed to.

Presentation to the President.

Dr. HUMPHRY said the very agreeable duty had been deputed to him of offering a marble bust to the President for his acceptance. That bust, executed by M. Boehm, was presented by the members of the late Council and others who had at various times sat under Sir Henry Acland presiding at that table; of those, alas, some were unable to be with them in their bodily presence, of whom he might name Dr. Scott Orr, Dr. Apjohn, and Dr. Storrar. The mention of those names recalled the names of others who also had at still earlier periods sat at that table—Dr. Embleton, Dr. Allan Thomson, Sir Dominic Corrigan, Dr. Rolleston, Dr. Sharpey, and Dr. Andrew Wood,—and there could be no doubt that every one of those would have rejoiced in any opportunity of doing honour to their President. There was no person who had been so identified with the work of the Council up to the present, and it was scarcely probable that any other person ever could be. Ever since its first institution in the year 1858 he had been a member of it, and for more than twelve years he had been its president. The presentation was made as a mark of their high regard for their President as such, and their no less high esteem for him as a man. It was also a token of the general wisdom of his administration in that chair, and of the untiring, continuous, unselfish devotion which he had given to the work of the Council. Dr. Humphry also referred to the work carried on by their President in the University of Oxford, where it was he who first opened the springs of natural science, which afterwards flowed to Cambridge, while from those two universities fountains had been opened in various parts of England, which had done much to promote a higher and more extended education. He concluded by assuring the President that whenever he should cease to bear that honoured name he would be remembered with affection and regret.

The PRESIDENT, in acknowledging the gift, referred to his long connexion with the Council, and said it was rather remarkable that, considering the uncertainty of things here, he had never been absent from any sitting of the Council except on one day when he was obliged to be at Oxford. Referring to the origin of the Council and the strange feeling with which they met for the first time in the history of their profession to endeavour to heal its feuds and foster the good of future generations, and remembering the men who sat on those earlier councils, Brodie and Green, and Christison, Watson, and Corrigan, and those who succeeded them, Parkes and Begbie and Rolleston, they might well understand that it was with truth that he said that the greatest gratification of his life had been the feeling that he was a member of that body. He intimated that from considerations of health he should be obliged to retire from his presidency, but was likely to retain office until the next meeting if necessary, in order, if possible, to bring about some settlement of the difficulty in connexion with the Conjoint Scheme. In conclusion, he asked the favour of the Council to accept the bust, and allow it to remain in the Council room.

Dr. HUMPHRY, on behalf of the Council, accepted the bust, and said that they hoped shortly to add to it the bust of Sir Henry's predecessor, Dr. Paget, so that both universities might be fitly represented.

A vote of thanks having been passed to Dr. Humphry and also to Mr. Boehm, the proceedings terminated.

TUESDAY, FEBR

SIR HENRY ACLAND, PRES

On motion put from the ch
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Edward Robson from the M
tions having already been
Physicians and Surgeons in

The Apothecaries' Societies a

Dr. STRUTHERS moved: "That the Pres
communicate to the King and Queen's College o
in Ireland, the Royal College of Surgeons in Irela
the Apothecaries' Hall of Ireland, the resolution of the Council of February 16th; and to communicate to the Royal College of Physicians of London, the Royal College of Surgeons of England, and the Society of Apothecaries of London, the resolution of the Council of Feb. 19th; and to take such further action as he may see fit towards the attainment of the object of these resolutions, to which the Council attaches great importance in the interest of the public." He said it was not to be supposed that the President should exercise any undue influence or pressure, but if he would kindly undertake these good offices it might be of very material service to the bringing about of a harmonious solution of this very important point. In looking over the letters that had passed, he thought he saw a ray of hope, notwithstanding all that had been said.

Mr. WHEELHOUSE seconded the motion. The matter was one of very great importance to the profession at large, and in trying to carry it to a successful issue the Council should leave no stone unturned.

Mr. MACNAMARA, while sympathising with the desire that had been expressed, was afraid that hope had told a flattering tale. From letters which he had received from Dublin, he feared that the two Colleges would not listen to the charmer, "charm he never so wisely."

Dr. A. SMITH asked whether the letters were from Fellows of the College of Physicians or of the College of Surgeons.

Mr. MACANMARA said they were from well-informed people (laughter).

Mr. B. CARTER proposed an amendment omitting all reference to the English bodies. He contended that any efforts in relation to those bodies would be a waste of time on the part of the Council, and might inflict serious injury on the Society of Apothecaries. It was necesary that that Society should have ready by June 1st an examination which might with confidence be submitted to the Council, and examiners would have to be appointed either by the Medical Council or the Privy Council. The time, therefore, would have to be fixed—a time beyond which the inaction of the Council would be interpreted as a refusal, and when application would have to be made to the Privy Council. It was not right to hang up the Society of Apothecaries between heaven and earth, like Mahomet's coffin, between the present time and the next meeting of the Council, whenever it might happen to be. The Society did not object to competition, but it claimed to be treated with simple justice. The proposed delay would be a profligate waste of time, and the efforts made would be absolutely futile.

Dr. HAUGHTON, in seconding the amendment, said he had hopes with regard to Dublin; but from all he had heard in England he thought that the proposed action would be a mere waste of time.

Sir W. FOSTER opposed the amendment on the ground that the Council had no right to look outside its own body in the matter. They were custodians and guardians of the interest of the public, and must leave aside narrow views as to the advantages likely to accrue to any individual body by their action. He could quite understand that the Apothecaries' Society would be delighted to be put in an independent position, but he thought the Council ought if possible to prevent it.

Sir WILLIAM TURNER said the Council had already seriously considered all that was involved in Mr. Brudenell Carter's amendment, and therefore his impression was that the whole of this was out of order. The Council had come to a deliberate resolution to go to these various bodies both in England and in Ireland. Having done so, they ought not to pass this amendment, which would practically reopen the whole question, because if it were accepted the next step that Mr. Carter would take would be to bring forward a resolution asking the Council to appoint examiners, when it had already decided that it could not do so this session.

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Mr. SIMON thought the Apothecaries' Company would be ...te equal to making a provisional arrangement on ...une 1st in the event of an adverse decision from the other

Mr. MITCHELL BANKS hoped that the amendment would not be carried, because it was simply an undoing of all that had been done.

Dr. HERON WATSON said the Council would only be stultifying itself if it did not do something to carry out the resolution which it had passed. As to the question of delay, there was no likelihood of the Privy Council acting in the matter without consulting the Medical Council. After such consultation he thought there would be no difficulty in making the necessary arrangements for the examinations.

Dr. STRUTHERS, in replying, said he had no reason to suppose that the efforts of the Council and the President would be useless. He could not believe that a resolution of the Council passed by a majority of 20 against 4 would be disregarded by the Colleges. The object of the motion was simply to carry out the resolution.

Mr. BRUDENELL CARTER thought it would best harmonise with the general feelings of the Council if he withdrew the amendment.

The amendment having by leave been withdrawn, the motion as proposed by Dr. Struthers was agreed to.

Inspection of Examinations.

The next business was to consider the report by the Inspection of Examinations Committee.

It being resolved to deal with the resolutions in the report *seriatim*,

Mr. MARSHALL moved the adoption of the first resolution: "That the principle on which the Council's visitation and inspection of examinations ought to be founded is, that the visitations and inspections shall systematically cover, within stated periods of time, the pass examinations in all branches of knowledge which the Council deems essential as qualifications for licence."

Dr. HERON WATSON seconded the motion.

Dr. DUNCAN said the Act of 1886 distinctly confined their inspections to the three branches of "medicine, surgery and midwifery," and therefore to state that they should cover "all branches of knowledge" introduced confusion.

Dr. KIDD said it was not possible to secure the requisite knowledge of surgery if they did not ascertain that the student was taught anatomy, or that he had the requisite knowledge to practise as a physician without ascertaining whether he had been taught physiology and pathology.

Dr. DUNCAN said that might be true, but it was not an answer to the words of the Act, which did not include many branches of knowledge which the Council rightly deemed essential. The meaning of the Act was plainly that inspections should be confined to examinations of medicine, surgery, and midwifery, and he would therefore move as an amendment that, instead of the resolution reading "past examinations in all branches of knowledge," it should be "past examinations in medicine, surgery, and midwifery."

Dr. QUAIN hoped that such a small matter would not be discussed by the Council on that which they hoped would be the last day of their sitting. It was sheer waste of time.

Mr. SIMON said that the power of visiting courses of study and attending at examinations under the Act of 1858 still continued, but in regard to examination it was merged in the new power of inspection. The phrase "visitation of examinations" was therefore misleading. The reference to the committee was in relation only to the new power of inspection.

Dr. HUMPHRY said that the new Act commanded the Council to appoint inspectors to ascertain the sufficiency of the standard of proficiency required of the candidates at the said qualifying examinations, which were examinations in medicine, surgery, and midwifery; and it was not certain that the inspectors were at liberty to attend any other examinations than those in the three subjects named. It was not certain that Mr. Simon's view was correct, that the old power was merged in the new. Under all the circumstances, it would be better to use the powers of the two Acts.

Dr. Duncan's amendment being withdrawn,

Sir WILLIAM GULL proposed as an amendment—"That the Council's visitations and inspections, imposed by Section 19 of the Act of 1858 and Section 20 of the Act of 1886, shall be systematically performed within stated periods."

Dr. HUMPHRY seconded the amendment.

Dr. BRUCE thought it would be better to omit the first resolution altogether. He proposed to move to that effect.

Dr. STRUTHERS supported that suggestion.

Dr. HERON WATSON said the resolution before them was dependent upon the interpretation which was to be placed upon the two Acts of Parliament on which they acted, and he believed the wording of that first resolution was adopted in committee for no other reason than to keep that as an open question. It was the expression of a general principle, and the subsequent resolutions worked out the details. It was therefore important to press the resolution.

The amendment was then put to the Council and lost.

Dr. BRUCE then moved the previous question, which was seconded by Dr. STRUTHERS.

The previous question was put and lost.

The motion for the adoption of the first resolution was then agreed to.

Mr. MARSHALL moved the adoption of Clause 2: "That, reserving for future action the visitation and inspection of the examinations in the earlier subjects of professional education, the first year's appointment of inspectors provide for the inspection of examinations in medicine, surgery, and midwifery."

Dr. HERON WATSON seconded the resolution, which was adopted.

Mr. MARSHALL moved the adoption of Clause 3: "That each inspector to be appointed for any purpose of the preceding resolution (2) be appointed for all three divisions of the United Kingdom."

Dr. STRUTHERS seconded the motion, which was agreed to.

Mr. MARSHALL then moved the adoption of Clause 4: "That the Council appoint one inspector representing medicine, one representing surgery, and one representing midwifery—three inspectors in all."

Dr. MCVAIL asked whether, looking to the number of bodies to be inspected, it was considered that three inspectors would be sufficient.

Mr. MARSHALL said the committee had taken that important subject into consideration. It was felt that they could not afford to pay more than three inspectors during the first year, and hence the inspection was limited to those three subjects. With regard to the work they had to do, there were fifteen bodies only to be examined in the three divisions of the kingdom, and those fifteen bodies surely could be inspected in the course of the twelve months.

The resolution was agreed to, as were also the subsequent resolutions: "That, previously to making appointments, the Council invite suggestions concerning them from each Branch Council. That each inspector make, from time to time, such inspections of the examinations in his special subject, held by the several licensing bodies in the United Kingdom, as may enable him to form an opinion upon, and report to the Council as to the sufficiency or insufficiency of, those examinations; and, further, that he enter in a diary the date of and the time occupied in each inspection, and any observations that he may think fit, and present this diary, with a report as to the sufficiency or insufficiency of the examinations of each body so inspected by him, to the General Council annually or at such times as may be required; and that the remuneration for these inspections be by annual payments."

Mr. MARSHALL then moved the last resolution contained in the report: "That the inspector in medicine and the inspector in surgery, appointed as above recommended, receive for the year's services £300 and certified travelling and hotel expenses, and the inspector in midwifery £200 and certified travelling and hotel expenses."

Dr. WATSON seconded the motion.

Dr. DUNCAN asked why a difference had been made between the payment to the inspectors of medicine and surgery and the inspector of midwifery.

Mr. MARSHALL explained that the inspectors in medicine and surgery would have more work to do and more examinations to inspect than the inspector in midwifery, who would have nothing to do with clinical examinations proper.

Dr. DUNCAN said that ever since the establishment of the Council midwifery had been combined with gynæcology, and therefore involved clinical work. He moved "that the emoluments of the inspector in midwifery be the same as those of the inspectors in medicine and surgery."

Dr. HAUGHTON seconded the amendment on the ground that the Act of Parliament placed the three subjects of surgery, medicine, and midwifery on an equality.

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Dr. STRUTHERS said it was estimated that the inspector in midwifery would not employ more than half the time that the others would.

The amendment was then negatived, and the motion was agreed to.

Dr. QUAIN moved, and Sir WALTER FOSTER seconded: "That it be referred to the Executive Committee to make arrangements for carrying out the resolution just adopted, and to report to the next meeting of the Council thereon."

Mr. SIMON objected to this work being thrown on the Executive Committee, and moved as an amendment "that the Inspections of Examinations Committee be continued during the pleasure of the Council, and that this committee (subject to the future directions of the Council) be charged with the duty of giving to the inspectors such instructions as may be requisite, and of superintending the progress of their work."

After some discussion the amendment was negatived and the motion agreed to.

It was then, on the motion of Mr. MARSHALL, seconded by Sir WILLIAM GULL, resolved that a record should be placed on the Minutes of the Council of the presentation to the President that took place on the previous evening, and of the acceptance of the bust by the Council.

The PRESIDENT having made a statement to the Council in reference to the communication which the Council had directed to be made to the Royal College of Physicians of London and the Royal College of Surgeons of England, and to the communication which the Council had directed to be made to the King and Queen's College of Physicians in Ireland and the Royal College of Surgeons in Ireland, and having expressed his intention to resign his office at the close of the present meeting, it was unanimously resolved: "That the President be invited to continue in office until the next meeting of the Council."

The President having consented to adopt this course, the Council adjourned.

WEDNESDAY, FEBRUARY 23RD.

SIR HENRY ACLAND, PRESIDENT, IN THE CHAIR.

Dr. HERON WATSON drew attention to a report in the morning papers of an application before a divisional court for a rule for a writ of mandamus directed to the Council ordering them to restore the name of Mr. Partridge to the Register under the provisions of the Dentists Act of 1878. He wished to ask whether the Royal College of Surgeons of Ireland had any explanation to afford in regard to the statement that they had withdrawn Mr. Partridge's diploma on the ground that he had advertised in the course of his business as a dentist; whether the College required of each licentiate in dental surgery that he should sign a declaration before receiving his diploma that he would not advertise or employ unworthy means of attracting public notice; and, thirdly, whether the Royal College of Surgeons of England had any similar provisions against advertising.

The REGISTRAR announced that he had received a letter from the solicitor bearing upon the subject.

Strangers were then requested to withdraw, and during their absence the subject was referred to the Executive Committee.

On the public being readmitted,

Sir W. GULL moved the adoption of the report by the Lord President's Letter Committee.

The committee was appointed to consider a memorial addressed to the Lords of the Council by Mr. Thomas Laffan, of Cashel, with respect to the efficiency of qualifying examinations under the Medical Acts. Mr. Laffan charged the General Medical Council with inaction, and stated that the candidates for the degrees of the Royal University of Ireland "are shamefully deficient in clinical training"; and that the University imposed restrictions in the way of adequate clinical training. The committee considered the charge of inaction devoid of foundation. With regard to the second charge, they considered that the large proportion of rejections proved the imperfect training of the candidates no less than the impartiality and discrimination of the examiners. In reply to the third charge, the committee felt the strongest sympathy with the utilisation of the clinical material in union hospitals, but it was a matter which required inquiry into the character of each hospital, and the material it offered for affording useful clinical instruction. In conclusion, they begged to assure the Lord President that they had full confidence in the Royal University of Ireland maintaining the efficiency of its qualifying examinations under the Medical Acts, and in their adopting so far as a non-teaching university could, every possible means for promoting the practical training of students.

Dr. MOORE seconded the motion.

Mr. MACNAMARA said Mr. Laffan's grievance was really not much more than a sentimental one. Ever since he (Mr. Macnamara) had been connected with the governing body of the College of Surgeons, Ireland, there had been a rule that six summer months' attendance in a provincial hospital should count as equivalent to three summer months' attendance in a hospital in Dublin, Cork, Galway, or Belfast; but the registrar of the College could not recollect one instance for years past in which a student had availed himself of the privilege. A somewhat similar rule prevailed in the University of Dublin, and yet Dr. Haughton had told him that during the thirty years when he conducted the medical examinations there he only remembered three cases in which students sought to take advantage of it, and all those students happened to be the sons of surgeons attached to hospitals.

Dr. BANKS said that the Royal University of Ireland accepted certificates of attendance at the county infirmaries.

Dr. LEISHMAN said that the Royal University of Ireland was not a teaching, but simply and strictly an examining body, but the strictures which Mr. Laffan had passed without exception pointed to deficiencies in teaching with which the University had nothing to do.

The report was then adopted, and on the suggestion of Mr. Marshall it was decided to forward it to the Lord President, together with the first and final reports of the Visitation of Examinations Committee.

The next subject was the visitation of medical schools and hospitals.

Dr. HAUGHTON proposed the motion of which he had given notice: "That the visitation of medical schools and hospitals is a pressing question, more especially as regards their requirements and facilities for the practical study of fever and midwifery cases." He said he thought he might have been spared the agony of having his motion blocked. The position of the motion, and of that to be moved by Dr. Glover on the eighth day of the session of the Council, indicated what their fate was destined to be. He asserted, from personal knowledge of the great centres of medical education, that the regulations with regard to the practical study of fever and midwifery cases were simply disgraceful. When he himself was a student, he found that, with very few exceptions, the students never entered the fever wards. There were great centres of education where fever cases were not admitted, and, as a rule, he could prove, when the time came, that the regulations for compelling the reluctant students practically to study fever were a disgrace to the licensing bodies. The new Act compelled the Council to see that the men sent out to practise were competent to deal with fever and midwifery cases. It was, however, impossible to discuss the question at this meeting, and he was quite sure the Council would consider that his proposal, taken in connexion with the motion to be brought forward by Dr. Glover, which was somewhat wider, would be worthy of the most earnest and anxious consideration at a future period. He asked Dr. Leishman to allow him to ask the Council to postpone the question, and not to let the Council disgrace itself by blocking the motion.

Mr. MACNAMARA seconded the motion.

Dr. LEISHMAN objected very much to Dr. Haughton's use of the word "block," and especially to the interpretation attached to it. His reason for giving notice of the previous question was that at the present time not one of the subjects was ripe for discussion, still less for decision. As far as he knew, the attendance on fever was compulsory in the Royal University of Ireland, and in no other licensing body. It could not, therefore, be said, at that stage of the meeting of Council, to be a "pressing" question, seeing that so many years had elapsed, and the Council had never thought it necessary to introduce any regulations on that subject; and, further, he objected to the consideration of these subjects at this moment, because they would undoubtedly give rise to a considerable degree of discussion. He should be the last member at that table to block any

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question which had for its object the improvement of midwifery. He moved the previous question.

Dr. HUMPHRY seconded the amendment.

Mr. SIMON thought the whole subject involved in the motions brought forward by Dr. Haughton and Dr. Glover should be referred to a committee to be called the "Curriculum Committee." In that way very great service would be done to the medical profession.

Dr. BANKS supported Dr. Haughton's motion. As physician to a fever hospital, he knew the extreme difficulty of getting students to attend fever cases. The Royal University was not the only body that required attendance on fever cases; the University of Dublin many years ago required such attendance, and the younger university had followed in its footsteps.

Dr. MOORE thought the final examinations as to fever were not sufficient.

Sir WILLIAM GULL strongly repudiated the idea that there could be any doubt that students were required to study disease, whether fever or any other form. He expressed his surprise that on the other side of St. George's Channel there should be gentlemen who thought that their lives were in danger because they were called to see a case of fever.

Sir DYCE DUCKWORTH pointed out that it was not possible for a student in one of the great London hospitals to see a case of typhus or scarlet fever, and it was only with very great effort that a few diligent and illustrious students could be got to go to the fever hospitals to see them. The fact remained that the great mass of London students were grossly ignorant of these fevers.

Dr. DUNCAN said it was only within the last two or three years that the fever cases had been removed by order of the Government to separate hospitals. These arrangements were new and required new arrangements on the part of the Council, and he hoped that Dr. Haughton would be able to bring forward an adequate scheme at a future meeting.

Dr. HERON WATSON was glad the matter had been taken up by the Council, and hoped that the vote that day would show that the Council considered it their duty to take in hand and carry out their regulations as to courses of study.

Mr. CARTER thought a great deal would be done in the way of supplementing any deficiencies of medical examination by the inspection of examinations which the Council was about to undertake. The only thing to make students desirous of learning any particular subject was the knowledge that questions would be asked upon that subject. With regard to his own special branch of surgery, he found that the very large proportion of students never came near his wards at all; the reason given was that they thought they were practically wasting time in learning something which did not promise to be immediately useful.

Dr. BRUCE thought the Council would be going beyond its province by passing Dr. Haughton's resolution.

After some further discussion the amendment was withdrawn.

Dr. HAUGHTON expressed his pleasure at this course being adopted, as he had felt that the "block" was an offence, though of course it had not been so intended.

Mr. SIMON then moved: "That a standing committee, to be called the Curriculum Committee, be appointed to report from time to time to the Council on questions arising under Section 18 of the Medical Act of 1858, with regard to courses of study; and, secondly, that the motions of Dr. Haughton and Dr. Glover be referred to the committee for early consideration."

Dr. HUMPHRY, in seconding the amendment, said that in his opinion study and teaching would always conform themselves to the examinations, and therefore, if the Council looked well after the latter, the former would be considerably improved.

Dr. DUNCAN thought the proposed committee supererogatory; it would merely be a department of a committee already in existence.

Dr. STRUTHERS also considered the committee unnecessary.

Dr. PETTIGREW was opposed to the amendment. The question of the visitation of schools had been referred to the Branch Councils, and it would not be treating them fairly if a general committee were appointed to supersede them.

Dr. HERON WATSON considered that if the committee were appointed, their only duty would be to constantly harrass the medical schools.

Mr. SIMON said he did not propose a visitation of schools, but only that the committee should have under their cognizance a particular class of questions.

The amendment was put and lost.

Another amendment, moved by Dr. STRUTHERS, to postpone the question until the next meeting of the Council, was carried.

Dr. GLOVER then proposed the following resolution, of which he had given notice: "That a committee be appointed to consider the best methods of increasing the practical element in medical education—as by a system of limited pupilage with a registered practitioner, and insistence on more clinical, therapeutical, and pathological teaching and work in medical schools." He said there were two or three facts which went far to justify him in bringing forward this resolution. The first was a very prevalent impression in the minds of the profession that, whatever might be the accomplishments of the men now leaving the schools, they were not well up in practical subjects, because they had not had opportunities of becoming familiar with the common diseases which made up the bulk of medical practice. He was afraid that the pecuniary difficulties of the hospitals would accentuate this state of things, and that the hospitals might more and more become receptacles for exceptional cases. This showed the necessity of supplementing the general hospitals with other means of instruction. The tables of results of Final examinations pointed in the same direction. The Royal College of Physicians of London in 1885 rejected 152 and passed 242; the Royal College of Surgeons rejected 443 and passed 561; the Apothecaries' Society rejected 121 and passed 235. In Scotland matters were still worse. The Royal Colleges of Physicians and Surgeons of Edinburgh rejected 116 and passed only 91; at the Conjoint Examination of the three corporations there were 74 rejections and 84 passes. In Ireland the Royal College of Surgeons rejected 54 and passed 81; the Royal University rejected 77 and passed 76. He could not help thinking that these figures showed a terrible deficiency in the means of practical teaching. Many of the men so rejected were men of some character, as they had passed the earlier examinations, and some of them were known to be very good men. The favourite explanation of the failures was that the students were to blame, that they had been idle or slow to learn; but such wholesale rejections seemed to require a far deeper and more thoughtful explanation. Probably it would not be far wrong to divide the blame between the candidates, the teachers, the schools, and the Medical Council, which had not made stronger recommendations as to the need of practical teaching. It was notoriously true of many of the best schools that there was a great disproportion between the clinical field provided and the number of students. There were some great opportunities for practical teaching which were not utilised. First, there was private practice. Many practitioners who had had good masters, as he had, believed in some modification of the old system of pupilage, where common diseases and common remedies became familiar to the students, and he believed that great good might be done by bringing private practitioners into co-operation with medical schools. Then there were the workhouse infirmaries, which would supply a field of enormous value, containing, as in London they did, numbers of common diseases and some which were uncommon. Some of the medical officers there were developing branches of pathology in a surprising way. There was also a great deal of midwifery in the workhouses, and the number of surgical cases was very considerable. Dr. Glover dwelt at length on the necessity for more practical teaching in midwifery. He said that many of the examining bodies contented themselves with requiring attendance on only six cases. He hoped that if the committee were appointed they would see their way to recommend the examining bodies to require such an education in midwifery as would guarantee the actual observation of the operations and complications of midwifery.

Dr. CHAMBERS seconded the motion. He said he could confirm what had been stated by Dr. Glover about the general feeling in the profession as to the incompetence of recently passed candidates. A few years ago statements were made by those who employed them that they were compelled to do

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so because qualified men were not competent. He considered that the blame rested with the Medical Council in consequence of the arrangement of their curriculum. In the final examination a man was called upon to pass in subjects which he had learned in the lecture-room some time before, the intervening period being supposed to have been spent in clinical study. The consequence was that if he did study clinical medicine he got plucked in his proper work. A remedy might be found in the multiplication of examinations. A man might be allowed to pass in the principles of medicine, surgery, and midwifery, and after a certain time he might be examined in art.

Mr. WHEELHOUSE supported the motion, regarding the subject as one of extreme importance. If a committee were appointed to consider it, and bring up a report, the Council might afterwards be able to arrive at a just decision upon it.

Sir W. GULL supported the motion. Hospitals taught morbid anatomy, and pathology founded upon it; but there was a very wide area of pathology which had no morbid anatomy, and which could only be studied in private practice.

Dr. HERON WATSON explained that the number of rejections at the final examination of the Royal Colleges in Edinburgh was due to the fact that many of the men were inefficient, remaining over from the old state of affairs. Some of them had come up as often as six times, but they could never do so again. In the University of London there was a still higher percentage of rejections.

Dr. STRUTHERS suggested that the students might be connected with practitioners after they had passed.

Dr. HUMPHRY said the real difficulty in connexion with the clinical teaching was the enormous amount of preliminary work which was laid upon them.

The motion was carried unanimously, and a committee was appointed consisting of Mr. Wheelhouse, Dr. Chambers, Mr. Mitchell Banks, Dr. Haughton, Mr. B. Carter, Mr. Teale, Dr. Fergus, Dr. McVail, Sir W. Foster, and Dr. Glover.

On the motion of Dr. HERON WATSON, seconded by Mr. MARSHALL, the thanks of the Council were voted to the Directors-General of the Army and Navy Medical Departments, with a request that they would continue to supply the Council with the number of candidates referred to in their respective lists who had two or more qualifications, and the number of those who were passed or rejected.

A table prepared by the Registrar, showing the number of candidates and the rejections per cent. at final examinations in the years 1883 to 1886, was received, and entered on the Minutes.

This concluded the business of the session.

"GENESIS OF THE ELEMENTS."

THE wonderful hypothesis in regard to the evolution of chemical elements which Mr. Crookes produced at Birmingham last August, in his address as president of the Chemical Section of the British Association, was again unfolded by him the other day, in a Friday evening lecture at the Royal Institution. Some slight variations were introduced, and a number of magnificent experiments aided the audience, but substantially the hypothesis stands as it did when we presented a sketch of it in the autumn. It starts, it will be remembered, from the diagramatic, and, so to speak, symbolic expression which Professor Emerson Reynolds devised for the illustration of the periodic law of Newlands. A pendulum, with a pencil attached to its weight, is supposed to be falling slowly to rest, and at the same time to be sinking bodily downwards. The pencil would mark on a vertical sheet of paper a zigzag line of decreasing amplitude. If a perpendicular line were drawn down the middle of the paper, the zigzag line would cross it repeatedly, sometimes approaching and sometimes receding from it. This swing and simultaneous fall of the pendulum denote two opposite forces, which may be supposed to have co-operated in the genesis of elements. Imagine a uniform elementary matter, which Mr. Crookes, for convenience, calls *protyle*. This is at an enormous and unknown temperature, but at some period inconceivably remote, and before the birth, not only of suns, but of all known kinds of matter, cooling began, typified in the diagram by the gradual perpendicular fall of the pendulum. Simultaneously there comes into play some other force—perhaps electricity—which is denoted by the horizontal and gradually diminishing swing of the pendulum. Now, if the symbols of the elements are marked at regular intervals on the zigzag in the order of their atomic weights, it is seen that they fall into octaves, or series of seven. On all parts of the line receding from the perpendicular electro-positive elements occur, and their valency increases steadily. Thus, starting from hydrogen, we find lithium, glucinum, boron, and carbon as the first four. As the pendulum swings back and approaches the perpendicular, we find nitrogen, oxygen, and fluorine, and then, on the receding half, sodium, magnesium, aluminium, and silicon, the eighth from carbon. The whole diagram exhibits the periodic law with remarkable distinctness, and, apart from the use to which Mr. Crookes puts it, will have great value to teachers. Mr. Crookes suggests that by the operation of forces typified by the great cosmic pendulum the atoms have been developed from protyle at successive stages of time. Occasionally several very similar elements have been generated instead of one, so that we have the groups nickel and cobalt and the platinum metals nearly of the same atomic weight, and very similar in properties. Space precludes us from giving any adequate account of the mass of ingenious reasoning and experimental illustration which Mr. Crookes has brought to bear upon his hypothesis. Of the experimental portion, the most important and the most original is that which deals with the separation of the very similar and very scarce metals of the yttrium group. By a system of fractionation, which is a marvel of ingenuity and industry, and by the use of the amazingly delicate radiant matter test, Mr. Crookes appears to have found that seven, or perhaps nine, kinds of atoms are present in what we have always called yttrium. He has, in fact, sorted the atoms. Are these so similar, yet not identical, atoms to be taken as separate elements? or, as has before been suggested, is what we call the atomic weight only the average atomic weight—and, if we could weigh all atoms, should we find them to be only very nearly but not quite the same? Science does not as yet afford a positive answer.

THE MARGARET-STREET CONSUMPTION INFIRMARY.

THE following letter has been addressed by the undersigned members of the medical staff to the Executive Committee and governors of the infirmary:—

LORDS, LADIES, AND GENTLEMEN,—After the vote of the governors at the special general meeting on Wednesday last, which enables professed homœopaths to hold office on the medical staff, it has become necessary for the undersigned members of that staff to resign into your hands the appointments which have been held by many of them for a long series of years, under the belief that their services were appreciated and that they wee doing good and useful work for the sick poor; it is therefore with great regret that they take this step, but the action of the governors has left them no alternative. The undersigned took office in the belief that they were connecting themselves with an institution belonging to and governed by the doctrine and practice of established medical science sanctioned by the most learned professors and schools of medicine throughout the world, and which alone is held and taught by our own governing bodies, and they feel that this new departure is equivalent to an abandonment of the same, and that its acceptance would be a betrayal of honour unworthy the members of the noble profession to which they belong.

Thanking you for the confidence hitherto accorded,

We remain your obedient servants,

THOS. HAWKSLEY, M.D.
WM. CHOLMELEY, M.D.
F. CARR BEARD, F.R.C.S.
R. FEATHERSTONE PHIBBS, M.R.C.P.
JULIAN WILLIS, M.R.C.P.
ROBERT WALFORD, M.B.
SCUDAMORE K. POWELL, M.D.

Feb. 23rd, 1887.

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THE LANCET.

LONDON: SATURDAY, FEBRUARY 26, 1887.

THE General Medical Council will this week finish their sitting, and they may congratulate themselves on the quantity as well as on the excellence of the work they have accomplished. The subjects they have had under their consideration are of much moment to the profession, and they have wisely construed in a liberal sense their duties in relation to them, and have not limited themselves merely to carrying into effect their statutory powers.

The demand of the Apothecaries' Society of Dublin for the appointment of assistant examiners, which we discussed in our last number, was followed by a similar application from the London Society, and with the same result. The statement of the Society's case by Mr. BRUDENELL CARTER made it a matter of difficulty to refuse their immediate request for the appointment of assistant examiners, and effectually disposed of any probability that it would not be eventually complied with. He drew attention to the services the Society had in the past rendered to medical education, and to the rights conferred upon them by the Medical Act of last year. His plea was in no sense one *ad misericordiam*, but was a demand for justice, with which the Society is certain to meet. An amendment by Dr. STRUTHERS and Mr. TEALE was, we are glad to say, carried by a large majority, and the Council have urged upon the three London Corporations, "in the interests of the public," the desirability of combining for the purposes of holding one licensing examination. The willingness of the Apothecaries' Society to join with the other bodies was amply vindicated; the refusal has come from the Colleges alone; and the Society would still combine, although they would not be prepared again to take the initiative. Nevertheless, the effort is worth making, and the opinion the Council have formed will, we trust, meet with the respect it deserves.

What will be the result of this further opportunity for the avoidance of competing examining bodies, which is thus afforded by the action of the General Medical Council, time alone will show. But the profession will regard with satisfaction the fact that the Council have shown themselves alive to its best interests, and that, whatever the outcome of this proceeding, they have been willing to utilise every power they possess to prevent the existence of conditions which will militate against the prosperity of the profession, and which the legislation of last year was mainly enacted to prevent. In these endeavours they have been warmly seconded by their President, Sir HENRY ACLAND, who has not hesitated to place his great personal influence at their disposal, and who has freely undertaken to be the means of communicating the Council's views to the corporations in London and in Dublin, whom it is hoped to persuade. Until the final decision is known, the hope will still be entertained that the bodies may take the higher view of their duty, and may be willing to make some sacrifice in a matter which so closely concerns the welfare of the profession and the interests of the public. A journey to Ireland and the labour these communications will involve are no light undertakings for Sir HENRY ACLAND, and the profession will recollect with gratitude the efforts he has made to give effect to the resolution of the Council. His action must undoubtedly impress the corporations with the importance which the Council attach to the principle of unity, and will, we think, remind the Colleges both of London and Dublin that Mr. SIMON is not exceptional in his opinion that "in proportion as they feel themselves higher and stronger than the Society of Apothecaries they are bound to adopt the course which is recommended to them—*noblesse oblige*."

It is conduct such as this that has won for Sir HENRY ACLAND the esteem both of those who have shared his work and those who have been but the witnesses of his labours. It will therefore be a cause of general regret that he has felt the necessity of curtailing the demands upon his strength which the business of the Council incessantly makes. During the many years he has, as a member of that body, and subsequently as its President, influenced its proceedings, he has unswervingly kept before his mind the advancement of the profession with which he is associated. For this reason we fully sympathise with his colleagues in their desire to do honour to him at the close of a long and useful career. The admirable bust which they have presented to him, and which will serve in the future to remind the Council of their former President, is a marked expression of the estimation in which his services have been held by those who are best able to appraise them at their true value. Placed, through Sir HENRY ACLAND'S courtesy, in the Council chamber, it will be a permanent record of their appreciation of his worth, to which Professor HUMPHRY bore eloquent testimony. It is a source of satisfaction that Sir HENRY ACLAND has not yet absolutely severed his connexion with the Council, and that he has consented to remain for a short while in office until the important business he has undertaken is accomplished. There could be no more fitting termination to his tenure of office than this present effort to unite the corporations in a duty in which competition should be unable to find a place.

Of other important work before the Council, we must mention the presentation of the final report by the Visitation of Examinations Committee. This report is of so much consequence to the profession that we propose to discuss it at length in a future number. Some other business occupied their attention, but that of greatest interest was undoubtedly the proposals of Dr. HAUGHTON, which related to the provision of better facilities for the study of fever and midwifery cases, and of Dr. GLOVER, that a committee should be appointed to consider the best methods of increasing the practical element in medical education. Mr. SIMON made the happy suggestion that a special "curriculum" committee should be appointed to consider these resolutions, as well as the whole subject of the course of study which it was advisable should be pursued by candidates for the profession. Although the Council did not accept Mr. SIMON'S proposal in the form in which it was placed before them, they adjourned the further consideration of Dr. HAUGHTON'S motion to a future meeting, and Dr. GLOVER'S to a special committee. It is certainly true that medical students

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are not required to, and do not, avail themselves of the opportunities which are afforded by special institutions for the study of infectious disease. But this is not the only subject neglected. Dr. GLOVER'S desire to amend medical education is based upon the fact that young medical men are often found wanting in knowledge of practical details when they are called upon to engage in active practice. It is not at once easy to see how this difficulty is to be overcome. The period formerly passed in a lengthened pupilage being now devoted to studies which obviously fit men eventually for undertaking higher duties, the question to be considered is whether on the whole the gain compensates the loss. There will, however, be general agreement that some effort should be made to supply deficiencies; but whether it should, as Dr. STRUTHERS and Dr. MCVAIL proposed, take the form of improved clinical teaching, or whether, as was suggested, the material in workhouse infirmaries might be utilised, or arrangements could be made with gentlemen engaged in active practice for this purpose, the Committee must consider.

OF all the complications of labour, none is more urgent and more serious than hæmorrhage; and of the causes of hæmorrhage none is more important than placenta prævia. The earliest mention of the condition is to be found in the works of GUILLEMEAU, in A.D. 1609; and next in those of MAURICHAU, A.D. 1668. Their view was that the after-birth was originally situated higher up, but became displaced as pregnancy proceeded, a view which is still extant in the phrase popular among the lower classes and midwives—"the after-birth slipped." The correct view, that the after-birth is firmly planted in its dangerous position, was first illustrated by the necropsy of a woman who died of placenta prævia, and was dissected by SCHALLER in A.D. 1709; and this view was first introduced into the text-books by JOHANN VAN HOORN, A.D. 1715, a pupil of PORTAL. VAN HOORN plainly says that the cause of the dangerous condition is the after-birth, which at the beginning of pregnancy takes its place on or above the os uteri. After LEVRET'S time the main facts with regard to placenta prævia are found generally current.

To write a historical review of the subject from that time to this would consume too much of our space; moreover, it would show occasional retrogressions in knowledge and understanding. At the present time our knowledge, which not many years ago was thought to be pretty complete, has been somewhat disturbed by the study of the "lower uterine segment," to which a great impulse was given by the suggestive studies of LUDWIG BANDL on uterine rupture, pursued by him in search of the explanation of many other problems. BANDL'S views, which need not here be given at length, were many times modified by their author, but the result of the discussion and observations which they have excited has been to show that during labour the uterine body becomes differentiated into a retracting and ever-thickening fundus, a stretching and ever-thinning "lower uterine segment," and the cervix. It is not yet, however, finally settled what is cervix and what is "lower uterine segment." The lowest part of the retracted fundus is felt after labour as the bottom of the hard uterine cricket-ball; below it come the cervix and "lower uterine segment," hanging loose, apparently unretracted and passive, like a piece of flabby hose. The question is not yet settled why, if this lower uterine segment is the site of placenta prævia, *any* woman escapes flooding to death after this complication. Meanwhile it is possible that, though it feels flabby, it may be physiologically retracted to an extent sufficient to control hæmorrhage. Having said thus much, we will proceed to be more dogmatic.

And first we would say that the utterances of the text-books on this great subject are most unsatisfactory, being overloaded with detail both as to pathology and treatment, and generally "hedging" each statement with a timidity and uncertainty which appears in the answers of students in examination, and in the treatment of practitioners. It would be worth all the writing which occupies so many pages, and leaves us at the end as uncertain as to the author's views as we were, at the beginning, to enunciate a few great propositions, and to get them well absorbed by those whom we have to teach. We will give some of them.

1. The bleeding comes from the placental site.
2. The cause of the bleeding is the detachment of the placenta.
3. The cause of the detachment of the placenta is the expansion of the lower uterine segment, which the placenta is unable to follow.

This will be seen to be equivalent to saying that before labour there is no bleeding. This is generally, but not always, true. We are obliged, therefore, to remark that the beginning of labour is not always synchronous with the beginning of the "first stage" of labour, but begins with the dilatation of the os internum, which may precede the "first stage" by days or even weeks. Also that the bleeding in placenta prævia is often due to the same causes as operate in "accidental hæmorrhage," acting, indeed, with additional advantage on account of the low site of the placenta and the consequently heavier column of blood which the utero-placental vessels have to support under these conditions.

Having plainly stated the main great facts, which are worth all the rest put together, and which should be always taught dogmatically and almost like aphorisms, we now proceed to the question of treatment, for a plain statement of which the student looks in vain in even the most recent text-books, and which seems to us capable of at least an attempt at formulation. We would first remark that a certain number of cases of placenta prævia progress favourably to a safe termination, and require no interference. This is of course more likely when only part of the placenta is situated on the area of necessary detachment, but it is not unknown where the placenta is central—that is, implanted across the os internum. In such cases the child has been known to be born by strong contractions, wearing the placenta like a cap on its head. On this the well-known treatment of SIMPSON—the complete detachment of the placenta by the hand,—and its modification by BARNES—partial detachment,—were founded. It is to be remarked that SIMPSON'S treatment was founded on an interpretation of the phenomena which implied that the woman was delivered safely because the placenta was detached, whereas in our opinion such cases only show

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that the uterus acted with unusual vigour, shortening the dangerous period and producing good retraction, which, as is well known, is the only safeguard against bleeding. Detachment of the placenta apart from vigorous uterine action is only an increased element of danger. But most cases of placenta prævia do require prompt and wise interference, and to wait for their spontaneous termination would be as wrong as to wait for some form of spontaneous expulsion or evolution in a cross-birth. Treatment, to be rational, must be founded on the pathology and natural history of diseases; in other words, it must take cognisance of the causes of death with a view to avoiding them, and of the manner in which Nature deals with them when she does so successfully. We come, therefore, to enunciate two more great principles.

4. The great dangers of placenta prævia are: (*a*) bleeding before and during labour; (*b*) bleeding after delivery; (*c*) septic processes.

5. The great safeguard against bleeding before, during, and after delivery is uterine retraction.

We come, therefore, to consider how the dangers arise, how they may be avoided, and how retraction may be secured.

The cause of bleeding before and during delivery has already been touched on. It is detachment of the placenta by dilatation of the placental site. The causes of bleeding after delivery are mainly two—imperfect retraction, and laceration of the cervix and lower uterine segment, which is of course unusually vascular. This also predisposes to sepsis. The causes of sepsis are three—the low situation of the placental site, bringing it nearer to the outer world and nearer to the accoucheur's fingers, lacerations, and perhaps also imperfect retraction of the lower uterine segment. The great object, therefore, with a view to avoiding and controlling hæmorrhage, has been to produce uterine contraction and retraction; and to do this directions have been given to empty the uterus as soon as possible. The condition of the cervix, which, though soft, is often loth to dilate (probably in connexion with the abnormal position of the placenta, which disorders the polarity), has rendered it impossible in many cases to affect this without forced delivery (*accouchement forcé*), which consists in thrusting in the hand and dragging out the fœtus by the feet. This is a most dangerous proceeding, and generally takes the practitioner out of the frying-pan of ante-partum hæmorrhage into the fire of laceration, post-partum hæmorrhage, and blood-poisoning.

Delivery by the head is not suitable for cases of dangerous placenta prævia. No aid can be given till the labour is so far advanced as to be practically over so far as the danger of bleeding is concerned. A sixth proposition may now be enunciated:—

6. The great treatment for placenta prævia is turning by the feet.

Our readers will perhaps say, "and extraction." But here we must make another statement—namely, that this is usually unnecessary.

7. It is found practically that as soon as turning has been effected and the leg brought down the bleeding ceases.

The explanation usually given for this is that the presenting part plugs the bleeding site; but it is not certain whether this explanation is correct, or whether the arrest of bleeding is not rather due to the retraction which partial emptying of the uterus effects. It follows, therefore, that—

8. After the leg is brought down, the case may generally be left to nature.

THE *Saturday Review* has favoured the medical profession with some very flattering remarks *à propos* of Sir HENRY ACLAND'S address at the Medical Council. We are rising in knowledge and capacity, both socially and politically. Our social advancement is evidenced by the surprising increase that has taken place in the number of medical men who have been commissioned as county magistrates, and even sent to Parliament, that Valhalla of respectability, during recent years. Our political enlargement and ennoblement is partly indicated by, and partly due to, the fact that while the landlord and his agent and the county parson are losing ground, "the county franchise has placed 'the doctor' in more immediate contact with the great mass of voters, and brought them more immediately within the sphere of his daily influence." We confess that it is not easy to realise the force of this reasoning; but let that pass. It is at least something to our credit that we did not conspire with the *prolétariat* when both ourselves and the people were out in the cold together. It is perhaps a little humiliating to find that one of the best grounds of hope in our political future is, according to our contemporary, to be found in the fact that, while we are as benevolent as the squire and the parson, we have no land, and are not involved in questions of property which would place us at a disadvantage or breed ill-feeling between us and the voters. This is a left-handed kind of compliment, but we may endure it patiently—the more patiently, perhaps, because it is coupled with the avowal that the classes we are supposed to have displaced are a little afraid of us. "The country doctor has come into the possession of a power—what will he do with it?" is the burden of the *Saturday Review's* lament. "The profession as a whole is strongly conservative, although, as is usual with all other professions, some of its most active and conspicuous members have strong tendencies the other way. In political matters," continues our contemporary, "it is not necessary that medical men should act in one body, *as there is some fear of their doing*, but each man should identify himself with the local organisations, and thus exert his individual influence for the general good of the country and of his own locality." The terror of "the classes" is, then, that the medical profession will constitute a political organisation of itself. We hasten to assure the *Saturday Review* that there is not the least peril of such a calamity. Medical men are quite as individual in their opinions and tastes, privately and politically, as the persons engaged in other callings. We fail to perceive the slightest fear of any abuse of power arising out of the fact that a few members of our profession have been placed on the Commission of the Peace, and here and there a medical man has secured a seat in the House of Commons. We do not admit that it would be a *very* terrible evil, in a social sense, if even a larger number of practitioners of medicine had achieved socio-political greatness, but looking to the extreme paucity of the list of medical men who write M.P. or J.P. after their names, nothing but needless timidity can give rise to the fear of

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a medical confederacy exerting influences injurious to the best interests of the community. Our contemporary may dismiss this cause of anxiety in so far as it can be rationally held to have any real existence. That something may have been gained in politico-social prestige by the medical profession as a body during the last fifty years is indeed possible, but the reflection can scarcely have been suggested by Sir HENRY ACLAND'S address, for the President of the Medical Council is of opinion that the internal struggles, not to say wranglings, of medical men in connexion with the development of the work of education have not tended to advance the interests of that body either socially or politically, but, on the contrary, that there has been "some loss of character to our profession." We fear the President is nearer the truth than the *Saturday Review*. In fact, we are in nowise puffed up with pride at our present position, and we do not think the profession is *in excelsis*. There is much—very much—to be accomplished before a body of men so well qualified to play an important part in the business of government and to advance the best interests of the nation, as the medical profession undoubtedly is, can properly assert and make good its really strong claims to public recognition. Had there not been extraordinary, and, as it would appear, inexplicable blundering in our policy, we should long ago have writ the maxim *Salus populi suprema lex*, which the *Saturday Review* adopts as the text of the remarkable article to which we are alluding, so large on the annals of our country that no question could possibly be held to exist as to the adequate recognition of the profession by which *salus populi* is chiefly promoted. There is, in truth, something astounding in the neglect and contumacy with which medical opinion is treated by statesmen in this country. The affectation of superiority on the part of the commercial sections of the community, tolerated by the common sense of the people, is one of the most convincing proofs that we, of England, have as yet no solid ground for the pretension to a front place in the intelligence of nations. In no other of the more enlightened nationalities are medical men so lightly esteemed or so grudgingly recognised as a power in the State as in our own country, the felicitations of the *Saturday Review* notwithstanding.

Annotations.

"Ne quid nimis."

THE FELLOWS AND MEMBERS OF THE COLLEGE OF SURGEONS.

It will be remembered that at the general meeting of the Fellows and Members of the Royal College of Surgeons in November last, the following resolutions were carried by overwhelming majorities:—1. That in the opinion of this meeting it would conduce to the welfare of the Royal College of Surgeons, and would tend to promote the interests of medical polity and education—(i.) if Members of the College were empowered to take part (separately or conjointly with the Fellows) in the election of members of the Council; (ii.) if Members of the College were eligible to sit in the Council, provided (*a*) that no Member of the College shall be entitled to vote till he have been such Member for a period of ten years; (*b*) that no Member of the College shall be eligible to sit in the Council till he have been such Member for a period of twenty years; and (*c*) that not more than one-fourth of the Council shall consist of Members of the College who are not also Fellows. 2. That, with a view to give effect to the recommendations in the foregoing resolution, the Council is hereby respectfully requested to empower certain members of its body to meet and confer with representatives of the Association of Fellows and of the Association of Members, together with, if necessary, an equal number of Fellows and Members who may not belong to either of the associations, to be selected in any manner satisfactory to the Council. The Council of the College, at a meeting in January of this year, appears to have taken these two resolutions into consideration with the result that the following motion was carried: "That, although the Council is not prepared to give effect to the recommendation contained in the first resolution carried at the meeting of the Fellows and Members held at the College on Nov. 4th, 1886, the Council is prepared to act upon the second resolution, so far as to appoint a small committee to confer on the subjects of the first resolution with representatives appointed by the Association of Fellows and the Association of Members." We now hear that a joint meeting of delegates from the two Associations has been held to consider this resolution of the Council, and that they have unanimously passed the following resolution:—

"That considering that the Council has laid down as a condition of a conference that it is not prepared to give effect to the recommendation contained in the first resolution carried at the meeting of Fellows and Members held at the College on Nov. 4th, 1886, no useful purpose is likely to be served by a conference on these subjects with representatives of the Associations of Fellows and of Members; but if the Council will withdraw this condition, both Associations will be happy to appoint delegates to meet a committee of the Council."

This resolution was forwarded to the College of Surgeons, and will, we understand, be brought before the Council at its next meeting on March 10th. The Council of the College must have strangely misunderstood the significance of the resolutions of the Fellows and Members, or it would scarcely have passed the resolution we have just referred to. For, on the face of it, a conference with delegates from the two Associations could be of no use, seeing that the Council has already agreed *not to accept* the recommendations made to it. After having heard the questions fully discussed in public meeting, a few delegates from the two Associations could hardly have added anything new or weighty to the arguments already advanced, and hence no good could possibly have resulted from a conference *after* the Council had decided not to move in the direction asked for by the general meeting. The Associations have very properly declined such a meeting, and matters, we presume, must now take their course. The petition of the Members now contains nearly 5000 signatures; the sooner it is presented the better its chance of being favourably considered.

PAROXYSMAL HÆMOGLOBINURIA IN SWEDEN.

DR. R. BRUZELIUS, writing in the *Nordiskt Medicinskt Arkiv* on paroxysmal hæmoglobinuria, gives an account of the only three cases he has seen in the course of a long period of practice. These are the only ones which have been published by a Swedish practitioner, and in Norway only two cases have been reported. Of all countries, England, he remarks, appears to have produced the greatest number of instances of this affection. The first case is that of a woman who, at the age of twenty-seven, after exposure to cold, experienced slight rigors, pain in the sacral region, pruritus, and urticaria. These attacks returned the next four years, and then there occurred a very marked attack, with a rigor, urticaria, jaundice, and hæmoglobinuria. Subsequently

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similar attacks were noted, the severity of which appeared to be directly proportional to the amount of exposure to cold which caused them. The patient was peculiarly sensitive to cold—e.g., the contact of the hand with the cold window for a few minutes brought out urticaria, with pricking and itching sensations. During the attacks there were marked crises, with rigors, pyrexia (39·5° C.), sweats, pain in the sacral region, urticaria, jaundice, and highly coloured urine containing hæmoglobin, casts, and albumen, but no red corpuscles. At the end of from three to eight hours the fever disappeared, the urine regaining gradually its normal characters. There were also other attacks of a milder nature. The microscopic examination of the blood during the attacks failed to discover any evidence of the destruction of the red blood-corpuscles, while the spectroscope revealed the presence of hæmoglobin in the plasma. Twelve years after the first attack the author saw the patient again. She had not had any marked attack during the previous three years, having carefully avoided all exposure to cold. The second case was that of a man aged fifty-two, who five years previously had been seized with an attack of hæmoglobinuria after exposure to cold air, and who subsequently always suffered from similar attacks on any exposure. No treatment proved of any avail. The man died ultimately of disease of the heart. No signs of syphilis could be detected. The third case was that of a man aged seventy-one, who had had this disease for two years. He died of acute pneumonia. Dr. Bruzelius considers paroxysmal hæmoglobinuria to be a blood disease, the destruction of the corpuscles taking place in the organs of circulation, and not only in the kidneys, as was supposed by Rosenbach. In each case the immediate cause of the hæmoglobinuria was refrigeration of the body. Other observers have, however, reported fatigue as the cause. Murri and Schumacher look upon syphilis as the real cause of the disease, but in only one of the present cases was there any sign of syphilis.

UNIVERSITY COLLEGE AND A TEACHING UNIVERSITY FOR LONDON.

THE annual general meeting of the members of University College, held on the 23rd inst., was rendered especially important by the adoption of the resolution passed by the Council, or governing body, of University College in favour of "the organisation of a Teaching University in and for London, with Faculties of Arts, Sciences, Medicine, and Laws," and the defeat of the recent resolution of the Senate, or professorial staff, in approval of an "application for the grant of a Charter to an academical body, of which University College should be the first constituent, such Charter to give the right of conferring degrees in Arts and Science only." Professor Lankester has strongly urged the adoption of the latter course, by common agreement with King's College, if the authorities of that institution so desire, and the precedent of Victoria University is in its favour, but his colleagues are obviously more desirous of obtaining the wider opportunities afforded on the basis originally laid down by Sir George Young's organisation. We fear lest the scheme may lose in intensity and cohesion whatever it may gain in other respects, by throwing the net so wide. It seems to us that a conjunction of the Arts and Science Faculties of King's and University Colleges (reserving power for the after-admission of other bodies and colleges) might have formed a combination with the Royal Colleges of Physicians and Surgeons as a Medical Faculty, which would have served as an admirable basis for a true academical university. For some such plan very strong support from without as well as from within the profession would have been forthcoming, and legal difficulties which might hinder the obtaining of a Charter for the two Royal Colleges only for granting medical degrees would easily have been overcome. A greater difficulty will probably be experienced in a combination between the Royal Colleges and the Executive Committee of a Teaching University, which has no real existence except in the Faculties of King's and University Colleges, than by the more direct and simple plan. The Royal Colleges are not likely to yield the control of medical teaching and medical examinations to a third body, over which they will only be able to exercise an indirect and a limited authority, and this will be the great obstacle to Sir G. Young's scheme, and far outweigh the considerations involved in the hostility of the University of London towards the more definite proposition. The Council of Legal Education has shown no desire to be approached by a body desirous of giving degrees in Laws; and we can scarcely expect the Colleges of Physicians and Surgeons to look more kindly on it when proposing to control the conditions for the conferring of degrees in Medicine. Some compromise must be arrived at by the executives of the two organisations, and the Crown will look more favourably on a united application for power to confer degrees in all Faculties than on two separate, and to some extent antagonistic, proposals—one in all Faculties, and the other only in Medicine.

PROFESSOR VIRCHOW ON MYXŒDEMA.

IT is a curious and interesting fact that the condition with which we have been familiar in this country for the past ten years under the name "myxœdema" is almost unknown in Germany, the home of scientific medicine. The clinical characters of the condition are so obvious that it was a matter of some surprise when Dr. Ord first formulated them (following, it will be remembered, Sir W. Gull's observations on the "Cretinoid State in Women") that the cases should have been overlooked. To German physicians the present state of ignorance is the more significant, as it indicates a lack of knowledge of English literature, which is hardly reciprocated. In France the subject has been more studied, and M. Charcot some years ago suggested the alternative title of "cachexie pachydermique" as descriptive of it. Professor Virchow has, therefore, done a real service in introducing the subject of myxœdema to the Medical Society of Berlin, of which he is President (see *Berl. Klin. Woch.*, 1887, No. 8). He said that although the London Clinical Society had collected details of 110 cases, and many had been published in France, there were records in Germany of but two or three cases, and these of quite recent date. In his visit to London last October he enjoyed opportunities, especially at St. Thomas's Hospital and the Brown Institution, of becoming familiar with the disease; and his address was largely taken up with the interesting subject of its pathology as investigated by Professor Horsley. He had been convinced from inspection of Professor Horsley's preparations of the truth of his statement that lymphoid tissue occurs in the thyroid body; but, although accepting the fact that the blood in the thyroid veins is 7 per cent. richer in leucocytes than that in the corresponding arteries, he hinted that this difference may be explained by the slower current in the veins, and did not consider the lymphoid tissue to be adequate to entitle the organ to be considered of hæmopoietic nature. As to the nature of a myxœdema, he pointed out that adipose tissue, when atrophying, undergoes mucoid change—a reversion to the fœtal state; but that myxœdema is not a mere atrophic change. On the other hand, it is the outcome of an active process of cell growth in the cutaneous and subcutaneous connective tissue, with increased bulk, whilst the superficial layers of the cutis

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are not involved. It resembles an inflammatory rather than an active process, and he was reminded of the similarity to the condition of phlegmasia alba dolens, or pachydermia. The experimental and chemical researches of Horsley and Haliburton, which prove that extirpation of the thyroid is followed by an increase of mucin in the blood, tissues, and secretions—a condition of "myxœmia"—form a distinct advance in the knowledge of the subject; but Professor Virchow expressed himself with caution upon the theory of the function of the thyroid propounded by Horsley upon these results. Nor does the histology of myxœdema bear out the notion of its being mainly a condition due to retention of mucin; on the contrary, it points to an active irritative process. Professor Virchow next passed to consider the relations between myxœdema and cretinism, and again cited Professor Horsley's experiments on monkeys, which in a few weeks after thyroidectomy passed through a series of stages — neurotic, mucinoid and atrophic — to death; and where, after exclusion of any nerve lesion, the phenomena were attributed to perverted nutritional changes. He called to mind the ill effects, noted long ago, of the too rapid wasting of the thyroid under treatment of goitre by iodine—effects attributed by some to iodism, but considered by Virchow himself (*Geschwülste*, i., 114) to be due to the "goitrous cachexia." He discussed the association between goitre and cretinism, and between so-called "congenital rickets" and cretinism, with especial reference to myxœdema, adducing some interesting facts, such as that of two infants, subjects of "congenital rickets": one presented the characters of myxœdema, and had an abnormally large thyroid; the other was small and atrophied, having no myxœdematous characters, but having extreme atrophy of the thyroid, such as described by Ord in myxœdema. He also referred to Küster's observation upon "cachexia strumipriva," and glanced at the subject of exophthalmic goitre, more by way of contrast than as illustrating any relationship between Graves' disease and myxœdema; and he concluded by admitting that although the part played by the thyroid body in myxœdema was not yet proved, it was a subject worthy of careful study. Professor Ewald, who spoke on the conclusion of Professor Virchow's paper, preferred "cachexia pachydermica" to the term "myxœdema," and suggested that in Horsley's experiments the increase of mucus in the salivary secretion was attributable to injury to the sympathetic during the operation of extirpation of the thyroid. He mentioned that recently Schiff and Herzen had observed spasmodic affections suggestive of cortical irritation to follow extirpation of the thyroid, whilst Albertoni and Tizzoni had noticed a great diminution in the blood-capacity for oxygen; and he considered that such varied results proved how far we are from a knowledge of the functions of the thyroid. Drs. Wolff and Bergmann also spoke, their remarks being mainly directed to the effect of partial thyroidectomy in producing atrophy of the remainder of the body—a result which does not obtain in experiments on the healthy organ.

THE ASYLUM-BUILDING MANIA IN SCOTLAND.

IT is said of the Scotch that they have a keen eye to economy. No one would think so to observe the growing passion for huge asylums north of the Tweed, if it were not a recognised fact that asylum-building is distinctly a mania. If it were not so, a clear-headed and far-sighted people would never be so infatuated as to squander many hundreds of thousands of pounds every year, as we do, in seeking refuges for the insane, instead of providing hospitals of moderate size for their rapid cure. It is not too much to say that fully one-half of the lunacy in the United Kingdom is really factitious. Our laws and our asylum system directly tend to the cultivation of mental disease in its chronic forms. The obstacles which the law—in its benevolent imbecility—throws in the way of prompt treatment, and the practice of herding the insane in vast caravanserai, and treating them in classes instead of individually, combine to render rapid recovery improbable. There can be no radical change in these respects until fine lesions of the brain are, like coarse lesions, held to constitute ordinary disease. It is the separation of physical disease with mind (i.e., brain) symptoms from physical disease without what are arbitrarily called mental phenomena—albeit there may be delirium, and impulsive or even delusional excitement—that creates the anomaly and entails all the mischief and failure. We heartily sympathise with ratepayers groaning under the influence of "further lunatic asylum accommodation," and only wish they had the courage to put a stop to it.

EXTIRPATION OF THE SPLEEN.

AT the recent congress of Russian medical practitioners, Dr. A. G. Podrez, privat-docent in Kharkoff, read a paper on extirpation of the spleen, including the notes of a case in which he himself had recently performed this operation. The patient was a woman with ague-cake, associated with ascites and extreme cachexia. The operation was performed on the 22nd of November last; the patient subsequently went on well, being able to get up on Dec. 10th. The weight increased and the ascites disappeared. On the 16th, however, she had a rigor, and the urine contained a large quantity of albumen and hyaline casts. Death occurred on the 27th, and was due, as shown by the necropsy, to diffuse parenchymatous nephritis. The total number of cases of extirpation of the spleen collected by Dr. Podrez (including his own) is forty-two. Of these one was performed in 1549 by Saccharelli, and one in 1711. The rest all belong to the present century. If his own case is reckoned as a recovery, the mortality is 73 per cent.; if otherwise, the mortality is 76; the recoveries being twelve or eleven out of the forty-two cases, according as this is or is not reckoned as belonging to that category. The cause of the eleven deaths was septicæmia in one case, peritonitis in one case, and hæmorrhage either during or shortly after the operation in all the others. Dr. Podrez thinks that an improved method of performing the operation is required in order to obviate the tendency to hæmorrhage. It is also to be desired that, by means of further observations, the indications for the operation in cases of enlarged spleen associated with both ague and leukæmia may be defined.

SANITARY SCIENCE.

IN a lecture on Sanitary Science with which Dr. Edward Seaton recently inaugurated his lectures on Public Health at St. Thomas's Hospital, the point was insisted on that the advocacy of cleanliness was not the sole object of sanitary workers. The enforcement of cleanliness has undoubtedly done much to improve the public health, but there is too much tendency at the present time to forget that for the prevention of disease much more is necessary. Our knowledge of its causes is still in its infancy, and until these causes are fully understood it is impossible to define the means by which it shall be prevented. To rely upon cleanliness alone is, therefore, to neglect other conditions which are often far more potent for evil. Dr. Seaton's protest is certainly timely. We freely join with him in the desire to see the doctrine of cleanliness generally accepted, but we none the less accept his view that this is not a panacea for all human ills. Every year emphasises this opinion, and teaches us that many maladies, and especially some of those which are of a communicable character, have less to do with filth as a cause than was formerly supposed.

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The recent investigations of Mr. W. H. Power have shown this forcibly, and lead us to hope that sanitary science has before it much greater triumphs than those which have already been attained. It is not many years ago that the public were taught that all that could be known was already discovered, and that the use of a two-foot rule was now all that was required for the purposes of sanitary administration. It is this view which the public is but too willing to accept; its teachers are not always those who are workers, and it is well that it should be reminded from time to time that sanitary science must necessarily be progressive. We trust Dr. Seaton's protest will be heard outside his class.

THE ROYAL ASYLUM OF ST. ANNE'S SOCIETY.

IN the year 1702, the first year of the reign of Queen Anne, a few benevolent persons, amongst whom were the excellent and pious Dr. Bray and Mr. R. Nelson, formed themselves into a society for clothing and educating twelve boys, the sons of parents reduced to a necessitous condition. In 1790 the St. Anne's Society established a girl's school in connexion with the town establishment. The good work has prospered, and the Society has enlarged its sphere of usefulness and benevolence, so that now the establishment consists of a governess and master, thirty boys, and thirty girls. Besides this town school, which is open to children living within two miles of its building, there is a country asylum, and lately some new schools have been erected at Redhill for the accommodation of 400 children. The institution has special claims on the medical profession, for many of the benefited are the children of medical men. The same kind and generous friend who has already founded three perpetual presentations to this institution for the orphan daughters of distressed medical practitioners has this year added a fourth, and this presentation, like the others, is in the hands of the Royal Medical Benevolent College. The annual festival was held on Tuesday last, and the report of the Committee showed that excellent management prevails, for the institution pays its way, though it is unendowed and without any permanent income. The secretary is Mr. R. H. Evans, and the offices are situated at 58, Gracechurch-street, where donations may be sent.

THE CONTAGIOUS DISEASES ACTS IN QUEENSLAND.

ON Oct. 1st, 1886, a motion for the repeal of the Contagious Diseases Acts in Queensland, which was one of the first of the British dependencies to follow England's example in passing them, was moved in the Parliament held in Brisbane. It was only carried by the casting vote of the Speaker, in a thinly-attended House, there being but thirty-one members present. In consequence of this the Premier of Queensland has wisely, as we think, decided not to act on it, especially as many members were absent who would have opposed the motion. The next session will commence in June, when the subject will again be brought forward. From the report of the proceedings in the official "Parliamentary Debates" it would appear that the opponents raised all the old stale objections, but fortunately those who supported the Acts were fortified with replies to them in the series of articles which were recently published in THE LANCET, enabling the Premier and those who agreed with him to refute completely every one of these objections. It would indeed be unwise were Queensland to repeat the mistake of the mother country, more especially in view of the experience of other colonies. Only last week it was noticed in our columns that the authorities of two of the districts in the southern counties formerly protected by the Acts were about to appoint a deputation to wait upon the Local Government Board with the view of urging upon the President the restoration of the Acts. Reports from all the other districts show that the repeal of the Acts has proved disastrous in the extreme. It has been found necessary to reinforce them in and around the vicinity of Cape Town, in consequence of the fearful spread of venereal diseases, and notably of severe forms of syphilis among both the native and European population. A like result followed the repeal of similar Acts in Malta, Bombay, and other colonial places, and judging from what has been effected by the Acts in Queensland, it is very clear that their repeal would be a retrograde step to be much regretted subsequently. All the arguments were as usual in favour of the Acts; the case of the opposite side was not argument, but sentiment of the weakest character. The question, after all, is—Are common prostitutes in Queensland or elsewhere to be permitted to spread these diseases broadcast without let or hindrance? Those who would answer in the affirmative cannot justify themselves as humanitarians, either to the unfortunate women themselves or to their victims, who, as has been repeatedly shown, are not only vicious men, but innocent wives and children. Those who, on the other hand, would wish to prevent the spread of these loathsome diseases will find no better means of doing so than the Acts of 1866 and 1869, which, so far from being specimens of hasty legislation, as has been so recklessly asserted, give evidence of such care in their framing as to be scarcely capable of improvement.

THE INTERNATIONAL MEDICAL CONGRESS.

WE hear on the best authority that several of the Transatlantic steamboat companies are prepared to make considerable reductions in their fares to medical men attending the International Medical Congress to be held at Washington in September next. The Hamburg American Steamship Company offers a first-class return ticket for £18, whilst the Royal Netherland will provide similar accommodation for £16. The Red Star line will give a return ticket from Antwerp to New York for £20. The Inman line, whose steamers are among the largest and fastest on the Atlantic, will also afford every accommodation to passengers at reduced fares; but the Cunard have declined to entertain the overtures which have been made to them. Ladies accompanied by members will also be taken on favourable terms. The hotel expenses, everything included, need not exceed from twelve to sixteen shillings a day: so that it will be possible for members of the Congress to attend the meeting for about twenty-five guineas a head. Messrs. Thos. Cook and Son, of Ludgate-circus, and 261, Broadway, New York, have issued a circular of round tours through the United States, at fares which are extremely moderate.

WOMEN DENTISTS.

THE Committee of the National Dental Hospital have resolved to admit registered female medical students to the practice of the hospital; moreover, we find upon looking through the Dental Register which is issued by the Medical Council the names of twenty-two women, sixteen of whom are practising in England, two in Scotland, and four in the colonies. All these are registered on the ground of being in practice before the passing of the Dentists Act. The College of Surgeons of Edinburgh have also decided to admit women to the examination for the licence in Dental Surgery, but we believe so far none have applied. The question arises—are women fit to be dentists? A great deal has been written and said recently about the ill effects of those occupations for women which necessitate long-continued standing, and how much worse must it be when to the standing is added the strained and cramped position

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necessitated in stopping, which takes up the greatest part of the time of the dentist of the present day. That the long-continued confined position is a severe strain is shown by the occasional occurrence of neuralgia of the anterior crural or external cutaneous nerves of the leg, which is known by the name of "the dentist's leg." We think that women must often fail in extracting teeth from sheer want of muscular power. Again, in mechanical ideas women are particularly wanting, a fact perhaps due to their training, but nevertheless a fact; and in what department of dentistry does not mechanics play a large part?

WEST DERBY INFECTIOUS HOSPITAL.

THE West Derby Local Board of Health find themselves confronted with a good deal of opposition in their efforts to provide their district with a hospital for the isolation of first attacks from infectious diseases. The difficulty as to site is one that has to be faced nearly everywhere, for such hospitals and similar institutions are never regarded as desirable neighbours. The last phase of the proceedings in West Derby is, however, an unfortunate one, for a body of the ratepayers demand that, instead of having a hospital in their own district, they should send all their cases to the Bootle Hospital. Such a plan is by no means a good one. The principal object which a sanitary authority should hold in view is to secure the earliest possible isolation, and since many people who would willingly enter a hospital in their own district naturally object to be sent off into another for the protection of their neighbours, it is as a rule to be desired that urban districts should possess their own hospitals. This view seems to have been enforced by Dr. Glazebrook at a recent meeting, but some of his remarks were not received with the attention they deserved.

ON RENAL SECRETION IN THE FŒTUS AND THE FORMATION OF LIQUOR AMNII.

KRUKENBERG (*Arch. f. Gyn.*, xxvi., p. 258) reviews the recent contributions to this subject, and defends his own opinion that no constant or considerable activity of the kidneys exists during fœtal life. Wiener, who takes an opposite view, bases his opinion on experiments made by injecting various substances. In one case he injected sulphindigotate of soda under the skin of a fœtus, and found the uriniferous tubules of an intensely blue colour, blue urine being present in the fœtal bladder. Cohnstein and Zuntz, on the other hand, have shown that in fœtal sheep the arterial pressure is scarcely half of what it is post partum, so that the conditions of the circulation are unfavourable to renal activity. Krukenberg replies to Wiener's arguments by pointing out that no conclusion as to physiological processes can be drawn from any experiments by which the fœtus is placed under abnormal conditions, as it is when substances such as sulphindigotate of soda are injected. Krukenberg then proceeds to discuss the question how potassium iodide or other soluble substances pass into the liquor amnii. His earlier view was that at the end of pregnancy iodide of potassium passed through the fœtal membranes into the liquor amnii, and this view was in harmony with the fact that the salt was absent from all the organs of the fœtus except the stomach, into which it could have passed by being swallowed. In his recent experiments, however, he found that the contents of the stomach might give the iodine reaction even when the liquor amnii did not—a result which appeared opposed to his former belief, and suggested the possibility of its passing from the fœtus (through the cord or placenta) into the liquor amnii. But on making further experiments he thinks his original view the most probable, while modifying it to the extent of believing that it is only towards the end of gestation that the iodide passes into the liquor amnii—i.e., at a time when the membranes become permeable. This view is greatly strengthened by comparative experiments made on guinea-pigs and rabbits. He chose these animals owing to the great difference in the thickness of their fœtal membranes, and found that when thick the iodide did not pass into the liquor amnii, while it did so when the membranes were thin. Similar results were obtained from experiments on dogs and cats. Krukenberg was further led to the discovery that amongst the fœtal membranes the ectodermic layers are those that offer most obstruction to iodide of potassium transuding into the liquor amnii, and that it is only towards the end of gestation, when those ectodermic layers become thin, that the salt can pass. His former view—that it passes through the fœtal membranes—is therefore confirmed. The experiments above referred to were made on lower animals, but there is every ground for believing the results to be applicable to man.

THE ETIOLOGY OF FOGS.

MR. JOHN AITKEN'S theory of fogs is gaining credence, and it is certainly one that has much to recommend it. There can be no question that it covers the ground better than any other. As our readers are aware, Mr. Aitken attributes the production of mists, fogs, and rain to the presence of particles of solid matter in the atmosphere. Professor Tyndall was the first to demonstrate how the atmosphere could be filtered, and to show it in a comparatively pure state. Mr. Aitken is of opinion that water vapour clings to and condenses on these particles, either bringing them down as rain, or remaining suspended with them as mist or fog. Chloride of sodium derived from the sea is the most extensive fog producer, but sulphur is the common base of town fogs; and he suggests that it is well that it should be so, because the sulphur has an antiseptic effect on the stagnant air, and saves us from worse evils than fog. This is good news to the sufferers from an annoyance which, if the theory broached be true, cannot possibly be got rid of. There is no special cause of uneasiness as to the sulphur fogs, and, on the whole, they are blessings in thick disguise. We may therefore go on throwing our three hundred and forty-seven tons of sulphur in the air every winter's day in London, not only with impunity, but with something of a sanitary pride in the achievement, because if we did not thus disinfect the stagnant atmosphere matters might be worse with us than they are at present. All the same, if we strained our smoke a little so as to get rid of the dirty carbon, it would be more cleanly, and altogether better for us.

MEDICAL ADVICE THROUGH NEWSPAPERS.

THERE is a growing tendency to the use of newspapers—not religious newspapers only—as media for giving prescriptions and medical advice to the public. Thus, in a letter in the *Weekly Times and Echo*, Mr. T. R. Allinson, L.R.C.P. Edin., "Medical (*sic*) Editor of the *Weekly Times and Echo*," thanks those who have written words of cheer, &c. He is glad to know that he has been of great service in bringing before his readers means whereby they have attained good health. Many have desired to see the worthy licentiate, because they have tried the ordinary drug doctor and have often been worse for their pains. He only asks his readers to help him by circulating the *Weekly Times and Echo*. He tells his readers his hours for consultation. But this is only benevolently to save his time and theirs. In a similar spirit, no doubt, he proposes to educate the people, and the doctors will either have to follow or—lose their incomes! We see indications of the same tendency even in quarters where we should have expected better things. For instance,

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just now in the case of Ealing, where the public has been agitated with a severe outbreak of diphtheria, not only are the local papers flooded with speculations as to the scientific explanation of outbreaks of diphtheria, but some medical practitioners describe their treatment in detail. It may be well to discuss in the newspapers the sanitation of dairies and of cows, but the attempt to describe the niceties of medical treatment is to be deprecated.

THE DANGERS OF CHILD LIFE.

ON the 21st inst. Dr. Tatham, medical officer of health for the borough, delivered an address at Salford on this subject. Of all the children born in the neighbourhood, Dr. Tatham stated that one-fifth die before attaining the age of one year. The proportion of infant deaths per 1000 births for the whole of England and Wales is about 130; in the Greengate district of Salford it exceeds 200. In Salford alone 1200 children die annually from the following causes: measles, 30-40; whooping-cough, 50-70; diarrhœa, 100-200, or more; consumption, 180-200; premature birth, 80-120; convulsions 150-200, lung diseases 100-300; whilst about 100 are found dead in bed, suffocated or overlain. Such a state of things was unnatural, and he desired to secure the co-operation of his hearers in reducing this excessive mortality. Dr. Tatham then discussed the causes of some of the diseases which are particularly fatal to children, and remarked that human life is of more value than that of sheep or pigs, and legislators ought to recognise this, and to see that means are adopted for the protection of human life, not less stringent than those already in force for the protection of cattle.

THE USE OF TOWN REFUSE IN ROAD-MAKING.

A DECISION has been come to by the corporation of Cardiff which is of considerable importance. It relates to the employment of the town refuse in making roadways. It appears that two years ago similar refuse was used in the construction of newly formed roadways in a low-lying district, where it was necessary that the roads should be considerably raised, and, according to the information before us, this is stated to have received the assent of the medical officer of health, subject to the surface and the sides of the roadways being constructed of marine clay, an arrangement intended hermetically to seal in any possible harm that might arise. We have not the full reports to refer to, but, so far as we can judge, the intention to extend this practice was recently preceded by an inquiry by the borough analyst, who emphatically condemns it. He has found that the roads in question, when opened up for the purpose, were wet, full of bacilli, and likely to cause serious evils, and so far from emanations being prevented from passing to adjoining houses, it has to be remembered that the lateral clay band, which rises to the height of the pavements, has to be intersected along its course by drain and other pipes. In short, any such hermetically sealing as was intended is practically impossible. Notwithstanding this, and apparently with the concurrence of the borough surveyor, it is announced in the *South Wales Daily News* that the Council have voted in favour of continuing a similar practice. On the subject generally, we may call to mind the report which was prepared for the borough of Liverpool in 1871 by Dr. Burdon Sanderson and the late Dr. Parkes. They sought to ascertain what was the effect of time on the animal and vegetable matters which in such a town necessarily becomes mingled with so-called dry house refuse, and their object was to advise the corporation how far such refuse might without risk be utilised for the purpose of filling up inequalities in the ground. The results of that inquiry are set forth in a detailed report; but for our present purposes it will suffice to point out that it was ascertained that "the process of decay for all the most easily destructible matters," including vegetable refuse, "is completed in three years," and the conclusion is drawn that "the vegetable and animal matter contained in the cinder refuse decays and disappears in about three years, and is virtually innocuous before that time." Faecal matter is not referred to in this connexion, and there was, of course, no attempt to hinder the process of decomposition by any clay seal, hermetical or otherwise. Possibly, this conclusion may aid the Cardiff corporation in arriving at a decision which will still enable them to utilise the materials referred to, and yet to do so without risk of causing injury to health. If such refuse could be properly stored at some depôt for a period bordering on three years, it is probable that at the end of that time the borough analyst would no longer object to its being used for the purposes indicated.

CHOLERA IN AUSTRIA-HUNGARY.

So far, there is no further report on the recent recurrence of cholera in Austria-Hungary. On Feb. 26th as many as twenty-five cases were stated to have occurred at Essegg, in Slavonia, seven of the attacks terminating fatally. This news was confirmed by further information on the 11th, to the effect that eleven out of eighteen patients had died there on the 10th. Essegg lies on the southern bank of the river Drau, just to the west of its junction with the Danube, and at a point where the river forms the boundary between Hungary and Slavonia. A large number of villages in Hungary were the seat of cholera in 1886, and it has all along been feared that, if any recurrence of the disease were to take place this year, its first appearance would be in this direction.

THE CUSTODY OF PERSONS ALLEGED TO BE LUNATICS.

THE law ought to define the conditions under which a person alleged to be a lunatic and giving trouble to those around, and say *where*, and *how*, he is to be protected during the delay so unwisely necessitated by legal enactment before such a person can be placed in an asylum. Meanwhile, we are not disposed to urge medical practitioners to go out of their way to help magistrates out of their difficulty in dealing with such cases. It would be far better policy, and conduce to the best interests of both the sane and insane, if matters were left to take their course, so that the defects of the law as it stands might, just now, be seen in their true aspect.

EXPERIMENTAL ALBUMINURIA.

SCHREIBER finds (*Arch. f. Exp. Path. u. Pharm.*, 1885-6; abstr. by Sabli in *Fortschritte der Medicin*, 1887, No. 2) that albuminuria may be artificially induced by compression of the thorax, the duration of the compression in young subjects needing to be only one minute and a half to produce the effect. The quantity of albumen is variable, but the time during which the albuminuria lasts varies directly with the duration of the compression. In one case hyaline casts, and in another blood-corpuscles were found in the urine. Schreiber refers the albuminuria under such conditions to stasis of the pulmonary circulation from diminution of the negative thoracic pressure, diminution of the normal difference in pressure between the pulmonary capillaries and left auricle, diminution of the vascular area in the lungs, and corresponding diminution of respiratory changes. In a second paper Schreiber describes the chemical characters of the albumen excreted in these cases, and gives cardiographic and sphygmographic tracings taken before and during the compression of the chest, which show a slight diminution in the fulness

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of the peripheral arteries during the practice. Ophthalmoscopical examination did not show any variation in the size of the retinal vessels. These facts rather tend to throw doubt on the explanation of the albuminuria first offered, especially as no dyspnœa, such as would be expected from pulmonary stasis, is produced by the degree of compression sufficient to induce albuminuria.

FRENCH SURGICAL CONGRESS.

THE third meeting of the French Surgical Congress will be held in Paris in April of next year, the precise date of which has not been fixed, under the presidency of Professor Verneuil. The following questions, amongst others, are set down for discussion:—The treatment of gunshot wounds of the viscera; the value of the radical cure of hernia; and chronic suppuration of the pleura, and its treatment.

COLD AND THE TYPHOID BACILLUS.

DR. JOHN S. BILLINGS sends a note to the *Sanitary Engineer* of Jan. 29th (New York) respecting the influence of cold upon the typhoid bacillus. He found that cultures could be obtained from water which, after inoculation with the bacillus, had been frozen for some hours. Evidently, Dr. Billings adds, the vitality of the typhoid bacillus is not destroyed by freezing.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE following deaths are announced:—Dr. Alois Geigel, Professor of Hygiene in the University of Würzburg, at the age of forty-five. Dr. Richarz, founder of the Bonn Lunatic Asylum, one of the most famous alienists in Germany, at the age of seventy-five.

PORTUGUESE WORK ON RABIES.

DR. EDUARDO ABREU, of the Royal Academy of Sciences of Lisbon, who was appointed by the Portuguese Government to examine into M. Pasteur's treatment of hydrophobia has published a work upon rabies (*a Raiva*), in which, after describing the disease and referring copiously to the writings of observers in different countries, he gives the notes of the cases of Portuguese subjects who were sent to Paris, and also an account of some experiments made on rabbits (obtained from M. Pasteur) by himself. The work is, however, a relation of facts, rather than a critique upon them.

"ERYTHROMELALGY."

THE possibility of what has been spoken of as erythromelalgy being related in some way to a local asphxyia is certainly deserving of consideration. A case of the kind is recorded in *La France Médicale*, No. 14. It is that of a female aged twenty-six, a patient in the Salpêtrière. For eight years she had been subject to hysterical attacks of a classical description. The attacks had diminished in frequency the last two or three years. She had not suffered from an attack for more than three months, when she fatigued herself for several days in succession, after which she commenced to suffer with headache and hyperæsthesia of the skin, and went to bed in an agitated state. The next day her face was of scarlet hue, her eyes were injected, and she had beatings in the temples and violent palpitations, with severe occipital headache. At the same time she experienced smarting sensations on the back of the hands, and on the inner aspect of the thighs and arms. In a few moments there appeared red patches in the before-mentioned parts of the skin; they were discrete, and looked like erysipelas or scarlatina. The patches were irregular, and not raised at the edges. The red skin was dry, and hotter by 1° C. than the unaffected areas. The erythematous areas were not painful, but were the seats of an insupportable smarting. Their duration was about two hours. Their disappearance was followed by sweating and the passage of a large quantity of urine.

RECTAL GASEOUS MEDICATION FOR EMPHYSEMA.

PURSUING the plan of M. Bergeon, MM. Renault and Thierry have employed lavements of carbonic acid gas in the treatment of emphysema complicated with catarrh. The number of observations has been but small. The general method of treatment was the same as that employed for the treatment of phthisis, but the sulphurous water was omitted. The results were remarkably satisfactory, especially as regards the relief of cough and shortness of breath, a daily lavement for a week or a fortnight being the usual course.

FOREIGN UNIVERSITY INTELLIGENCE.

Bordeaux.—The chair of Chemistry is advertised as open to competition.

Berlin.—The temporary charge of the University Clinic for Women in Artillerie-strasse, vacant by Professor Schroeder's death, has been given to Dr. Hofmeier, the chief assistant physician.

Leipsic.—After having met with two refusals, the invitation of the University to fill the chair of Midwifery has been accepted by Professor Zweifel of Erlangen.

Moscow.—The new Clinic for Mental Diseases founded by Mdme. Morosoff has been formally opened.

Zurich.—The number of medical students here is larger than at any other Swiss University, being 241. Berne has, however, the largest number of female students—viz., 42.

THE following are the names of the gentlemen who form the medical staff of the London Throat Hospital recently founded in Great Portland-street, W.:—W. McNeil Whistler, M.D., M.R.C.P.; Edward Woakes, M.D. Lond.; George Stoker, M.R.Q.C.P.I.; W. H. Fenton-Jones, M.D., M.A. Oxon.; W. R. H. Stewart, F.R.C.S.; C. Coleman Jewell, M.B. Lond.; Edward Law, M.D. Aural Surgeon, Dr. Woakes; Pathologist, Dr. Jewell.

WE have been requested to call attention to the fact that the meeting of the Pathological Society next week will be held on Thursday, March 3rd, instead of Tuesday, when the annual meeting of the Royal Medical and Chirurgical Society takes place.

A VOLUME of papers by the late Dr. Moxon, bearing the title of "Pilocereus Senilis," is announced as ready for publication by Messrs. Sampson Low and Co.

DR. E. DRUMMOND of Rome will, we understand, contribute to an early number of the *Fortnightly Review* a paper on the health of that city.

METROPOLITAN HOSPITAL SATURDAY FUND.—The first meeting for the present year of the delegates of this fund was held on the 19th inst., when the certificates of 126 delegates were verified. It was resolved that the ladies' collection should take place on June 25th, and that a series of meetings be organised with a view to securing for the Jubilee year such an amount as shall be worthy of the working classes of London, and testify to their appreciation of the hospitals and dispensaries of the metropolis. Invitations have been issued to the officers of the Hospital Saturday movement in the provinces to attend a conference, to be held either in London or Birmingham during the ensuing summer.

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VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5772 births and 3736 deaths were registered during the week ending Feb. 19th. The annual death-rate in these towns, which had steadily declined in the preceding six weeks from 26·5 to 19·5 per 1000, rose again last week to 21·1. During the first seven weeks of the current quarter the death-rate in these towns averaged 22·1 per 1000, and was 2·3 below the mean rate in the corresponding periods of the ten years 1877-86. The lowest rates in these towns last week were 17·2 in Derby, 17·9 in Salford, 17·9 in Leicester, and 18·1 in Brighton. The rates in the other towns ranged upwards to 25·7 in Plymouth, 25·8 in Liverpool, 28·6 in Manchester, and 29·6 in Preston. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had declined in the preceding five weeks from 485 to 340, rose again last week to 371; they included 125 from whooping-cough, 107 from measles, 47 from scarlet fever, 36 from diarrhœa, 32 from diphtheria, 23 from "fever" (principally enteric), and only 1 from small-pox. The lowest death-rates from these principal zymotic diseases were recorded last week in Brighton, Derby and Leicester; and the highest rates in Bristol, Huddersfield, and Liverpool. The greatest mortality from whooping-cough occurred in Sunderland, Huddersfield, and Plymouth; from measles in Hull, Huddersfield, and Liverpool; from scarlet fever in Salford, Blackburn, and Bristol; and from "fever" in Preston. The 32 deaths from diphtheria in the twenty-eight towns included 15 in London, 3 in Portsmouth, 2 in Birkenhead, 2 in Liverpool, and 2 in Preston. Small-pox caused 1 death in Newcastle-upon-Tyne, but not one in London and its outer ring, or in any of the twenty-six other large provincial towns. Only 4 small-pox patients were under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease. The deaths referred to diseases of the respiratory organs in London, which had been 364 and 373 in the preceding two weeks, further rose last week to 392, but were 149 below the corrected average. The causes of 95, or 2·5 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Blackburn, Norwich, and in four other smaller towns. The largest proportions of uncertified deaths were registered in Brighton, Leicester, Salford, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 19·8 and 22·0 per 1000 in the preceding two weeks, further rose in the week ending Feb. 19th to 24·3; this rate exceeded by 3·2 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 13·7 in Greenock and 14·6 in Perth, to 26·6 in Aberdeen, 27·0 in Glasgow, and 28·2 in Paisley. The 607 deaths in the eight towns last week showed a further increase of 57 upon the numbers returned in the preceding two weeks, and included 32 which were referred to whooping-cough, 25 to scarlet fever, 23 to measles, 14 to diarrhœa, 5 to diphtheria, 4 to "fever" (typhus, enteric, or simple), and not one to small-pox; in all 103 deaths resulted from these principal zymotic diseases, showing a further increase upon the 66 and 76 returned in the previous two weeks. These 103 deaths were equal to an annual rate of 4·1 per 1000, which exceeded by 2·0 the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 19, 23, and 28 in the preceding three weeks, further rose last week to 32, of which 22 occurred in Glasgow, 4 in Aberdeen, and 3 in Edinburgh. The deaths from scarlet fever and from measles also showed a considerable further increase upon recent weekly numbers; the 25 fatal cases of scarlet fever included 16 in Edinburgh, 5 in Glasgow, and 3 in Dundee; of the 23 deaths from measles, 12 occurred in Glasgow and 9 in Aberdeen. The 14 deaths attributed to diarrhœa included 7 in Glasgow, 3 in Dundee, and 3 in Aberdeen. Three of the 5 fatal cases of diphtheria and 2 of the 4 deaths from "fever," were returned in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 126 and 133 in the preceding two weeks, further rose last week to 146, but were 7 below the number returned in the corresponding week of last year. The causes of 69, or more than 11 per cent., of the deaths registered during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 29·7 and 27·3 per 1000 in the preceding two weeks, rose to 35·3 in the week ending Feb. 19th. During the first seven weeks of the current quarter the death-rate in the city averaged 31·5, the mean rate during the same period being but 20·9 in London and 21·8 in Edinburgh. The 239 deaths in Dublin last week showed an increase of 54 upon the number in the previous week, and included 4 which were referred to "fever" (typhus, enteric, or simple), 3 to scarlet fever, 3 to diarrhœa, 2 to whooping-cough, 1 to measles, 1 to diphtheria, and not one to small-pox. Thus the deaths from these principal zymotic diseases, which had been 13 and 17 in the preceding two weeks, declined again last week to 14; they were equal to an annual rate of 2·1 per 1000, the rates from the same diseases being 1·5 in London and 4·0 in Edinburgh. The deaths referred to "fever," corresponded with the number in the previous week, while the fatal cases of scarlet fever, diarrhœa, and whooping-cough each showed a decline. The deaths of infants exceeded the number returned in any previous week of this year, and those of elderly persons also showed an increase upon recent weekly numbers. Five inquest cases and 2 deaths from violence were registered; and 81, or more than a third, of the deaths occurred in public institutions. The causes of 33, or nearly 14 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

THE following is added after paragraph 1244 of the Regulations for the Army Medical Department, 1885:—Whenever a medical officer is required to report, in the case of individuals injured in the Service, upon their capability, or otherwise, to contribute to their own support, the greatest care will be observed by him in forming and recording an opinion, as it is mainly upon such opinion that the important question of granting compassionate allowances or gratuities has to be considered.

Deputy Surgeon-General J. B. C. Reade, C.B., has handed over his charge at Umballa and proceeded on leave of absence, and has been replaced at Umballa by Deputy Surgeon-General J. Landale, M.D.

Surgeon-Major F. A. Turton has been brought in from the temporary half-pay list, and has joined the Northern District for duty at Birmingham in charge of the detachment there stationed.

WAR OFFICE.—Army Medical Staff: The undermentioned Surgeons have been seconded for service with the Egyptian Army: William Henry Phillips Lewis, Aylmer Ellis Hayes, Arthur Maher Kavanagh, and Richard Edward Ricketts Morse.

INDIA OFFICE.—The Queen has approved of the retirement from the Service of the undermentioned officer of the Indian Military Forces: Surgeon-Major John Proudfoot Stratton, M.D., of the Bombay Medical Establishment. The Queen has also approved of the undermentioned officers being granted a step of honorary rank on retirement: Deputy Surgeon-General Charles Planck, Deputy Surgeon-General Alfred James Dale, and Deputy Surgeon-General John Brake, all of the Bengal Medical Establishment, and Deputy Surgeon-General Henry Cook, M.D., of the Bombay Medical Establishment, to be Surgeons-General; Brigade Surgeon James Fairweather, M.D., Brigade Surgeon James Browne, M.D., and Brigade Surgeon Robert Sander Bateson, all of the Bengal Medical Establishment, to be Deputy Surgeons-General; and Surgeon-Major John Proudfoot Stratton, M.D., of the Bombay Medical Establishment, to be Brigade Surgeon.

ADMIRALTY.—The following appointments have been made:—Surgeon John N. Corbett, to the *Orwell*; Mr. Patrick J. Sheridan to be Surgeon and Agent at Kilmore; and Mr. George C. Dickson to be Surgeon and Agent at Whitehaven.

ARTILLERY VOLUNTEERS.—1st Banff: Acting Surgeon James Hitchcock, M.B., resigns his appointment.—1st Volunteer (Hampshire) Brigade, Southern Division, Royal

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Artillery: Surgeon Burford Norman is granted the honorary rank of Surgeon-Major.—1st North Riding of Yorkshire: Friend Edward Streeten, Gent., to be Acting Surgeon.

ENGINEER VOLUNTEERS. — The Volunteer Submarine Miners (the Humber Division): Edward Furniss Potter, Gent., to be Acting Surgeon.

RIFLE VOLUNTEERS.—1st Volunteer Battalion, Princess Charlotte of Wales's (Royal Berkshire Regiment): James Hopkins Walters, Gent., to be Acting Surgeon; Frederick William Dyce Fraser, M.D., to be Acting Surgeon.—2nd Cambridgeshire (Cambridge University): James Hayward Hough, Gent., to be Acting Surgeon.—4th Cheshire: Kenneth Maclean, Robert Alexander Murray, M.B., and John Keay, to be Acting Surgeons.—1st Midlothian (Leith): James Mill, M.B., to be Acting Surgeon.—2nd Shropshire: Surgeon and Honorary Surgeon-Major F. J. Sandford, M.D., resigns his commission; also is permitted to retain his rank and to continue to wear the uniform of the corps on his retirement.

Correspondence.

"Audi alteram partem."

ASPIRATION OF THE URINARY BLADDER.

To the Editors of THE LANCET.

SIRS,—At the meeting of the Medico-Chirurgical Society last Tuesday, Mr. William H. Bennett read a paper on a case of aspiration of the bladder which ended fatally, and in the course of his remarks said that the text-books taught that aspiration of the bladder was a harmless operation. Owing to the discussion on Mr. Morris's important paper, there was no opportunity of replying to Mr. Bennett, and I therefore, with your permission, beg leave to state that in my article on Retention of Urine, in Mr. Christopher Heath's "Dictionary of Practical Surgery" (vol. ii., p. 335), I am careful to say that "fatal extravasation and abscess have been known to follow a second aspiration," and I based this remark upon a case published some years ago by Dr. Macfie Campbell of Liverpool. Other fatal cases of aspiration have been published (e.g., by Mr. Treves, THE LANCET, August, 1880), in all of which I find that over-distension of the bladder was allowed to recur after the relief obtained by aspiration. If, after aspiration, the bladder is kept free from over-distension by the introduction of a catheter—often easy enough when the urgent symptoms have been relieved—or by a second or a third aspiration, the operation is a safe one. I am well aware that a bladder has been aspirated twenty times in immediate succession safely; still, I do not consider such a proceeding good practice, and, in the article above referred to, I advise that in the event of more than two or three aspirations being required, supra-pubic puncture with trocar and cannula should be performed. Mr. Bennett's case furnishes valuable additional evidence that aspiration must not be inconsiderately resorted to, but the operation is such a safe and useful one in certain rare cases of retention where an instrument cannot at the moment be introduced by the urethra, that it is a pity it should in any way be discredited. I make no reference to the treatment of a rotten bladder (the expression used by Mr. Bennett), because I am not aware of the existence of such a condition in acute retention of urine. By the time a bladder deserves to be called rotten Nature has anticipated the surgeon and has relieved herself by rupture, requiring appropriate treatment, which is certainly not aspiration. I am, Sirs, yours truly,

Wimpole-street, W., Feb. 23rd, 1887. G. BUCKSTON BROWNE.

THE MEMBERS OF THE COLLEGE OF SURGEONS.

To the Editors of THE LANCET.

SIRS,—We trust that you will forgive us for offering a few further details as to the signatures (now over 4600) received to the petition of the Members of the College of Surgeons to the Privy Council. By the end of last year the number was 1430, chiefly obtained by personal solicitation; but we felt then that we might expect a very much larger total than this, and consequently issued about 9000 forms of the petition to Members of the Royal College of Surgeons in the United Kingdom who had not already signed, this number covering all those whose addresses appear in the Medical Directory. It has been most satisfactory, seeing the usual fate of a circular, that over one-third of this number have been returned to us, and that we have what may fairly be called almost half of the Members resident in the United Kingdom, whose present addresses are *discoverable*, as signatories to the petition. We make no manner of doubt that by a "house-to-house visitation," as you suggested a few weeks ago, the overwhelming majority would be in our favour. But we do not think the expenditure of energy and money at all necessary, the more especially as the probable result of such a measure is clearly shown by the following statistics:—Out of 503 Members of the Royal College of Surgeons placed on the local list of the Medical Directory for 1887 as resident in the following eighteen provincial towns—viz., Bath, Bolton, Bradford, Bristol (and Clifton), Cardiff, Chichester, Great Malvern, Middlesborough, Ramsgate, Scarborough, Shrewsbury, Southampton, Swansea, Wigan, Windsor, Worthing, Yarmouth, and York—359 have signed, which, allowing for about 23 of the 503 being either marked as "retired," or with an asterisk, as of *uncertain* address, gives a proportion of three-fourths who have signed—75 per cent. We instance these places, as in them our local hon. secretaries have been very active in getting the question ventilated; and it is far more just to argue from such localities than from very large, unwieldy cities or country districts, where our circular is the only intimation Members have had that such a movement was on foot, and where, consequently, their interest has not yet been aroused in it. Of the towns mentioned above, we would especially lay stress on Bristol, from which and from Clifton our local hon. secretary, Mr. Samuel Smith, sent us the petition, signed by sixty Members—i.e., by *half* of the Members residing there,—twenty-four of the remaining half sending their signatures later on our circular forms. The Council of the College are really responsible for this widespread expression of opinion; for, had they moved forward more quickly with their application for a new Charter, we should not have had the time to get our aims so widely known. Shall we call this generosity on their part? As to any feeling contrary to our proposals existing among the Members, we may inform you that we have had only fourteen expressions of objection to the memorial—fourteen against 4600.—We are, Sirs, your obedient servants,

WARWICK C. STEELE, } Hon. Secs., Assoc.
WM. ASHTON ELLIS, } of M.H.C.S.

Western Dispensary, Westminster, S.W., Feb. 16th, 1887.

LUNACY ACTS AMENDMENT BILL, 1887.

To the Editors of THE LANCET.

SIRS,—Permit me to draw the attention of workhouse medical officers to the injustice which it is proposed in the Lord Chancellor's Lunacy Act Amendment Bill to perpetrate on them by the provisions contained in Clause 14, Sections 5, 6, 7, 8, page 13, whereby it is arranged that they shall be debarred by statute from receiving any remuneration whatever for the examination and certification of a lunatic received into the workhouse of which they are the medical officers, and that they shall be subjected to a fine of £10 for any day or part of a day they neglect to supply a certificate for nothing. Some forty-five to fifty years ago a similar proviso was made, but, the great injustice implied therein having been made manifest, the restriction was removed, and guardians were permitted—nay, encouraged—by the Commissioners in Lunacy to allow the workhouse medical officer to perform this duty and to pay him a fee varying from 10*s.* 6*d.* to 21*s.* The reason given for the prohibition in the first instance and for its repetition now is the feeling entertained by certain persons in the medical and legal professions that the workhouse medical officer would abuse his position for the sake of the fees above named in certifying that all and sundry of the inmates of the house were of unsound mind, wholly oblivious of the fact that when certified to they at once pass under the skilled superintendence of the principal medical officer of the asylum to which they may be sent, who would speedily report upon any abuse of authority by the workhouse medical officer or by his substitute. Before concluding, I should like your readers to understand that, with the rare exception where an inmate becomes insane, all persons admitted to a workhouse alleged to be of unsound mind go there with a certificate from the district medical officer, the divisional surgeon of police, or by the order of a

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police magistrate or justice of the peace. It should be remembered that it not unfrequently happens that the workhouse medical officer is specially sent for on the admission of a lunatic, and perhaps may have to travel four or five miles, and that he is liable to be assaulted, as I have been in years gone by, by an excited lunatic. Yet all this is to count as part of his duty, for which he is to receive no consideration of any kind—nay, many workhouse medical officers will lose much of their emoluments when the Bill becomes law. It is probably hopeless to expect that the law lords will modify these sections, but it is to be hoped that some medical members of the Lower House will enter an opposition to them; at any rate, I feel that I am only doing my duty to my former colleagues in raising this objection.—I am, Sirs, yours obediently,

JOSEPH ROGERS,
Chairman of the Poor-law Medical Officers' Association.
Montague-place, W.C., Feb. 21st, 1887.

"INFANT MORTALITY AT WORKINGTON."

To the Editors of THE LANCET.

SIRS,—Kindly allow me to state that the annotation headed "Infant Mortality at Workington," in the last issue of THE LANCET, was written without adequate knowledge. I am not responsible for the comments of *The Times*, and the report in that journal was not accurate.

As to my remarks on scarlet fever, I was alluding to a few cases in the district during the latter half of the year, and I wrote: "Should the disease appear to spread to a dangerous extent, I shall advise you to have the schools closed." I presume that you will agree with this. During 1885 a malignant form of measles broke out here. I argued the question of school-closing first with the Local Board, and then with the School Board. Time and lives were lost in consequence. Indeed, from Oct. 4th, 1885, to the end of March, 1886, there were sixty-three deaths from measles. I did not wish for this delay over a probable scarlet fever epidemic, as to be forewarned is to be forearmed; hence my remarks. You mention "fatality amongst children at the school age, and not among young infants." My opinion is, that so long as there is scarlet fever in a house all the children in such house should remain away from school. I have not stated that 136 per 1000 is a high infantile death-rate, and, moreover, I turned my attention to the Registrar-General's reports. I stated that the infantile mortality in Workington might be less, and gave reasons which are defensible. You would appear to argue that because infantile mortality is low in Workington, when compared with the same mortality in all England and Wales, I should be silent on the subject. But if I know from personal observation that the infantile mortality in Workington can be reduced, surely you will agree that it is my duty to show how this may be effected.

I submit, therefore, that my "scathing condemnation" was not based on "insufficient data." My report is being printed, and you shall have a copy of it at an early date. In the meantime, I am convinced that a report should be couched in the terms best suited to the people for whom it is written. I might show this from the improvements effected in Workington during my term of office, but I avoid egotism. My object is not to write useless disquisitions on vital statistics, but to point the way to sanitary reform and thereby ameliorate the conditions of the public health.

I am, Sirs, your obedient servant,

JOHN LOWE,
Workington, Feb. 21st, 1887. Medical Officer of Health.

DOES LACERATION OF THE CERVIX UTERI MORE COMMONLY OCCUR IN FIRST LABOURS OR IN SUBSEQUENT ONES?

To the Editors of THE LANCET.

SIRS,—In Dr. John Williams' third Lecture on Cancer of the Uterus, published in your issue of February 12th, at page 301, the following sentence occurs: "Indeed, it may fairly be said that when laceration is present the time when it was produced was during the first labour." I have seen a large number of cases of laceration of the cervix, and have good notes of sixteen cases, in thirteen of which I have done Emmet's operation. In eleven of these cases it was possible to tell with tolerable certainty during which confinement the accident had occurred, and in one only had it taken place during the first, and this patient has not subsequently borne children. The labour at which the laceration had probably occurred was usually the last, or the last but one or two, the average being 5·24, the total average of confinements of these eleven being 5·63 for each patient. Of course these numbers are small, and my conclusion or inference that the laceration occurred at a certain labour, and not at a preceding or subsequent one, may not have been invariably correct, but there was usually very good ground for the conclusion. So far as they go, however, these cases show that laceration is uncommon at the first labour. The explanation probably is that although at the first confinement the os dilates more slowly, it is in a healthy condition, and it is not so likely to tear as after the parts have lost to some extent their power of resistance from inflammatory action, the result of previous hard labours.

I am, Sirs, your obedient servant,

JAMES BRAITHWAITE, M.D.,
Feb. 22nd, 1887. Obstetric Physician to the Leeds General Infirmary.

THE PREVENTIVE TREATMENT OF SYPHILIS AND OF HYDROPHOBIA.

To the Editors of THE LANCET.

SIRS,—Referring to the annotation in your issue of the 19th inst., which states that Dr. Andronico claims to have eradicated the syphilitic virus in four cases by excising the primary growths, permit me to point out the superiority of destroying chancres by means of the thermo-cautery as obviating the risk of reinfection of the system during the actual performance of the operation. I can now inform your readers with regard to the case of Mr. A. B. C. (published in THE LANCET, July 17th, 1886), in which I destroyed a Hunterian chancre on Nov. 11th, 1885, with Pacquelin's cautery, and upon the suggestion of Sir William Jenner, carried out a course of mercurial treatment, that when I last saw the patient in September, 1886, there had up till that date been no secondary manifestations of syphilis.

On Oct. 18th, 1886, I saw a patient in consultation with Mr. Abbott of Braintree. A typical hard chancre existed on the left side of the corona penis, and its development had been noticed to have commenced since Oct. 13th. This was destroyed with Pacquelin's cautery, the part having been previously painted with a solution of cocaine to mitigate the pain, as in the case of Mr. A. B. C. A mercurial course was also suggested, and I have no doubt Mr. Abbott will be happy to report in due time the effect of the treatment. Here five days had elapsed since the first suspicion of infection before the destruction of the chancre, and such a delay is no bar to attempting the eradication of the virus—not even if the nearest lymphatic glands be enlarged, since this enlargement is probably at first of a simple and only later of a specific character. Owing to the very strong analogy which exists between the natural histories of syphilis and hydrophobia, *a fortiori* to the longer period of latency of the latter disease, there is ground for recommending that in all suspected cases of hydrophobia the earliest attempt to destroy the virus at the seat of inoculation should never be omitted. Add to these considerations the fact that only from 5 to 50 per cent. of those bitten by dogs and other animals, rabid or otherwise, really receive the virus of hydrophobia, and the argument in favour of treating these patients in the first instance by applying the thermo-cautery thoroughly to the cocainised part becomes insuperable. The method is simple, and any practitioner in England can carry it out readily.

I am, Sirs, your faithful servant,

CHAS. E. JENNINGS, F.R.C.S. Eng.
Upper Brook-street, Grosvenor-square, W., Feb. 19th, 1887.

THE JUBILEE.—The committee of the proposed Victoria Hospital at Bournemouth have received promises of subscriptions amounting to £2800 towards the hospital which is to be erected in commemoration of the Queen's Jubilee. The committee of the existing Cottage Hospital and Dispensary have £2000 in hand towards the erection of a building (which has been contemplated for several years past), and they have agreed to hand over this sum, together with their interest in the present building &c., to the public committee, in order that there shall be one large and central institution.—At a meeting of working men, at Mansfield, on the 16th inst., resolutions in favour of the proposed establishment of a hospital to celebrate the Jubilee were adopted.

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MANCHESTER.

(From our own Correspondent.)

HOSPITAL SUNDAY.

ON Sunday, the 13th, the annual collections were made on behalf of the hospital funds. A special appeal had been issued by the hon. sec. (the Rev. J. Henn), who, through the medium of the press, gave a brief account of the work carried on by our various medical charities. He gives some interesting figures respecting the consumption of alcohol at the Royal Infirmary, which showed that whilst in 1876 the cost per patient for alcoholic stimulants averaged 5*s.* 0½*d.* per head, it had steadily diminished to only 1*s.* 2¼*d.* per head in 1886. It is too soon to say with certainty what the amount of the collections will probably be, but the returns, so far, do not show much increase upon last year, notwithstanding that the weather on Sunday was favourable.

CHILDREN'S HOSPITALS.

Amongst the many projects put forward here in the name of the "Jubilee Year," one of the most deserving is perhaps the suggestion to build a children's ward to the Ardwick and Ancoats Hospital. Situate as this is in the midst of a densely populated district, its usefulness cannot be gainsaid, for, notwithstanding the work being done on the opposite side of the city by the Pendlebury Children's Hospital, there is more than sufficient sickness and accident to keep a children's ward here always full. Some attention is at present being directed to the fact that at the Children's Hospital, Pendlebury, cases of infectious disease are received, and it is alleged that it is by no means an unknown thing for children who have been under treatment in the general wards to have to be transferred to the "fever" ward, and it is insinuated that children admitted for one disease have contracted another after admission. If this be so, and it has not been denied, the serious attention of the management should be directed thereto, for nothing can be more damaging to the reputation of a hospital than that the idea of the possibility of such a thing happening should get abroad in the public mind. It is true that the "fever ward" is isolated so far as a ward can be isolated that opens out of the main corridor, and it is known that the late Dr. Borchardt (to whom the hospital owed very much) had very strong opinions that with due precaution no harm was to be feared. It is for the authorities to show from past experience that there is no ground for alarm, for if otherwise, seeing that we are well provided with hospital accommodation for infectious diseases elsewhere, the practice of treating fever patients at a general hospital ought not to be followed.

LIMITATION OF INFECTION.

The Manchester guardians have lately been again urged by the Government inspector to provide some means of isolation for doubtful and infectious cases of disease occurring among the children at their schools at Swinton, but they appear to be loth to comply with the recommendation. The ophthalmia which for a long time was so prevalent there is now very much diminished. It is satisfactory to note the co-operation of the Poor-law authorities with the health authority in endeavouring to cope with the spread of infection in large communities like this. The medical officer of health of Salford met the guardians last week, recommending certain precautions in dealing with tramps, &c., with a view to arresting the threatened spread of small-pox in their district. His suggestions were received with favour by them. The infant mortality in Salford still continues alarmingly high from suffocation, the Salford coroner recently stated that within two months he had held inquests on the bodies of thirty infants, in all of which the verdict had been "accidental suffocation." Probably a few committals on a charge of manslaughter would tend to diminish these "accidents."

SANITATION.

At the annual meeting of the Sanitary Association a good report was given of the year's work in endeavouring to remedy sanitary shortcomings and promoting a spread of sanitary knowledge among the people. The balance-sheet showed an adverse balance of £36, and an appeal is made to the public for a little more support in aid of the voluntary work undertaken by the Society. Considering the smallness of the sum annually at their disposal, much credit is due to the committee for the results obtained. Amongst one of the latest matters to which they have directed attention is a memorial to the corporation urging the desirability of publishing their health report annually as in other towns, instead of biennially, as is now the case, and suggesting that it should contain some more detailed statement of the work and operations of the Health Committee, which hitherto the reports have not contained. Seeing that at the present time this department of the corporation is about to undergo a strict inquiry into all its operations and various works, the suggestion is a timely one.

The election of Dr. Morgan, Professor of Medicine at Owens College, as a member of the Council of the London College of Physicians, has given much satisfaction here, it being some time since Manchester was represented upon that august body.

Feb. 15th, 1887.

EDINBURGH.

(From our own Correspondent.)

ROYAL SOCIETY OF EDINBURGH.

AMONGST the papers read at the last meeting of this Society was one by Professor Tait upon the effects of dynamite explosions. In a recent explosion of dynamite on the London Underground Railway it was noticed that many of those injured suffered from rupture of one membrana tympani, the other being unaffected. Professor Tait explains this by a reference to the physical nature of a dynamite explosion. At the centre of explosive violence a state of physical conditions is present different entirely from that which obtains at a very slight distance from the centre. The explosion is so instantaneous throughout the whole of the explosive material, that the projected gases travel from the centre of explosion at first more rapidly than the rate of transmission of sound. Light is produced at the immediate seat of explosion, from the compression of atmospheric air by the liberated gases, the air becoming self-luminous by the instantaneous compression. It is only at an appreciable distance from the centre of explosion that the velocity is reduced to that of sound transmission; up to that point there would be an excessively intense impulsive pressure, which would be likely to produce very considerable damage. In this respect dynamite differs totally from gunpowder, in which a much slower combustion takes place, so that the effects of increased pressure with graduated speed are produced; whereas in dynamite the maximum impulse is of instantaneous production.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

The last two sessions have witnessed a considerable increase of activity in the work of this Society. Under the able presidency of Professor Grainger Stewart the number of meetings held and the amount of work produced at them have been largely augmented, and a number of special interim meetings have been held for the discussion of special topics. Last week the Society met at the College of Physicians, when the subject of Empyema was fully discussed in all its aspects. The discussion was opened by Dr. William Russell, who read a paper detailing his own experience in the matter. He advocated early and complete drainage, with strict antiseptic precautions, citing a successful case of his own in a child of six weeks old, and exhibiting patients to illustrate his results in other cases. Dr. Caverhill expressed himself in favour of a system of expanding the lung by pneumatic exhaustion. Mr. Duncan referred at length to aspiration, drainage, and removal of a segment of the chest wall as the three types of surgical interference, each of which had its appropriate uses, the first and the last in relatively few cases, free drainage, with the removal of a piece of a single rib, being the treatment usually most satisfactory. In this operation he dispenses with the carbolic spray. Dr. Affleck referred to the value of the hypodermic needle as a diagnostic agent. He also gave some interesting facts in regard to the treatment of empyema carried on by Hippocrates and his disciples, showing on how philosophic a basis, and how near to modern practice, was the procedure of the Father of Medicine. Dr. James illustrated the action of the pleura in respiration, showing how morbid processes spread from part to part of the membrane;

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Dr. Byrom Bramwell deprecated active exhaustion of the pleural cavity, as liable to produce further complications by the bursting outwards of morbid accumulations near the surface of the lung. Dr. William Hunter spoke of absorption from serous membranes, showing that a partial removal of serous effusion is best calculated to result in the absorption of the remainder and a return to the normal condition. Dr. Brakenridge, Mr. A. G. Miller, Dr. John Thomson, Mr. Hare, and Dr. Leith Napier also took part in the discussion. It is probable that other similar discussions will be arranged for during the remainder of the session.

THE SCARLET FEVER EPIDEMIC.

The serious epidemic of scarlet fever that has prevailed in the west and north districts of the city for some days has apparently reached its apogee, and is beginning to wane. On Monday only fourteen fresh cases were intimated, a great diminution as compared with last week, when the number was between fifty and sixty daily. It is satisfactory also to learn that there is a corresponding diminution in the intensity of the disease in the cases now occurring. A great deal of public interest is evidenced in a discussion now carried on in the local papers as to the supposed connexion of the disease with a bovine disorder. It does not appear, however, that there is any proved connexion in this case between the epidemic and the milk-supply.

THE STUDENTS' UNION.

A site has now been purchased for the Union buildings, adjacent to the new medical buildings of the University, at a cost of £2000. The building is to be designed by Mr. Sydney Mitchell, architect, who has done much to beautify Edinburgh by buildings planned by him. It will cost £8000. That and the cost of the site take up £10,000 of the £13,500 in the hands of the acting committee. £1500 are still required to complete the £15,000 necessary to carry out the whole scheme. The building will contain a hall seating 500 persons, reading, writing, luncheon, and committee rooms, and a well-equipped gymnasium.

Edinburgh, Feb. 22nd.

DUBLIN.

(From our own Correspondent.)

THE CONJOINT SCHEME BETWEEN THE TWO COLLEGES.

As was generally expected, the proposed conjoint scheme between the Royal College of Surgeons and the College of Physicians has been referred back to those colleges for reconsideration by a large majority of the General Medical Council. The exclusion of the Apothecaries' Hall is mainly due to the Fellows of the College of Physicians, who appear to consider it derogatory to be associated with the Apothecaries' Hall in any conjoint scheme. To use an expressive word, the College of Physicians is an "uppish" corporation, and by 17 to 4 has recently declined to reopen the question of the constitution of the joint examining board. I recently alluded to the suggestion made by some of the Council of the Royal College of Surgeons that a dual combination might be formed between that institution and the College of Physicians on the one hand, and also with the Apothecaries' Hall and the College of Surgeons on the other. Should the College of Physicians refuse to admit the Apothecaries' Hall into the scheme, they will commit a fatal error by lowering the tone of medical education in this country. Besides this, sooner or later the Apothecaries' Hall will be joined in the scheme with the College of Surgeons, and, should the College of Physicians withdraw, the latter body will, in my opinion, not have a very long tenure of existence.

DUBLIN HOSPITAL SUNDAY FUND.

The thirteenth annual meeting of the supporters of this fund was held last week. The total amount of contributions for 1886 was £4158 0*s.* 3*d.*, being a decrease of £310 5*s.* 5*d.*, as compared with the previous year. Last year the Committee of Distribution were requested to form a committee to inquire into the dietaries of the participating hospitals, and report to the council. This committee now reported that considerable differences existed in quantity between some of the principal items of diet among some of the general hospitals. For example, in the Whitworth Hospital the daily allowance of bread amounts to 18 oz., and potatoes 20 oz., while at Sir Patrick Dun's the daily allowance to the patients is only 12 oz. and 4 oz. respectively, a discrepancy which appears inexplicable. As the committee remark, these returns point either to waste in the former or short allowance in the latter institution.

THE TOXICITY OF SILICON FLUORIDE.

Sir Charles Cameron has recently published some remarks on the toxicity of this gaseous substance, consequent on two fatal cases which occurred in Dublin. The manure factory where these deaths took place is for the manufacture of superphosphates, and the phosphatic material used contains an unusually large amount of fluoride of calcium. On treatment with acid, this would evolve very large quantities of carbon dioxide and fluorine compounds. The symptoms in the last case and the condition of the lungs and heart, as shown by a post-mortem examination, indicated death by asphyxia. An analysis of a portion of one of the lungs showed that the whole organ contained at least 0·75 gramme of silica (SiO_2). When silicon fluoride comes into contact with the moist surface of the respiratory passages, it deposits thereon gelatinous silica and fluosilicic acid. The silica being in the colloidal state opposes great resistance to the passage of gases, and it forms a glaze or varnish on the walls of the bronchi and their ramifications. As it is not absorbable into the circulation, it can only be got rid of by expectoration. Sir Charles Cameron is of opinion that it probably acts as an irritant to the nerves of the smaller bronchi, causing their muscles to contract spasmodically, thereby diminishing the area of the passages between the trachea and the air-vesicles. The fluosilicic acid, being readily soluble, passes into the circulation, and acts as a nerve poison. It may act directly upon the filaments of the pneumogastric nerve, and paralyse their action.

THE JACOB TESTIMONIAL.

Up to last Saturday the total promised or paid towards this testimonial amounted to £450, and as the subscription list will close in a few days it is absolutely necessary that those intending to subscribe should do so without delay. If the Poor-law medical officers of Ireland have any gratitude, they most certainly should contribute towards this testimonial to Dr. Jacob, who for so many years has befriended them in various ways. They may not be in a position to give large sums, but surely none would miss half a guinea, or even less, in showing their appreciation of his services.

ALLEGED ASSAULT ON A LUNATIC BY AN ATTENDANT.

Last week an attendant of the Limerick District Lunatic Asylum, named Fitzgerald, was prosecuted at the Petty Sessions for having violently assaulted an inmate named Cooney on the 27th ult. The latter gave his evidence in a very coherent manner, and stated that without any provocation whatever the prisoner had brutally assaulted him by kicking him in the abdomen. He reported the matter to the resident medical officer the following morning, and identified Fitzgerald from among several other attendants as his assailant. Dr. Gelston, the visiting physician, deposed to the injuries inflicted on the lunatic, and the case was returned for trial to the assizes, bail being accepted.

SINGULAR CASE OF SUICIDE.

A man named Martin Doyle, aged thirty-three, committed suicide last week in Dublin while apparently labouring under mental derangement. The deceased lived with his brother, and on the latter coming home after work he found Martin lying on his bed bleeding profusely from a number of self-inflicted wounds. He was removed to hospital, where he died two hours afterwards from hæmorrhage. The number of wounds on his body was very considerable, over twenty being on the head alone, while above the heart were two deep gashes, which penetrated to the lungs; the brachial artery also was cut across. The instruments of destruction which the unfortunate man used consisted of some common 2 in. nails and pieces of window-glass. Pins were also found sticking in various parts of the body of the deceased. The deceased was of a morose temperament, and, it is stated, about two years ago suffered from some head affection.

ZYMOTIC DISEASES IN DUBLIN DURING 1886.

The deaths from zymotic diseases numbered 1100, being 217 under the number for the preceding year, and 442 under the average for the ten years 1876-85. Measles only caused 9 deaths, against 296 in the previous year; scarlatina 191 deaths, showing a trifling increase; whooping-cough, 246, of

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58 in excess. There were also 28 deaths from cerebro-spinal fever. The mortality from fever was much below the average, the deaths numbering 193, or 108 below the average for the past ten years. It is satisfactory to note that there has been a great decrease in the number of cases of typhus treated in the Dublin hospitals during the past few years; thus, in the year 1883 the cases admitted numbered 829; in 1884 the number was 469; in 1885 they fell to 247; and last year there was a further decline to 123.

Robert Browne, F.R.C.S.I., of Largo House, Rathmines, has been placed on the Commission of the Peace for co. Dublin.

Dr. Falkiner has been appointed Physician to the Whitworth Hospital. There is no salary attached to the post.

Dublin, Feb. 22nd.

BELFAST.

(From our own Correspondent.)

THE ULSTER HOSPITAL FOR WOMEN AND CHILDREN.

FROM the report read at the annual meeting of this charity, I learn that a large cheerful women's ward has been added to the hospital, and a new dispensary and waiting-room; and further, the whole house has been cleaned and painted. The number of students attending has been larger than in any former year. There have been some changes in the medical staff, owing to the death of Dr. Malcomson and the resignation of Dr. Poole, and Dr. Barron and Dr. Strafford Smith have been appointed in their place. The President of Queen's College, who was present at the meeting, referred in terms of the highest praise to the late Dr. Malcomson. He said that he was now greatly pleased to know that the hospital had as many beds as would satisfy even the exacting Senate of the Royal University. He regretted to have to make that statement concerning the Royal University, but one could never tell what changes might be effected in the demands of that university in the curriculum laid down for students. Financially the hospital is in a good condition, there being a balance in hand of over £44. Lady Johnston has given £250 in aid of the expenses incurred in the alterations in the hospital.

THE MEDICAL STUDENTS' ASSOCIATION.

A conversazione, under the patronage of the President and Professors of Queen's College and the medical staff, will be held in the Queen's College on Thursday, March 10th. The students and their friends are exerting all their efforts to make the entertainment a success. It will be held in the same rooms as those in which the brilliant conversazione took place at the meeting of the British Medical Association.

THE ULSTER MEDICAL SOCIETY.

The annual dinner of this Society was recently held in the Royal Avenue Hotel. The President (Dr. Whitla) occupied the chair. Upwards of forty members of the medical profession were present, and the evening was a decided success. The Society is in a very flourishing condition, and the plan adopted this year of taking up special subjects at the meetings has tended to increase the attendance and interest of the members. Already we have had a sanitary night, and at the last meeting the treatment of phthisis formed the subject. Very good papers were read by Dr. Cuming, Dr. Lindsay, and Dr. Sinclair, the discussion being adjourned until the next meeting.

Belfast, Feb. 15th.

MONTREAL.

(From a Correspondent.)

MATTERS medical remain very quiet in this part of the country. Before Christmas both medical schools—McGill and Bishop's—held their annual undergraduates' dinners, which were well attended by present students, with a fair proportion of graduates. These annual dinners, which were evolved from the old "footing dinner" some three or four years ago, may be taken as evidence of the change which has come over the medical student during the past decade. Whereas the "footing dinner" was simply nothing but drunken revelry, the present annual dinner is a gathering of gentlemen.

The Faculty of Arts students at McGill, who have long worn the gown in and about the College, have recently decided to wear the trencher also. The science students have likewise decided in favour of the trencher.

A very unusual case recently presented itself at the Montreal General Hospital—viz., a case of true scurvy in a farm labourer from the eastern townships. Although working on a farm, the man's diet for the past twelve months had consisted of bread-and-butter, milk, tea, and sugar exclusively; no vegetables except potatoes, and no meat, either salt or fresh. Although put upon suitable diet and given appropriate treatment, the patient died on the fifth day after admission. At the necropsy hæmorrhagic infarcts were found to be present in both lungs, and a large blood clot in the right temporo-sphenoidal lobe of the brain. Although scurvy is not a rare disease in this country, being frequently seen among navvies, especially among the Italians, it is rare to meet with a case coming from the part of the country where this patient worked, and in the class to which he belonged.

The proposed amendments to the Medical Act in this province are not meeting with the unanimous approval of the profession.

The addition of philosophy, intellectual and moral, to the list of subjects to be passed at the preliminary examination, was secured by the French representatives on the Council of the College of Physicians and Surgeons; and as philosophy is taught in most French schools and colleges, while it is not in English schools (I refer, of course, to schools in the province of Quebec), the result will be that an English student going into medicine will have to secure the services of a private tutor to prepare him for the preliminary examination. The general feeling seems to be that the matriculation or preliminary examinations were already as stringent as there was any necessity for, while the final or professional examinations could with advantage be rendered more severe.

It is announced, and the announcement gives a great deal of satisfaction, that the Governor-General and Lady Lansdowne will spend a considerable part of this winter in Montreal. Although the commercial metropolis of the Dominion, Montreal has hitherto seen very little of our several vice-regal governors, and the approaching visit of the Marquis of Lansdowne is taken as a happy augury for the future.

The recent death of Dr. J. M. Drake has deprived the community of a successful practitioner and the medical faculty of McGill College of an earnest coadjutor. Dr. Drake came to this country from London, Eng., thirty years ago, and after obtaining his medical education at McGill College, became house-surgeon to the Montreal General Hospital, and subsequently Professor of Physiology in McGill College, which post he held till succeeded by Dr. Osler some years ago. Although his career has terminated at the early age of fifty-nine, he had a large practice until the death of his wife, which occurred a few years ago, and which was such a blow to him that he gave up active work and retired to his country residence at Abbotsford, where he ended his days, regretted by all who knew him.

It is expected that at the next meeting of the governors of the Montreal General Hospital to be held in February, the plans for the new and much-needed hospital buildings will be submitted, and the work probably commenced next spring. The Civic Small-pox Hospital is nearly completed, and will be ready for use about April next should there be occasion for it. At present the city is free from small-pox, though typhoid fever and diphtheria are rather prevalent.

The annual flooding of the lower-lying parts of the town (caused by the blocking of the river below the city by the ice-bridge), with the sickness and pecuniary loss attendant, has again occurred, and though efforts are made to keep the sewers empty by means of pumps, they are only partially successful, and one may look for sickness due to this cause until the Dominion Government takes it in hand.

Montreal, Jan. 12th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Professor Anthony Alfred Bowlby, F.R.C.S. Eng., will deliver a course of three lectures on "Injuries of Nerves, their Pathology, Symptoms, and Treatment," on Wednesday, Friday, and Monday, March 2nd, 4th, and 7th. Students are admitted to these lectures on the introduction of a Fellow or Member of the College. The lectures will commence at 4 o'cook each day.

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MEDICAL NOTES IN PARLIAMENT.

Lunacy Acts Amendment Bill.

ON the 21st inst. the House of Lords went into Committee on this Bill. In Clause 3 Lord Grimthorpe proposed an amendment to modify the preliminaries prescribed in the clause as necessary to be carried out before the friends of a lunatic could obtain a magisterial order for placing him under restraint. Lord Selborne was of opinion that the preliminaries would cause such delay as either to lead to lunatics being left at large until their lunacy was no longer curable, or to drive the friends of lunatics to resort in all cases to urgency orders for placing the lunatics under restraint. Lord Herschell was of the same opinion. The Lord Chancellor, admitting the force of the objections to the clause, promised to modify its machinery if its principle—the right of every alleged lunatic to have a judicial examination of his case before his liberty was taken away—were agreed to by their lordships. The amendment was ultimately withdrawn, and the clause was postponed. The remaining clauses were agreed to, with some slight alterations, and the Bill passed through Committee.

The Sanitary Registration of Buildings.

In the House of Commons on the 21st inst., a Bill brought in by Mr. Lacaita, to provide for the sanitary registration of buildings, was read a first time.

The Vaccination Act.

Mr. Picton gave notice of his intention to move, on the 21st prox., a resolution in favour of the repeal of the compulsory clauses of the Vaccination Act.

Obituary.

THOMAS FRASER, M.A., M.B., C.M. ED.

WITH regret we have to announce the untimely death of this young and promising physician, at the early age of twenty-six. Recent graduates of the Edinburgh School will remember his genial manner and the conscientious thoroughness of his work as a resident physician in the Royal Infirmary, and latterly as assistant to Professor Chiene. He left Edinburgh for a voyage in the East twelve months ago on account of failing health, but returned to Scotland recently and obtained the appointment of assistant-physician at the Crichton Institute, Dumfries. There his sudden death, which took place on the 15th inst. from diabetic coma, has occasioned deep regret; and it is pleasant to learn that his friends in and around Dumfries have decided to raise a memorial stone that may keep fresh the memory of his bright and useful life in that town. The remains were removed to Edinburgh, where the final tribute of affection and respect was paid by his sorrowing friends on Saturday last.

Medical News.

SOCIETY OF APOTHECARIES.—The following gentlemen passed the examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise on the 17th inst.:—

Bindley, Robert Alfred, M.R.C.S., Highbury-hill.
Dane, Robert, Finchley-road, Hampstead.
Dansan, William, M.D. Toronto, Horwood-avenue, Toronto.
Jamieson, Archibald, M.D. Kingston, Ontario, Spark-street, Ontario, Canada.
Owen, John Vaughan, M.R.C.S., Machynlleth.
Ozzard, Alberht Tronson, M.R.C.S., Southsea.
Wolfe, Robert Inglewood, Ardsley, near Wakefield.

THE annual meeting of subscribers to the Macclesfield Infirmary was held on the 17th inst. In the report the financial condition of the charity was described as satisfactory.

LONDON HOSPITAL.—The annual dinner of the students of the London Hospital is, we learn, to take place on Tuesday next, at 7.30 P.M., at the London Tavern. Tickets can be obtained from C. L. S. James or L. Wainwright, the hon. secs. to the Dinner Committee.

H.R.H. THE DUKE OF CAMBRIDGE has consented to preside at a festival on May 6th to commemorate the twentieth anniversary of the Victoria Hospital for Children.

THE annual banquet of the Newcastle-on-Tyne Clinical Society was held on the 17th inst., Dr. Oliver, the president, in the chair.

DR. G. A. MAYER of Binghampton, New York, while setting a fractured arm, suddenly paused while pulling vigorously at the injured member and fell back dead. Apoplexy is believed to have been the cause of his death.

THE twenty-third annual collections in aid of the funds of the Sunderland Infirmary were made in the various places of worship in that town on the 20th inst.

VACCINATION GRANT.—Samuel Evans, L.R.C.P. (Lond.) M.R.C.S., &c., of Harwich, Essex, has obtained a Government grant for the efficient performance of public vaccination in the first and second districts of the Tendring Union.

THE first annual ball in aid of the funds of the Nottingham Samaritan Hospital for Women was held on the 17th inst., and, being largely attended, proved a decided success.

AN inquiry was opened on the 23rd inst. by Mr. S. J. Smith, Local Government Board inspector at West Cowes, relative to an application from the Local Board of Health to borrow £18,021 for sewerage works and £700 for increasing the water-supply. The inquiry was ultimately adjourned to the 19th prox.

THE third annual general meeting of the subscribers to the Blackheath and Charlton Cottage Hospital was held on the 5th inst., when satisfactory financial and general reports were presented and adopted.

THE ENGLISH CONJOINT BOARD.—On and after Monday, March 14th next, all applications relating to the diplomas of the Royal College of Physicians of London and the Royal College of Surgeons of England, under the old regulations, as well as under those of the Examining Board, must be addressed to Mr. Frederic G. Hallett, Examination Hall, Victoria Embankment, London, W.C.

AT a meeting of the Court of Governors of the University College of South Wales and Monmouthshire, Cardiff, on the 16th inst, a further appeal to the treasury for funds for the establishment of schools of medicine and engineering was advocated.

EXETER DISPENSARY.—The annual meeting of the supporters of this institution, which was founded in 1818, was held on the 12th inst. The report stated that 5513 persons were treated during last year, as against 5206 during 1885. Since the opening of the institution 202,456 patients have been treated. The treasurer's account showed that there was a balance in the bank of £391.

SUSSEX COUNTY HOSPITAL.—The annual general Court of Governors of this institution was held on the 16th inst., when it was reported that during the past year the number of in-patients had been 171; of out-patients, 6143; and of casuals, 1558. The receipts during the year, including legacies, were £9943, as against £12,019 in 1885. The expenditure was £10,426, as against £10,790. It was resolved that a new mortuary be erected, at a cost not exceeding £500.

GREENOCK INFIRMARY.—At the annual meeting in connexion with this institution, on the 17th inst., it was reported that the ordinary income for the past year was £4082, as against £4297 in the previous twelve months. The ordinary expenditure amounted to £4944, as against £4719. The total number of patients admitted to the infirmary during the year was 863, as against 879. Earnest appeals for increased support were made.

PERILS OF RURAL PRACTICE.—A French rural practitioner, Dr. Pierre Seguin, driving home one evening lately, was thrown out of the carriage and killed instantaneously by the shying of his horse. In the address of condolence drawn up by the Association of Medical Practitioners in the Gironde, attention is called to the dangers to which country doctors are exposed, just as sailors who have to brave the perils of the ocean.

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OWING to the recent prosecutions of tradespeople for selling pepper adulterated with pepperette it is announced that the manufacture of this substance at Leghorn has been discontinued, and that its importation in England has ceased.

AT the recent annual meeting of the governors of the Blackburn and East Lancashire Infirmary it was decided not to alter the rule which prohibits the election of a junior house-surgeon to the institution.

THE ANTHRAX EPIDEMIC. — Mr. Whisken, the veterinary surgeon who made the post-mortem examination of the diseased cattle at Chignal, lies in a dangerous condition in Chelmsford Hospital. Two butchers also are reported to be suffering, and the horse which drew the carcases has died.

UNIVERSITY COLLEGE HOSPITAL.—Lady Jessel has recently paid into the bankers of this hospital a donation of £2000 for the permanent endowment of a bed in the institution to be called the "George Jessel" bed. The Right Hon. G. J. Goschen, M.P., has consented to preside at the festival dinner in aid of the funds of the charity to be held on April 27th.

THE BRITISH MEDICAL TEMPERANCE ASSOCIATION.—This Association held a meeting in the rooms of the Medical Society of London on the 18th inst. Dr. Walter Pearce, B.Sc., read a paper on the Absolute and Differential Diagnosis of Alcoholic Paralysis. In the discussion which followed, Dr. Richardson called attention to the fact that in past times cases of alcoholic paralysis had often been regarded as lead poisoning. He considered that the change which took place in the nervous system, as the cause of the symptoms must be of the nature of pectous change of the fluid nerve substance or of the membranous expanses leading to imperfect dialysis. Dr. Norman Kerr then called attention to the very great decrease of the amount of alcohol consumed in workhouses. He considered that there was still room for a greater reduction. In the discussion which followed Drs. Hall, Drysdale, Gray, Ridge, and others took part.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BOLTON, R. C. E., M.B., B.Ch.Dub., has been appointed Medical Officer for the Sixth District of the Lincoln Union.

COOMBE, ROBERT G., has been appointed Medical Officer for the Southminster District of the Maldon Union.

EMPSON, JOHN, L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer for the Milborne Port District of the Wincanton Union.

FOX, E. L., M.A., M.B., B.C.Cantab., M.R.C.S., has been appointed Assistant House-Surgeon to the Liverpool Children's Infirmary.

GRENFELL, HENRY OSBORNE, M.R.C.S., L.R.C.P.Lond., L.S.A., has been appointed Assistant Medical Officer to the Wandsworth Union Infirmary, vice H. T. Corbould, resigned.

HOBBES, THOMAS G. F. R., L.F.P.S.Glas., L.S.A., has been appointed Medical Officer for the Sutton Coldfield District of the Aston Union.

HOWNSELL, F. C. W., C.M.Cantab., M.R.C.S., L.S.A., has been appointed Resident Clinical Assistant to St. Marylebone Infirmary, Notting-hill, W.

LARDER, HERBERT, M.R.C.S., L.S.A., has been appointed Medical Officer for the Infirmary and the Workhouse of the Whitechapel Union.

LOCK, JOHN G., M.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer for the Third District of the Pembroke Union.

PEARCE, JOHN P., M.R.C.S., L.S.A., has been appointed Medical Officer for the Second Division of the Third District of the Newhaven Union.

ROBERTSON, ROBERT, M.D.Ed., L.R.C.S., has been appointed Visiting Medical Officer to the Netherfield-road Hospital for Infectious Diseases, Liverpool.

SYERS, W. HENRY, M.D., M.R.C.P.Lond., has been appointed Assistant Physician and Registrar to the Hospital for Epilepsy and Paralysis, Regent's-park.

TAYLOR, ALFRED ERNEST, M.R.C.S., has been appointed House-Surgeon to the East Suffolk and Ipswich Hospital, vice Kitching, resigned.

THOM, G., M.R.C.S., L.S.A., has been elected a Surgeon to the Royal Albert Hospital, Devonport.

TYRRELL, EDWARD MUNRO, M.B.Edin., has been appointed Assistant Medical Officer to the Counties Asylum, Carlisle, vice T. D. Greenlees, M.B., resigned.

YARROW, G. E., M.D., L.R.C.P.Lond., &c., has been elected Surgeon-Accoucheur to the City of London Lying-in Hospital, vice P. L. Burchell, M.B., resigned.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

ASHTON-UNDER-LYNE DISTRICT INFIRMARY. — House-Surgeon. Salary £30, with board and residence.

BIRMINGHAM AND MIDLAND EYE HOSPITAL. — House-Surgeon. Salary £100 per annum, with apartments, board, and attendance.

BOSCOMBE PROVIDENT INFIRMARY, Bournemouth.—Resident Medical Officer. Salary £60 per annum, with board, lodging, &c.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W. — Resident Medical Officer. Salary £80 per annum, with board and residence.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—Pathologist.

GENERAL HOSPITAL, Nottingham.—Junior Resident Medical Officer. Salary £100 for first year, with an addition of £10 a year up to £120, with board, residence, and washing.

GLAMORGANSHIRE AND MONMOUTH INFIRMARY AND DISPENSARY, Cardiff.—Ophthalmic Surgeon.

HOSPITAL FOR WOMEN, Soho-square, W.—Clinical Assistants. Fee for course of three months, £5 5s.

INFIRMARY FOR CONSUMPTION, Margaret-street, Cavendish-square, W.—A Physician-in-Ordinary; three Visiting Physicians; and a Surgeon.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen-square, Bloomsbury.—Laryngologist.

NORTH-WEST LONDON HOSPITAL, Kentish-town-road. — Assistant Physician.

OWENS COLLEGE, Manchester.—Senior Demonstrator in Physiology. Stipend £150 per annum.

PADDINGTON WORKHOUSE INFIRMARY. — Assistant Medical Superintendent and Dispenser. Salary £100 per annum, with board, lodging, and washing.

UNIVERSITY OF GLASGOW.—Examiners in Medicine.

WEST HERTS INFIRMARY, Hemel Hempstead. — House-Surgeon and Dispenser; to also act as Assistant Secretary. Salary £100 per annum, with board, furnished rooms, fire, lights, and attendance.

Births, Marriages, and Deaths.

BIRTHS.

ELLIOTT.—On the 17th inst., at Monson-place, Tunbridge Wells, the wife of Thomas Elliott, M.D., of a son.

GARDNER.—On the 19th inst., at Clifton, the widow of Edward Barton Gardner, Surgeon-Major, I.M.S., late Civil Surgeon, Bareilly, N.W.P., of a daughter.

MACCOMBIE.—On the 17th inst., at the South-Eastern Hospital, New Cross, the wife of John MacCombie, M.D., of a daughter.

PLETTS.—On the 19th inst., at Wyndham House, Ryde, Isle of Wight, the wife of J. Menham Pletts, M.D., of a daughter.

SMITH.—On the 15th inst., at The Acacias, Upper Clapton, the wife of Gerard Smith, M.R.C.S., of a son.

YEO.—On the 18th inst., at Staines, the wife of Gerard F. Yeo, M.D. (prematurely), of twin boys, one still-born.

MARRIAGES.

HADAWAY—MOORLEY.—On the 22nd inst., at St. James's, Westgate-on-Sea, by the Rev. Geo. Collis, Vicar, Dr. James Hadaway, of Dent-de-Lion Villa, Westgate-on-Sea, to Eliza, widow of the late C. Moorley. No cards.

JAMES—DRIFFIELD.—On the 17th inst., at the Parish Church, Prescot, David James, M.D.Ed., to Letitia Kemball, youngest daughter of the late Walter Wren Driffield, Solicitor, of Liverpool and Prescot.

MYLES—WHITSON.—On the 23rd inst., at 15, York-place, Edinburgh, by the Rev. Armstrong Black, of Edinburgh, assisted by the Rev. John Kemp Bruce, of Peterhead, brother-in-law of the bride, Thomas Patrick Myles, of Brechin, N.B., M.B., C.M.Edin., to Euphemia Grace, youngest daughter of the late Jas. Whitson, Esq., of Isla-park, Coupar Angus, N.B. At home March 3rd. No cards.

WALKER—BROWNE.—On the 17th inst., at St. Luke's, Shire Oaks, by the Rev. H. T. Slodden, Vicar of Worksop, Hunter Urquhart Walker, L.M., L.R.C.P.Ed., L.R.C.S.Ed., eldest son of the Rev. Alexander Walker, of Rescobie, Forfar, N.B., late Senior Chaplain on H.M.'s Indian Establishment, to Ethel Mary, eldest daughter of the Rev. G. Osborne Browne, Vicar, of Shire Oaks.

DEATHS.

FORSYTH.—On the 18th inst., at 12, Park-place, Maze-hill, Greenwich, Katherine, wife of Alexander Forsyth, M.D.

HACKNEY.—On the 19th inst., at Twickenham, John Hackney, M.R.C.S., L.S.A., aged 72.

LINDSAY.—On the 21st inst., at Mickleover, Derby, J. Wallace Lindsay, eldest son of J. Murray Lindsay, M.D., aged 22.

MOCKLER. — On the 17th inst., at Oxford-terrace, Hyde-park, Edward Mockler, formerly Surgeon, Queen's Bays and 17th Lancers, aged 77.

RITCHIE.—On the 15th inst., suddenly, at Liverpool, William Barry Ritchie, M.D., J.P., of Belfast, in his 71st year.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

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Medical Diary for the ensuing Week.

Monday, February 28.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M; Thursday, 2.30.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.
SOCIETY OF ARTS.—8 P.M. Mr. W. Y. Dent: Building Materials (Cantor Lecture).
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Clinical Evening. Dr. Robinson: Excision of Hip in Adult.—Mr. Lennox Browne: (1) Case of Excision of half the Larynx; (2) Faucial and Pharyngeal Tuberculosis.—Mr. Pick: Displacement of Head of Femur after Fever.—Mr. Bourne: Ichthyosis Hystrix.—Mr. Black: Trephining for Supposed Abscess of Brain.

Tuesday, March 1.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 1.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.
ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Prof. Arthur Gamgee: The Function of Respiration.
SOCIETY OF ARTS.—8 P.M. Mr. Edward Cunliffe-Owen: The Colonial and Indian Exhibition.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Annual Meeting. Address by the President. Election of Officers and Council.

Wednesday, March .

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M.; Saturday, same hour.
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown. Inaugural Address by the President (Dr. John Williams). Adjourned Discussion on Dr. Gibbons' paper on Unilateral Galactorrhœa.—Dr. Champneys: On the Separation of the Placenta.
SOCIETY OF ARTS.—8 P.M. Mr. H. J. Beale: The Cultivation of Tobacco in England.

Thursday, March 3.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Godlee: Adeno-sarcoma of Tongue with Calcifying Nodule in Centre.—Mr. G. R. Turner: Alveolar Sarcoma growing from the Lumbar Spine.—Dr. N. Moore: Malarial Diseases of Liver and Spleen.—Mr. Lawson Tait: On the Pathology of Extra-uterine Pregnancy.—Mr. Barwell: Cirsoid Aneurysm of the whole of Left Upper Extremity.—Dr. Price: Cholesteatoma at Base of Brain.—Mr. Fenwick: Metastatic Carcinoma of Prostate.—Mr. A. Doran: Fibroma of the Ovarian Ligament. Card Specimens:—Mr. Gould: (1) Portion of Cervical Vertebræ expectorated from a case of Retro-pharyngeal Abscess; (2) Old Excision of Knee-joint.—Mr. D'Arcy Power: A Ithinolith.—Mr. Shattock: Colles' Fracture with Forward Displacement of Lower Fragment.—Mr. A. Doran: Horny Growth from the Neck.
ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Mr. Edmund Gosse: The Critics of the Age of Anne.
HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Mr. Mitchell Banks (Liverpool): Extirpation of the Axillary Glands a Necessary Accompaniment of Removal of the Breast for Cancer.—Dr. W. H. Day: Habitual Constipation in Children, and the Methods of Treatment.

Friday, March 4

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
SOCIETY OF ARTS.—8 P.M. Major-General Sir F. J. Goldsmid: Our Trade Routes to the East.
WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—8 P.M. Card Specimens:—Mr. H. Percy Dunn: (1) An Aneurysm of the Thoracic—extending into the Abdominal—Aorta; (2) Epithelioma of the Œsophagus.—Dr. P. S. Abraham: Microscopical Sections of the Cervical Cord and Sympathetic Ganglia in a case of Exophthalmic Goitre. Living Specimens:—Dr. Scanes Spicer: A series of cases of Diseases of the Naso-pharynx. Papers:—Dr. J. B. Ball: Nocturnal Incontinence of Urine.—Mr. R. Fitzroy Benham: Impacted Urethral Calculus, Perineal Section, Recovery.
ROYAL INSTITUTION OF GREAT BRITAIN.—9 P.M. Mr. Victor Horsley: Brain Surgery in the Stone Ages.

Saturday, March 5.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. The Right Hon. Lord Rayleigh: On Sound.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments)

THE LANCET Office, February 24th, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Feb. 18	30·05	S.W.	37	37	...	46	24	·07	Raining
,, 19	30·22	N.E.	41	39	...	45	37	·12	Cloudy
,, 20	30·23	N.W.	42	40	...	45	38	...	Overcast
,, 21	30·04	N.E.	43	41	...	48	40	·09	Overcast
,, 22	30·15	W.	35	35	...	49	34	...	Foggy
,, 23	30·16	W.	48	47	...	52	35	...	Cloudy
,, 24	30·13	W.	47	46	...	...	46	...	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

THE COLD AFFUSION IN HEADACHE.

W. F. P.—Sir Robert Christison, in his "Autobiography," bears emphatic witness to the efficacy of this treatment, citing in particular the case of his own mother, who suffered from headache of a peculiarly persistent character, and who cured herself effectually by the cold douche. It was the favourite remedy of the Romans, as may be inferred from more than one passage in the judicious compilation of Celsus: "Capiti nihil æque prodest atque aqua frigida" (Nothing is so beneficial to the head as cold water), Lib. i., c. 4. Again (Lib. i., c. 5), when touching on the various inflammatory affections of the head and its cavities, he says: "Usus aquæ frigidæ prodest iis etiam quos assidue lippitudines gravedo, destillationes, tonsillæque male habent" (The cold affusion is of benefit to those also who suffer from chronic ophthalmia, from cold in the head, from catarrh, and from inflamed tonsils). Again, the lassitude and headache induced by the scirocco (*auster*), to which the British resident on the Mediterranean is so subject, and which no amount of acclimatisation seems to lessen, has its appropriate remedy in cold water: "Præcipue omnibus eo auxiliis utendum est ubi gravius cælum austri reddiderunt" (This remedy is of especial advantage to all when the atmosphere has become heavy by the scirocco), Lib. i., c. 5.

M. O. H.—We do not think that the medical officer of health should make inquiries in all cases through the medical attendant. Such limitation would make his work impossible, if always enforced; but undoubtedly he would be more likely to accomplish his object if he were to adopt a conciliatory conduct both towards the patient and the medical attendant.

Stand Sure.—Be true to your synonym, and assume that everyone knows that you are not the discredited practitioner.

W. McC.—1. Yes.—2. No.—3. They are bound to provide an applicant with some sort of accommodation.

SIR JAMES HANNEN'S COURT AND THE NEWSPAPER PRESS.

To the Editors of THE LANCET.

SIRS,—May I venture to suggest that the members of the medical profession memorialise the Lord Chancellor, or whoever may be the proper authority, to adopt measures whereby the wives and daughters of all decent citizens may be able to read the newspapers without having presented such shameful evidence as has recently outraged public decency by being reported at some length and in some detail in the columns of our daily and other journals.

I am, Sirs, your obedient servant,

Grove-road, N.W., Feb. 22nd, 1887. NORMAN KERR, M.D.

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A CONGENIAL CLIMATE FOR ANGLO-INDIANS.

IN reply to a query inserted in our last number on the above subject, "*A Brigade-Surgeon* writes:—"I will venture the statement that "J." will not have much to complain of on the score of the cold of English winters. I have myself been twenty years in India, and have now been home several winters; but I have seldom to put on a great coat, and am almost surprised to hear so many complain of the cold. Further, I feel the heat of a hot summer's day a great deal more than I did before I went to India, and more than a native of these isles who has never been in the tropics. My own theory is that the malaria which accumulates in a person in India and remains in his system renders him insensitive to cold and very sensitive to heat."—"*An Old Indian*" recommends Southport, Lancashire, as a spot possessing a mild and equable temperature, and where living is cheap. Another correspondent, who has spent three winters at Tenby, Pembrokeshire, thinks "that is just the place for people who have lived in India." A fourth recommends Flushing on the shore of Falmouth harbour. A fifth writer speaks of Bournemouth as possessing all the qualities likely to meet the wants of an Anglo-Indian. A sixth has no doubt of the superior advantages of Bonchurch, Isle of Wight, for the same purpose. Whilst a seventh correspondent gives glowing accounts of the climate of Queenstown.

H. N. (Colchester).—The "Acque Catulliane." They were discovered in 1784 by the well-known naturalist, Giovanni Catullo, on the Monte Civillina, in the Venetian territory. On analysis they were found to be ferro-arsenical, and are in high repute among Italian physicians for their tonic and alterative virtues. Italy abounds in such mineral resources; but, unlike France, Germany, Austria, and Switzerland, she has hitherto been lacking in the enterprise which establishes well-appointed hotels in their neighbourhood under competent medical surveillance.

Dr. C. Bell Taylor (Nottingham).—Yes, in as early a number as possible.

DAMP BEDS.

To the Editors of THE LANCET.

SIRS,—Your note on this grievance, and the desire for a remedy on the part of your correspondent, "Traveller," reminds me of an anecdote I heard some time since of a commercial nomad, who, having retired to rest, became unpleasantly conscious that his bedclothing was anything but properly aired. He jumped up in a rage, stuffed the offending sheets up the chimney, and rolled himself in the blankets. Some twelve months afterwards his travels brought him to the same hotel. When shown up to his room, the chamber-maid examined him rather closely, and then said: "Dear me, sir, you *are* the same gentleman. Do you know, a most curious thing happened when you were here last." "What was that?" he exclaimed. "Why," she said, "the sheets disappeared, and we could not think what became of them." "Oh, indeed," he replied. "Then get me my bill directly; you've not had a fire in this room since, or you would have found your sheets—where all damp linen ought to be—stuck up the chimney!" Possibly, if fellow-sufferers revenged themselves in similar fashion, hotel-keepers would take better precautionary measures for insuring their guests' health and safety.

I am, Sirs, yours truly,

Walton-on-the-Naze, Feb. 21st, 1887. HENRY GRAMSHAW.

To the Editors of THE LANCET.

SIRS,—Your correspondent "Traveller" seeks a plan of safety when compelled to occupy a bed which may be damp. Let him always be provided with a waterproof sheet (a nicely made one will not take up much room in a portmanteau), place this on the bed with two blankets over it, discard the sheets, and use two or three blankets over him, according to weather, and he will be safe. I have repeatedly been thanked for this information by patients who are constantly on travel.

I am, Sirs, yours faithfully,

Kidderminster, Feb. 19th, 1887. S. STRETTON, M.R.C.S.

THE MARGARET-STREET CONSUMPTION INFIRMARY.

Dr. R. E. Dudgeon, in a somewhat lengthy communication, writes that the terms of his amendment to the Rev. M. R. Mowll's resolution were as follows: "That any attempt to limit the liberty of opinion or practice of the medical officers is not sanctioned by the laws of the infirmary, is prejudicial to the interests of the infirmary and its patients, and is opposed to the spirit of the Medical Act of 1858." Dr. Dudgeon remarks: "The medical men who voted in the minority, and, indeed, the whole medical profession, should be much obliged to me for this effort to uphold the freedom and dignity of the profession, and to prevent the right of private judgment in therapeutics of the medical officers of a public infirmary being interfered with by a set of non-medical members of an executive committee, who know nothing at all about medical theories or practice."

Mr. Friend (Brighton).—We are not aware. But the work could no doubt be obtained by order of any medical bookseller.

SEA-SICKNESS.

Mr. Whittingdale states that while acting as surgeon to the Peninsular and Oriental Steam Navigation Company, he tried at different times most of the remedies recommended for sea-sickness, such as bromide of sodium, cocaine, nitrite of amyl, &c., with very unsatisfactory results. The following method, based on the treatment of chloroform sickness, however, proved most successful. A tumbler of tepid water is first administered to the patient. This, of course, is generally quickly returned, but soothes the stomach. Then a warm mustard and linseed poultice, in the proportion of one part of mustard to two of linseed, is applied to the epigastric region, and the following draught given a quarter of an hour after the tepid water:—Chloral hydrate, twenty grains; simple syrup, one drachm; water, to an ounce. If this be rejected, our correspondent begins *de novo* with the tepid water and repeats the draught. After the draught has been taken and retained, the patient is ordered to lie in his berth, and sleep usually follows. On waking the swimming in the head and nausea have disappeared, and he is able to go on deck.—*Mr. H. Wakefield* considers that anyone who has seen much of this malady can hardly doubt that its origin is mental, and in a large majority of cases the imagination is the source of trouble—for instance, he has seen on several occasions ladies suffering from sea-sickness before the ship has left its moorings in the dock, where there is not the least sign of motion. Iced stimulants and the recumbent posture are remedies which he now employs after a careful trial of all the so-called specifics extending over a period of six years.—*Mr. J. R. Stocker*, of Liverpool, refers to a paper of his in THE LANCET of Dec. 17th, 1881, in which he suggested a somewhat similar cause of sea-sickness to that suggested by Dr. Thurstan. "I may take this opportunity of stating," says Mr. Stocker, "that in describing the physiological conditions concerned in its production, I unfortunately omitted to mention a very important matter—viz., the spasmodic closure of the glottis, which occurs when the vessel falls; this is a matter of common experience, and is popularly expressed as 'catching the breath.'"

Doubtful.—The dietetic treatment of gout is a matter in which professional opinion is still at variance. There are two extreme schools to discriminate between, those who may be termed the "ascetics" and those who advocate the tonic treatment of the disease; whilst a few hold to the golden mean, and adhere to rules originally laid down by Sydenham. Some teachers prohibit meat, others allow it; some prohibit sugar, others say it is not injurious; some forbid fat, others say it is the only constituent that may be freely used.

Climate.—Spencer Thomson's "Health Resorts of Britain" would probably answer the purpose.

G. M. P.—The case is not a very uncommon one.

TRANSPORT OF INFECTIOUS PATIENTS.

To the Editors of THE LANCET.

SIRS,—I was much surprised to find in THE LANCET of Jan. 29th, page 235, a paragraph proposing the use of particular vehicles—to the exclusion of all others—for the transport of infectious patients. I thought that this custom had long been prevalent in London, as it is in many other towns—e.g., in Berlin, and will soon also be adopted in Dresden. To prove the urgency of adopting this measure, allow me to mention a case which took place in Dresden some time ago. A gentleman happened to drive in a cab, which had been used a short time previously for the transport of a patient attacked by small-pox. The gentleman soon after took the same disease, and could only have caught the infection through using the cab, as his was the only case of small-pox in the town at that time. A similar case is mentioned by Dr. Ollivier in Paris with regard to diphtheria. It is my firm belief that cabs, trams, railway-carriages, &c., are among the chief means of spreading infection, and it is high time that the sanitary authorities should take the matter into serious consideration, and prevent further mischief by providing ambulances for the transport of infectious patients, to the exclusion of all other vehicles.

I am, Sirs, yours truly,

Dresden, Feb. 15th, 1887. DR. MED. ARTHUR BERTHOLD.

THE ASTROP PROCESS.

WE are asked to add to our recent statement concerning the Astrop process of fluid depuration which is now carried on at Walthamstow that Mr. Astrop does not recommend the use of lime, upon which the sanitary authority of that place insist for the precipitation of sewage. The intention of the authority is to retain in the effluent, for use on their land, all matter of manurial value. The desire of Mr. Astrop is to retain this matter in the sludge, whence it would remain in the poudrette which is manufactured by his process.

Mr. A. F. Mickle, M.B.—The result of previous attempts to found medical clubs is not of a kind to afford much hope of success for fresh efforts in the same direction.

H. (Brighton).—The letter is too long for insertion.

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MYOPIA IN SCHOOLS.

AN examination of the condition of the eyes amongst the young people frequenting some of the more important schools in Stockholm, carried out by Dr. Widmark, showed that at the age of from six to eight there was no myopia; at nine, however, though the girls were still nearly free from it, 14 per cent. of the boys were slightly, though distinctly, myopic. This difference is said to be accounted for by the examination which boys have to pass on admission to a secondary school, which obliges them to work more in the preparatory school. After this age myopia in the two sexes goes on increasing, until at sixteen, when girls usually leave school, the percentage amongst them is thirty-three, the mean degree of myopia being 2·5 dioptrics. At this age the percentage of myopia amongst the boys is 39, and the mean amount two dioptrics. Later on, amongst advanced pupils the myopia was much more common and more marked amongst the girls, which Dr. Widmark thinks is to be accounted for partly by the delicacy of the sex, but mainly by the great inferiority of physical education and opportunities for out-door games in girls' schools, and by the needle-work and music which are there so frequently the employment of out-of-school hours.

Mr. Robottom is referred to an article on the subject in our last issue, page 387.

AN APPEAL.

To the Editors of THE LANCET.

SIRS,—Although appeals for professional help are unfortunately but too common, the sympathy of some members of the profession may, I am sure, be solicited on behalf of an elderly medical man—Mr. C. H. Huxley—who was injured in a railway accident nearly three years ago, and has since been unable to support his wife and children. He sustained an injury to the hip-joint, and chronic arthritic changes resulted, so that his powers of walking are very limited, and he is unable to attend to ordinary professional work. Very small damages—only £50—were given at the railway trial, and he is now in a destitute condition. Professor Erichsen fully concurred with me as to the nature and extent of the articular changes. Subscriptions will be received by me at the address given below. I am, Sirs, your obedient servant,

5, Henrietta-st., Cavendish-sq., W., Feb. 21st, 1887. WM. ADAMS.

OPHTHALMIC AND AURAL PRACTICE ABROAD.

To the Editors of THE LANCET.

SIRS,—Will you kindly allow me to ask your readers for information as to openings for ophthalmic and aural surgeons abroad, especially in the colonies? I am, Sirs, yours faithfully,

Feb. 18th, 1887. J.

Dr. Thursfield's communication is unavoidably held over till next week.

Mr. J. Rand.—The lines are rather too political for our columns.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Norman Kerr, London; Mr. Cavendish Bentinck, London; Dr. Colcott Fox, London; Dr. F. Warner, London; Mons. Masson, Paris; Dr. Burney Yeo, London; Dr. Lambert, Liverpool; Dr. Glanville; Mr. Simeon Snell, Sheffield; Dr. W. Hunter, Edinburgh; Dr. R. Macdonald, M.P., London; Mr. Barwell, London; Mr. Seaton-Cockell; Mr. Buckston Browne, London; Dr. Jos. Rogers, London; Mr. J. A. Jones; Dr. A. Berthold, Dresden; Dr. Jas. Braithwaite, Leeds; Mr. Lawson Tait, Birmingham; Mr. E. H. Fenwick, London; Mr. Handfield Jones; Dr. Jacob, Leeds; Dr. Lowe, Workington; Mr. F. Proud, Bishop Auckland; Mr. J. Whittingdale, Maidstone; Mr. C. Barry, Castle Eden; Mr. Stretton, Kidderminster; Mr. Freer, Birmingham; Mr. S. Lawrence, Oban; Mr. F. A. Davis, Philadelphia; MM. Rigaud and Chapoteaut, Paris; Dr. R. G. Alexander, Halifax; Messrs. E. Smith and Co., London; Mr. Wakefield, London; Mr. T. W. N. Greene, Consultas; Mr. Sibbald, Richmond; Dr. Illingworth; Mr. Barnardo, London; Dr. Coburn, Fredericton; Mr. Pink, London; Dr. A. J. Mickle, London; Dr. Thompson, Stapleton; Mr. G. F. Blake, Dublin; Mr. J. R. Stocker, Liverpool; Mr. W. Crookes, London; Mr. Ash, Monaco; Mr. Gramshaw, Walton; Mr. Scopes, Dartford; Mr. Thomas Christy, London; Mr. A. F. Hawkins, Birmingham; Messrs. Farwig and Co., London; Mr. W. S. Barrett, Hinckley; Messrs. Bromley and Co., Lincoln; Mr. Robottom, London; Mr. G. A. Harris; Dr. R. E. Dudgeon, London; Mr. J. T. Wilmott, Brisbane; Mr. McNaught, New Church; Dr. Heelas, Bonchurch; Dr. J. Wheeler, London; Mr. C. E. Jennings, London; Mr. W. Sedgwick, London; Messrs. Duncan and Co., Edinburgh; Mr. A. V. Dyer; Mr. F. O. Combe; Messrs. Griffin and Co., London; Mr. Hicks, Hendon; Mr. Jesset, London; Dr. Lucas, Ramsgate; Mr. Walker, Glasgow; Mr. Berthier, Paris; Mr. Bostock, Mansfield; Mr. Ashcroft, Birmingham; Mr. Hodgkinson, St. John's Wood; Mr. Mason, Highbury; Mr. Beales, Yarmouth; Mr. Craske, London; Mr. Heron, London; Dr. Saul, Lancaster; Messrs. Newbery and Co., London; Mr. Armstrong, Manchester; Messrs. Reynolds and Co., Leeds; Mr. Oldham, Monsall; Mr. Hanks, Malmesbury; Mr. H. Marsh, London; Dr. Adye, Bradford-on-Avon; Messrs. Butterfield and Son, Northampton; Dr. Davies, Manchester; Messrs. Fannin and Co., Dublin; Dr. Tennant, Matlock; Mr. Porter, Leven; Mr. Friend, Brighton; Mr. Bottomley, Ashton-under-Lyne; Messrs. Hopkinson and Co., Nottingham; Messrs. Thorne, London; Messrs. Beale and Son, Brighton; Mr. Lacey, Wandsworth; Messrs. Burroughs and Co., London; Mr. Moullin, London; Mr. Gurner, London; Mr. Myers, Edinburgh; Mr. Hornibrook, London; Mrs. Stanning, Newark-on-Trent; Mr. Hawkins, London; Mr. Knightley, London; Messrs. Wyley and Co., Coventry; Messrs. Wright and Co., Birmingham; Mr. W. J. Penny, Bristol; R., Stand Sure; R. W. W.; A. B., Bow; G. M. P.; T. C.; Doubtful; T. B.; J.; M.D.; A Brigade-Surgeon; Lady Superintendent, Belgravia.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Saundby, Birmingham; Mr. Higgins, Malvern; Mr. Gale, Tetsworth; Mr. Gray, Burnley; Mr. Hopkins, Bath; Mr. Phillips; Messrs. Burgoyne and Co., London; Mr. Remner, Dublin; Mr. Butler; Messrs. Bennett and Co., Salisbury; Dr. Rayner, Malvern; Mr. Whitehead, Wellington, New Zealand; Mr. Carmont, Dumfries; Mr. Osborne, Worksop; Mr. Nivin, Oldham; Mr. Snell, Ketton; Mr. Pead, Dulwich; Messrs. Roberts and Co., London; Miss Carson, Burton-on-Trent; Miss Spreat, St. John's Wood; Miss Napper, Eastbourne; Mr. Derry, Leeds; Mr. Ligertwood, West Malling; Miss Hargreaves, Stoke-on-Trent; Messrs. Cassell and Co., London; Dr. Lindsey, Mickleover; Mr. Hemery, Nottingham; Mr. Harrison, Liverpool; Miss Chreiman, Kensington; Mr. Hague, London; Dr. Cock, Peckham; Mr. Powne, Chard; Messrs. Schweitzer and Co., London; Mrs. Billing, Birmingham; Mr. Haywood, Manchester; Mr. Coleman, Cardiff; Mrs. Terril, Hertford; Mr. Brown, Westgate-on-Sea; Mr. Browning, Manchester; Messrs. Bennett and Co., London; Mr. Thompson, London; Dr. Hadaway, Garlinge; Mr. Archer, Marseilles; Mr. Green, Middlesbrough; Mr. Sarsfield, Limerick; Mr. Griffiths, Chester; Mr. Young, Slough; A. J. L.; Matron, Bedford; J. M., Keith; Medicus, Chesterton; A., Finsbury-park; Beta, Carnarvon; Hakim, M.D.; Medicus, Liskeard; Box, Hull; Iodine; Theta; Medicus, Ponder's-end; M.D.; C.M.; Medicus, Rhyl; Tropar; H. W.; X. Y. Z.; Z. Y. X.; A.; Max; Medicus; E. S.; T. C. D.; Galen; B. S.; Ajax; W. H. B., Risca; Medicus, Hove; Cymro; Delta, London; Berks; Superintendent, Newcastle-on-Tyne; T. M., Chelsea.

The Hospital, Boston Guardian, Macclesfield Courier, Devon Evening Press, Bit of Blue, Nottingham Journal, &c., have been received.

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Lectures
ON THE
SURGICAL TREATMENT OF PULMONARY CAVITIES.

Delivered at the Consumption Hospital, Brompton,

By RICKMAN J. GODLEE, M.S., F.R.C.S.,
SURGEON TO THE HOSPITAL AND TO UNIVERSITY COLLEGE HOSPITAL.

LECTURE I.

GENTLEMEN,—It may be hoped that the subject of the surgical treatment of pulmonary cavities is still in its infancy, and it may fairly be anticipated that whilst that of certain classes of cases will advance in efficiency, the treatment of others will again be handed over altogether to the physicians, although it is not yet obvious in what direction their efforts, if pursued, are likely to be more successful than heretofore. In some forms of pulmonary abscess surgical interference is obviously inadmissible; nothing, for instance, can be hoped from it in treating a lung which is riddled by numerous tubercular cavities or the multiplied gangrenous foci which occur in the course of embolic pyæmia. Those in which surgery has been, or may be, attempted, may be thus classified:—1. Tubercular cavities. 2. Cavities resulting from gangrene of the lung. 3. Cavities resulting from the bursting into the lung of abscesses or other collections of irritating matter from without. 4. Bronchiectases, from whatever cause arising, and including those which depend upon the presence of a foreign body in the air passages. Before giving an account of such cases as have come under my own observation, I propose to give a short *résumé*, not a complete history, of what has been done by others in this branch of surgery.

As long ago as 1726 Dr. (afterwards Sir) Edward Barry[1] of Dublin hints at the advisability of opening phthisical cavities in the following quaint way: "But when from the violence of the distemper, or the neglect of a proper method, the symptoms are so far increased as to carry a fatal aspect and elude the force of the most effectual medicines, instead of amusing the unhappy patient with false hope and the repeated use of palliative remedies, or denouncing certain death, it would be of the greatest use if a method could be proposed which, tho' dubious and painful in the operation, may give the afflicted some chance for their life: *Præstet anceps quam nullum experiri remedium.* Such a probable relief can only be expected by opening the breast where the most frequent pain and oppression direct the situation of the ulcer," &c. He then proceeds to say that the operation may be performed without danger because adhesions are sure to exist, and fortifies his argument by the account of a case which may or may not bear upon the subject. It was that of a man who received a sword-wound in the chest, which was allowed to heal rapidly externally. The cough, hectic fever, and purulent expectoration which followed were relieved by a timely opening up of the original wound. But this may of course have been merely a case of empyema. He concludes: "'Tis surprising that this method has not been frequently attempted, since it is founded on such plain and easie reasoning from anatomical observations, tho' I'm sensible that there are several obstacles that will always oppose it, &c. ..... But 'tis most certain that many phthisical persons may by this means be preserved that will otherwise unavoidably perish. If the operation be rightly performed there is great reason to expect success; neither if it fails can it be attended with any great danger or much contributs to hasten their fate." Whether Barry ever actually operated upon a genuine pulmonary abscess must, I think, remain doubtful; numerous cases are reported both here and in another work of his,[2] but I am sure that at all events a large number of these must have been cases of empyema. I cannot leave Edward Barry without quoting a few words about a popular belief at that time in the parasitic nature of phthisis, which at the present day of the bacillary rule sounds strangely prophetic. He says: "It has been observed that ulcers in the lungs and in other parts, when narrowly viewed with microscopes, are covered with several insects; from whence it has been concluded that they owed their origin to them, and by being inspired with the air, fixed their situation on the lungs, eroded and ulcerated them. From the same irregular way of reasoning, these animalcules have been by others supposed the cause of several distempers, and particularly such as are contagious." The whole quotation is quaint and interesting; but Barry's own opinion on the subject is difficult to gather, and, indeed, it is pretty clear that this was as indefinite as his knowledge was vague. He concludes his work on the three digestions with the following words: "This infinite number of animalcules which swarm in the air and on the surface of the earth seem to me to be of much greater use and importance than is generally imagined, as all stagnating animal and vegetable humours are quickly taken up by them, and receive a new life and regular circulation; and perhaps we owe our safety in some measure to this scarcely visible part of the creation, without which the atmosphere would in a short time become highly corrupted, and unfit to continue the life of other animals."

Before Barry's time it is said that Baglivi, in 1714, recommended the incision of pulmonary cavities, but I have not been able to find any reference to the subject in glancing through his long and discursive work.[3] And still older men than these had made incision into the chest in desperate cases, and with good result. Paschal, Paré, and Harvey have cases in point; and upon looking back into the dawn of medical history we must not forget the classical case recorded by Pliny,[4] when a soldier, given up by his doctors and sick of his heavy burden, sought death in the front of battle. Great must have been his wonder when the enemy's spear relieved his sufferings in a quite unexpected manner by opening his empyema. "Atque feliciter hoc vulnere sanatus est."

About the same time as Barry, two or three surgeons seem to have written on the subject. In Göttingen, in 1793, Gumprecht[5] devoted his doctorial thesis to a dissertation on abscess of the lung, in which he advocates the incision of pulmonary cavities; but the diagnosis at that time between pulmonary cavities and empyemata was so uncertain that we do not gain anything beyond the historical interest in perusing his work. At the end of it, however, is an interesting series of cases of wound of the lung, which well repays study. In Scotland, Benjamin Bell[6] in 1778 refers to the free incision of abscesses in the lungs and the drainage of them by means of lead tubes, making special reference to the importance of some arrangement for preventing the tube from slipping into the chest; but he seems to be referring altogether to abscesses which have resulted from the infliction of wounds, and not to those occurring spontaneously.

After this but little attention seems to have been directed to the matter until the middle of the present century; we then find that Dr. John Hastings,[7] fired by Barry's example, procured the help of his friend, Mr. Storks, to open two apparently genuine cases of tubercular apex cavities, one of which improved under the treatment, but the other, a woman of twenty-five years, in whom phthisis was far advanced at the time of the operation, died fourteen days afterwards. The account is to be found as an appendix to his work on the Treatment of Phthisis by Naphtha, and it includes a letter from Sir Henry Marsh detailing two cases supposed to be of tubercular cavities treated by him by incision about 1830; but as in both cases the matter was pointing, a certain amount of doubt must hang over the diagnosis. One recovered and the other died. Hastings says that a Welsh doctor named Thomas performed a similar operation about the same time. He recommends the use of a full-sized gum catheter with a perforated ivory cap, to which straps could be attached, and over which a piece of warm sponge was to be placed.

A few years later there appeared an interesting paper by Dr. Horace Green,[8] written in a somewhat combative spirit,

[1] A Treatise on Consumption of the Lungs, Dublin, 1726, p. 217.
[2] A Treatise on the Three Different Digestions and Discharges of the Human Body, 2nd ed., 1768.
[3] Georgii Baglivi, op. om. Lugd., 1714.
[4] Lib. vii., cap. 50.
[5] De Pulmonum Abscessu ope Chirurgica Aperiendo. Göttingen, 1793.
[6] A System of Surgery, third edition, 1799, vol. v., chap. 36, sect. 11.
[7] Pulmonary Consumption successfully treated by Naphtha. London, 1845.
[8] On Injection of the Bronchial Tubes and Tubercular Cavities of the Lungs. American Medical Monthly. 1855.

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because the possibility of passing tubes through the glottis from the mouth had been denied by Erichsen and others. His treatment for both bronchiectatic and tubercular cavities consisted in passing a soft tube not only into the trachea, but, so he asserts, into one bronchus or the other as the case demanded, and injecting a drachm or more of an aqueous solution of nitrate of silver (thirty or forty grains to the ounce) into the dilated bronchi or the pulmonary cavity. The patients whose cases he recites appear generally to have been distinctly benefited, and, as is very remarkable, seem not to have suffered from a fit of coughing or other unpleasant symptom at the time the injection was made. Notwithstanding its apparent success, however, the treatment does not seem to have met with much favour, nor are his extremely categorical statements, it must be owned, quite convincing that the dose was not sometimes received into the stomach.

Quite another method of introducing fluids into phthisical cavities is suggested by Dr. F. Mosler of Greifswald.[9] He passed a fine trocar and cannula through the chest wall into the cavity, and then injected through the cannula a weak solution of permanganate of potash. Then in a later case he called in the help of Hüter, who made an incision into a large apical cavity. The incision was made at the upper border of the third rib, 5½ cm. from the sternum, and passed through firm pleural adhesions. The operation offered no difficulty, and caused no trouble from hæmorrhage. He subsequently injected weak perchloride of iron when some little bleeding had occurred, and at other times solutions of carbolic acid and permanganate of potash and tincture of iodine. The patient lived from July 2nd to Oct. 5th, and for a time seems to have markedly improved; the cough was much relieved, and the great albuminuria from which he suffered diminished. The albuminuria returned, however, and emaciation became great, and it is perhaps questionable how far life was prolonged, though comfort was, no doubt, given by means of the operation.

An almost precisely similar method of treating pulmonary cavities has been advocated in America by Pepper of Pennsylvania and Beverley Robinson of New York,[10] and in our own country this or some modification of it has been put in practice by Dr. Shingleton Smith and others.

Dr. Shingleton Smith[11] records five cases, two of which were of tubercular phthisis, one was of gangrene of the lung, one of chronic pneumonia, and one of chronic tubercular pleurisy. The phthisical patients seem to have improved somewhat under treatment, though one developed some pleurisy, which was possibly the result of the injection; the tubercular pleurisy case remained *in statu quo;* the other two cases died—not, however, apparently as a result of the injection. The method of proceeding is to introduce with a hypodermic syringe five minims of ether in which one grain of iodoform has been dissolved; the iodoform was at first dissolved in oil, but a fear of fat embolism led to the adoption of ether as a solvent. The injections were sometimes continued daily, sometimes less often. I do not think that these cases show much, except, as is stated by the authors, that the process does not appear to be a dangerous one. I can conceive that the introduction of iodoform might be useful in cases of bronchiectatic or gangrenous abscesses, though I think that a free incision into the latter, at all events, would be better treatment. As to the phthisical cavities, it seems most improbable that, even if iodoform be fatal to the tubercle bacillus, it could be made to diffuse itself sufficiently to reach further than the immediate vicinity of the cavity or the spot of solid lung into which the injection is introduced; if, therefore, it be of any service at all, it can, I conceive, only be in the direction of stopping the fetor of the expectoration from a vomica. This, then, does not appear a very promising line of treatment to pursue. If ever we do discover a drug which is a specific for destroying the active principle of tubercle, it is more likely that it will be efficient if administered internally than if any attempt be made to attack locally a mischief which is usually, at the period when such an attack would be thought advisable, very widely diffused throughout the organ.

An interesting summary of what has been done in the direction of pulmonary surgery will be found in a paper by Dr. de Cérenville of Lausanne.[12] He has himself treated surgically four cases of phthisical apex cavities with a different object from that pursued by others—viz., following Estlander's treatment for chronic empyema, to allow the chest walls to collapse on the cavity by removing portions of the ribs. These are his cases:—

1. F——, aged forty years, advanced phthisis with large cavity at left apex. Resection of the third rib to allow the chest wall to fall in. The patient lived little more than a fortnight. Some retraction is said to have occurred.

2. F——, aged fifteen. Advanced phthisis, with consolidation and excavation of the upper lobe of the left lung. Parts of the second and the third ribs were excised, and threads were passed through the pleura into the lung in order to ensure adhesions if these were not present. Four days later, an attempt to reach a large cavity resulted only in the discovery of a small one. The operation appears to have had but little influence on the progress of the disease. The patient died three weeks after the first operation.

3. F——, aged twenty-five. Advanced phthisis; cavities in the left upper lobe. Parts of the second and third ribs were removed, and a large cavity was opened. The cough and expectoration were very much relieved, and the cavity decidedly contracted; the patient living five weeks after the operation.

He has also operated on another case of which he does not give the notes. The results of these are interesting, but not very encouraging. The cases were obviously hopeless, however, and some temporary relief seems to have been gained in the third. At the Congress at Wiesbaden, 1883, the consensus of opinion (Mosler, Fenger, Hollister, &c.) seems to have been strongly against the opening of tubercular cavities, at least until a specific tubercular bacillicide can be found. De Cérenville agrees with this conclusion in the main, making, however, a possible exception in favour of cases where the cavity is single, the cough troublesome, and the mischief apparently localised. He allows, however, as is notorious, that the amount of mischief is likely to be greater than the physical signs indicate. As far as I can form an opinion without practical experience I am inclined to agree with de Cérenville, though I cannot help thinking that in a certain number of cases of single apex cavities with troublesome cough, not only might the symptoms be relieved, but the danger of transplanting the mischief into the other lung might be to some extent lessened.

A far more heroic method of dealing with tubercular lung has been in recent years suggested by certain Italian surgeons who have made this subject a specialty, though it has been followed up by some observers in Germany. Dr. Domenico Biondi showed first the possibility of an animal surviving the complete extirpation of a healthy lung,[13] and then proceeded to demonstrate that the same might be done in an animal the lung of which had previously been inoculated with some of the sputum of a tubercular patient, and had actually become the seat of tubercular changes.[14] A very considerable proportion of the animals (rabbits, cats, and dogs, twenty-one in all) died as the result of the first or the second operation, but some survived and lived for a very considerable time afterwards. The dogs and cats were not favourable subjects for the development of tuberculosis, but it is remarkable and interesting that in some of the rabbits tubercle was actually developed in the lung, which was removed, and after the removal the animal remained free from further development of the disease. The conclusion that the author wishes to draw is obvious, but he hardly ventures to hint at the application of the treatment to the human subject, and it can scarcely be suspected that it will ever be placed amongst the recognised surgical procedures. It could only be applied in the early stages of phthisis, when the disease may be considered within the possibility of a practically permanent cure by other and simpler means. And indeed the same may be said of another possible deduction—namely, the removal of tumours of the lung. Diagnosis must clearly reach a much greater pitch of refinement before the physician could counsel or the surgeon attempt the removal of a primary tumour of the lung, rare as it is, and difficult as it must always be to discover in its

[9] Separatabdruck aus der Berliner Klinischen Wochenschrift, 1873, No. 43.
[10] New York Medical Record, Jan. 10th, 1885.
[11] Bristol Medico-Chirurgical Journal, Sept. 1885.
[12] De l'Intervention Opératoire dans les Maladies du Poumon. Revue de la Suisse Romande, 1885, p. 441.
[13] Estirpazione del Pulmone. Contribuzione sperimentale per il Dr. D. Biondi. Gior. Internaz. d. Sc. Med. N. S. iv.
[14] Loc. cit., N. S. vi., 1884, pp. 736-741; or Med. Jahrb. Wien., 1884, pp. 207-216.

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earlier stages, when alone it could conceivably be extirpated.[15] It must, however, be stated that in two cases of phthisis parts of the lung have been actually removed by Ruggi, one of the patients dying in a few hours, and the other on the ninth day. And not only so, but tumours of the lung also have been removed, though it must be owned that the experience of the surgeons who undertook the operation is not very encouraging. Weinleicher, in 1882, removed a round tumour as large as a man's head from the thoracic wall of a man aged thirty-seven, leaving a huge gaping opening into the chest and taking away a part of the lung to which it was adherent; the patient died twenty-four hours afterwards. And Kroenleim also removed a recurrent sarcoma in the same situation from a girl, aged eighteen, taking away part of the sixth rib and some adherent lung. The end of this case is not reported in the interesting article of Albert's from which I take the reference.[16]

Lastly, to complete this branch of the subject, must be mentioned a method of treating tubular lung, whether containing cavities or not, introduced by Guérin in 1830, and more recently modified and extensively practised by Vidal—viz., the puncture by means of the actual cautery. Vidal reports forty-four cases, thirty-seven of whom improved under treatment; and I believe that this method has also been employed in Australia.

Gangrenous cavities.—It must be remembered that gangrene of the lung may follow wounds of the chest, and in the old days of duelling empyemata and pulmonary abscesses from such a cause seem to have been common. Now, however, this is not the case in civil practice. Gangrene of the lung is said also to be caused by the presence of a foreign body in the air passages; but as from the present point of view the dilatation of the bronchi, which I believe invariably follows, is the more important lesion, I shall discuss this question under the head of Bronchiectasis; and will pass on to gangrenous cavities resulting from some form of pneumonia. These cavities are perhaps the most promising with which the surgeon is called upon to deal, especially if operation be not too long delayed. In the course of time, if the patient survive, the surrounding lung becomes condensed and inelastic; but in the earlier stages of the disease it retains more or less its normal characters, and the walls of the cavity are able to fall together like those of an abscess in the soft parts elsewhere. But delay is often almost unavoidable on account of the great difficulty of localising the position of the cavity with precision, and the still greater difficulty of ascertaining the absence or the presence of adhesions. I do not think that the second point should be allowed to influence the surgeon in the direction of delay, and certainly should not interfere with an exploratory puncture, because, in the first place, experience shows that even adhesions which have been accurately diagnosed by the most competent observers may, after all, be found to have no existence, and, in the second place, it seems clear that exploration with an aspirator needle may be safely made through a patent pleura, even if the instrument pass into a collection of putrid pus. I do not say that mischief will never follow this procedure, and I am sure that it is wise to ascertain for certain the condition of the pleura before making a free incision into a lung containing septic pus, for if the non-adherent pleura be opened, and through it a drainage-tube be passed into a putrid cavity, very serious symptoms may result. This was well illustrated in a case of bronchiectasis (which will be referred to again), where we had ascertained a week or two previously that there was some clear fluid in what was thought to be merely a remnant of the pleural cavity. On cutting through the intercostal space, it was found that the two layers of the pleura had become adherent since the preliminary puncture, but only by very weak adhesions, which easily broke down under the pressure of the finger and the expiratory efforts of the patient whilst the opening was being made into the bronchiectatic cavity. This led to the opening up of a large remnant of the pleural sac, the walls of which were non-adherent, and the consequence was that the pus from the bronchiectasis escaping into the pleura set up a septic pleurisy, from which the patient nearly died.

[15] These experiments have also been carried out in Germany, by Th. Gluck, in 1881 (twenty cases, some successful removals of the entire lung). Dr. Hans Schmidt (three out of eight survived), and Dr. Block, in 1882 (fifty to sixty cases done without removal of rib).

[16] Ueber Lungen Chirurgie. Wien. Med. Presse, 1884, p. 887.

It will be well, therefore, to consider at the outset what should be done when these adhesions, so commonly but yet not invariably found, are wanting. One plan would be that mentioned above as recommended by De Cérenville as a precautionary measure—namely, to pass needles armed with silk through the pleura into the lung; but as in almost all cases the lung is solidified, and will therefore not fall away to any extent from the thoracic wall, even if no adhesions at all be present, I do not think that this, though quite unobjectionable, can be considered to be a necessary precaution. The right method of procedure, though I confess it is not a very easy one, is carefully to stitch the lung up to the opening which has been made in the chest walls. It is a difficult proceeding, because the parts are in a constant state of movement from the act of respiration, and because the lung itself is but ill suited to retain the stitches that are placed in it, and also because the hole in which the manœuvres have to be carried on is a rather deep one, and mostly obscured by the presence of blood. I have only once had to put this plan into practice, and though here it was only partially successful, it was sufficiently so to show that, with a little more care, the closure of the pleura might have been effected. We found, in this case, at the end of a few days, that a part of the stitching had given way, but as no cavity was reached, no evil consequences as regards the pleura resulted, the wound remaining aseptic. Of course, after the stitches have been placed, the attempt to open the cavity must be postponed for at least a week, and at the end of that time the instruments used must be sharp, and their employment gentle, lest the accident which it is intended to avoid may, after all, happen.

(To be concluded).

An Address

DELIVERED AT THE

OBSTETRICAL SOCIETY OF LONDON,

On February 2nd, 1887,

BY J. B. POTTER, M.D., F.R.C.P.,

PRESIDENT OF THE SOCIETY.

GENTLEMEN,—I have again to congratulate the Society on its prosperous and healthy condition. Our numbers at the close of the year were 736. We have lost by death, resignation, and erasure 40 Fellows, but during the year we elected the large number of 72. Including the 25 new members that have been already elected this year, the Society at the present time stands with a total of 761, the highest number that has been reached since its foundation. Our financial position is good. As you have heard from the report of our excellent treasurer, another £100 has been added to our invested funds, making the amount of our capital £1500, and we commence the year with a good balance at our bankers. Our library has been increased by the addition of 156 volumes, bringing up the total to 3690. These are all proofs of our popularity and prosperity; but the success of the Society depends more upon the work done, and we can show continued good results in this. Our midwifery board reports good and still increasing work. The number of women examined reached the large number of 102, of whom 80 were found qualified to receive the Society's diploma; 395 women are now on our register. This gratuitous and honourable work, as was stated last year, causes considerable strain on the Society and its unpaid examiners, and, as the numbers are continually increasing, some scheme will have to be devised to meet the difficulty. It is curious to notice how the value of the Society's diploma has increased when we observe that, whereas in the first eight years only 47 names appear, during last year 102 women presented themselves for examination. The unsettled state of politics still prevents this burning question from coming to the front, as sooner or later it must do; but the Society, if it had no other work to show, may well be proud of having taken in hand this duty, so long neglected by the State. The attendance at our meetings has been good, and the work of the session

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maintained. The publication of the Transactions in portions has been undertaken for the first time, and, although the circulation has not been large, it has been a boon to those who have availed themselves of it, and an advantage to the Society in bringing its work more rapidly before the notice of the profession.

[Dr. Potter then entered into an enumeration of the more remarkable of the specimens shown and of the chief papers read at the meetings of the Society during the past session.]

I have attempted no more than a slight summary of the work of the Society during the year, and the quality of the papers is an evidence that its scientific standard has been well maintained, and that it has fulfilled its function as established for the promotion of knowledge in all that relates to obstetrics and the diseases of women and children. It may be contended by some that we have not the records to show of great improvements in the practice of our art during the past year—no striking novelties in treatment; but it is the function of the Society to maintain a judicial attitude, and, while assisting progress when the progress is real, to check or arrest this when it tends to danger. In other words, it welcomes improvement, but avoids destruction. One of the highest points that we should aim at is the prevention of disease, and this, though well worked out in the practice of obstetrics, has not received the same attention in the diseases of women. Much has been done at different times to solve the important question, Should any death occur in or after natural labour? And the answer to this question has been each year more favourable, as evidenced by the improved record of our lying-in hospitals. Even in difficult labour mortality has been much reduced, and though the wish expressed by Dr. Tyler Smith in his paper in the first volume of our Transactions for the abolition of craniotomy from obstetric practice in all cases where the fœtus is living and viable has not yet been fully realised, the more frequent induction of premature labour and more timely use of the forceps have conduced much in this direction. In our present state of knowledge we are not yet prepared to accept abdominal section as its alternative in all cases, still holding to the English axiom—the safety of the mother before that of the child. Again, by the use of chloroform and the more frequent application of the forceps we have means of preventing laceration and sloughing of the soft parts, thus rendering far less common the miserable after-effects of a lingering labour. But the prevention of diseases of women has not received the same attention: the effects of cold, damp, climate, occupation, imprudence and want of care at the menstrual periods, the effect of excessive child-bearing, abortions, the prevention of impregnation, and many other causes of disease, deserve and require our careful consideration; and he who can prevent the occurrence of the diseases of women will be a greater benefactor to his race than the operator, however skilful he may be, who treats them.

The whole question of uterine pathology is far too large a one to enter into here, even had we the requisite time at our disposal. To attempt to enter into the various theories that have from time to time given rise to different modes of treatment would be a perplexing and unprofitable task; each seems to reign for a short time only to be cast aside and replaced by some other, and now the tendency seems to grow more and more surgical, until at last to some minds abdominal section and the removal of internal organs seem the panacea for all the evils that woman is heir to. To the indiscriminate use of these procedures we cannot give our adhesion, and especially do we object to the heroic surgical treatment of hysteria—that chameleon disease which still claims so much sympathy and treatment at our hands. Even statistics on these matters, however carefully tabulated, have to be received with caution; the distinction between cases that have recovered or become well and those that can be truly said to have only just escaped death or have lived too frequently with their suffering unrelieved has not always been clearly shown. In estimating these matters much must depend on character. A reputation for truth and logical precision is of more permanent value here than the statement of brilliant results that will not bear the test of investigation. If I have spoken strongly on this matter, it is owing to the fear that some may be apt to forget the sacredness of human life in their zeal for operating, and this must be my excuse.

One task yet remains, and that a sad one. We have always to deplore the loss by death of our members by death. This year fortunately the number has not been so great as on many occasions. Eight have passed away: two of our honorary Fellows—viz., Dr. Simon Thomas of Leyden, and Dr. Courty of Montpellier; and six of our ordinary Fellows. Of the former, Dr. A. E. Simon Thomas of Leyden, whose death was announced so recently as December last, we have not yet been able to find any obituary notice. He was elected an honorary Fellow of the Society in 1866. Many of his works are in our library, one of the most important being his great work on the Oblique Pelvis. For the following notice of M. Courty I am indebted to the memoir published in the *Annales de Gynécologie*, of which journal he was one of the original founders:—

Professor Amédée Courty was born at Montpellier on Nov. 2nd, 1819, his father and grandfather having also followed the profession of medicine. After receiving the usual classical education he threw himself with zeal into the study of medicine, and at the same time devoted himself to the pursuit of science. After taking a licence in Science he became Doctor of Medicine in 1845, the subject of his graduation thesis being "Sur le Développement de l'Œuf dans l'Espèce Humaine." He now gave himself up to the study of physiology, and published several memoirs on this subject, also teaching the subjects of anatomy and surgery until his appointment as a professor in the Faculty of Medicine in Montpellier in 1849, when he wrote a thesis on the use of Anæsthetics in Surgery. In 1854 he wrote a memoir on Cauterisation of the Cervix Uteri with the Actual Cautery during pregnancy. From this time he devoted himself to the special study of the diseases of the genital apparatus in women, and, dissatisfied with the knowledge that he found in the text-books of his time, began to collect materials for the great work on which rests his title to fame, named "Traité Pratique des Maladies de l'Utérus et de ses Annexes," the first edition appearing in 1866, followed by a second and third in 1873 and 1879. This work was translated into English in 1882, with a preface by Dr. Matthews Duncan. Though no doubt largely indebted to the works of German and English authors, still throughout we find the impress of his own mind and the result of his long and patient researches. The great secret of Courty's success in his department of practice was that he became a specialist only after long study and a familiarity with medical and surgical work of many years. On this foundation he grafted his special studies, this being the way in which he understood the term specialty, not following, as is too often the case in the present day, the plan of calling himself a specialist and therefore considering himself one—such a specialist as might be defined as one knowing a very little of one subject and nothing at all of the science and art of medicine. He obtained a large practice in Montpellier, and was largely consulted throughout the south of France. His professorial duties obliged him during his later years to pay frequent visits to Paris, and advantage was taken of his presence by many to avail themselves of his matured knowledge and skill. He took great interest in the French Association for the Advancement of Science, and also in the International Medical Congress. He was a regular attendant and frequent speaker at these meetings. He died on March 2nd at Montpellier. His loss is felt by all the medical world, and especially that part of it devoted to the study of the diseases of women. He was elected an honorary Fellow of this Society in 1875.

Of our ordinary Fellows, John Archer, F.R.C.S., practised in Birmingham, his native town, upwards of fifty years, and was one of the early Fellows of this Society, having been elected in 1859. He was senior surgeon to the Lying-in Hospital, and was an able obstetrician. He was a good type of the general practitioner—honourable, hard-working, and successful. A past president of the Birmingham Medical Institution, he held a most respected professional position in the town. He died on March 8th, at the age of seventy-seven, of angina pectoris.

In speaking of the lamented death of Dr. Alfred Wiltshire, which occurred on the 4th of December, at a comparatively early age, I refer to a loss which is specially felt in our Society; a regular attendant at our meetings, and one who had taken an important part in its management.

[Dr. Potter gave a sketch of the career of the deceased physician, particulars of which were published in our issue of Jan. 1st of the present year.]

Dr. J. Macgrigor Croft, of Abbey-road, practised for many years in St. John's Wood, and died on Jan. 1st. He was elected a Fellow of the Society in 1859.

John M. Burton, F.R.C.S., of Lee, died on Feb. 10th. He

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was a well-known and respected practitioner in that neighbourhood, where he had passed the whole of his long and industrious life. He became a Fellow of the Society in 1862.

Henry Albert Lovett, M.R.C.S., of Tasmania, died in July, 1885, but his death was only reported to us in 1886. He entered the Society in 1876.

John Gittins, L.R.C.P., of Horselydown, was elected in 1867, and died on July 27th, aged forty-five.

Whilst closing these brief and imperfect records of our departed friends, I cannot but feel how often it has been scanty and insufficient, but this has been due, not to a want of respect and appreciation on our part, but to the absence of knowledge and details at our disposal. It may perhaps be said of them as of many other silent workers—

> "The noblest service comes from nameless hands,
> And the best servant does his work unseen."

It remains to me before leaving this chair, to which I was elected by your kindness two years ago, while apologising to you for my many shortcomings, to thank you for your patient consideration and courtesy to me on all occasions; and especially must I thank our secretaries for the help and assistance they have accorded to me at all times. The work of our secretaries, often laborious and self-denying, is known to few; and I can only say that, as long as the Society is served by such officers as Drs. Herman and Champneys, we need have no fear either for its future prosperity or the promotion of obstetric science. Of my successor whom you have elected unanimously to-night, Dr. John Williams, I need say but little; his name is a household word in the Society. Beyond his other and many qualifications, I know of no one who has its interests more thoroughly at heart, and I can only congratulate the Society on the wisdom of its choice.

CASES OF PERITONITIS.

BY JAMES F. GOODHART, M.D., F.R.C.P.,
PHYSICIAN TO GUY'S HOSPITAL AND THE EVELINA HOSPITAL FOR CHILDREN.

(*Concluded from page 410.*)

Now another point. In some cases suppurative peritonitis is marked by all the severity of symptoms found in acute plastic peritonitis, and in such there will necessarily be the small, thready, wiry pulse, the collapse, and the depressed temperature seen in the more rapid form of the disease. But I am now concerned with the cases of more insidious onset, and in these another negative symptom, in addition to the absence of fever, is quite likely to deceive—viz., the absence or comparative absence of pain. Many years ago I remember examining a man, the other details of whose malady have now escaped me, but as regards whom this has remained firmly fixed in my memory, that he allowed the freest possible manipulation of his abdomen without evincing any pain, and yet within a few hours he was dead, and I found the peritoneum to be full of pus. That was an extreme case, but many times since then I have seen this: that the abdomen has been soft, not markedly distended, and the tenderness, although not absent, has been of the slightest; conditions, in fact, which would of themselves seem to negative rather than to suggest the existence of peritonitis.

Next, a word as regards diarrhœa. Constipation is the symptom of peritonitis, not diarrhœa. So constantly is this the case that, as I have just said, one of the great difficulties of practice is to say whether we are dealing with mechanical obstruction or the obstruction wrought by paralysed peristalsis. I am sure it is quite impossible in some instances to be certain of the nature of the case without having surgically a finger in the pie. Peritonitis is far the more common. But what about diarrhœa? That may well seem to negative peritonitis. It by no means negatives *suppurative* peritonitis. But more than this, I wish to insist that when it exists with any symptoms of peritonitis it is, in my experience, an omen of the gravest, I would almost say fatal, import.

Some have laid stress upon the position of the pain in peritonitis associated with cæcal inflammation. Some have said that it is very liable to be referred to the left groin, others to the umbilicus; I would venture to assert, on the other hand, that the peritoneum is very treacherous in this indication. I remember some years ago making a post-mortem for Sir William Gull and Mr. Bryant upon a lady who had died with an illness of much obscurity; and Sir William Gull said to me before commencing: "I want the liver examined very carefully. I am sure there is some disease in that neighbourhood; there was always so much pain in the right shoulder." This opinion was so far correct that there was a considerable collection of pus between the liver and the diaphragm; but the real disease, of which I believe there had not been a suspicion, was a sloughing cæcal appendix and suppurative peritonitis.

This case leads me to remark upon the very insidious nature of some of these cases. In the two cases I first narrated there were pains in the abdomen, which, had they been more carefully attended to, might possibly have enabled one to avert the disastrous result. But I remember two other cases, which occurred to me some time ago, which well illustrate this point. I was asked by Mr. Alexander to see a policeman, not far from the hospital, because he was having nearly daily repeated rigors of severity associated with a temperature of 103°, and during the attacks his condition seemed to be a very alarming one. He had had a severe attack of epigastric pain and jaundice five months before, but had been well in the meantime. When I saw him he was apparently pretty well, his temperature normal, and all that I could detect was a little tenderness of the abdomen near the gall-bladder. He remained thus without any severe symptoms till the Monday, when he was suddenly seized with intense epigastric pain, collapse, and feeling of impending death, and he died within two and a half hours of his attack. We made a post-mortem examination the next day, and found the cæcal appendix twisted and adherent to the cæcum, dilated into a sac of considerable size near its termination, with smooth abscess-like walls, an ulcer into the peritoneal cavity, and a small concretion escaping. There were extensive adhesions between the liver and the diaphragm, and a large abscess between them and in the right lobe of the liver. Another very similar case, I believe, for there was no post-mortem, I saw with Dr. Boothroyd of New Cross, only a month or two ago, in the person of a healthy-looking man, aged twenty-five. He had had a severe attack of abdominal pain and frequent vomiting four months before, had been very ill at the time, but got quite well. He had been ill nine days when I saw him with remittent attacks of fever, sweating, and rigors. He had a normal temperature, was sweating profusely, his tongue a beefy red, and a rather full abdomen, but nothing capable of localisation. Remembering my former experiences, I could not but fear that there was some deep-seated suppuration about the mid-rib, but in the absence of any indication of its exact seat, and having a dislike to bootless prodding, we decided to wait for further knowledge. I did not see the case again, but Dr. Boothroyd told me that the temperature continued to rise almost daily; the sweating continued, a little more fulness appeared in the epigastrium, and the lower lobe of the left lung became consolidated. Dr. Boothroyd still felt sure that there was an abscess high up in the abdomen between the liver and diaphragm, or in the liver itself, and I have not yet recovered from my disgust at the stupidity of the poor man's friends in refusing any further aid, and in subsequently refusing to let us make an inspection of the body.

One other word about these cases, which always seems to me worth while to insist upon—viz, the frequency with which pleurisy spreads from peritonitis, and peritonitis from pleurisy. I was once in frequent attendance upon a case of empyema with another medical man. It was in an only boy, and anything the matter with him, or rather, in his then condition, any variations in his progress, were the causes of repeated panics. I had left the house one morning, the child doing perfectly well, for the rest of the day, and returning at night found the whole place in a turmoil—another doctor called down from London, whispers of some serious fresh complications, and so on. The child had suddenly been seized with fresh pain in the upper part of the abdomen, and was consequently in great distress for the time; but I believe it was nothing more than the extension of inflammation through the diaphragm, calling for the exhibition of opium. At all events, that treatment was adopted; all the pain subsided, and no further evil happened.

I do not think the freedom of communication between the serous sacs of peritoneum and pleura is sufficiently well reco-

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gnised. We are all familiar with the jaundice, which is a not uncommon feature of right-sided pneumonia, and we attribute it, perhaps, vaguely to the proximity of the diseased lung to the liver; but it is not so generally known that in a great many cases there is a well-marked inflammation of the peritoneum, in these cases limited to the surface of the liver—a condition, in fact, of direct extension. This extension occurred in three of the cases I have quoted, and I might give several others. Not long ago I saw a boy of fifteen with Mr. Withers Green of Serjeants'-inn, who had been ill five days, and who was then dying of acute peritonitis, but he had, in addition, acute pleurisy spreading up the left side. The point is clearly of much importance both as regards prognosis and treatment. Indeed, as regards diagnosis also it may not be unimportant, as one of the cases I have mentioned shows. Surely, with abdominal pain and vomiting, tenderness in the cæcal region, followed by diarrhœa, and then by an acute form of pleurisy, it is flying in the face of probabilities to suggest anything else than a primary peritonitis followed by the pleurisy. As regards prognosis, too, a daily examination with the stethoscope of the lateral regions of the thorax will help us, sometimes by the discovery of pleuritic inflammation, more correctly to forecast the issue of the case.

I have not much to say dogmatically on the subject of treatment. What I purpose is rather to say a word upon the difficulty that besets us in this matter in these cases in the present day. Take all the cases we have seen, and I suppose this to be the summary — they have all been regularly and properly treated by opium, and perhaps belladonna, local applications, and so on; they have all been properly subjected to a rigorous limitation of food, both as regards quantity and material; some, perhaps, have been fed for a time exclusively on enemata. Nevertheless, some—I will not go into proportions—a good many have got well; but others—others, which at least promised equally well, or better—have rapidly gone to the bad. That is where I stand at present, and I only make the statement personal because I am sure it is the experience of all. We have all seen patients whose condition looked exceedingly grave pull through by skilful medical treatment; we have all of us seen cases that looked well die. See how difficult this experience makes practice in the present day. How can we tell in any given case whether to trust to medical treatment alone, or to commit the fortunes of the patient to the chance of relief by exploring the abdominal cavity. The peritoneum is now dealt with by the surgeon under conditions of antiseptic surgery with the greatest freedom. We hear of ovarian tumours with general peritonitis being removed successfully—nay, more, of patients thus rescued from what seemed the jaws of the grave. We hear of the peritoneum being drained, washed out, sponged out, and so on, with the immediate subsidence of alarming symptoms; and this question must occur to all of us when these cases die without operation, "Could life have been saved by opening the abdomen?" Now I am not writing to advocate any general rule of treatment; my purpose is rather to bring myself as near as may be face to face with the difficulties of anyone called upon to decide this matter, believing that by so doing any one of us will be more master of the situation in the next case of the kind that comes before him, even if we decide nothing at the moment. I have already stated the main difficulty, medically speaking. The deaths make us think, "I wish we had done something"; the recoveries, "I am very glad we waited." Who can help being undecided. But there are other difficulties. I have alluded to the insidious nature and the obscurity of some of these cases. See what this implies: firstly, the inertia resulting from our fear of doing actual harm to the patient, of submitting him to an operation the necessity of which is not quite certain, and which if not necessary is harmful; Secondly, the inertia supplied by the fear that the operation may prove fruitless and the patient die soon after; thirdly, the inertia resulting from a certain regard for our own reputation, for in such a case it is very likely indeed to be said that the operation has killed the patient; and, lastly, the inertia which results from the very natural antipathy in everyone to the resort to painful treatment which is the very breath of the atmosphere of "home." Some may think such things trifles compared with the main—say they the only—question, What is the best thing for the patient?—a stoical maxim of medical ethics which completely demolishes indecision. I venture to think, however, that a paper argument of that kind is overweening, and that it is through such ins-and-outs as have been mentioned that one ultimately has to act. I shall not attempt to decide in any detail what cases should be operated upon, what cases not. I do not think it is possible to decide for more than one case at a time, but I firmly believe that thinking the matter out in this informal way will enable us, sometimes at any rate, to recommend an operation and to save a life. There is no doubt this may be done much less fearlessly than in times gone by; and in any case where the symptoms are severe, and there is any tendency towards localisation of the mischief, this is *par excellence* the one most suitable for operation. Obviously so. But I am further inclined to think that others also, where the inflammation is more generalised, may sometimes be rescued, could we in any given case appraise with sufficient skill the right value of the symptoms, hit off with balanced judgment the proper point—the nick of time—on the inclined plane of deterioration, and courageously make as little as possible, instead of as much as possible, of the inertia remaining.

PHOSPHATIC DIABETES.

BY CHARLES HENRY RALFE, M.D. CANTAB., F.R.C.P.L.,
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(*Concluded from p. 413.*)

GROUP 3. *Increased excretion of phosphoric acid alternating or coexisting with saccharine diabetes.*—I am indebted to Mr. Meredith for a unique example, as far as my experience goes, of phosphatic, replacing saccharine, diabetes. The case was that of a young American gentleman, aged twenty-one, and a student of Harvard University. About two years previously to my seeing him he was training for a college boat-race, and one day, whilst practising, he was much exposed to the sun's rays, which fell on the upper part of his back and neck, which were not protected by his rowing jersey. So strong was the action of the sun that he felt very faint, and the next day the skin of his neck was blistered, and for some time afterwards his neck felt stiff. About six months after this it was noticed that he was looking pale and thin, and had lost weight, and he himself complained of weakness and of sciatic pains. Dr. Sabine, his medical attendant, then discovered sugar in his urine, and a sample being sent to the laboratory at Harvard, it was found to contain as much as 5 per cent. of sugar, whilst a decided increase of urea and phosphoric acid was also noted. A strictly regulated diet controlled the amount of sugar, but it always asserted itself again on the slightest breach of discipline or attempt to study, or after more than ordinary exercise. It was then determined that he should come to Europe, and see if anything fresh could be suggested. On his arrival Mr. Meredith kindly gave him my name; the reports of the American physicians were handed me, and the urine of the twenty-four hours was sent to me for analysis. It was extremely acid, normal in amount, but with a specific gravity of 1040; it contained 2½ per cent. of sugar, the patient being on partly restricted diet; there was also considerable excess of urea and phosphoric acid. The patient had lost altogether more than a stone in weight, was much depressed, suffered greatly from headache, pains in the pelvis and thighs, and was also troubled with boils. I ordered the patient to continue his diet, put him on liquor arsenicalis bromidi, and told him to take two Russian vapour baths a week. This treatment was continued three weeks, and the patient was better in every way. There was only a trace of sugar in the urine, the pains had diminished, and there was less headache. The treatment was continued for another month, during which period the patient, instead of residing in London, spent the time chiefly at the seaside. The urine now became free from sugar, except every now and then, when a trace appeared; but, to my astonishment, there was no great fall in the specific gravity, which, with a normal secretion of urine (from forty to fifty ounces daily), ranged from 1030 to 1033; and it was then I found that he was passing daily an enormous quantity of phosphate of lime. I now placed him upon mineral acids with nux vomica, and told him to take a tablespoonful of cod-liver oil once a day in lime-juice, and to spend the summer among the high Alps. A slight relaxa-

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tion was permitted in his diet, a small quantity of wheat bread and some of the least injurious vegetables, such as tomatoes, French beans, cauliflowers, &c., being allowed. He was away the greater part of three months, and on his return looked much improved, had gained six pounds in weight, lost all his pains and headache, and was able to take long walks without fatigue. The urine still continued at from forty to fifty ounces, but the range of specific gravity was now 1024 to 1027, and the amount of phosphoric acid daily excreted, though far from being within normal limits, was still much reduced; no sugar had been seen for several weeks. He now returned to America, with instructions to follow a moderately restricted diet for at least two years, not to study more than three hours daily, to be careful not to engage in athletic pursuits, and only to take moderate exercise. A year after his return I received a letter to say that he had completely regained his health—that he was completing his course at the university, and that for the summer he intended to camp out west on one of the prairies. His urine, which, according to my advice, is examined once a week, is still normal in quantity, and the specific gravity is nearly so; the sugar only occasionally reappears in minute quantities.

In a second case the phosphaturia coexisted with a mild form of diabetes. This patient first came under notice in 1880; he had suffered some time before from saccharine urine, which, however, had not much affected his general health, when he began almost suddenly to experience constant aching pains in the loins and pelvic region; he also became dispirited and hypochondriacal, and began to lose flesh. The amount of sugar had always been controlled by diet, and at the onset of these symptoms he certainly was not passing more sugar than he had done before. Nor could any correspondence be observed between the amounts of sugar and the amount of phosphoric acid, for the mean of three observations made when no sugar was present in the urine gave a daily excretion of 6·7 grms., and 6·8 grms. (also the mean of three observations) when the sugar was considerable. After treatment the daily average excretion was reduced to 3·8 grms., but the sugar still remained persistent, always returning when the dietetic regulations were at all relaxed. The patient, who is still living, says that the tendency to excessive phosphatic excretion recurs from time to time, and that he can always tell when to send his urine for examination by the recurrence of the boring and aching pains in the loins and pelvis.

In a case for which I am indebted to Mr. Pearce Gould, sugar had been found repeatedly in the urine by the medical attendant, and the patient's diet regulated accordingly. Owing to some mistake, the patient's visit to me was delayed some weeks, during which he was under dietetic restriction. When I saw him, the urine contained no sugar, but had a specific gravity of 1030, was highly acid, and contained a very considerable excess of phosphoric acid. This patient, Mr. Gould tells me, is now quite well.

GROUP 4. *Increased elimination of phosphoric acid, without any special connexion, apparently running an independent course.*—I have notes of five such cases. In all, the elimination of phosphoric acid was considerable; the patients suffered from boring, aching, rheumatic pains in the loins and in the pelvis, together with hypochondriasis and some degree of emaciation. The urines varied; in some the secretion was normal, but in others increased. The urea was always in excess, and with the excessive excretion of phosphoric acid a deposit of calcium oxalate was nearly invariably noted. All complained more or less of constipation alternating with a yeasty-looking diarrhœa, and indigestion and flatulence were always more or less prominent. As these cases correspond in most particulars with those described some years ago by Beneke in his work on the "Pathology of Phosphate and Oxalate of Lime," I have not thought it necessary to quote them separately. None of them resemble those described by Professor Teissier, as simulating saccharine diabetes only without the sugar. As I have said, they seem very much like ordinary cases of so-called oxaluria.

Of the thirteen cases thus briefly recorded all with the exception of two occurred in young male adults. The symptoms common to all, though varying greatly in degree, were—*loss of flesh*, in some cases to the extent of considerable emaciation; *aching rheumatic pains*, chiefly affecting the lower part of the back and pelvic regions; *a dry harsh skin* and a tendency to *boils*; *appetite* generally ravenous, but in some cases a morbid refusal of food. Teissier says that in some cases under his observation *cataract* has developed, just as in saccharine diabetes; this I have never noticed. In the majority of cases there was polyuria, but this in no way approached, either in amount or character, the polyuria of diabetes insipidus. The increase of urinary water rarely ever exceeded four pints and a half; the highest observed, with the exception of the doubtful case of tumour of the brain, was six pints, as compared with the enormous diuresis of diabetes insipidus; whilst instead of the specific gravity falling to an extremely low limit, as in insipid diabetes, it was well maintained, showing that, unlike the insipid form, there was in these cases a very considerable drain of solid matter from the body. In some of the cases, however, the amount of urine passed was normal, but in these the specific gravity was greatly increased, all pointing to the same fact—viz., the *increased elimination of solid matters* by the urine. In all my cases the urea was in excess—in some to a considerable extent; in others it was not so marked. Teissier, however, has published cases in which no increase of urea was observed, and he contends that it is not at all necessary that there should be any when there is an increased elimination of phosphoric acid. On this point an observation of Sir William Roberts throws some light. Speaking of the cases originally described by Prout under the term "azoturia"—cases exhibiting a dense urine and a train of nervous symptoms,—he says that these turned out, on more exact investigation, to want the special feature indicated by Prout as the essential one—namely, an absolute increase in the daily discharge of urea. It does not appear that in these cases Sir William Roberts determined the amount of phosphates present in the urine; had he done so, he most probably would have found them in considerable excess. Indeed, it is difficult to account for the increased density of the urine otherwise; for if there was no excess of urea, and there was no sugar present, what else could increase the density of the urine but the inorganic constituents? Now an excess of chlorides does not increase the density of urine, because, unless water is withheld, they always increase the flow of aqueous excretion, so, if anything, the specific gravity falls. Whilst the sulphates when in excess in the urine are always accompanied by excess of urea, which Sir William Roberts tells us in these cases was not observed. There remains therefore only the phosphates as likely to cause the increased density of urine; and as Professor Teissier has shown, and as also the observations of Zuelzer, Edlessen, and others have shown, the excretion of phosphoric acid may be very greatly increased without any corresponding increase in the amount of urea. The great feature, therefore, of these cases is *the increased elimination of phosphoric acid, with or without a corresponding increase of the other constituents of the urine:* a feature which distinguishes it from *insipid diabetes*, with which it has been improperly confounded, and in which there is only an increase of water and no other morbid change; and from *azoturia*, in which urea is decidedly increased.

With regard to the pathology of the condition, many views have been brought forward, which are too numerous for discussion here. I will only therefore mention those that occur to me as being most probable. In the first place I would reduce the four groups to two—placing Groups 1 and 2 together, and likewise combining Groups 3 and 4. I do not believe that phthisis is ever necessarily attended or preceded by an exaggerated excretion of phosphoric acid. I have examined the urine of a good many tubercular and phthisical patients in all stages, and failed to establish anything of the sort. It is true that Marcet has found a great diminution of phosphoric acid in the ash of diseased lung as compared with healthy lung, but the removal of the phosphoric acid would be so gradual as scarcely to affect the urinary secretion. I believe, therefore, that the cases of increased excretion of phosphoric acid associated with lung disease are accidental. Naturally one would expect abnormal tissue metabolism in weak and delicate subjects, and certainly phthisical tendencies would be likely to be developed in persons suffering from a long-continued drain of such an important vital constituent as phosphorus.

Then, again, with regard to the cases in which nervous symptoms are prominent, are these due to disintegration of nervous tissue? is there increased oxidation going on? and are the phosphates an expression of the destruction of tissue? I think not, and I think the fact that the other urinary constituents are not always increased *pari passu* strongly against this view; whilst the fact established by recent German

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observers, that increased elimination of phosphoric acid occurs chiefly in depressed conditions of the nervous system, and that there is evidence of lowered vitality generally, points, to my mind, rather to defective than to increased metabolism, that the tissues are unable to utilise the phosphorus brought to them for nutrition, and that consequently a greater amount has to pass through the system daily. I am therefore inclined to classify the first two groups as *cases of excessive elimination of phosphoric acid dependent upon defective nutrition.*

With regard to the last two groups, the one relating to the connexion between sugar and phosphoric acid in diabetes mellitus is the more interesting. Many explanations have also here been suggested. One, that phosphoric acid replaces the sugar in consequence of some occult change in the nervous system, may be dismissed as visionary and vague. The others that occur to me as being most likely are (*a*) that instead of the sugar passing into the urine, it becomes partially oxidised in the system into a series of acids—oxybutyric, crotonic, glycollic, lactic, &c.,—which, circulating through the tissues, dissolves out the phosphates, especially the earthy salts. This explanation receives support from recently ascertained facts respecting the nature of the "acid intoxication" that so frequently marks the course of diabetes. The other explanation is that in diabetes mellitus, as is now a well-recognised fact, there is a considerable elimination of phosphorus in an unoxidised form, as lecithin, or glycerine phosphoric acid. Now, should improved oxidation take place in the body, this unoxidised phosphorus would probably undergo oxidation and appear as phosphoric acid. This view is supported by the fact that in the two cases in which sugar had been observed, but had disappeared and been replaced by an excessive excretion of phosphoric acid, the tendency was towards recovery. At first, with defective oxidation there was sugar and probably unoxidised phosphorus; with improved oxidation the sugar disappeared, and the lecithin or glycerine phosphoric acid was oxidised into phosphoric acid; and a further improvement led to the disappearance of the excessive excretion of phosphoric acid and ultimate restoration of health. No doubt both conditions—namely, the imperfect oxidation of sugar into intermediate acids and the oxidation of unoxidised phosphorus into phosphoric acid—are at work in these cases. With regard to Group 4, which ran a distinct course without association with any special form of disease, as I have already said they seem to correspond, as far as I have been able to judge, with those cases of oxaluria attended with increased excretion of phosphoric acid described by Beneke, who considered them to be due to the excessive formation of lactic acid in the intestines and its absorption into the body and dissolution of the phosphates out of the tissues. These cases, then, probably depend on a similar condition, such as that which causes the appearance in excess of phosphates in saccharine diabetes. I think, therefore, we may classify these two groups as *cases of excessive elimination of phosphoric acid dependent on abnormal formation of acid within the body.*

With regard to the prognosis in these cases, those arising from defective nutrition are the most unsatisfactory. With rest—or, better still, the employment of massage—they regain weight, and the excessive elimination of phosphoric acid is somewhat diminished, never completely; then when allowed to get about they fall back again, till, owing to the general exhaustion, they become victims to some acute disease, or else drift on into phthisis, or, as Teissier says, sometimes into saccharine diabetes.

With respect to the second division, the prognosis is more favourable. Of the three cases of saccharine diabetes associated with considerable excretion of phosphoric acid, two got quite well; the first step being the replacement of the sugar by phosphoric acid in excess. The second case has remained a mild case of diabetes mellitus for over seven years.

Concerning the cases resembling oxaluria with increased phosphoric acid excretion, they usually get much better under appropriate treatment, but are troublesome from their frequent relapses.

Lastly, in respect to the term "phosphatic diabetes," as will have been gathered from the preceding remarks, excessive elimination of phosphoric acid is symptomatic rather than a disease *per se*. It would be wrong, therefore, to use such a distinctive appellation without strictly limiting the conditions of its use. And this would be to employ it as a distinguishing term from "phosphaturia." This latter admirably describes that condition in which phosphates are precipitated from alkaline urine, whether fixed or volatile; but as it would be awkward to speak of phosphaturia due to deposition, and of phosphaturia due to excessive elimination, I would propose to use the term "phosphatic diabetes" to distinguish the latter, and retain phosphaturia to designate the former, condition.

Queen Anne-street, W.

CASE OF

TREPHINING OVER THE LEFT BRACHIAL CENTRE FOR PARALYSIS OF THE RIGHT ARM DUE TO A BLOW A WEEK PREVIOUSLY; CURE OF PATIENT.

BY A. W. MAYO ROBSON, F.R.C.S.,
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THE following case, the notes of which have been furnished by my house-surgeon, Mr. Ashton Street, presents so many points of interest that I venture to think a somewhat detailed description may interest the readers of THE LANCET, especially at a time when cerebral localisation, as applied to brain surgery, is engaging the attention of the profession.

J. S——, aged thirty-eight, was admitted into the General Infirmary, Leeds, on August 9th, under the care of Mr. Mayo Robson. He gave the following account. Whilst walking along the street six days previously he was struck from behind over the head by a buckhorn-handled stick. He does not remember the blow, and was totally unconscious for ten hours. Just before recovering consciousness there was some vomiting. He noticed as soon as he regained his senses that he had lost the use of his right hand. He was dizzy and confused for some days, and had impairment of memory, as he remembered some events in the police-court, but not all. He was so far bright and intelligent, however, as to give evidence in court the day after the accident. He was apparently so little injured that a surgeon who saw him thought his arm was powerless from simple bruising due to the fall, and his head so little damaged as not to require dressing. He noticed that his right fingers and hand began to twitch twenty-four hours before admission.

On admission there was a lacerated wound about $\frac{1}{3}$ in. long, too small even to admit the tip of the little finger, situated over the left side of the skull, $5\frac{3}{4}$ in. from the root of the nose, 5 in. from the left external angular process of the frontal bone, $4\frac{3}{4}$ in. from the root of the zygoma, $6\frac{1}{2}$ in. from the external occipital protuberance, and $1\frac{1}{2}$ in. to the left of the middle line. On digital examination through the integuments very little could be made out, as there was some inflammatory swelling; but on probing the wound bare bone could be plainly felt, and at the posterior part the probe could be felt to drop suddenly for about $\frac{1}{4}$ in. The whole of the right forearm and hand were markedly paralysed, the extensors and supinators being entirely powerless, whilst with the flexors he could barely make his grasp felt. The muscles of the upper arm were only half as strong as those of the opposite side, but the shoulder muscles were equally powerful. Sensation was much impaired, considerable pressure being needed to make him feel; but when he did he recognised the kind of touch and noticed the temperature. There were constant rhythmic twitchings of the fingers, and occasionally of the hand and arm, those of the fingers being about 40 per minute. The hands were of the same temperature, but he had a peculiar numbness in the right. He was able to walk, the right leg seeming to be as powerful as the left; but the cremasteric and knee reflexes were both exaggerated on the right side. He was able to whistle, but not nearly so loud as before the accident, and could only screw his eyes up with difficulty. His pupils were of medium size and reacted quickly to light. There was well-marked œdema of the left optic disc; his sight, however, was good. Hearing was slightly deficient. He complained of pain at the seat of the wound and all over the frontal region, but more on the left side. He was perfectly conscious and answered questions with rapidity. His

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breathing was easy and tranquil; his pulse 85, full and soft; his temperature in the axilla 98·4°. He could swallow well, and passed urine normally.

Mr. Mayo Robson at once decided to operate. The patient having been put under ether, the head was shaved and cleaned, first with turpentine and afterwards with perchloride of mercury solution. Under the spray, and with full antiseptic precautions, a crucial incision was made, the arms being 1½ in. long. The flaps so formed were reflected, exposing the wound in the bone, which was found to be a trifle over ⅜ in. in diameter. The whole piece of bone was depressed, the posterior part being more so than the anterior. The margins of the surrounding bone were remarkably clean cut and circular, almost as if a piece had been punched out. The periosteum from the neighbouring bone was not stripped. A trephine ⅝ in. in diameter was applied, but as the centre pin could not be used rather more bone was taken from the posterior edge than in front. The outer table and diploë were then raised in one piece by the elevator, but the inner table was found to be splintered in all directions, one piece of the size of a finger-nail depressing the membranes very considerably, just over the ascending frontal convolution. These fragments were carefully picked out, but without using much force, as the dura mater was stripped from them. The dura mater, which bulged slightly into the wound after the bone had been raised, was markedly pulsating; it was not perforated, and the surface seemed perfectly healthy. The wound was syringed out with perchloride lotion (1 in 500), and the bleeding vessels in the flaps, which had been temporarily stopped by clips, were ligatured. The flaps were then stitched with catgut, and a small drainage-tube put in the centre, so that the bottom of it was just free of the dura mater. The wound was again syringed and dressed with a layer of wet carbolic gauze, iodoform, and salicylic silk. The patient took ether very well, but his pupils dilated and remained so during the operation. After the elevation, and whilst the patient was still under ether, it was noticed that the twitchings had ceased, but whether this was due to the anæsthetic or to the operation is not known, as, unfortunately, the condition of the hand was not noticed before the elevation. The whole operation only lasted twenty-five minutes. He soon recovered from the anæsthetic, and for the first hour had great pain in his head, but the twitchings in the hand had ceased; they returned, however, in the second hour with greater severity. At 6 P.M.—i.e., four hours after the operation—he was much easier. Temperature 98·6°; pulse 80. At 12 P.M. the patient slept, but was restless; he had no pain except slight frontal headache. The hand was much stiller. Pulse 72. The twitchings did not stop during sleep.

Aug. 10th.—Patient felt much better and had no pain; pulse 72.—11th: Slept well in the night, and during sleep the movements of the hand stopped. Wound was dressed for the first time, the spray being used. The tube was removed, as the wound looked well and there was no pus. Movements of fingers were much less frequent.—12th: Patient was so well that he wanted to get up. Temperature and pulse normal. His diet having been confined to fluids since admission, he felt hungry, and asked for and was ordered solid food. Power in the hand had very slightly returned. Twitchings were rather less frequent. Had slight soreness in the concatinate glands. Temperature normal.—15th: Patient dressed, as the glands were rather swollen and painful. There was a little œdema of the scalp, but no suppuration. The centre of the wound where the blow was given gaped a little, as the tissues had been bruised and lacerated. Pulse 70.—17th: Swelling of glands was subsiding. Dressed under the spray, and the wound found healed, except the centre of the cross, which was still open. Twitchings had completely gone, and since the 15th he had only had one or two, when he attempted to raise the arm. Patient could hold his hand straight up without the fingers falling. Slight increase of power when the hand was held horizontally.—19th: Grasp of right hand could be plainly felt in any position, equal to the grasp of thumb and forefinger of the left hand. The œdema of the optic disc had disappeared, the outline being clear and normal.—21st: Grasp of dynomometer with right hand 35 lb., with left 95 lb.—25th: Grasp of right hand 50 lb., left 95 lb.—28th: Patient got up, but felt a little dizzy.—Sept. 3rd: Wound quite healed. Grasp of right hand 70 lb.—11th: Patient discharged cured. Both hands and arms equally strong. No headache or dizziness. Sensation perfect. The temperature throughout had been normal.

Remarks.—The man had evidently only been seen casually by a surgeon on account of the arm, which the patient thought had been bruised by the fall, the head injury appearing trivial; but the case illustrates well the great importance of a very careful examination in all, even trifling, head injuries, as out of this misapprehension arose a medico-legal difficulty, the assailant having been sent for a week to prison for ordinary assault, when it might have been a case of manslaughter. Further points of interest in the case are—(*a*) The recovery of consciousness and intelligence within a few hours of the accident, although the local paralysis continued; concussion apparently accounting for the former and bruising and pressure for the latter. (*b*) The exact correspondence as proved by measurement of the brachial centre and the wound. (*c*) The threatened extension of paralysis to the facial, which adjoins the brachial centre. (*d*) The congestion of the optic disc on the injured side, which congestion disappeared within a few days of the operation. (*e*) The exaggerated cremasteric and knee reflexes on the right side. (*f*) The localised rhythmic epileptiform movements of the paralysed hand and arm, which began on the fifth day after the accident, were forty to the minute at the time of operation, ceased for an hour afterwards, then returned as frequently as ever, to gradually lessen in violence and number until they disappeared on the sixth day after operation. (*g*) In the success of the measures taken to render the wound aseptic, although it was thoroughly septic at the time of admission, and had been exposed for six days previously. (*h*) Lastly, in the complete and perfect recovery of the patient.

Leeds.

PYREXIA AND HYPERPYREXIA.

BY T. J. MACLAGAN, M.D., M.R.C.P.,
PHYSICIAN IN ORDINARY TO THEIR ROYAL HIGHNESSES PRINCE AND PRINCESS CHRISTIAN OF SCHLESWIG HOLSTEIN.

(*Continued from page 416.*)

IT is evident that the view that the nervous symptoms of hyperpyrexia are caused by the high temperature lacks the clinical support which would commend it to our reason. Experimental evidence seems to afford to it more support. The chief evidence of this kind is that adduced by Wood.[1] He placed rabbits, cats, and dogs in a box, and raised the temperature of this 120° to 130°, and found that in animals so exposed the temperature rapidly rose, and that by the time it reached eight or ten degrees above the normal the animals died. The experiments were evidently performed with great care, and the results very accurately noted. From these Dr. Wood draws the conclusion that it may be regarded as proven that "external heat applied to the body of normal animals, including man, so as to elevate the internal temperature, produces derangements of the functions of innervation, of respiration, of circulation, &c., precisely similar to those seen in natural fever, the intensity of the disturbance being directly proportionate to the rise in temperature." He further adds, no doubt in explanation of his including man in this generalisation, that "the brain of a man is much more highly organised, and no doubt correspondingly more sensitive, than that of a cat; and if a temperature of 113° F. be fatal to the brain of a cat, whose normal temperature is 102·5°, it seems very certain that the temperature of some cases of insolation (113°) is sufficient in itself to cause death in man, whose normal temperature is 99°. Much as one admires the patience and skill with which Dr. Wood made his observations, one cannot fail to see that they do not warrant these inferences, and that Dr. Wood has failed to grasp the correct interpretation and bearing of his own facts.

In the first place, there are no grounds for "including man" in the general inference which he draws. No observations were made on man, and in this matter the results of experiments made on cats and dogs cannot be accepted as applicable to him. Man naturally eliminates through his skin an enormous amount of heat, and possesses a power of accommodating himself to high temperatures, which is not possessed by the animals experimented on by Dr. Wood.

[1] Fever: a Study in Morbid and Normal Physiology. By B. C. Wood M.A., M.D. Philadelphia, 1880.

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The temperature which he found proved fatal to cats and dogs is one to which man may be and constantly is exposed, without serious results. Every time we take a Turkish bath we are exposed for a length of time to a much higher temperature than that to which Dr. Wood's animals were exposed.

In the second place, it is not an accurate statement of the physiological position to say that because a man's brain is more highly organised than a cat's it is correspondingly more sensitive to heat; and that because the normal temperature of man is 98·5°, a temperature of 113° must be a more serious thing to him than it is to a cat whose normal temperature is 102·5°. What Dr. Wood really found was that when the bodily temperature of rabbits, cats, and dogs rose 8° or 10° above the normal the animals died. But a rise of 8° or 10° above the normal produces *per se* no serious symptoms in man, as is evidenced by the frequency with which such a temperature occurs in relapsing fever without the occurence of any other symptom to distinguish the cases in which it occurs from those in which the temperature is several degrees lower. That is the proper way to put Dr. Wood's facts. The reason why the temperature which he found to be fatal to cats and dogs does not produce serious results in man is that he can naturally bear a much higher temperature than they, and that the surface of his body possesses a heat-eliminating function which is not possessed by that of cats and dogs.

Then, again, I do not think that Dr. Wood has correctly interpreted the mode in which death was produced in his animals. He says that the derangements produced were "precisely similar to those seen in natural fever, the intensity of the disturbance being directly proportionate to the rise in temperature." Of course, this disturbance was most pronounced in the animals which died. But when we come to inquire into their mode of death, we find it stated that in these fatal cases the heart continued to beat for some time after respiration had ceased. Now, there is no form of fever in which death is ever brought about in that way. In fever death results either from asthenia or coma—cessation of cardiac or cessation of cerebral function; but in Dr. Wood's animals it was brought about by arrest of pulmonary function. His animals died neither of pyrexia nor of hyperpyrexia, but from cessation of pulmonary function; and it is not difficult to say why this should have been their mode of death. Man eliminates heat by the skin; the animals experimented on by Dr. Wood eliminate it by the lungs. Breathing as they did in the hot box an atmosphere with a temperature many degrees above that of their blood, it was impossible for them to throw off heat; in such an atmosphere they could not eliminate heat any more than they could eliminate carbonic acid in an atmosphere charged with that gas; heat therefore accumulated in the system. The result of the accumulation in the system of any excretory compound is first stimulation, and ultimately arrest, of the functional activity of the organ by which it is normally eliminated. Accumulation of heat in the blood of Dr. Wood's animals thus led to arrest of pulmonary function, much in the same way that accumulation of carbonic acid in their blood would have done. It was not the heat they took in, but the heat which they failed to give off, that killed them. That was how and why his animals died. But that is a result which could not be produced in man by a like agency, simply because he eliminates heat through his skin. He might die from too great heat, but death would not be brought about by arrest of pulmonary function.

Moreover, there is another point in connexion with Dr. Wood's investigation which, though a side issue, is not altogether to be lost sight of. In his animals heat was applied artificially; by this they were heated up, and the sole question for consideration is the action of this heat on their economy; but in fever and hyperpyrexia there is no artificial heat, and the question at issue is not only the action of the high temperature, but also its mode of production—not only what does the heat do, but how does it come to be there. On this, the main question which has to be considered in dealing with this subject of the hyperpyretic state as it occurs in man, the experiments referred to throw no light. Reasons will hereafter be given for the belief that the high temperature is a result rather than a cause of disturbance of the nervous centres. Meantime, I wish only to point out that, so far as concerns the action of high temperatures on his organism, **man is not** in the same position as the animals experimented on by Dr. Wood—that he possesses a power of accommodating himself to extremes of temperature which is not possessed by them, and that, for the reasons given, Dr. Wood's experiments cannot be regarded as supporting the view that in the hyperpyrexia of man the high temperature is the cause of the nervous symptoms. It is incumbent upon us to explain the occurrence of the high temperature, as well as the nervous symptoms; and no view of the mode of production of the condition to which we apply the term hyperpyrexia can be regarded as satisfactory which does not explain one of its most prominent and striking features—that from which it takes its name. But on the view that the high temperature is primary, how are we to do so? It is evident that neither the clinical nor the experimental evidence favours the view that the high temperature is the cause of the nervous symptoms. The alternative view, that the high temperature is secondary to disturbance of the nervous centres, has much more to commend it. The constancy with which, under the most diverse external conditions—in the Arctic cold as in the heat of the tropics,—the temperature of the human body remains at 98·4°, has led physiologists to look beyond the crude physical conditions of tissue change and surface transpiration, and to regard a special centre controlling and regulating the formation and elimination of heat as essential to the explanation of the phenomena which have to be considered. Without some such regulating centre it is difficult to see how the temperature equilibrium could fail to be frequently disturbed by agencies which, as it is, have no effect upon it.

The tendency of modern physiology and modern research is more and more towards the recognition of the doctrine of localisation of cerebral function, according to which circumscribed and limited portions of the nervous centres preside over, control, and regulate particular actions and functions. We recognise the existence of centres for the special senses of sight, hearing, taste, &c., as well as for speech, mastication, deglutition, &c., and the position of these in the nervous centres can be defined with more or less exactness. We recognise, too, and define the position of a respiratory centre, a cardiac centre, and a vaso-motor centre. But we go even further than this, for the experimental investigations of Fritsch and Hitzig, of Ferrier, Yeo, Munk, and others, have enabled these observers to map out on the surface of the brain a series of circumscribed areas, stimulation of which by means of electricity causes contraction of certain muscles of the opposite side of the body. Thus they have been enabled to demonstrate that particular groups of muscles are presided over by a special portion of brain. The muscles of the forearm have their special area; the muscles of the face have another; a third presides over the muscles of the tail; and so on, each particular group of muscles being apparently presided over by a special central motor area. With the localisation of cerebral function thus demonstrated in so many cases, and with even the position of various controlling centres thus more or less accurately defined, we have good *a priori* grounds for regarding the existence of a thermic centre as at least not impossible. But there exist other than *a priori* reasons. There is not a little evidence, both physiological and pathological, that such a centre does exist.

In 1837 Sir Benjamin Brodie drew attention to the fact that injury to the upper part of the cord was, under certain circumstances, followed by a great rise in the temperature of the body. Since then the accuracy of Brodie's statement has been amply confirmed. The subject has recently been experimentally investigated by Dr. Wood, and much valuable information has been got from his researches. He made sections high up in the cords of a large number of dogs, the general result of which was to show "that after section of the cord there are two distinct antagonistic forces at work, the one depressing, the other increasing, the production of heat." The nature of these forces was determined by carefully conducted experiments. It had already been shown by the researches of Dittmar, Owsjannikow, and Heidenhaim, conducted independently of each other, that the chief vaso-motor centre has its seat in the medulla oblongata. Owsjannikow defined its seat as being in a region "whose upper boundary is one or two millimetres below the corpora quadrigemina, and whose lower boundary is four or five millimetres above the point of the calamus scriptorius." Wood made a number of experiments with the object of satisfying himself on this point, and came to the conclusion that Owsjannikow's statement was accurate. "The evidence," he says, "seems to me conclusive that the chief governing vaso-motor centre is placed

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in the lower part of the floor of the fourth ventricle near the point of the calamus"—almost exactly the seat assigned to it by Owsjannikow. Stimulation of this centre causes contraction of all the arteries, and consequent great increase of arterial blood-pressure. Paralysis of this centre causes dilatation of the arteries, and fall of blood-pressure. Such changes in the circulation could not fail to have a modifying influence on the temperature of the body; for it is obvious that contraction of the arteries would lead to diminished flow of blood to the surface of the body and consequent diminution in loss of heat, while their dilatation would have the reverse effect. In investigating the effects of section of the cord on the temperature of the body it was therefore essential to determine how far the results obtained were or were not due to injury of the vaso-motor centre and consequent disturbance of the circulation.

Having satisfied himself of the exact situation of this centre, Wood proceeded to make sections above and below it, and to contrast the results. Section of the cord below the vaso-motor centre paralysed the vaso-motor nerves. The immediate result of this is dilatation of the bloodvessels. This flushing of the superficial vessels necessarily leads to great loss of heat. The blood being spread out, as it were, over the surface of the body, is more freely exposed to the cooling influence of the atmosphere, and more readily parts with its heat. The results of his carefully conducted experiments satisfied Wood that "injuries of the medulla below the calamus cause a fall of the animal temperature and of arterial pressure, and confirm the belief that the fall of temperature is due to vaso-motor paralysis."

The next point was to determine the effects of wounds of the medulla made high enough up to avoid injury of the vaso-motor centre; with this object a number of experiments were made. The matter is thus summed up: "The results of our whole study as to the effects of separation of the medulla from the pons upon thermogenesis may be formulated as follows: Section of the medulla at its junction with the pons is followed by increased heat-dissipation and increased heat-production, the increased dissipation usually not keeping pace with the increased production, so that the bodily temperature rises." The increased dissipation is, of course, merely a result of the greater heat of the body—a result which necessarily follows increased production when the vaso-motor system is intact. "Increased heat-production being the cause of the increased heat-dissipation, the problem presents itself—What is the cause of the increased heat-production?"

It was suggested by Heidenhaim that the rise of temperature might result from irritation of the vaso-motor centres; but, as Wood remarks, "it is a general guiding principle in making deductions that section of a nerve induces abolition of function, and that the symptoms which follow such section are paralytic unless clearly proved to be of other nature"; and the arguments which he adduces seem quite to warrant the conclusion at which he arrives, "that the rise of bodily temperature and of heat-production following separation of the pons from the medulla is paralytic and due to the removal of some active force." The general result of all the observations is thus summed up by Wood: "The theory that teaches the existence of a nerve centre in the pons or in the brain above it, which by a direct action inhibits the production of animal heat, seems to be most in accord with all the evidence bearing upon it, and I am disposed to adopt it as at least probable."

Reference has already been made to Sir Benjamin Brodie's observation as to the effect of injuries of the upper part of the cord on the temperature of the body. Since he wrote other surgeons have made similar observations, and sudden and great rise of body heat has come to be regarded as not an uncommon symptom in injuries affecting the cervical column. Weber,[2] for instance, has recorded cases in which the temperature rose to 110° and 111° before death. Churchill[3] records one in which it rose to 110°. Other cases, too, have been recorded in which injuries involving this region have been followed by the opposite condition—a great fall of temperature. Mr. Hutchinson[4] has related a case of crushing of the cord at the fifth cervical vertebra, in which within twenty-four hours after the injury the temperature in the urethra was 93°, and in the rectum, 95·8°.

Much difficulty has been experienced in offering an explanation of these facts, the difficulty arising, as Mr. Jacobson[5] observes, from "the uncertainty as to the existence of any centre which presides over the production of heat, and the connexion between the production of excessive temperature and vaso-motor paralysis." Wood's experiments throw considerable light on this subject, and tend to remove much of the difficulty referred to by Mr. Jacobson. If the injury paralyses only the vaso-motor nerves, there will be distension of the vessels on the surface of the body and rapid loss of heat, such as Wood found follow section of the cord below the medulla. If the thermal inhibitory nerves are paralysed, there will be a rapid rise of temperature. The injury which results from crushing the cord is much rougher and coarser than that made by cutting it, and the same nicety of result is not to be expected. Crushing of the cord at a given point does not mean exactly the same damage in each case; for the injury is a rough one, and one portion of the cord may be more seriously damaged than another—the right side more than the left, the anterior more than the posterior surface, and *vice versâ*. It is not the thermal or vaso-motor centre that is injured in these accidents, but the nerves proceeding from these; and it is an accident, whether in a given case the thermal or vaso-motor nerves suffer most. According as one or the other is more affected the temperature rises or falls.

Injuries of the cervical cord are not the only lesions of the nervous centres in which alterations of temperature are noted. One of the many important results which have accrued from the use of the clinical thermometer is the discovery of the fact that hæmorrhagic and other non-inflammatory lesions of the brain are frequently followed by a rise in the temperature of the body. The subject is one which has come into existence only since the thermometer came into general use; its literature is, therefore, not extensive; but a sufficient number of observations have been made to demonstrate that lesions of the brain frequently cause a rise of temperature such as does not result from similar lesions in any other organ.

Charcot[6] divides the apoplectic state resulting from hæmorrhage or from cerebral softening into three periods, according to the modifications of temperature: in the first, comprising the first few hours immediately following the attack, the temperature falls below the normal; in the second, which lasts a variable number of days, it varies from 99° to 100°; in the third, which terminates necessarily and speedily in death, it runs up to 102°, 104°, and even 106°. Bourneville[7] divides it into four: (1) the initial lowering of the temperature, (2) the stationary period, (3) the ascending period, and (4) the terminal temperature. The first three are the same as Charcot's. The fourth, which is really the maximum point of the third, is added to indicate that the ascending period does not always stop short at the point noted by Charcot; but that *at the instant of death or some minutes after*, there takes place in some cases a very remarkable rise. M. Bourneville gives a table of seventeen cases, eight of which were observed by himself, in which the average temperature a short time before or after death was nearly 107°, while in eight of the seventeen it exceeded 108°. The initial lowering of the temperature is no doubt the result of shock. The second or stationary period is sometimes altogether absent, and after the initial lowering has passed off there may be noted only the rapid rise of temperature of the third and fourth. This stationary period is met with chiefly in cases in which the clot is comparatively small, and in which the ventricles are not injured. Should recovery take place, the stationary period is succeeded by a return of the temperature to the normal standard. Should the case tend to a fatal result, the second period runs into the third, and the temperature rapidly rises. A rising temperature, therefore, indicates a speedily fatal termination.

Since Bourneville's cases were published similar ones have been recorded by other observers; the accuracy of his statements has been amply confirmed, and a rise of temperature has come to be regarded as a common result of cerebral hæmorrhage. But hæmorrhage is not the only form of cerebral lesion in which such alteration of the body heat is noted. The same change has been found to take place in tumours and various other non-inflammatory lesions of the nervous centres. *(To be continued.)*

[2] Clin. Soc. Trans., vol. i., p. 163.
[3] St. Thomas's Hospital Reports, vol. i. [4] THE LANCET, vol. i., 1875.
[5] Holmes' System of Surgery, 3rd ed., vol. i., p. 654.
[6] Leçons Cliniques sur les Maladies des Vieillards. 1869.
[7] Études Cliniques et Thermométriques sur les Maladies du Système Nerveux. 1872.

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Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF CHOLERAIC DIARRHŒA WITH COLLAPSE.

BY G. CHILDS-MACDONALD, M.D.

ON Sunday, Feb. 20th, I was called to W. D——, a grocer's assistant, who was engaged on Saturday the 19th in packing up goods in hay taken from a case of wine recently received from Italy. On returning home that evening he felt unwell, and early on Sunday morning was suddenly seized with cramps, purging, and vomiting, the evacuations passing from him like water. At the commencement he was able to walk to the lavatory, but he rapidly became so weak that this was impossible. The vomited matters were composed of almost pure water. When seen by me at 11 A.M. on Sunday he had had sixteen evacuations, all of which unfortunately had been carefully emptied before my arrival. The sheets, however, at the upper part were soaked with apparently water, but which afterwards proved to be vomit. The man was lying on his left side, and in the semi-flexed position; the eyes were deeply sunken; the nose, chin, forearms, hands, and legs and feet cold and cyanosed; the tongue cold and dry. There was complete absence of the pulse at the wrist, the heart was beating feebly and almost inaudibly. The respiration was sighing. He would at times throw the arms over the head with an almost spasmodic catch in the breath; in fact he showed all the symptoms of oxygen hunger. Mentalisation was slow; there was also slight dimness of sight and deafness. The pupils were equal and slightly dilated, the eyelids closed. Every minute or so he would rouse slightly with a cry of pain caused by cramp in the abdominal muscles and calves, to relapse again into a semi-conscious condition. No urine had been passed since the previous evening, and the bladder was quite empty. He was given immediately thirty minims of ether hypodermically over the right pectoral region, ordered hot-water bottles to the sides and extremities, sinapisms to the calves and over the cardiac region, hot coffee with brandy, and to be rubbed with the latter spirit; also a mixture composed of acidi sulph. aromat., sp. æth. co., tinct. opii, ol. cajaputi, and ol. menth. pip., aq.; an ounce to be taken every three hours. At 12.30 there was a little improvement. The pulse was just perceptible at the wrist. No further motion or urine. Cramps the same. At 7.30 he had made a sudden attempt to get out of bed, and in so doing he had fallen and injured his forehead. The extremities are warmer. Pulse 80 (very feeble); temperature subnormal. Cramps less. Says he feels better, but complains of great thirst. No stool or urine.—Feb. 21st: Passed a very restless night. Cramps at intervals. Vomited several times. No urine or motion. Pulse 84 (weak); temperature 98°. Skin dry, but tongue moist; bladder empty. Ordered sinapisms to epigastric region, milk and lime water, and a little ice to suck if nausea continues. Linseed poultices to be applied over loins and diuretic mixture to be taken. Evening: Pulse fuller (84); temperature 97·4°. Vomited only once. No cramp, motion, or urine. Ordered eggs and milk, and meat juice.—22nd: Had a better night. Two stools, but small in amount, mainly composed of slimy material; no blood in them; no urine. Complains of flatus and great prostration. Has vomited once a little bilious fluid. Keeps eyes still closed. No cramp. Ordered a little rice pudding.—23rd: Has had a good night and passed fifty ounces of urine. Has had a small loose motion. Vomited bilious matter and mucus twice. No return of cramp. Is much brighter and cheerful, but complains of headache. Temperature 97·5°; pulse 60, much improved in volume. Ordered one ounce of bismuth, digitalis, and ether mixture, three times a day. Since the above note he has steadily improved up to to-day (the 28th), when he can sit up and read the paper. His appetite has much improved, and he had a little fish for dinner. Although, up he is unable to leave the bedroom, and shows great muscular weakness and emaciation.

There are several points of interest in the case, especially as there is so much of the so-called winter diarrhœa about. It would be interesting to know how much the Italian hay had to do with it. The long time the kidneys remained inactive, nearly three days, without uræmic symptoms, is specially noteworthy; also the rapid and evidently complete evacuation, followed by such extreme collapse. I have never seen anyone so near death and recover as this man; probably the ether saved his life. I have called this choleraic diarrhœa with collapse. Some of my readers might give it another name. It is unfortunate that the stools were not seen.

Duchess-street, Cavendish-square.

A CASE OF LACERATED WOUND TREATED WITH IODOFORM.

BY A. MITRA, L.R.C.P., L.R.C.S.,
CHIEF MEDICAL OFFICER, KASHMIR.

RAJAUL, a prisoner at the Kashmir Gaol, aged thirty-five, received a wound in the hand and forearm on April 12th. He, together with other prisoners, were engaged in breaking stones on a hill close to the city of Sreemugur. A large block of stone came rolling down, and Rajaul foolishly attempted to stop it. Soon after the injury, as he was being carried from the spot to the gaol, it was fortunate that Dr. Neve, of the Mission Hospital, happened to be passing, who took him to his hospital close by, stopped the bleeding, and rendered such help as he thought was necessary. I saw the patient next morning at the gaol, where I had deputed an assistant to watch him. I examined the wound, and found a large lacerated flap, including skin, muscles, tendons, arteries, and nerves, had been separated; the flap commenced four inches above the wrist, extended along the middle of the hand, and curved round the web of the fingers' ends over the head of the metacarpal bone of the ring finger on its dorsal side. The second flap on the dorsum was more lacerated; it commenced at the second phalanx of the thumb, and curved round the ends near the pisiform bone. All the metacarpals except the first were fractured; the third metacarpal was divided into four pieces. It happened to meet Dr. Neve that morning, who remarked: "The wound is one of the severest I have ever seen." Conservative surgery in such a case of lacerated wound with extensive injury of all the tissues can hardly be justified; but as twenty-four hours had already elapsed, I was determined to give it a trial, without, however, entertaining any hope to preserve the hand. I kept the injured parts soaked with corrosive sublimate lotion (seven grains to a pint). On the third day I opened the wound; there was very little discharge. Dusting the wound thoroughly with iodoform, I covered it with oiled silk, and bandaged with corrosive sublimate gauze. The wound was opened the next day, as the temperature of the patient rose to 100·6° F. in the previous evening. There was slight discolouration in the tips of the little and ring fingers. I decided on amputation, not of the forearm but of the fingers. I made an incision, commencing from between the web of the index and middle fingers, carrying it straight down to the pisiform bone and curving round along the dorsum of the hand to meet the point of commencement. Iodoform was used all along. The wound healed in twenty days. The rise of temperature for the first five days ranged from 100° to 101°. The man has now perfect use of the thumb and index fingers. There is no resulting contraction.

Remarks.—This case shows what repairing powers the tissues sometimes possess. It also establishes the great value of iodoform in the treatment of wounds. In my surgical wards, iodoform is used as the chief dressing, and it always secures for me rapid and aseptic healing. Iodoform dusting has been found more efficacious than ointment even with vaseline. My experience has, however, proved to a certainty that disagreeable symptoms often result from iodoform dressing. They are chiefly gastro-intestinal and nervous irritation. But I have never observed iodoformic fever; these internal manifestations do not come to my notice, because I strictly follow the plan of washing the wound before fresh iodoform is used. With this precaution, there is no fear of poisoning. The forty-eight cases given by König,[1] where symptoms of poisoning supervened during the use of iodoform as surgical dressings, were probably treated without this necessary precaution.

[1] Centralbl. fdr Chir., Nos. 7, 8, 17, and 22.

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HÆMORRHAGE DURING PREGNANCY, PROBABLY DUE TO SEPARATION OF PLACENTA.

By M. G. BIGGS, M.R.C.S., L.S.A.

MRS. M——, aged thirty-eight, mother of seven children, was confined of a healthy boy on Sept. 30th, 1886. There was no hæmorrhage of any unusual kind during the labour. Forceps were used after the membranes had been ruptured, owing to uterine inertia. She has always had tedious labours. Early in January, 1886, she was regular; she then saw nothing until about the middle of February, when it came on rather suddenly and freely whilst she was standing in the shop, her husband being a dyer. From that time up to about a week before the confinement she used to bleed every fortnight or month, and even between these times there was often a blood-stained discharge. In July she sent for me; but rest in bed and the use of gallic acid and digitalis internally set things right for the time, and I heard nothing more of her until the day of labour. She had never been at all like this on any previous occasion. On removal of the placenta one part of the zone was of a much lighter colour than the other, with partly decolourised clots, and these same partially decolourised clots were clinging to the corresponding outer surface of the membranes. The appearance was most characteristic. The sudden onset looks suspicious, but then it was so early in the case when it commenced, before the formation of the placenta.

Northcote-road, S.W.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum allorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lb. iv. Proœmium.

UNIVERSITY COLLEGE HOSPITAL.

THREE CASES OF BADLY UNITED FRACTURE OF THE FEMUR.

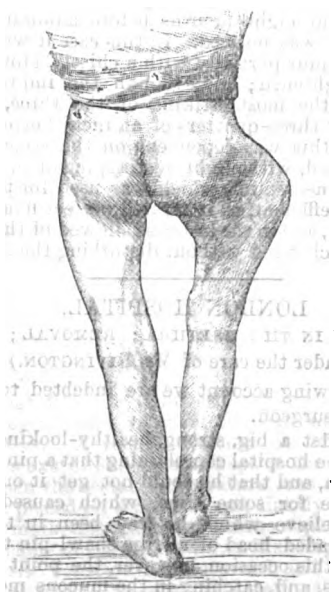
(Under the care of Mr. CHRISTOPHER HEATH.)

THE three cases which follow are interesting, as showing the different plans of treatment carried out in badly united fractures, according to the period which has elapsed since the receipt of the primary damage. We would refer our readers to the remarks appended. We are indebted for the notes of these cases to Mr. Bilton Pollard, surgical registrar.

CASE 1.—E. G——, a boy aged seven years, was admitted into the hospital on August 27th, 1886. His left femur had been broken about its middle by direct violence shortly before admission. There was only half an inch shortening. The fracture was treated with Liston's long splint for two days, and then with Hamilton's splint for three weeks. There was then only a quarter of an inch shortening. The limb was fixed with plaster-of-Paris bandages, and the patient was discharged. Seventeen days later he was readmitted, as the plaster case had slipped and the femur was bent at the seat of the fracture and shortened to the extent of an inch and a quarter. The fragments occupied the positions usually met with in fracture of the shaft of the femur. The patient was placed under the influence of ether, and Mr. Heath bent the bone over the knee to a good position and reduced the shortening to a quarter of an inch by forcible traction. A Liston's long splint with a perineal band was applied. The bone united well in good position, and about a month after it was reset a plaster-of-Paris case was applied and the patient was discharged.

CASE 2.—H. O——, a boy aged twelve years, was admitted into the hospital on Sept. 30th, 1886. He stated that between three and four months ago he fell whilst getting over a stile, and broke his left thigh. The fracture was treated with a Liston's long splint for a month, and afterwards with starched bandages for eight weeks. In the last seven weeks of this time the boy went about on crutches. A simple bandage was then applied. On admission the boy could only walk with difficulty, owing to the left leg being two inches and a quarter shorter than the right. The fragments were firmly united, with their ends overlapping, in the manner characteristic of a fracture of the shaft of the femur. At the junction of the upper and middle thirds of the thigh there was a large swelling on the outer surface of the limb due to the projection of the lower end of the upper fragment. On Oct. 11th the patient was anæsthetised, and Mr. Heath with considerable difficulty succeeded in breaking down the uniting callus. This he did by placing his foot on the swelling above mentioned, and using the extended limb as a lever, by means of which great force was brought to bear on the uniting callus. Forcible traction was then made on the limb, and some of the shortening was by that means overcome. Weight extension was applied to the limb. Two days later, the shortening being reduced to half an inch, the limb was fixed in a Thomas's knee-splint. Five weeks after the bone was reset, the position of the fragments was good, and the shortening was less than half an inch. The limb was immovably fixed in plaster-of-Paris, and the patient was discharged. A month later the plaster-of-Paris apparatus was removed, and the knee, which was very stiff, was moved whilst the patient was under the influence of gas.

CASE 3.—D. P——, a boy aged seventeen, was admitted into the hospital on Nov. 1st, 1886. In 1882 he had suffered



from a fracture of his left thigh, which had united in good position. In November, 1884, he broke his right thigh. It was treated with a Liston's splint for four weeks, and a week later the patient left his bed and began to walk about. His thigh appears to have kept sound till April, 1886, when he occasionally fell down, owing to weakness in it; but he gives no account of any severe injury, though he states that he noticed an increasing deformity of his thigh. On admission his right thigh presented the marked deformity shown in the accompanying woodcut. There appeared to have been a double fracture of the femur, for, in addition to the prominent angle on the outer surface of the thigh, there was another prominence also on the outer surface of the thigh at a point about four inches below the tip of the great trochanter. At this spot the upper fragments appeared to overlap the lower on its outer surface. At the point of greatest deformity the fragments did not overlap one another. The limb was two inches and three-quarters shorter than its fellow. On Nov. 10th Mr. Heath first tried to break the femur in the manner described in the last case, but failed. He then made a small incision on to the most prominent part of the deformed bone, and with the aid of a chisel partially divided it. The remainder of the bone was then broken. The carbolic spray was used during the operation, and the wound was dressed with carbolised gauze. The limb was put up in a

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Thomas's knee-splint. After the bone was broken the fragments overlapped, and it was found impossible to overcome the displacement entirely, but by increasing the amount of extension force from day to day the deformity was largely reduced. The dressing was changed on the second day after the operation, and weekly afterwards. The temperature remained normal till the eleventh day, when it rose in conjunction with a slight pleuritic attack. Six weeks after the operation the wound was soundly healed, the fragments were united by a large mass of callus, and the limb was in good position, but it was still three-quarters of an inch shorter than its fellow. A plaster-of-Paris splint was applied, and the patient was discharged to the Convalescent Home at Eastbourne.

Remarks.—The three cases now recorded were under Mr. Heath's care at the same time, and they form an interesting group illustrative of the treatment of badly-united fractures. In the first case the fracture was only five weeks old, and the callus was soft enough to allow of its being bent and the bone being brought into good position. In the second case the bone had been broken between three and four months before the patient was admitted, and it was found necessary to employ considerable force to rebreak it. The result was very good, for the shortening of two inches and a quarter, which had entirely crippled the patient, was reduced to less than half an inch. With regard to the third case, it is doubtful whether the deformity which the femur presented was due to the fracture two years previously, or whether it depended on an injury sixteen months later, for it was only about eight months before admission that the great deformity was noticed. In this case it was necessary to divide the femur partially with a chisel before the bone could be straightened; and, though the improvement in this case was the most striking of the three, there still remained about three-quarters of an inch shortening. It is probable that this was dependent on the second fracture, which had united, with slight overlapping of the fragments. The Thomas's knee-splint, which was used for the last two cases, was very efficient, as it secured perfect fixation, facilitated extension, and in the last case allowed of the antiseptic dressing being changed without disturbing the fracture.

LONDON HOSPITAL.

FOREIGN BODY IN THE URETHRA; REMOVAL; REMARKS.

(Under the care of Mr. RIVINGTON.)

FOR the following account we are indebted to Mr. A. W. Burrell, house-surgeon.

On January 1st a big, strong, healthy-looking labouring man came to the hospital complaining that a pin had slipped into his urethra, and that he could not get it out. He had had a stricture for some time, which caused periodical retention, to relieve which he had been in the habit of passing the beaded head of a large shawl-pin through the stricture. On this occasion, however, the point had slipped past the meatus, and, catching in the mucous membrane, he had been unable to extract it, and during the walk of a mile to the hospital it had worked some distance up the urethra.

On examination, the point of the pin could be felt sticking through the urethra into the cellular tissue of the scrotum, in the middle line, just in front of the perineum; while with the finger in the rectum the shaft could be followed through the membranous and prostatic portions into the bladder, into which, however, the head penetrated too far to be felt. As after a little rest and a bath he passed his urine pretty freely by the side of the foreign body, he was left till the morning.

Jan. 2nd.—The point of the pin could now be felt just under the loose skin of the scrotum, with an inch and a quarter of the shaft protruding through the urethra. Mr. Burrell passed down a long pair of urethral forceps, and seized the pin in the urethra; at the same time passing his finger up the rectum, he pressed it up under the arch of the pubis, thus fixing it. Mr. T. N. Thomas then, under Mr. Burrell's direction, stretched the skin over the point, making a nick with a knife on it. He seized the point with forceps, and drew it out until the head stopped at the aperture in the urethra; then he depressed the point, and, reversing the mode of entrance of the pin, easily pushed the head out of the meatus, followed of course by the shaft. A catheter was passed, and some collodion placed on the puncture. The man refused to have his stricture treated, and went out the next day. The pin proved to be a blue steel shawl one, five inches and three-quarters long, with a black glass bead for a head, a quarter of an inch in diameter.

The case is interesting, as showing the position taken up by a long, straight foreign body slipping into the urethra. Thus it lay across the fixed curves of the urethra, the point perforating the penile urethra about one inch in front of the membranous portion.

ST. VINCENT'S HOSPITAL, DUBLIN.

A FATAL CASE OF PARAPLEGIA; NECROPSY; REMARKS.

(Under the care of Dr. QUINLAN.)

P. S——, aged fifty, a stout well-built man, a cabdriver, was admitted on Jan. 6th. He had for the last two years been of very intemperate habits, and on New Year's Day was driving his cab in a state of partial intoxication, when he fell off the box upon the road, which was then hardened by severe frost. He was assisted up to his driving seat, and was able to guide the vehicle home at a walking pace. Arriving home, his trap was put up for him, and he went to bed, as it was thought, to sleep off his potations. Next morning he felt chilly and numbed, and was unable to stand; he got daily worse, and began to speak thickly.

On admission upon the 6th, Dr. Quinlan found the man unable to move hand or foot; the surface of his body was livid, and very cold; and he was unable to distinguish the double points of the sensation compass at all in the lower parts of the body, and in the upper only when they were divaricated over an inch and a half. He had no control over his fæces, and the urine had to be drawn off by the catheter several times a day. His pulse was only 44, and his mouth temperature the clinical thermometer would not register, it being under 95°, its lowest marked degree. Priapism was present. He did not suffer any pain; but all over his sacral region a large bedsore was threatening to form. He got steadily lower and weaker; effusion into the bronchial tubes set in; and he died on the afternoon of Jan. 9th.

The post-mortem examination was made twenty hours after death by Mr. Coen, resident medical officer, who removed the calvaria, the occipital bone, and the whole covering of the back of the spinal canal, thus allowing the brain and spinal cord to be removed in their entirety. There was no injury of the vertebral column, but intense and general congestion of the vascular covering of the brain and of the spinal cord, which were pinky-red over the whole extent. There was no softening; but on making sections of the spinal cord, spots of congestion, almost resembling small hæmorrhages, were to be found scattered throughout its whole substance. On the sacral region was a circular, yellowish discolouration, nearly the size of a dinner-plate, and surrounded by a well-marked commencing line of separation, and which before many hours would have become a slough.

Remarks by Dr. QUINLAN.—In this case the cerebro-spinal inflammation was evidently caused by the patient falling on his back upon the hard road. He apparently fell in this way, for his head was not injured, and, from his inebriated condition, he does not seem to have put out his arms to save himself. The severe cold of the weather and his chronic alcoholism no doubt contributed to the fatal result. The case was from the beginning hopeless, from the general involvement of his nervous system, both cerebro-spinal and sympathetic, as evidenced by the symptoms above described.

THE COUNTESS OF DUFFERIN'S FUND.—The second annual report of the central committee of the National Association for Supplying Female Medical Aid to the Women of India has just reached England, and contains the following information as to the financial state of the fund:—The central fund at the beginning of last year brought forward a balance of 146,188 rupees. Since that date 76,109 rupees have been received. The annual income of the central fund is estimated at 19,450 rupees, which is partly made up of 9750 rupees interest on investments, of 2700 rupees from annual subscribers, and of contributions from the branches, which in 1886 amounted to 2700 rupees. This income, Lady Dufferin states, is very far below the exigencies of the situation; and she earnestly appeals for support from the people of England in this the Jubilee year.

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Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Annual General Meeting.—President's Address.

THE annual general meeting of this Society was held on Tuesday last, Mr. G. D. Pollock, F.R.C.S., President, in the chair. Mr. R. W. Parker and Dr. Angel Money were appointed scrutineers of the ballot.

Dr. CHEADLE read the report of the President and Council. It showed that the financial position and general prosperity of the Society were in a favourable state.

The report of the honorary librarians states that the additions to the library during the year 1886 consist of 879 works, including pamphlets, but not including Transactions, journals, and other periodical publications; 638 of these additions have been obtained by purchase and 241 by donation. These latter include 25 works in 100 vols. presented by Dr. Lauder Brunton, and 32 old books given by Mr. Charles Hawkins. In the 638 works added by purchase is included a bound collection of 420 "Thèses de Médecine," put together by the late Dr. C. Parrot. The total number of works in the library, Dec. 1886, was 30,282. During the past year 3587 books have been borrowed from the library. The number of visits of Fellows has been 4574. The collection of portraits of members of the medical profession has been enriched by the addition of 63 new portraits.

The PRESIDENT read his address. It consisted, as is customary, of the obituary memoirs of all those Fellows of the Society, deceased during the past year, and occupied an hour and a half in the reading, thus proving the numerous losses the Society had sustained by death since the last annual meeting.

Dr. CHARLES WEST proposed and Mr. J. H. MORGAN seconded the adoption of the report of the Council.

Sir JOSEPH FAYRER proposed and Mr. COWELL seconded the vote of thanks to the President for his address.

Mr. R. BARWELL proposed and Dr. PAYNE seconded the vote of thanks to the retiring vice-presidents and members of the Council: Dr. J. W. Ogle, Mr. Berkeley Hill, Dr. Buzzard, and Dr. Church.

Dr. O. STURGES proposed and Mr. HAWARD seconded the vote of thanks to the retiring treasurer, Dr. Radcliffe.

The following is the list of officers unanimously elected for the ensuing year:—President: Mr. G. D. Pollock, F.R.C.S. Vice-Presidents: W. H. Dickinson, M.D.; W. Ogle, M.D.; A. E. Durham; T. Smith. Treasurers: C. J. Hare, M.D.; Timothy Holmes. Secretaries: W. B. Cheadle, M.D.; Howard Marsh. Librarians: Wilson Fox, M.D., F.R.S.; J. W. Hulke, F.R.S. Members of Council: J. Cavafy, M.D.; Sir T. Crawford, K.C.B., M.D.; J. F. Payne, M.D.; R. D. Powell, M.D.; A. E. Sansom, M.D.; H. C. Rose, M.D.; Marcus Beck; H. T. Butlin; J. McCarthy; C. S. Tomes, F.R.S.

CLINICAL SOCIETY OF LONDON.

Paralysis of Left Leg from Subcortical Disease.—Rheumatic Hyperpyrexia successfully treated by the Cold Bath. Epilepsy following an Injury to the Leg.—Profuse Hæmaturia in connexion with Granular Kidneys.

AN ordinary meeting of this Society was held on the 25th ult., Dr. W. H. Broadbent, F.R.C.P., President, in the chair.

Dr. HUGHLINGS JACKSON read a paper on a case of Paralysis of the Left Leg from Subcortical Disease, with Cancer and Fracture of the Left Femur. A woman aged fifty-two was admitted on Dec. 28th, 1885, under Dr. Hughlings Jackson's care, for paralysis of the left leg, which had come on suddenly on Dec. 7th, whilst she was standing at her work. The knee-jerk on the paralysed side was greatly exaggerated, and there was foot-clonus; there was no defect of sensation; no morbid changes in the fundi. On Dec. 30th, whilst she was being lifted from the bed-pan, the left femur broke just below the great trochanter. Death occurred on Jan. 19th. At the necropsy there was found cancer of the left femur, of the ovary, and of the brain. The brain was examined by Dr. James Anderson, who found several growths in it, one, accounting for the paralysis of the left leg, being in the region of Ferrier's leg centre.—Dr. BROADBENT said the case was interesting from more than one point of view. The nodule to which the paralysis corresponded might have been described from other points of view than the internal aspect. The early occurrence of ankle-clonus and exaggerated knee-jerk was hardly in accord with the sclerotic theory of these phenomena.—Dr. BREVOR said that Messrs. Schäfer and Horsley first discovered that the posterior part of the marginal convolution was a part of the leg centre. The absence of fits might be explained by the nodule not having implicated the cortex. He was working with Mr. V. Horsley at the minute arrangement of the leg centre, and found that the toes were represented in the parietal lobule, which was not involved in Dr. Jackson's case. With regard to the fibres of the internal capsule, those from the leg descended in the hinder part of the internal capsule, as had been ascertained by experimental stimulation of the exposed fibres in the monkey.

Dr. CARRINGTON read a case of Successful Treatment of Hyperpyrexia in Acute Rheumatism by the Cold Bath. He said that although there was nothing new in the case he brought forward, still he thought it was well to put such cases on record in order to accumulate a body of evidence such as would enable medical men to combat the prejudice existing amongst the friends of patients against the employment of a remedy which afforded the only chance of safety in this desperate complication. The patient was a medical student, aged twenty-three, strong and muscular, and hitherto in perfect health. He had been ill with what was apparently a mild attack of rheumatism, for which he had been treated by salicylic acid. He was so far recovered that he had left his bed, and on the evening of Oct. 31st had received the visits of his friends. He passed a good night, and there was nothing to excite attention next day, but on taking his temperature next morning about 12 noon, quite as a matter of routine, it was found to be 107°. Dr. Carrington saw him soon afterwards, and then found the temperature to be 106°. He was, as soon as practicable, removed to the private ward of Guy's Hospital, but in the journey had become noisy and delirious, and by the time he had been placed in bed he was quite livid, unconscious, and generally convulsed. His temperature was then found to be 109·8°. The necessary arrangements had been previously made, and he was at once placed in a bath at a temperature of 70°, which was as rapidly as possible cooled down by ice; large quantities were used, but the body heat was so great that there was great difficulty in lowering the temperature of the bath. Pouring ice-cold water on the patient's head had a beneficial effect. A rectal injection of fifteen grains of antipyrin was exhibited. He was kept in the bath for a full hour, and when the rectal temperature was 102·4°, he was removed and placed on a blanket and lightly covered by a sheet. Then marked tetanic convulsions supervened, and he gradually became quiet, and at 7 P.M. his temperature fell to 97·2°. At 8 P.M. consciousness returned, and he took a pint of milk, and at 10 P.M. he was quite rational. During the next day he remained comfortable, and took twenty grains of salicylate of soda every two hours, but his temperature again arose, and at 12 P.M. it was 103·8°. He was given fifteen grains of antipyrin by the mouth, but at 2 A.M. the temperature was 105·2°, and the ice-bath was again employed for fifteen minutes. He was taken out when his temperature had fallen to 101°, but at 6 A.M. it had again risen to 105·4°, and the bath was again had recourse to for a similar period. After this he slept well, but at 2 P.M. the temperature had reached 105°, and he was bathed again for forty minutes. From this time the temperature never again rose to any extent; it was for the most part normal, but on one occasion with a return of the articular pain it reached 101°. After the third bath salicine was substituted for sodic salicylate, in twenty-five grain doses every two hours. After two days he took it every three hours, and the dose was gradually reduced. With an interruption due to the slight relapse, the patient made an uninterrupted recovery from this time, and left the hospital quite well. The experience of the case seemed to be that within the limit of collapse, prolonged immersion was more effectual than shorter and more frequent baths.—Dr. HALE WHITE remarked on the uselessness of the antipyretics in this case, and he thought that the way in which the drugs act must be different in different cases. The class of pyrexias influenced by antipyrin and other antipyretics were, perhaps, of a different nature. Referring to a case of inexplicable pyrexia that ultimately got perfectly well, he said that neither antipyrin, salicylate of soda, nor

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quinine had any influence over the course of the fever.—Dr. BROADBENT remarked on the occurrence of convulsions in connexion with this case; he had not observed convulsions during the rise of temperature; perhaps the removal of the patient to the hospital might have had some share in their causation. In cases of hyperpyrexia in typhoid fever, he had witnessed the development of remarkable opisthotonos, which had no relation with the general convulsions. He inquired whether shivering was taken as an indication for removal of the patient from the bath. He had known hyperpyrexia to supervene during the administration of large doses of salicylates, but in one case pericarditis developed. He supposed that the præcordial murmur in Dr. Carrington's case was of hæmic origin, and partly due to myocardial dilatation, not to pericarditis.—Dr. HUGHLINGS JACKSON said it was important to note whether convulsions were tonic first and clonic afterwards, or whether they occurred in confused alternation.—Dr. STEPHEN MACKENZIE had seen four cases of hyperpyrexia in private practice. In one of rheumatic fever he employed ice and water till the temperature became normal, when the patient was seized with complete tetanic rigidity, in which he was only partially conscious, and became of deathly pallor, reminding one of the picture at Brussels of the man risen from his coffin after being interred as dead from cholera. It was found necessary to employ stimulants, but the man died ten hours later. In private practice he had had no case of complete recovery, thus showing the importance of careful nursing and proper appliances for such cases. In Dr. Wilson Fox's first case the balance between hyperpyrexia and subpyrexia was very marked, cold and stimulants being alternately and concurrently required. No clonic convulsion was observed with the tetanic state.—Dr. BROADBENT said that the convulsions observed by him were of an irregular clonic character, in which there was no recognised phase of rigidity. No clonic convulsion occurred in association with the tetanic opisthotonos to which he had referred.—Dr. CARRINGTON said that it was only on removal from the bath that the tetanic state without clonic spasms developed. The first bath lasted one hour. Drugs, so far as one could tell, had no beneficial effect.

Dr. HADDEN brought forward a case of Epilepsy after Gunshot Wound in a man aged thirty-two, who was under Mr. Croft's care at St. Thomas's Hospital. There was no family history of epilepsy. In 1872 he was wounded in the left calf, and several shots were extracted. In six or seven weeks the wound was quite healed. Four months after the injury he began to have fits. For nine months they were occasional, but afterwards he had as many as twelve daily. The sciatic nerve was then stretched, and the fits ceased for thirteen years. They recommenced seven weeks before admission into St. Thomas's, when he fell to the ground from a ladder unconscious. During the week preceding admission he had eight or ten daily. The fits began with a sharp twitching pain in the scar in the left calf; then there was a creeping, heating sensation passing up the leg and left side of the body to the head. The left side then became convulsed. The pupils were immobile, and the conjunctivæ insensitive. Finally, there were some general convulsive movements, and then rapid return to consciousness. The tongue was not bitten, nor were the evacuations passed. The scar was somewhat tender, and when pressed he would at times have the sensation passing up the body, and sometimes a convulsion. Occasionally in the seizures he would roll about in bed, and sometimes there was opisthotonos. An attempt was made to stretch the sciatic nerve by extreme flexion of the hip, but the result was a violent convulsion. A few days later the nerve was exposed and freely stretched. The fits stopped for nine days. He then had occasional seizures—sometimes one a day, sometimes one every other day. Two occurred whilst the splint was being bandaged to the leg, and one during removal of the splint. The man wrote four months later to say that he had had no convulsion since he left the hospital, but he suffered from severe paroxysmal pain in the left calf, followed by the "fitty" sensations. There was no doubt that the attacks were genuine, the condition of the pupils and conjunctivæ and other points proving this. The interest of the case has reference to Brown-Séquard's and Victor Horsley's experiments on guinea-pigs. Epilepsy was induced by these observers after injury to the sciatic nerve. There is usually a latent period of from two to six weeks. In the man the incubation was four months. Opisthotonos occurred in the patient, as in the case of guinea-pigs.—Mr. BOWLBY related the case of a man who had received a charge of shot in the leg about eighteen months before he was first seen. The fits had been increasing in frequency and force, and were always characterised by pains beginning in the wounded leg in the area supplied by the musculo-cutaneous nerve, of which an inch and a half was excised, and after two or three days the fits ceased, and the wound healed soundly after having suppurated. The man remained five years without recurrence of the fits. Some shot under the skin were then found and removed, with the result of temporary stoppage of the fits. After a time Mr. Willett practised stretching of the sciatic nerve; the fits thereafter continued for awhile, but then ceased, and there had been no further occurrence.—Dr. H. JACKSON referred to the case of a boy brought before the Society last November, who had fits whenever his head or face was touched—a case like that of a guinea-pig rendered epileptic by injury of the sciatic nerve or spinal cord.—Dr. CARRINGTON alluded to cases of trephining for epilepsy, and said that recovery sometimes followed the mere operation.—Dr. ANGEL MONEY considered, with Dr. Hughlings Jackson, that in most cases of epilepsy there was an epileptogenous zone in some part of the periphery of the nervous system. Probably there were various kinds and modes of excitation of this area, and these were the exciting causes of the attacks of epilepsy. Reference was made to a case of genuine idiopathic epilepsy in which the ingestion of a stick of chocolate was sufficient to excite a genuine attack, which began with a sensation of frightful hunger at the pit of the stomach a few minutes after eating the chocolate, was soon followed by a rushing sensation to the head, and this was succeeded by loss of consciousness, in which convulsions of tonic, clonic sequence might be observed.—Dr. BROADBENT referred to his own experience of like cases. In one, that of a girl with a whitlow, violent epileptiform convulsions were of frequent occurrence, but on the removal of dead bone they entirely ceased. Another case of reflex epilepsy was that in which there existed a piece of glass in the ulnar nerve, palpation of which was invariably followed by the occurrence of a fit. These cases differed from ordinary epilepsy in that they might occur at any age. Cases of idiopathic epilepsy in which fits occurred several times a day were of rare occurrence. The extreme frequency of the fits was another feature of the cases under discussion. He concurred with Dr. Hadden in thinking that removal of the scar rather than stretching of the nerve was the better treatment to adopt.—Dr. HADDEN, in reply, thought the class of cases of epilepsy under discussion partook of the nature of tetanus resulting from a wound. He was much struck by the resemblance between Mr. Bowlby's and his own case.

Mr. ANTHONY BOWLBY read a paper containing the records of three cases of Hæmaturia in connexion with Granular Kidney. The first was that of a man aged seventy-three, who was admitted into St. Bartholomew's Hospital suffering from enlargement of the prostate and hæmaturia. His death, which occurred within twenty-four hours, appeared to be chiefly due to the exhaustion caused by the loss of blood. A post-mortem examination showed an enlarged prostate and dilated bladder, containing several ounces of almost pure blood. The kidneys were small and granular. Their pelves and the ureters contained blood, and in the renal substance there was much blood extravasated. Microscopical examination showed that the hæmorrhage had occurred both into the renal tubes and into the cellular tissue of the gland. The second case was that of a man aged forty-nine, who had long suffered from stricture of the urethra and difficult micturition, and who for three months previously to admission into St. Bartholomew's Hospital had passed considerable quantities of blood with his urine. He had many of the ordinary signs of interstitial nephritis, and, in addition, passed a great deal of blood. On his death, from uræmia, no cause of hæmorrhage was found, except in the kidneys. These were small and granular, and contained a little bloody urine. The third case, a man aged sixty-four, was admitted on Feb. 3rd, 1886, with profuse hæmaturia and pain in the loins. After losing much blood for several weeks the hæmaturia ceased. The urine when clear contained albumen. There was some albuminuric retinitis and some opacity of one lens. Attention was drawn to the fact that the subject of hæmaturia in connexion with granular kidney has received little attention, that no cases of profuse hæmaturia of this nature have been previously recorded, and that no post-mortem examinations have been described. It was pointed out that in one of the

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patients who was the subject of this paper the hæmorrhage was so profuse as to be mistaken for vesical bleeding, and in the others the diagnosis had to be made from other of the more recognised causes of renal hæmorrhage, especially calculus. It is in connexion with this question of diagnosis that these cases are of importance. Lastly, it was stated that simple interstitial nephritis, independently of dilatation or absorption of the renal substance was often found as the result of obstruction to the outflow of urine.—Dr. CARRINGTON considered the cases to be of great rarity, and remarked on the existence of obstruction in the urinary passages.—Mr. R. J. GODLEE referred to the fact that in some of the cases instrumentation had been practised for the relief of retention of urine. Such instrumentation of the urinary passages would be likely to be followed by acute attacks of hæmaturia and renal congestion.—Dr. HADDEN referred to two cases of profuse hæmaturia, in which the diagnosis had been overlooked and in which the kidneys were found after death to be the seat of large hæmorrhages.—Dr. MAGUIRE considered that cases of hæmaturia in association with granular kidney were not of great rarity, and the hæmaturia seemed to be followed by improvement in the patient's general condition.—Dr. BROADBENT thought that profuse hæmaturia was rare in cases of granular kidney. In one case the patient had had uræmic convulsions, from which recovery took place, and death occurred some years later from hæmaturia, the cause of which was bleeding from an artery running in the wall of the pelvis of one kidney.—Mr. BOWLBY, in reply, said that catheters had been passed in one case but not in the others, and the circumstance that all the cases occurred in the surgical wards showed the profuseness of the hæmorrhage and the overlooking of the nature of the cases.

The following living specimens were shown:—Dr. Arthur Davies: A case of Myxœdema in the male, aged thirty-eight, of seven years' duration, and a case of the same disease in the female. Mr. A. E. Barker: A case of Fracture of the Upper Cervical Vertebræ, causing Right Hemiplegia, from which the patient had completely recovered.

MEDICAL SOCIETY OF LONDON.

The Treatment of Syphilis by Mercury.

AN ordinary meeting of this Society was held on Monday, Feb. 21st, Mr. R. Brudenell Carter, F.R.C.S., President, in the chair.

Mr. E. MILNER read a paper on the different modes of administering Mercury in Syphilis, and the indications for their application. He gave some of the results of his experience of twelve years' out-patient practice at the Lock Hospital, with a view of arriving at some definite conclusion as to what preparation of mercury should be employed in order as rapidly as possible to get rid of the visible signs of syphilis. In the majority of cases blue pill is as good as blue ointment and green iodide as Donovan's solution; but even in these cases he thought that more accurate and more careful observation in practice would render such an admission unjustifiable. He dealt with three of the most common methods of administration: 1. Some of the cases in which green iodide should be used. 2. Some of the cases in which inunction should be practised. 3. Some of the cases in which the vapour of calomel should be employed. Of all the syphilitic rashes, the most evident, most persistent, and perhaps the most difficult to combat, is the vesicular syphilide. It most frequently occurred in light-haired women who drank large quantities of wine as distinguished from spirits. The vesicular may be associated with an early tubercular syphilide, and this usually in dark-haired people during cold weather, and in the underfed and underclothed patients of anxious temperament. In the first of these two classes green iodide with Donovan's solution, in large doses, was most valuable; in the second class the inunction of the German preparation of blue ointment has excelled all other methods of treatment. In billiard-markers, some actors, barmaids, actresses, and commercial travellers, who drink freely and sit up late, the syphilitic rash is apt to become angry, excessively red, and marked. In spite of the diarrhœa, give green iodide in large doses. Donovan's solution, with soda and iodide of sodium will assist, the latter salt being better than the potassic salt. The keeping of late hours materially influences the character of syphilitic eruptions. These people often have a thick oily perspiration which interferes with the nutrition of the skin and initiates the manifestations of syphilis; it was perhaps one of the causes of the so-called gouty character of the syphilide. Barmaids present the reddest and most angry syphilitic rashes, and the lesions are most difficult to treat. Such might be named "barmaid's syphilis." For these cases green iodide of mercury was the best preparation. In those who drink and never take care of themselves green iodide was next best to inunction, and would probably, under all the circumstances of the case, prove most efficacious. Green iodide of mercury is the most available remedy with patients who sit up late, who have light hair, and drink freely. The typical case for the green iodide would probably be the light-haired degenerated lady who sits up all night playing the piano at suburban parties, who eats but little, but refreshes herself frequently and takes a little brandy before retiring to rest. The German ointment is less strong, contains more suet, and is harder and preferable to that of the British Pharmacopœia. It salivates severely less frequently, and produces a more permanent effect. Many cases of primary syphilis in healthy, abstemious, light-haired men will be benefited by mercurial inunction. Patients with dark hair treated in this country with inunction, though they may almost avoid syphilides, may suffer severely from a form of sloughing sore-throat. Inunction in the late stages is a refuge for the destitute, but rarely it may give gratifying results. Large syphilitic testicles, secondary gummata, and syphilitic nervous disease may yield like magic to inunction. Inunction is most useful in the early stages with healthy, light-haired, abstemious patients with a primary sore, and the German ointment will almost certainly cure the distracted married man who has had syphilitic lumps for many years. To rapidly get rid of sores the local administration of mercury in the form of the vapour of calomel is of material assistance, whether the sore be the smooth, flat, indolent button, or accompanied by destructive ulceration of the glans penis. The vapour is also valuable in ulceration of the extremities, especially the legs, syphilitic in their origin, but frequently associated with a weak state of constitution, or, more frequently still, associated with a too rapid or indiscriminate administration of mercury. In certain cases, where mercury cannot be administered internally, the vapour of calomel locally applied is of great assistance, as also in the red, angry, tubercular eruption on the forehead along the line of the hat leather, and in the destructive ulceration of the fauces in late secondary syphilis.

Mr. BRUDENELL CARTER referred to the syphilitic lesions of the eye, especially of the retina, which were met with in the tertiary stages, and especially in those individuals in whom the mercurial treatment had been inadequately carried out.

Dr. DRYSDALE could not agree that mercury was the only treatment of syphilis, and spoke of the probable germicide effect of mercury and iodine.

Dr. LAUDER BRUNTON said that it was very difficult to explain the *modus operandi* of mercury and iodides in syphilis, for the pathology of this disease was still imperfectly known. Perhaps they acted as germicides.

Mr. DE MÉRIC considered inunction was an uncleanly method. He had seen many cases of tertiary syphilis which were benefited by mercury.

Dr. ALTHAUS alluded to other methods of introducing mercury than those given in the paper. He spoke of hypodermic injections, lanoline inunction, and the oleates, all of which methods he had employed with success.

Dr. T. K. SALTER had had a syphilitic chancre on the finger, treated for nine months by calomel baths, and without any secondary symptoms having appeared.

Mr. MILNER, in reply, alluded to the baneful influence of large doses of iodide of potassium. Mercury was practically indispensable.

The following is a list of the names of Fellows nominated for office by the Council for the ensuing year:—President: J. Hughlings Jackson, M.D., F.R.S. Vice-President: T. L. Brunton, M.D., F.R.S.; Sir W. Mac Cormac, D.Sc.; T. H. Green, M.D.; J. Knowsley Thornton, M.C. Treasurer: A. E. Durham. Librarian: W. H. Allchin, M.B., F.R.S.E. Honorary Secretaries: Samuel West, M.A., M.D.; Bernard Pitts, F.R.C.S. Secretary for Foreign Correspondence: Felix Semon, M.D. Council: R. Brudenell Carter; H. H. Clutton; W. Harrison Cripps; J. N. C. Davies-Colley; S. H. Dawson, M.D.; D. W. Finlay, M.D.; Francis Fox; J. Langton; J. Lowe, M.D.; R. Macguire M.D.; R. P. Middlemist; J. H. Morgan; W. M.

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Ord, M.D.; R. Douglas Powell, M.D.; W. Pye; J. P. Richards; A. J. MacConnel Routh, M.D.; T. Gilbart Smith, M.D.; C. Theodore Williams, M.D.; S. W. Wyman, M.D.

Excision of Half of Larynx.—Tuberculosis of Fauces.—Dislocation of both Hips.—Excision of Hip.—Trephining for Cerebral Abscess.

A clinical meeting of this Society was held on Monday last, Mr. R. Brudenell Carter, F.R.C.S., President, in the chair.

Mr. LENNOX BROWNE exhibited a patient from whom he had ten weeks previously excised the left half of the Thyroid and Cricoid Cartilage with the corresponding arytenoid, vocal cord and internal soft parts, on account of unilateral epithelioma in a male patient aged 61. The following points were emphasised:—1. Use of the raspatory for removing the tissues external to the cartilage as the surest safeguard against hæmorrhage, as lessening the chance of septicæmia, and ensuring speedy recovery of the power of swallowing, &c. 2. The use of Hahn's tampon cannula. 3. The use of perchloride of mercury in solution, and of corrosive sublimate gauze in preference to iodoform, as dressings for the wound. 4. The not too quick closing of the external wound, with the view of prolonging functional rest of the larynx without the irritation of a tracheotomy tube. The patient spoke with a fair gruff voice, and was able to resume his occupation, but Mr. Browne considered that it was too early a period yet to speak as to the freedom from recurrence.

Mr. LENNOX BROWNE also showed a young woman, aged twenty, married, and the mother of three children who was the subject of Tuberculosis of the Fauces and Pharynx, extending to the posterior wall of the larynx and slightly involving the right arytenoid cartilage. The lung condition showed only incipient phthisis, but bacilli of tubercle were plentiful at the seat of ulceration. The patient had suffered on admission into the hospital on December 4th from dysphagia in such an extreme degree that she preferred not to take food. According to the method advised by Krause, of Berlin, the diseased surface, previously anæsthetised by cocaine, was scraped, and solutions of lactic acid, 20, 40, and 60 per cent., were applied daily for twenty-one days. At the end of that period acute inflammation took place, on recovery from which the dysphagia was found to be absolutely relieved. In reply to Dr. Angel Money, he said that the case was regarded as tubercular by all who had seen it, and the typical bacilli were discovered.

Mr. T. PICKERING PICK showed a boy aged eleven with Dislocation of both Hips, as the result of softening of both capsular ligaments. The legs were distorted and deformed, and he was unable to stand; the right thigh was apparently lengthened, flexed, abducted, and rotated outwards; the left thigh seemed to be shortened, flexed, adducted, and rotated internally. The boy had suffered from acute necrosis of the tibia, and the resulting illness had led to the adoption of an abnormal position of the legs so as to relieve pain; from this dislocation had resulted. He had performed osteotomy on both femora with a view to obtaining better positions. Reference was made to Mr. Barker's case of dislocation occurring in typhoid fever as the result of effusion into the hip-joint and softening of the capsule.—Mr. WM. ADAMS said that double osteotomy was the best operation that could have been done for the boy. He spoke also of Rawdon's operation of excision of the head of the femur. He was not certain of the mechanism of the dislocation that occurred in continued fevers. Was the capsule torn or merely distended?—Mr. J. H. MORGAN thought that infantile arthritis might lead to dislocation as well as rheumatic fever. In one case of upward and backward dislocation, the head of the bone was found to be perfectly healthy and movable, the acetabulum was filled with granulation tissue, the capsule tense and stretched over the displaced head, and the teres was destroyed.—Mr. WALTER PYE thought that spontaneous dislocation might occur as the result of pyæmic arthritis.

Dr. A. ROBINSON showed a case of Excision of the Hip in a woman aged forty-five. She had been suffering previously from pyæmic joint affections. The right leg was shortened and everted; there was a sinus discharging freely on the outer side. There was a dislocation on to the dorsum ilii, where the head, denuded of its cartilage, was embedded in indurated tissue. The head and surgical neck were excised, and the final result was good, the patient having a movable limb and being able to walk.—Mr. WM. ADAMS thought the case a very successful one.

Dr. WHITELAW BOURNS showed two cases of (?) Ichthyosis Hystrix, in one of which the affection of the right leg only began four years ago in a woman aged seventy-one.

Mr. J. BLACK read a case of Trephining for supposed Abscess of the Temporo-sphenoidal Lobe. The patient was a man aged twenty-two, whose illness began with vomiting and shivering, and continued with rigors and high fever. He had suffered from otorrhœa for many years. There was a perforation of the membrana tympani and there had been a sinus leading into the mastoid cells. The cells were perforated and free drainage established, without much relief. A few days later the trephining was performed, the dura mater was laid open, and the brain pierced, without result. A day later fresh piercings in different directions were made, but no abscess was detected and the rigors continued. Quinine in large doses, stimulants, and nourishing food were given, and in the course of two weeks the patient had improved considerably, when the rigors returned. Optic neuritis was not detected. The patient ultimately completely recovered. He inquired whether the operation was justifiable under the circumstances. Reference was made to papers by Mr. Barker, Mr. Hulke, and Dr. Greenfield.

Mr. H. ALLINGHAM, jun., showed a case of Fracture of the Lower End of the Right Humerus, with involvement of the median nerve in the callus, and consequent neuritis with paralysis. It was that of a boy aged twelve, and he proposed to cut down by the nerve and liberate it.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

A MEETING of this Society was held on Wednesday, Feb. 9th, Inspector-General Lawson in the chair.

A paper by Inspector-General John MACPHERSON was read, entitled a Memorandum on Notices of Cholera in India before 1817, of which the following is an abstract. The object of this paper is to show that Dr. Semmelinch in his recent history of cholera before 1816-17, and still more Colonel Yule, in his admirable Anglo-Indian Glossary, have made some additions to our knowledge of the diffusion of cholera in the East in early times. Dr. Semmelinch points out that *bort* was the name applied by the Dutch in the east to choleraic attacks, although he does not believe that malignant cholera existed in the East before 1816-17, as all accounts of the disease before that date are unsatisfactory to his mind, owing to their being incomplete in the enumeration of the symptoms of the disease. However, we have positive evidence through him, and still more through Colonel Yule, that cholera of the worst type occurred in Anaca in the Bay of Bengal, in 1602, that *bort* occurred in Ceylon in 1679, and cholera in the Isle of Bourbon in 1716, and further quite possibly cholera in China in 1517. In almost all cases where captains of ships, or travellers, or doctors have mentioned the diseases of the East, they have, in addition to the usual ones of the country, mentioned a certain disease called *mordexin* or *mort de chien* of the French, noted for its sudden onset and rapid course. This was doubtless Indian cholera—sometimes sporadic, sometimes epidemic.

A paper was read by Mr. JOHN MOIR on the Statistics of the West Ham Small-pox Hospitals during the Epidemic of 1884 and 1885. He stated that during that period he attended 1211 cases in the Guardians' Hospital and 303 cases in the Local Board Hospital, with a total mortality of 280 (18·4 per cent.); and the tables compiled by him showed that the mortality after revaccination, with the exception of one case of pneumonia, from which the patient was suffering on admission, was *nil*; after primary vaccination with three or more good marks, 4 per cent.; with from one to two marks, 15 per cent.; in the imperfectly vaccinated, 29 per cent.; in those said to be vaccinated, but without evidence, 44·6 per cent.; and in the admittedly unvaccinated, 52·66 per cent. As to the question of protection by vaccination, it was in exact ratio to the efficiency of the vaccination, and revaccination afforded practical immunity from confluent small-pox and death from small-pox. The deaths from small-pox in West Ham were 259 in 1884 and 563 in 1885, whereas in 1886 there were only 3. A house-to-house visitation carried on by Dr. A. E. Kennedy led to a great increase in vaccination and revaccination, as during the period in question, from March 30th to May 14th, 1885, the public vaccinators in West Ham revaccinated 2978 persons, besides vaccinating 515 over the age prescribed by the Vaccination Act, with a large increase

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in the number of primary vaccinations. It appeared from Dr. Kennedy's report to the West Ham Board of Guardians in May, 1885, that, in a population of close on 150,000, 98·6 per cent. were found to be vaccinated. But the chief benefit was the increased impetus given to vaccination, and the fact that there were only 3 deaths from small-pox in 1886 was greatly owing to this house-to-house visitation. Another feature brought out by this epidemic was the increase in the number of cases round the hospitals area. The report of Mr. Power to the Local Government Board, printed by the West Ham Board of Guardians, shows that in the three-quarters of a mile radius (used for the reason that it includes the whole of the built-upon area of Plaistow, in which the hospitals were situated, and leaving a zone comparatively sparsely populated), in the six months, Dec. 1883 to June 21st, 1884, this hospital area suffered a rate of small-pox mortality ten times greater than that of the remainder of the district; in the two months and a half, June 22nd to August 30th, 1884, a period corresponding to the normal seasonal decline of epidemic small-pox, West Ham suffered about the same amount of fatal small-pox as in the preceding six months, but the small-pox mortality in the hospital area was smaller, but still nearly twice as great as in the remainder of the district; in the next six months it increased again to over three times that of the rest of the district. There was a large number of hæmorrhagic cases in hospital (fifty-seven), mostly coming from the insanitary and over-crowded districts. The tables showed that the largest number of cases occurred between the ages of fifteen and thirty years, proving the necessity for successful revaccination. Of the 1514 cases, 55 were under two years of age, 18 being vaccinated, with 2 deaths; 4 had small-pox and vaccination concurrently, with 3 deaths; and 33 were unvaccinated, of whom 27 died.

In the discussion which followed, the President, Dr. Dickson, Surgeon General Murray, Inspectors-General Lawson, Lilburne, and Lloyd, Surgeon-Major Pringle, Drs. Thorne and Willoughby, and Mr. Shirley Murphy took part

MANCHESTER PATHOLOGICAL SOCIETY.

The following is a brief record of the proceedings of the meeting on Jan. 19th, Dr. J. Dreschfeld, President, in the chair.

Discussion on Diseases of the Hip-joint in Children.—Mr. G. A. WRIGHT opened the discussion, and after reference to a few points in the anatomy of the joint, he proposed five headings as the subjects for debate, premising that he took for granted the tubercular nature of the complaint. 1. The seat of the primary lesion was held to be nearly always in the bone, as an articular ostitis or affection of some part of the epiphysis, the epiphysial line, or the calcar femoris. The relation between the anatomy of the joint and the seat of the lesion was discussed, and the question of the effects of injury alluded to. A case of synovitis was mentioned as being the only instance in over a hundred cases examined. 2. It was almost impossible to determine the frequency of primary acetabular disease, though the existence of pelvic mischief could usually be ascertained. 3. Necrosis of the femur was said to be present in about 17 per cent., of the acetabulum in about 22 per cent., of cases that had reached the stage of abscess. Total epiphysial necrosis and the question of diastasis were discussed. The mere removal of sequestra was held to be insufficient on the ground that the specimens showed tubercular ostitis round the sequestrum cavity, and this would be left behind. The difficulty of finding the presence of sequestra without section of the bone was also pointed out. 4. The probability of recovery of the bone in the specimens shown was decided against, on the ground that no specimen showed any sign of repair except one in which the whole epiphysis had been removed by natural processes, since it was observed that until this occurs relapses are probable even if temporary quiescence is procured. 5. On pathological grounds the conclusion was that excision is the proper treatment. Between fifty and sixty preparations were shown to illustrate the various features of hip disease and the points indicated in the address.—Mr. F. T. PAUL (Liverpool) agreed with Mr. Wright in placing the origin of the disease most frequently in the bone, and from repeated microscopical examination of typical cases, considered that pulpy disease of the joints was always tubercular. He regarded it as a primary rarefying or tubercular ostitis, commencing in the neighbourhood of the joint, and secondarily involving the synovial membrane. He did not think that in the hip-joint the simple removal of sequestra was sufficient, but believed rather that, since the mischief so frequently began in the head of the bone, the proper treatment was to excise the head and neck only at an early stage—an operation which was frequently followed by primary union and a movable joint. In the later stages excision was very unsuccessful, and he preferred expectant treatment.—Mr. A. W. STOCKS thought that the characteristic position of the limb in incipient hip-joint disease, and the favourable result of early and judicious treatment without operation, combined with the fact that forcible distension of the joint in the dead subject produced a similar distortion, threw a good deal of doubt upon the theory that hip-joint disease commenced, as a rule, in the substance of the bone.—Dr. WM. THORBURN said that Mr. Wright had proved the osseous lesions to exist in such cases as he thought required excision, but he would ask what was the proportion of cases excised to those treated without operation, and whether Mr. Wright held that the lesions were similar in the large number of cases which it is possible to cure by rest, &c.?—Mr. WRIGHT, in reply, said that the fixed position of the limb in abduction and flexion occurred as soon as the mischief reached the joint, but so long as the interior of the bone alone was involved it did not occur; this corresponded with the "latent period" so often seen, and was confirmatory of the view that the bone lesion is primary. The proportion of cases excised to those seen was about one in six. There was no reason to suppose that the excised cases differed in pathology, but only in the stage at which they were seen and in the possibility of carrying out efficient treatment.

Reviews and Notices of Books.

A New Departure in Science. Being a Second Edition of a New Chapter in the Story of Nature. By CHARLES BLAND RADCLIFFE, M.D. 8vo. London: Macmillan and Co. 1886.

NOT the least important aid to one branch of science is often furnished by those professionally engaged in another department, for the wider the sphere of a man's knowledge so much the more philosophic will be his treatment of special subjects. Thus geology owes much to the labours of surgeons and physicians, among whom may be mentioned Fitton, Mantell, Dixon, Holl, Lycett, Duncan, and others; and during the past seventy years no less than six medical men have occupied the presidential chair of the Geological Society of London. Of these, Mr. J. Whitaker Hulke (formerly president) has just been awarded the Wollaston Gold Medal, the highest honour the Society can bestow, for his researches on Fossil Reptilia. Now and again, however, a feeling of scepticism in scientific teachings is developed in the minds of those who pin their faith on the literal interpretation of the Bible; and this is especially prominent if they have some acquaintance with geological literature, but have failed to thoroughly grasp the principles of the science. The results when put in print are generally lamentable, and unfortunately we cannot make the volume under notice an exception.

The author's first "departure" is founded on his belief that there is a tidal wave in the land, dependent upon tidal fluctuations in subterranean heat. His conclusions are based on barometrical observations taken at high and low water, afloat and on shore, although he previously "saw that the atmospheric pressure must increase if the land or water went down, and decrease in the contrary case." His observations show a slightly diminished atmospheric pressure ashore at low water, but no material difference between the pressure afloat and on shore at high water. The records, however, are somewhat conflicting, nor is any statement made of the temperature at the different places. It is well known that there are areas of high and low pressure distributed side by side, and meteoric

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influences would be amply sufficient to account for the slight differences recorded by the author, while in any case the records are too meagre for the establishment of general conclusions on the subject. It is true he admits that "no doubt additional evidence is wanted before it is possible to lay down the law positively," but further on he adds, "and to return, it may not be wrong to conclude that the evidence in favour of a tidal wave in the land is even more conclusive than the evidence of a tidal wave in the water." Throughout his volume the author, after introducing his new departures and pointing out that it may be so and so, has a tendency to argue as if it *is* so, and as if his statements and conclusions might be accepted as facts. He seldom presents any real arguments against these "departures," and appears to read too much in the light of his preconceived opinions. In the case of the tides, no doubt, it is difficult to define the exact influences that affect them, through the revolution of the earth, the configuration of the coast lines and of the ocean beds, and from astronomical causes. The author, however, says little about the action of the tides on rivers, nor does he point out how they would be affected by upheaval of the land. It is well known that minute earth tremors affect the land—vibrations (almost microscopic in character) that are produced both naturally and artificially, and in the former case sometimes by variations in barometric pressure. Nevertheless, in the case of violent earthquakes the vertical movement of the land is seldom more than one millimetre, and yet from the observations of the author at Eastbourne he found, to his great delight, "that the *land* went down at high water and up at low water, and that this movement amounted fully to nine feet"!

That rocks may expand under the influence of heat will not be denied, but we cannot follow the author further when, for example, he remarks "that some rocks expand and shrink more than others under the action of tidal fluctuations in subterranean heat, and that a day may come in which the rising and falling of the tidal wave may give the key to the geological construction of the sea-board—when, e.g., an exceptionally high tide may be looked upon as pointing possibly to the presence of coal at no great distance from the sea in that locality."

Dr. Radcliffe's second "departure" is one "in which subterranean and other forms of natural heat are found to be dependent upon electrical incandescence, &c." He observes: "The simple fact is that the earth is traversed instantaneously by electrical currents from the sun and moon; that these currents in certain parts of their course across the earth are, as instantaneously, frittered down into heat by resistance." In this way he would account for the temperature of the Bath waters; but we must pass over the laboured arguments which are put forth to interpret facts that are capable of simple and intelligible explanation on the theory of the earth's internal heat. Although the author is apparently acquainted with the fact that the daily changes of temperature do not affect our soil beyond a depth of about three feet, and that the annual variation below twenty-five feet is very small, yet he does not realise that the subject of the gradual increase of temperature at greater depths is incapable of explanation in the way he supposes. The temperature of the earth's surface varies according to the heat of the sun, whereas in descending below the surface to a depth of upwards of fifty feet, we reach a point where the oscillations of temperature due to surface causes cease; we come, in fact, to what is termed "the stratum of invariable temperature";[1] and below this, wherever observations have been made, the temperature gradually increases.

Turning to the concluding "departures" of the author, we are not surprised to learn that he is incapable of accepting the doctrine of evolution. He states, as one departure, that "in which the age of the earth is not found to reach very far back into immemorial times." Sir William Thomson has pointed out that the period during which life can have existed on the earth's surface should perhaps be restricted to about 100,000,000 years, and Dr. Croll has inferred that the glacial period probably commenced about 200,000 years ago. These figures may be fairly approximate, but they do not profess to be precise, and we should not find so much fault with the present author if his conclusions rested upon facts. He says: "A chief reason for believing in the extreme antiquity of the fossiliferous rocks is that which is supplied by the doctrine of evolution. Set aside this doctrine, and the reasons for entertaining a view altogether different to it retain all their force. So it may be—nay, so it must be. And if so, then there is so far nothing in the history of the fossiliferous rocks to make it absolutely certain that immemorial ages have been spent in the formation of these rocks." The antiquity of the earth is proved by the succession of sedimentary deposits and the succession of more or less distinct faunas and floras in different areas, as well as by the evidence of breaks or intervals that were accompanied by upheaval of the strata and extensive denudation. Continuous deposition was no doubt going on when we take in consideration the entire area of the earth's surface, but many physical changes have interrupted this continuity locally. In the same way the chain of organised beings was no doubt continuous, when we consider the life history of the earth's surface as a whole; and one of the charms of geology is to be able to discern in the strata of a small area like England evidences of physical conditions that are repeated in various climes and conditions over the globe at the present day.

The final "departure" of the author consists in the assertion that "the actual and Scriptural history of the earth are found to be not wholly irreconcilable," and that "the elder stratified rocks were formed in the comparatively short interval between the creation and the deluge." He speaks as if the series of stratified rocks was formed continuously, observing "how in the space of a year the great revolution in which the bed of the ancient sea was converted into the present land may have been brought about." The "universal deluge" in his opinion preceded the glacial period, and was due to the refrigeration, because "with water everywhere the earth would be insupportably cold." We have at present no positive evidence of human remains in pre-glacial times, but man no doubt occupied portions of the British area during the glacial period, for the old flint implements found in the Thames valley deposits and in certain caverns are associated with a fauna that is older than some of the latest glacial deposits of the north of England. The idea, however, of a universal deluge is so entirely opposed by the present geographical distribution of animals that no one can hold it without at the same time believing in numerous special creations of different forms of life on the isolated continental areas and islands; while, as regards the antiquity of man, it has been remarked that if all the leading varieties of the human family sprang originally from a single pair a much greater lapse of time was required for the slow and gradual formation of such races as the Caucasian, Mongolian, and Negro than was embraced in any of the popular systems of chronology.

In noticing these "departures" of the author, we have quoted his own words in order to express his views as fairly as possible; but we cannot escape the conviction that in most cases he has gone out of the way to seek a new explanation of well-known phenomena, and his work is in reality a departure *from* science. No one believing in an all-powerful Creator would deny that anything might have been produced in any way; but the object of scientific in-

[1] See Green's Physical Geology, 3rd edit., p. 643.

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vestigation is rather to ascertain in what way Nature has worked. In the one case observation and reason are the chief guides, and in the other we seek to interpret blindfolded. To many of us the geological record reveals a wonderful and beautiful story of the creation, and if so we may believe that our ability to decipher some portions of the history was likewise intended. Be this as it may, any attempt to reconcile literally the Biblical account of the creation with the geological record is about as scientific as as it would be to reintroduce the systems of surgery and medicine that were in vogue at the time the "Mosaic" account was written.

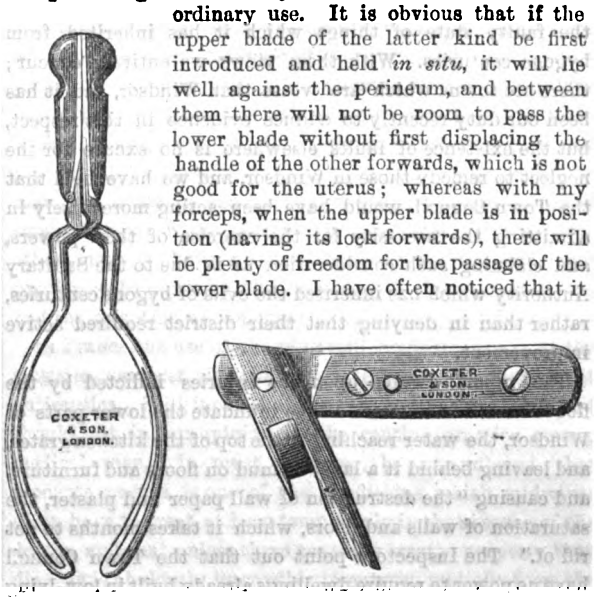
An Elementary Text-book of British Fungi. Illustrated by 64 Plates. By WM. DELISLE HAY, F.R.G.S. Pp. 238. London: Swann Sonnenschein, Lowrey, and Co. 1887.

As the poet says of vice, that we "first endure, then pity, then embrace," so it would appear from the writings of all professed fungologists, that we first suspect, then collect, then enjoy these singular half-animal, half-vegetable bodies. It is certain that by neglecting them and their culture a very considerable quantity of wholesome and eminently nutritious food is annually wasted; and it is not a little curious that, while most of even the smaller and less conspicuous flowering plants have received common names and are easily distinguished by field labourers, the very large group of fungi are only differentiated by the majority of even well-educated people into two groups—"mushrooms," or edible fungi, and "toadstools," or poisonous fungi, the latter including all but the three or four species of agarics that are found in open pastures. Mr. Hay remarks that no other nation is so ignorant, but that, on the contrary, the various peoples of the continent of Europe bestow a great deal of attention on fungi. He follows the classification of Fries, and refers for illustrations to the admirable work of Mr. Cooke which is now approaching completion. The neglect of fungi, of which Mr. Hay complains, is doubtless due to the difficulty of discriminating wholesome from unwholesome species, and he very rightly devotes successive chapters to their structural anatomy and the characters of the more common edible species. We give an extract which will show the lively style in which Mr. Hay writes, and the delicate food that is provided for us without cost were we only sure of true selection. Speaking of the Chantarelles, he observes: "Few mushrooms can be so readily recognised as this, and once known it is impossible to mistake any other for it. The chantarelle grows in woodlands and parks, and its distinguishing features are these: an irregular shape; gills like wrinkled folds or plaits; a uniform bright golden-yellow colour; a scent like that of plums or apricots. It is a supremely excellent viand, in high estimation among mushroom epicures. In continental markets it fetches a high price, though plentiful there as here. Finding it often in quantities near London, the author has sometimes presented basketfuls to his French and German friends in the metropolis to their great gratification. But when he has proffered it to his own countrymen he has usually encountered contemptuous scorn; so deep is the fungophobic superstition." Other excellent but entirely neglected mushrooms are the oreads—Marasmius oreades, which is the chief former of "fairy-rings"; the Blewit, Lepista personata, which the author declares is as good as veal cutlet; the Puffballs (Bovistæ), which, however, must be eaten when young, white throughout, and solid; the Helvels, the Mousseron (Agaricus prunulus), the Oyster (Agaricus ostreatus), and many besides. Mr. Hay is not content with describing the British fungi, and with indicating their economic value and digestibility, but he devotes a chapter to culinary receipts, which give the results of his experience in dressing them in a palatable manner for the table.

New Inventions.

MODIFICATION OF MIDWIFERY FORCEPS.

I BELIEVE it is a recognised fact that the chief difficulty, if it can be counted as such, in the use of the forceps lies in the introduction of the upper blade, for these reasons: When the lower blade is introduced first, it is an obstacle to the application of the upper one, from its presence in the vagina and by the uterine contractions which are set up dynamically by it. It is easier to introduce the lower blade chiefly on account of the relative positions of the patient and the operator; for on whichever side the patient may lie, it will be found to be more convenient for the hand to trace out the under surface of the fœtal head than the upper. However, a great authority says: "If we use the curved forceps—i.e., with the second pelvic or sacral curve,—then the *upper blade* is generally the *best* to introduce first." After this I take it for granted that, whether the upper blade be introduced first or last, it is always the more difficult to apply. In order to obviate this difficulty, Mr. Coxeter has constructed for me a pair of forceps having the lock adjustment reversed to those in ordinary use. It is obvious that if the upper blade of the latter kind be first introduced and held *in situ*, it will lie well against the perineum, and between them there will not be room to pass the lower blade without first displacing the handle of the other forwards, which is not good for the uterus; whereas with my forceps, when the upper blade is in position (having its lock forwards), there will be plenty of freedom for the passage of the lower blade. I have often noticed that it



is not so much the actual use of the forceps that alarms the patients as the preparation for the simple operation. "Drawing the patient to the edge of the bed and baring the buttocks" is not a pleasant procedure, but hitherto a necessary one on account of the rigid blade. In these instruments I have endeavoured to obviate this also; for in the handle of the upper blade adjoining the lock there is a lateral hinge which flexes backwards, but which is rigid to forward pressure; when closed, it moves on two plates, with a concealed pivot constructed in such a way as not to impair the strength of the blade for leverage or traction; neither is it conspicuous when the handles and locks are in apposition. The shanks are made sufficiently open to admit the index-finger comfortably for traction, and the handles are full long. When the handle is flexed, the upper blade is shortened, and can be introduced without altering the position of the patient, supposing she is in the usual obstetric position. The upper blade being passed, the lower easily follows. The forceps have also been fitted with Dr. Aveling's handles, the curve of which greatly aids the design of the instrument.

WM. D. HASLAM, M.D., M.R.C.S.,
Late Obstetric Assistant to University College Hospital.
Mecklenburgh-square.

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THE LANCET.

LONDON: SATURDAY, MARCH 5, 1887.

THE Local Government Board have published the report upon the Sanitary Condition of New Windsor, which has been presented to them by their Inspectors, Dr. HUBERT AIRY and Mr. ARNOLD TAYLOR. We trust the lessons it teaches will be taken to heart by the local authority, whose members have until now denied the existence of conditions which have been the subject of special reports by our Sanitary Commissioner.

Windsor, the Inspectors state, is in most respects no worse, and in some respects is distinctly better, than many other old towns with which they are acquainted, and they think some allowance should be made for the difficulties that beset a sanitary authority in its endeavours to amend the faulty state of things which it has inherited from bygone centuries. With these views we entirely concur; there are towns which are worse than Windsor, and it has been our duty recently to adduce evidence in this respect, but the existence of faults elsewhere is no excuse for the neglect to remedy those in Windsor, and we have held that the Town Council would have been acting more wisely in admitting the necessity for the exercise of their powers, and claiming such consideration as is due to the Sanitary Authority which has inherited the evils of bygone centuries, rather than in denying that their district required active improvement.

The report dwells upon the injuries inflicted by the floods which from time to time inundate the lower parts of Windsor, the water reaching to the top of the kitchen grates, and leaving behind it a layer of mud on floors and furniture, and causing "the destruction of wall paper and plaster, the saturation of walls and floors, which it takes months to get rid of." The Inspectors point out that the Town Council have no power to require dwellings already built in low-lying situations to be altered in such a way as to raise their ground floor above the flood level, but they omit to discuss how far they might be expected to prevent the overflow of the river by work such as that which has been successfully carried out at Strood, on the banks of the Medway.

Apart from this, the Inspectors describe, in words of condemnation, the condition of the older courts and alleys of the town, where they find that, "though in many cases the houses stand on fairly sound ground, their condition in respect of outside air space, back-yard space, internal ventilation, closet accommodation, surface formation, and pavement—in some or all of these particulars—is still pitiably bad." Ample details are given in the body of the report from the Inspectors' own observation of the grounds upon which this general statement is based. Thus, in Garden-court, back yards, or rather closet-wells, are only from four to six feet across, and contain each a pan-closet to be flushed by hand; water has to be fetched from a stand-pipe near the entrance to the court. The absence of back windows in different parts is generally commented on. In Distil House Row it is noted, among other defects, that the houses have no back yards, while cavities in the ground receive ashes and house refuse, and "at the edge of the back lane which bounds these courts stand four pan-closets for thirteen houses, pans dirty for want of flush-water, woodwork giving way." Again, in South-place, "of thirteen houses on the south side, ten have no opening whatever at the back, no scullery, no closet, and no water, but a tap at the end of the row." For closet purposes, the sixty-five dwellers in the ten houses have to go into an open yard at the back of the opposite houses on the north side. Some houses in South-place wanting in ventilation, the Inspectors believe, can be remedied by putting in a window at the head of each stair; but as for the houses on the south side, they "see no way of rendering them tolerably habitable but by demolishing every third house and converting its site into a yard for its neighbours, with a proper water-closet to each." Keppel-row is referred to as "another insanitary locality," and a description of its condition is given; and the Inspectors state, they might add details concerning Keppel-street, Love-lane, and others, but that the examples they have cited will suffice to show the general condition of the older and poorer dwellings in these parts of Windsor.

Concerning the sewerage, the report observes that "the flushing is not sufficient to keep the long and almost level outfall sewer (with a fall of three feet in a mile) free from deposit, which thus is left in the sewer long enough to decompose and cause offensive effluvia from the gratings." House-drains are further condemned, the report asserting that "there is reason to believe that in many cases the house-drains are ill-laid and unventilated, and ready to convey poisonous gases direct from the sewer to the house through an untrapped sink-pipe or an ill-constructed watercloset." The Inspectors lament the insufficiency of the general law to do more than hinder the recurrence of those conditions which have actually shown themselves to be nuisances; the fact remains, however, and we have urged this with regard to Windsor, that the poor cannot be trusted to make complaints, and that nuisances, if they are to be remedied, must be sought for by the Sanitary Authority. The report also wisely points out that although the work of nuisance inspector is enough to demand a man's whole time, and the sanitary authority ought not to content themselves with less, this work has entirely devolved upon an officer who is the borough surveyor, the inspector of common lodging-houses, the inspector of weights and measures, of petroleum, and of canal boats. As the report states, without a proper staff no local authority can fully enforce the provisions of the Sanitary Acts, and Windsor is quoted as a borough which needs amendment in this particular. The fact is dwelt upon that most, if not all, of the courts and streets whose defective sanitary condition has been detailed might have been dealt with, externally at least, under the 150th and following sections of the Public Health Act, 1875, but no attempt appears to have been made to use these sections.

We note with pleasure that Dr. CASEY, the medical officer of health, is regarded by the inspectors as an able and conscientious officer, and that they find in his annual reports

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evidence of much good work in his district, and sound advice offered to his Sanitary Authority. They state, however, that Dr. CASEY has under-estimated the importance of such sanitary defects as have been described in connexion with South-place, or else has over-estimated the difficulty of legally dealing with those defects.

As the result of their inquiry, the Inspectors recommend, where the Public Health Act, 1875, is insufficient, that resort should be had to the Artisans and Labourers' Dwellings Improvement Acts, 1875 and 1882, for the improvement of unhealthy areas; that there should be more constant and thorough nuisance inspection, and that a separate inspector of nuisances should be appointed for this purpose; and, finally, that the Sanitary Authority should make the much-needed provision for the isolation of infectious disease, for the disinfection of infected articles, and for the destruction of house refuse.

If these recommendations be faithfully carried out by the local authority, we shall certainly feel we have not laboured in vain. Already, as the result of publicity given in THE LANCET to sanitary neglect in Windsor, great improvements have been effected. We have no hesitation in saying that, notwithstanding the still unsatisfactory condition of many parts of the town, the Windsor which is the subject of the report of the Local Government Board is very different from the Windsor to which we first directed public attention in August, 1885. The extraordinary efforts made by the Sanitary Authority after the publication of our articles are well known to us through subsequent inspections of their town by our Commissioners. There is, indeed, no more instructive passage in the whole of the report of the Local Government Board which is now made public than the statement that, "in looking through the Nuisance Report Book, we could not fail to notice that in the single month of September, 1886" (the month before the Inspectors' visit), "there are about as many cases of premises inspected and nuisances reported as in the two years from September, 1884, to August, 1886."

IN resuming our discussion of the subject of placenta prævia, we come to some points in the history of that condition. Internal version requires dilatation of the cervix to an extent implying that labour has advanced to a considerable degree of progress. To wait for this is often impossible, and *accouchement forcé* (forced delivery) was formerly the only alternative.

The first great advance was made in 1860 by Dr. BRAXTON HICKS who showed the possibility of turning by the bipolar method when the cervix would admit two fingers, or even one. He expressly pointed out the advantages of early version by this method in placenta prævia, and published a series of cases to illustrate his point. Our Teutonic brethren seem to have read his publications (which are plain enough) without understanding, for the greatest German accoucheurs, VON HECKER and SPIEGELBERG, opposed and decried bipolar version, but showed that they failed to comprehend it. In the meanwhile various methods of treatment were proposed and partly adopted, and HICKS's method seems to have been practically unknown in France and America. Twenty-two years after its publication a serious trial of early bipolar version was made by HOFMEIER, a year later by BEHM, and a year later by LOMER, all in Berlin. It was then found that the method which an English accoucheur had described and practised in 1860 required twenty-two years and a foreigner to bring it into vogue.

These accoucheurs treated 236 cases with eight maternal deaths, a mortality of 3·3 per cent. BEHM delivered fifty-eight cases consecutively, without a single maternal death. It must be remarked that HOFMEIER and BEHM treated all their patients themselves, whereas LOMER'S cases were treated by nine different assistants. The presence of a skilled operator must of course be discounted in comparing ancient with modern methods, and so must the use of antiseptics. Still, it may be safely said that, after all due allowance is made, the above results have never been nearly reached. The reduction of mortality may be stated as from 24 per cent. to 3 per cent. The method may be described as—*a*. Bipolar podalic version as early as possible. *b*. Extraction by natural forces, or after complete spontaneous dilatation.

It is found, as said above, that the bleeding practically ceases after version and before extraction. As regards the life of the child, delay does not, according to statistics, much impair its chances, which are always bad; and, on the other hand, the great danger of laceration and fatal hæmorrhage from it is set aside, while a fertile source of sepsis is also avoided. Other methods are still mentioned in text-books: complete or partial separation of the placenta, rupture of the membranes, and plugging. Rupture of the membranes and evacuation of the liquor amnii is often impossible when the placenta is completely prævia; the other methods have no such brilliant results, and must predispose to sepsis by the fingering of the placental site, and the retention of clots near it which they entail.

In France the use of the plug still holds its own, and the statistics have certainly improved since the introduction of antiseptics. Still, it can show no results like the above, and should not, in our opinion, be the routine practice among medical men. It must, however, be remembered that placenta prævia is one of the conditions which midwives often have to treat, at least temporarily in the absence of the doctor, and that unless these cases are treated properly they die. It is obviously impossible to entrust midwives, on the other hand, with so delicate an operation as bipolar version. For midwives the best treatment will certainly be to plug tightly with antiseptic precautions, washing out the vagina, and plugging, if possible through a speculum, with cotton-wool or gauze rendered aseptic. There is nothing better for plugging than a bandage of corrosive sublimate gauze. The plug excites contractions, controls hæmorrhage to a considerable extent (for concealed hæmorrhage in placenta prævia is almost unknown), and preserves the membranes for turning by the accoucheur.

In summing up the question of treatment, it must be remembered that cases divide themselves into two principal classes: The first, in which the uterus, so to say, takes matters into its own hands and acts powerfully; in these cases, to temporise and assist labour, as by forceps or rupture of the membranes if they present, will often be sufficient. The second, in which the labour is disordered, the uterus demoralised, and, unless prompt and skilful help is at hand, the tendency is to rapid death. It is these cases, about which there should be no two minds with regard to treat-

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ment, and it seems to be proved that it may be summed up as (*a*) bipolar version as early as possible, (*b*) extraction actually or practically left to nature.

There is yet a third class of cases—namely, that in which the patient is either moribund or in extreme and urgent peril from flooding, and in which forced delivery by manual dilatation affords the only chance. These cases are exceptional, and it is hardly necessary to add that the operation should be performed with all possible skill and gentleness.

There are several morals to be deduced from the history of placenta prævia. Firstly, the new is not always the true, nor the truth new. The latest improvement may be a retrograde movement, and the "greatest modern triumph" a thing of which the not remote future will be ashamed. We need not illustrate this maxim here; it is a text on which we have preached and shall preach again. To the reader we need only say, in the language of Sir CHRISTOPHER WREN'S epitaph (slightly altered) "Si documentum requiris, circumspice." The verdict of the day is often wrong; each must make up his mind as to what is bad and false and what is good and true. To follow fashion may entail forty (or twenty-two) years' wandering in the wilderness, till it takes a foreigner to conduct us into the promised land. Secondly, it seems possible that even the most intelligent foreigners may fail to understand plain English and decry a practice which they fail to comprehend. In this instance it took twenty-two years for them to comprehend it. Thirdly, English practice is not always the worst, even if unacceptable on the Continent.

It will be seen that the best modern practice agrees with Dr. BRAXTON HICKS'S recommendations in 1860, and that though some of the facts in the pathology of placenta prævia (such as the arrest of hæmorrhage after turning and before extraction) were unknown to him at that time, as well as to his contemporaries, his name deserves a prominent place in the history of the affection.

IT is important to study the charges made against members of our profession. They are bound in the very nature of their calling to place themselves often in difficult positions which can easily be misrepresented by little or unfriendly minds. Sometimes unreasonable duties are required of them and unfounded charges are brought against them. It is true that as soon as they get into an open Court and can challenge the judgment of a trained judge or an intelligent jury, their adversaries are generally discomfited and the case against them melts into very thin air; but, nevertheless, great injury is done to them, and no redress that law can give can repay them for the injury which law permits, and which perhaps it is not in the power of law to prevent. We have reports of two or three cases which painfully illustrate the injury which the law allows to be done to medical men even in cases where it vindicates their conduct and their honour.

In one case reported the doctor's name is not given, and he is very deeply involved. A working man, described as "respectable-looking," appeared before the Southwark police magistrate, Mr. HOSACK, to ask advice and assistance in the following circumstances. Three of his children were ill. One was affected in the thigh, another in the shoulder, and a third in the eye. He could not afford to pay for a medical man, and he sought Mr. HOSACK'S assistance to compel "the doctor to attend." The man was very much disappointed when told by Mr. HOSACK that he could not in any way help him. Probably the least respectable quality about this poor man was his intelligence. He seems to have mixed up very doubtful theories of his children's illness with equally absurd theories of the power of magistrates to compel medical attendance for nothing. His idea was that the children were suffering from small-pox brought through the doctor from children in an adjoining room. This individual's views of diagnosis are probably on a par with his legal views of medical duty, and need not detain us.

A more serious illustration of our complaint is to be found in the report of a case in the newspapers of Saturday last, in which a respected medical man, Mr. JOHN BROWN, of Battersea, appears as one of two co-respondents in a divorce case, the petitioner being Mr. JOSEPH CECIL LENNARD, a provision merchant. Mr. BROWN had an easy task in repelling the charges brought against him. He had been in frequent attendance on Mrs. LENNARD, whose father and mother he had known from the time of her childhood. He produced his books and a specimen of the very few letters he used to receive from her, which was of the most ordinary character, requesting him to call and see the little girl. He positively swore that he never had been guilty of any misconduct or familiarity with the lady. The accusation was made after Mr. BROWN'S account was sent in. Mrs. BROWN gave evidence for her husband, and said there never had been any secrecy about Mrs. LENNARD'S visits or notes to her husband. Sir JAMES HANNEN'S remarks were very good. He said he did not know anything more important or serious than the question whether or not a doctor had been guilty of misconduct with one of his patients. Though such misconduct is a serious offence, it was for the welfare of society and of the medical profession that the freedom which was allowed the profession should not be made the basis of accusations unless established by the clearest evidence. In this case there was no evidence of the slightest familiarity between Mr. BROWN and Mrs. LENNARD, and the jury, without retiring, negatived the allegation against Mr. BROWN, and the petition against him was dismissed with costs. This is the sort of case which harasses a medical man grievously, and to which every practitioner is daily liable at the hands of unprincipled or ungrateful people. It may be said the judgment is all right; costs are allowed, and no harm is done. But what costs—even if they are forthcoming—can repay a practitioner for the annoyance extending over months, of an unfounded charge like this? And if they are not forthcoming, what grievous pecuniary injury is added to mental torture. We admit cheerfully the disposition of judges and juries to protect the fair fame of medical men, and to recognise the delicacy of their position and their reputation. But something is still wanting for their protection against wanton and unreasonable patients. It is not enough that they should be acquitted of such charges. They should not be placed upon their trial without some *primâ facie* case against them other than appears in a case like the one on which we are commenting.

Yet another instance. Last week an action was brought

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by a young lady against Mr. WILLIAM BEDELL BENISON, surgeon, of Moseley and King's Heath, near Birmingham, for alleged slander, the damages being laid at £500. The slander consisted in attributing some symptoms in the young lady to having contracted contagious disease from her betrothed, who for some time had laboured under a suspicious sore of the lip. Mr. BENISON had warned the young lady on this subject, and did not charge her with anything more culpable or criminal than having possibly been a party to a kiss, which the most severe young ladies, under such circumstances, might too readily allow. No fault was found with the opinion or treatment of Mr. BENISON for six months, and not then till his account was sent in, which included not only charges for attendance, but for kindly loans which he had granted in circumstances of exigency to the plaintiff's family. The jury, without much deliberation, gave a verdict for the defendant. Medicine is a profession so difficult, and its services are so valuable, that gratitude should cover even occasional errors or shortcomings of treatment. This is so with many patients. But how different here, where ordinary charges are disputed and become the occasion of litigation, which is expected at least to injure the medical man, even if he gains a verdict. We are not without hope that the very frequency of these cases will bring about some legal protection to medical men. Meantime the sympathy of the profession and of the public will be with those practitioners who in the very discharge of their duty and vindication of their rights incur the displeasure of unreasonable or unscrupulous patients.

THE subject of coma—a condition which is induced by so many and varied circumstances—has always been open to much speculation and discussion; but it has seldom received more apt and adequate treatment than Dr. MERCIER supplies in the January number of *Brain*. His paper is a thoroughly scientific exposition, and the conclusions at which he arrives are valuable both for their suggestiveness and for the light they throw upon the higher cerebral functions. He accepts, with one slight modification, Mr. SAVORY's definition of coma, as a "state of insensibility from which the patient cannot be completely aroused, together with a tendency to death, chiefly by asphyxia"; the modification being the substitution of the phrase "evidence of defect of consciousness" for the term "insensibility," as being more correctly descriptive of a state in which it is impossible to determine whether or not consciousness is absolutely lost. He points out that the failure of respiratory power is due to the same condition of powerlessness and loss of muscular tone that pervade the whole organism in the comatose state. The skin is relaxed and flaccid, the pulse is full and soft, the bladder contracts sluggishly, the pupils may have lost all power of contraction, and all the limbs are paralysed, the muscles being quite flaccid. The comatose patient is not inert because he is unconscious, but because he is actually paralysed. Indeed the cardiac muscle alone does not share in this universal paresis. From this condition of complete coma to that pre-comatose period marked by the slightest mental confusion and bodily weakness there are all gradations—as may be seen, for example, in alcoholic poisoning, of which an excellent sketch is given. The phenomena of drunkenness in all its stages exhibit an unbroken chain of gradually deepening lesion of the higher cerebral functions, which enable us to trace the relations of the condition we call coma to the slight perturbations and deviations from the normal condition that mark the earliest changes due to the action of the poison on the brain. As Dr. HUGHLINGS JACKSON has pointed out, the paralysis is first that of a loss of movements rather than of motion; the more elaborate actions go before the coarser; the breathing fails before the heart, and the accessory parts of the breathing apparatus fail before the fundamental. It consists in "a long process of degradation, the last point of attack being the heart, and the penultimate the breathing." Incidentally Dr. MERCIER indicates a pathognomonic sign of true coma, which depends on this loss of muscular control, and that is the movement of the eyes independently of one another.

As with the bodily so with the mental functions. The progress of coma is marked in the one as in the other by a gradually increasing enfeeblement. At first there is difficulty in performing delicate mental operations, and then inability for any coherent thought, and, lastly, evidence of loss of consciousness; no response to impressions from without, no evidence of response to impressions from within. And this coincides with the relaxation of muscular tone, the ataxia passing into paralysis; so that the power to execute voluntary movement fails *pari passu* with the failing intelligence, and suggests overwhelmingly the inference that both mental and bodily defect are due to the same lesion. And, it is pointed out, the whole organism is affected—evidence again, that in the highest centres of the brain we have to do not with any specialised and circumscribed areas of "localisation," but with a region where the various parts of the body are all represented in some degree, the region of consciousness and of the organism as a whole. Dr. MERCIER implies that in the modern doctrine of "nerve centres" we run a risk of losing sight of this fact or principle, that the whole organism is represented, and therefore to a certain extent controlled and knit together through the highest nerve centres—a principle which is so clearly manifested in the phenomena of coma, and just as clearly in the phenomena of insanity. For insanity is linked with defects in the nutrition of the body; it runs its course, both as regards mental faculties and bodily functions, in the same direction and with the same pathological sequence as does coma, in which it often finally terminates. But if coma be a form of insanity it is a "fulminant" form; and if insanity be expressed in the terms of coma it would be that it is coma long drawn out. We are not aware that this ingenious parallel has ever been advanced before, but we cannot help being struck with its feasibility, and commend it to the attention of the alienist. The underlying principle in Dr. MERCIER'S argument is that the higher brain centres, where consciousness is aroused by impressions from within and without, and where the will is born of intelligence, and action expresses the response of the conscious will to the environment,—that there, where all the bodily functions must be represented, is the seat of the lesion that suddenly or gradually breaks the chain between the individual organism and its surroundings, and may profoundly affect those functions which, under the control of the nervous system, are essential to the

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life of the organism. Possibly—nay, we might say probably—this region is conterminous only with the whole of the cerebral cortex; but this does not detract from the suggestiveness or truth of the proposition that "whether in origin, or in cause, or in termination, coma and insanity are pathologically and symptomatically identical, and the only important difference between them is the difference in duration." They each illustrate the law of Dissolution.

Annotations.

"Ne quid nimis."

THE REAL INTERPRETATION OF THE NEW ARMY WARRANT.

WHEN the Royal Warrant of January 1st was promulgated we took a considerable amount of trouble to ascertain whether it would affect the Medical Officers, and we came to the conclusion that, except as regards a step of honorary rank on retirement, it would not affect them in any way whatever. It would appear, however, that some other persons have arrived at a different opinion, and last week a medical contemporary published a leader denouncing the military authorities, and advising the professors and teachers in the medical schools to recommend their pupils to hold back from entering the Service. And upon what has this advice been founded? On the abolition of the word "relative" in describing the position of the medical officers in relation to the so-called combatant officers. But a careful examination of the Warrant satisfies us that nothing either injurious to the prospects or derogatory to the position of the officers of the medical staff is intended or effected by this change; for in paragraph 125*a* it is distinctly laid down that "officers of departments of our army, not having honorary rank, shall rank as follows for purposes of precedence, pensions for wounds, pensions to widows, and compassionate allowances to children: With Major-General, Director-General Army Medical Department, and surgeon-general; with colonel, deputy surgeon-general; with lieutenant-colonel, brigade-surgeon, surgeon-major after twenty-years' service, or under twenty years' service if promoted for distinguished service in the field; with major, surgeon-major under twenty years' service, if not promoted for distinguished service in the field; with captain, surgeon; with lieutenant, surgeon on probation." If to rank with certain grades of officers be not relative rank, though the adjective is not employed, we confess that we do not know what is; they are, in fact, synonymous. The term "relative rank" was dropped, we believe, because it was found to operate unjustly in certain cases among the combatant officers, but it can have no effect upon the medical staff, whose position will in no way be altered by the change of terms. The status of medical officers is assured to them by their respective commissions and the Royal Warrants. They have never had commissions conferring on them military rank, but their title to take rank with the different military grades is conferred on and secured to them by the Warrants. We cannot but regret that such a recommendation as the one we have alluded to should be made, when careful inquiry and a study of the Warrant itself would have shown that the grounds on which it is based were wholly misconceived. We trust the professors and teachers of the medical schools will investigate this matter for themselves. We claim to have fought the battle of the medical department when it was unjustly treated, and we are quite prepared to do so again should occasion arise. But we are satisfied that there is nothing in this Warrant detrimental to the best interests of the medical officers.

TEACHING UNIVERSITY FOR LONDON.

THE report of Lord Justice Fry's Committee will be presented to the Senate of the University of London at an early date, and will then be referred to Convocation at the annual meeting in May, unless a special meeting be summoned. The reforms which will be recommended will probably include the direct representation of University and King's Colleges on the Senate, boards of studies composed of teachers and former examiners, and an increased representation of Convocation. None of these changes have a direct bearing on the organisation of teaching in London for London students only; for the present University must consider its candidates throughout the country, indeed throughout the empire. It can hardly be expected to meet the demands of those who are promoting a teaching university for London. We understand that the Councils of University and King's Colleges will have brought before them for consideration a proposal that they should unite to form Arts and Science Faculties, and should take means to approach the Royal Colleges as the Faculty of Medicine, so that they may apply to the Crown conjointly for a Charter. If power be reserved for the admission of further suitable institutions, the views of those who prefer an academical to a professional degree will be carried out.

METSCHNIKOFF ON PHAGOCYTES.

THE suggestive doctrine that cells and bacteria are opposed to one another in a struggle for existence within the body based upon the remarkable property possessed by leucocytes of devouring foreign material in contact with them, and employed to explain the phenomena of inflammation, the formation of giant cells, and of specific neoplasms, as well as to account for immunity after inoculation, has been criticised on the one hand and staunchly supported on the other. Professor Metschnikoff—whose beautiful researches upon the behaviour of the cells of Daphnia to the spore disease that attacks this entomostracous organism formed the basis of this doctrine—returns to the subject in the last issue of Virchow's *Archiv* (Band 107, Heft 2) in an article upon the "strife between cells and the cocci of erysipelas." He declares that Fehleisen's observations upon the minute anatomy of cutaneous erysipelas harmonise with the theory of phagocytes. The spreading margin of an erysipelatous patch can be differentiated into three zones: a peripheral, in which the lymphatic spaces are filled with the streptococcus in a state of active growth; a middle, exhibiting inflammatory reaction in abundance of leucocytes between the masses of cocci; and an internal, in which cocci are conspicuous by their absence. Metschnikoff examined several cases: some fatal; others, which recovered, with the view of testing the truth of his surmise that recovery from erysipelas is due to the destruction of the microbe by the phagocyte. In the one case, of fatal gangrenous erysipelas, he found a few disintegrating leucocytes, and an abundance of cocci; in the other, where recovery took place, leucocytes were seen filled with cocci or their débris; and transitional states could be traced between these extremes in specimens derived from other cases. The inference he gathers is that in the fatal cases the streptococci gain the mastery from defective inflammatory reaction. Besides the small free leucocyte, he assigns similar properties to larger cells, derived from the fixed connective tissue elements in the subcutaneous tissue. The former he terms *microphagi*, the latter *macrophagi*, and he notes an important difference in the function of these two elements. In the subcutaneous tissue in erysipelas he finds macrophagi which do not consume the micrococci. That office is confined to the microphagi, whereas it appears to be the duty of the larger elements to consume the débris of the dead and dying leucocytes. The macrophagi therefore perform the useful

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function of clearing the battle-field of the slain leucocytes; and they therefore increase in size and number in proportion as the strife between the microphagi and streptococci diminishes. It reads almost like a romance, this account of the mimic warfare carried on to the death between the invading microbe and the defending leucocyte; and yet the phenomena of local infection, inflammatory reaction, resolution, and absorption of the inflammatory products, can all be expressed in the terms of streptococcus, microphage, and macrophage. Other factors, it is admitted, may be at work—such as pyrexia—but Professor Metschnikoff holds to the foregoing as a most probable explanation of the local phenomena. In asserting this, he has to meet the arguments adduced by Baumgarten and others, especially with reference to the fact that in many infective diseases bacteria are found within leucocytes without any variation from the fatality exhibited, and also the fact that experimental injections into the blood of bacteria do not lead to the consumption of the latter by phagocytes. However, he meets these and other objections, and declares that Cohnheim's dictum "no inflammation without bloodvessels" must be changed into "no inflammation without phagocytes." The doctrine is attractive, and is deserving of further study; but it cannot be said to be established, or as yet far removed from the stage of probability.

THE PORT OF LONDON.

IN his report for the second half of 1886 Dr. Collingridge is able to show an exceptionally clean bill of health as regards shipping entering the port of London, and also an excellent amount of work, often involving structural alterations, which tends to a steady improvement in the sanitary state of the vessels. The metropolitan sewage question still causes much difficulty, for though the precipitation process now being experimented with appears to answer fairly well in cold weather, when the nuisance is always at a minimum, yet when hot weather supervenes the stench and inconvenience are as great as ever. The regulations now in force as to the disinfection of the clothing of seamen who have died abroad of infectious diseases are fully answering their purpose, and in this way another source of danger to the country has been successfully dealt with. Only one cholera-infected vessel entered the port during the year. This was the *Rialto*, which arrived at Gravesend on November 4th, having had three deaths from cholera and one from dysentery on board, the cholera deaths occurring from four to eight days after leaving Calcutta. All the crew being found on examination to be healthy, the vessel, after certain precautionary measures, was given free pratique. Inspection of canal boats is carefully carried out, and already these boats are found to carry fewer persons on board than they are certified for. The port sanitary hospital was successfully used during the half-year for the isolation of cases of infectious disease found in the port.

INHERITED PHTHISIS.

PROFESSOR FIRKET (*Revue de Méd.*, Jan. 1887), writing upon the subject of heredity in tuberculosis, points out certain difficulties in the acceptance of the doctrine of direct transmission from parent to offspring. Such transmission may conceivably take place before conception, the tubercular bacilli being associated with the sperm or germ—a purely hypothetical idea—or through the medium of the placenta, and therefore solely by the maternal blood. He contends that there is not such positive proof of infection of the maternal blood, and thereby of transmission of disease to the fœtus in the case of tuberculosis, as there is in anthrax or syphilis, or variola and other affections. Moreover, he shows that in ordinary phthisis fully one-half of the cases do not exhibit, in the presence of remote secondary lesions, evidence of blood infection. It is for the most part a local disease of the lung, and such secondary lesions as do occur may be explained in many cases apart from general blood contamination. How different, it may be said, from the old notion of phthisis! But the fact of the lung being the primary seat of tubercular disease in inherited cases is almost conclusive against the congenital theory; for if the fœtus were infected through the blood, the chances are that the lungs would not suffer more than any other organ.

THE METROPOLITAN ASYLUMS BOARD.

THE managers of the Asylums Board had under their consideration on Saturday a proposal of the General Purposes Committee to make the services of their principal officers available at any infectious establishment under the managers' control. This is obviously required in the interests of the public service, for the experience of past years has amply shown the necessity for the managers to possess the power of utilising the services of their officers in such manner as the requirements of the moment may dictate. It was resolved that the Local Government Board should be requested to make an amending order for this purpose. The change will doubtless cause expense and inconvenience to some of the older officers, but this point will, we trust, meet with consideration at the hands of the Metropolitan Asylums Board, and we shall gladly see the officers manifest a readiness to comply with a change which is needed to enable the Board more efficiently to perform their duties. A second and more important point is embodied in the report of the same committee, who recommend that application be made to the Local Government Board to obtain authority for the managers to remove, at the request of duly qualified registered medical practitioners, all persons, whether paupers or not, who suffer from fever or small-pox who desire such removal. Sir Edmund Currie moved the adoption of this recommendation, which was agreed to unanimously, and which we trust will meet with the approval of the Local Government Board. There is no reason why the admirable ambulance service of the Metropolitan Asylums Board should not be made available for the use of the general public.

THE MEDICAL PROFESSION AND THE CENTENARY OF THE UNITED STATES.

THE *Journal of the American Medical Association* points out an interesting coincidence—viz., that the International Medical Congress at Washington will be held in the very month which will mark the centenary of the present constitution of the government of the United States. The journal suggests for answer the following question—What progress has medicine and medical organisation made under such a form of government? It suggests part of the reply. When the century began there was but one organised medical college in actual operation in the entire country, having much less than a hundred students and granting less than a dozen diplomas annually. State medical societies existed only in New Jersey and Massachusetts, and there was not a single medical periodical. Such was the state of matters in 1777. But in the present year there are more than 100 organised medical colleges, educating over 10,000 students, and granting 3000 or 4000 medical diplomas annually. There are active State medical societies in every State and inhabited territory, all represented in one National Association, and 100 medical periodicals. This is a great growth, and one on the whole greatly creditable to the States. No doubt, according to our standard, the growth seems excessive and uncontrolled. There are too many colleges, and they give

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too many diplomas—that is, the colleges give the diplomas too easily. But in a young democracy one man is apt to consider himself as good as another, and it is at any rate something to have it recognised that men must undergo systematic education and have their education tested. Law and public intelligence will still further define the tests to be applied in the interest of the health of the people, which is only another word for the good of the Republic.

HEALTH-SEEKERS ABROAD.

IF it be the fact, as many—Professor Huxley among other philosophic scientists—think, that earthquakes are caused rather by the shrinking of the earth's crust upon the cooling mass within, than by special convulsions set up by the sudden inrush of water through fissures into the midst of subterranean fires, it is inevitable that these phenomena should recur with certain intervals, and, which is more to the point, it is at least probable that the first crack will be followed by others, while it can be by no means certain that subsidence will not follow either suddenly or gradually upon any contraction so considerable as to cause an extensive disturbance of the surface. If the shaking, and perhaps rupture, of the outer crust were simply due to an accidental outburst of steam among the lower strata, there would be nothing to say except that what has occurred once may of course occur again; but if progressive shrinking is taking place, it can scarcely happen that a crust which is anything but homogeneous should not break away and fall in as it contracts. We know that the whole of the Riviera consists of a thin crust resting almost loosely on an irregular bed of rocks; and it is reasonable to anticipate that, while from time to time there will be earthquakes in that region, sooner or later great and widespread settlings will be effected, with more or less damage to the structures on the surface. These are the probabilities, and it is desirable that they should be recognised by those who frequent the health-resorts of the district, and particularly by those who build houses for their own occupation or the use of visitors. We are by no means sure that the very solid edifices extolled and desired in the districts recently disturbed are really the most suitable. It is quite true that the stronger buildings have escaped serious damage in certain localities, but this is perhaps more directly due to their position than to the resisting power of the structures themselves, or of the materials employed. It is not probable that any erection could offer greater resistance than the rocks, which have in some places been disturbed. Prudence would point to the expediency of constructing houses in the Riviera so that they shall rest upon the ground, rather than form part of it, and be self-contained in their stability. We fear it must be assumed that this district will henceforward need to be regarded as one in which movements of the earth's crust, and probably subsidences, are likely to occur. The fate of those who have visited the Riviera in search of health and had their nerves tried by the shock of these recent earthquakes is greatly to be commiserated. As regards the danger to life and limb actually involved, calculated on the bases of accident all the world over, the risk has not been much greater than that which would have been incurred elsewhere, whether on land or by sea; but there can be no question that the nervous shock has been considerable, and, although the Riviera cannot be correctly classed as a distinctly "volcanic" district it is a question whether it ought not to be considered an unsuitable place of residence or prolonged sojourn for those who are easily impressed or excitable. If the immediate effect of the experience of the last few weeks should be to make health-seekers and their advisers think more of the almost inexhaustible varieties of climate, atmosphere, and surroundings generally, which are obtainable within the ries of the United Kingdom, good may come out of evil. It is much to be regretted, we think, that the resources of Ireland, Scotland, and Wales, with the various well-known, and less well-known, parts of England itself, should be so persistently neglected as they are for health-resorts abroad, which are neither so salubrious, nor, but for the false glamour thrown over them, so attractive. It must be confessed that the medical profession has much to answer for on this score. To the recommendation of English physicians these continental resorts mainly owe their reputation. Let us turn our attention to the development of home resources, and our patients will be not less benefited, and decidedly exposed to fewer perils.

THE RIVER LEA.

LAST week an important conference was held at the Hackney Town Hall to consider the steps which should be taken to secure the future preservation of the purity of the river Lea. It will be recollected that the Act of Parliament which was procured as a temporary measure will shortly expire, and we may anticipate that the Lea will revert to its former condition, unless means be taken to prevent sewage effluents draining into it. The adoption of a scheme for the drainage of the whole valley of the Lea is the only effectual method of disposing of this question, but the cost will no doubt be considerable. Sir Guyer Hunter pointed out that it was necessary that delegates from each authority concerned should meet together, and determine the best method of dealing with the subject, and finally a resolution was passed calling upon the local authorities to appoint a joint committee with a view to preparing evidence to submit to a Committee of the House of Commons.

MORE MIND, MORE MADNESS.

IT is in no way surprising that insanity should seem to increase in races or classes which are being intellectually stimulated by education. There is always in every community a proportion of brains which, being brought into action, will break down. This proportion doubtless diminishes as the community is elevated, and in a very few generations the result of culture may—probably will—be to develop a better stock, looking upon the people as a whole; but at the outset of the educationary process, and in the generation first taught, the immediate result must be a considerable number of wreckings. This general principle is applicable to all races, peoples, and classes, and it explains why the first effect of trying to elevate the negroes has been to produce an apparent increase of insanity among them.

THE PREVENTION OF ANTHRAX.

THE recognition of the danger of contagion in anthrax has at length been officially made by the Agricultural Department of the Privy Council Office, in a notice just issued upon the danger of handling carcases of animals dead of anthrax. The notice is brief and to the point. It cites the fact that "several cases of serious and sometimes of fatal infection have occurred in persons who have been employed in cutting up carcases of animals dead of anthrax, and it is important that the public should be made aware of this source of danger to human life." The notice goes on to warn any person having abrasions, however slight, on their hands or arms from handling any carcases of animals which have been the subjects of this disease, or of "dealing with fodder, litter, manure, or other things which may be contaminated with the blood of diseased animals"; and it concludes with the recommendation that such carcases "should be buried entire, without being skinned or cut, and be well covered with quicklime and not less than six feet of earth.

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We trust that this advice will be widely followed, and that, as a result, we may hear less of cases of this highly malignant disease among the members of the community who have to do with animals liable to infection. There is no reason why, with suitable precautions, a disease the nature of which is so fully known should ever be allowed to be transmitted to human beings.

THE LATE PROFESSOR SCHROEDER.

AT the opening of the sitting of the Berlin Medical Society on the 9th February, the President, Professor Virchow, alluded to the loss sustained by the University and the Medical and Gynæcological Societies. In compliance with the wish of members, he gave details of the post-mortem examination, which showed that death had been caused by the rupture into the lateral ventricle of an abscess situated in the white substance of the brain near the posterior part of the fornix. The abscess was old and encapsuled, and the pus within the ventricle was enclosed within a fibrinous layer, which formed a membrane at first sight resembling a hydatid. The right thalamus was completely flattened by this. Between the root of the right lung and its base there was a mass of tough fibrous tissue enclosing a small pus-containing cavity which communicated by a narrow channel with the œsophagus. There were also scattered foci within the fibrous mass, one of which contained much pigment and cholesterine—a kind of focus, Professor Virchow observed, which he had never before met with in similar conditions. The lungs were perfectly normal and free from adhesions. There was no trace of tubercle. The cause of the cerebral abscess was difficult to solve. Five years ago Schroeder had a severe illness, which he attributed to septic infection leading to conjunctivitis and pneumonia. He himself thought the conjunctivitis was diphtheritic, but Professor Schweigger did not take that view, and it is scarcely conceivable that any connexion existed between the conjunctivitis and the abscess. It is possible that the old lesion in the mediastinum might have been the starting-point of the cerebral abscess, the contents of which indicated that it could hardly have existed for more than a year.

NEW TREATMENT FOR PHTHISIS.

A NEW method of treating phthisis has been proposed, but apparently as yet but slightly tried, by Professor Kremianski, who read a paper on the subject at the recent Moscow Medical Congress, which provoked a good deal of discussion. The idea is based, firstly, on the fatal effect of the most dilute solution of aniline on Koch's bacillus, and, secondly, on the fact that aniline seems to be but slightly, if at all, poisonous to the human body. Professor Kremianski proposes to introduce aniline into the lungs, and, indeed, the circulation generally, by inhalation, so that the phthisis bacilli should be bathed in a very dilute solution of aniline, wherever they may be. This, he thinks, would kill them, and render even pulmonary cavities free from bacilli, so bringing them into the condition of healthy granulating ulcers, which may be expected to cicatrise. A committee has been appointed, including Professors Subbotin and Ostroumoff, who expressed themselves at the meeting as strongly opposed to the plan, for the purpose of observing Professor Kremianski's proposed experiments in one of the Moscow hospitals. Two cases in which the aniline treatment had been successfully tried were detailed. A lad of eighteen, who had undoubted phthisis, was ordered a four-drop dose of aniline (but took by mistake three times the proper quantity) combined with nux vomica, mint water, and antifebrin, his diet being good, including dried meat, kvas, and oranges. He was also given inhalations of atomised aniline. A remarkable change took place almost immediately, all the râles disappearing; his temperature, respiration, and pulse becoming normal. His skin, however, assumed a slightly blue tinge, but whether this was as permanent as the cure is represented to have been is not stated. The second case was a complicated one, there being tubercular peritonitis and meningitis, together with typhoid fever, present at the same time as pulmonary phthisis. Aniline inhalations, washing out the pulmonary cavities with corrosive sublimate and antifebrin, were employed, together with a special acid diet, as in the other case. Here, too, the results are said to have been remarkably good, the bacilli disappearing from the sputum, and the patient regaining his health entirely. No mention is made in the abstract published by the *Vrach* of any change of colour in this patient's skin. Amongst the various replies that were made to Professor Kremianski, Dr. Zakrzhevski, of Helsingfors, remarked that, admitting the facts as stated, still there was nothing to show that the aniline had been the cause of the cures. He himself had had surprisingly good results in phthisical cases, the disease becoming completely arrested by simply giving increased nourishment and prescribing antipyrin.

CHOLERA INTELLIGENCE.

THE announcement which has been received through the Colonial Office, to the effect that vessels are not admitted into Malta from Sicily on account of the occurrence of cholera at Catania, reminds as again that the seeds of this disease still lie scattered about in different parts of Europe. Catania is a very ancient town on the east coast of Sicily at the foot of the most southern offsets of Etna, and has a population of some 60,000. As a port its trade is not what it formerly was, owing to the obstruction offered to the entrance of vessels by remains of lava floods; but it ranks as one of the foremost cities in the island, and the possibility of extension of cholera in it must be viewed with considerable apprehension. No further news has been received as to cholera in Hungary, but the absence of news, for even long periods, has been shown on former occasions not to indicate absence of the disease. The news from South America is also very intermitting, but the disease is still prevalent from the neighbourhood of the River Plate on the east to the coast of Chili on the west.

THE HOME FOR LOST DOGS AND HYDROPHOBIA.

THE annual meeting of the Temporary Home for Lost and Starving Dogs, Battersea, was held on Feb. 28th at Jermyn-street, the Earl of Onslow in the chair. In the course of his remarks, when moving the adoption of the report, the chairman said:—

"The effect of the restrictions had been to sweep away from the streets of London a very large number of homeless curs, but how had it affected the terrible disease of rabies and hydrophobia? He ventured to say that, although the returns showed that in London rabies had been almost annihilated, the mere precaution of ordering that dogs within a certain given area should be muzzled was not in itself sufficient to stamp out the disease. The only way would be to treat rabies somewhat in the same manner as the Privy Council treated other infectious diseases affecting animals and to proscribe certain circles in which the infection existed, forbidding that migration in or out of such circles should take place without the permission of a properly constituted authority."

These remarks were received with cheers and, coming from one who is well known to be personally interested in many ways in dogs, will, we trust, calm the hypersensitive feelings of some dog-owners, who seem to regard hydrophobia as, if not a myth, a muzzle-created and artificially induced disease. We give every credit to them for

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their affection for our four-footed companions, of which we cannot, however, allow them the monopoly; but when a most terrible disease can be stamped out by restrictive measures, sentiment must not be permitted to run riot. We trust the Dog's Home will meet with the support it undeniably deserves.

CATALEPSY IN A MOTHER AND CHILD.

DR. VAN SCHOOT discusses in a Dutch medical journal a case of convulsive seizures of a peculiar kind in a woman in the seventh month of pregnancy. When he first saw her she was motionless, her face being cyanotic, but her temperature, respiration, and pulse normal. She was quite unconscious, and the slightly dilated pupils did not react to light. The arms were flexed at right angles, requiring some force to move the forearms. By means of chloroform all the contracted muscles relaxed, and some hours' sleep was obtained. Afterwards she remembered nothing of the fit, but she stated that all movements of the fœtus seemed to have ceased, and no heart sounds could be detected. These attacks were repeated frequently for a fortnight, the urine being quite normal all the time. Large doses of bromide were given without effect, but some amelioration was produced by sulphate of atropine. Latterly the attacks were associated with considerable movements of the abdominal muscles. Some temporary benefit was obtained by subcutaneous injections of pilocarpine. At the conclusion of a fortnight from the first attack labour came on, a female child being born alive, which, however, died in a week's time, after repeated convulsions similar to those affecting the mother. The mother had no attack till the fifth day (the same day that the child's first attack occurred). After this there was only one more attack two days later, complete recovery ultimately taking place. The author, referring to the diagnosis, is disposed to exclude eclampsia, because, although there were clonic contractions of the abdominal muscles, the main spasm—indeed, at first the only kind of spasm—was tonic. The entire absence of albuminuria, too, tends to exclude eclampsia. Again, epilepsy may be excluded, as after the tonic no clonic spasms occurred, and as the limbs remained fixed in a certain position for one or two hours. He therefore considers that the attacks were of a cataleptic nature, both in the mother and child.

POISONOUS CHEESE.

IN this country cases of cheese-poisoning are rare, and in France, where cheese is largely consumed, they are all but unknown. But, according to Dr. Victor C. Vaughan, of the Michagan State Board of Health, the annual number of such instances in the United States must be several hundred, if it does not reach a thousand. In Germany cheese-poisoning is also frequent. The symptoms generally include dryness of the throat, nausea, vomiting, diarrhœa, nervous prostration, headache, and sometimes double vision. As a rule, recovery takes place. Recently Dr. Vaughan has given a good deal of attention to discovering the cause of cheese-poisoning, and he has received help from the manufacturers whose produce has brought about symptoms of poisoning. Amongst the manufacturers there would appear to be entire ignorance as to the cause, and such suggestions as they have been able to make, including the consumption by the cows of poisonous plants, are not borne out on investigation. From the freshly cut surface of poisonous cheeses there exude, as a rule, drops of a watery, slightly opalescent fluid, which have been found to redden blue litmus paper instantly and intensely; and Dr. Vaughan is of opinion that this should always be regarded as an element of suspicion in a cheese. Micrococci are also found in the fluid in question; but, according to Dr. Sternberg, [illegible] as yet no evidence that these micrococci are directly related to the poisonous properties of the cheese. There are, however, substantial grounds for believing that the poison is a chemical one, and it is by no means impossible that it may be generated by bacterial growth. Dr. Vaughan, in making and drying an alcoholic extract of poisonous cheese, procured a residue consisting of a fatty mass, which, on being eaten by himself, produced symptoms closely allied to those above described; but the poison itself was not sufficiently eliminated. The best results were obtained by rendering an aqueous extract of the cheese alkaline with potassium hydrate, then extracting with ether; needle-shaped crystals being ultimately separated. On placing a small piece of one of these on the end of the tongue, a sharp burning sensation, together with a sense of sickening, was soon followed by dryness and constriction. A drop of the fluid from which the crystals were ultimately extracted produced, in addition, griping pains in the bowels, followed by one or more diarrhœal discharges. Ultimate analysis of the poison has not yet been practicable, owing to the difficulty of procuring it in sufficient amount. But Dr. Vaughan places it, for the moment, amongst the ptomaines which originate in organic substances undergoing putrefactive changes. As the putrefactive changes in the milk are due to the growth of minute organisms, the introduction of these organisms into the milk may lead to the formation of the ptomaine. The practical suggestions which, so far, are the outcome of Dr. Vaughan's investigation are, firstly, more care in the inspection and cleansing of the milk-cans used in the manufacture of cheese; and, secondly, increased care as to the cows themselves, and this because where cows are kept in filthy stalls their milk is the more likely to undergo speedy putrefaction.

MEDICAL ATTENDANCE ORGANISATION COMMITTEE.

THE fortnightly meetings of this committee continue, and the reports sent us show that the committee has a good grasp of the principal questions involved in any settlement of this complicated question. Sir Spencer Wells has presided at every meeting but the last, and shown as much interest in the matter as if his future prospects were bound up with the movement. The committee have decided on a wage limit, and at the following rates of charge: single persons, male or female, are to pay 6*d.* a month; man and wife without children, 1*s.* per month; man and wife and one child, 1*s.* per month; other children, 3*d.* per month each, not charging for more than four children in one family, making the maximum rate 1*s.* 10*d.* per month. It is clear, as the committee perceives, that the rates must be such as to secure reasonable payment for the medical men. The charges for children are important, for attendance on children will be a large part of the work of such a scheme. At the next meeting the question to be considered will be entrance fees, midwifery, and special rates for sick persons joining.

JEQUIRITY.

MM. HECKEL and SCHLAGDENHAUFFEN arrive at the following conclusions as to the nature of true and false jequirity (a full account of their researches is published in *Der Fortschritt*, Nos. 3 and 4):—That false jequirity (Adenanthera pavonina) does not contain the phlogogenic principle; that the latter exists neither in the peeled seed, nor in the alkaloid, nor in the glucoside; that the testa contains a yellow colouring matter, soluble in water, but which can only be discovered after maceration of the previously bruised seeds; that true jequirity contains—besides the jequiritine discovered by Bruylants and Vennemann—a neutral principle, abrine, distinct from gallic acid and the

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two colouring matters; that the chemical composition of the true and the false is completely dissimilar, although the two seeds are closely allied botanically; that the bacillary elements furnished by the maceration of either seed are absolutely identical; that the true jequirity only possesses the power of inducing inflammation, which must be dependent on the chemical composition; that the seed of false jequirity, being clearly distinguishable both by its external configuration and internal structure, ought not to be substituted for the true jequirity.

THE TYNE PORT.

IN the Tyne port nine infectious cases were received into the floating hospital during 1886, and the regulations as to the compulsory notification by ship-masters of all such cases is working well. No less than 596 vessels were boarded in the port on account of coming from cholera-infected or suspected ports, and 119 vessels reached the Tyne direct from Bilbao. In the current work of the port we find that 14,080 inspections of vessels were made, and in 651 cases notices as to nuisances were served, structural alterations being required in 61 cases. This work is effecting great good, and Mr. Henry Armstrong is already able to report that great improvement is noticeable both in the cleanliness and in the crew spaces of the vessels examined. With the increasing work of port administration, the old floating hospital was found to be insufficient, and it is satisfactory to report that an excellent and typical floating establishment, consisting of three separate ward pavilions built on cylindrical iron pontoons, was launched during the year. The administrative arrangements are separate, and these are now undergoing improvement. The Tyne port authority has long been carrying out excellent work, and this year's record affords another proof of the maintained interest in the healthiness of shipping and seamen.

TEMPERANCE IN THE NAVY.

AT a meeting presided over by Archdeacon Farrar, a satisfactory account of the progress of temperance in the Navy, especially under the auspices of Miss Weston, was given. Miss Weston said there were over 10,000 abstainers in the Navy, including 200 officers, and that half the boys in the training service were teetotalers. Mr. Caine said that, when Civil Lord of the Admiralty, he was helped and complimented by the admirals for his attempts to favour substitutes for sailors' grog. It must be admitted that poor Jack needs all the help he can from high officials and kindly people like Miss Weston. Too often his case is, as the poet has it,

> "Saved from the sea,
> And shipwrecked on the land."

THE BRADFORD FEVER HOSPITAL.

THE Bradford Corporation have at last decided to purchase for a sum of £10,000 the Bradford Fever Hospital, which it originally cost £30,000 to erect. One point which seems to have led to the final decision was the necessity of providing a small-pox hospital, and it will certainly be easier for the Corporation to isolate that disease on a site which has often received small-pox cases before than to establish a new small-pox hospital elsewhere. The Bradford Fever Hospital has, in the hands of its Board of Management, done admirable work up to the present time, and those who have been responsible for its working deserve a tribute of praise for their past labours in preventing the spread of infection in and about Bradford. Last year alone no less than 726 cases were admitted, 625 of these being cases of scarlatina. The death-rate for the year was 5·37 per cent., or the lowest on record. The hospital premises lie on the outskirts of the borough, and occupy an area of nearly eight acres in extent.

PREGNANCY IN AN IMPERFECTLY CANALISED UTERINE CORNU.

DR. NETZEL mentions, in a Scandinavian journal, a rare case of pregnancy occurring in the imperfectly canalised half of a bicornate uterus. The movements of the child had ceased in the thirty-third week of conception, and from that time the woman became thin and felt ill. Five months later Dr. Netzel was called in; the diagnosis was uncertain. He could not find anything corresponding to an extra-uterine pregnancy, and it was clearly not a normal intra-uterine one. He performed laparotomy, and thus discovered that conception had taken place in the right half of a bicornate uterus. An elastic ligature was applied round the base of the tumour. The uterus was opened and a macerated fœtus extracted. The half of the uterus was amputated with the tube and ovary. All went well until a month after the operation, when an abscess formed in the cicatrix of the abdominal wound, which was followed by a fistula. A quantity of silk and elastic ligatures came away a month later, and the woman ultimately recovered completely. Dr. Netzel thinks the rarity of such cases causes them to be confounded with extra-uterine pregnancies, and with the "missed labours" of English obstetricians. He is of opinion that a more frequent resort to laparotomy would be of much service in throwing light on the subject. He mentions eight more or less doubtful cases as occurring in literature, including one reported by Dr. Keith of Edinburgh.

QUEEN'S COLLEGE (BIRMINGHAM) MEDICAL SOCIETY.

THIS Society celebrated its hundredth general meeting on Wednesday, Feb. 23rd. Sir Walter Foster is almost ubiquitous, for the records of the Medical Council show that on that day he was present at its discussions. Nevertheless, he was the orator of the hundredth meeting at Birmingham, and spoke well on the advantages of the Society as tending to cause improvements in their way of thinking, in their power of speaking, and in their power of action. He referred with pride to the eloquence associated with Birmingham, and made allusion, fit and graceful, to this quality in two much-respected, and, alas, now much-missed, Birmingham men, Dr. Heslop and Mr. Sampson Gamgee. He described to the Society the position of the medical bodies in England and Ireland, and the efforts of the Medical Council towards inducing the Colleges to combine with the Apothecaries in Ireland and England, and so realise to some extent the one-portal for which the profession has long wished.

E. W. ALABONE.

WE observed with much regret in the columns of the *Illustrated London News* of last week an announcement respecting Mr. Edwin William Alabone, whose name was removed from the *Medical Register* in November, 1886. We are, however, authorised by our respected contemporary to state that the announcement "was inserted inadvertently as an advertisement, and came through an advertisement agent." An intimation to this effect will, we are informed, appear in the *Illustrated London News* of this day.

THE PERILS OF FOOTBALL.

THE great winter game of football continues to manifest its claims upon the services of medical men, and also, alas, of coroners. It is most regrettable that a pastime good and useful in many ways, and popular beyond all cavil, should be apparently incapable of reasonable reform. Yet another death is recorded. An inquest was held at Manchester last week on a young man named Makin, who met with fatal injuries in a football match. Deceased was playing in a Rugby

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game, when he ran against another player and was accidentally struck in the abdomen. He fell unconscious, and died two days later. The coroner commented on the rough character of the game, and warned players that they ran great risk of being charged with manslaughter. A verdict of accidental death was returned. The coroner is to be commended for his outspoken and very necessary comments, which should be taken to heart and acted upon, not only by individual players, but also by the authorities of the Rugby Union and the Football Association.

THE VOLUNTEER MEDICAL STAFF CORPS.

THE first presentation of prizes in connexion with the London Division of this important corps, which is largely composed of medical students, was held at the St. James's Restaurant on Friday, February 25th. The prizes were given by Lady Crawford. Sir Thomas Crawford, K.C.B., Director-General of the Army Medical Department, General Freemantle, and other distinguished visitors, were present. In the evening Sir Thomas Crawford presided over the dinner given by the officers of the corps, at which several well-known members of the profession were present, the civil element being well represented. After the staff had dined, a visit was paid by them to the non-commissioned officers' mess in another part of the building, and the manner in which they were received was evidence of the excellent feeling which exists in the corps. Much credit is due to Surgeon-Commandant Cantlie and Surgeon Lees Hall, A.M.D., for their excellent arrangements.

TESTIMONIAL TO PROFESSOR AITKEN.

IT is proposed in recognition of the great service rendered by Professor Aitken, F.R.S., to his profession generally, and to the medical officers of the Army, Navy, and Her Majesty's Indian Army, by his writings on medicine and his teaching in the Army Medical School, and in admiration of his high personal character in public and private life, to invite him to sit for his portrait, to be placed at Netley, the scene of his labours, and the home of the school with which his name has been honourably associated from its foundation. An influential committee has been formed to carry out this scheme, and numerous subscriptions, which are limited to one guinea, have already been promised. The honorary secretary and treasurer of the fund is Surgeon-General W. Campbell Maclean, M.D., C.B., 28, Carlton-crescent, Southampton, to whom subscriptions and promises of support may be sent.

INTRA-OCULAR CYSTICERCUS.

DR. VAN DER LAAN, writing in a Lisbon journal, gives an account of an ophthalmic case which puzzled him for some time. A man had been suffering from inflammation in the left eye for about a year. On examination there were found serous irido-choroiditis, almost entire loss of vision, opacity of cornea, and increased intra-ocular tension. Several times paracentesis was performed with some benefit. Iridectomy being refused, mercurials and purgatives were given for twelve months, during which time considerable improvement had taken place, ultimately permitting an ophthalmoscopical examination to be made. The retina was seen to bulge forward in one spot, where it was of a yellowish white, the prominence increasing as time went on. It was observed that its form varied, being oblong and round by turns; the patient also said that he sometimes felt something moving in his eye. He then remembered that, when two years previously he had consulted a country practitioner, he had stated that he could "detect an organism, possibly the ovum of a tænia," a diagnosis which now proved to be correct. Dr. Van der Laan has published descriptions of the only two other cases of intra-ocular cysticerci he has seen in Portugal, which in many points differed from this case. He does not propose to operate until the cysticercus has succeeded in perforating the retina and thrusting its head and neck into the vitreous, when he hopes by means of a sclero-choroidal incision to free the patient from his parasite and to preserve the sight of the eye.

DEGREES FOR LONDON MEDICAL STUDENTS.

ON Friday, Feb. 18th, the London Hospital students held a mass meeting in the Anatomical Theatre to discuss the M.D. scheme for London students. Dr. Langdon Down took the chair, and was supported by Mr. F. Treves, Dr. Francis Warner, Mr. Munro Scott (Warden), and Mr. H. G. Lys. Mr. F. Treves proposed, and Mr. J. Moore seconded, a motion, "That a committee of students be formed to draw up a petition to the two Royal Colleges, praying them to use their best endeavours to obtain the power of granting a degree in Medicine; and that this committee take such other steps as they may think fit to support this petition." Dr. F. Warner spoke in support of the proposition, which was carried *nem. con.* Messrs. J. Moore, F. H. Taylor, Hugh Smith, H. Watts, and J. Rayner were elected on the committee, the latter to act as secretary. The meeting was very enthusiastic throughout.

DEATHS OF EMINENT FOREIGN SCIENTIFIC AND MEDICAL MEN.

THE following deaths are announced:—Dr. Leopold von Pebal, Professor of Chemistry in Gratz, was attacked in the Chemical Institute on Feb. 17th by a discharged servant, and wounded so seriously that, though he managed to drag himself into the caretaker's apartments, he died soon afterwards. Dr. Beschütz, Sanitätsrath of Salzwedel, has died suddenly in his eightieth year, having continued to practise till the last. Dr. T. R. von Hüttern, Director of the Lainzer Lunatic Asylum in Vienna. Dr. Franz Günther, Emeritus Professor of Forensic Medicine in Prague, at the age of seventy-four. Dr. Bonnamy, Professor of Anatomy in Toulouse, joint author with MM. Broca and Beau of a well-known anatomical atlas. Professor Ludwig Bandl, the eminent gynæcologist, who had only recently been appointed to the obstetric chair at Prague, at the age of forty-four.

CALCULUS AS THE CAUSE OF PERITYPHLITIS.

A SWEDISH surgeon, Dr. Sigurd Lovén, has published the notes of a case of perityphlitis, followed by a tumour in the ileo-cæcal region, and abscesses opening over the coccyx through the abdominal walls and rectal walls. Ultimately a calculus was passed through the abdominal wound weighing 79 centigrammes, and measuring 2·5 centim. by 1·3 centim. It was composed of alkaline phosphate of lime. Dr. Lovén believes this had existed for a considerable period, and that its situation had been in the vermiform appendix.

THE REVOLVER.

IT is indeed time that Parliament should recognise the appalling results of the indiscriminate and reckless way in which revolvers are allowed to be sold—and used! On one page of an evening paper this week were recorded two distinct cases of suicide, and also a case of suicide and attempted murder, all by means of the revolver. Cannot the Legislative Assembly find time to restrict the awful facilities of destruction now afforded to the burglar, the suicide, and the murderer? Every revolver should be numbered, licensed, and specially and heavily taxed. Those who really require them in this country for purposes of

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defence—and they must or should be few—can well afford to pay. Many a life has been sacrificed owing to "the sight of means to do ill deeds," as represented by the fatal revolver.

ST. BARTHOLOMEW'S HOSPITAL.

THE Assistant-Physiciancy at the above hospital, rendered vacant by the resignation of Dr. Wickham Legg, has been filled by the election of Dr. Samuel West, who obtained a very large majority of votes.

BORATED FISH.

WE have received from Mr. T. Christy some samples of "kippers" cured by the boracic acid process, and some Scotch "kippers" that have not been so treated. We have examined the specimens, and they support the truth of our assertions on this subject—viz., that boracic acid is not truly preservative of all the qualities of the fresh herrings. The borated specimens are black down their central parts, but the Scotch specimens are clear and fresh-looking. In the process of cooking the black colour of the borated fish becomes enhanced.

FOREIGN UNIVERSITY INTELLIGENCE.

Breslau.—Drs. Wiener and Lesser have been promoted to extraordinary professorships.

Bucharest.—The Professorship of Histology and Bacteriology has been filled by the appointment of Professor von Babes, of Buda-Pesth.

Erlangen.—Dr. Richard Frommel, of Munich, has been invited to accept the chair of Midwifery.

Halle.—The University is about to build an Institute for Mental Diseases, to accommodate 150 patients.

Innsbruck.—There are here four chairs vacant—viz., those of General Pathology, Medical Jurisprudence, Midwifery, and Ophthalmology.

Prague (German University).—Professor Heubner, of Leipsig, has accepted the invitation to the chair of Therapeutics. Professor Schauta, of Innsbruck, has been appointed to the chair of Midwifery, vacant by the death of Professor Bandl.

AT a meeting of the Committee recently appointed to collect subscriptions in aid of the Dundee Medical School Jubilee scheme, on the 24th ult., it was reported that the Senatus Academicus of St. Andrews University desired to co-operate with the Committee, reserving the claim of St. Andrews to a share of the medical teaching. The two Principals of the University have indicated their willingness to join the Committee, and it is stated that other members of the Senatus will also join. Subscriptions amounting to £19,000 have now been received in furtherance of the scheme.

CORRESPONDENCE has been in progress for some months between the Admiralty and influential committees at Plymouth, Portsmouth, and elsewhere, with reference to the increase of disease among sailors and soldiers. As a result, official information has been received that the Lock Hospitals for the accommodation of voluntary patients will be re-opened from April 1st, and that at Devonport the Admiralty will contribute £35 per bed for each of the beds. Similar grants will be made at Portsmouth and other naval ports.

DR. G. Y. HEATH, President of the Newcastle-on-Tyne College of Medicine, has been elected representative of the College on the Senate of the University of Durham; the Professor of Medicine having been made an official member of the Senate, and an elective member having been continued to the School.

A CASE of myxœdema was exhibited at the Berlin Medical Society by Professor Senator on Feb. 9th. He remarked that this was only the second case observed in Berlin, the other having been reported by Dr. Riess at the end of last year. Together with two cases described by Professor Erb of Heidelberg, this case made the fourth reported in Germany.

M. COURBARIEN, intern of the maternity department of La Charité, Paris, died recently from typhoid fever, at the early age of twenty-eight years. He was a man of much promise, and was highly esteemed, as evidenced by the testimony given by Dr. Budin, in his speech on the occasion of the funeral. (*Le Progrès Médical*, No. 9.)

THE condition of Professor von Arlt, which for a time has been satisfactory, has suddenly changed for the worse, so much so, indeed, that the death of the renowned ophthalmologist is almost daily expected.

WE are glad to learn that the health of Dr. De Chaumont has improved, the more urgent symptoms of his late attack of illness having passed away.

SENOR DON DR. RODOLFO DEL CASTILLO and several other practitioners in Cordova, are forming a local Spanish Society of Hygiene.

ABSTRACT OF REPORT
ON THE
SANITARY CONDITION OF NEW WINDSOR.
BY DR. HUBERT AIRY AND MR. ARNOLD TAYLOR.

THE following is an abstract of the Report on the Sanitary Condition of New Windsor which the Local Government Board have just published. After stating the circumstances which were the occasion for holding the inquiry, the inspectors (Dr. Hubert Airy and Mr. Arnold Taylor) describe the situation of the town and discuss its population, which is estimated to be 12,500, this number including the Household Troops, which at the last census numbered 1047.

Under the heading *dwellings*, account is given of the situation of the houses, the greater part of which are on the alluvial plain that stretches at the foot of the western slopes of Windsor. "Certain rows are built on such low ground that when the river overflows its banks and floods the meadows, their ground-floors are two or three feet under water. One quarter also in the older part of the town suffers from the same cause; this is the lower part of Bier-lane and its side courts." In 1852 "the water was in the houses for seventeen days, during which time the inhabitants had to live in the upper rooms; the last serious flood was about five years ago. ..... Besides the temporary inconvenience, there is the layer of mud which is left behind on floors and furniture as the water subsides, the destruction of wall-paper and plaster, and the saturation of walls and floors, which it takes months to get rid of; and there is the still more permanently injurious condition of damp subsoil affecting these dwellings at all times. ..... There cannot be a doubt that this is an unwholesome state of things; to it is probably due a rather high mortality from phthisis in Windsor." Although the Town Council have no power to require dwellings already built in low-lying situations to be altered in such a way as to raise their ground floor above flood level, this has been voluntarily done in one row by the owner. The newer rows of houses have advantage of greater air space about them and have the requisite facilities for through ventilation.

Old Courts.—"But when we come to examine the older courts and alleys of the town, we find that, though in many cases the houses stand on fairly sound ground, their con-

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dition in respect of outside air space, back yard space, internal ventilation, closet accommodation, surface formation, and pavement—in some and all of these particulars—is still pitiably bad. We, however, willingly recognise that there is evidence of structural improvements having been made in the older courts and alleys in recent years."

The following are some of the details given:—Bier-lane: 170 yards long, 5 yards wide at the top, widening to 12 yards. On the east side is a butcher's shop, with slaughter-house at back; "might be more cleanly kept. Next is a shoemaker's shop, with narrow back yard, widening from 3 ft. to 8 ft. across, ashpit recently emptied, gully out of repair, w.c. in the dwelling without ventilation, walls damp." Next come five capital houses, with workmen's club room and a brewhouse. On west side are two common lodging-houses; then comes entry to Garden-court, which contains twenty-one cottages, ten of which on left side lie close under high retaining wall; their back yards, or rather closet-wells, are only from 4 ft. to 6 ft. across, and contain each a pan-closet, to be flushed by hand. "Water has to be fetched from a standpipe near the entry to the court. Ashes are deposited at the head of a back lane beyond the entry of the court. Each cottage has three rooms, one above another, cubic space from 700 ft. to 800 ft., from which should be deducted the space occupied by bedding &c.; they have no back windows; the front windows are from 3 ft. to 3 ft. 6 in. square. The cottages in opposite row are similar, but, if anything, their back space is still smaller; this space is half roofed over, and made to serve as pantry, or netted over to keep the cats out." Many of the houses are damp. No serious overcrowding discovered. "Lower down in Bier-lane are some old cottages, partly dilapidated, which, the inspectors understand, are going to be pulled down. On the left side formerly stood Red-lion-row; seven new houses are being built here. "On the right side space is less closely occupied: there is, first, a detached house with central stair and a room on each side, top and bottom; no back window, except at the top of the stair. Next are two cottages under one roof, with small gardens in front. The pan-closet belonging to one of them is in a dark recess in a narrow covered yard off the scullery. The inhabitants are laundresses, who flush their closets with their suds. Next come two six-roomed houses of better class, but with ill-paved yard. A pump by the pathway supplies this court with water." Again returning to Bier-lane, the inspectors noted some fairly decent cottages, and came to a passage leading to Distil-House-row, consisting of eleven cottages on the right hand and two more at the further end facing the entry. "In front of the row is a space of bare earth bounded by a blank wall, against which stands the pump, which serves for the common supply of these thirteen houses. Near by, at the foot of the wall, are cavities in the ground, which receive ashes and house refuse.....Some of the interiors showed neatness and cleanliness and comfort, others the reverse; one, containing five children besides the parents, was found to be very dirty. Each cottage in the row has front kitchen (cubic space about 770 ft.) and scullery (540 cubic feet) at back, with bedrooms above, the back bedroom having a lean-to roof, which much diminishes its cubic space. Front windows 3 ft. by 3 ft. 6 in., back windows 3 ft. by 1 ft.; but the two cottages that look up the yard have only two rooms each, and have no back windows. All but three have slop sinks in the sculleries; there are also gullies in the front yard where slops are poured; this row has no back yards. At the further end, at the edge of the back lane, stand four pan-closets for thirteen houses; pans dirty for want of flush-water; woodwork giving way. The palings, which should part these closets from the back lane, are almost all pulled down."

South-place contains forty-two houses, on either side of an asphalted passage. "Of thirteen houses on the south side, ten have no opening whatever at the back, no scullery, no closet, and no water but a tap at the end of the row. For closet purposes the sixty-five dwellers in the ten houses have to go into an open yard at the back of the opposite houses on the north side." Some of them are four, others two-roomed; their stairs have no ventilation, and no light except in one instance, where there is a front window on the landing. "On the north side, Nos. 1 to 4 have sculleries, opening into back gardens, and back lean-to bedrooms over the sculleries, with back windows 18 in. square. Each of these houses has its own pan-closet. No. 5 also has a closet. Nos. 25 to 28 in like manner have sculleries and back bedrooms. They open into a common yard, with an old pan-closet and a new cistern-closet. Nos. 6 to 24, with a population of fifty-six, are two-roomed houses, without any back openings; the bedroom, reached by a stair against the inside of the back wall, contains about 800 cubic feet; a certain small degree of ventilation could be obtained by the stair if all doors and windows were kept open together, but practically this is not done. Behind these houses are three open, unpaved yards, common to five or six dwellings, each with the entries from the asphalted passage. One of the houses adjoining each entry has the advantage of a larger bedroom extending over the entry. These yards together contain eight old pan-closets without water and five new cistern-closets, thirteen in all, for a population of 121, reckoning those who come over from the south side. They have taps of town water; one of them has an iron dustbin, the others have merely cavities in the ground at the foot of the house wall." There is plenty of open space at the back; ventilation could be easily obtained by putting in a window at the head of each stair. "As for the houses on the south side, we see no way of rendering them tolerably habitable but by demolishing every third house and converting its site into a yard for its neighbours with a proper w.c. to each. The death-rate of South-place is calculated to be about 24 per 1000."

In Charles-place and Charles-street cottages there are houses without through bedroom ventilation. Keppel-row is another insanitary locality of fourteen houses, fronting a 9 ft. high brick wall with an asphalted passage 8 ft. across between, with no rain spouting in front, only partial at rear. The first six dwellings have each only one bedroom, not 7 ft. high, with no back window; each has a back room or scullery measuring 7 ft. by 7½ ft., with a lean-to roof on the ground floor. Instances are given of the conditions to which this sort of accommodation gives rise. The next eight dwellings have each a small back bedroom, some not occupied on account of the damp. At the back are two unpaved yards; each has three closets, which serve for eighteen houses. There are three taps of town water in the yards; an ashpit near the washhouse door the inspectors found duly emptied, but it is said to be often offensive. Keppel-court has no back openings to its back ground-floor rooms, except where the tenants have removed a brick or two, admitting air from an inn yard.

Special reference is made to the neglected and dangerous state of some Crown property in St. Alban's-street, and of certain houses belonging to the Corporation.

Water-supply.—The town water-supply is said to be good, being derived from a well in the chalk. There are still a number of wells in the town, some like those in Red-lion-row and Distil-House-row supplying several houses in common. These waters are analysed by the medical officer of health, and when found impure the wells are closed; in the case of private wells, it has been thought sufficient for the present to warn the tenants of the probable impurity of the water.

Sewerage.—This is described, and the statement is made that ventilation was originally provided for by means of surface gratings, but complaints were made from time to time of the smell from these gratings, and many of them have been closed in consequence. It would seem that the flushing is not sufficient to keep the long and almost level outfall sewer (with a fall of 3 ft. in a mile) free from deposit, which is thus left in the sewer long enough to decompose and cause offensive effluvia from the gratings. The necessity of diverting certain storm-water is pointed out.

House-drains.—There is reason to believe that in many cases the house-drains are ill-laid and unventilated, and ready to convey poisonous gases direct from the sewer to the house through an untrapped sink-pipe or an ill-constructed watercloset. The means at the disposal of the Sanitary Authority for dealing with this difficulty have been not so much by way of prevention as by removal of such of the defective conditions as had demonstrated themselves to be nuisances injurious to health. The code of bye-laws in course of preparation will not avail to prevent bad drainage arrangements and ill-constructed closets except in the case of new and rebuilt houses. It is requisite that public opinion should come to the aid of the Sanitary Authority in this matter.

Closets.—Windsor is decidedly in advance of those towns which have vault-privies; the worst thing in Windsor is a pan-closet, constructed to be flushed by hand, which has become coated with dirt or temporarily choked for want of

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water. Now and then it was found the pan was broken by some rough usage, and it was evident there was untrapped air communication with the sewer. While not to be compared to the foul privies that still disgrace so many towns, yet these Windsor pan-closets ought to be kept in better order, and there ought to be such a system of inspection as should ensure this being done. For the credit of the town, it is to be hoped that this improvement will be generally made. The existing accommodation is in places not sufficient.

Ashes and House Refuse.—There is a weekly collection of house refuse, the inhabitants bringing out their dust in boxes and pails; those who will not take this trouble are requested to give notice at the surveyor's office when they desire the refuse to be removed from their premises. It is carted to a field one mile and a half from the centre of the town, where it is used for filling up hollows in the ground.

Isolation of Infectious Disease.—A hospital for this purpose is urgently needed, and in connexion therewith it is very desirable there should be a suitable disinfecting chamber. The authority offer a fee of 2*s.* 6*d.* for every case of infectious disease notified by a private practitioner to the medical officer of health.

Bye-laws.—The need for their revision has long been recognised, new bye-laws are on the point of receiving the sanction of the Board.

Sanitary Staff.—The medical officer of health is an able and conscientious officer, and the inspectors find in his annual reports evidence of much good work in his district, and sound advice offered to his authority. Evidence is given of the scientific spirit in which he approaches his work. It must be objected, however, that he has under-estimated the importance of such sanitary defects as have been described in connexion with South-place, or else has over-estimated the difficulty of dealing with its defects The inspector of nuisances has done very useful work in organising the present system of refuse-removal, and in bringing about countless improvements; but it is evident that his duties are too multifarious to allow him to give the time that is required for continuous detailed sanitary inspection. The work of nuisance inspector is enough to demand a man's whole time, and the Sanitary Authority ought not to content themselves with less. The inspector of nuisances has also to act as borough surveyor, inspector of common lodging-houses, of weights and measures, of petroleum, and of canal boats. Most, if not all, of the courts and streets might have been dealt with—externally, at least—under the 150th and following sections of the Public Health Act; but, as far as the inspectors could learn, no attempt appears ever to have been made to use these sections, nor is it possible to do so as long as the inspector has so many other duties to discharge in addition to those that properly pertain to the office of borough surveyor. In looking through the Nuisance Report Book, the inspectors could not fail to notice that in the single month of September, 1886, there are as many cases of premises inspected and nuisances reported as in the two years from September, 1884, to August 1886.

Mortality.—The average death-rate is 16·3 per 1000, but this low rate is certainly in part accounted for by the excessive proportion of inhabitants of the ages between ten and thirty, and the low birth-rate. The zymotic death-rate is also low.

Conclusion.—The sanitary condition of Windsor is in most respects no worse, and in some respects is distinctly better, than that of many other old towns with which the inspectors are acquainted. Provided the Town Council have a sufficient staff of officers acting under their orders, the sanitary defects which have been pointed out will in the main be satisfactorily remedied.

Recommendations.—With regard to the sanitary defects in the areas referred to, especially in point of through ventilation and outside air space, the sanitary authority should inquire whether the requisite improvements can be obtained under the powers of the Public Health Act, 1875, and, if not, they should resort to the powers given by the Artisans and Labourers' Dwellings Improvement Acts, 1875 to 1882. In order to secure more constant and thorough nuisance inspection the sanitary authority should appoint a separate inspector of nuisances. They should also make provision for the isolation of infectious disease and for the disinfection of infected articles, and should take into consideration the question of providing a furnace for the destruction of house refuse.

THE PEABODY IMPROVED DWELLINGS TRUST.

THE twenty-second annual report of the trustees of the Peabody Donation Fund is satisfactory, whether viewed from a financial, social, or sanitary point of view. The half-million of money given and bequeathed by Mr. Peabody between the years 1862 and 1873 has by the accumulation of rent and interest very nearly doubled itself, for on Dec. 31st last it amounted to £910,668. That the object of the donor has been faithfully carried out is evident from the fact that by the end of last year the trustees had "provided for the artisan and labouring poor of London" 11,150 rooms, without counting bath-rooms, laundries, and washhouses, and that these rooms were occupied by a population of 20,228 persons; this shows an increase of 12,431 upon the number in residence at the end of 1876, ten years before. The various buildings contained 5014 separate tenements, including 74 of four rooms, 1782 of three rooms, 2350 of two rooms, and 808 of single rooms; the average rent of each tenement being rather more than 4*s.* 9*d.*, and of each room rather less than 2*s.* 2*d.* It is stated that the average weekly earnings of the head of each family in residence at the close of the year was rather less than 23*s.* 10*d.* If this information, which is presumably supplied by the tenants themselves, is trustworthy, it furnishes a complete answer to the charges that have been made from time to time that the Peabody Buildings are not inhabited by the class for which they were intended—namely, the "artisan and labouring poor." The report contains the usual figures bearing upon the vital statistics for last year of the population of more than twenty thousand persons inhabiting those buildings. The birth-rate was equal to 42·4 per 1000, exceeding by 10 the mean rate for the whole of London. This high birth-rate is evidence of the abnormal age constitution of the population, which contains an exceptionally large proportion of young adults, and consequently of children, and necessarily a very small proportion of elderly persons. The death-rate among this population, including, as is stated in the report, the deaths of those residents who were removed to hospitals, was equal to 19·3 per 1000, which is 0·6 below the mean rate for the whole of London. Bearing in mind that this population belongs exclusively to the working classes, and further that its exceptionally large proportion of young children more than counterbalances the effect of its small proportion of elderly persons, this death-rate may be taken to afford evidence of the sanitary condition of the residential population of these buildings. It should at the same time be remembered that to the reported death-rate of this population should undoubtedly be added a proportion of the deaths recorded in workhouses, to which institutions certain numbers of these classes when out of health or work inevitably drift. It may be stated that nearly 12 per cent. of the deaths registered in the whole of London last year were recorded in workhouses and their infirmaries. It seems certain that such a working-class population as that residing in the Peabody Buildings must actually contribute a still larger proportion of its deaths to the number that occur in workhouse establishments. This disturbing element of the Peabody mortality statistics does not, however, affect the rate of infant mortality, and it is especially satisfactory to learn that in this working class population housed in improved dwellings the rate of infant mortality in 1886 did not record 149 per 1000 registered births against 958, the mean rate in the whole of London.

THE MOXON MEMORIAL.

AT a meeting of the friends of the late Dr. Moxon, held at the Royal College of Physicians on Feb. 1st, Sir William Jenner, Bart., in the chair, the following resolution was proposed by Dr. Wilks and seconded by Sir James Paget, "That in the opinion of this meeting it is desirable to express by public memorial the widespread appreciation that exists of the high character and remarkable personal qualities of the late Dr. Moxon, and especially of the services he rendered in advancing medical science and in otherwise promoting the highest interests of the profession." It was proposed by Dr. Pavy and seconded by Sir Dyce Duck-

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worth: "That subscriptions be invited, and that a sub-committee be appointed to decide upon the most suitable form of memorial." These resolutions were unanimously carried.

At a meeting of the subcommittee, held at the Royal College of Physicians on Feb. 8th, the following resolution was proposed by Sir Joseph Lister, seconded by Sir Andrew Clark, and unanimously carried: "That the fund raised by subscription be devoted to the foundation of a scholarship or medal to be awarded by the Royal College of Physicians, and to the erection of a memorial of the late Dr. Moxon at Guy's Hospital."

SUBSCRIPTIONS RECEIVED (FIRST LIST).

Sir W. Jenner, Bart., ...	£21	0	0	J. Farrant Fry, Esq. ...	£1	1	0
F. W. Pavy, M.D., F.R.S.	21	0	0	J. Montague Day, Esq. ...	1	1	0
R. Clement Lucas, B.S....	21	0	0	W. A. E. Waller, Esq. ...	1	1	0
Sir W. Gull, Bart. ...	10	10	0	A. Roper, Esq.	1	1	0
R. Quain, M.D.	10	10	0	Arthur Davies, M.D. ...	1	1	0
S. Wilks, M.D., F.R.S.....	10	10	0	C. C. A. Price, Esq. ...	1	1	0
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T. Bryant, Esq.	10	10	0	J. Lauder Brunton, M.D.,			
J. Sydney Turner, Esq...	10	10	0	F.R.S.	1	1	0
Mrs. Elphinstone... ...	10	10	0	F. Turtle, M.D.	1	1	0
Sir J. Lister, Bart. ...	10	0	0	J. Kingston Fowler, M.D.	1	1	0
Sir James Paget, Bart....	5	5	0	R. Hicks, Esq.	1	1	0
Sir Dyce Duckworth ...	5	5	0	H. J. Wolstenholme, Esq.	1	1	0
Sir H. Pitman	5	5	0	F. J. Burgess, F.R.C.S. ...	1	1	0
P. H. Pye-Smith, M.D.,				J. A. Fraser, Esq. ...	1	1	0
F.R.S.	5	5	0	E. F. Gaitskell, Esq. ...	1	1	0
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Dr. and Mrs. Aikman ...	5	5	0	James Bisshopp, Esq. ...	1	1	0
F. Orton, M.D., J.P. ...	5	5	0	G. W. Shipman, Esq. ...	1	1	0
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E. Clifford Beale, M.D....	3	3	0	J. E. B. Burroughs, Esq....	1	1	0
R. N. Wallace, M.B. ...	3	3	0	W. A. Lane, M.S.	1	1	0
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F.R.C.S....	3	3	0	S. Knaggs, Esq.	1	1	0
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W. A. Brailey, M.D. ...	2	2	0	Prof. W. K. Parker, F.R.S.	1	1	0
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J. F. Table, Esq.	2	2	0	W. Floyer, M.D.	1	1	0
W. T. Parker Douglas,				J. R. Bosworth, Esq. ...	1	1	0
M.D.	2	2	0	R. Parry, M.D.	1	1	0
Charles Lewis, Esq. ...	2	2	0	S. Tilley, F.R.C.S.... ...	1	1	0
W. F. R. Burgess, M.D...	2	2	0	Surgeon-Major J. Ince,			
Charles Higgens, F.R.C.S.	2	2	0	M.D.	1	1	0
H. Horsley, Esq.... ...	2	2	0	G. W. Daniell, Esq. ...	1	1	0
J. Batteson, Esq.... ...	2	2	0	A. G. Medwin, M.D. ...	1	1	0
John Gill, Esq.	2	2	0	J. G. Hall, Esq., J.P. ...	1	1	0
John Mackern, M.D. ...	2	2	0	C. P. Creed, Esq.	0	10	6
Th. Hastes, M.D.... ...	2	2	0	F. P. Weaver, M.D. ...	0	10	6
H. C. Burton, Esq. ...	2	2	0	Bransby Brooks, Esq. ...	0	10	6
Miss Elphinstone... ...	2	2	0	H. Hawksworth, Esq. ...	0	10	6
Ben. Rix, Esq.	2	2	0	John Crew, Esq.	0	10	6
L. B. Shaw, M.D... ...	2	2	0	R. S. Mutch, Esq.... ...	0	10	6
T. A. Spalding, Esq. ...	2	2	0	J. C. Clarke, Esq.	0	10	6
R. J. Kerby, M.D... ...	1	11	6	F. W. Humphreys,			
Sir W. Bowman, Bart. ...	1	1	0	F.R.C.S.	0	10	6
W. John, Esq.	1	1	0	S. Bingham, Esq.	0	10	6
D. H. Forty, Esq	1	1	0	H. N. Smith, Esq.... ...	0	10	6

WILLS OF MEDICAL MEN.

THE will of Mr. Samuel Harrison Evans, M.R.C.S., formerly of Derby, afterwards of Normanton, but late of Landour, Weston-super-Mare, who died on Oct. 30th at Southsea, has been proved at the Wells District Registry by the Rev. John David Evans and Mr. Thomas David Fabian Evans, the nephews, the executors, the value of the personal estate amounting to over £22,000. The testator bequeaths £200 each to the Church Pastoral Aid Society, the Church Missionary Society, the British and Foreign Bible Society, and the Society for Promoting Christianity among the Jews; £50 to the Derbyshire General Infirmary; his household furniture and effects to his wife, Mrs. Chloe Evans; £5000 upon trust for her for life; and numerous and considerable legacies to his own and his late wife's relatives, servants, and others. The ultimate residue of his property he leaves to the person or persons who would have been entitled thereto under the statute for the distribution of intestates' effects if he had died without a will.

The will of James Dickson Steele, M.D., late of 18, Blomfield-road, Maida-vale, who died on April 23rd last, has been proved by Major George de Winton and Mr. Richard Eve, the executors, the value of the personal estate amounting to over £15,000. The testator bequeaths £2000 to the said Major de Winton; £1000 each to his brother Robert Moore Steele, his sisters Mary Stuart Steele and Esther Steele, and to the said Richard Eve; and legacies to friends and others. All his real estate and the residue of his personal estate he gives to his housekeeper, Mrs. Anne Penny, in consideration of her long and faithful services.

The will of Charles Sanders, M.D., late of the Haylands, Chigwell, Essex, who died on Oct. 17th last, has been proved by Mrs. Laura Ann Sanders, the widow and sole executrix, the value of the personal estate exceeding £9000. The testator gives certain plate, the portrait of his grandfather, and also his real estate in the county of Norfolk to his wife for life, and then to his son Charles Edward Bradfield Sanders. The residue of his real and personal estate he leaves to his wife.

The will of Mortimer Balding, M.D., late of St. Albans, Herts, who died on Nov. 23rd last, has been proved by Mr. Albert Balding, the brother, and Mrs. Thomas Gowland Page, the executors, the value of the personal estate amounting to over £3000. The testator bequeaths £50 and his household furniture and effects to his wife, Mrs. Kate Greaves Garling Balding, and he confirms the settlement made on their marriage; he also bequeaths legacies to his sister and to a nephew. The residue of his real and personal estate he leaves upon trust for his wife for life or widowhood, then for all his children in equal shares, and in default of children to his sister Octavia.

The will of John Findlay Lindsay, M.D., late of Great George-square, Liverpool, who died on Oct. 11th last, has been proved at the Liverpool District Registry by Miss Janet Lindsay, the sister and sole executrix. With the exception of two or three bequests of jewellery, the testator leaves all his property, including his interest in certain property in Glasgow, to his daughter Florence Bosquet Lindsay.

The will of Arthur Wynn Williams, M.D., formerly of Montagu-square, but late of Brooklyn, West Drayton, who died on Nov. 15th, has been proved by Mr. Arthur Loughborough and Mr. Freke Dalgleish Williams, the executors. The testator gives certain family pictures to his wife for life, then to his son Trevor Wynn Williams, and then to his son; £50 and all articles of personal, domestic, or household use to his wife; the residue of his real and personal estate upon trust to pay the income to his wife for life, and at her death for all his children in equal shares.

The following legacies have recently been left to hospitals and other medical institutions:—Mr. George Fielder, of Doctors' Commons and West Horsley-place, Leatherhead, Surrey, Proctor, on the death of the survivor of his wife and sister, £500 consols each to Charing-cross Hospital, Middlesex Hospital, Surrey County Hospital, the Seamen's Hospital (late *Dreadnought*), and the London Homœopathic Hospital.—Mr. Thomas Lockerby, of Derwent Villa, Addiscombe, Surrey, £100 to the Royal Infirmary, Glasgow.—Miss Fanny Halsey, of Little Gaddesden, Herts, £100 to the West Herts Infirmary.—Mr. Octavius Edward Coope, J.P., D.L., M.P., of Rochetts, near Brentwood, Essex, and 41, Upper Brook-street, £100 to Middlesex Hospital.—Mrs. Alicia Mary Gaselee, of 2, Cambridge-square, Hyde-park, and Tytherley, Bournemouth, £100 to St. Mary's Hospital.—Miss Emily Barry, of 8, Cleveland-square, Hyde-park, £500 to the Royal Hospital for Incurables, Putney Heath; £300 each to St. Mary's Hospital, Royal Orthopædic Hospital, and the Hospital for Sick Children; £100 to St. Mary's Convalescent Home, Broadstairs, in connexion with the Orphanage of Mercy, Kilburn-park-road; and £100 to the Metropolitan Convalescent Hospital, Walton-on-Thames.—Mrs. Charlotte Broadwood, formerly of Tunbridge Wells, but late of 4, The Mount, St. Leonards-on-Sea, £2500 consols in aid of the Cottage Hospital built by her at Capel, Surrey.—Mr. Stephen Peter Schilizzi, of Park Point, Higher Broughton, Manchester, £400 to the Athens Hospital, Evagelismos, and £300 to the Scio Hospital.—Mrs. Harriett Beckford, of West Hill, Cowes, Isle of Wight, £1500 to the Isle of Wight Infirmary, Ryde; £1000 to the Hospital for Incurables, West Hill, Putney; and £500 to the Metropolitan Convalescent Institution, Walton-on-Thames.—Captain Thomas Ruddiman, of 1, Cavendish-place, Cavendish-square, £100 to the Middlesex Hospital.

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VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5882 births and 3767 deaths were registered during the week ending Feb. 26th. The annual death-rate in these towns, which had been equal to 19·5 and 21·1 per 1000 in the two preceding weeks, further rose last week to 21·3. During the first eight weeks of the current quarter the death-rate in these towns averaged 22·0 per 1000, and was 2·3 below the mean rate in the corresponding periods of the ten years 1877-86. The lowest rates in these towns last week were 13·5 in Nottingham, 13·7 in Brighton, 14·4 in Derby, and 16·1 in Sunderland. The rates in the other towns ranged upwards to 27·2 in Newcastle-upon-Tyne, 29·8 in Plymouth, 30·1 in Manchester, and 33·0 in Huddersfield. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 340 and 371 in the preceding two weeks, was last week 372; they included 140 from measles, 94 from whooping-cough, 47 from scarlet fever, 39 from diarrhœa and dysentery, 31 from diphtheria, 21 from "fever" (principally enteric), and not one from small-pox. No death from any of these zymotic diseases was registered last week in Birkenhead, while they caused the highest death-rates in Leicester, Liverpool, Manchester, and Huddersfield. The greatest mortality from measles occurred in Leeds, Manchester, Liverpool, Sunderland, Leicester, and Huddersfield; from whooping-cough in Birmingham and Norwich; and from scarlet fever in Bristol and Blackburn. The 31 deaths from diphtheria in the twenty-eight towns included 14 in London, 4 in Liverpool, 2 in Portsmouth, 2 in Manchester, 2 in Leeds, and 2 in Cardiff. Small-pox caused no death in London and its outer ring, or in any of the twenty-seven other large provincial towns. Only 5 small-pox patients were under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease. The deaths referred to diseases of the respiratory organs in London, which had been 364, 373, and 392 in the preceding three weeks, further rose last week to 466, but were 18 below the corrected average. The causes of 114, or 3·0 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Bolton, Blackburn, and in four other smaller towns. The largest proportions of uncertified deaths were registered in Salford, Oldham, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 19·8, 22·0 and 24·3 per 1000 in the preceding three weeks, declined again to 22·5 in the week ending Feb. 26th; this rate exceeded by 1·2 the mean rate during the same period in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 11·0 in Greenock and 16·8 in Dundee, to 24·8 in Glasgow and 33·7 in Aberdeen. The 562 deaths in the eight towns last week showed a decline of 45 from the number returned in the preceding week, and included 33 which were referred to whooping-cough, 30 to measles, 17 to scarlet fever, 11 to diarrhœa, 5 to "fever" (typhus, enteric, or simple), 3 to diphtheria, and not one to small-pox; in all 99 deaths resulted from these principal zymotic diseases, against 76 and 103 in the previous two weeks. These 99 deaths were equal to an annual rate of 4·0 per 1000, which exceeded by 1·9 the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had increased in the preceding four weeks from 19 to 32, further rose last week to 33, of which 17 occurred in Glasgow and 7 in Edinburgh. The 30 deaths from measles also showed a further considerable increase upon the numbers in recent weeks, and include 17 in Aberdeen and 12 in Glasgow. The 17 deaths from scarlet fever, on the other hand, were fewer by 8 than the number in the previous week; 11 were returned in Edinburgh, 3 in Glasgow, and 2 in Dundee. The 11 deaths attributed to diarrhœa, of which 4 occurred in Aberdeen and 3 in Glasgow, scarcely differed from the average number for the season. The 5 deaths from "fever" included 3 in Leith, and showed an increase upon recent weekly numbers. Two of the 3 fatal cases of diphtheria occurred in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 126, 133, and 146 in the preceding three weeks, declined last week to 121, and were 38 below the number returned in the corresponding week of last year. The causes of 78, or nearly 14 per cent., of the deaths registered during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 27·3 and 35·3 in the preceding two weeks, declined again to 30·7 in the week ending Feb. 26th. During the first eight weeks of the current quarter the death-rate in the city averaged 31·4, the mean rate during the same period being but 20·9 in London and 21·7 in Edinburgh. The 208 deaths in Dublin last week showed a decline of 31 from the number in the previous week, and included 8 which were referred to "fever" (typhus, enteric, or simple), 2 to scarlet fever, 2 to whooping-cough, 2 to diarrhœa, and not one either to small-pox, measles, or diphtheria. Thus the deaths from these principal zymotic diseases, which had been 17 and 14 in the preceding two weeks, were again 14 last week; they were equal to an annual rate of 2·1 per 1000, the rates from the same diseases being 1·8 in London and 4·2 in Edinburgh. The deaths referred to "fever," which had been 4 in each of the previous two weeks, rose last week to 8, and exceeded the number returned in any previous week of this year. The fatal cases of scarlet fever, whooping-cough, and diarrhœa were almost identical with those in the previous week. The deaths both of infants and of elderly persons showed a decline from the numbers in the previous week. Six inquest cases and 4 deaths from violence were registered; and 50, or nearly a quarter, of the deaths occurred in public institutions. The causes of 40, or more than 19 per cent., of the deaths registered during the week were not certified.

Correspondence.

"Audi alteram partem."

A NOTE OF WARNING REGARDING THE CONDITION OF ARTICLES OF FOOD SOLD FOR THE USE OF THE DIABETIC.

To the Editors of THE LANCET.

SIRS,—In the interests of patients and for the sake of the credit of the profession, I think attention requires to be drawn to the unsatisfactory character of some of the articles of food that are being sold for the special use of those suffering from diabetes. The principle at the foundation of the preparation of these articles is to furnish a food as free from starchy and saccharine matter as can be practically done, and whilst this object is attained it is desirable, in order to render it acceptable for consumption, that the article produced should present as close an approximation to the food in ordinary use as possible. The chief difficulty, it may be said, lies with a representative of bread. Various substitutes for ordinary bread are manufactured and placed at the command of the diabetic. Some of them are carefully prepared and fairly represent what they should be. Others, on the other hand, although placed before the consumer as of a proper character and charged for upon about the same scale of prices, are but little removed in constitution from the representative product in its ordinary state. Thus, the patient may be deluded into taking that which is positively obstructive to satisfactory progress; and with this, discredit will be thrown upon the profession by the efforts of treatment proving abortive. Gluten flour and gluten bread always contain a certain amount of starch, and it may be considered that the article is in a good state if the amount does not exceed from 25 to 30 (or about this) per cent. Some gluten bread and gluten flour being sold at the present time contain no less than from about 75 to 80 per cent. of starch. The actual figures before me are for a sample of gluten bread 74 and another from the same source 76 per cent. of starch, and for two samples of gluten flour derived from the same establishment 80 and 82 per cent. of starch.[1] These figures, as with those belonging to all my analyses, refer to the article in the dried or water-free state. For

[1] It is only right to state that these samples were not obtained from either of the London vendors of diabetic food.

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comparison, I may state that the figures yielded for a sample of ordinary wheaten flour were 90 per cent. and ordinary household bread 89 per cent. A biscuit sent to me for examination by the wife of a patient as a gluten biscuit obtained from France contained 84 per cent., and another kind 89 per cent., of starch.

Bran biscuits vary. The figures before me, yielded by the analysis of some that are sold, give about 38 per cent. of carbohydrate expressed as starch; whilst the figures for others amount to from 50 to 60 and upwards of this. Besides starch, bran contains cellulose and lignose. These, under the boiling with sulphuric acid in the process of analysis, are, like the starch, transformed into glucose, and thus comprised in the result obtained. Presumably, however, cellulose and lignose in a great measure, if not entirely, resist the solvent influence of the digestive secretions, and thereby, although carbohydrates, escape passing on to sugar in the system of the diabetic. But the starch of course is in the same position as starch from other sources. The starch removable by boiling water from some ordinary bran, or bran as it came from the mill, amounted to 23 per cent.; with prepared bran sold for the use of the diabetic the amount of starch obtained was practically the same, justifying the conclusion that simply grinding without previous washing constituted the process of preparation adopted.

Macaroni, vermicelli, and semola are also articles announced to be specially prepared for the use of the diabetic. I have never yet come across a sample that could be regarded as suitable. Indeed, they have either resembled the ordinary article in use, or only differed to a slight extent. For instance, taking recent analyses, one sample of macaroni gave 85 per cent. of starch, another 71, and another 78; a sample of vermicelli 70, and a sample of semola 74, per cent. The figures yielded by a sample of ordinary macaroni were 86, and vermicelli 87, per cent.

I am, Sirs, yours obediently,

Grosvenor-street, Feb., 1887. F. W. PAVY.

"LUNACY ACTS AMENDMENT BILL, 1887."

To the Editors of THE LANCET.

SIRS,—In your last issue is a letter from Dr. Rogers drawing attention to an alleged injustice to workhouse medical officers in being prohibited from receiving a fee for certifying lunatics as fit to be removed to asylums. I submit he is entirely wrong in his conclusions and in his interpretation of the proposed statute. The Bill does not prevent the workhouse medical officer from being paid a fee when the patient is removed to an asylum, but only in the case when the lunatic is of such a harmless nature that he can with safety remain in the workhouse. Even under the present law no fee is payable to the medical officer under these circumstances.

Clause 14, which Dr. Rogers quotes, enacts: "No person being a lunatic shall be allowed to remain *in a workhouse* unless the medical officer of the workhouse certifies in writing—(*a*) that such person is a lunatic, with the grounds for the opinion; (*b*) that he is a *proper* person to be detained under care and treatment *in a workhouse* as a lunatic; (*c*) that the accommodation in the workhouse is sufficient for his proper care and treatment.....(2) A certificate under this section shall be in the Form 8.....(3) A certificate under this section shall be sufficient authority for detaining the lunatic therein named against his will in the workhouse *for fourteen days* from its date. (4) No lunatic shall be detained against his will or allowed to remain in a workhouse for *more than fourteen days* from the date of a certificate under this section *without* an order under the hand of a justice of the peace having jurisdiction in the place where the workhouse is situate. (5) The order in the *last preceding* subsection mentioned may be made upon the application of a relieving officer of the union to which the workhouse belongs, supported by a medical certificate in the Form 6 under the hand of a duly qualified medical practitioner, not being an officer of the workhouse, and by the certificate under the hand of the medical officer of the workhouse in the Form 8.....(6) The guardians of the union to which the workhouse belongs shall pay such reasonable remuneration as they think fit to the medical practitioner who, not being an officer of the workhouse, examines a person for the purpose of a certificate *under this section*. The whole of the above-quoted part of the clause simply refers to harmless lunatics detained, and *suitable* for detention, in the workhouse. On the other hand, if not suitable, the 7th subsection goes on to say: "If in the case of any alleged lunatic being in a workhouse, the medical officer thereof shall not sign such certificate—i.e., not feel justified in signing—as in this section mentioned, or if at or before the expiration of fourteen days from the date of the certificate an order is not made under the hand of a justice for the detention of the lunatic *in the workhouse* the medical officer of the workhouse shall forthwith give notice in writing to the relieving officer of the union to which the workhouse belongs, that a pauper *in the workhouse* is deemed to be a lunatic, *and a proper person to be sent to an asylum*, and thereupon the like proceedings shall be taken by the relieving officer and *all other persons* for the purpose of removing the lunatic to an asylum, and within the same time, as by the Lunatic Asylums Act, 1853, provided in the case of a pauper deemed to be a lunatic and a proper person to be sent to an asylum. (8) If the medical officer of a workhouse omits to give such notice to a relieving officer, as by the *last* preceding subsection provided, he shall for each day or part of a day after the first, and before the notice is given, during which the alleged lunatic remains in the workhouse, be liable to a penalty, not exceeding ten pounds." The italics throughout are mine.

In short, the meaning is this. Harmless lunatics may be detained for fourteen days on the certificate of the medical officer of the workhouse alone, provided he considers them suitable cases and the accommodation sufficient; but not longer, except with a magistrates' order given on the certificate of an independent medical practitioner in addition to that of the medical officer of the workhouse. On the other hand, if the medical officer of the workhouse believes that the alleged lunatic is not a proper person, or that the workhouse accommodation is not sufficient, then he must go through the same procedure as is enjoined by the old Act, 16 and 17 Vict., c. 97, and he will be paid according to the provisions of that Act.

I am, Sirs, your obedient servant,

CHARLES GROSS, M.D. Lond., F.R.C.S. Eng.,
Barrister-at-law.

Elm-court, Temple, E.C., Feb. 28th, 1887.

To the Editors of THE LANCET.

SIRS,—The Lunacy Acts Amendment Bill has passed through the third reading of the House of Lords, and will shortly be submitted to the House of Commons. I therefore venture through your journal a few suggestions for the consideration of the medical profession. The treatment of lunatics is considered a specialty. It would benefit the profession and the public at large if the study of lunacy were more generally encouraged by appropriating certain wards in all general hospitals for the treatment of lunatics. According to a report in *The Times* on the second reading of this Bill, the Lord Chancellor stated that "there are 4400 licensed houses in this country." These numbers do not tally with the Fortieth Report of the Commissioners in Lunacy, Appendix N, which only shows ninety-six licensed houses, provincial and metropolitan, including private asylums. One of the objects of this Amendment Bill is to get rid of the private licensed houses, and force all patients into asylums. Putting entirely aside the interest of the medical profession, I submit that it would be detrimental to the community at large. In asylums, the attendants number about one to ten patients. Bad cases are consigned to padded rooms, a practice which too much resembles solitary confinement—a punishment for criminals. From a natural disinclination of charitably disposed persons to visit lunatics, the patients have no society beyond other lunatics like themselves, and attendants, who do not belong to a sufficiently educated class, therefore not companions likely to benefit those of a higher degree. Sufficient precautions are not adopted to prevent self-abuse, though such practice is admitted by the profession to be highly detrimental; and females are much neglected at certain times. In private licensed houses each patient has a separate attendant, and the combined aid of all the establishment, if necessary. Padded rooms are not known; precautions are taken to prevent self-abuse and dirty habits, and the patients have the advantage of the society and the constant supervision of the family. I would therefore recommend that the number of private licensed houses,

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to receive from three to six patients, should be considerably increased.

It was lately published in *The Times* that there are over 30,000 female lunatic patients in the asylums. It is well known how easily they are excited by the presence of the opposite sex. Why not appoint *lady visitors* for the female wards and private female patients in licensed houses, in place of, as at present, the commissioners and magistrates, all gentlemen, whose visits generally upset such patients. Lady visitors would also better understand the habits and requirements of their own sex. The power which the Commissioners in Lunacy and Lord Chancellor's visitors have for summarily removing patients from one house to another, or from a house to an asylum, without a thorough investigation of the case, and against the will of the friends and relatives, should be abolished. The practice is much too arbitrary for a free country in the present century.

I am, Sirs, your obedient servant,

Surbiton, March 1st, 1887. R. COLLUM, M.D.

MEDICAL ASPECT OF THE EARTHQUAKE AT CANNES.

To the Editors of THE LANCET.

SIRS,—At a few minutes to 6 A.M. on the 23rd of February I was startled in my sleep by a marked oscillatory movement having a S.E. to N.W. direction; a noise, faintly comparable to a couple of trains passing under my house, and the tremor with which my little villa was seized, told my half-awakened senses that an earthquake had most unexpectedly visited this peaceful land. I got downstairs with some difficulty, the staircase rocking so much as to bring to my mind the rolling of a vessel at sea, and I had reached the garden before the vibrations had ceased. The first shock lasted forty seconds; it was followed by two more, less intense and of shorter duration. The following night three somewhat similar vibrations took place, the last one only, which occurred at about twenty minutes past five, being of any intensity and duration. Since then there have been a few mild movements, but so slight that they have scarcely been felt by all. Fortunately for Cannes, these earthquakes have done no material damage; apart from a few superficial cracks in the ceilings here and there, a looking-glass or two broken, and a few clocks which have stopped, we have nothing to lament; no one was injured, and not a single building has been damaged. I was, I must say, somewhat surprised at this result, as the shock on the morning of the 23rd was certainly a severe one, and much injury was caused by it in the neighbouring towns of Nice and Mentone. Cannes has come out unscathed from this ordeal, owing mainly to the hotels, villas, &c., being well built, solid constructions, able, as they have proved themselves, to resist even a severe shaking; moreover, with but few exceptions, the foundations of the buildings at Cannes rest on rock, whilst at Nice and Mentone many have been erected on alluvial soil or on reclaimed land; hence, probably, the reason why the earthquake did us so little, if any, harm.

So much for the physical side of the question. As for the moral one, it was simply disastrous. A regular panic seized upon a very large number of the visitors, and at several of the hotels, for forty-eight hours at least, scenes of the most terrible dismay, especially during the night, occurred—not so much among the sick and invalids, many of whom seemed to have learned patience and resignation from physical suffering, and did not give way to the morbid condition which prevailed extensively among their more healthy and stronger companions. Many cases which I was called upon to see were, after the second night, in such a state of nervous depression or excitation, so dulled or so irritable, so unable to think but of the terrible earthquake, not of the one they had felt, but of something more fearful still to come, unable to sleep, to eat, in fact mentally and physically so ill, that no remedy, no persuasion proved of any avail, and they were advised to leave the place at once if they wished to avoid some more tangible disease. Next to these terror-stricken individuals, in some cases the earthquake proved the occasional cause of sickness; a gentleman, just recovering from an attack of gout, rushed from his warm room into the cold outside, and contracted a severe attack of bronchitis; a lady, convalescent from articular rheumatism, from exposure suffered a sharp relapse; and neuralgia, colds, sleeplessness, &c., have been very common among the delicate people who resort to this winter station, in order to escape the frosts and fogs of England and of Northern Europe.

But, as I write, everything has returned to its normal state; the earthquake, although still the topic of the day, is no longer dreaded by the still large number of remaining visitors and residents of the place; a bright sun, a balmy atmosphere, a blue sky, a calm sea, one and all now reward those—and they are by far the majority—who did not give way to unreasonable fears. The total absence of any damage to property or of injury to individuals justifies our belief that this lovely spot is indeed charmed. When sickness hovered around us, as it did a year ago, Cannes escaped. She has done so again, and, with neighbouring cities almost in ruins, at the best severely shaken, Cannes still offers a safe retreat to those who wish to avoid the bleak March winds of the north.

I am, Sirs, yours faithfully,

H. BLANC, M.D., F.R.C.P.,

Cannes, Feb. 28th, 1887. Physician at Cannes.

TRANSPORT AND TREATMENT OF INFECTIOUS PATIENTS IN THE METROPOLIS.

To the Editors of THE LANCET.

SIRS,—A letter from Sir Vincent Kennett-Barrington in *The Times* of Jan. 21st, under the above title, hardly met with the support it deserved either there or in the medical press. Coming from a member of the Metropolitan Asylums Board, it seemed to me an invitation to the public in general to apply for aid to that body in case of need. Acting on this view, I had an opportunity last week of advising direct application to Norfolk House for the removal of a servant ill with scarlet fever from a house of business in a fashionable part of the parish of St. George, Hanover-square. A telegraphic request for ambulance and hospital accommodation was sent off at 4 o'clock P.M., and a certificate by messenger followed; by 6 o'clock the ambulance with a nurse arrived, and the patient was removed, with no further delay than was needed to procure another certificate from our dispensary resident medical officer, Dr. Percy Rendall. Another time the certificate, very properly required by the nurse, could be left in readiness with the patient. Very little time was lost in this case, as doctor and patient were only separated by the length of one street. The occurrence was notified to the medical officer of health, Dr. Corfield, and in a very short time the room the patient had occupied was sulphured, the bedding being taken away to be stoved and thoroughly disinfected, all without cost to the household concerned.

I wish to contrast with this what happened a few days before near the dispensary, but in an opposite direction. A young girl, living at home with her parents, was engaged to assist by day in a large house near where a servant was laid up, as was said, with cold and sore-throat; at the end of a week the servant reappeared among the others for a day or two until she left for the country as convalescent, then this girl suddenly sickened, and was seen by me on the second or third day, in consultation with Dr. Rendall, to confirm his diagnosis of scarlet fever.

In the one case, a source of infection is not only at once removed from among us, but its course in any other direction prevented; in the other, we trust that the vigilance and tact of our sanitary authorities may eventually, after much care and trouble, succeed in averting further mischief, as far as our district is concerned. But what as to the neighbourhood where the convalescent goes, without any precaution taken, or even a word of warning given? This, however uncertain, is indicative of one way in which country epidemics follow any extension of scarlet fever in London. Want of encouragement delays the Asylums Board in providing for us the accommodation of a convalescent home at Winchmore Hill, in addition to that of perfectly appointed ambulances. *The Times*, in its faint support of the letter above referred to, commends the Board ambulance to anyone "who is able to pay for these conveniences." Now, it is precisely to those who can pay but little, or who cannot pay at all, that they are to be commended. The charge is small; if the expense is not recovered at once, it is saved in the long run, or else all will feel a little as ratepayers, what we know too well as doctors, that "good is often done at a loss."

I am, Sirs, your obedient servant,

Orchard-st., W., Feb. 28th, 1887. WILLIAM SQUIRE, M.D.

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THE PRESENCE OF BLOOD IN THE PERITONEUM.

To the Editors of THE LANCET.

SIRS,—My sole object in replying to Mr. Lawson Tait's first letter was to remove a misapprehension under which he seemed to labour as to the aim and object of my experiments, and as to the conclusions which I had deduced from them. It was neither my wish nor my intention to enter upon any discussion with him on the subject of peritoneal surgery. I am therefore somewhat at a loss to conceive with what object Mr. Lawson Tait has again recurred to the subject in your issue of Feb 19th. If it was to expose my ignorance of the surgery and pathology of the human peritoneum, his letter must be regarded as somewhat premature, as I have not as yet expressed any views on either subject, and the extent of my knowledge must therefore be quite unknown to him.

A simple statement that the *function* of the heart in man and in the dog is probably the same does not of necessity imply absolute ignorance on one's part of the pathology of that organ in the case of man; and yet it is on precisely similar grounds that Mr. Lawson Tait bases his charges of ignorance against me in regard to the surgery and pathology of the human peritoneum. If, on the other hand, his letter was intended as a criticism of my paper on "Intraperitoneal Transfusion," now in course of publication, I can only conclude that Mr. Lawson Tait has not even done me the honour of reading the paper which he now proceeds to criticise so adversely. If he has done so, then I must venture to protest, both on my own behalf and in the interests of all fair discussion, against the misrepresentation to which he has subjected the nature of my experiments—a misrepresentation whose completeness can only be fully appreciated by those already acquainted with the subject of transfusion. For, so far from having injected "blood of various kinds and from various sources, foreign and domestic," into the peritoneal cavity, I have expressly stated in my paper that blood of only one kind, and from only one source, was used—viz, that obtained from an animal of the same species as the one operated upon, the behaviour of which, as is well known, is in all respects similar to that of the animal's own blood; and, so far from "dogs and guinea-pigs" having been employed for my purpose, no mention is even made of guinea-pigs throughout the whole course of my paper, and all my experiments, with some two exceptions, were performed on rabbits.

I must confess my inability to see what useful object it can possibly serve to continue a correspondence apparently made up for the most part of explanations on the one side, and personal charges of ignorance and misrepresentation of facts on the other. I trust, therefore, I may be excused if I decline to take any further part in it.

I am, Sirs, your obedient servant,

Edinburgh, Feb. 23rd, 1887. WILLIAM HUNTER.

*** This correspondence must now cease.—ED. L.

CANCER OF THE BODY OF THE UTERUS.

To the Editors of THE LANCET.

SIRS,—I shall be glad to be allowed to make a few friendly comments on Dr. John Williams' interesting Harveian Lecture on Cancer of the Uterus, reported in your issue of Feb. 12th.

Of cancer of the body of the uterus Dr. Williams says: "This is a form of cancer which is much less common than that of the cervix, and, indeed, it was at one time thought that cancer never attacked this part of the organ primarily. *It is certain that the disease occurs much more frequently than is generally supposed.*" (The italics are my own.) We have at the Middlesex Hospital unusual opportunities for the study of the pathological anatomy of cancer of the uterus, as there are on an average more than twenty necropsies made annually on the subjects of this disease. I have been in charge of the pathological department for the last six years, and have paid especial attention to the incidence of cancer on the various portions of the uterus. My experience leads me to the conclusion that primary cancer of the body of the uterus must be an extremely rare affection, as I have not met with a single example of it in more than 120 cases. My colleague, Dr. Sidney Coupland, who preceded me in office, and had an almost equally long experience, tells me that he can only recall one undoubted case of primary cancer of the body of the uterus.

I have met with several cases of malignant disease infiltrating the fundus uteri, but in all it originated in some neighbouring organ or growth, and affected the uterus secondarily. In three such cases the site of the primary growth was a fibro-myoma of the uterus, and in one of these the new growth was a myxo-sarcoma. Dr. Williams describes three out of twelve cases which he has met with, which were believed to be examples of malignant disease of the body of the uterus; in the other nine no microscopical examination of the growth was made. I confess that these cases do not appear to me to be beyond doubt. With regard to Case 22, that of a patient who died in the Middlesex Hospital under the care of Mr. Henry Morris, and on whom I made a post-mortem examination, my recollection (and description in the Pathological Report of the hospital) does not quite agree with the account given by Dr. Williams, as I believe the disease originated in the fibroid tumour and spread thence to the body of the uterus.

I have met with a case very similar to the one described as Case 20, in which there was a communication between the uterus and intestine sufficiently large to admit the thumb. In that case it seemed clear that the disease had spread from the intestine to the uterus, and not *vice versâ*. May it have been so in Dr. Williams' case? Whilst, then, I think that they are wrong who hold that cancer never affects the body of the uterus, yet I believe that view to be nearer to the truth than that "it occurs there much more frequently than is generally supposed."

I am, Sirs, yours faithfully,

Clarges-street, Feb. 15th, 1887. J. KINGSTON FOWLER, M.D.

THE CHILDREN'S HOSPITAL, MANCHESTER.

To the Editors of THE LANCET.

SIRS,—Your Manchester correspondent, in a letter published in your issue of Feb. 26th, refers to some allegations which have been made in reference to the reception of infectious cases into the fever ward of the Children's Hospital in this city, it being insinuated that outbreaks of fever frequently occur in the general wards; and, moreover, that children admitted for one infectious disease contract another during their stay. He further says that this has not been denied. As these statements as they stand are hardly fair to the authorities of the Children's Hospital, may I ask you for space for a few lines in order to put the facts before your readers? The allegations to which your correspondent refers appeared in some letter to the public press, written in anything but a friendly spirit towards the hospital by a critic who had not the courage to sign his name. It can hardly be surprising if under these circumstances the hospital authorities declined to discuss the subject with him in the public press. But I must confess that I expected better things of your correspondent, who, if he had consulted the yearly volume of abstracts of medical and surgical cases, &c., published annually by the hospital, for the last five years, which gives all details of the cases, post-mortems, *infectious disease arising in the hospital*, &c., he would have seen many of the allegations referred to had no foundation in fact, at any rate at the present time. We have undoubtedly a fever ward, which is used solely for the admission of scarlet fever cases, no other cases of infectious disease having been admitted to the ward for at least five years, though during this period there have been several outbreaks of measles and chicken-pox, which have been due to the admission of cases admitted with scarlet fever who were incubating measles or chicken-pox at the time of their admission. I need hardly say that no amount of care on the part of the medical officers can obviate this. With regard to the general wards we have had cases of scarlet fever arising from time to time in them, but the number of these, taking the five years 1881-5 (*vide* abstracts), amounts to less than 1 per cent. of the admissions to the general wards during this period, and in many of these cases the infection was clearly traced to cases admitted incubating scarlet fever; while in the others no definite source of infection could be ascertained. I would ask, Can other children's hospitals where no scarlet fever is admitted show a better record? Or can fever hospitals where scarlet fever, erysipelas, typhus, small-pox, &c., are received show a better case?

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Your correspondent very properly asks "that the serious attention of the management should be directed," &c., to this important question. I am happy to be able to assure him that for many years past the most serious attention of both the medical officers and board of governors of the hospital has been given to this question, that all cases of infectious disease arising in the general wards have been reported to the medical board, and by them to the general board, with the object of tracing the source of all such cases of infection, and of adopting the most stringent means to prevent the introduction of such disease from without or its transference from within.

I have no reason whatever to complain of the tone of your correspondent's letter as regards this question, but surely he can hardly expect the authorities of the Children's Hospital to waste their time over anonymous critics in the Manchester papers who take no pains to make themselves acquainted with the facts of the case.

I am, Sirs, yours truly,

Manchester, March 1st, 1887. HENRY ASHBY.

"GENERAL HOSPITALS AND PARISH INFIRMARIES."

To the Editors of THE LANCET.

SIRS,—I was pleased to see in your issue of Feb. 12th the boldness with which Dr. Goodhart has advocated a closer connexion between general hospitals and parochial infirmaries, as I believe that it is in this direction we must look for a satisfactory and permanent solution of the difficult problems connected with hospital finance and management. Within less than a mile of the house in which I am writing are three large parochial infirmaries, with an aggregate accommodation for not less than 1200 patients, and probably many more; the professional staff is represented by a total of three chief and three assistant resident medical officers. Compare with this the three nearest general hospitals, with an aggregate accommodation for 144, and a total staff of seventeen, of whom five are resident and twelve honorary. In neither case have I included officers whose duties are connected with out-patient work, and to none of the general hospitals mentioned is a school attached. It is obvious, therefore, that in the case of the infirmaries there must be an immense waste of clinical and pathological material. Even admitting the chronic nature of the majority of the cases treated in the infirmaries, I believe that Dr. Goodhart will agree that many valuable lessons are to be learnt from the study of even these, while there can be no doubt that many cases whose ending it would be of much interest to note, after going the round of the general hospitals, sink into oblivion within the walls of one or other parish infirmary. Curiously enough, an instance of this has just come under my own observation in the case of a man to whom I was called some few days back; he was suffering from some obscure cerebral mischief, and I urgently advised his friends to take him to the hospital, of which he was an inmate some two years ago. He was taken, instead, to the parish infirmary, and I have just been informed is now *in articulo mortis*.

I trust that the ventilation of this subject in your columns may lead to the promulgation of some definite scheme for bringing into touch the parochial infirmaries, the general hospitals, and the medical schools throughout the metropolis.

I am, Sirs, yours obediently,

Feb. 1887. J. FREDK. W. SILK.

BIRMINGHAM.

(*From our own Correspondent.*)

PROPOSED MIDLAND UNIVERSITY.

A PAPER read by the Rev. Dr. Crosskey on this subject at a recent meeting of the Philosophical Society elicited an animated and useful discussion. As the medical element is largely involved in all university teaching in the present day, a claim was put forward by Professor Haycroft, of Mason College, for an extension of facilities for obtaining degrees in a midland centre. It was shown, however, that it would be impracticable and undesirable to establish a midland university for a long time to come, and the arguments against it from a financial point of view were thought to be insuperable in the existing state of difficulty in obtaining the necessary funds. The arrangements for medical teaching at the Birmingham School were pointed out as having been vastly improved, and the association with Mason College established a federation which afforded excellent ground for preparation to any of the examining bodies.

THE JAFFRAY SUBURBAN HOSPITAL.

The inmates of this admirable branch of the general hospital were lately gratified by a visit from Madame Marie Roze, whose kindness and sympathy won golden opinions. With characteristic geniality, she charmed them by singing some well-known songs. She left an impression which will long be remembered, as much by the rare vocal powers of the gifted artiste as by the graceful and kindly manner in which she exhibited her attention to the suffering patients in the various wards she visited on the occasion.

INSTITUTION FOR TRAINING NURSES.

Birmingham possesses an exceptionally well-managed and thriving institution for this purpose. The report shows that there are ninety-four nurses, and that the transactions of the year had been carried out with efficiency and success. The statement of accounts at the annual meeting showed that the total income for the year had been £3225 17*s.*, and the total expenditure £2981 5*s.* 5*d.*, giving a balance of income over expenditure of £244 11*s.* 7*d.* From this sum had to be deducted a transfer to the sinking-fund for the provision for new premises of £100, a condition of things which must be regarded as satisfactory and promising well for the future.

BIRMINGHAM AND MIDLAND COUNTIES SANATORIUM.

Another useful institution, of which the twenty-first annual meeting was held on Feb. 24th, also showed that its place was well maintained in the estimation of the public. In the year 1886 as many as 1016 patients were admitted, the weekly cost of each bed being as low as 6*s.* 4½*d.* The absence of complaints and the gratitude of the patients were marked features in the report, while the financial position was shown to be sound. As a valuable aid to convalescence this institution is well worthy of support.

Birmingham, March 2nd.

LIVERPOOL.

(*From our own Correspondent.*)

THE ASSIZES.

THE winter assizes for the south-west division of Lancashire concluded on the 24th ult., having lasted all but three weeks. Among other cases of medico-legal interest was one from Southport, in which a youth of sixteen was charged with shooting a girl. The bullet entered the girl's heart, and she died soon afterwards. The charge of murder was withdrawn, and the prisoner found guilty of manslaughter. The Oldham poisoning case, which lasted four days, is the third case of the kind which has been tried in this county within the last three years. The case of the women Flannigan and Higgins, which was the first, was a series of wholesale poisonings, the first-named prisoner acknowledging that she had assisted in poisoning eleven persons. The second case, that of the woman Britland, tried in Manchester last summer, showed that three victims had succumbed to poison administered by her. And in this most recent case, since the prisoner was sentenced to death for the murder of her child, a coroner's jury has returned a verdict of wilful murder against her, her mother having died more than a year ago with symptoms of poisoning by atropia. These repeated murders have been much commented on by the daily press, and are calculated to create a very uneasy feeling among the public. It is to be hoped that as time advances it will be found easier to detect the very first symptoms of poisoning, to save the intended victims, and to bring their would-be murderers to justice. This will impress the public more favourably than the conviction of prisoners only after a series of murders.

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THE NETHERFIELD-ROAD FEVER HOSPITAL.

Dr. Robertson, visiting physician to the Liverpool parish infirmary, has been selected by the Hospitals Committee for the office of visiting physician to the Hospital for Infectious Diseases recently acquired by the city corporation. Dr. Robertson has had considerable experience in the treatment of these cases, and the selection is a wise one.

Liverpool, March 2nd.

EDINBURGH.

(From our own Correspondent.)

THE SCARLET FEVER EPIDEMIC.

DURING the past week the epidemic has steadily declined in its intensity, and the state of extraordinary pressure at the City Fever Hospital has greatly abated. Although all parts of the city have been affected, the outbreak has been much more severe in the northern and western districts than elsewhere; the epidemic has thus avoided the most crowded districts, and has been worst in the more open and the more opulent quarter. During February 41 deaths have occurred from the disease out of the 597 cases intimated to the city authorities during that time.

THE ARCHITECT AND HEALTH.

Dr. J. A. Russell, F.R.C.S.E., one of the bailies of the city, lectured on this subject last week before the Edinburgh Architectural Association. In describing the status of the architects in the community, he pointed out that theirs was the only profession for which no academic or official form of training was demanded beyond a mere system of apprenticeship. He advocated a system by which they should become thoroughly acquainted with the most recent advances of natural philosophy and with the laws of health in relation to light, heat, ventilation, and drainage. So qualified, he would be ready to see extended to them a monopoly comparable to that enjoyed by Law and Medicine, and with similar powers to suppress irregular practice. Referring to the improved death-rate in children of school age, he had little doubt that it was largely due to the efforts of Board school architects who have provided for the children surroundings better than those of their own homes. In discussing the ventilation of Board schools, he spoke of a mechanical system as that likely to be ultimately adopted, since with the cubic space authorised by the Education Department it was all but impossible to obtain complete ventilation by natural methods. In connexion with this question, Bailie Russell is at present engaged in a research into the atmospheric condition of public buildings of various descriptions throughout the city. The Town Council have authorised a special grant for the purpose, and the experiments are to be carried out in the Public Health Laboratory at the University by Dr. Hunter Stewart and Dr. Cosmo Burton.

SANITARY PROTECTION ASSOCIATION.

The annual meeting of the Association was held last week under the presidency of Professor Sir Douglas Maclagan. The annual report shows that the work of the Association has been largely augmented, and that an increased number of the citizens have availed themselves of its services. The officers of the Association are to furnish plans for buildings arranged to ensure perfect sanitation; to inspect dwelling-houses, and report on their sanitary state; to supply recommendations and estimates for remedial measures, and to carry out alterations. Transactions to the extent of between £2000 and £3000 have been carried on by the Association in the last twelve months. The chairman, in moving the adoption of the report, commented on its favourable nature, and stated that they were not a body striving to obtain dividends, but that their sole object was to carry on an important public sanitary work.

SCIENTIFIC RESEARCH IN EDINBURGH.

The Royal College of Physicians has now perfected the scheme for instituting a research laboratory in Edinburgh. There is a general consensus of opinion that this arrangement will be fraught with great good to the Edinburgh school. The new laboratory, which will be amply fitted with apparatus and all requirements for original work, is to be placed under the care of a well-qualified scientific man and an assistant, and is to be open on an easy arrangement to all would-be workers. This arrangement will bring the opportunity of doing useful work within the reach of many of our younger practitioners who have time to engage in it, but who have till now been debarred from research by the exorbitant tariffs of the University laboratories. The College could not have found a better means of employing usefully a portion of its great wealth.

Edinburgh, March 1st.

DUBLIN.

(From our own Correspondent.)

ROYAL COLLEGE OF SURGEONS.

THE Council have agreed upon a scheme for the granting of a diploma in Public Health, and have submitted the same to the Medical Council for approval. The fee is fixed at seven guineas, and the examination will be a very strict one. The conjoint scheme will be discussed by the Council this week on a motion by Dr. Kidd. Sir Charles Cameron's suggestion for a dual scheme will also be under consideration.

ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.

At a quarterly meeting of the Central Committee held last week, the following resolution was adopted: "That the Central Committee of the Royal Medical Benevolent Fund Society of Ireland have learned with much regret of the lamented deaths of Dr. Purdon of Belfast, late local honorary secretary, and of Dr. John Denham, Dr. H. Kennedy, and Dr. E. G. Brunker, members of the Central Committee; and at this their first meeting since their deaths, desire to express their sense of the loss they have sustained, and their sympathy with the respective families in their bereavement."

CITY OF DUBLIN HOSPITAL.

Last week Mr. H. Gray Croly operated for varicose veins, and removed several inches of the internal saphenous vein in the right thigh and leg. The patient, a female, three weeks since had been operated upon by him in a similar manner on the left lower extremity, and the wounds had quite healed. Mr. Croly uses a drainage-tube, but removes it after a couple of days, as he considers it has a tendency after that to act as a foreign body. He afterwards fired an enlarged knee-joint by the thermo-cautery in the case of a boy with a strumous history. This was followed by an operation for sequestrotomy by Mr. Henry Fitzgibbon for necrosis of the left ulna, occurring as the result of acute periostitis. A couple of weeks previously Mr. Fitzgibbon had removed several inches of the humerus of the right side in this patient, arising from the same cause. A large sequestrum, fully four inches long, was removed. Esmarch's bandage was used, and very much facilitated the operation.

FEVER IN CORK.

The medical officers of the Cork Fever Hospital for the past year state that the increase in the number of admissions, as compared with the previous year, was due to an epidemic of typhoid fever which prevailed in the city during the autumn and winter months. They are glad, however, to be able to note a sensible diminution in the records of the fevers of the present day, as compared with those of years gone by. They hope that there will be a compulsory system of legislation enacted, to be enforced in those places where the sick are lying in their homes of dangerous infectious disease, and that the inmates will not be allowed to walk abroad, sell their merchandise, or associate with their fellow-beings, until such time as they are free from the danger of propagating disease. A good deal has been done, but a great deal more requires to be done before Cork can be called the "Modern Hygeia," which they consider it is justly entitled to by reason of its situation. Better swimming-baths are required for the public; a better system of drainage, and a water-supply so arranged as to effect a simultaneous flushing of all the drains of the city when the tide is out. In order to ensure a better water-supply for the city, the medical staff strongly urge on the corporation, as the urban sanitary authority, the necessity of keeping strict supervision over the river Lee and its tributaries, so as to prevent the possibility of the water-supply being polluted along its course.

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MUSCULAR ANOMALY.

I had an opportunity of examining last week, in the dissecting room of the Ledwich School of Medicine, an example of the biceps flexor cruris arising by three heads. The extra head came off below, and outside the insertion of the coracobrachialis, that muscle slightly overlapping it at its insertion. The third head passed down and was inserted into the tendon of the biceps at its posterior aspect. I described a somewhat similar biceps a couple of weeks since, with this difference that the third head was inserted about the middle of the muscle posteriorly. Both these specimens were in females, and on the left side.

DROGHEDA UNION.

Drs. O'Keeffe, Delahoyde, and Callan are proceeding against the guardians of this union for fees due to them under the Labourers Act. The guardians have refused their medical officers a fair remuneration, but last week, without hesitation, gave a cheque for £120 to their solicitor in order to defend the action against the board.

It is intended to present Dr. B. Kennedy, resident surgeon to Mercer's Hospital, with an address and testimonial, as a mark of sympathy with him in the recent prosecution at the police-court, in which he was honourably acquitted.

Dublin, March 1st.

BURMAH.

A CORRESPONDENT at Burmah favours us with the following notes:—

DEATHS OF SURG. E. W. KELSALL AND DR. J. PEDLOW.

THE Official Bulletin of Dec. 7th, 1886, Burmah Field Force, published at Mandalay, says:—"Yemethin, Dec. 6th, 1886. Surgeon Kelsall, Medical Staff, died of cholera this morning." Mr. Kelsall's commission dated March 31st, 1875. He was born on August 9th, 1851. He served in the Afghan war, 1879 to 1880: defence of Candahar. Mentioned in despatches, *London Gazette* of Dec. 3rd, 1880; medal. Also in the Egyptian Expedition of 1882: action at Kassassin; battle of Tel-el-Kebir. Mentioned in despatches; medal, with clasp and bronze star. Mr. Kelsall leaves a wife and family to mourn their loss. He is the second member of the Army Medical Staff who has recently died of cholera in the Burmah Field Force.

Dr. James Pedlow, surgeon, Army Medical Staff, born Oct. 16th, 1851, died of cholera on Oct. 21st, 1886, on the ss. *Rangoon*, while on his way up the Irrawaddy in charge of two sections of a field hospital ordered to Bhamo.

PERILS OF "NON-COMBATANTS" ON THE FIELD.

Surgeon John MacGregor, M.D., of the Bombay Medical Service, has again had a pony killed in action; this time in the Shan Hills (Nov. 1886). In April last, when in medical charge of the expedition against the Ponkan Rachin Saubwá, his pony was shot dead while he was dismounted and dressing a severe gunshot wound of the knee-joint. Dr. MacGregor was for many months senior medical officer of Bhamo, and the first civil surgeon at that place. He was very successful in the operations he performed after the engagement with the Rachins and other marauders.

The following medical officers are in charge of British field hospitals:—No. 4 Field Hospital: Surgeon-Major A. Minto, M.B., A.M.S. No. 5: Surgeon-Major R. de la Cour Corbett, A.M.S. No. 16: Surgeon-Major William Venour, A.M.S. No. 17: Surgeon-Major T. W. Patterson, A.M.S. Surgeon-Major R. Vacy Ash, M.B., has been appointed Assistant to the Principal Medical Officer, Burmah Field Force. Surgeon W. A. Morris, A.M.S., has been appointed to the charge of the Ambulance Corps followers. Surgeon M. O'C. Drury has been appointed to the Charge of the C and D Sections, No. 16 Field Hospital at Katha. Surgeon F. H. M. Burton has been transferred from the Charge of the B Section, No. 5 Field Hospital at Bhamo, to that of the B Section, No. 17 Field Hospital at Bhamo.

Burmah, Jan. 1887.

THE number of in-patients admitted to the Sussex County Hospital during last year was 1247, which added to 147 remaining on the books at the end of 1885, makes the total number treated 1394.

THE SERVICES.

Deputy Surgeon-General R. A. Chapple, recently Principal Medical Officer of the Northern District, has arrived in India for duty in the Bombay Presidency.

On the 26th ult. the remains of Brigade Surgeon John Henry Hunt, Medical Staff, were interred in the Aldershot Military Cemetery, with the full military honours to the rank of a lieutenant-colonel, which relative rank the deceased held.

WAR OFFICE.—Army Medical Staff: Surgeon-Major James Hector, M.B., is granted retired pay, with the honorary rank of Brigade Surgeon.

ARTILLERY VOLUNTEERS. — 3rd Middlesex: Robert S. Fancourt Barnes, M.D., to be Acting Surgeon.

RIFLE VOLUNTEERS.—1st Fifeshire; Lieutenant Charles Edward Douglas, M.D., to be Acting Surgeon.—5th (Isle of Wight, Princess Beatrice's) Volunteer Battalion, the Hampshire Regiment: George Arthur Barr, Gent., to be Acting Surgeon.—5th Lancashire (the Liverpool Rifle Volunteer Brigade): Charles John Macalister, M.B., to be Acting Surgeon.—2nd Oxfordshire: Acting Surgeon G. O. Willis resigns his appointment.

VOLUNTEER MEDICAL STAFF CORPS.—William Collingridge, M.D., Medical Officer of Health for the Port of London, has been gazetted Surgeon to the Volunteer Medical Staff Corps, and appointed Acting Adjutant to the 3rd (Woolwich) division.

MEDICAL NOTES IN PARLIAMENT.

Alleged Insanitary Barracks.

IN the House of Lords, on the 25th ult., in reply to Lord Ormonde, who was supported by Lord Ellenborough, Lord Harris said that he had himself examined the half-yearly reports of the principal medical officer of the Home District made in October and February last, from which it appeared that the drainage at the barracks at Hyde Park was in good sanitary condition. He had also examined the quarterly regimental reports of the regimental officer in charge, and the weekly reports of the same officer for the last seven weeks, and all those reports agreed that the sanitary condition of the drainage in the officers' quarters was good. In June last a very important improvement was carried out in the officers' quarters, when the soil-pipes were put on to the exterior of the wall.

Sandhurst and Woolwich Academies.

On the 28th ult., in reply to the Earl of Strafford, Lord Harris stated that the recommendations of the Board of which the noble lord was chairman were considered so important by the First Lord of the Treasury, the War Office, and by the Secretary of State, that they had endeavoured as largely and rapidly as possible to carry out the changes recommended in their report; but he was sorry to say they had not been able to carry out the changes in such a way as the report suggested. The difficulty of finding sufficient sleeping accommodation for the number of cadets at Woolwich was one of funds. An arrangement was in contemplation for reducing the length of the course, by which the number of cadets at one time would be reduced, thereby increasing the accommodation for those who were there. The room at the Herbert Hospital which the Board suggested should be fitted up for the reception of cases of infectious diseases was, he regretted to say, not available at present, but as soon as possible the matter would be dealt with. With regard to Sandhurst, nearly all the recommendations had been carried out. The recommendations with regard to Woolwich would be carried out by the War Department as rapidly as circumstances permitted.

Lunacy Acts Amendment Bill.

On the 1st inst. the House resumed the consideration in committee of the Lunacy Acts Amendment Bill. In Clause 3—which as it stood when the Bill was first in committee met with strong objection by Lord Selborne and Lord Herschell—the Lord Chancellor introduced an amend-

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ment, having for its object to simplify and render more speedy magisterial investigation in lunacy cases. The amendment was agreed to, and the Bill passed through committee.

The Pollution of the Upper Thames.

In the House of Commons, on the 24th ult., Mr. Ritchie, in reply to Colonel Dawnay, stated that the Thames Conservancy Board had prepared a series of bye-laws in regard to the pollution of the waters of the Upper Thames by means of sewage from house-boats and steamers with a view to their being submitted to Her Majesty in Council.

The Status of Army Medical Officers.

On the 28th ult., Major Rasch asked the Secretary of State for War what would regulate the status of army medical officers on board ship or for choice of quarters, their relative rank having been abolished.—Mr. Stanhope, in reply, reminded Major Rasch that relative rank was neither actual nor titular rank, but only a classification for precedence, allowances, and widows' pensions. As relative rank served no useful purpose, it had, he stated, been abolished; but the classification which it represented remains and still regulates all such matters as those referred to in the question.

On Thursday, Sir Guyer Hunter asked the Secretary of State for War whether, since relative rank of the medical officers of the army had been abolished, what rank, if any, they now have in the army?—The Secretary for War, in reply, said: A medical officer holds the rank in the army which his commission confers upon him, and under Article 125*a* of the Royal Warrant it is provided that for purposes of precedence, allowances, and widows' pension, medical officers shall rank with combatant officers as there laid down. As a matter of fact, the abolition of the term "relative rank" has not altered the position of medical officers in any respect whatever.

Small-pox Statistics.

In reply to Mr. Barran, Mr. Ritchie said that he had communicated with the Registrar-General, and had been informed that practically there has been no epidemic small-pox worth mentioning in any of the 19 great provincial towns dealt with in the Registrar-General's reports in the last ten years. Only one small-pox death was registered in that period in Leicester itself, but ten more were registered in the Leicester Borough Hospital outside the town. This gives an annual rate of 9 in 1,000,000 living—a rate, however, which, small as it is, was nevertheless higher than the rates at Portsmouth, Norwich, Plymouth, Bristol, and Bradford. The last calculated rate for the registration district of Keighley is for the ten years 1871-80, as given in the last decennial supplement. The annual rate in the district in that decennium was 270 per 1,000,000 living, and higher than in 25 out of the 32 remaining districts in the West Riding; higher also than in either Hull, Bristol, Manchester, Leeds, Oldham, Bradford, or Brighton.

Alleged Wrongful Confinement in a Lunatic Asylum.

In reply to Mr. W. Corbet, who asked the Home Secretary the result of the inquiries promised into the confinement in a lunatic asylum for seven years of a female alleged to be of sound mind, and whose case was recently under the notice of the Board of Guardians of Paddington Union, Mr. Stuart-Wortley said that he had made inquiry and ascertained that the woman referred to in the question was not an inmate of a county asylum, but of the asylum at Darenth belonging to the managers of the Metropolitan Asylums Board. The President of the Local Government Board has accordingly taken up the matter, and is making inquiries as to the case.

Brompton Cemetery.

In reply to Mr. Baggallay, Mr. Plunket stated that Brompton Cemetery contains in all 38 acres and 20 perches. There now remain available for future graves 4 acres and 34 perches. Since the first burial in Brompton Cemetery in 1840 up to Feb. 26th last there have taken place 135,617 burials. The average number of burials in the last three years was in round numbers 5000. The graves are of different depths, and the coffins are placed in the ground subject to restrictions laid down by the Home Office. No limit can, unless by Act of Parliament, be fixed to the number of interments, except that each year there is less space available for the purpose. The Government does derive a profit (which was last year £7070) from the cemetery.

Supplementary Civil Service Estimates.

The House having gone into Committee of Supply, on the supplementary vote of £1800 for the Local Government Board, Colonel Nolan desired further information on the subject of the inspections of local sanitary areas, which had been undertaken by the Local Government Board.—Mr. Ritchie said that in 1885, it having become apparent that there was considerable danger of an outbreak of cholera in this country, it had been proposed by the Local Government Board that inspections which had been made in the previous year at seaports should be extended to inland towns. The Treasury had assented to the employment of five extra inspectors for the purpose of inspecting the sanitary areas throughout the country. The result had been in every way satisfactory, and fraught with advantages of a permanently beneficial character.—Mr. T. Healy complained that in Ireland all such expenses came out of their own pockets.—Mr. Esslemont urged the claims of those Scotch ports which had taken precautions to prevent disease coming in.—After a lengthy discussion, Sir M. Hicks-Beach undertook to inquire into the matter, and if it were found that Irish boards of guardians had incurred extra expenses of the nature covered by this vote, he would urge on the Treasury that a similar vote should be brought forward to recoup the Irish boards of guardians.—Mr. E. Russell asked for a similar assurance in regard to Scotland.—Mr. A. J. Balfour said he would give an undertaking that he would do his best to secure that such expenses be thrown on Imperial funds.—The vote was then agreed to.

Vaccination.

On the 1st inst., in reply to Mr. T. Robinson, Mr. Ritchie said that the Government could not consent to having the subject of vaccination inquired into, either by a Royal Commission or a Committee of the House. With regard to repeated prosecutions for evasion of the Vaccination Act, the views of the Local Government Board were, he remarked, well known. They were set forth in a letter to the Board of Guardians of the Evesham Union, which was presented to Parliament. He could not hold out any hope of legislation with the view of preventing the imposition of cumulative penalties.

Medical News.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on Feb. 24th, the following degrees were conferred:—

BACHELOR OF MEDICINE.—Roger Alan Birdwood, Peterhouse; William Heaton Hamer, Christ's; Edward Lawrence Fox, Cavendish Hostel.

BACHELOR OF SURGERY.—Edward Lawrence Fox, Cavendish Hostel.

COLLEGE OF PHYSICIANS IN IRELAND.—At the February examinations the following obtained licences in Medicine and Midwifery of the College:—

MEDICINE.—James Butler, James Davis Egan, Thomas McCraith Foley, James S. Freeborn, Thomas Morton Frood, William Richard George Hamilton, Vincent Nash.

MIDWIFERY.—James Davis Egan, Vincent Nash, Edward Francis O'Sullivan.

The undernamed have been admitted Members:—

Patrick Thomas Lyster. | Ralph Stone.

BRITISH MEDICAL SERVICE.—The following is a list of candidates who were successful for appointments as Surgeons in the Medical Staff of H.M. Army at the competitive examination in London on Feb. 14th and following days:

	Marks.		Marks.
Smith, H. E. H.	3390	Paterson, J.	2815
Alexander, G. F.	3290	Trask, J. B.	2800
Gore-Graham, W. P. ...	3210	Forbes, N. H.	2785
Woods, E. M.	3195	Freeman, B. C....	2755
Spong, C. S.	3140	Davoren, V. H. W.... ...	2730
Leishman, W. B.	3125	Copeland, R. J....	2720
Rawnsley, G. T....	3060	Blenkinsop, A. P.	2670
Thomson, J.	3040	Borrodaile, A. L.	2640
Reilly, C. W.	2990	Halloran, W.	2640
Crofton, W. J....	2895	Birt, T....	2630
Wright, A....	2880	Peeke, H. S.	2630
Luther, A. J.	2850	Smyth, R. H.	2630
Girvin, J.	2820		

INDIAN MEDICAL SERVICE.—The following is a list of candidates for appointments in this Service who were successful at the competitive examination recently held at

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Burlington House. Of the 73 candidates who competed for 28 appointments, 70 were reported qualified:—

	Marks.		Marks.
Meyer, C. H. L.	3435	Fisher, L. G.	2995
Elliot, W. H. W.	3340	Buchanan, A.	2970
Childe, L. F.	3320	Manifold, C. C.	2905
Clark, W. R.	3290	Jacob, A. H.	2900
Braide, G. F. W.	3270	Garvie, J.	2890
Murray, J.	3230	Jolliffe, A. R.	2880
Hailey, P. O. W.	3160	Crawford, F. J., M.D.	2770
Marks, E. J.	3150	McEvoy, W. G.	2760
Ker, M. A.	3100	Macleod, H. W. G.	2760
Barry, T. D. C.	3040	Robertson, R.	2750
Gilbert, C. E. L.	3040	Irvine, G. B.	2730
Vost, W.	3040	Moore, T. C.	2730
Herbert, H.	3035	Karney, W. H.	2720
Sunder, O. E.	3000	Simpson, D.	2720

SOCIETY OF APOTHECARIES.—The following gentlemen passed the examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise on the 24th ult.:—

Carver, Arthur Richard; Wenallt, Carmarthenshire.
Olding, Arnold Ebenezer, Lancaster Villas, Brighton.
Theobalds, Owen Le Marc, East Looe, Cornwall.

A DONATION of £5000 has been received by the committee of the Worcester Infirmary from an anonymous donor.

A CONCERT, which proved highly successful, was given on the 28th ult. by the Children's Orchestra on behalf of the Victoria Hospital for Sick Children.

A PUBLIC MEETING in aid of the funds of the East London Hospital for Children, Shadwell, is to be held in the Egyptian Hall of the Mansion House to-day (Friday), the Lord Mayor presiding.

A DRAMATIC PERFORMANCE, under distinguished patronage, in furtherance of the appeal on behalf of Guy's Hospital, will be given at the Novelty Theatre on the 21st prox.

THE first annual meeting of the members of the Medical Defence Union was held on the 23rd ult., when the report for the past twelve months was read. Mr. Lawson Tait was elected president for the current year.

CITY DISPENSARY.—The Lord Mayor presided at the ninety-eighth annual festival in connexion with this institution on the 24th ult. During the evening subscriptions amounting to nearly £400 were announced by the treasurer.

AT a recent meeting of the Buildings Committee of the Tynemouth Infirmary it was decided to erect a new building at a cost not exceeding £3000. The Duke of Northumberland has signified his intention of giving a site for the new hospital.

SUBURBAN SEWERAGE.—At a special meeting on the 28th ult., the Richmond vestry adopted a petition to the Local Government Board, asking that body to issue a provisional order forming a joint main sewerage board for the parishes of Richmond, Mortlake, Barnes, Kew, and Petersham.

THE annual banquet of the Newcastle Clinical Society took place recently, under the genial presidency of Dr. Oliver, while Mr. W. G. Black acted as a most efficient secretary. The entertainment left nothing to be desired, and will be long remembered by the Society and its numerous guests.

EPIDEMIC OF MEASLES AT STONYHURST COLLEGE.—Stonyhurst College is at present visited by an epidemic of measles of a very virulent type from which several deaths have occurred. The disease was introduced from Germany, and all possible precautions are being taken to confine the disease to its present limits.

ST. PANCRAS AND NORTHERN DISPENSARY.—The annual meeting of the governors of this institution, which was instituted in the year 1810, was held on the 1st inst. The report stated that 2558 cases were treated during the past year, as against 2076 during 1885. The treasurer's account showed there was a balance at the end of the year of £47 18*s.* 2*d.* only. From a letter read during the meeting it appeared that the present is the fiftieth year Her Majesty has bestowed her patronage on the institution.

BEQUEST.—The governors of the East Suffolk and Ipswich Hospital have been informed by the executors under the will of the late Alderman Booth that a legacy of £500, free of duty, is to be paid for the perpetual endowment of the Pembridge Cot in the children's wing of the hospital, with a request that the name be altered to the Booth Cot.

PATIENTS FOR M. PASTEUR.—Dr. Thursfield, medical officer of health for Shrewsbury, left London for Paris on the 2nd inst., accompanied by six patients who are suffering from the bites of a rabid dog. The inhabitants of the neighbourhood have liberally subscribed towards the necessary expenses of placing the sufferers under the treatment of M. Pasteur.

STANLEY HOSPITAL, LIVERPOOL.—At the annual meeting of the supporters of this institution on the 28th ult., it was reported that the total number of out-door patients who had been treated during the past year was 12,475, and of in-patients, 661. From the financial statement it appeared that the receipts amounted to £1730 and the expenditure to £2975, leaving a balance of £2767 now due to the bank.

THE KENSINGTON VESTRY BILL.—This Bill, the object of which is to enable the vestry to acquire land for the purpose of erecting thereon a dust destructor, has been approved by a select committee of the House of Commons. Two conditions have, however, been imposed—viz., first, that the dust should be destroyed immediately and not stored; and second, that a portion of the land to be acquired should be set apart as a public recreation-ground.

DEATH OF AN AGED SPANISH PRACTITIONER.—Don Rosendo Moreno y Valesco, a venerable Spanish practitioner residing in Logroño, who would have completed his hundredth year on Feb. 25th, has just died. Considerable preparations were being made for a public celebration of the day, no misgivings having been expressed as to the probability of Don Moreno living to see it, as up till quite recently he had been in good health and in actual practice.

NEW HOSPITAL FOR MADRID.—*El Siglo Médico* states that the plans of the new Hospital of San Juan de Dios, which is about to be erected by the corporation of Madrid, are most complete. The number of beds provided for is 644. The building is to be in ten pavilions constructed of brick and iron on the Tollet system, and separated from one another. It is expected that the building will not be completed for four years.

THE COLONIAL AND INTERNATIONAL CONGRESS ON INEBRIETY, organised by the council of the Society for the Study and Cure of Inebriety, and unavoidably postponed from 1886, will be held on Wednesday, July 6th, 1887, in the Westminster Town Hall, London, S.W. At the day sittings, after the president's opening address, papers on various phases of inebriety as a disease, and on legislation for inebriates, will be read. The hon. secretary is Mr. C. H. Bishop, 42, Grove-road, Regent's-park, N.W.

PROVIDENT SURGICAL APPLIANCE SOCIETY.—During the past year this Society has helped with instruments 4343 patients, making a total since its establishment of 40,611 who have been relieved. The receipts for the year amounted to £2273, and the expenditure to £2236. This is the first occasion since the formation of the Society, fifteen years ago, that the accounts have showed a balance in hand. The anniversary festival is to be held at Willis's Rooms on the 27th prox.

THE JUBILEE.—In connexion with the Queen's Jubilee in Belfast, it was stated at a meeting of the General Committee of the Belfast Royal Hospital, on the 28th ult., that one of the most pressing necessities in the town was the want of a hospital for consumptive patients, of whom there is a very large number, in consequence of the nature of the employment in which the operatives are engaged in the linen mills and factories. Mr. Foster Green offered to build a new wing to one of the local hospitals, and fit it up for consumptive patients, provided the town supplied a permanent endowment, which would be secured by a contribution of £15,000. Mr. Green will further provide £1500 of the latter amount.—At a meeting at Glasgow on the 28th ult. it was agreed to erect a hospital for the southern district of the city as a memorial of Her Majesty's Jubilee.

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At a public meeting held at Romford on the 21st ult. it was resolved to erect a cottage hospital in commemoration of the Jubilee. The Duke of Grafton has consented to preside at the festival dinner early in June next on behalf of the extension fund towards the completion of the new wing of the City Orthopædic Hospital, in commemoration of Her Majesty's Jubilee year.—Mr. Tharia Tapan, a well-known British Indian subject at Zanzibar, has announced his intention of celebrating the Queen's Jubilee in that town by giving a suitable building for a general hospital, open to all nationalities, and to endow it with £15,000, subject to the single condition that the building and endowment fund be placed under the protection of the British Government.

LIDDELL PROVIDENT DISPENSARY, JARROW.—At the annual meeting of this dispensary (erected in memory of Canon Liddell, and successfully conducted on the provident system), the medical officer reported that he had paid 4688 visits, and had 7468 consultations at the dispensary, where he had also dispensed 11,195 prescriptions. The financial statement was satisfactory, the institution being self-supporting; but these figures lead one to think that the success of the dispensary must be due to the untiring energy of the medical officer.

NEWCASTLE CHILDREN'S HOSPITAL.—The annual meeting of the Newcastle Children's Hospital has just been held, under the presidency of Sir Wm. G. Armstrong. The number of in-patients treated had been 161, as compared with 156 in 1885, and the number of out-patients had been 2660, as compared with 2483 in 1885, showing that the useful work of the institution had been steadily maintained. The total cost per head per letter for four weeks had been—for in-patients, £2 0*s.* 2*d.*, as compared with £2 12*s.* 11*d.* in 1885.

SCARBOROUGH SEA-BATHING INFIRMARY.—The annual meeting of supporters of this institution was held on the 28th ult., when, in their annual report, the committee congratulated the subscribers on the continued usefulness and success of the institution. During the past year 594 patients have been received, this number exceeding that of any previous year by 32. The expenditure for the year was £1519, showing an increase of £20, and the receipts, including a balance of £92 brought forward from 1885, amounted to £1737.

SHEFFIELD CHILDREN'S HOSPITAL. — The annual meeting of the governors and friends of this institution was held on the 25th ult., when it was reported that the number of individual out-patients during 1886 had been 3626, and that the number of in-patients had increased from 125 in 1885 to 142. The total receipts were £859, and the expenditure was £99 less than the income. It is proposed to erect a new wing in connexion with the hospital, the present accommodation for in-patients being inadequate to the demands made upon the charity.

ST. JOHN AMBULANCE ASSOCIATION.—The Streatham division of the Metropolitan police having undergone a course of instruction in "first aid to the injured," under Deputy Inspector-General M. Coates, R.N., have been examined by Mr. Steet, F.R.C.S., chief medical officer, General Post Office, with the result that the whole of the candidates (twenty-three in number) have been awarded certificates.—Lord Lyttelton presided last Monday at a meeting of the Great Western Railway employés at Paddington, when an address was given by Sir Vincent Barrington, deputy chairman of the above Association.

LONDON SANITARY PROTECTION ASSOCIATION.—The sixth annual meeting of the members of this Association was held on the 26th ult., under the presidency of Lord Chelmsford. The report for the year showed that the number of members was 1144. The number of houses inspected for the first time last year was 398, and the percentage classified as in a bad condition was 59, as against 55 for the previous five years. Suggestions were made for enlarging the operations of the Association by undertaking the inspection of a smaller class of house at a reduced fee, and also the supervision of new building estates on special terms.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.—The quarterly meeting of this Association was held at Bethlem Hospital on Wednesday, Feb. 23rd. The chair was taken by Dr. Savage. Dr. Baker exhibited a [illegible] of a crib bedstead, with a close top, as recently in use at Utica Asylum. Dr. Savage then introduced for discussion the question, "Whether there is ever sufficient reason for the use of strong clothing and side-arm dressings," which was followed by an interesting debate, in which Drs. Brushfield, Hayes, Newington, S. R. Philipps, Fox, Moody, and Hack Tuke took part. The proceedings concluded with a paper by Dr. Percy Smith, on the "Results of an Epidemic of Typhoid Fever in the Insane."

RABIES.—By an Order in Council, which came into operation on the 1st inst., and is to extend throughout England, Wales, and Scotland, the Privy Council have given special and enlarged powers to local authorities to make regulations for the muzzling of dogs; for the keeping of dogs under control; for the seizure and detention of stray dogs; and for the slaughter of dogs being at large and affected with or suspected of rabies, or having been exposed to the infection thereof. The new order extends not only to dogs, but also to cattle, sheep, and goats, and all other ruminating animals and swine, as well as to horses, asses, and mules.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN.—The annual general court of governors of this institution was held in the hospital, Waterloo-bridge-road, on the 28th ult., the Lord Mayor presiding. The number of in-patients treated during last year was 483, against 479 in 1885; out-patients 7195, against 6015; and suffering children visited at their homes, 417. The annual subscriptions were fully maintained, and the donations showed a slight increase. Still, the total income of the year fell short of that of the previous year by nearly £400, and the total deficit amounted to nearly £800. It was resolved to endeavour to raise a Jubilee fund of £1000 to free the hospital from debt.

Births, Marriages, and Deaths.

BIRTHS.

BOURKE.—On the 23rd ult., at York-crescent, Woolwich, the wife of Surgeon Ulick J. Bourke, Army Medical Staff, of a son.

BURN.—On the 23rd ult., at Richmond, Surrey, the wife of Stacey S. Burn, M.A., M.B.Oxon., of a son.

CLARKE.—On the 22nd ult., at Twickenham House, Middlesex, the wife of Richard Ashmore Clarke, L.R.C.S.I., of a daughter (stillborn).

GODSON.—On the 24th ult., the wife of Clement Godson, M.D., of a daughter.

HASLAM.—On the 24th ult., at Mecklenburgh square, the wife of W. D. Haslam, M.D., M.R.C.S., of a daughter.

HOPE.—On the 28th ult., at Curzon-street, Mayfair, the wife of William Hope, M.D., of a son.

SIMMONS.—On the 20th ult., at Bertram Lodge, Sandown, Isle of Wight, the wife of E. Walpole Simmons, M.B., M.R.C.S., of a daughter.

WHITCOMBE. — On the 26th ult., at Westerham, Kent, the wife of C. H. Whitcombe, L.F.P.S. Glas., L.S.A. (prematurely), of a daughter.

MARRIAGES.

BATTERSBY—BYRNE.—On the 22nd ult., at St. Peter's Church, Dublin, J. Carter Battersby, M.B., Surgeon, Army Medical Staff, to Frances Eliza, eldest daughter of John Alexander Byrne, Esq., Q.C., of Lower Leeson-street, Dublin.

GEORGE—DOWARD.—On the 17th inst., at the Parish Church, Tidenham, Gloucestershire, Hugh George, M.D., to Ellen Maud, third daughter of the late Alfred Doward, of Day House.

LUMPKIN—LEWIS.—On the 26th ult., at St. George's Cathedral, Freetown, Sierra Leone, West Africa, C. Jenkins Lumpkin, M.D., youngest son of the Hon. H. Lumpkin, deceased, to Carrie, only daughter of Wm. Lewis, Esq., sen., and sister of the Hon. Samuel Lewis, of the Middle Temple, Barrister-at-Law.

MOORE—BAKER.—On the 21st ult., at St. James' Church, Hereford, Henry Cecil Moore, M.R.C.S., L.S.A., to Henrietta Elizabeth, widow of Thomas Baker, of St. Albans.

SHADWELL—BOURNE.—On the 26th ult., at St. Stephen's Church, Shepherd's Bush, by the Rev. G. Collett, M.A., assisted by the Rev. A. Matthey, D.D., Harry Winstanley Shadwell, M.R.C.S., L.R.C.P.Lond., of Acton, to Mabel Constance Harriette, youngest daughter of the late Captain G. Lealy Bourne, R.N.

DEATHS.

DRUMMOND.—On the 28th ult., at his residence, Great Cumberland-place, very suddenly, James Drummond, M.D., late of Nice, aged 63.

PRICHARD. — On the 26th ult., at Norton Court, Gloucestershire, William G. Prichard, late Inspector-General of Hospitals, Madras, aged 73.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

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Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BARRY, EDWARD JOSEPH, M.D.Ed., M.R.C.S., has been appointed Honorary Medical Officer to the London Skin Hospital, Cranbourne-street, Leicester-square.

BRANSON, JOHN, L.R.C.S., M.R.C.P.Ed., has been appointed Medical Officer for the Rotherham District of the Rotherham Union.

CLARK, DONCAN MCCALLUM, L.F.P.S.Glas., L.R.C.P.Ed., has been appointed Medical Officer for the Auston District of the Worksop Union.

COLE, WILLIAM R. N., M.D., M.Ch. Queen's Univ. Irel., has been appointed Medical Officer for the Seventh District of the Bodmin Union.

COOKE, R. T. E. B., F.R.C.S.Ed., L.R.C.P.Ed., has been re-elected Honorary Medical Officer to the Scarborough Sea-Bathing Infirmary.

GRIFFIN, ALBERT WATSON, M.R.C.S., L.R.C.P.Ed., has been appointed Parochial Medical Officer for the Rotherfield District of the Uckfield Union, vice Matthew Mackintosh, M.R.C.S., L.S.A., deceased.

HACKETT, H. EUGENE, M.R.C.S., L.R.C.P.Lond., has been appointed Medical Officer for the Sixth District of the Chorlton Union.

JONES, JOHN T., M.R.C.S., L.S.A., has been appointed Medical Officer for the Laughton District of the Rotherham Union.

KING, C. GILROY, M.B., C.M.Glas., has been appointed Sanitary Medical Officer for the Parish of Eastwood, Glasgow, vice Walker, resigned.

LLEWELLYN, ERNEST G. T., L.F.P.S.Glas., M.R.C.S., has been appointed Medical Officer for the Sixth District of the South Molton Union.

LYTH, J. B., M.R.C.S., L.R.C.P.Ed., has been elected Honorary Surgeon to the Rotherham Hospital and Dispensary, vice Foote, deceased.

PENNY, FRANCIS, M.R.C.S., L.S.A., has been appointed House-Surgeon to the Doncaster Infirmary, vice Gelston, resigned.

POCOCK, WALTER, M.R.C.S., L.S.A., has been appointed Honorary Medical Officer to the London Skin Hospital, Cranbourne-street, Leicester-square.

POTTER, E. FURNISS, L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer to the Victoria Hospital for Sick Children, Hull, vice J. Southter, L.R.C.P.Lond., M.R.C.S., resigned.

SMITH, J. ANDERSON, M.B. Lond., M.R.C.S., has been appointed Resident Clinical Assistant at the Brompton Hospital for Consumption and Diseases of the Chest.

STARTIN, JAMES, M.R.C.S., has been elected Honorary Medical Officer to, and Lecturer at, the London Skin Hospital, Cranbourne-street, Leicester-square.

TAYLOR, JOHN W., M.D., M.R.C.S., has been re-elected Honorary Medical Officer to the Scarborough Sea-Bathing Infirmary.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

ASHTON UNDER-LYNE DISTRICT INFIRMARY.—House-Surgeon. Salary £80, with board and residence.

BOSCOMBE PROVIDENT INFIRMARY, Bournemouth.—Resident Medical Officer. Salary £80 per annum, with board, lodging, &c.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—Pathologist.

DERBYSHIRE GENERAL INFIRMARY, Derby.—House-Surgeon. Salary £100 for the first year, increasing £10 a year up to £150, with apartments, board, and washing.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Resident Clinical Assistant. Board and lodging, but no salary.

GLAMORGANSHIRE AND MONMOUTH INFIRMARY AND DISPENSARY, Cardiff.—Ophthalmic Surgeon.

HASTINGS, ST. LEONARDS, AND EAST SUSSEX HOSPITAL.—House-Surgeon. Salary £70 per annum, with board, lodging, and laundry expenses.

INFIRMARY FOR CONSUMPTION, Margaret-street, Cavendish-square, W.—A Physician in-Ordinary; three Visiting Physicians; and a Surgeon.

MALE LOCK HOSPITAL, Dean-street, Soho.—House-Surgeon. Salary £50 per annum, with board and lodging.

MITCHAM WORKHOUSE, Holborn Union.—Medical Officer. Salary £100 per annum.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen-square, Bloomsbury.—Laryngologist.

NORTH-WEST LONDON HOSPITAL, Kentish-town-road.—Assistant Physician.

NOTTINGHAM GENERAL HOSPITAL.—One Resident Surgical, and one Resident Medical, Assistant. Board, lodging, and washing, but no salary.

PARISH OF PUTNEY.—Medical Officer of Health. Salary £75 per annum, rising (subject to the order of the Board of Works for the Wandsworth District) by annual increments of £5 each to a maximum of £110 per annum.

UNIVERSITY OF GLASGOW.—Examiners in Medicine.

WESTERN DISPENSARY, Rochester-row, Westminster.—Resident Medical Officer. Salary 100 guineas per annum, with furnished rooms, coals, gas, and attendance.

Medical Diary for the ensuing Week.

Monday, March 7.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.

ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—8 P.M. Casual communications by Messrs. A. Winterbottom, F. Henri Weiss, T. Ackery, A. S. Underwood, C. Vincent Cotterell, and W. Harrison (Brighton). Dr. Dudley Buxton: Physiological Action of Nitrous Oxide Gas.

SOCIETY OF ARTS.—8 P.M. Mr. W. Y. Dent: Building Materials (Cantor Lecture).

MEDICAL SOCIETY OF LONDON.—8.30 P.M. General Meeting for Election of Officers and Council.—Mr. Marmaduke Sheild: On a case of Perforation of Femoral Artery and Vein by Ulceration; Ligature of both Vessels.

Tuesday, March 8.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 1.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.

ROYAL INSTITUTION.—3 P.M. Prof. Gamgee: Function of Respiration.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Dr. Mac Alister: The Nature of Fever (Gulstonian Lecture).

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Dr. Debout d'Estrées: On Gouty Parotitis and Gouty Orchitis (communicated by Dr. Garrod).—Dr. W. Bwart and Mr. R. F. Benham: Case of Empyema with Pulmonary Gangrene following Enteric Fever, treated by Perfiation.

Wednesday, March 9.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M.; Saturday, same hour.

SOCIETY OF ARTS.—8 P.M. Mr. William P. Marshall: Railway Brakes.

EPIDEMIOLOGICAL SOCIETY OF LONDON.—8 P.M. Dr. S. Mackenzie (for Dr. W. Myers): Filaria Sanguinis Hominis in South Formosa.

HUNTERIAN SOCIETY.—8 P.M. Dr. Horrocks: Cases of Uterine Tumour accompanied by Pyrexia.—Dr. Turner: Actinomycosis.

ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Mr. G. Massee: On the Differentiation of Tissues in Fungi.—Dr. H. J. Johnston-Lavis and Dr. G. C. J. Vosmaer: On Section-cutting of Sponges, &c.

BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Exhibition of Specimens. Dr. Purcell: On Three cases of Vaginal Hysterectomy.

Thursday, March 10.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Mr. Edmund Gosse: The Critics of the Age of Anne.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Dr. Mac Alister: The Nature of Fever (Gulstonian Lecture).

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8.30 P.M. Living and Card Specimens at 8 P.M.:—Dr. C. B. Beevor: Ophthalmoplegia Externa without any other symptoms.—Dr. Sidney Phillips (introduced): Case of Peculiar Associated Movement of Upper Lid.—Mr. Brudenell Carter: (1) Case of Large Spontaneous Hæmorrhage into the Vitreous in a young man; (2) Painting executed by an artist after Cataract Extraction.—Mr. J. G. Mackinlay: Paralysis of both External Recti.—Mr. Karop (introduced): Fibroid Degeneration of Ciliary Muscle.—Mr. Marcus Gunn: Pupillary Movement in Association with Lateral Deviation of Eyeballs. Papers:—Dr. Brailey and Mr. Hartley: Tubercular Disease of Choroid.—Mr. Simeon Snell: Treatment in Sclerotic Wounds.—Dr. Gowers: On Conjugate Ocular Palsy with Nystagmus.—Mr. Jessop: Sudden and Lasting Lateral Nystagmus.—Mr. Nettleship: Night-blindness with Peculiar Retinal Changes.

Friday, March 11.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

CLINICAL SOCIETY OF LONDON.—8.30 P.M. Dr. de Havilland Hall: On Pneumothorax occurring in Persons apparently Healthy.—Mr. Hve: On a case of Intra-peritoneal Excision of the Rectum, with recovery.—Mr. Keetley: A case of Scoliosis.—Mr. Davies-Colley: A case of Contraction of the Metatarso-phalangeal Joint of the Great Toe.

ROYAL INSTITUTION.—9 P.M. Archdeacon Farrar: Society in the 4th Century A.D.

Saturday, March 12.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. The Rt. Hon. Lord Rayleigh: On Sound.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, March 3rd, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Feb. 25	30·06	W.	49	47	...	53	47	...	Fine
,, 26	30·52	S.E.	38	36	...	53	34	...	Foggy
,, 27	30·59	S.E.	44	40	...	50	35	...	Hazy
,, 28	30·58	S.E.	35	34	...	53	31	...	Foggy
Mar. 1	30·57	W.	36	36	...	39	34	...	Foggy
,, 2	30·65	W.	32	32	...	46	30	...	Foggy
,, 3	30·60	W.	37	35	...	43	31	...	Foggy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

THE SCHOOL OF SALERNO.

E. C. (Glasgow).—The important place held by this seat of learning in the annals of the healing art could not be better stated than in the words of Dr. Salvatore De Renzi, the distinguished physician and scholar of Naples, whose "Collectio Salernitana" (Naples, five vols. 8vo, 1852–59) is a monument of industry and judgment. "The School of Salerno," he says in his introduction, "has laid the whole world of medicine under heavy obligations. First and greatest among its services, it has preserved the tradition of the Græco-Latin medicine in disorganised and calamitous times, during which the antique civilisation had fallen under the brutal sway of nomadic invaders, and science and literature had sunk into oblivion. Secondly, it reared the first Christian institution in the West when the sciences, having become Mahometan, were constrained to seek shelter under the ægis of the enemies most fatal to them. Thirdly, it laid deep the foundations of modern universities, reconstituting medicine as a part of the whole civil order, and establishing public hygiene on new and solid bases. Fourthly, it enriched by special contributions the scientific heritage bequeathed by our forefathers. Fifthly, it was the source and centre whence instruction in the healing art was diffused over all Europe, so contributing to evoke the scientific renaissance. Sixthly and finally, it fulfilled a noble mission of the Italian people—that of making themselves the custodians of the intellectual palladium, and preserving for them the glory of endowing the world a second time with civilisation." Dr. De Renzi's argument, it will be seen, is pitched high; but we have only to peruse faithfully the documents he has put together, with the aid of the German Henschel and the French Daremberg, to justify, and even to share, his enthusiasm.

Country Assistant asks if someone will suggest the microscopical specimens necessary for the Triple Edinburgh, also where they can be procured.

RAYNAUD'S DISEASE IN ADULT LIFE.

To the Editors of THE LANCET.

SIRS,—In your issue of Jan. 29th Dr. Seymour Taylor describes a case of Raynaud's disease in an adult female, which he states is exceptional. Last year I had a case in a woman aged fifty-six. She is still under my observation. Should Dr. Seymour Taylor wish for any particulars of the case, I shall be very pleased to give them if he will communicate with me.

I am, Sirs, yours faithfully,

Haverhill, Essex, Feb. 26th, 1887. B. L. TANDY.

CREMATION.

THIS method of disposing of the dead finds no favour from the Roman Catholic Church, which has recently denounced it in prose and verse. Monsignor Giovannini, theological canon of the arch-diocese of Bologna, has published a special treatise against it, and the treatise, in turn, forms the subject of the following epigram from the pen of Prof. D. Vincenzo Tavozzi:—

"Quam scite ustrinum damnas, et sacra sepulcri,
Digna vel humano pectore, jura tenes.
Ut tua scripta amet indoctus doctusque, Leonis
Jussaque Pontificis firmius usque probet."

("So wisely 'gainst cremation you defend
Man's sacred right to sepulture, that all—
Learn'd and unlearn'd alike—your work extol,
And keep Pope Leo's mandates to the end.")

Professor Tavozzi has more than metrical reasons for using the word *ustrinum*, instead of the modern and needless coinage *crematorium*. On the other hand, his *tuâ scripta* (the short vowel before *sc*) is a collocation which "ought never to be introduced into modern Latin poetry" (Ramsay's Latin Prosody, p. 280).

Mr. Reginald Pollard.—The announcement appeared in our issue of the 12th ult.

THE VOLUNTEER MEDICAL SERVICE IN PEACE AND WAR.

To the Editors of THE LANCET.

SIRS,—I quite agree with the substance of the remarks in your issue of February 19th by Dr. W. P. Mears on this subject. I must state, however, that in connexion with the 1st Volunteer Battalion Royal Warwickshire Regiment the physical fitness of recruits is insisted upon before enrolment, the medical officers attending every week, when recruits present themselves, who are subjected to a rigid medical examination on army lines, to the number of about 300 each year. This system has now been in vogue about three years, and has resulted in a marked improvement in the physique of the men. I may also mention that we are invariably consulted on sanitary and other medico-military matters, although, as Dr. Mears states, these matters are not insisted on by the War Office authorities, and are simply the result of good feeling between the combatant and medical officers. We have also a well-drilled department of regimental bearers (two per company), and our own ambulance-waggon (Mark 3), and stores—as stretchers, water-bottles, haversacks, &c. This work is, I am glad to say, being taken up by many other battalions in the Midlands, mainly owing to the Midland Volunteer Medical Association, which has been formed for that purpose, and in connexion with which an annual field-day is held at one of the regimental camps. I think that such an association in other centres would have a very good effect in developing an interest in ambulance work. In conclusion, I quite endorse the opinion of Dr. Mears that many of us are deterred from attending schools of instruction, and passing the necessary examinations, by the fact that we do not receive pay. The expenses, which are already much heavier than those of combatant officers attending schools, are rendered deterrent in consequence of the additional strain involved.

I remain, Sirs, your obedient servant,

EDWARD L. FREER,
Acting Surgeon, 1st Vol. Batt. Royal Warwickshire Regt.,
Hon. Sec., Midland Vol. Medical Association.

Birmingham, Feb. 21st, 1887.

SPONTANEOUS DISAPPEARANCE OF A TUMOUR IN THE PAROTID REGION.

To the Editors of THE LANCET.

SIRS,—In an article on "Surgical Mishaps" by Mr. T. Pridgin Teale, in your issue of January 1st, mention is made of the disappearance of a tumour in the parotid region after ineffectual attempts to remove it. In November, 1885, I operated with the intention of removing a tumour the size of a walnut from the parotid region, on a child three years of age. It had been growing a year, and latterly very fast, was elastic and quite movable. On cutting down I found it had no capsule, and was very adherent to the muscles and fascia. I made a second incision backward towards the mastoid, and attempted to enucleate it, but the deep attachments were so firm and the bleeding so free, that I was forced to desist, after ligating a number of vessels on both posterior and anterior sides of tumour. The wound healed promptly, and I saw no more of the case until October, 1886, when I was called to see another member of the family. On asking for the child, the mother informed me that about two months after the operation she noticed that the lump was smaller, that it continued to decrease, until at that date no trace of it remained except the operation scars. I attributed its disappearance to the cutting off of the blood-supply.—I am, Sirs, your faithfully,

Fredericton, N.B., Canada. G. H. COBURN, M.D.

PARALDEHYDE.

To the Editors of THE LANCET.

SIRS,—Will any of your many readers who may have prescribed paraldehyde kindly give their experiences of its effects?

I am, Sirs, yours truly,

March 2nd, 1887. SUBSCRIBER.

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THE MEDICAL PROFESSION AND LIFE ASSURANCE OFFICES.

DR. THURSFIELD presents his compliments to the Editors of THE LANCET, and asks for the insertion in that journal of the enclosed circular and the correspondence in connexion therewith, as it is of importance to life assurance offices as well as to the profession.

"National Life Assurance Society,
"2, King William-st., E.C., Feb. 14th, 1887.

"Dear Sir,—My directors have found it necessary to reconsider the scale of fees for medical examination of lives proposed for insurance, as many cases, after examination, are not completed, and the fee of 21*s.* is a very heavy charge upon the small assurances, even when they are completed; and the following scale has been adopted:—For assurances under £500, a fee of 10*s.* 6*d.*; of £500 and upwards, 21*s.*; when the premiums are payable monthly, a fee of 10*s.* in each case, except when the monthly premium is under 10*s.*, when the fee will be 5*s.* My directors believe that these are the fees usually paid in such cases, and I shall be glad to hear whether you are willing to accept them.

"I am, dear Sir, yours faithfully,
"Dr. W. Thursfield." "H. J. PUCKLE, Manager and Secretary.

"39, High-street, Bridgnorth, Feb. 16th, 1887.

"Dear Sir,—Your directors may have good reasons for reconsidering the scale of fees for medical examinations; but when they ask the profession to adopt their scheme, I would ask, Are they prepared to reduce the number of questions at each examination in proportion to the reduction in fees; or do they expect us to answer for 5*s.* what formerly they were willing to pay a guinea for? And will they issue a sliding scale in the ascendant, and pay a guinea for each £1000 insured for? When they deal thus with the profession they may expect us to acquiesce in the arrangement; not otherwise. To my mind, the amount insured for has, and should have, nothing to do with the medical referee. He has simply to do his duty by examining the person to be insured, and it takes him as long, and gives as much trouble (and very often offence), to do it for £100 as for £5000. As this matter is of importance to the profession, I am sending your circular and my reply to THE LANCET for insertion. "I am, dear Sir, sincerely yours,
"H. J. Puckle, Esq." "W. THURSFIELD, M.D.

"National Life Assurance Society,
"2, King William-st., E.C., Feb. 17th, 1887.

"Dear Sir,—I have received your letter of the 16th inst., and have had an opportunity of submitting it to the President of this Society, who expresses his surprise that you should think of sending our circular and your reply to THE LANCET without consulting us. In answer to your inquiry, I beg leave to state that we do *not* expect you to answer for 5*s.* what formerly we were willing to pay a guinea for. My directors have recently decided to grant assurances at monthly premiums, with a view to making the payments easier for those to whom the payment of yearly premiums would be inconvenient. The average amount of these assurances will probably be considerably smaller than in the case of assurances at annual premiums, and for them a simplified form of medical examiner's report has been specially drawn up. Of this I enclose you a copy. I think it is obvious on very slight consideraton that an office cannot possibly afford to pay guinea fees for business of that description. With regard to the further question as to a sliding scale, I do not think that there will be any objection to paying a guinea for each £1000 assured—that is to say, taking the large and small cases together, we should, I think, be prepared to pay at the rate of a guinea per £1000 at quarterly or half-yearly intervals, as may be arranged. If you have sent our circular and your reply to THE LANCET, you will probably see the propriety of sending this letter also for publication.

"I am, dear Sir, yours faithfully,
"H. J. PUCKLE, Manager and Secretary.
"W. Thursfield, Esq., M.D."

"39, High-street, Bridgnorth, Feb. 18th, 1887.

"Dear Sir,—Unsolicited you sent me on the 16th inst. a printed circular, which your directors had authorised you to do. It was, I suppose, sent to others as well as me. It was not marked "private and confidential"; and as it was important to the profession, I deemed it worthy of discussion in the medical press. Hence my action. I cannot see what cause of complaint you have against me for doing so. Publicity in such matters is good for all. It is a pity you did not enclose with your circular what you call the "simplified form of medical examiner's report" (for 5*s.*). Why when sending it yesterday did you omit to send the guinea report for comparison? The one you sent is pretty exhaustive for the money, including, as it does, urine testing and personal examination inside and out. I do not think you will find medical examiners enamoured with your plan of paying ascending fees in dribblets, quarterly or half-yearly. I contend for a guinea in all cases, the amount of assurance having nothing to do with the duties of the examiner. I will, as you wish, forward this correspondence to THE LANCET.

"I am, dear Sir, sincerely yours,
"H. J. Puckle, Esq." W. THURSFIELD, M.D.

"THE STABILITY OF THE EARTH."

THE recent frightful convulsion in the South of Europe renders an article with the above title, by Professor N. S. Shaler, published in *Scribner's Magazine* for March, peculiarly interesting and opportune. The writer describes the causes, distribution, and effects of earthquakes and cognate phenomena, and offers suggestions as to the best methods of preparing for them and avoiding the perils they occasion. The article is illustrated by several excellent engravings.

NIGHTMARE.

To the Editors of THE LANCET.

SIRS,—I would suggest to "M.D." that he have his heart and aorta carefully examined by some experienced friend; and, if he be a smoker I should advise him to give up tobacco altogether.

I am, Sirs, yours faithfully,
February, 1887. T. B.

VIVISECTION.

Physiologus.—Whether, or to what extent, vivisection is justifiable forms a theme of discussion as old as medical history. Celsus drew the line at the anatomy of the living (human) subject, and condemned as "crudele et supervacuum" the dissections performed by Herophilus and Erasistratus on live criminals who were handed over to them by reigning monarchs for the purposes of science. The wounds inflicted on gladiators in the arena, on soldiers in the field of battle, on travellers at the hands of highwaymen, sometimes exposed the internal parts, and the anatomist (he held) was quite warranted in making the most of such opportunities. On the other hand, the "Father of Inductive Research" says, in Book iv. of the "De Augmentis": "It is no less true (as was antiently noted) that many of the more subtle passages, pores, and pertusions appear not in anatomical dissections, because they are shut and latent in dead bodies, though they be open and manifest in live. Wherefore, that utility may be considered as well as humanity, the anatomy of the living subject is not to be relinquished altogether, nor referred (as it was by Celsus) to the casual practices of surgery; since it may be well discharged by the dissection of beasts alive, which, notwithstanding the dissimilitude of their parts to human, may, with the help of a little judgment, sufficiently satisfy this inquiry." Bacon's latest and best editor, Mr. Robert Leslie Ellis, in giving a guarded opinion on this passage, omits to notice that it was written before the discovery and application of anæsthetics.

Mr. W. K. Gould.—The specimen of the valuable powdered root might be submitted for experimentation, say, to Prof. Fraser, or Dr. Ringer, or Mr. Victor Horsley, if it is desired to have its efficacy tested in hydrophobia.

Mr. G. Steel Scott, M.B.—Our correspondent must be guided by the advice of his solicitor.

FRACTURE OF THE THIGH DURING PARTURITION.

To the Editors of THE LANCET.

SIRS,—Three weeks ago I attended J. C—— in her fifth confinement. It was a natural vertex labour in first position. After the birth of the head I had only just time to tell her to take it easy till another pain came, when the shoulders and body followed. As they were coming I heard a snap, which, had she been a primipara, I should have put down to rupture of the perineum. The true cause was at once evident in the fracture of the left thigh. I was naturally rather dismayed at the probable difficulties of treatment, fearing that I should soon have a broken skin in addition to the broken thigh, and not knowing at all how to set about keeping the latter quiet. However, after a little consideration, it struck me that the most natural position would be that which had been in utero—doubled up on the abdomen. I therefore put a turn of Gamgee tissue round the thigh, and two or three turns of soft bandage round that; then, after dressing the stump of the cord and confining that in a belly-band as usual, I procured another belly-band broad enough to reach from the lower part of the abdomen to the middle of the thorax, cut a hole in the centre of it large enough to slip the foot and lower leg through, and by this means bound the thigh pretty securely against the abdominal wall, the foot and leg below the knee hanging out of the middle of this second belly-band. Besides this, I further controlled the movement of the lower leg by telling the nurse always to confine it entirely inside the ordinary napkin. The dressing has been entirely changed every other day only, and there is now considerable firmness of the broken bone, with very good position, though, of course, a good deal of thickening. The skin has been kept sound, which I think would hardly have been the case had any stiff material been used as a splint.

I should be obliged if any of your readers would comment on the case as to the probable cause of the fracture. The only thing that struck me about the birth was the very marked and very quick rotation of the face to the mother's right thigh after the escape of the head. The child thrives, and seems quite healthy. I am, Sirs, yours faithfully,
Feb. 28th, 1887. Æ.

Mr. T. Laffan.—The correspondence is printed in the Minutes of the General Medical Council. We regret our inability to reproduce it in our columns.

M.D. (*Erlangen*) is referred to our advertising columns.

MR. ASH'S METHOD OF SEWER VENTILATION.

To the Editors of THE LANCET.

SIRS,—Accept my sincere thanks for the article in your valuable and highly esteemed journal on my invention for sewer ventilation. At the same time I beg to point out to your notice a slight mistake in the wording that may give to the general public a very wrong conception, as you will readily perceive. In my specification I claim (1) the method or system of ventilating by means of the ignition and explosion of gas or other suitable substance or compound producing an explosion at certain intervals and at determined points or situations in the structures to be ventilated, and (2) the construction of an apparatus where coal-gas can be applied to produce explosions. The man-holes are generally placed where it would be impossible to have explosions.

I am, Sirs, your obedient servant,
Monaco, Feb. 18th, 1887. ROBERT S. ASH.

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THE ANCOATS HOSPITAL.

Mr. E. Stanmore Bishop, F.R.C.S., referring to a note in our last issue by our Manchester correspondent on the Ancoats Hospital, states that there has never been the slightest wish on the part of the governors of that institution to trespass upon the domain of the Children's Hospital, or interfere with the work so well done by it. What it is desired and intended to do is to develop its resources as a general hospital in a district which, perhaps more than any other, requires one; and this object will be effected by obtaining a women's ward for medical cases, so that they need no longer be treated with the surgical ones, and the constant demand for women's beds may be fairly met.

"OBSTINATE CONSTIPATION IN AN INFANT."

To the Editors of THE LANCET.

SIRS,—I can fully bear out the statements of Dr. Lucas as to the efficacy of massage in the treatment of constipation in infants. It is a most potent and reliable remedy. I have at present an infant under my care that has suffered from constipation since its birth, seven weeks ago. During that time there had not been a single natural motion, and enemata had to be resorted to, sometimes twice daily. The usual medicines were tried as well, but with very indifferent results. About a fortnight ago these remedies were altogether discarded, and massage resorted to. In less than a week the infant was quite cured of the constipation, and, in fact, erred in the opposite way. The motions also lost their very offensive character, and became quite natural. I lay particular stress on the mode in which the "rubbing" should be done, and am inclined to think that it may prove a source of danger in untrained hands. I am, Sirs, yours faithfully,

Ben Rhydding, March 1st, 1887. T. GERALD GARRY, M.D., M.Ch.

To the Editors of THE LANCET.

SIRS,—In reply to your correspondent, "O. P. Q.," in your issue of Jan. 29th, I would advise him to try simple wheat bran for the constipation. This is a very simple remedy, but in my hands it has done more than any drug or combination of drugs that I have ever tried. It is becoming quite a popular remedy for habitual constipation in the United States. I am afraid your readers may treat it as one of old treated the instructions to wash seven times in the river Jordan; but I can assure them that if they try it they will be well repaid in the results. For an adult I usually direct a tablespoonful to be taken in milk or water at bedtime. If necessary, it may be taken twice or three times during the day. I would recommend your correspondent to give a teaspoonful twice or three times a day, in any way possible to get the child to take it. I am, Sirs, yours faithfully,

Lincoln, Neb., U.S.A., Feb. 14th, 1887. G. H. SIMMONS, M.D.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Julius Pollock, London; Dr. W. C. Maclean, Southampton; Dr. Donald Mac Alister, Cambridge; Mr. J. Hutchinson, London; Mr. Lawson Tait, Birmingham; Dr. Churton, Leeds; Mr. Godlee, London; Dr. H. Blanc, Cannes; Dr. Mansell-Moullin, London; Mr. Clement Lucas, London; Mr. Wainwright, London; Dr. Jos. Rogers, London; Mr. D. Miller, London; Dr. Hambleton, London; Mr. G. S. Scott, Halifax; Mr. C. L. Peel, London; Dr. J. Murphy, Sunderland; Mr. Harrison Cripps, London; Dr. Childs-Macdonald, London; Messrs. Hertz and Collingwood, London; Mr. J. G. Brown, Sunderland; Dr. Higham Hill, London; Dr. G. H. Simmons, Lincoln, Neb.; Dr. Jos. Jones, New Orleans; Mr. Rideal, London; Mr. W. Weiss, London; Mr. Charles Gross, London; Mr. W. K. Gould, Manchester; Messrs. Burroughs and Wellcome, London; Mr. Braddon, Upton-on-Severn; Messrs. Oliver and Boyd, London; Dr. Cochrane, Skye; Mr. Cook; Messrs. Christy and Co., London; Mr. G. Geddes, Glasgow; Messrs. Bradshaw and Son, London; Dr. W. Squire, London; Mr. T. Laffan; Messrs. Ingram and Royle, London; Mrs. Spillman, Melbourne; Messrs. Street and Co., London; Mr. J. P. Maynard, Newcastle-on-Tyne; Dr. Woodman, Exeter; Mr. H. E. Armstrong, Newcastle-on-Tyne; Mr. Benthall, Southsea; Mr. Jessett, London; Mr. Hooper, London; Mr. Griffiths, Chester; Mr. Maguire, London; Dr. H. Barnes, Carlisle; Dr. Ralph, London; Dr. Rayner, Hanwell; Mr. Martin, Purton; Miss Chrehman, West Kensington; Mr. Hinde, Wolverhampton; Messrs. Cassell and Co., London; Mr. Furneaux, Forest Hill; Messrs. Wright and Co., Birmingham; Mr. Smith, Westgate-on-Sea; Messrs. Robertson and Scott, Edinburgh; Mr. Milne, Ladywell; Mrs. Belton, Hyde-park; Mr. Gibson, Bromley; Mr. Porter, Leven; Mr. Lace, Hemel Hempstead; Mrs. Maitland, London; Mr. Gurner, London; Mr. Peet, London; Mr. Birchall, Liverpool; Dr. Fulton, Toronto; Mr. Belson, London; Mr. East, London; Mr. Wadham, Farnham; Mr. Bridgman Smith, Westgate; Mr. T. Birkett, Weston-super-Mare; Mr. Harley Gough, Wolverhampton; Dr. F. W. Bennett, Leicester; Dr. Henry Ashby, Manchester; Mr. E. S. Bishop, Manchester; Dr. Garry, Ben Rhydding; Mr. Fuge, Taunton; Mr. Clifford, London; Mr. Tandy, Haverhill; Mr. F. C. Turner, London; Dr. Rorie, Dundee; Surgeon-Major Alcock, Dublin; Mr. Nelson; Mr. Scrimshaw, Holt; Mr. Gant, Hastings; Mr. Lawrie, London; Mr. Davies, London; Messrs. Brown and Co., London; Mr. Arrowsmith, Bristol; Mr. Shaw, Willington-on-Tyne; Mr. Armstrong, Manchester; Mr. Kalkuhl, Bonn; Mr. S. Smith, London; Dr. Tetley, Keighley; Dr. Fitzgerald, Folkestone; Mr. Townsend, Exeter; Mr. Bond, Nottingham; Mr. James, Forest Gate; Mr. Thornton; Mr. B. B. Joll, Liverpool; M.D., Erlangen; M.D. (Newport, Mon.); F.R.C.S., Bushey; A. B. Brockley; Country Assistant; Theta; R. C., Bayswater; X. Y., Newcastle-on-Tyne; Lady Superintendent; Justitia; Medicus, Highbury; Subscriber.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Woakes, London; Mr. Monk, London; Mr. Myles, Forfar; Dr. Morgan, Ebbw Vale; Mr. Allden, Southampton; Mr. Porter; Messrs. Butterfield and Son, Northampton; Mr. Bloomfield, Manchester; Messrs. Hooper and Batty, London; Mr. Cornish, Manchester; Dr. Bramshaw, West Appledore; Mr. Wooler, Heanor; Dr. Lumpkin, Lagos; Messrs. Beale and Son, Brighton; Mr. Phillips, Stourbridge; Mr. James, Forest Gate; Mr. Mawson, Bradford; Mr. Moring, London; Messrs. Ford and Co., London; Mr. Wier, Manchester; Mr. Hughes, Birkenhead; Mr. Guest, Darlington; Mr. Nickel, Bromyard; Messrs. Wright and Co., Bristol; Dr. Stanley, Graham's Town; Mr. Haigh, Chipping Norton; Mr. Austin, Glasgow; Mr. Richards, London; Mr. Stock, Bristol; Mr. Williams, Truro; Mr. Affleck, Manchester; Mr. Marsh, Hindley; Mr. Whittaker, Derby; Mr. Blakeley, Preston; Mr. Jones, Hull; Mr. Davies, Manchester; Miss Ruffey, Kettering; Mr. Mason, Highbury; Mr. Loverock, Cavan; Dr. Purcell, London; Mr. Flower, Melksham; Mr. Davis, Bewdley; Dr. Eberle, Thirsk; Messrs. Blake and Co., Leeds; Dr. Roberts, London; Mr. Rhydial; Mr. Armstrong, Ryde; Mr. Jenkins, Newport; Mrs. Nelson, Bayswater; Mr. Dickson, Whitehaven; Dr. Days, Llandrindod; Mr. Sidebottom, Stockport; G.; Graduate, Ventnor; Surgeon X.; Matron, Windsor; Catholic Practice; Sigma; W. H. V.; H. B.; M.D., Bournemouth; Medicus, Street; A. B. C., St. John's; Epsilon; Yorkshire; Epsilon, Newcastle-on-Tyne; Sarsfield, Limerick; J. W., Blackburn; X. Y. Z.; Medicus, Chesterton; P. A. M., Grimsby; S. P.; Medicus, Belgravia; Alpha, Stamford; X., Preston; Aqua; Cymro; Medicus, Brighton; Box, Hythe; T. M. G., Birmingham; T. C.; Junius; Surgeon, Bootle.

Leeds Evening Express, Zoophilist, Doctor, Isle of Wight County Press, Essex Weekly News, Advocate of India, Scottish News, Hour Glass, Philanthropist, &c., have been received.

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Gulstonian Lectures
ON THE
NATURE OF FEVER.

Delivered at the Royal College of Physicians,

BY D. MACALISTER, M.A., M.D., F.R.C.P.,
PHYSICIAN TO ADDENBROOKE'S HOSPITAL, LECTURER IN MEDICINE AT THE UNIVERSITY OF CAMBRIDGE.

LECTURE I.

MR. PRESIDENT AND GENTLEMEN,—I have at the outset to acknowledge the goodwill of our much-esteemed President, which led him to invite me, one of the four junior Fellows of the College, to assume the exacting office of Gulstonian lecturer. The distinction of the audience to be addressed, and the high standard of excellence upheld by previous lecturers, make the office exacting indeed. Had I not understood that the invitation to undertake it had in it something Royal, and was almost a command, I would have shrunk from inflicting my crude reflections and my profound inexperience on your practised ears. But when I considered that you would probably not look for maturity or experience from one who is literally a junior Fellow in every sense, when I was assured that your tolerance of youthful effort was large and kindly, I took heart and ventured to announce this course of lectures. Fortunately for me, a wide latitude in the choice of a subject and in the manner of treating it has hitherto been permitted. My term of practice has been far too short to enable me to offer you any generalisation based on extensive clinical work or on ripe knowledge of human nature, such as has in late years delighted and instructed you. My aim must perforce be humbler. I must be content with attempting to coördinate certain recent advances in our knowledge concerning a department of pure pathology, and with suggesting to you certain lines along which it is possible that further advances may be made.

My subject is the Nature of Fever, and though I did not choose it light-heartedly, it was only when I came to set down my ideas upon it that I fully appreciated all its difficulty. Still, inasmuch as for the last five or six years it has never been long absent from my thoughts, and as its problems, physical and physiological, have constantly exercised me, I may be pardoned if I venture to discourse on a subject in one aspect so familiar and fundamental, in another aspect so little understood. Our knowledge of the clinical aspect of fever is now singularly full. I can add little or nothing on this side. But that the intimate nature of the febrile process—its morbid physiology, so to speak—is not understood, we have sufficient evidence in the diverse and contradictory explanations offered in our medical text-books. From time to time, and chiefly at present from the Continent, we are receiving fragmentary solutions of some of the outstanding questions that present themselves to the investigator of fever. These often come from workers who have no thought of the pathological problem they are unwittingly helping to solve. They appear under various guises and in many journals. The busy physician cannot hope to notice them all, or to recognise their bearing on his needs. He may therefore welcome an attempt to bring together their results, which are apt to be buried under a mass of experimental detail, and to appraise their value as contributions to the general subject. My literary work for some years has obliged me to survey much of recent pathological literature, and it is on that ground only that I can hope to offer you some matters for consideration that are perhaps not known to all. That much of what I have to say is already familiar to some of my audience is certain. If I say it notwithstanding, it is because I wish to be clear and complete rather than original.

In the first place it is necessary to state what I mean by *fever*. I need hardly say that I do not refer to the specific infective diseases grouped together as the "eruptive" or "continued" fevers. I speak of the condition of feverishness or pyrexia which is common to these diseases and to many others—the disordered inward condition of the body heat, whose frequent and most manifest outward sign is high temperature. It is of course true that the term "fever" conveys to our mind a more complex notion—it implies, in general, disorder of the circulation and the respiration, of secretion and digestion, of the nervous system and the muscular system, as well as of the body heat. But without saying, as some *have* said, that all the other disorders of function which we describe as febrile are merely consequences of the disorder of temperature, I shall not be going too far if I state at the outset that the *essential* fact in fever—the condition which is always present whether other of its symptoms are present or absent—is disorder of the body heat. In using the word "essential" rather than "primary," I wish to avoid the pre-judgment suggested by the latter. Other conditions may precede in time or in causation the essential symptom of disordered heat, and according to the confidence or the refinement of our analysis we may term one or another of them primary, but not until the essential symptom is present have we to do with fever. We have a like state of things in the case of *inflammation*. The single word covers a whole series of processes; each process is a complex of many elements. It implies changes textural and changes vascular, changes nervous and changes mechanical. And in the gradual development of pathological knowledge now one and now another of these has been regarded as *primary*. But to-day we are justified in holding, for the reasons so admirably set forth by your Lumleian lecturer in 1882, that alteration or damage of the minuter bloodvessels is the *essential* condition, without which there is no inflammation.

Disorder of the body heat, then, is the essential condition of fever. To understand the nature of fever we must examine the nature of this disorder. But first it is necessary to consider the natural ordering of the body heat, the healthy function of which pyrexia is a disturbance. The constancy of the temperature of the body in health, under widely varying internal and external conditions, is a fact so familiar that we have ceased to wonder at it. Yet it rests on a perpetual balance of opposing tendencies which is as mysterious and as beautiful as anything in our frame. As a mere question of physics, the maintenance of a constant temperature by a body plunged in a cooler and variable medium like the air involves three coöperant factors. There must be a source whence heat is produced, whether at a uniform or at a variable rate. There must be processes by which heat is discharged from the body or transformed within it. There must be a mechanism by which the heat production and the heat loss are balanced at the normal height. This mechanism must be in relation on the one hand with the processes of heat production, and on the other hand with those of heat loss. And its relations with these must be so intimate that within limits the balance it maintains shall be not only steady, but *stable*. In other words, small deviations from the normal temperature in either direction must call into play thermal tendencies whose resultant is back towards the normal. Increased loss must be promptly compensated by increased production, and increased production met by increased loss. This *stability* is to be distinguished from the property of mere steadiness or constancy, though, of course, the two are connected. In health, as we all know, there are daily fluctuations of a regular kind, and these must be borne in mind when we speak of the temperature of the body as constant. The constancy, so far, is imperfect. But in health the stability of the temperature is nearly perfect. A very short time suffices to overcome the disturbance produced by change in the external thermal conditions. And in like manner the consumption of a large amount of physiological fuel (i.e., food), and the internal production of heat thereby originated, has only a transient influence on the surface temperature. If we may use Greek terms, we might say that man, with other "warm-blooded" animals, is not only *homœothermic*, but *thermostatic*. We shall have occasion to refer to this distinction when we come to consider a theory of fever which has found some acceptance among us.

The mechanism which regulates the body temperature and gives it stability, as the governor of a steam-engine regulates the speed, we speak of briefly as the thermotaxic mechanism. When we reflect on the promptness of its action, on its sensitiveness, on the amount and variety of the substance whose thermal variations it has to control and adjust, we cannot resist the conviction that the mechanism is nervous.

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as we go on we shall find numerous reasons in support of this conviction. It is when we come to consider the exact nature of this thermotaxic nervous mechanism that difficulties arise. Where is the seat of the coördinating power? Is its action direct or indirect? Does it control temperature chiefly by varying heat production, as when we raise or lower the flame of a gas stove or the damper of a furnace flue? or by varying the heat loss, as when we open or close the window of a heated room? These are questions of physiology, but their solution is in a sense the solution of the problems of fever; and no fruitful discussion of *its* pathology can take place if they are not carefully dealt with, and their scope at least understood.

It is clear that, given a steady and fairly uniform production of heat, regulation might to some extent be effected by a mechanism controlling only the loss of heat from the body. It is as clear that, given a steady rate of heat loss, a mechanism controlling the production of heat would also suffice to regulate the temperature. But we have abundant reason for believing that neither the production of heat nor the loss of it is even approximately steady in healthy active life, and therefore for believing that both these controlling mechanisms are necessary and in fact exist. The thermotaxic mechanism is, in Dr. Hughlings Jackson's sense, "higher" than either of them. It governs them both; it adjusts their mutual relations. It is later in attaining its full development, and it is more liable to fail under injury or disease. We shall see that the mechanism controlling heat production comes next in functional order, while that controlling heat loss is lowest of the three. Now, it happens not unnaturally that our knowledge of these mechanisms is least as regards the highest and greatest as regards the lowest; and as each has its special bearings on the process of fever, I shall subdivide my discourse into three parts having reference (1) to heat loss, (2) to heat production, and (3) to the thermotaxic nervous mechanism. I shall thus proceed from the better known to the less, in the hope that in passing from the certain to the probable and thence to the possible I may not wholly fail in carrying you with me.

First, then, as to heat loss and its relations to the process of fever. The main channels by which heat passes out of the body to its environment are of course the skin and the lungs. Through the skin in health by evaporation, conduction, and radiation there escapes more than 80 per cent. of all the heat discharged. In warming and moistening the breath less (perhaps much less) than 20 per cent. escapes. The rate of loss is varied, as we know, by alterations in the vascularity of the skin and in the period and amplitude of the respirations. A face flushed with wine feels warm, for it is rapidly discharging heat; a dog, whose skin lets little heat pass through, pants to cool itself. Experiment and observation have established the existence in the brain and spinal cord of vaso-motor "centres" that control the blood-supply of the integuments by varying the calibre of the arteries. The efferent nerves that pass from these centres to the vessel walls are of two kinds: the one vaso-constrictor, or, as we may say, motor; the other vaso-dilator, or inhibitory. The "centres," whatever meaning be given to the term, must themselves have something corresponding to this twofold differentiation. In like manner the rate of respiration is governed by a nervous mechanism, consisting of centres in the medulla and cord, with a twofold complement of nerves proceeding to the respiratory muscles. There are strong grounds for regarding these nerves also as respectively motor and inhibitory, and the respiratory centre as consisting of two correlated parts, one subserving inspiration, the other checking inspiratory movement and subserving expiration. The channels of heat dissipation are thus admittedly under the control of nervous mechanisms, twofold or double-acting mechanisms we might say, each having a motor and an inhibitory aspect. Moreover, these mechanisms are known to be susceptible to rise of temperature, reacting thereto in such a way that the resulting vascular and respiratory changes increase the discharge of heat from the body. Attracted by the apparent simplicity of these arrangements for the governance of heat loss, it is not wonderful that Traube should have sought to base on them a theory of thermotaxis, and of that derangement of thermotaxis whose manifestation is pyrexia. "In health," he would say, "the temperature of the body is maintained by the vigilant action of the sensitive nerve centres that control the great systemic functions of circulation and respiration. Fever is due primarily to a disorder of these centres, by which the normal rate of discharge is diminished heat is thus pent up within the tissues, and their temperature rises by 'retention.' This general rise of temperature then reacts on the organs to their hurt, and the disorders of secretion and nutrition, which we know as febrile, naturally follow." No explanation could well have been more simple, and it was applied with much skill to account in a natural way for many of the clinical features of pyrexia. Irritation of the vaso-motor centres by injury or poison led to prompt and abiding spasm of the arterioles of the skin. When the centres were very irritable or the irritant intense, the resulting rise of temperature was rapid. The sudden difference thus caused between the temperature of the peripheral ischæmic parts and that of the central parts acted as a powerful sensory stimulus, and this by a reflex action set up a powerful motor disturbance—the initial *rigor*. When the spasm of the arterioles suddenly relaxed, a gush of heat took place from the fevered body, and its temperature fell by *crisis;* when the spasm yielded gradually and with intermissions, we had a *lysis*. It is not wonderful, I say, that observers like Traube and Marey, whose labours on the mechanism of circulation and respiration had been so great and so fruitful, should favour this "retention theory." It rested on their own work, it involved only mechanisms with which they were intimately acquainted, it was apparently capable of wide application to clinical facts, and it was partially true. And so long as certain other facts were unknown or ignored, the theory certainly satisfied many acute observers, and even now appears in some of our medical text-books as the last word of physiological pathology.

Let us consider, then, the *retention theory* of Traube, and examine wherein it fails. "Pyrexia is due to a diminished discharge of heat from the surface of the body, and this to a powerful contraction of the arterioles of the skin." It is plain that the structure rests on the one fundamental assumption—namely, that the escape of heat from the body is unduly small. If that assumption is itself unfounded, we have no choice but to conclude that, though retention may be a *vera causa* of fever, it is not the essential cause. Twenty years ago experiments were made to test the assumption. Inasmuch as the question is one of quantities of heat and not of temperature only, it was clear from the outset that the test must be calorimetrical, not thermometrical. In other words, the heat passing from the fevered body must be measured by the mass of water (say) it is capable of warming to a measured extent. This quantity of heat must then be compared with that given out by the normal body under like conditions. The first attempts, made by Liebermeister and others, were open to objections of many kinds, physical as well as physiological. Professor Burdon Sanderson has subjected some of them to criticism, sometimes more severe than they quite deserve, in his excellent memoir on the "Process of Fever," published as a Government paper in 1875. Thus Liebermeister placed a fevered patient in a tepid bath, and noted the amount by which the water was heated in a given time. But the experiment was vitiated as a quantitative test by the changed physiological conditions the contact of the water might cause in the patient's body, and by the fact that the powerful heat-discharging process of evaporation was interfered with. Leyden and Senator, with greater precautions, measured the heat discharge from fevered limbs and from fevered animals. In the case of the latter, means were found for estimating the quantity of carbonic acid and the quantity of watery vapour exhaled in a given time. Pains were taken to compare the results with those yielded by a normal animal under like conditions as regards food. The net result was to show that both in the human patient and in the fevered animal pyrexia was accompanied not by *diminished* but by *increased* discharge of heat. Senator, indeed, goes so far as to estimate the average increase of heat loss in some cases of septicæmic pyrexia at something like 75 per cent. The objections that have been raised to the methods employed touch, as I have hinted, rather the quantitative than the qualitative value of these calorimetric tests. The latter is not at all ambiguous: the increased discharge of heat was unmistakable. Like experiments have been repeated in recent years by Wood of Philadelphia, and by Reichert and Hare under his direction. Their arrangements were admirably designed, the criticisms of 1875 were considered and met, and the work bears every mark of honesty and care. From a physical point of view there seems nothing to which objection can be taken; and the outcome of the last measurements, published only the other day, is the same as that of the older and less perfect

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once of fifteen years ago. It is that heat is *not* abnormally retained in the body during fever; on the contrary, it is excessively discharged: and this is true not of one stage only; it holds for the rise and for the continuance of the fever, as well as for its fall.

This foundation of the retention theory being done away, the theory falls to the ground as an adequate explanation. But we may further ask—Is it indeed a fact that during fever there is an abiding spasm or tetanus of the arterioles of the skin? This question has been minutely investigated, and though the answer is decidedly in the negative, the research has added largely to our understanding of some of the phenomena of fever. Clinical observation prepares us to believe that the cutaneous circulation may vary greatly during the same febrile attack. At one time the skin is pale and dry, at another flushed, at another bathed in perspiration. Direct observation of the vessels, say in the ear of a fevered rabbit, shows that their calibre is constantly altering in a way that is quite different from the quasi-rhythmical contraction and dilatation of health. These changes become irregular and excessive, so that the surface is within an hour or two pale and cool, then intensely hot and hyperæmic, and then pale once more, the body temperature remaining all the while at a febrile height. Less direct, but perhaps not less convincing, is the evidence afforded by the surface temperature. Whatever spot of the skin we choose, and in whatever variety of fever, we find that the surface temperature fluctuates from hour to hour in a remarkable manner, the curve representing its changes having little or nothing in common with the rectal temperature. Of this my own observations have repeatedly convinced me.

From all these facts, and I have only touched on them in the most general way, we gather that in fever the cutaneous vessels are *not* in a state of continuous contraction. The cutaneous blood-supply, on the contrary, fluctuates in an irregular manner: now flushing the surface tissues, raising their temperature, and pouring out heat into the air; now reduced to a minimum, leaving the skin pale and dry, and shutting in the heat of the central parts. All this, of course, betokens that the nervous mechanism which controls the cutaneous discharge of heat is notably disordered. There is, indeed, no constant stimulation of the vaso-constrictor nerves such as Traube imagined; there is no continuous retention of heat, but there are marked irregularities in the rate at which it is discharged. These irregularities have doubtless much to do with determining the type of the febrile temperature, the configuration of the charts, in various diseases. But they leave out-standing and unexplained the two cardinal facts—first, that the febrile discharge of heat is greater than the normal discharge, and, second, that notwithstanding this greater loss the temperature so often rises and remains high. One possibility only remains—namely, that the production of heat within the body is abnormally increased.

The next question that suggests itself is this—Is the heat production steady, or is it fluctuating? We have seen that the heat loss, as gauged by the condition of the surface, is subject to wide and irregular variations, not merely from day to day during the course of the fever, but even from hour to hour in the same day. Is there any similar irregularity in the rate of heat production? To answer this question we must again fall back on calorimetry. Thermometrical observations are of no service. The daily balance at my banker's tells me nothing of the variations in my receipts. It depends on out-goings as well as in-comings. The temperature of the body is merely a function of the difference between heat income and heat expenditure at any moment. Now, we cannot well shut up a fever patient in a calorimeter for hours or days together, so our direct knowledge of variations in human heat production during fever is of the slightest. We must have recourse to experiments on animals. The only recent investigations which have been conducted with a view to directly answering our question are those of Wood and his assistants. An examination of their numerical results shows that in the septicæmic fever of dogs and rabbits the hourly rate of heat-production does vary in a remarkable way, even under uniform conditions as to feeding or fasting. The variation shows in some animals a tendency to rhythm, being usually higher towards the evening. Feeding introduces a marked increase of heat-production in the normal animal, and the increase is not absent in fever. Further experiments are to be desired, but of the mere fact of fluctuation in heat production there seems no doubt. Some of the figures, morever, show that, as the course of the temperature varies, the rate of heat production may actually be highest when the temperature is lowest: an excessive rate of heat loss may overbear and so disguise a simultaneous excessive rate of heat production. And, conversely, the time when the temperature is high may coincide with a time when the heat production is low. The inference from this is very important—namely, that the height of the temperature in fever is in great measure dependent on the momentary relation of the two processes of heat production and heat loss. And inasmuch as these two processes tend to vary irregularly, with but a weak *nisus* towards a daily rhythm, the fluctuations of the temperature do not afford an accurate measure of the changes in either process. The daily and hourly variations in febrile temperature are wider and more irregular than those in health: febrile temperature is *inconstant*. Moreover, trifling changes in the surroundings of the patient or in his functions readily send his temperature up or down: febrile temperature is *unstable*. The two coöperant factors of the temperature are acting more or less independently: thermotaxis is enfeebled or overpowered.

Dr. Hilton Fagge (whose name I mention with sincere and affectionate respect) has in his classical treatise on Medicine befriended, or rather perhaps adopted, a suggestion of Liebermeister's which requires some comment in this connexion. The wide acceptance among English students which any theory so endorsed is sure to gain makes me anxious that it should not pass without some critical examination. Liebermeister takes up the position that "pyrexia consists, not in a mere rise of the temperature of the body, still less in increase of heat generation, or in diminution of loss of heat, but in a change in the normal function of heat regulation by which the production of heat and its loss are so balanced as to create and maintain, while the pyrexia lasts, a higher temperature instead of the normal temperature. One might imagine the index of the regulating machinery to be shifted upwards, so that it is 'set,' not at 98·4°, but at 101°, 102°, 103°, or even at a still higher point."

The first objection I have to raise is that, if regulation means anything, it means, as I have already indicated, not merely an average uniformity of temperature persisting for any short period of time. Such a uniformity only implies that for a time the average losses of heat by all channels balance the average gains from all sources. So far as we know, it may be a fortuitous equation between two independently varying quantities. Regulation implies more than this—very much more. It implies *stability*; it implies such an intimate correlation of the producing process to the discharging process that their variations are not independent, but connected and concurrent; it implies a *nisus* towards a normal which is potent to overcome disturbing causes. We may know that a system of forces is in *equilibrium* when they keep a body at rest, but this rest is no evidence that the equilibrium is *stable*. To determine that we must disturb the body and note its behaviour. If it always returns to rest again, it has not merely equilibrium, it has stability. But, as I have just said, febrile temperature, even when it is at its height and oscillating with fair steadiness about a mean level, is marked by its instability. A trifle that in health would have but a vanishing effect will in fever produce a large and enduring variation. A whiff of cold air, a little food, a passing excitement, a feeble muscular effort, will send up or send down the temperature. The thermostatic character of the healthy normal is conspicuously absent in the mean high level of fever. The imperfect daily rhythm of temperature observed in some continued fevers is no evidence of true regulation. We have seen that even the fluctuating heat production of a fevered animal showed signs of a periodicity. In health this rhythm is deep-seated, and singularly persistent in spite of the most various disturbances. That it should to some extent 'show through' the irregularities of the fever heat is not wonderful: it merely proves that not all the thermal processes are utterly perverted in pyrexia; some that are normally rhythmic may be rhythmic still. But regulation has to do with balancing the integral sum of all the processes, and it is that balance which is overthrown, or at least rendered tottering, in fever. Liebermeister would seem, in fact, to have for the moment fixed his attention too closely on the characters of the *temperature curve* during the *fastigium* of some particular fever; and to explain its apparent average constancy threw out a sugges-

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tion which has fascinated others more than himself. The cases given in support of his view are, I think, special, and admit of other interpretations. And he has admitted that its application to clinical and pathological facts must be limited and qualified. Dr. Hilton Fagge puts it forward as sufficient for all purposes, with an absoluteness which Liebermeister himself would hardly admit. According to Dr. Fagge, in fever nothing is changed; the norm of temperature is merely re-set. As Cohnheim puts it, the thermal mechanism of the man is of a sudden transformed into that of a bird. How is the transformation effected?—by what agents, acting on what mechanism? What determines the new fixed point of regulation? Is it fixed at all, or only sliding? How is it ever re-fixed? All these questions follow on the back of Liebermeister's explanation, and the worst of them is that they are not merely unanswered but unanswerable. One cannot conceive a physical or physiological method by which they might be attacked. This, as I understand, is what Cohnheim means when he says the theory has "ein gewisser mystischer Beigeschmack," and, in spite of Dr. Fagge's gentle protest, I confess I think the epithet not unjust.

The risk of laying too much stress on the high temperature of the body, and of regarding it *per se* as an index of the heat production, is, I think, further exemplified in a recent address by Dr. Ord to the Medical Society (Oct. 1885). Let me remind you of his words; they are admirably chosen and state the formal difficulty with great force: "The increased heat of the body in fever is to me a very constant stimulant of thought. When I ask people how it comes about, I am generally told that it is simply a matter of increase of combustion; that the oxidation processes of the body go on with undue vigour in fever; that the system is burning its candle at both ends, and that the two flames give more heat than one. When one looks at a patient who has passed through a febrile illness, one is ready to accept the explanation. He may have had no wasting discharge, hæmorrhage, or other obvious drain, yet there he lies, bloodless and emaciated to a degree which leads one readily to believe that on his bed of fever he has been consumed in all his tissues by an unseen fire.....But for some years my acceptance of this ready and most plausible way of accounting for the phenomenon has been hindered by an attentive consideration of an article on the 'Process of Fever,' contributed by Dr. Burdon Sanderson to the Reports of the Medical Officer of the Privy Council for the year 1875. The article contains an exhaustive notice of the best observations made up to that time with reference to heat production in the body during pyrexia..... I refrain from recapitulating the complex and very refined data upon which Dr. Burdon Sanderson sums up impressively. Suffice it to say that, after careful analysis of this data, he writes thus: 'The general conclusion to which the preceding calculation leads us is a very important one—namely, that although as compared with the heat production of a normal individual on fever diet the heat production of a fevered person is excessive, it is not by any means greater than the heat production of health.' There is in fever, it must be admitted, increased exhalation of carbonic acid and increased excretion of urea, *but after calculation they do not represent a source of heat sufficient to cause the increased temperature of the body.* I have read the article again and again, I have referred to various authorities on the subject, and I am compelled to say that the increased combustion explanation which satisfied me before has no longer the same value. To what, then, as I felt obliged to lose faith in my first belief, should I turn? Might, as some have argued, the increase of heat in the body be brought about by retention, by some state of the surface which would prevent the liberation of heat from the body and lead to accumulation within? The well-conducted observations of Leyden and Liebermeister tend to show that, far from being retained, heat is discharged from the surface in larger quantities in fever than in health. And we all know that intense hyperpyrexia constantly coexists with profuse sweating, involving the freest discharge of heat from the surface of the body, as in severe cases of acute rheumatism. If we are bound to deny the cogency of the two explanations, we are compelled to find a new one." Dr. Ord then goes on to suggest what I may call a new *vera causa*—that is, a possible cooperant cause for the liberation of heat in fever,—about which I shall have something to say later on. My object in making this long quotation has been to show that, while he fully appreciates and admirably states the experimental facts concerning fever which I have already touched on in this lecture (the failure of the retention theory, the increased discharge of heat, the increased production therein inevitably implied—nay more, the indefeasible evidence of increased "combustion" furnished by the increased products of combustion—namely, carbonic acid and urea), he is stumbled by finding that they "do not represent a source of heat sufficient to cause the increased temperature of the body." I venture to suggest that the difficulty is an unreal one. Dr. Burdon Sanderson everywhere distinguishes most carefully between thermogenesis and temperature. He even says there is "the strongest possible evidence that increased or diminished temperature has no necessary connexion with increased or diminished production of heat." "A source of heat sufficient to cause the increased temperature of the body" would be a phrase which Dr. Burdon Sanderson would hardly recognise as his own; and if we give it the meaning it was probably intended to convey—that the increased production of heat in fever is not accounted for by the increased combustion of the tissues as evidenced by the excreted matters—I can only say that I find nothing in the paper referred to that supports such a statement, and I do not know of any measurements which suggest it. There is high temperature in fever, and there is increased production, but the one is not the measure of the other. There is increased heat production in fever as compared with the heat production of health *on the same diet*, but not necessarily as compared with that *on full diet*. Somewhere between these two propositions comes Dr. Ord's, and I am afraid that between them it comes to the ground. I shall be glad if a re-examination of the premisses convinces him that he need not lose faith in his first belief. Dr. Sanderson's memoir, taken in conjunction with Professor Wood's, which supplements and corrects it, when properly weighed, will show him that his first belief is true, though perhaps not the whole truth. And as a final satisfaction I may add that, even though the preamble of his address is unproved, though the discontent with the existing theory which acted as a stimulus to his research was not well founded, the happy suggestion to which it led him appears to me to be true notwithstanding, in a certain guarded and limited sense.

Let me now recur to the outcome of Dr. Burdon Sanderson's analysis above referred to, because in speaking of the experimental evidence of increased heat production in fever I made no allusion to his results. On the surface they appear to tell against that evidence, but properly considered they are not inconsistent with it. When we say that more heat is produced by a patient in fever than by a patient in health, we must add the proviso—*in like circumstances*. One of the most important of these circumstances is diet. I being in health can, by eating to excess, raise my rate of heat discharge far above my usual rate, and I can lower the rate by fasting and still remain in health. If I become fevered I eat less and less, but my rate of heat discharge does not fall accordingly. In the report already mentioned, Dr. Sanderson, from the data before him, finds that the heat production of a fevered patient might be about 50 per cent. higher than in the same patient in health on a low diet. And if that is the case, some "increased combustion explanation" is not only satisfying but inevitable. Admitting increased heat discharge, increased exhalation of carbonic acid, increased excretion of urea, we must admit a source whence they are derived. They cannot come from the food consumed, for that is notably reduced in quantity; they can only come from the body substance itself; there *must* be increased combustion—the tissues *must* be "consumed by an unseen fire." But, to go further, there are not wanting grounds for believing that fever heat is often greater than normal heat even on a full diet. The Philadelphia experiments, made since Dr. Sanderson's paper was written, enable us to follow the thermal history of an animal for several successive days under varying conditions of diet and in varying degrees of pyrexia. The outcome is that in dogs and rabbits at least the fundamental part of the febrile process is an increase in heat production "by chemical movements in the accumulated material of the organism." And though, to use Professor Wood's expression, this increase was usually insufficient "to overplus the loss of production from abstinence from food," in some cases it was more than sufficient. Moreover, reasons are given—valid reasons, as I think—for surmising that what is occasional in the lower animals is probably common in man, in whom febrile movement is more pronounced and severe. In other words, it is

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probable that in the fevered man there is sometimes an absolute, and not merely a relative, increase of heat production.

Allow me, in conclusion, to suggest an image; it is not perfect; it is far from being an argument; it is only an illustration of one aspect of the question before us. Some of us, in travelling by railway or by steamer, have been startled by the sudden stoppage of the engine. On inquiry we are told that the "bearings have heated," and we have perforce to be patient till they are cooled down. The normal temperature of the engine is dependent on the consumption of the fuel in its furnace, and when it is in good order its parts work together with but little wear and tear. But from unequal stress, or excessive speed, or defective lubrication, the friction at some bearing point increases, and soon the bearing becomes an abnormal source of heat, useless to the engine as a motive power and fraught with danger to its structure, for it means increased wear of the working parts, deterioration of their temper and their strength, and, as the heat mounts high, actual consumption and oxidation of their substance. The hot bearing is in a state of fever, its heat is wasted, and it is wasting. The warmth, the carbonic acid, the urea of health are evidence of so much food-fuel usefully transformed; the excessive heat and the excessive waste products of fever are evidence that the fabric itself is being wastefully consumed.

Lectures
ON THE
SURGICAL TREATMENT OF PULMONARY CAVITIES.

Delivered at the Consumption Hospital, Brompton,

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LECTURE I.

(*Concluded from page 459.*)

I NOW propose to give in some little detail the notes of some of the cases of pulmonary abscess which I have treated, and thus endeavour to illustrate the chief facts with regard to the various classes, only premising that, as in many other thoracic complaints where recovery takes place, a certain amount of uncertainty may occasionally remain as to the diagnosis; but before taking up the subject of gangrenous cavities I must refer to a very interesting paper by Dr. Coupland,[1] the text for which was a case of gangrene of the lung, following the bursting of a suppurating lymphatic gland situated near the bifurcation of the trachea. Surgeons are well acquainted with the condition of lung which was thus set up; it often follows cut throat or such operations as excision of the jaw or amputation of the tongue, where, if proper care be not taken, the discharges are highly septic and expectoration is difficult; it is one in which patches of pneumonia, started by the presence of putrid pus in the bronchi, are by the same cause converted into fetid gangrenous cavities. It is a condition of things which, as was pointed out by the late Dr. Pearson Irvine, often follows the pressure of an aneurysm or other tumour upon a bronchus, for a precisely similar reason. In the case in question an attempt to reach what was hoped to be the main gangrenous patch, but turned out to be only one of many, led to the setting up of pneumothorax and pleurisy, and hastened the inevitable end. Dr. Coupland's paper is important not only for his suggestions as to treatment, but also for some very interesting statistics gathered from the post-mortem records of the Middlesex Hospital. He tabulates a considerable number of cases, showing that by far the larger number follow croupous pneumonia, whilst many result from such causes as those to which reference has just been made. He also adds an account of the relative proportion in which the different lobes of the two lungs are affected, showing how frequently the upper lobe of the right lung suffers as compared with that of the left—a point to which I shall again refer in some remarks on the anatomy of the bronchi, which are to follow in the next lecture. The state of the pleura was also ascertained. There were adhesions in only a small proportion of the acute cases, and though they were present in all the chronic ones they were not always conterminous with the gangrene. In some acute cases there was more or less abundant lymph, in a few empyema, and in a few hardly any pleurisy. I will also abstract from Dr. Coupland's paper, as briefly as possible, the notes of some of the recent, but now classical, cases which have been published.

1. A boy aged seventeen swallowed a bone in November, 1883. He developed bronchiectasis, but completely recovered after coughing up the bone in February, 1884. This, I think, is most instructive, not only as showing that the bronchiectasis and induration of the lung, which had taken four months to develop, could be completely recovered from, but as indicating the line of treatment in such cases—a fact I will return to in the next lecture.

2. Dr. Magrath's case,[2] where a piece of grass became impacted in the right lung of a boy aged seven. Death occurred after ten weeks. The lower lobe of the lung was riddled with abscesses. The diaphragm (as in one of my cases) had been perforated by the abscess, and there was secondary caries of the spine.

3. Dr. Cayley's case,[3] which was one of a low form of pneumonia, resulting in a basic cavity containing five or six ounces of offensive pus and sloughs of lung substance. He had only been ill for five weeks, but had the appearance of a man in the last stage of phthisis. The cavity was opened in the ninth interspace, but the case ended fatally, being already too far advanced. There were signs of old tubercular mischief in the lungs.

4. Dr. Solomon Smith of Halifax records a case[4] where gangrene followed acute pneumonia, and where death followed an incision into the abscess after nine days.

5. Dr. Cayley's case of a gangrenous abscess following ear disease,[5] in which Mr. Gould punctured the abscess with a trocar, but on introducing the tube failed to drain the cavity at first; it afterwards, however, burst into the artificial opening, and the patient made a good recovery.

6. Some cases are recorded in a paper by Dr. Mosler, read before the German Medical Congress at Wiesbaden in 1883, in which he recommends the incision of the lung with the actual cautery for the extraction of foreign bodies. I am not able strongly to endorse this advice (though with deep incisions it may possibly be advisable), for the use of the knife does not, as a rule, lead to formidable hæmorrhage, and the charring of the tissues must cause considerable difficulty in any exploration with the finger.

7. Dr. Ed. Bull of Christiania[6] records a case of circumscribed gangrene of the lung, which was opened successfully.

It may be taken for granted, then, that the majority of the cases of gangrenous abscess which come into the hands of the surgeon are the result of acute pneumonia, and are situated near the base of the lung; and it may be added that his aid is most likely to be needed in those cases in which the gangrene is not very extensive, so that the patient survives the immediate effects of this process. Some of these cases, it is well known, recover spontaneously, the pus being expectorated; but in others a condition of things results such as is often met with in abscesses bursting spontaneously in other parts of the body—namely, that the opening being insufficient, and perhaps unsuitably placed, the sac is always more or less filled with the discharges, which in the cases we are considering are always highly septic, and therefore irritating. The abscess, consequently, shows no tendency to close, but, on the contrary, increases in size. It is not a good plan in such cases to wait long before making the external opening—that is, if the position of the abscess can be accurately determined,—because, as was pointed out when the subject of empyema bursting into the lung was discussed,[7] and as will be still further illustrated when the subject of bronchiectasis is before us, the presence of fetid pus in the bronchi and trachea is very likely to lead not only to serious consequences in the diseased lung, but also in the sound one: but, at the same time, it is not often

[1] British Medical Journal, 1885, vol. ii., pp. 427-433.

[2] THE LANCET, vol. i., p. 89, 1880.
[3] Clinical Society's Transactions, March, 1879.
[4] THE LANCET, 1880, vol. i., p. 86.
[5] Medico-Chirurgical Transactions, vol. lxvii., p. 209.
[6] London Medical Record, 1882, pp. 90, 91.
[7] Lectures on Empyema, THE LANCET, vol. i. 1886, p. 95.

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wise to make an incision through the chest-wall until the situation of the abscess has been ascertained by means of an exploring trocar, and even then the troublesome question of the presence or absence of pleural adhesions has to be settled before the lung itself is incised.

That one may be misled by apparently the clearest physical signs of the presence of a cavity is illustrated by a case that I saw with Dr. Douglas Powell and Mr. Horace S. Howell. It was that of a gentleman aged about thirty-five, who had marked physical signs of a small cavity about the fourth right interspace in front, the rest of the lungs being apparently almost if not quite healthy. The condition had lasted several months, and there was at times a copious fetid expectoration, at times very little of any kind. He was fairly nourished, but had some clubbing of the fingers, and was on the whole rather losing ground. A trocar was inserted (in July of last year), but no pus was met with. The signs, however, seemed so unequivocal that an incision was made through the chest wall, and, as strong pleural adhesions were found, the lung was incised and the incision enlarged with dressing forceps and the finger; but the abscess, which I cannot doubt was in close proximity to the seat of operation, was missed. Rather free hæmorrhage and some hæmoptysis occurred, which did not, however, give any trouble, and a drainage-tube was inserted in the hope that the abscess might burst into the track thus made, as happened in one of Dr. Cayley's cases mentioned above. This was unfortunately not the case here. The wound healed without any trouble, but the patient remained *in statu quo;* at least he continued when last heard of to expectorate pus from time to time. The general health certainly improved, and the expectoration became less fetid, but I doubt whether these results can be attributed to the operation. Clearly from this case a lesson is to be learned, for if a more careful search had been made with the trocar or aspirator it is more than likely that at last the pus would have been met with, and then the cannula would have served as a certain guide to the abscess; but an incision having been once made into the lung, it is easy to understand that the finger might push the abscess (perhaps a thick-walled one) to one side or the other, and thus render the chance of opening it a very remote one. If, however, the pus had not been met with, the patient would have been no worse off for the punctures, and the surgeon would have been saved the mortification of an unsuccessful operation. Another practical point is illustrated by this case, which I have seen exemplified in several others. The hæmoptysis followed the impinging of the trocar upon some firm substance, and then slipping into an apparent cavity. No doubt it passed through some pretty large pulmonary vessel, either just before or just after the puncture of the bronchus. Until the bronchus was perforated, any bleeding from this cause must have been external, and therefore easily controllable by pressure or plugging. The deduction is that, if such an obstruction is met with, the trocar should either be made, if possible, to work round it, or a puncture should be made in a fresh position; for although the hæmorrhage itself is not likely to be formidable from so small a puncture, it may be a very dangerous thing to have a patient who is under the influence of an anæsthetic coughing up blood, perhaps in rather considerable quantities. It should be added that the wall of a gangrenous or bronchiectatic abscess would not give this sense of resistance.

Whether this was really a gangrenous abscess or a bronchiectasis I am unable to say; but it illustrates well the point I am insisting upon—namely, the unwisdom of incising the lung until the presence of pus is ascertained. The following case might have led to a similar result if we had not been successful in puncturing exactly in the right place. It was that of a man at University College Hospital, aged forty-two, who was admitted in May, 1884, under the care of my colleague, Dr. Bastian. He was no doubt a tubercular subject, one of the very hairy tubercular people. His mother had died of phthisis when he was three years old, but there were no other cases of this disease in the family. He had, however, himself twice suffered from hæmoptysis sixteen and twelve years previously, and had had right pleurisy six years before, with which he was laid up nine weeks. Beyond these illnesses, however, he seems to have enjoyed good health, though he was liable to take cold easily after the last attack. The present illness began with a violent cough in Feb. 1886, which lasted up to the time of his admission on May 2nd, and was accompanied by hæmoptysis, night sweats, and wasting. He was found to have very few physical signs on the left side; but the right side, which was larger than the left and very motionless, was very dull at the lower part, and not very resonant above. The breath sounds and vocal fremitus were deficient at the lower part. On May 5th Dr. Bastian drew off one ounce and a half of bloody fluid mixed with pus, through a puncture in the eighth interspace behind, and this was followed by a marked reduction of the patient's temperature. On May 16th I ascertained with a needle the presence of the pus, but also that the collection was a very small one, for the first puncture, which was made a very short distance to one side of that made a few days before, did not strike the cavity; and on cutting down on the lung, after removing a piece of the eighth rib and ascertaining the presence of pleural adhesions, it was found that if the puncture were not made exactly in the original spot the cavity would be missed altogether. It was found, indeed, to be clearly in pulmonary tissue, and was just large enough to admit the finger and two and a half inches long, leading directly inwards from the external opening. This is an example of a lucky puncture in the first instance, for there were no sufficiently distinctive physical signs to indicate the precise position of the abscess; and it shows that in doubtful or suspicious cases several punctures at different points should be made before the search is abandoned. The man's cough was very much relieved for a time, the daily amount of expectoration sinking from one or two ounces to as many drachms, although the discharge from the wound was quite trifling; thus affording an illustration of a point that has been observed by several physicians—viz., that the amount of expectoration is no criterion of the size of the cavity, each pellet of pus, as it makes its way over the bronchi, setting up irritation and causing a great secretion of usually watery mucus; thus, a cavity not holding more than a couple of ounces may cause a pint of expectoration in the day. The patient improved very much for a time, but then he caught a fresh cold, and his cough and expectoration became more troublesome. He also had hæmoptysis whilst he was endeavouring to recruit at Eastbourne. In August he was readmitted, with the wound quite healed; but still a great deal of dulness, with weak breath sounds and no vocal fremitus at the right base, while at the upper part of the right lung there were tubular percussion note and bronchial breathing. This side of the chest was still almost motionless, but, instead of being larger, it was now considerably retracted. He was very weak, and had no doubt tubercular changes in this lung, to which many months afterwards he succumbed.

The enormous amount of expectoration which may result from the presence of a very small cavity was well shown in the case of a patient who formed the subject of a paper read by Dr. C. T. Williams and myself at the Medical and Chirurgical Society, and reported in the last volume of their Transactions.[8] I will merely mention here that a small basic cavity, not holding more than about one ounce, in a patient sixty-seven years of age, had given rise to the expectoration of more than a pint in the day for many months, and that the free incision of this cavity led not only to the complete stoppage of this troublesome condition, but was followed by sound healing in rather more than six weeks.

I will conclude this branch of the subject by the account of two cases, one of which is a typical example, and the other an illustration of the doubts occasionally surrounding the diagnosis of these basic cavities.

The first is that of a delicate girl nineteen years of age, who was admitted into University College Hospital, under the care of Dr. Bastian, on Jan. 5th, 1886, complaining of a troublesome cough and abundant fetid expectoration. She had suffered from typhoid fever in September, 1885, from which she had recovered slowly, and had only returned to her work a fortnight before the commencement of the present illness. Her parents were alive and healthy; a paternal aunt had died of consumption, and three of her five brothers had suffered from abscesses. Her illness began four weeks before her admission, in the early part of December, 1885, with an attack of headache, vomiting, and diarrhœa. She had to give up work, and continued ill, but with no fresh symptom, until the night of Dec. 31st, when she awoke coughing, and expectorated about a pint of similar fetid material to that which she had continued to bring up in larger or smaller quantities up to the time of coming to the hospital.

[8] Med.-Chir. Trans., vol. lxix., p. 347.

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Ever after the first attack of vomiting she had felt a dull aching pain on the left side, which was not altered by coughing or vomiting, so I presume that the symptoms of the acute attack were the expression of the onset of a pneumonia, which led to gangrene of the lung. On admission she was thin, flushed, and short of breath, with a weak, husky, whispering voice, breathing at the rate of 32 per minute, with a paroxysmal, distressing cough, resulting in the daily expectoration of a pint or more of highly offensive, thin, watery pus and mucus. The pain was slight, but occasionally stabbing in the region below the left breast. The temperature was about 100°; the pulse about 130. The heart's apex was not far from the normal position—fourth interspace, one inch inside the nipple. The whole chest moved badly, the left side hardly at all. The percussion note was good, except on the left side below the eighth dorsal spine, where there was dulness and almost complete absence of breath and voice sounds, and usually there were no adventitious sounds. We had therefore but very little to guide us to the exact position of the cavity. Dr. Bastian punctured the chest in the eighth space an inch behind the posterior axillary fold, and in the ninth space an inch further forward, without result. On Jan. 16th we heard moist sounds at the base of the lung and bronchial breathing in the left axilla. Guided by the greatest intensity of these signs, I passed an exploring trocar into the chest in the posterior axillary fold in the eighth interspace, and hit the cavity after introducing the instrument about two and a half or three inches. An incision was then made down upon the intercostal space, and, the pleura being found obliterated by adhesion, the track of the cannula was opened up by sinus forceps, and a large cavity was reached in the lung, from which about twelve ounces of fetid pus escaped. I did not remove a piece of the rib in this case, as the pus was very offensive; thus, though a large drainage-tube could be introduced into the cavity, a complete exploration was impossible. The finger passed, however, through condensed but broken-down lung tissue, but reached only the outer part of an irregular cavity. The tube, though four inches long, no doubt only entered the outer part of this space, but air was sucked in and out with the peculiar whiffing sound which is characteristic, I think, of cases where there is a free communication with a bronchus—that is, as opposed to cases of empyema. The expectoration at once ceased, but though the temperature on the second day fell to normal, it rose again and remained at about 100° to 101° for a fortnight, when it rose to 103°. She then coughed up a pint of offensive pus, and the dressing, which for some time had been almost dry, was soaked with a similar material. This no doubt meant that the walls of the cavity had fallen together after the first evacuation, and both its exits had become closed. The gradual accumulation of pus in the slack cavity kept up the temperature, and the sudden fit of coughing opened both of the exits again. Had I been able at first to introduce a still longer tube, no doubt this would not have happened. It is a good illustration of a common source of trouble in cases of this kind, and shows that a much longer tube is usually required than in cases of empyema. The temperature now kept about 99° to 100° for another fortnight, and we thought we might remove the smaller but longer tube which had been substituted for the original large one; but it was too soon, for the temperature went up again, reaching almost 104°, and necessitating the dilatation of the sinus and the reintroduction of the tube. After this the temperature remained for a few days about 100°, and then became peaky, ranging usually from 99° or 100° to 101°, but twice reaching 102°. There was in the meantime but slight discharge and occasional slight expectoration, and so I have no doubt that, all this while, there was not a complete drainage of the cavity. Ultimately she went to Eastbourne on March 25th, about nine weeks after the operation, still wearing the tube; and a month later returned, with nothing to show except a retracted chest with some curvature of the spine and deficient resonance and weak breath sounds over the affected part. The tube was now withdrawn, and in a week the wound was healed. The patient has since remained well.

The second, a somewhat similar case, one which illustrates the same difficulties in treatment, I saw with Dr. Broadbent and Dr. F. Russell in May, 1884. The patient, an unmarried woman aged forty-four, was seized with the symptoms of pleuro-pneumonia on the right side on May 26th. The pain in the side and back continued till June 11th at midnight, when she expectorated a large quantity of offensive pus. The expectoration, which was accompanied by high fever and purging, continued till June 19th, when I saw her. She had then a patch of dulness as large as the palm of the hand in the right front, reaching up to the nipple and down to the liver dulness. Over this area there was some puffiness and tenderness, and tubular respiration was to be heard. The rest of the chest was resonant, but loud mucous râles were everywhere audible, and the lungs were evidently becoming completely choked up. The patient was in great misery, the cough being most distressing, and apparently she had not long to live. An opening was made in the seventh interspace, immediately below the nipple, and the finger passed readily into a cavity, from which a large quantity of offensive pus escaped. It felt rough and irregular, and seemed to be an excavation in the lung itself; it certainly was not the general pleural cavity, but might of course have been a localised diaphragmatic empyema with much lymph on the walls of it. A tube three inches long was introduced, and the wound was dressed with oakum. The result of evacuating this cavity was very instructive, for not only did the expectoration at once cease, but the rest of the lungs promptly recovered, so that in a day or two all the râles had gone. The temperature fell almost or quite to normal, and the diarrhœa stopped. Unfortunately, about July 1st, the tube, none too long to begin with, was shortened without my knowledge by fully an inch; and this was followed by the same train of symptoms as occurred in the last case, when the accumulation took place in the abscess—viz., malaise, nausea, fever, and at last the expectoration of fetid pus. The sinus was dilated with bougies and a long tube (five inches) was introduced; but we did not at once obtain complete drainage, and a certain amount of pus was still expectorated, though a good quantity came through and alongside the tube. The temperature in the meantime came down to normal, and the patient experienced great relief from a suggestion of Dr. Broadbent's that she should lie upon the face, thus encouraging the escape of the pus through the wound and so diminishing the cough. The cough and other troublesome symptoms gradually disappeared; the tube by July 25th had been reduced to three inches, and the patient was convalescent and had left her bed, when she felt a sharp pain at the right hypochondrium, which soon passed off. Next morning, however, pus appeared in the motions, probably from a diverticulum of the abscess, which the tube had never drained efficiently, and this continued, though gradually diminishing, for about three weeks. The tube slipped out on July 29th and was not replaced, and from this time the patient made an excellent recovery, a little dulness and weakness of breath sounds round the affected area and a slight drawing up of the liver being all that remained from the attack.

This rupture of a pulmonary abscess into the colon seemed to me an almost inexplicable occurrence; but in January of this year I made a necropsy on a case of liver abscess bursting into the pleura, which opened my eyes as to the manner in which a diaphragmatic empyema, or an abscess even in the anterior part of the lower lobe of the right lung, may discharge itself in this way. It may pass down behind the posterior part of the pleura, keeping rather to the right and perforate the attachment of the diaphragm about the tenth rib at the posterior fold of the axilla, when it will be quite close to the hepatic flexure of the colon.

In both these cases there are the same lessons to be learned. First, if it be suspected that the cavity be in gangrenous lung it should be well opened up and explored by the finger, and a good long tube should be put in. Secondly, the tube must be kept in until the discharge has almost, and the expectoration quite, ceased, while the temperature remains low, for the cavity is probably an intricate one, and it is not unlikely that the walls will have to throw off sloughs, and cannot, therefore, immediately assume the healthy condition which is met with in the case of most empyemata. They both illustrate the complete recovery, as regards physical signs at all events, which may be anticipated in such cases.

AYRSHIRE MEDICAL CLUB.—At the annual meeting of this club, held on the 4th inst., Dr. Robertson, of Ardrossan, was elected President; Dr. Dobie, of Ayr, Vice-President; and Dr. Moore, Secretary. The membership now numbers fifty-three.

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ABSTRACT OF

Lectures

ON THE

ACTION OF NERVE CENTRES AND MODES OF GROWTH.

Delivered at the Royal College of Surgeons, February, 1887,

BY FRANCIS WARNER, M.D., F.R.C.S.,

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LECTURE I.

ON THE ACTION OF NERVE CENTRES.

MOVEMENTS are here studied as signs of action, observations being recorded by verbal description, or by the graphic method.[1] To study a movement involves the consideration of the part moved, the muscles moving it, and the nerve centres which stimulate them, while the movement itself indicates the time and quantity of action in the nerve centre corresponding; these are called the intrinsic attributes of the movement. The *time* of a movement often affects its outcome or sequence; movement of a single part is a comparatively simple fact; when several parts are acting, combinations of their movements occur. The special combinations of movements are simply the result of the time of the action of each of the moving parts. In observing movements of the digits two modes of description may be employed: the series of movements of each digit may be described, or the series of coincidences or combinations of acts may be recorded. Either plan may be used, as convenience may dictate; thus, it may be said that each of the five digits flexed at the same moment, or it may be said that the hand assumed "the convulsive posture." What we commonly call an action, such as writing or walking, is really an observed series of combinations of movements; this applies equally to spontaneous, reflex, or voluntary actions. When a child seizes an orange we observe a series of movements, each of which can be performed separately, while the character of the action depends upon the time and quantity of each of the component movements. Series of movements in plants were then described. The *quantity* of a movement is its second intrinsic attribute; it indicates the quantity of action in the nerve centre. Quantities of motor action are studied in observing postures of the body as signs of the ratios of force in the nerve centres. In "the straight extended hand"[2] we observe a sign of the temporary equilibrium of the nerve-muscular apparatus for flexion and extension. The posture may change, the fist being clenched; the change of hand posture is a sign of a change in the ratio of force acting in the apparatus for flexion and extension, the force of flexion being increased. Thus we see the outcome of the balance or ratio of quantities of motor force demonstrated by the observation of postures. Examples were given concerning other hand postures. It was argued that postures often indicate the condition of the nerve system, that they are often changed by the sight of objects, that they are due to the ratios of force exerted by opposing portions of nerve-muscular mechanism, and hence that postures are signs of ratios of action that can be controlled by incident forces, such as light, sound, mechanical irritation, &c. The total quantity of movement seen in man may depend upon the quantity of blood-supply, and upon the amount of stimulation of the subject; the blood-supply and stimulation are needed to produce movements. In anæmia and in starvation the quantity of movement is lessened. In darkness but little movement occurs in a well-nourished man; the sight of an object may be followed by the head turning towards it, and by other series of movements, such as result in the seizure of the object. The quantity of movements in plants is mainly determined by light and heat.

The proposition was then enunciated that every movement depends on some change in the time or the quantity of action in the nerve-muscular apparatus producing it, and that every such change in the apparatus must be preceded by some stimulus acting on it immediately antecedent or more remotely antecedent. Among the forces which, acting upon a man, may stimulate and control the individual movements, the following were mentioned and illustrated: light, heat, sound, mechanical irritation, &c. Every movement must have some sequence, whether it be to supply food or be expended as physical energy. The sequence of a movement must be carefully separated from the cause or antecedent. To say that the bee visits the flower to get honey is to imply that the honey causes the visits. It was argued that the bee sees the flower, and afterwards gets the honey; that it is not the honey, but the light reflected from the flower, which determines the movements of the bee. The forces which control the time and quantity of the acts composing a series of movements are really the antecedents of the results of the action. The sequences, outcome, or results of movements are often said to be useful, intelligent, voluntary, purposive, &c. What is meant by the outcome of an action being useful? What is the connotation of the term "useful" expressed in terms of physical criteria that can be observed? Concerning the meaning of the word "useful" as applied to the outcome of an action or movement, the primary idea seems to be that the outcome produces some physical change that can be observed. A movement which brings food to the subject is said to be useful partly because it produces some effect or impression on the subject. The movements of deglutition, respiration, and all the movements of organic life are useful because, among other things, they impress the subject considered. We do not say that all acts which produce an impression are useful, but to be useful there must be survival in the subject producing the act, or in others considered at the same time. It is insisted that usefulness is not an intrinsic character of any movement, but a relation of its outcome to surrounding objects.

Impressionability as a property in man may be indicated by movements. If the movements of a man are regulated and controlled by light or sound, he is impressionable to these forces. In coma impressionability is lost, but the eyes may move spontaneously and independently of one another; this is seen under chloroform, and in the deep sleep of infants. Actions may be defined as similar if on two or more occasions there be movements of the same parts of the body, the action of each part respectively being alike in time and in quantity on each occasion. In a body of soldiers at drill the movements of each man are similar. Thus actions, or series of movements in the same or in corresponding parts, are identified as similar on account of their intrinsic attributes. Similar movements may recur in a man, or be repeated; each such occurrence after the first is a repetition or reversion of the action. A trick or habit in a man may revert in his children. Similarity of actions is here defined as an observed fact, not as a question of relation to antecedents or sequents of the action.

Automatic or spontaneous movements are such as have no special antecedents controlling their attributes. Athetoid movements are automatic; they occur in similar series whenever any impression is made upon the subject. *Instinctive movements*, so called, probably imply a certain structure of the nerve system due to its inheritance—such that when stimulated by certain surrounding forces the movements resulting should be regulated by those forces, the sequence of such acts producing some impression upon the subject directly or indirectly. Purposive or intelligent movements are probably always controlled by forces surrounding the subject, or by impressions previously made; the sequences of such movements, rather than their antecedents, possess the characters of intelligence. It seems that the purposive or intelligent character of a series of movements is not due to its intrinsic attributes, but to its sequents. The respiratory movements are considered very automatic when occurring in regular and uniform order of time and quantity; but when the sight and sound of various objects modifies them, to form speech, laughter, &c., then they are signs of mental action. All expression of mind and mental states is by series of movements, and these of course have their intrinsic attributes, observable in the body. *Coördinated movements* are such series of acts as have special characters, dependent upon the time and quantity of the component movements. It is also an essential character that the attributes of the series are determinable by sight, sound, or other modes of force acting

[1] See Journal of Physiology, vol. iv., No. 2; and vol. vii., No. 7.
[2] See Physical Expression, its Modes and Principles, chap. ix.

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upon the subject. Movements may be classed according to their results as respiratory, acts of deglutition, &c. For the purposes of a scientific classification of movements it is very desirable that they should always be described according to the parts moving, their intrinsic attributes, the antecedents and sequents, or outcomes. All these characters are capable of direct observation.

It has been said, What is the good of these studies of movements? What practical advantages are likely to result therefrom? Nerve-muscular movements are physical signs of brain action; with but few exceptions, they are the only signs of brain action, and the only physical signs by which we know anything of the action of mind. Describing facts in man as we see them, in terms of movement, is probably the best mode of attempting to do away with such metaphysical terms as "voluntary," "intelligent," "purposive," in scientific descriptions. Facts must be described in physical terms before we are likely to find out their physical causation.

LECTURE II.

THE STUDY OF MODES OF GROWTH.

In making a systematic study of movements in man, we study one function in one class of subjects. We observe the movements as signs of the time and quantity of action in the loci of nerve tissue which produce them; thus we learn much concerning vital action in one kind of tissue. If the methods and principles found useful in studying this one function in one tissue have been properly considered, they are likely to be useful in studying other functions in other living subjects. In studying movements we learnt to note the parts of the subject capable of acting separately. We learnt next to study the intrinsic attributes of each movement, and also its antecedents and sequents. Having studied the nerve-muscular apparatus of man as our special subject, and deduced certain principles therefrom, we proceed to apply these to the study of various problems. We shall find that many phenomena of growth are determined by the forces which control the time and quantity of growth in the units of living tissues. The study of movements requires the observation of a definite number of parts of the body and a definite number of loci of brain tissue; in growth the number of parts, or units, capable of separate action is practically indefinite. Movement is in many cases a reflex act; growth is, presumably, never spoken of as a reflex action. Movement often follows quickly upon an impression; if growth results, it is slow in its manifestation. Movements in man are often signs of intellectuality; acts of growth are never said to be signs of mind. The many beautiful adaptations of growth in plants are not considered signs of intelligence in the plant; but the movements of an insect in visiting the flower are considered signs of its instinct. The results of growth are material changes, and as such are permanent records of action, capable of preservation; movements do not necessarily leave any permanent record in the subject of such kind as can readily be seen and preserved. In speaking of movements as signs of action in nerve tissue and of growth, we deal with two functions in the body. The outcome of nutrition in the child will vary at different ages; in the early years much nutrition is consumed in making weight; in adult life much energy is consumed in movement. In a child becoming choreic the weight falls and movement increases. If we believe in one series of laws of nature governing movement and growth, we must expect the forces controlling movements to be those affecting growth.

We may observe the *time* of any movement, vital act, or act of growth; we commonly speak of relations in time as the order of growth; in describing the processes of development the order of development is most important. We more commonly study the time of movement than that of growth, because the processes of growth are slower, and observation must be continued for a longer period to see any change than is the case in observing movement. Visible movement indicates its own time to the observer, but does not necessarily leave any permanent record; growth is a process which usually does not impress the observer with the time of its acts, but leaves a result in visible form. A visible effect of movement in man is to produce some fresh posture, or condition of temporary equilibrium. With regard to observation of the effects of forces upon the subject, in the case of growth a much longer interval usually elapses between the stimulation of the subject and the sequential effect than that which takes place in a reflex movement. Hence more instances of growth are called "spontaneous" than in cases of movement. In flowers cross fertilisation often results from the fact that the anthers are, in certain cases, ripe before the pistil. The time of dentition, the time when hair grows upon the scalp, face, or pubes, are characters of the normal process.

The second intrinsic attribute of growth is its *quantity*. Many phenomena may be described, and receive some kind of explanation by noting the ratios of growth in the parts compared. To note the ratios of growth in a specimen is analogous to studying postures which are due to ratios of action in the nerve-muscular apparatus; this suggests the hypothesis that the forces which lead to certain postures in man may be those which control his growth. Illustrations were drawn from the modes of growth seen in the development of buds, and from comparison of wild and cultivated plants. The ratios which indicate growth in man are the subjects of anthropometry; ratios indicate the differences in growth of young and old leaves and in the parts of man at successive ages. Unequal proportional growth of bilateral parts is a common cause of curvatures; this is seen in the increasing curves of bones in the fœtus as development advances, and is abundantly illustrated in the stems of plants. In the two halves of the body and in the corresponding members the ratios of growth are usually equal, but the right arm is often larger than the left in girth—probably owing to the greater amount of stimulation it receives from the brain.

Among the forces producing certain ratios of growth we see that light increases the size of leaves, while it diminishes growth in internodes, and does not control the growth of flowers. Light diminishes growth in the side of the stem of a plant which is most illuminated, and curvature towards the light results. Mechanical pressure, heat, and electricity may to some extent control quantities of growth. Gravity in plants causes upward curvature of the stem and downward curvature of the root. If a circular hole be made in an iron plate, heat causes equal extension of the metal in all directions, and the hole is enlarged, but remains circular. For similar reasons, in the growth of bones in which uniform extension is taking place in all directions, the foramina enlarge, retaining their shape; this is seen to a certain extent in the foramina of the pelvis. In the skull of the infant the anterior fontanelle becomes larger in the early stages of growth. If in the processes of growth one tissue or one part grow in greater quantity than others, that tissue or part is said to be hypertrophied. The sequences of proportional growth are many. In a composite flower the increased growth which occurs in the style after the anthers have discharged their pollen is followed by cross fertilisation. The ratios of the growth of parts may bring about asymmetry of form, malformations, or variations in development, and consequently in the use of parts; examples are seen in descriptions of short-horned and long-horned cattle, and in the proportions of the beak of pigeons. Look at a germinating seed; it consists of an embryo enclosed in its testa or covering; germination begins by the swelling and growth of the embryo; but the testa does not grow, it may stretch a little, but soon the unequal increase in size of the embryo and seed case is followed by splitting of the testa.

We often speak of one subject growing similarly to another, or of the growth in two subjects being similar. It often happens that the similarity of growth is in part due to equal ratios of growth in the two; in this sense similarity of growth may occur in unlike subjects if the ratios of growth are equal in each. We found that movements in two men may be said to be similar when they occur in the corresponding parts of each, and are alike in their time and quantity. In like manner acts of growth are sometimes said to be similar when they occur in the corresponding parts of two or more subjects at the same time, and in the same quantity as in two pea-seeds grown under similar circumstances. Similarity of growth may be partial; in two subjects the growth may be similar as to time, or quantity, or kind. When two processes of growth are different in kind they may be similar in time; the growth of leaves and of underground tubers may occur at the same time, and this may be the only point of similarity between the two processes of growth.

In classifying facts concerning the processes of growth according to such intrinsic attributes as are observable, our object is to seek the causation of the attributes observed.

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Having classed a number of facts as examples of unequal bilateral growth, we may seek to determine the causation of unequal bilateral growth. In pursuing such methods of inquiry we follow methods similar to those which aided us in studying the motor functions of the brain. Thus we have lines of thought to guide observation. It is possible, and indeed highly desirable, to arrange a museum in which specimens are classified according to the attributes of their growth, and the forces that stimulated their growth and produced that special ratio of their attributes. Probably this was in part the principle followed by John Hunter.

The rules that should be followed in making analogies were pointed out. It was shown that we can only compare things or acts as to the characters or attributes which they possess in common; we may compare like functions as to their time and quantity; it is only as to the time of action that we can compare unlike functions; we do not directly compare the material things, but the attributes of their functions. Growth in a child and in a plant were then compared, and other examples were put forward. In our desire to give some kind of explanation of facts in nature we use processes of analogy. Acceptance of the hypothesis of evolution encourages the study of analogies; our purpose in making analogies between processes of growth is to classify examples in the best manner for seeking their causation. The term "reversion" is used to imply that the outcome of growth observed is similar in its intrinsic attributes to others that have previously been observed. The reversion is a repetition or reappearance of vital acts similar in their intrinsic attributes, and occurring in similar subjects. The following proposition was enunciated as an epitome of the principles illustrated: "Every vital act, or act of growth, requires among its antecedents a supply of pabulum, and stimulation by some force incident to the subject."

PYREXIA AND HYPERPYREXIA.

BY T. J. MACLAGAN, M.D., M.R.C.P.,
PHYSICIAN IN ORDINARY TO THEIR ROYAL HIGHNESSES PRINCE AND PRINCESS CHRISTIAN OF SCHLESWIG HOLSTEIN.

(*Continued from page 467.*)

THESE clinical facts afford distinct evidence that injuries and non-inflammatory lesions of certain parts of the nervous centres cause a rise in the temperature of the body as great as that noted in inflammatory and febrile ailments. That such lesions give rise to such results shows as clearly as evidence can that the nervous system exercises a marked influence over the body heat. That all injuries of the nervous centres do not give rise to this result shows that this influence is not generally distributed, but is limited to particular parts of the nervous centres. To recognise this is to go a long way towards recognising the existence of a thermic centre. And on no other view than this can the facts which have been adduced be explained. The evidence in support of the doctrine of a thermic centre is indeed little, if at all, less potent than that on the strength of which we recognise a vaso-motor, a respiratory, a cardiac, and many other centres, whose existence we do not call in question. The chief difference is that the exact area of the thermic centre has not been so accurately defined, though sufficient evidence has been adduced to ead some observers to indicate its probable seat. 1

So far as our present inquiry is concerned—so far, that is, as concerns the theory of fever—the exact location of the thermic centre is not a matter of importance: the important thing is that we should recognise that the evidence all tends to show that there is such a centre exercising a direct and dominant influence over the body heat, and that rise of temperature may be directly due to disturbance affecting it. The acquisition of such knowledge could not fail to materially influence our views as to the causation of fever. If there exist a thermic centre, and if injuries affecting this are capable of causing a rise in the body heat, may not the preternatural heat of ordinary febrile ailments be also directly due to the disturbing action on this centre of the so-called fever poison? Such a question was bound to arise so soon as the full bearings of the facts, physiological and pathological, which have been related, were recognised. The necessary outcome of the recognition of a thermic centre was a "neurotic" theory of fever. And no time was lost in enunciating it; for in the same volume in which his experiments are related, Wood [1] starts this theory. "Granting," he says, "the existence of a fever centre in the nervous system, the laws of life teach us that there must be poisons capable of acting upon it directly, so as to produce fever. Such a fever would certainly be neurotic, although produced through the blood, the vital fluid acting simply as a common carrier. With this understanding of the terms, distinctly clear proof is at present wanting that the fever even of pyæmia, of the exanthemata, or of any so-called blood poisoning is strictly hæmic, since such toxic fever may be due to an action of the poison upon the central nervous system." This theory has been adopted and more fully advocated by Hale White, who believes that "in specific fevers, inflammations, traumatic and urethral fevers, the rise of temperature is due to peripheral stimulation of afferent nerves reflexly affecting the calorific centre." [2]

That there exists somewhere in the brain a centre controlling and regulating the production of animal heat, and that lesions affecting this may cause the temperature of the body to rise, is a proposition which, in the face of the facts related, can scarcely be called in question. It is a clinical fact, demonstrated by many independent observations, made during the last twenty years, that non-inflammatory lesions of certain parts of the nervous centres have for one of their symptoms a great and rapid rise of temperature. But, on the other hand, it is equally a clinical fact that the body heat is raised during maladies in which there is no suspicion of lesion of the nervous centres. So various are the maladies of which increased body heat is a symptom that it is *primâ facie* improbable that this increase should in all cases be brought about in the same way, and the more we consider the clinical facts daily brought under our notice the more apparent does it become that all fever-producing causes are not similar in their mode of action. And, independently of the clinical evidence, a consideration of the physiology of thermogenesis leads to the same conclusion.

The thermal apparatus consists of various parts, and is distributed over the whole body, more or less. First there is the thermal centre, situated in the brain, somewhere above the junction of the pons and medulla. Such a centre would be of no use, and could be no centre at all, without a connexion with the parts of the body in which heat is produced, for without this it could exercise no influence over heat production. It must equally be in direct communication with the parts of the body by which heat is eliminated, for without this it could exercise no control over heat elimination. A thermic centre could no more control and regulate the production and elimination of heat without a connexion with the seats of heat production and heat elimination than the vaso-motor centre could control the circulation through the minute arteries without being in communication with the muscular coats of these vessels. The only way in which such a connexion could be established is by means of nerves, for nerves are the sole media by which impressions are conveyed to and from nerve centres. The parts which go to form the thermal apparatus, therefore, are: 1. The tissues in which heat is formed. 2. The surface from which heat is eliminated. 3. A central controlling power in the brain. 4. Nerves connecting this with the heat-forming parts of the body. 5. Nerves connecting it with the heat-eliminating surface. The harmonious working of these different parts of the thermal apparatus gives rise to the phenomena of thermogenesis; and the general result is a persistent temperature of 98·4°. Interruption of this harmony causes the temperature to rise or fall. Fall of temperature is due either to lessened formation or increased elimination of heat. Rise of temperature is produced either by increased formation or decreased elimination. The latter cause (the hypothesis of Traube) we have already considered in its application to the explanation of the increased body heat of fever, and have seen reason to reject it as incompetent to explain that phenomenon. There remains for consideration only increased formation. Rise of temperature due to increased formation may be brought about in two ways: by direct stimulation of the processes by which heat is formed; or by diminished activity of that by which heat-formation is inhibited, or kept within due bounds.

Rise of temperature due to direct stimulation of the process by which heat is formed.—This process is the tissue metabolism. Rise of temperature thus produced must, therefore, be brought about by some agency which increases that metabolism. Heat is an excretory product, a result of

[1] P. 215. [2] Practitioner, Jan. 1868.

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retrograde tissue change, and cannot be produced apart from that change. To say that heat could be directly brought about by stimulation of a heat-producing centre without increased tissue change would be to place heat as a product on the same level and in the same category as volition and emotion, which is absurd. No, increased heat due to direct stimulation of the heat-producing process must be due to the operation of some agency capable of causing greatly increased activity of tissue metabolism. But the most potent nervous influences of which we know, those which exercise the most powerfully stimulating influence over tissue metabolism and the nutritive processes which constitute it—happiness, change of scene, &c., —never do more than bring metabolism to the standard of health; they cause increased activity of the trophic influences which preside over metabolism, but they never raise the temperature above the normal. That the continuance of normal tissue metabolism is dependent on influences conveyed to the tissues by the trophic nerves is undoubted. But there is no evidence to show either that any influence so conveyed is capable of causing the temperature to rise above the normal standard, or that stimulation of any portion of the nervous centres is capable of causing such increased body heat as is noted in fever. Rise of temperature due to direct stimulation of heat-production must therefore result from the operation of some cause whose influence is exercised directly, not on the nervous system, but on the tissues in which heat is formed, the morbific action taking place, not in the nervous centres, but in the structure of the tissues. We can no more have increased formation of heat without increased activity of the processes during which heat is formed, than we can have increased formation of urea or increased formation of carbonic acid without increased activity of the processes during which they are formed. That is the combustion theory of fever—a theory which we shall by and by see fitly and accurately explains the rise of temperature in the most common and important febrile ailments with which the physician has to deal.

Meantime we are dealing with the influence of the nervous system. Though there is no evidence of the existence of a special centre for heat production, we nevertheless admit, and argue for, the existence of a thermic centre. If it has no influence in heat production, what is the function of this centre? All evidence tends to show that its function is essentially inhibitory, that it controls heat formation, and by its ever-constant action prevents it from passing due bounds, and so helps to keep the temperature at the normal standard. Inhibition restrains and regulates functional activity, as the reins restrain and regulate the pace of a spirited horse. Slacken the reins, and he hastens his pace; let them go, and he is off at the gallop. Inhibition is an active, not a passive, agency, and is in constant operation. This is well exemplified by the action of the vagus on the heart; stimulation of that nerve slows the heart's action, and, if the stimulus be strong enough, may arrest it altogether, the arrest taking place in diastole. But the nervous system which supplies this inhibiting force supplies also another, which, reaching the heart by another channel, has exactly the opposite effect; it stimulates the heart to increased activity. These two forces are in constant operation, and so counterbalance each other that the heart is normally kept beating at the rate of about 70 a minute.

Just as there is no organ whose normal amount of work represents the full measure of its capacity, so there is no function whose normal state of activity represents the full capacity of its performance; each is restrained and kept within physiological bounds by the inhibiting action of the nervous system. The heat-producing function of the body is no exception. Normally, heat production is counterbalanced by heat elimination; but that is only while heat production is kept within due bounds by the constant control of the heat-inhibiting centre. Let the rein be slackened, or heat inhibition impaired, and the temperature runs up several degrees, and pyrexia results: let the reins be cast loose, or heat inhibition paralysed, and heat production is freed from all restraint; it is off at the gallop, and hyperpyrexia results. That is the neurotic theory of fever.

These are the two theories of fever with which we have to deal: 1. The combustion theory, according to which the rise of temperature results from increased activity of the process by which heat is naturally formed in the tissues. 2. The neurotic theory, according to which the rise of temperature is due to impairment of that inhibitory force by which the heat-producing process is kept within normal non-febrile bounds. These two theories are not antagonistic. Each is complete in itself, and exists independently of the other. Each has its own special sphere of application.

There are maladies characterised by increased body heat in which the rise of temperature is best explained by the combustion theory. Others there are also having for one of their characteristics a rise of bodily temperature on which that theory throws no light; but of whose increased body heat the neurotic theory affords an adequate explanation. Here comes in that test of practical utility to which all theories should be subjected, and on the results of which should depend their acceptance or rejection. It will lead to a clearer understanding of the whole subject if we take the neurotic theory first.

The clearest and most undoubted cases of neurotic pyrexia are those in which the rise of temperature succeeds, and is symptomatic of, a non-inflammatory lesion of the nervous centres. Examples of such pyrexia we have in that which accompanies cerebral hæmorrhage, tumour of the brain, and injuries of the cervical cord. No other explanation can be given of the rise of temperature in these cases except that offered by the neurotic theory as here set forth. It is impossible to regard the results of such lesions, consisting as they essentially do of pressure upon or laceration of a portion of the nervous centres, as other than paralytic in nature. The effect of all such mechanical lesions is not to increase, but to impair or abolish, function—to produce more or less paralysis. The only way in which a destructive and non-inflammatory lesion could cause temperature to rise is by impairing that function which normally prevents it from rising—in other words, by impairing heat inhibition. Rise of temperature thus produced will vary according to the extent of the lesion; in slighter injuries there may be no serious damage to the heat-inhibiting centre, and no great interruption of the connexion between it and the heat-forming tissues, and consequently no greater rise of temperature than is noted in cases of cerebral hæmorrhage in which the sanguineous effusion is small and does not open into the ventricles. In more extensive lesions, in which the inhibiting centre is more seriously damaged, or the connexion between it and the heat-forming tissues more seriously interrupted (as in severe cases of cerebral hæmorrhage in which the effusion is more extensive and tears its way into the ventricles), the temperature rises rapidly and to a much higher point; while the highest temperature of all is noted in cases of crushing of the cord, in which the heat-forming parts of the body may have their connexion with the heat-inhibiting centre cut off more completely than is likely to be the case in any intracranial lesion.

Admitting the existence of a thermic centre, whose function it is to control heat formation and prevent undue rise of temperature, we have no difficulty, in the maladies and injuries to which reference has been made, in attributing the increased body heat to interference with that function. The temperature rises because the reins are slackened. The sequence of events seems to admit of no other explanation. Carrying out this line of argument, we cannot fail to see not only that the rise of temperature thus induced must be directly as the extent to which heat inhibition is impaired, but that paralysis of the thermic centre, by abolishing inhibition and leaving heat production in uncontrolled possession of the field, must lead to hyperpyrexia. And the more we consider the pathogenesis of febrile heat, the more apparent does it become that impairment of inhibition is a much more likely cause of hyperpyrexia than is direct stimulation of heat production. Heat inhibition remaining unimpaired, tissue metabolism could scarcely cause those very high temperatures which characterise some cases of hyperpyrexia. Heat inhibition being paralysed, there is no difficulty in seeing that the temperature cannot fail to rise, and to go on rising, so long as tissue metabolism and heat production continue.

All cases of hyperpyrexia we therefore regard as being probably of neurotic origin—as due to some cause which exercises a paralysing influence on the thermic centre. Pyrexia may result either from increased production or from defective inhibition, but marked hyperpyrexia is probably due only to defective inhibition. In the cases hitherto instanced there has been a direct lesion of the nervous centres to explain the paralysis of the thermic centre and the consequent rise of temperature. Other cases there are, however, in which the evidence of paralysis of that centre is equally marked, in which hyperpyrexia is pronounced

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but in which the sequence of events by which it is brought about is not so apparent.

But mechanical lesions and organic disease are not the only causes of local paralysis. Paralytic symptoms, often not much less marked than those which follow organic lesions of the nervous centres, occur in hysteria; we recognise them, too, in connexion with gout, rheumatism, and disease of the kidney, and we constantly find them occur as a sequela of diphtheria. Excessive functional use may also lead to impairment and partial paralysis of a part, as in scriveners' palsy. *(To be continued.)*

A CASE OF RHEUMATIC HYPERPYREXIA.

BY FREDERICK TAYLOR, M.D., F.R.C.P.,
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THE case of rheumatic hyperpyrexia read by Dr. Carrington at the last meeting of the Clinical Society (at which I was unable to be present) reminds me of one that occurred to me a few years ago, in which the difficulties of treatment in private practice had to be met, and were met successfully, though the patient was subsequently removed to the hospital that any relapse might be anticipated.

On October 5th, 1882, I was asked by Mr. F. G. Larkin, of Trinity-square, to see with him a patient living in the neighbourhood. He was a man aged forty, and had been suffering from rheumatic fever for a week, during which time the pains had not been very severe, and he had been treated with salicylic acid in doses of twenty grains every six hours. There was apparently nothing unusual in the case until midnight on Oct. 4th, when sweating, which had hitherto been profuse, ceased, the joints were no longer painful, and in the course of the next few hours he became delirious. At 7 A.M. on the 5th he was beginning to be drowsy, and his comatose condition rapidly developed. We saw him together at 12 noon, when he was quite unconscious, with commencing stertor, and quite incapable of being roused. The temperature in the axilla was 107·6°. There was no bath in the house, but we were at once provided with sponge and cold water, and, having stripped the patient, sponged him freely all over. Shortly afterwards some ice was procured, and while some pieces were put in the water to cool it, other pieces were rubbed gently over the whole surface of the body. For ten or fifteen minutes he still lay utterly helpless, and his breathing became even more stertorous; but after the lapse of that time, his temperature now being only 105°, he began to rouse a little and resist our attentions. By 12.30 Mr. Larkin had procured a full-sized bath from his house, and the patient was placed in it, though not without a good deal of struggling in a dazed sort of way, which of course we were very glad to see. He was, it appears, used to a cold bath, and seemed after a little to comprehend the argument of his wife that it was only a repetition of his ordinary morning proceedings. About 12.40 he appeared so thoroughly roused, the skin so cool, and at the same time his respiration and pulse were so quickened by the struggling which he unconsciously offered, that we removed him, dabbed him dry, and placed him in blankets. He now recognised his wife, and made even joking remarks. The pulse was 150, the temperature 98° in the axilla. Ten minutes later the temperature was 99·5°, the pulse 140. In bed, before the bath, while being sponged, and also in the bath, he passed a quantity of yellow fluid fæces. For the time he seemed out of danger, but knowing the possibility of a relapse of hyperpyrexia, and finding it was almost impossible to have him watched at home without putting them to a greater expense than they could well afford, it was decided to remove him to Guy's Hospital, which was only half a mile distant. He was therefore wrapped up in blankets, and carried down into Mr. Larkin's carriage. He sat up in the carriage, looking terribly collapsed, pale, and livid about the lips; but at 1.15 he was comfortably in bed in the clinical ward of Guy's Hospital under the care of Dr. Wilks, as I had no charge of beds at the time. On admission, his temperature was 101·2°, pulse 148; he was free from pain. At 2 o'clock, temperature 101·6°, pulse 132. He did not know that I attended him in the morning, or that he had ever seen me before. He was only just conscious, appeared to understand what was said to him, but answered questions slowly. At 2.30 P.M., temperature 102·4°, pulse 130, respiration 36 [illegible] was ordered half an ounce of brandy every two hours. His feet were rather cold, and he had some shivering. He was still free from pain, but was beginning to perspire a little at 4.30. The temperature was taken nearly every hour. Up to midnight it oscillated between 102° and 102·6°; it reached 103° at 2 A.M., and varied from that to 103·8° until noon on the 6th. Pains returned in the joints on this day; he was delirious, and slept but little during the night. The highest temperature on the following day was 102·8°, and again he was delirious at night. From this time he improved, and, though he had a slight return of pain and pyrexia on Oct. 21st, the latter never rose above 102°. He was out of bed on Nov. 7th, and left the hospital on Nov. 13th.

There is not the slightest doubt that this patient owed his recovery to the vigorous application of cold at a time when his temperature was 107·6° and he was already unconscious, with stertorous breathing. And though it is impossible to predict what may in the future be done by antipyretic drugs, the use of cold water and ice is still the most efficient means of reducing the temperature in these cases. We have a great advantage in large towns. Most that is required can be brought together in a short time. A bath could be probably procured by purchase or hire in time to be of value. Ice may often be obtained in a few minutes, and in the meantime, a mackintosh or a sufficient thickness of blankets or old linen having been placed under the patient to protect the bedding, he may be freely sponged with the coldest water that can be procured. Or, failing the bath or ice, cold water may be used in the form of a wet pack. The principle is the same in all cases, and that method must be employed which is readiest to hand, and which will most quickly reduce the temperature. In the present case, while waiting for the bath, a rapid and decided effect was obtained by rubbing the surface of the body with lumps of ice big enough to be conveniently held in the hand. In country practice, I can imagine the difficulties are much greater, especially in the summer; probably the wet pack, often repeated, would be most often serviceable.

It is of interest to note that this patient was comatose, with a temperature of 107·6°, and that after the temperature was reduced by cold it never again rose to a dangerous height. About the time of its occurrence two other cases were published with precisely these features—viz., coma, threatening death, when the temperatures were 107·2° and 107·4° respectively, and no second rise of temperature to hyperpyrexia. One was published by Dr. Sinclair in the *Edinburgh Medical Journal* for August, 1882, the other by Dr. Bates in the *British Medical Journal* for October 20th, 1883, and I think I have seen other similar cases recorded since. The fact that life can thus be saved in many cases by one great effort should lead us to make the effort in a determined way when the occasion arises.

St. Thomas's-street.

ONE HUNDRED CONSECUTIVE CASES OF ABDOMINAL SECTION.

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THE following table presents in brief the nature of the cases, with the number of each class, as also the recoveries and deaths:—

No. of cases.	Operation.	Recoveries.	Deaths.
50	Ovariotomy	49	1
9	Hysterectomy	9	—
15	Supra-vaginal hysterectomy	12	3
12	Removal of uterine appendages for disease	10	2
3	Removal of uterine appendages for fibroma	2	1
1	Removal of hydatids of peritoneum	1	—
1	Removal of retro-peritoneal cyst	1	—
1	Incision and drainage	1	—
7	Exploratory operations	7	—
1	Incomplete operation	—	1
100		92	8

Under the above heads I propose to notice the salient points of the more remarkable cases. Before proceeding to analyse the cases, I would make this general remark that I

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have operated in every case of abdominal tumour that has come under my care, whether considered favourable or unfavourable, with the exception of fibroid tumours of the uterus and tumours diagnosed as malignant. In the case of the former of these, a careful selection has been made of such as, from the symptoms and the circumstances of the patients, seemed to me to justify the resort to operation; and these form only a small proportion of the number actually under observation.

Ovariotomy.—Under this head are comprised all cases of ovarian cystoma, parovarian cyst, and cyst of the broad ligament. Of the fifty cases, both ovaries were removed in sixteen instances. The second ovary was in a state of disease more or less marked, or was so injured in the removal of the primary disease as to necessitate its removal also. This state of disease varied greatly in extent. In one extreme the organ was in a state of atrophy, with commencing papilloma on its surface; its fellow, 2 lb. in weight, furnishing a typical example of papilloma, apparently originating on the surface. In another extreme, in the opposite direction, the organ was enlarged to 4½ lb.

Adhesions proper (i.e., the consequence of inflammatory action), more or less extensive, slight parietal or omental up to universal, were present in thirty cases, and enucleation had to be done in four cases. Of the latter the enucleation was single in two and double in two. Of the single cases, one was a suppurating cyst, weighing 3½ lb., enveloped in the left broad ligament, and the other was a large tumour of the left ovary, 17 lb. in weight, and in its separation between twenty and thirty ligatures were employed. There were several pints of free fluid in the peritoneum, and there was considerable pyrexia before operation. Of the two cases of double enucleation, in one the disease appeared to have taken its origin in the left side and to have invaded the right side, where, in the process of separation, the corresponding ovary was found as a flattened body, surrounded by connective tissue. In this case the appearances gave rise to the opinion that before the onset of the disease both ovaries were covered by peritoneum, and therefore situated *in* the broad ligament. As a result of this extensive enucleation, which involved the division of both Fallopian tubes, the uterus was deprived of all its lateral support, and, being at once a source of danger and a useless appendage, it was removed by supra-vaginal hysterectomy. Thus the operation was at once a double ovariotomy and supra-vaginal hysterectomy. The patient recovered without a bad symptom. The tumour weighed 15½ lb. In the other case the left tumour weighed 5 lb., and the right 1 lb.

The next most noticeable case is one of recurrent colloid. In the first operation, on Nov. 13th, 1883, the right ovary formed a tumour 31 lb. in weight, and the left one of 2 lb. Both were typical examples of the ruptured colloid tumour. The peritoneum was extensively infiltrated with this substance, and the omentum was very much thickened. In the second operation, on July 14th, 1886, a tumour, weighing 13 lb. and of the same character as the first, was found attached, by a medium-sized pedicle, on the left side of the pelvis, in the region of the sigmoid flexure, with which it had a very close connexion. The intestine was separated, and the pedicle was secured by double ligature in figure of 8. Strictly speaking, this can hardly be called an ovariotomy, but as the disease originated with the ovaries, I have thought it best to include it under this head, with this explanation. The omentum was now very much more enlarged by colloid deposit, and formed a mass of the size and shape of my two hands placed together palm to palm. In both operations the loose colloid was washed out with warm water, and in both the drainage-tube was used—in the first for 102 hours, and in the second for forty-eight hours.

Another remarkable case was that of a very fat woman, aged sixty-six years. In addition to a tumour weighing 16 lb., there was an enormous umbilical hernia measuring between 4 in. and 5 in. across, with the omentum extensively adherent. The sac was freely laid open in the median line, the omentum ligatured in several portions and divided; the sac was then dissected out and the wound closed by peritoneal sutures of fine silkworm gut (cut off short) and by deep sutures, and so loaded were the parietes with fat that for the thickest part my 3½-inch needles were only just long enough. The patient made an excellent recovery.

In five cases there was twisting of the pedicle. In two of these I diagnosed the condition from the fact that in each there was a history of acute mischief within the peritoneum (such as pain, vomiting, and fever) followed by marked diminution of the size of the tumour. Of course these tumours were extensively adherent.

In three cases the tumour was dermoid. In only one of these were there any adhesions; these, however, were very old and confined to the pelvis, in which the tumour, weighing 10½ lb., was extensively and firmly fixed. In this case it was necessary to wash out the pelvis with warm water and to use the drainage-tube, and although the tube was left in for over six days the temperature only reached 100·2°.

Rupture of the cyst occurred in seven cases. In one of these the contents were thick colloid; in one there had been hæmorrhage into the larger cyst, which had ruptured; one was a papillomatous cyst and all its fluid had been evacuated; and four were examples of the ordinary mucine colloid. One was a case of suppurating cyst enveloped in the left broad ligament, 3½ lb. in weight; and in one there was, in addition to a tumour of 22 lb. on the left side, a chronic abscess between the right ovary and its tube.

The drainage-tube was used in twenty-nine cases for periods varying from twenty-six hours to seven days. Contrary to an opinion recently expressed, the results go to prove that the drainage-tube does not irritate the peritoneum, and is not thereby a source of danger; for without a single exception the product of the tube gradually diminished until at last not more than half a drachm of pale, clear, amber-coloured or almost colourless serum was obtained, and furnished the indication for its removal. On the contrary, I have distinct evidence, both in my own practice and in that of others, to show that the drainage-tube may be removed too early, and a fatal result be thus brought about.

In twenty-two cases the peritoneal cavity, more especially the pelvic portion, was washed out with plain warm water, and no attempt was ever made to sterilise it, as it is called—that is, to deprive it of all or any of Mr. Lawson Tait's "thirty-six beasts." As a rule the temperature is such as to be agreeably warm to the hand; if there has been much sanguineous oozing from torn adhesions, the temperature has been raised to at least 110°; and if at any time the water offered me has been too hot, it has been cooled down by adding the ordinary water of the hospital. For the purpose of pouring in the water I have usually employed a pint jug with a spout. It is almost needless to say that I have not seen any evil results follow this practice, but, on the contrary, I believe, it has been of distinct advantage. It is especially useful in the case of effused colloid matter and of dermoid tumours that have ruptured in the course of their separation, and the water should be used very freely.

The only death in the series occurred in a woman aged fifty-six, who was in a state of great emaciation, with a chronic bronchial cough. The tumour weighed 13 lb., and had been once tapped. It was one of the cases in which the pedicle had been twisted, and severe hæmorrhage had taken place into the large cyst. The tumour was universally adherent to the parietes, omentum, pelvic cavity, and to about two feet of intestine with its mesentery, and many ligatures were required. So great was the oozing from the parietes that I was induced to employ the cautery to some of the more freely bleeding surfaces, but it failed completely, and I then closed the wound, leaving in a drainage-tube. The cough gave no rest to the injured parts within the abdomen, and the patient died in five days and a half. The post-mortem examination revealed some adhesive peritonitis and great congestion of the lungs. It would have been better, I imagine, to wash out the peritoneum with *hot* water and trust to the drainage-tube than to use the cautery in such a case. It will not be out of place to state here that the mortality of my last hundred cases is only 5 per cent.; that of the last ninety only three have died, that of the last fifty-five only one has died, and that the last forty-five have all recovered.

Hysterectomy.—By this term is meant the removal of a pediculated fibroid tumour of the uterus; that is, without opening the uterine cavity. It does not necessarily include the removal of the appendages. Of these cases there are nine in the table, with a clean record. In one of these the appendages were not removed. In two of the cases the pedicle, though of considerable thickness, seemed suitable for the ligature, and I proceeded to treat them in that way. For this purpose the pedicle was first compressed by very powerful forceps, then transfixed and ligatured. After cutting away the tumour in such a way as to leave the stump in the form of two flaps, I sutured these together; but before the process was completed the stump was already oozing. I therefore applied the serre-nœud, and the patients

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recovered without causing a moment's anxiety. Thus all the cases were treated by the extra-peritoneal method, and with my modification of Koeberlé's serre-nœud; and when I state that all the cases that I have thus treated—thirteen in number—have recovered, I think it must be admitted that there is much to be said in favour of this method of treatment.

Supra-vaginal hysterectomy.—As the term implies, this class comprises all the cases in which the uterine body has been involved in the disease, and has been removed at or about the level of the internal os. They are of a much more serious nature than the former, with which they should not be classed. Of these there are fifteen, not including the case of double ovariotomy and supra-vaginal hysterectomy already referred to amongst the ovariotomies. All were treated by the extra-peritoneal method. One patient, aged forty-three, died in thirty-three hours with acute suppression of urine. The liver and kidneys were found in a state of extreme fatty degeneration. Before the operation the specific gravity of the urine was only 1013, and there was a trace of albumen. But the sufferings of the patient were such—due apparently to cystiform degeneration—that I felt compelled to attempt her relief in the hope that the kidneys might not be too much diseased. But the urine became more scanty and more and more charged with albumen, and finally the secretion ceased with the advent of evidently fatal symptoms. The second, aged forty-six, also died with suppression of urine on the seventh day. On the fifth and sixth days the temperature was normal, but the pulse was 120 and there was albumen in the urine, which was still secreted in fair quantity. By the end of the sixth day, however, it became scanty, and within a few hours of death the kidneys quite ceased to act. These organs were large, soft, and slightly congested, and the capsules were adherent. The spleen was very soft and friable, breaking down like a blood clot. The third, aged forty-four, died on the sixteenth day. The posterior uterine wall was enormously hypertrophied, so that the diameter of the section measured over three inches, and at the post-mortem examination the lower segment of the uterus presented the appearance of cystiform degeneration, the contents becoming purulent. It will be observed that two of these cases were almost of the same age—a time of life when, in my experience, one is most likely to meet with latent kidney disease, which, as it were, springs a mine on the operator; for the evidence of this disease is not sufficiently definite to compel the surgeon to refuse operation, when other symptoms and signs seem to demand it.

Removal of the uterine appendages for disease.—In eleven out of the twelve cases the operation involved both sides on account of double disease—chiefly the result of inflammatory action, such as pyo-salpinx and obstruction and adhesion of the tubes. In one of these there was a large hæmato-salpinx on the right side, and occlusion and adhesion of the tube on the left. One case was remarkable for the coexistence of inflammatory obstruction of the tubes and cirrhosis of both ovaries, and this condition was characterised by persistent pain and intense dysmenorrhœa. Another case was remarkable for a healthy condition of the tubes and extreme atrophy of the ovaries, and characterised by persistent pain and complete absence of menstruation. The patient, in this instance, was a married woman, aged forty-four, the mother of two children. Menstruation did not return after the birth of her second child, eleven years ago. For three years after that she was troubled on and off with pain in the left groin, gradually becoming more continuous and severe. For some weeks she was in one of the general hospitals. For months at a stretch she attended the out-patient department of several hospitals. Finally, she came under the care of Dr. Amand Routh in the out-patient department of the Samaritan Hospital, and after prolonged treatment she was transferred to me on account of persistent pain in both groins, of such severity as to unfit her for the discharge of her household duties. The operation confirmed my diagnosis, for both ovaries were in a state of extreme atrophy. One, with its tube, weighed only 60 gr., and the other 65 gr., the greater proportion of these weights being contributed by the appendages. The result has been complete relief from the pain and the re-establishment of the patient's health.

Chronic ovaritis, with enlargement of the organ is represented in the case of a married woman, aged twenty-six, the mother of one child fifteen months old. Leaving her dying consumptive husband, whom she was no longer able to [illegible], she entered the hospital, seeking relief for persistent and severe pain in the left groin. Menstruation was irregular and scanty, and was both preceded (for two or three days) and accompanied with severe pain in the left groin and leg. The left ovary was readily felt on examination, large and prolapsed, and on exposure presented a white and glistening appearance. It weighed over ½ oz., and it was evident that ovulation had been completely arrested. There was also a small parovarian cyst as large as a hazel-nut. The right ovary and its tube were quite healthy, and were not removed. Relief was immediate, and in three weeks the patient returned home and nursed her husband till his death. She is now in perfect health.

Hydro-salpinx and chronic salpingitis were combined in one instance.

In two of the cases of double operation menstruation has not been arrested. One of these is a very remarkable case. The patient, an unmarried lady aged twenty-six, had suffered for many years from persistent pain and severe dysmenorrhœa, with somewhat irregular and scanty menstruation. The tubes resembled small sausages filled with caseous matter, and were very adherent. They were removed close to the uterus along with the ovaries. Menstruation is now very regular, *and quite painless*, and the flow is more abundant and more healthy in character than she remembers it. The operation was performed in October, 1885. The second case is that of a single lady aged twenty-six, who had suffered from pelvic pain for several years, as the result of being upset in a cab. For three months she had been under treatment by rest, &c. Menstruation was very painful; the uterus was in a state of retroversion + flexion, and she had become subject to attacks of trembling of a distressing character, which were very readily induced by any interference with the uterus. I first saw her in consultation with a distinguished obstetrician, who had exhausted all his resources in his efforts to relieve her. The result of the consultation was the decision to recommend the removal of the appendages. What that involved was explained in all its bearings, and the patient at once—that is, within twenty-four hours—assented. The version and flexion were removed by the operation. Menstruation returned after the usual interval, but was painless.

Of the twelve cases two died, one on the fourteenth day and the other on the eighth. In the first case the operation was a very difficult one, from adhesion of the omentum to the parietes in the line of incision and to the uterus and brim of the pelvis, and from adhesions of the tubes and ovaries. For six days the patient went on most satisfactorily, the temperature never exceeding 99·8°, and the pulse for the greater part of the time beating 84. At the end of this time she was moved to the convalescent ward—i.e., on the seventh day,—where she developed a severe attack of catarrhal jaundice, which continued to the end. The second case was that of a single woman aged twenty-nine, who had been an invalid for three years, and had undergone a great variety of treatment. For thirteen weeks she had been in a country hospital without relief. When she first came under my notice I refused to operate, as there was nothing to be detected but the slightly enlarged and tender ovaries, especially the left. After five months' further treatment the persistent and disabling pain from which she had so long suffered was in no degree relieved, and she was admitted into the hospital, for the second time, in May, 1886. Both ovaries were affected with chronic ovaritis, and the right was beginning to atrophy. In neither was there any evidence of recent ovulation. There was no difficulty in the operation, but there was very free bleeding from the parietes. On first removing the dressings on the fourth day, it was seen that there had been rather severe bleeding from the middle of the wound, where one of the sutures had slipped from cutting off one of the ends of the suture too short, and between the lips of the wound there was a considerable blood clot. On the seventh day, owing to unfavourable symptoms supervening, and finding that a probe passed from the hæmatoma into the peritoneal cavity, I opened up the lower portion of the wound including the blood sac, and found some dark fluid in the lower abdomen and pelvic cavity. This was well washed out with warm water, and a drainage-tube inserted; but it was too late, for the patient died on the following day. It was quite evident that the fatal result was due to hæmorrhage from the parietes, occurring before the peritoneal surfaces had united.

Removal of the uterine appendages for fibroma.—During the last eighteen months I have only seen two cases in which I have felt justified in proposing this operation.

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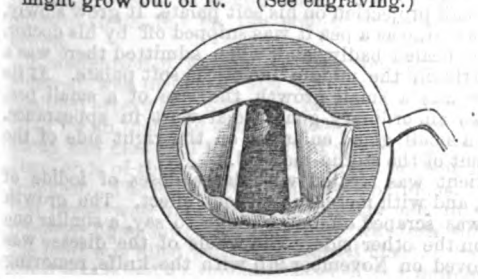
Many cases have been under my observation, and in all I have been able to afford relief either by intra-uterine medication or by constitutional treatment. Whether any of these may ultimately require more active interference remains to be seen. Of the three cases operated on, the first was that of a married woman, who had a multiple fibroid mass of about 1 lb. or 1½ lb. in weight springing from the back of the uterus by a thick and very vascular pedicle, besides quite a colony of small fibroids growing on the fundus. I should have preferred to remove the mass, but the pedicle was too thick and vascular for the ligature, and was in such a position that its extra-peritoneal treatment would have been exceedingly difficult—rendered more difficult by the presence of the numerous small growths, sticking, as it were, on the fundus; so that I had to carry out my first intention by removing the appendages after replacing the mass. The final result is, of course, not yet known. In the second case the condition of things was very obscure, and from the pain felt in the left ovarian region, as well as the physical signs, I believed I had to do with a case of disease of the appendages. The abdominal section revealed several small fibroids in the uterus as the cause of the menorrhagia, and a cancerous mass of small size over the sigmoid flexure. I removed the right appendages, but the left were so closely attached to the cancerous mass that I dared not interfere with them. The patient recovered without a single drawback, and went home in three weeks. In the third case the patient was a single woman aged forty-two, who was in a state of extreme anæmia from menorrhagia due to intramural fibroids. Both pedicles were very short, and on the left side the sigmoid flexure was very much dragged upon when the ligatures were tied. This patient died on the fourteenth day with symptoms of gradually increasing obstruction, having progressed most favourably for the first six days.

(To be concluded).

APHONIA DUE TO SUBGLOTTIC GROWTH (? CONGENITAL); OPERATION; CURE.

BY G. A. CARPENTER, M.B. LOND., M.R.C.S., &c.,
REGISTRAR AND CHLOROFORMIST TO THE EVELINA HOSPITAL FOR CHILDREN.

LOUISA B——, aged eighteen, brought a patient to the Evelina Hospital on April 19th, 1886, and the resident medical officer, Dr. Albert Martin, noticing that she herself was almost voiceless, asked me to make a laryngoscopic examination. She stated that she had been told that "her cry when a baby was a peculiar one," and that she had been only able to speak in a whisper up to the age of ten years. She then went to a boarding-school in the country; her voice became hoarse about that time, and since then has always remained in the same condition. When fourteen years of age she sought advice from a chemist, who stated that there was no cure for her complaint, but that she "might grow out of it." (See engraving.)



On making a laryngoscopic examination, a pedunculated tumour about the size of a split pea, with somewhat elongated pedicle, of a pink colour, and lobulated surface, was seen situated at the anterior commissure. The pedicle of the tumour disappeared under the right vocal cord, and was apparently attached just below it, near its junction with the thyroid cartilage, and arising from the latter. During respiratory movements the tumour moved backwards and forwards with the current of air, now appearing above the cords, and now descending into the subglottic region, almost out of sight. The breathing space was diminished by about a fifth during expiration. There was no dyspnœa. The vocal cords were slightly injected, and during attempts at phonation could not be approximated on account of the tumour wedging itself between their anterior attachments. Movements of abduction were perfectly free. The patient was directed to attend for treatment on April 23rd.

April 23rd.—Tumour easily visible. The larynx was painted with a solution of cocaine, fifteen grains to the ounce, and an attempt made to grasp the growth with Mackenzie's forceps, but without success, partly owing to the broad shank of the forceps blocking the view in the laryngeal mirror, and partly to difficulty experienced in getting the blade well into the narrow commissure, the space afforded being too narrow to accommodate the forceps. After several attempts, it was seen that, owing to the above reasons, the growth could not be seized, and the patient was ordered vapor benzoini for inhalation, and told to attend every other day in order that she might accustom herself to the use of instruments, the introduction of which could not at first be tolerated.

May 4th.—On this date the patient again attended for operation. My friend, Dr. Albert Martin, since the 23rd ult., had been practising her with instruments without cocaine; and so efficiently had this been performed that she could now without difficulty tolerate their use. The larynx was painted with a solution of cocaine, fifteen grains to the ounce; and about ten minutes after its application the tumour was grasped at the first attempt with Mackenzie's tube forceps and removed with ease. It presented a lobulated appearance, was of a pink colour, of fairly soft consistence, and had apparently come away in its entirety. In consequence of the amount of blood about the parts, it was impossible to see whether its removal had been completely accomplished. Its structure seemed to be of the nature of a soft fibroma. Shortly after its avulsion the patient spoke comparatively clearly. Vapor benzoini was ordered for inhalation, and she was directed to attend again the next day.

5th.—Laryngoscopic examination shows no trace of the growth. The vocal cords approximate completely in the mid line, and the patient speaks in a natural voice, much to her delight. As there is some injection of the cords, the patient is to attend daily for a week for topical applications of chloride of zinc, fifteen grains to the ounce.

12th.—The vocal cords are of normal colour now, and the larynx is healthy in every respect. Unfortunately, owing to the small growth being mislaid amongst many pathological preparations, the microscopical appearances of the tumour cannot be given.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

CHARING-CROSS HOSPITAL.

STRANGULATED CONGENITAL HERNIA WITH RUPTURE OF THE INTESTINE; HERNIOTOMY; ENTORAPHY; CURE; REMARKS.

(Under the care of Mr. BARWELL.)

THE peculiarities in the subjoined case were: The unusual length and obliquity of the canal (this resulted from the very recent date of the hernia allowing of no time for the usual approximation of the internal to the external ring); the number of bands running across the intestine within the funiculus of the tunica vaginalis and the tension of the rings themselves, the early rupture being doubtless due to these causes; the edges of the rent had the appearance of being more than twenty-four hours old; the extreme ease with which recovery took place; the remarkable appearance of the natural healing process by the production of a beautifully opalescent and transparent layer of lymph creeping over and covering in the sewn-up rupture. It is

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rare that so good a view of a reparative process can be watched in the human subject.

T. B——, aged twenty, was admitted on Nov. 13th, 1886, at 11 P.M. The patient is unaware of having had any rupture as a child, but at Christmas last a swelling suddenly appeared in his groin and scrotum. This was accompanied by dragging pain in the abdomen and a sense of sickness. A week ago he jumped from a cart and immediately felt a pain in the groin and testicle, and found considerable swelling in that neighbourhood. Soon after he was sick. Next day and again a day or two after, he tried to work, but was unable to do so, and has been several times sick, more especially during this day. The bowels have not acted since the accident.

Mr. Barwell being sent for, he saw the patient shortly after admission. He had a small weak pulse; the skin was cool and somewhat clammy. He complained of much pain in the scrotum, groin, and umbilical region. He had not been sick since admission, nor had he hiccough. The hernial swelling distended the inguinal canal and the scrotum very considerably; it was very tense and tender; the skin over it was red. Herniotomy was at once performed. The sac was reached without difficulty and opened; within it was nothing but a much distended and congested coil of intestine, which lay in contact with the testicle. The external ring was excessively tense; when this was incised the inguinal canal was not found shortened, as is commonly the case with large herniæ, but was of normal length and obliquity. A little inside the ring, the gut showed a more excessively congested patch, running across which was a rupture about half an inch long and ragged, the edges of mucous membrane that protruded being ulcerated. After several bands in the inguinal canal had been divided, and the very tense internal ring incised, it became possible to draw that part of the intestine into better view. The opening was closely stitched, after Lemberg's method, with fine catgut. A stitch was passed through the peritoneal and partly through the muscular coat, a little beyond the highly congested part, and left long, so as to hang from the wound; then all the gut was returned from both ends, leaving the ruptured and sewn part bare, just at the mouth of the ring. This was covered with a double layer of protective, and the whole was dressed with carbolised gauze. Ordered half a grain of opium every fourth hour.

Nov. 17th.—The patient has had no disquieting symptom. Over the ruptured intestine, and covering in the stitches, was a layer of lymph. The highest temperature was 99·8°.

19th.—The temperature rose to 102·4°. On examining the wound the scrotum was found distended, and a little dark blood was found to come from one part near a stitch. The incision here (the front of the scrotum) was opened, and a dark clot turned out. No bleeding point could be discovered, and the wound was closed again.

Dec. 20th.—With the exception of the oozing above mentioned, which did not recur, the patient has had no bad symptom. The wound was rather slow of healing, but he has been practically well for several days.

NEWCASTLE-ON-TYNE INFIRMARY.

DIFFUSED TRAUMATIC ANEURYSM OF THE ANTERIOR TIBIAL ARTERY OF TEN WEEKS' DURATION; ATTEMPTED LIGATURE; AMPUTATION.

(Under the care of Mr. PAGE.)

THE following notes are by Mr. F. P. Maynard, M.B., house-surgeon.

John M——, aged sixteen, was admitted on Nov. 18th, 1886, with the following history: On Sept. 13th, while staying with some friends in Lancashire and playing with other boys, one stabbed him with a penknife (blade two inches long) in the left leg, at the junction of the middle with the lower third, about half an inch outside the crest of the tibia, in a direction backwards and inwards. It bled freely, spurting out (not in jets) dark blood, he says. The leg swelled. He was sent to bed and poultices applied. Four days after, on getting up, he had pains in the leg, and the swelling increased a little. The wound healed, the swelling remained, and on Oct. 4th he returned home. The next day suddenly great pain came on, and the swelling again increased. It was poulticed, and a fortnight later his doctor opened it, when much blood clot was removed, and a few drops of fetid pus. The bleeding, which was considerable, was stopped by pressure. It bled at intervals until Nov. 17th, the day before admission, when free hæmorrhage took place.

On admission the boy was very anæmic and emaciated, with a poor pulse and no appetite. The lower and half of the middle third of the leg were occupied by a swelling about eight inches in length, uniformly fluctuating and soft; and situated about its middle was a small wound, from which blood was oozing, a drop at a time. This swelling communicated distinctly with a similar but smaller one behind the inner side of the tibia. Both were without pulsation. Pulsation was absent in the anterior tibial artery below, but present in the posterior tibial. The foot was œdematous. Pressure was applied and the oozing stopped.

Nov. 24th.—Hæmorrhage occurring, under chloroform Mr. Page enlarged the opening and cleared out about one pound of blood clot, with a tourniquet on the femoral. The anterior tibial artery could not be found, but two or three bleeding venous points were tied, and afterwards one small artery, and the bleeding stopped. The posterior portion of the sac was also opened, but nothing found to tie. The tibialis anticus was completely split up and separated from the tibia, which in one place, the size of half a crown, was eroded, and the interosseous membrane was wanting for several inches. There were no signs of suppuration anywhere except at the old incision. The leg was elevated and dressed, and permission for amputation obtained should it be necessary. At night the bleeding recurred, and the leg was amputated through the middle third by lateral flaps (Bryant's), so as to utilise the incisions previously made into the aneurysm, and the flaps brought together by a continuous catgut suture.

The leg did well, except that pus collected over the inner side of the end of the tibia, and the patient was allowed to go out on Dec. 12th. On the 15th oozing of blood came through the incision. At 10 P.M. excessive bleeding took place, and, under ether, Mr. Maynard opened up the stump, having to cut through firm cicatricial tissue, turned out the clot, and tied some bleeding points, only one of them arterial, and that a small vessel. As the end of the tibia was necrosing, a piece of it was sawn off, some unhealthy granulations scraped, and the flaps sutured. After operation the patient was much collapsed, and rallied slowly.

Jan. 20th, 1887.—Patient has recovered uninterruptedly, gaining flesh rapidly.

Feb. 8th.—a small exfoliation has come away from the tibia. The size of a small button.

25th.—Wound all but healed. Is going to a convalescent home.

EPITHELIOMA OF THE SOFT PALATE,

(Under the care of Mr. PAGE.)

The notes of this case are also furnished by F. P. Maynard, M.B., house-surgeon.

E. D——, aged twenty-seven, a fireman, was admitted on Oct. 7th, 1886. Family history good; habits good, and no history or sign of syphilis. Last April he felt with his tongue a small projection on his soft palate. It grew slowly, and when as large as a pea it was snipped off by his doctor. The wound healed badly, and when admitted there was a small cicatrix in the middle line of the soft palate. At its left border was a small growth the size of a small pea, exactly like an ordinary gonorrhœal wart in appearance. There was a small gland enlarged on the right side of the neck in front of the sterno-mastoid.

The patient was treated with large doses of iodide of potassium, and with mercury, without effect. The growth therefore was scraped off, but, strange to say, a similar one appeared on the other side. The whole of the disease was freely removed on November 9th with the knife, removing the whole thickness of the palate. The wound did not heal well, and the disease returned in it within a month, and the gland in the neck enlarged rapidly. He went home on December 23rd.

On Feb. 1st the man came again to the hospital. The whole of the right two-thirds of the soft palate was a mass of foul epithelioma, which had spread down the right arch to the tonsil, which was itself a mass of disease. He had lost flesh, and looked very ill and anæmic. The gland in the neck had enlarged, and was now as large as an orange; it was adherent to other enlarged glands. They were still encapsuled, but under the sterno-mastoid.

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WOLVERHAMPTON AND SOUTH STAFFORDSHIRE GENERAL HOSPITAL.

RUPTURE OF THE POPLITEAL ARTERY AND VEIN; AMPUTATION; REMARKS.

(Under the care of Mr. VINCENT JACKSON.)

WE are indebted for the following notes to Mr. J. Harley Gough, house-surgeon.

On Nov. 24th, 1886, at midday, T. L——, a miner, aged twenty-one, was working down a coal-pit, when a quantity of rock and gravel fell on his back and right popliteal space. He was knocked down, and remained unconscious for some minutes. When pulled out of the débris the back of his right knee immediately began to swell, the swelling rapidly extending up the thigh and down the leg. He had severe pain in the limb for some hours, but it gradually became easier.

On admission the next day, the right leg and thigh were greatly swollen, hard, tense, elastic, and shining, from about two inches below Poupart's ligament to the toes. The swelling was especially marked in the lower half of the thigh, back of knee, and calf, as the following measurements will show:

	Round calf.	Over patella.	4in. above patella.
Sound limb	11½in.	12¾in.	15¼in.
Injured limb	15in.	17in.	17in.

There was considerable ecchymosis behind the knee and upper part of the calf. The foot and leg were much colder than those of the opposite side, and sensation was blunted. The foot was of a darkish-purple colour, reaching as high as the ankle. Patient did not complain of pain except when the leg was moved. No pulsation could be felt in the popliteal space or in the arteries below. There was no fracture or dislocation. The man was very anæmic; pulse weak, but regular, 110. Tongue clean. The patient was put to bed and the limb enveloped in cotton-wool, elevated, and hot bottles put to the foot and leg.

Dec. 1st.—The condition of the limb remains much the same. The patient has some pain in the knee at times, which is relieved by opiates. The foot is quite cold, and is getting darker in colour. Pulse 120; temperature 99·8°.

4th.—The foot and lower part of the leg are distinctly gangrenous. The temperature has been slowly rising for the past few days. The swelling of the limb has neither increased nor diminished. Amputation was deemed advisable, and the patient having consented, the limb was removed about three inches above the condyles of the femur by means of long anterior and short posterior skin flaps. The subcutaneous tissues and inter-muscular spaces were filled with dark clotted blood. The femoral artery was patent, and did not contain a clot.

After the operation the patient suffered much from collapse, but towards evening recovered; he had a good deal of pain, which was relieved by morphia. The wound was dressed twice daily for some days, on account of the discharge. The stump slowly became less in size and softer, and on Dec. 24th he got up for the first time. The patient made a good recovery, and went out convalescent on Jan. 26th, 1887; he would have gone home sooner, but, unfortunately, fell on the end of his stump some days before.

Examination of the limb.—After the operation the limb removed was dissected, and a transverse rupture of the popliteal artery and vein was found, the ends being separated for an inch and a half. The seat of the rupture was about the centre of the popliteal space. The proximal and distal ends of the artery were retracted in their sheaths and occluded. The ends of the vein were patulous. The popliteal nerve was intact, and apparently not injured. The posterior ligament of the knee-joint was torn through, and the joint was filled with semi-clotted blood. Extravasated blood was found everywhere between the muscles and also subcutaneously, the subcutaneous layer being more than half an inch thick in places.

Remarks.—Rupture of the popliteal artery and vein without external wound is a rare injury, only very few cases being recorded. Complete rupture of the artery alone is uncommon, but occurs more frequently than rupture of both vessels. The signs and symptoms are much the same in both cases—viz., rapid swelling of the leg and thigh, no pulsation in the popliteal space or in the vessels below, and coldness of the limb. There are two lines of treatment: (1) ligature of the ruptured ends of the vessel or vessels; (2) amputation of limb. In the first method it must be difficult to apply a ligature to the torn ends of the artery, and even when done the circulation may not be established, owing to the pressure of the extravasated blood on the collateral branches, although tension may be considerably lessened by incisions. Experience shows that amputation of the limb is followed by the best results, and this should either be done as early as possible or when gangrene becomes evident, and without waiting for the line of demarcation. Ligature of the femoral is obviously of no use in these cases.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Gouty Parotitis and Gouty Orchitis.—Empyema, with Pulmonary Gangrene, following Enteric Fever, treated by Perflation.

AN ordinary meeting of this Society was held on March 8th, 1887, Mr. G. D. Pollock, President, in the chair.

A paper on Gouty Parotitis and Gouty Orchitis, by Dr. DEBOUT D'ESTRÉES of Contrexéville, was communicated by Dr. Garrod. The object of the paper was to fill a lapsus in the literature of gout, in so far as this disease affects the glandular system, more especially the parotids. There are genuine attacks of gout having their seat in the glands and alternating with articular manifestations. The following case was related: X——, aged sixty-eight, a well-marked gouty subject, was suddenly attacked with swelling at the angle of the jaw, which resisted ordinary treatment, and only disappeared on the invasion of the knee on the opposite side. The second parotid and the other knee were also attacked subsequently. Some little induration of the parotids remained, together with salt taste in the mouth, due probably to the presence of urates in the saliva secreted by these glands. Similar cases by Drs. Garrod and Rotureau were also referred to. These cases were promptly relieved by a tincture of fresh colchicum flowers, fifty drops thrice daily. The author had only seen two cases of gouty orchitis, which, resisting treatment, subsided spontaneously on the appearance of gout elsewhere. The left testicle is most frequently affected, but not invariably. He had not seen it in both parotid and testicles in the same patient.—The PRESIDENT had never seen parotitis in association with gout, but had met with cases of orchitis in men of advanced life who were the subjects of articular gout.—Sir DYCE DUCKWORTH thought that gouty parotitis must be a great rarity. Sir James Paget had remarked on the great immunity of the lymphatic tissues from gouty inflammation. He considered that the correctness of the diagnosis was proved in these cases by the effect of the treatment and by the fact that the inflammation of the parotid gland or testicle alternated with articular pain.—Mr. STEPHEN PAGET quoted cases which showed that there was an association of parotitis with dyspepsia and abnormal nervous symptoms. He asked whether it was possible that the parotid lesion could be aided by a faulty state of the gland induced by a condition of chronic dyspepsia.—Dr. BERNARD O'CONNOR referred to a case under his care of gout associated with swelling of the sublingual glands.—Dr. GARROD had collected 2000 cases of gout, but there was not one with a history of parotitis. He had since met with a case—a man of sixty-five, a gouty subject, who was attacked with acute inflammation of both parotid glands—which subsided without suppuration. He thought that cases of suppurative parotitis could not be of true gouty character. He had seen many cases of orchitis in which the swelling vanished on the appearance of arthritic gout.—Dr. D'ESTRÉES, in reply, said there was a slight dyspeptic history in his patient. Some saliva examined during the attack was acid, and gave a murexide reaction. Since he had written his paper he had heard of another case, under the care of Professor Damaschino of Paris, in which the primary gouty manifestation occurred in the parotids. The cases might induce surgeons to employ medicinal means before resorting to operative interference.

Dr. WM. EWART and Mr. R. FITZROY BENHAM read a case of Empyema with Pulmonary Gangrene following Enteric Fever, treated by Perflation. The patient, a male, aged ten years and eleven months, was seized with enteric fever (due

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probably to drain infection) on April 23rd, 1886. The symptoms were not unusual in character, but severe in degree, especially the delirium. The treatment adopted by Mr. Benham consisted of quinine, which proved ineffectual, and of antipyrin, which appeared to relieve the pyrexia and the delirium. The patient was convalescing at the end of the fourth week, when peritonitis supervened, soon followed by left pleuritic pain. Within a week the signs of left empyema were fully developed, the exhaustion was extreme, and the dyspnœa bordered on asphyxia. On June 11th aspiration was made, and three-quarters of a pint of thick shreddy pus removed, with relief of the most urgent symptoms. The following day the chest was opened freely in the anterior axillary line (fifth space) and in the scapular (ninth space), a large quantity of pus escaping. Free discharge continued, but no injection was used. On June 15th perflation was performed under spray in the manner depicted in THE LANCET (July 31st, 1886), the appliances being elastic tubing, a Woolffe's bottle containing carbolic acid solution (1 to 10), and a hand-ball bellows. The air was delivered into the centre of the chest through the anterior opening, and allowed to escape only at the posterior. The result was the expulsion of fetid pus, of a piece of necrosed lung, and of heavy false membranes. A smaller mass of membrane was expelled by perflation the next morning, and a small piece on the third day. From this day the fetor ceased, and the amount of pus decreased rapidly. On the eighth day the discharge was turbid-serous, and it remained serous to the end. Both wounds were closed on the thirtieth day from the date of incision, and on the twenty-fourth from the first perflation. Among the advantages obtained in this case by the method employed were the following: 1. Early removal from the chest of putrid residues. 2. Presumably considerable shortening of the period of suppuration as a result of (1). 3. Avoidance of permanent atelectasis and of eventual resection of ribs as a result of (2). 4. Avoidance of deformity as a result of (3). 5. Daily dressings free from discomfort and from wet (excepting the spray). 6. A drier state of the cavity and of its coverings than is allowed by fluid injections, with absolute sweetness of the discharge.—The PRESIDENT asked what was the advantage of perflation over free incision at the most dependent part, with, if necessary, excision of the rib.—Sir DYCE DUCKWORTH believed the practice of washing out the pleura was a mischievous one. He would use perflation in future in that class of cases where, having made a free opening with antiseptic precautions, the patient did not progress satisfactorily.—Mr. GODLEE thought the case peculiar, in that a piece of gangrenous lung was discharged without a history of previous fetid expectoration. He considered that a free opening posteriorly without perflation would have met the needs of the case. Injecting the pleura was a mode of treatment now passing out of fashion. In cases requiring it, he recommended blowing iodoform into the pleural cavity with an insufflator.—Mr. BENNETT inquired what was the result of treatment in adults and in those cases which, previous to its use, had not done well. He could not recommend its adoption in general surgery, for in one case in which he perflated an abscess in the thigh, he produced extensive subcutaneous emphysema.—Mr. R. W. PARKER had published a paper in the Society's Transactions many years ago advocating a similar method to this. He had abandoned injection, and made a single large opening, into which a double drainage-tube was passed.—Dr. DAWTREY DREWITT likened perflation to the schoolboy practice of "blowing" an egg, and pointed out the difficulty of separating the inner membrane from the shell by that method.—Mr. HOWARD MARSH said he adopted the following method of evacuating an empyena:—First make an opening high up; from this pass a catheter, and feel the lowest part of the pleura; then make a large opening at this lower point, and allow the upper one to close. He believed washing out the cavity was not advisable, and, indeed, unnecessary. He objected to the insufflation of iodoform, which, he thought, might act as a poison. In excising a rib, if the periosteum were left deformity would be avoided.—Dr. SANSOM said the air would not be sufficiently purified by being blown through water. He advocated passing the warmed air over blotting-paper, cotton-wool, or sponge, saturated with pure carbolic acid.—Mr. PEARCE GOULD thought the value of the method could scarcely be judged from one favourable case. He considered the best treatment was a single free opening in the sixth or seventh interspace, and in the post-axillary line.—Dr. EWART, in reply, agreed as to the value of a large opening. He believed perflation useful in recent empyema to discover whether loose pieces were present. In older cases it might be beneficial by effecting the removal of an irritant. He had treated five cases of left-sided empyema, and perflation in them had produced no effect on the heart. In using this method in general surgery care should be taken to have free openings, so as to avoid undue pressure.

PATHOLOGICAL SOCIETY OF LONDON.

Adenosarcoma of Tongue, with Calcifying Nodule in Centre.—Alveolar Sarcoma.—Malarial Diseases of Liver and Spleen.—Extra-uterine Pregnancy.—(?) Cirsoid Aneurysm.—Cholesteatoma at Base of Brain.

AN ordinary meeting of this Society was held on the 3rd inst., Sir J. Paget, Bart., F.R.S., President, in the chair

Mr. R. J. GODLEE showed a specimen of Adeno-sarcoma of the Tongue, with ossifying (? calcifying) nodule in the centre. It was a hard nodule of the shape and size of a small pisiform bone, and having the appearance of bone, removed from the centre of a tumour on the under surface of the tongue near the tip. The patient was a woman aged twenty-four, a patient of Mr. S. N. Bruce. The tumour had only been noticed five weeks, and had already sloughed over an area the size of a shilling on the under surface, through which the hard mass was removed with a sinus forceps. Some weeks afterwards the tumour was excised with scissors. The growth was an adeno-sarcoma, the sarcomatous tissue being abundant and highly vascular, and the adenoid tissue arranged in acini of varying size lined with square epithelia. The acini were in parts dilated into small cysts containing a brownish structureless material, in which were nuclei (? leucocytes). The hard mass on section had roughly the appearance of imperfectly formed bone. Mr. Godlee suggested that the tumour, which he believed to be unique, was connected with a mucous gland from 7 to 10 lines long, described by Nuhn in 1845 and by Blandin at an earlier date, in this situation lying beneath a few fibres of the styloglossus. A specimen of this gland, prepared by Mr. Pearson at the College of Surgeons, was shown. It was pointed out that the presence of bone would be very remarkable, but it was added that the microscopical examination was not unequivocal, and that it might, after all, be merely a mass formed by a cretaceous or calcareous change in the contents of one of the cysts contained in the tumour.—Mr. STEPHEN PAGET observed that the tumour seemed to be very similar to some tumours found in the palate. In the age of the patient, the chronic course of the disease, the superficial ulceration and calcification, he saw points of resemblance. He thought such a case might be explained on the hypothesis that there were vestiges of gland tissue in the tongue as well as in the palate.

Mr. G. R. TURNER read a case of Alveolar Sarcoma. The tumour grew in the left loin of a man, aged twenty, and proved fatal seven months after it was first noticed. Its connexions were such as not to admit of removal. It sprang from the bone of the twelth rib, from the periosteum of the transverse processes of all the lumbar vertebræ, and from the crest of the ilium below. It was not encapsuled, and had extended inwards, almost surrounding the aorta and inferior vena cava, completely enclosing the left common iliac vessels, converting the pancreas, lumbar glands, and psoas muscles on the left side into masses of new growth. Secondary deposits were found in connexion with the diaphragm, omentum, mesentery, meso-colon, and pleura. Microscopical specimens and drawings by Dr. Délepine were shown. The tumour was a well-marked instance of alveolar sarcoma, the cells being chiefly oval or pyriform; the stalk of the latter could be seen to be continuous with the fibrillated septa of the stroma. The diaphragmatic growth showed the muscle fibres separated by an alveolated stroma containing cells. And the same appearances were observed in the secondary pulmonary growth. Reasons were given for regarding the growth as sarcomatous rather than carcinomatous, and the relations of lymphadenoma with alveolar sarcoma were discussed. In reply to Dr. Norman Moore, Mr. Turner said the suprarenal body was not invaded; the growth passed behind the left kidney, but neither it nor the suprarenal body was involved.

Dr. NORMAN MOORE showed specimens of Malarial Disease

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of Liver and Spleen, with Tuberculosis. A greatly enlarged spleen weighing 60 oz., and a liver weighing 120 oz. Naked-eye sections of the spleen showed numerous white specks throughout it, and there were some larger masses which had become caseous. None of the masses had injected edges. The liver contained many similar small white masses. The whole peritoneum was covered with similar masses, some of them caseous. The mesenteric glands were caseous. There were some small caseous masses in both kidneys. A layer of caseous material, a quarter of an inch thick, surrounded the upper part of the rectum. In all the lobes of the lungs were scattered groups of masses exactly resembling those in the liver. One abdominal caseous gland had broken down in the middle. Under the microscope the masses in the liver and spleen were seen to consist, some merely of caseous material, others of collections of small cells, some near bloodvessels, others in the midst of the gland tissue. Besides the small round cells, a few multinucleated cells could be seen in some of the masses, but no true giant cells. After several examinations no bacilli were found. The liver showed some general connective tissue increase. The spleen showed collections of cells precisely resembling those in the liver, and also many pigmented patches, a large connective tissue increase, a general infiltration by blood-cells resembling that seen under the microscope in nutmeg liver. The patient was a man aged twenty-one years, who was in St. Bartholomew's Hospital, first under Dr. Moore's care and afterwards under Dr. Andrew. He had worked on a railway in Cape Colony from 1880 till 1884, and in 1883 was laid up for a year with tertian and quotidian ague. He went to Ceylon, and had dysentery on the voyage. From 1884 he had noticed his greatly-enlarged spleen. After returning to England he had fever again. He had never had syphilis. He was admitted to St. Bartholomew's Hospital on Nov. 26th, 1885, and died Jan. 21st, 1887, having been out for a short period during his illness. He suffered from an irregular fever, for two months had a temperature suggesting quotidian ague, then two months of almost normal temperature, then daily fever for a week, then six weeks of normal temperature, then fever again. He improved under very large doses of quinine, thirty-five grains every twenty-four hours, and his spleen was perceptibly reduced in size. The proportion of white blood-corpuscles to red was throughout about one to five. The history of malarial infection, and the appearance of the liver and spleen, make it certain that the chronic inflammation is that form of cirrhosis due to intermittent fever. The large quantity of caseous material in the glands and the distribution of the white masses over the peritoneum are strong evidence that the white masses in the liver and spleen are true tubercle. Gummata they are not. They resemble of course leukæmic tumours, but their caseous degeneration as well as their distribution seem to negative the hypothesis that they belong to this class. They are tubercles invading viscera already affected by long-lasting changes due to malaria.—Dr. COUPLAND remarked upon the very high degree of leucocytosis present in this case; he would almost have been inclined to regard the case as one of leucocythæmia. Was it usual in malaria to have so large an increase of white corpuscles?—Dr. G. N. PITT thought the association of diseases in this case resembled that seen in hypertrophic cirrhosis of the liver. He had seen several cases in which acute tuberculosis terminated cirrhosis.—Dr. GOODHART thought that a fair proportion of cases of leucocythæmia supervened on malaria. Enlargement of glands or lymphatic leukæmia was often present also, and the complication of tuberculosis was not unknown. He thought these mixed cases were related, and could be traced to malarial poisoning.—Dr. MOORE, in reply to the President, stated that the red corpuscles were normal. He quite admitted the unusual proportion of white corpuscles, but could not explain the appearances on any other hypothesis than that of tuberculosis. He had seen four cases of malaria with leucocytosis, and had seen true tuberculosis supervene upon malaria.

Mr. LAWSON TAIT read a note on the Pathology of Tubal Pregnancy. The views on extra-uterine pregnancy which were first advanced by him at the Obstetrical Society in 1873 were immediately characterised by Dr. John Perry as having at least the merit of simplicity. Many post-mortem examinations and thirty-four clinical cases operated on by him, the remarkable observations of A. Johnstone and Bland Sutton that the inner surface of the uterus and tubes is affected by menstruation, supported these views. He regarded the periodic desquamation and turgescence of the endometrium as essential to the retention of a fertilised ovum, and that is why it is that we have to reckon pregnancies from menstrual dates. He suggested that the starting-point of menstruation—not the cause—lies in the Fallopian tubes. This view is sometimes erroneously called Tait's tubal theory of menstruation. Removal of tubes without the ovaries will in the majority of cases arrest menstruation; the only conclusion is that the tubes have far more to do with menstruation than the ovaries. The ciliary action of the tubal mucous membrane prevents the access of spermatozoa, and aids in the passage of the ovum. The effects of desquamative salpingitis would be to allow the spermatozoa to enter, and would lead to the retention of the ovum in the tube. The tube might thus retain a fertilised ovum and become distended by its growth. Rupture always occurs about the end of the third month. The primitive facts of anatomy explain the rest of the pathology of this interesting displacement. The preparations the author has examined at the time of rupture show that the meso-salpinx is practically obliterated by the separation of its layers, just as the broad ligament is obliterated by the growth of a broad ligament cyst or the occurrence of a broad ligament hæmatocele. The tube inevitably ruptures, and the site of the rupture is the leading feature, not only of the future pathological changes, but of the clinical progress and treatment of the case. The site of the rupture is determined by the seat of the placenta, and if the rupture takes place at any part of the tube covered by peritoneum, extravasation takes place into the peritoneal cavity, forming a tubal intra-peritoneal hæmatocele. If, however, the rupture takes place at a point in relation to the cavity of the broad ligament, the hæmorrhage takes place into the cellular tissue, this fact being alone sufficient to aid materially in arresting the quantity of the hæmorrhage; also into a cavity which is not indefinitely capable of extension. We have in this case the broad ligament pregnancy which formerly was known as the "grossesse sous-peritoneo-pelvienne" of Dezenneris. The relation of the area of the broad ligament site to the seat of rupture which corresponds to the peritoneum makes it certain that the latter will be much more frequent than the former, and clinical evidence establishes this fact. Tubal rupture into the peritoneum will be almost inevitably fatal to the mother, and therefore certainly fatal to the child. Indeed, we have only one indubitable case in which a fatal issue has not taken place, and that is the celebrated case recorded by Jessop, of Leeds. Tubal rupture into the broad ligament, on the contrary, is probably very rarely fatal. The majority of the ova die before they reach maturity; after death takes place they become absorbed. In other cases the ovum dies during the middle months of pregnancy, and it is found after death as a lithopedion, or it may suppurate and discharge above the brim of the pelvis into the bladder or rectum. In a few cases it goes on to maturity; a false labour ensues, in which the child may be removed by abdominal section, an operation in which it is not necessary to open the peritoneal cavity. It will thus be seen that the pathology of extra-uterine pregnancy is made extremely simple by these views, and they explain all the varieties that are known, bringing them absolutely within two categories, and from these pathological facts the rules for surgical proceedings can be very easily laid down.—Mr. DORAN observed that the true pathological question suggested by Mr. Tait's paper was the relation of inflammation of the tube to extra-uterine pregnancy. Disease of the tubal mucous membrane was very common, as the tubal canal communicated with the exterior through the uterus and vagina, and was thus liable to septic infection and to extension of inflammatory affections from the uterus. If, then, this "desquamative salpingitis" rendered the patient liable to tubal pregnancy, that form of pregnancy ought to be very common. Freund's theory that a large proportion of tubal pregnancies ended by early arrest of the development of the fœtus and disappearance of all objective and subjective symptoms would account for the discrepancy suggested by the great frequency of tubal disease and the apparent relative rarity of tubal pregnancy.—Dr. MOORE asked whether there were any specimens in illustration of the paper, and whether the diagram was only a diagram or represented a particular case.—Dr. W. S. A. GRIFFITH thought that, without an examination and criticism of specimens, the evidence in support of Mr. Tait's views was

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not incontrovertible; the drawings were diagrams, and not representations of facts. In reference to the rupture in tubal pregnancy taking place at the side of the placenta, he reminded Mr. Tait that this structure was not differentiated till after the third month of gestation. He had a month previously brought forward the first recorded case of salpingitis as a cause of extra-uterine fœtation (THE LANCET, p. 268).—Mr. LAWSON TAIT, in reply, said that one of the drawings represented a particular case; the other was a diagrammatic representation of the parts seen in a case he had operated upon. He was glad to hear of Freund's views, as they confirmed the impression he had been arriving at that tubal pregnancy was common. In reference to the placenta question, he was frequently engaged in removing pieces of placenta before the third month of gestation; they were usually infiltrated with blood, hence the difficulty in recognising their real nature.

Mr. R. BARWELL showed a case of (?) Cirsoid Aneurysm of the Left Upper Extremity. The man came for a wound of the left index finger, the bleeding from which was controlled with difficulty by a firm pad under the bent fingers. Gangrene of two fingers commenced after thirty-six hours. The arm was amputated above the elbow after ligaturing the subclavian artery. The veins of the arm and forearm pulsated strongly and with a thrill, but there was no buzzing unless on direct auscultation. The arteries freely pulsated everywhere in the affected limb. There were no discolourations or nævi. There was no hypertrophy, or warts, or overgrowth of hair. The condition was congenital. There was no direct communication between any artery or vein. A venous plexus existed on the median nerve just above the wrist. The venæ comites were not large. The third part of the subclavian ligatured was not enlarged. The brachial and other arteries were greatly enlarged and tortuous. An aneurysmal dilatation was seen at the origin of the superficialis volæ from the radial. There was not that meshwork of mixed arteries and veins as seen in cirsoid aneurysms. It was neither aneurysmal varix nor varicose aneurysm. Macro-anginosis was the term he applied to this unique disease.

Dr. J. A. PRICE showed a specimen of Cholesteatoma at the Base of the Brain, taken from the body of a widow, aged thirty-nine. It was situated in the space extending from the medulla to the optic chiasma, laterally extending as far as the temporo-sphenoidal lobes; it was encapsulated, the capsule being continuous with the pial arachnoid, and the brain substance was everywhere free from new growth. Microscopically, many cholesterine crystals were found in it, besides granular masses, and cells devoid of nuclei; the tumour was very brittle, and of pearly white aspect. There were other similar smaller tumours by its side. The patient had been ailing for five years, and had been liable to seizures, probably of an epileptic character; she had atrophy of both discs, and had been blind with the right eye for four years. A similar case had been fully reported in the fifth volume of the Society's Transactions.

The following card specimens were exhibited:—Mr. D'Arcy Power: A Rhinolith. Mr. Shattock: Colles's Fracture, with Displacement Forward of Lower Fragment. Mr. Doran: Horny Growth from Neck. Dr. G. N. Pitt: Thickened Capsule of Testicle. Dr. A. Withers Green: Aneurysm of Aorta ruptured into Pericardium.

MEDICAL SOCIETY OF LONDON.

Annual General Meeting.—Perforation of Femoral Artery and Vein from Suppurating Bubo.

THE annual general meeting of this Society was held on Monday last at 8 P.M., Mr. R. Brudenell Carter, F.R.C.S., President, in the chair. The President and officers of the Society for the ensuing year were elected. Their names appeared in our columns last week. The report of the Council stated that the Fothergillian gold medal would not be awarded, as only one essay, of insufficient merit, had been received.

Mr. MARMADUKE SHEILD read a case of Perforation of the Femoral Artery and Vein that occurred in a man aged twenty-two, a porter, admitted into Westminster Hospital under the care of Mr. Macnamara. The patient had a chancroid on the penis, phimosis, and a suppurating bubo in the groin, which was opened and profuse and offensive discharge let out. Counter-openings and stimulants were employed, but the suppuration extended. When the case came under Mr. Sheild's care, on Feb. 9th, 1887, the soft parts in the groin were much involved. The sinuses were slit up. One sinus passed behind and internal to the femoral vessels, leading into a cavity. The cavity was sponged out, and then bleeding commenced, slow and venous at first, arterial afterwards. The cavity was laid freely open and compression practised at the groin. Digital compression was successfully tried for a time. Davy's lever was employed to control the hæmorrhage, and both vessels were exposed and the ulceration explored. A hole the size of a crowquill was found in the femoral artery, or a part of the vessel near the trunk of the artery. The artery was tied once by itself and a second time with the vein lower down. The patient was much exhausted, and collapsed. Notwithstanding every attention, the patient remained very ill with pyrexia and rigors, and died a few days after the operation of ligature. At the partial inspection after death the head of the femur was found to be displaced towards the obturator foramen. The ligatured vessels were removed, and the specimen was shown to the Society. The vein between the ligatures was in a sloughy state. The superficial femoral artery was obliterated by firm clot. The author reviewed the literature of these rare cases.

Sir W. MAC CORMAC said the cases were very rare. He gave his own experience of like cases. It did not follow that ligature of both vessels near Poupart's ligament would necessarily lead to gangrene. Stromeyer said that double obstruction was a sufficient indication for amputation of the limb near the trunk. He strongly agreed with Mr. Sheild that pressure was an uncertain method of treatment.

Mr. BERNARD PITTS referred to a case of suppuration above Poupart's ligament in a boy. There was high fever. Aspiration was at first practised. But the fever continued, and abscesses appeared below Poupart's ligament. These abscesses Sir W. Mac Cormac incised, and counter openings were made. A few days later free hæmorrhage occurred, and this was found to proceed from a hole in the anterior aspect of the femoral artery half an inch below Poupart's ligament. In finishing the operation of ligature of the artery a snick was made in the vein, and this necessitated the double ligature of the vein. The boy recovered; the limb did not become gangrenous, was merely cold for a few days, and ultimately became a serviceable limb, though it was a little smaller than the sound one. He advocated powerful cauterisation as the treatment for sloughy wounds.

Mr. PICKERING PICK attempted to explain why it was that the carotid and femoral arteries were the only arteries that were the seats of this form of hæmorrhage. He considered that disease of the superficial glands might lead to affection of the deeply situated glands which are bound down by the strong fascia of the limb. It was possible that this close confinement by a tense fascia had at least some share in causing ulceration of large bloodvessels.

Mr. ASTLEY BLOXAM referred to two cases of hæmorrhage from the groin resulting from suppurating bubo: one occurred in a female and the other in a male. Both died from exhaustion, and in both the femoral artery was ulcerated. He alluded to a case of Mr. Morrant Baker's, in which the gluteal artery was the bleeding vessel, and to one in which the iliac artery opened into the psoas abscess. Pressure would, in his opinion, be valueless; the vessel should be secured where its coats were in a healthy state.

Mr. C. B. LOCKWOOD said that moist gangrene would be very likely to occur after double ligature when the limb was not in a healthy state, as when the ligature was performed for aneurysm or infiltration of the limb with blood.

Mr. THOMAS BRYANT was much pleased with the recital of Mr. Sheild's rare cases. And he could not help thinking that this condition of sloughy ulceration was responsible for the changes about the artery that led to ulceration and hæmorrhage. He had never met with one case of the femoral artery or vein which required the treatment such as Mr. Sheild had adopted. He had had cases of copious hæmorrhage in the inguinal region, all of which had subsided under simple pressure; and yet it was doubtful whether there was not perforation of the large vessels. The diagnosis was the difficulty. The hæmorrhage frequently came from the lower end of the bleeding vessel. Pressure should always be tried first. The axillary vein and internal jugular vein have often been tied without bad results. Some authorities in Germany advocated ligature of the main arterial trunk if the main venous trunk were ligatured.

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Mr. HARRISON CRIPPS alluded to a paper which he had contributed to the St. Bartholomew's Hospital Reports, 1874, of fifty cases of ligature of the femoral artery in its continuity. He considered that pressure and bandaging, properly applied, was the most appropriate treatment for treating secondary hæmorrhage from the femoral artery. It was important to apply pressure above as well as below the bleeding point.

The PRESIDENT referred to the importance of ligaturing the artery at the bleeding points when ulceration from gunshot wound has been followed by secondary hæmorrhage.

Mr. M. SHEILD, in reply, pointed out that the saphena vein might be patent, and allow of a return of blood from the limb by its communications with the deep and muscular veins.

ACADEMY OF MEDICINE IN IRELAND.

Ovarian Tumour.—Treatment of Vaginismus.—Porro's Operation for Rupture of the Uterus.

AT the meeting of the Obstetrical Section held on Jan. 7th, The PRESIDENT exhibited part of an Ovarian Tumour which had been developed between the layers of the left broad ligament. On opening the abdomen the tumour came into view. It was punctured, and a large quantity of fluid escaped, and then the tumour partly collapsed; but he found it impossible to pull it out. He found that it extended along the uterus to the iliac region, and filled the whole of the broad ligament. It seemed to be unilocular, and therefore he only removed the part of it which he now showed, leaving about a third of the tumour behind. He removed the peritoneal covering and tried removal by enucleation; and in some places it gave way easily enough, but afterwards he came to adhesions which rendered that mode of enucleation impossible. The woman had hardly any rise of temperature until the second or third week after the operation, when she had a slight rise of temperature. She was now apparently quite well.

Dr. MORE MADDEN read a paper on the Treatment of Vaginismus, which he defined as excessive sensibility of the vaginal orifice and adjacent parts, attended with such spasmodic contraction of the sphincter vaginæ as to form an impediment to marital intercourse. This, he believed, occurred chiefly in patients of a hysterical temperament, and was generally occasioned by neuromata, confined to the parts supplied by the superficial perineal branch of the pudic nerve. From clinical experience he could vouch for the possibility, in many cases, of relieving the most intense dyspareunia thus caused, without any operative interference beyond the forcible dilatation of the vaginal canal and stretching the pudic nerve implicated by the disease. The method of effecting this was detailed, and the writer, at the same time, laid stress on the importance of conjoint employment of that topical and general sedative treatment which is indicated in these cases, as in all other local manifestations of constitutional, nervous, or hysterical disorder. In some instances, however, these failed, and we must then fall back on Sims' or Emmet's operations for the cure of vaginismus, the indications for which were referred to. In conclusion, Dr. More Madden pointed out that it sometimes happens that even in cases of vaginismus, so intense as to render complete marital intercourse impossible, the disease is not necessarily a barrier to impregnation. Thus, in one instance under his observation so extreme was the local hyperæsthesia as not only to prevent the possibility of complete cohabitation, but also to prevent the patient submitting to any local treatment for relief of the morbid condition. Nevertheless, conception occurred, and he subsequently was called in to deliver her at full term, and in doing so was obliged to incise the still unruptured hymen by which delivery was obstructed.—Dr. FRASER said he could confirm the remark as to the possibility of pregnancy occurring without vaginal intercourse.—Dr. S. MASON said a little rest, and painting the orifice with nitrate of silver, were sometimes very effectual. It was not always necessary to remove the hymen; but when that operation was done it was always well to make a lateral incision in order to expand the orifice.

Dr. S. MASON read a paper on a case of Rupture of the Uterus. On Nov. 5th, 1886, a patient was admitted to the labour ward of the Coombe Hospital, who had been in labour with her third child for more than three days. Her two previous labours had been difficult and tedious, the child in each case being stillborn, though labour was completed by the natural efforts. A clear history could be obtained of the uterus having ruptured twenty-six hours before the patient's admission to hospital. On opening the abdomen the child was found lying directly behind the abdominal wall, and was easily extracted by traction on the lower extremities; the placenta was in the right lumbar region, surrounded by blood and meconium, and the uterus was situated posteriorly, small, and well contracted, and in its lower part was a tear extending completely through the cervix. The uterus was then removed, the pedicle formed by the cervix being secured by a Keith's clamp and a transfixion needle, the abdomen being closed by silk sutures. The patient rallied well after the operation, and seemed to be progressing favourably for about ten hours, when she suddenly commenced to vomit and died. At the necropsy signs of recent and extensive peritonitis were found in the abdominal cavity. The portion of uterus enclosed in the clamp was torn through to the lower extremity of the anterior lip of the cervix. The bladder was uninjured. The pelvis was that described as the oblique pelvis of Naegele, complicated by projection downwards and forwards of the last lumbar vertebra.—Dr. SMYLY said the great difficulty with which Dr. Mason had had to contend was the poisoning either of the uterus or the peritoneum. To his mind, the great objection to bringing the child back was that it rendered the cleansing of the uterus and perineum impossible if either had become infected. Members were aware that Schroeder had performed Porro's operation in a different kind of case from the present—namely, in order to remove a uterus which had been infected by a portion of the placenta having been left in by the midwife, the doctor not having been sent for until a considerable time after delivery. In that case the portion of the placenta was found to be completely decomposed, and the operation saved the woman's life. Dr. Mason might have lost his patient by performing Sanger's operation instead of that of Porro.

CAMBRIDGE MEDICAL SOCIETY.

A MEETING of this Society was held on Jan. 7th, Dr. J. B. Bradbury, President, in the chair.

Severe Injury to Thorax.—Mr. FRANCIS showed for Mr Sunderland, of Thaxted, a patient who had recovered from a severe crushing injury to the thorax. Three years previously he was crushed between a traction engine and its tender. When seen a few hours afterwards, he was in a condition of great collapse, with considerable hæmoptysis. The sternal end of the left clavicle was dislocated behind the manubrium sterni, and the cartilages of the first six or seven ribs of the left side were separated from their attachment to, or fractured just outside, the sternum, and driven behind that bone. The shoulders were drawn back and confined by a figure-of-eight bandage; but the hæmoptysis continued for a few days, and there was emphysema of the whole of the front, back, and side of the chest on the left side, and irregularity in the heart's action. For several weeks he appeared to be dying; he then improved rapidly, but owing to temporary paralysis of the musculo-spiral nerve on one side, the result of the original accident, he did not resume work until fifteen weeks from the date of the accident. The original deformity remains, and the sternal end of the clavicle can plainly be felt behind the manubrium; there is no evidence of pressure on the trachea, œsophagus, or large vessels.

The Formation of Thrombi in Pulmonary Vessels.—Mr. GRIFFITHS showed specimens of lung illustrative of thrombosis and embolism and the results produced thereby. The first was a specimen of a very large cavity occupying the upper lobe, which extended to the root, where the large branches of the pulmonary vessels were closed by thrombi; the second, where thrombosis had occurred in consequence of incomplete revolution after an attack of pneumonia on the right side, where gangrene in two areas of considerable size had supervened; the third, a series of infarctions of different ages from the same case, in which left cardiac disease and carcinoma of cervix uteri were the chief anatomical lesions. The vessels corresponding to the areas had been dissected to demonstrate the presence of plugs in them. Microscopic preparations of the thrombi and of the different parts of the infarctions were exhibited.

Macro-glossia.—Mr. FRANCIS read the notes of a case of macro-glossia, which had been under the care of [illegible]

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Humphry in Addenbrooke's Hospital. W. M——, male, aged five months, was admitted on Sept. 1st, 1886. He was thin, pale, and weakly, with a somewhat imbecile expression, but taking notice of things around: the tongue was too large at birth, and had been gradually increasing in size ever since; the child took the breast with difficulty, and had latterly been fed on milk-sop. The mouth was always wide open; the tongue freely protruded, curving abruptly downwards from the tightness of the frænum, with marked drooping and eversion of the lower lip: the protruded part was an inch and a quarter long in the middle line, and an inch and a half broad at the base, and quite symmetrically enlarged in all its dimensions, the edges being thick and rounded, the tip broad, truncate, and slightly bifid. The tongue could just be contained within the mouth, with evident discomfort; there was wide dilatation of the nostrils and marked bulging of the submaxillary region; saliva freely dribbled from the mouth, and there was an eczematous eruption about the chin and lips; the submaxillary glands appeared to be slightly enlarged on both sides. The protruded part of the tongue presented two deep antero-posterior furrows, parallel with the edges of the tongue and meeting just behind the tip; within the furrows the dorsum was convex from before backwards and from side to side, and coated with brown fur. The edges were clean and superficially ulcerated here and there; the papillæ were everywhere enlarged, and scattered thickly and irregularly over the anterior part of the dorsum and to a less extent over the under surface were numerous, pale, translucent, lymphatic cysts, from the size of a millet-seed downwards; the whole tongue was moist, and nowhere cracked or dry. There was no evidence of glossitis, nor hæmorrhages in the mucosa; there were no teeth, no deformity of the lower jaw, no evidence of lymphangiectasis of any description elsewhere, nor any deformities. There was no history of mental disease, or deformities, or struma in the family. The child died suddenly after being in the hospital a week, with a temperature, irregular before, suddenly rising to 108° F. There was a little difficulty in swallowing, but no interference with respiration. A portion of the posterior part of the dorsum, where the disease was least advanced, was examined microscopically. The papillæ were much and irregularly enlarged, more vascular, and covered with a thick layer of cuticular cells superficially. The submucous lymphatics were enlarged here and there, and the lymph canalicular system of the muscle-bundles was especially dilated, but no defined cysts or hæmorrhages were seen.

Mr. WHERRY described and exhibited a case of remarkable Power of Retraction of the Tongue. The organ could be completely pushed up behind the soft palate and uvula, and the tip could be made to touch, with precision, any part of the post-nasal region.

Communication of Diphtheria.—Dr. ANNINGSON described three special epidemics and several isolated cases of diphtheria which had occurred in his experience. The former illustrated very well the tendency of diphtheria poison to cling to localities and reappear at certain periods with special force, as well as the influence of school assemblage in favouring the spread of the disease. One interesting feature was the sudden explosion of the disease, after a period of quiescence, among the girls attending school, while the boys, with one exception, escaped; and his case was explained by his having been exposed out of school hours to the same influence as the girls. Dr. Anningson also related some apparently unexplained cases of diphtheria in lonely detached houses; which afterwards could be traced to rain water used for drinking which had been contaminated by the droppings of domestic birds; also an instance where the converse seemed to have occurred in the infection of pools by human discharges.

ROYAL LONDON OPHTHALMIC HOSPITAL. — The annual general meeting of the supporters of this institution was held on the 8th inst. The report stated that the hospital had in the past year afforded relief to 28,260 persons, the in-patients numbering 2049 and the out-patients 26,211. The total receipts for the year, including legacies, amounted to £6939, a sum which more than met the expenditure.

PRESENTATION.—The Committee of the Monkwearmouth and Southwick Dispensary have presented Dr. Bruce Low with an illuminated address, he having been appointed a surgeon for the Sunderland Infirmary, and consequently having resigned his connexion with the Monkwearmouth institution.

Reviews and Notices of Books.

A Treatise on the Principles and Practice of Medicine. By AUSTIN FLINT, M.D., LL.D. Sixth Edition, revised and largely re-written by the Author, assisted by WILLIAM H. WELCH, M.D., and AUSTIN FLINT, M.D., LL.D. London: J. and A. Churchill. 1886.

A NEW edition of a work of such established reputation as Flint's "Medicine" needs but few words to commend it to notice; but to this sixth edition there attaches a melancholy interest in the fact that its preparation occupied the mind of its learned and much-lamented author during the closing years of his life. It may therefore in truth be said to embody the fruit of his labours in clinical medicine, ripened by the experience of a long life devoted to its pursuit. The volume has further been revised by the author's son, the well-known Professor of Physiology in the Bellevue Hospital Medical College, and by Dr. Welch, Professor of Pathology in the Johns Hopkins University. A comparison of this edition with the preceding, which was published in 1881,[1] serves to illustrate in a striking manner the remarkable advances made, especially in pathology, during the past five years, necessitating in many chapters an entire recasting of the text, with numerous additions in the statements of observed facts. Dr. Welch's assistance in these chapters has been invaluable, with the result that the reader will find a clear and succinct account of our present knowledge upon the etiology of disease and the nature of morbid processes which no other text-book of medicine supplies. Amongst the additions to the volume may be noticed the articles on Infectious Tumours, Syphilitic Disease of the Lungs, Cerebral Syphilis, Spastic Cerebral Paralysis of Children, Hereditary Ataxia, Myxœdema (which, by the way, is omitted from the index), Multiple Neuritis (where, however, we miss any reference to the recent and rapidly accumulating evidence of the influence of alcoholism in its causation), and the General Pathology of Fever; but this enumeration does not nearly cover all the additions and alterations in the text of the work. If we were to single out, where all is of such good quality, any chapters as especially noteworthy, we should have little hesitation in pointing to those upon Diseases of the Lungs and the Heart, for these were subjects to which Dr. Flint paid special attention. His well-known views upon the constitutional nature of pneumonia, or as he terms it "pneumonitis," or preferably "pneumonic fever," promulgated many years ago, have received striking confirmation in Friedländer's discovery of the "pneumococcus," although it is pointed out that the evidence of this being the specific organism is as yet inconclusive. The article on Pulmonary Phthisis is notable for the sagacious remarks upon treatment, especially upon the momentous question which is pressed upon the physician as to advice respecting the patient seeking a change of climate. In the chapter upon Valvular Disease of the Heart the significance of the various murmurs is most clearly set forth. The section devoted to Diseases of the Hæmopoietic Organs contains an excellent account of pernicious anæmia, in connexion with which it may be remarked that "more than twenty-five years ago" Dr. Flint pointed out the dependence of certain fatal cases of anæmia upon degeneration of the gastro-intestinal glands, which Dr. Fenwick in this country confirmed many years subsequently. But it is not necessary to adduce evidence of the care or labour expended on the work; it speaks for itself, and will remain as a permanent testimony to the great abilities of its author. We cannot, however, refrain from quoting a passage from the preface contributed by his son, for it affords

[1] THE LANCET, vol. ii. 1881, p. 134.

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some insight into his immense industry and capacity for work, that may be taken as an example worthy to be followed:—

"The basis of the work is an unbroken series of records of cases in private practice and in hospitals, begun in 1833 and continued for more than half a century, covering 16,920 folio pages of manuscript, written with the author's own hand. These records embrace carefully written histories of cases in all departments of practical medicine, observed under varied conditions of life, climate, and general surroundings. Soldiers in camp and barracks; the rich and the poor; those affected with diseases incident to lives of ease and luxury, and paupers in hospitals; the pioneers of Western New York and the inhabitants of the metropolis; patients in the wards of the almshouse and hospitals of Buffalo, of the Marine Hospital in Louisville, Kentucky, the great Charity Hospital in New Orleans, Louisiana, the Bellevue Hospital, the Charity Hospital, the dispensaries and similar institutions in the city of New York; cases observed in the experience of a quarter of a century as a general practitioner, and of more than another quarter of a century as a consulting physician, including the epidemics which have occurred in this country within the last fifty years,—the experience derived from these various sources of observation, carefully recorded, studied, and analysed, was finally used in the composition of this treatise, the first edition of which appeared in 1866."

America may well be proud of having produced a man whose indefatigable industry and gifts of genius have done so much to advance medicine; and all English-reading students must be grateful for the work he has left behind him. It has few equals either in point of literary excellence or scientific learning, and no one can fail to study its pages without being struck by the lucidity and accuracy that characterise them. It is qualities such as these which render it so valuable for its purpose, and give it a foremost place among the text-books of this generation.

Anatomy and Physiology in Character. By FURNEAUX JORDAN, F.R.C.S. London: Kegan Paul, Trench, and Co. 1887.

ATTEMPTS to connect physiological appearances with a certain stamp of character are as old as Aristotle and Plato. Mr. Jordan, in his recently published work, seeks to establish the connexion on a scientific basis. In the preface he apologises for the "unpleasant and clumsy epithets of shrewish and non-shrewish," which he uses for want of better terms. His attention some time ago was drawn to the physical conformation of women in hospital suffering from ill-usage at the hands of their husbands. The peculiarities common to them all were a clear skin, often pink, scanty hair growth both on the head and eyebrows, and convexity of the spine, more or less marked. Friends and neighbours said or hinted that these women had "sharp tongues in their heads." Mr. Jordan eventually discovered that these peculiarities in connexion with a shrewish character were not confined to one sex, and he classes men and women under the two heads of "shrews and non-shrews." Some of us may be inclined to doubt the truth of Mr. Jordan's deduction, remembering cases of decided shrewishness in persons of markedly pigmented skin and thick hair growth, and an absence of the same in the type called by him "shrews." After three chapters devoted to the character of the shrew and non-shrew, male and female, there is an account of the differences of skin, hair, and bones to be found in these two classes. In the shrews the dorsal curve is of excessive length, not infrequently reaching even below the waist. This curve affects the position of the head, and throws it forward. "The antero-posterior diameter of the thorax is relatively increased; hence its cavity from breast-bone to spine is deeper. In the non-shrewish skeletons the long transverse is exceedingly marked; it would seem as if the thorax were endeavouring to throw itself back and embrace the spinal column. This backward tendency of the spine has one striking result—the curves of the thorax posteriorly on each side of the spine lie at a level distinctly posterior to the most prominent portions of the vertebral bones, so that, looked at from behind, the spine, even at its dorsal curve, is seen to lie on an actual hollow between the two shoulders." Mr. Jordan lays some stress on the fact that in shrewish men and women the skin is clear, transparent, and pigmentless, often accompanying very pretty features. The nails are inclined to be thin and weak, easily bent or torn, the hair thin and scanty, the eyebrows especially being poor and uneven. That marriages should ever be arranged by a mutual choice of shrews with shrews and non-shrews with non-shrews appears to be very hypothetical; still, Mr. Jordan is not without some hope that future years may bring such a result. The characters of shrews and non-shrews may be summed up in a few words. Shrews are superficial, restless, consequential; having no deep sympathies, affections, passions, or emotions; nearly always moral, not from an inherent sense of duty, but from the desire to be considered respectable. They are apt to be discontented at home, but to shine in society, of which they often form very useful members. Non-shrews cannot precisely be described as the direct antithesis, but they have deep emotions, sympathies, affections, and passions. Non-shrews are more easily led into crime, owing to their deeper feelings. It is not incompatible with non-shrewishness to shine in society or to be voluble and passionate, since a shrewish person does not feel deeply enough to be really angry. Mr. Jordan expresses a hope that more attention will be paid in future years to physiology in connexion with the training of children and the development of character. The closing chapters are devoted to the shrewish character in connexion with literary work and the influence apparent in many standard books.

Alexander Wood, M.D., F.R.C.P.E., &c.: a Sketch of His Life and Work. By the Rev. THOMAS BROWN, F.R.S.E. (his Brother-in-law). Pp. 203. Edinburgh: Macniven. 1886.

To the personal friends of the late Dr. Alexander Wood this book cannot fail to be acceptable as furnishing them with a record of his many kindly and estimable qualities, and of the zealous manner in which he worked to advance the interests of his profession and to promote any public philanthropic and Christian work. It will also prove interesting to many of the older alumni of the university and medical schools, as it contains some reminiscences of Edinburgh as it was sixty years ago, and of the professors and teachers about that period. But we regret to add that it is open to the objection which may be brought against most of the biographies written by near relatives, that it takes a very partial and one-sided view of the work done by the subject of the memoir. A reader of the present volume might fairly rise from its perusal with the impression that almost all the work done in Scotland during the last half-century to improve the science of medicine and the status of the profession had originated with, and been carried through mainly by, Dr. Wood. In fact, there is scarcely, from the beginning to the end of the book, any mention of the work done by any other member of the profession. This is much to be regretted, as it cannot fail to produce an unpleasant impression that his biographer is claiming for him an amount of influence which he did not exercise. Dr. Wood's many good qualities and zealous work were sufficient to ensure him distinction and respect without the labours of others being of necessity ignored. The volume is remarkably well brought out, and contains two portraits of Dr. Wood—in middle life and in his later years.

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THE LANCET.

LONDON: SATURDAY, MARCH 12, 1887.

THE Committee appointed to inquire into the accommodation for prisoners in court-houses and other places while waiting for trial at assizes and sessions have now issued their report, and the particulars contained therein confirm in the fullest manner the grave charges which THE LANCET has from time to time brought against the existing arrangements, and proves that, so far from such complaints being exaggerated, as has been repeatedly affirmed, the accusation has actually fallen far short of the reality. Those only whose duty it has been to visit the court-houses and other places where prisoners are detained whilst waiting for trial could have been prepared for the statement of the committee, that "in very few everything that can be expected is to be found," but many, "on the contrary, are as bad as well can be." Of these they go on to say "that nearly every requisite of humanity, and even of common decency, is wanting; and scenes still take place which it might reasonably have been hoped belonged to fifty or a hundred years ago." When the details on which this statement is based become known to the people of England, a feeling of disgust and mistrust will be aroused, which will fall heavily on those who have sturdily maintained the perfectability of our prison system: disgust that such abominations are permitted; mistrust lest the much-praised management of the gaols be in reality as defective as that of the court-houses. With regard to this latter point our opinion has been frequently expressed, and it is well known that we do not view with approbation the treatment indiscriminately adopted for all prisoners after trial under the provisions of the new Prisons Act.

But to return to the arrangements provided for those who are not yet proved guilty. In the first place, one would imagine that, in England at least, there would be neither want of ventilation nor of decent closet and urinal accommodation; yet in Derby we find as many as twenty prisoners at a time crowded into a room only 18 ft. by 9 ft.; at Ipswich, twenty to thirty in a room of 11 ft. 10 in. by 5 ft. 2 in. by 6 ft. 3 in.; and at Oxford, twelve in a room 9 ft. by 8 ft. 6 in. In some of these rooms there is no separation of adults and children, of convicted and unconvicted! In some of the places, however, where separation is attempted, torture is superadded to confinement, and men and women are bolted for many consecutive hours, sometimes days, in dens hardly larger than ordinary clothes-cupboards. Thus at the Central Criminal Court the dens are 2 ft. 6 in. by 3 ft.; at Marlborough, 2 ft. by 2 ft. 4 in.; Gloucester, 2 ft. 1 in. by 2 ft. 4 in. In these last the Committee inform us that prisoners have been confined six days consecutively. As regards the sanitary arrangements, in many cases the offices of nature, if performed at all, must be performed in the presence of spectators; at Hereford there is an earth-closet, without a screen, in the one room occupied by the prisoners and the warders. Happy those who are provided with pails in their cupboards. At Marlborough there is one room with a number of boxes in it. "Sawdust is used to cover the excreta; the stench is sometimes very bad." At Petworth, with sometimes twenty-two prisoners in one room, the only accommodation is a bucket behind a screen. In important towns, such as Carlisle, Derby, Newcastle, and Oxford, there is no watercloset, privy, or accommodation of any sort. After such a confession as to the provisions for ordinary decency, we are not surprised to learn that the arrangements for lighting and heating are extremely defective. Some places are, indeed, provided with hot-water pipes and gas-burners, but in this case the prisoners seem to be worse off than without them, for owing to the minute cubic space allotted in these dens, the atmosphere speedily becomes close and overheated, whilst the heat causes rapid decomposition of the contents of the pails and the sawdust-covered excreta, so that after a few hours the effluvium becomes unbearable and the air foul and poisonous. In other places no attempt is made to warm the buildings, so that in winter the temperature sinks often to 40° F., and that with damp and unprotected stone floors. These insanitary conditions explain in part the high relative death-rate from pneumonia, which we have often pointed out as characteristic of prison bills of mortality, though no doubt the plank bed and deficient dietary of the convicted prisoner give the final stroke. In some places the gaslight is placed outside the cell, so that the prisoner remains in partial darkness and gloom, sometimes for many days together. Even in these wretched holes one would think some provision would be made for the physical rest of the prisoners, yet we learn that in the prisons where seats are provided they are mostly of stone and brick, cold and damp, and consequently injurious if used continuously; but in most instances no seats are provided, and the wretched prisoners have either to stand like cattle in railway trucks, or squat like negroes between the decks of a slaver. So much for the physical aspect, but the moral is quite as revolting; one would think the matter of the separation of the sexes is a question that would hardly be open for discussion, and yet "this elementary requisite of decency" is not invariably provided for. We always understood that the separation of prisoners was one of the most important points attended to under our "perfected" criminal laws. Fancy the fate of a young servant girl, arrested on suspicion for some small theft—erroneously, perhaps,—kept in contact for many hours with abandoned men and women. Lucky for her if chance isolates her in the two-foot cupboard! Surely the reasons that separate tried prisoners from each other hold with greater force in the case of the unconvicted.

Only a few years have passed since THE LANCET commented upon the treatment of an unfortunate unconvicted prisoner who died at Winchester, after repeated journeys to and from Southampton, where he was exposed to many of the evils at present commented on. At the time we were assured that our statements were unwarranted, and our conclusions false; but the present picture is a hundredfold darker than we then dared to think even possible. Then the officials declared that the arrangements were perfect; now it is clearly shown how defective in many cases they really are. As it has been proved with regard to our court-houses, so we

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fear it is with our gaols. We have had repeatedly to comment on the deaths of prisoners in gaol from pneumonia or suicide, and other causes, and we are repeatedly told that these are exceptions—that no system was ever more perfect. We doubt it, even as we doubted the case of the unconvicted, and we hope the public and the press of England will call for a commission of inquiry into the conditions of convicted similar to that which has just issued its report on the treatment of unconvicted prisoners.

WE have already dealt at length with that portion of Dr. BUCHANAN'S recent report which discusses the important question of the influence of small-pox hospitals in London. It remains to note some of the other subjects which are dealt with in the same volume. Amongst these the connexion of scarlatina with disease in milch cows is referred to, the points discussed being mainly based on the circumstances attending the Hendon scarlatina epidemic in 1885, although the whole story of milk epidemics is briefly alluded to. The Hendon outbreak, and the reports on it by Mr. POWER, Dr. KLEIN, and Dr. CAMERON, were commented on in our columns at the time of the occurrence, and we need now only refer to the matter in connexion with the more recent labours of Dr. KLEIN as to the pathology of the illness in the cow, which was found to be associated with the scarlatina, and to point out that his completed report is illustrated by a series of excellent lithographic plates. It must also be noticed that, amongst other important observations recently made on this matter, Dr. KLEIN is announced to have obtained from the blood of ordinary human scarlatina a micro-organism identical in its morphological characters with that inhabiting the ulcers of the Hendon cow disease. In view of what has recently been learnt as to scarlatina, Dr. BUCHANAN finds reason to expect that a measure of additional control may be obtained over a disease which, in spite of the general sanitary progress of the country, is still fatal to some 17,000 or 18,000 persons during the average year in England and Wales. Dr. KLEIN has also pursued his investigations as to foot-and-mouth disease, and he has been able to identify the disease in the lower animals with a definite kind of micrococcus occurring in wavy chains, streptococcus, in the vesicles of the disease; and subcultures have the power of inducing the same affection. This power is most surely exerted when animals are fed with the infective matter, but although inoculation does not produce disturbance of health, yet animals so inoculated became refractory to the influence of the poison administered to them by feeding.

Tubercle has been further studied by Dr. KLEIN and Mr. LINGARD, and, in addition to some negative results, it has been ascertained that tubercle in the fowl, which is of the nature rather of the disease which affects man than of that which prevails in bovine animals, can be communicated to the fowl during feeding by means of human tubercular sputa. Further, it appears that tubercle derived from the human subject, and used to produce disease in fowls, may undergo some loss of its infective power during its passage through the fowl.

The important subject of disinfection has continued to engage the attention of the medical department of the Local Government Board, and further investigations have been carried out by Drs. KLEIN and CASH as to the influence of perchloride of mercury. Both the antiseptic or restraining powers of this salt and its disinfecting or killing powers are now ascertained to be considerably greater than those of any other known substance. Dr. KLEIN states that non-pathogenic substances offer the greatest resistance to the operation of the mercuric salt, and he describes the measures by which it is practicable to produce a modified form of anthrax in sheep by inoculating the animals with the material of anthrax along with corrosive sublimate, and this without the special aid of experts. The drug, according to Dr. CASH, appears to operate in a way similar to that of a previous attack of the disease, giving, for a time at least, a feebler quality to an attack of the disease, and this in turn seems to give immunity against recurrence.

The report contains a further contribution from Dr. DUPRÉ on the question of the consumption by bacteria of oxygen from the dissolved air in water. Dr. DUPRÉ has had to differentiate between those organisms which are and those which are not destroyed by prolonged heating to a temperature of 60° C.; and, experimenting with London waters, the following results, as summarised by Dr. BUCHANAN, have been arrived at. 1. Differences are observed at different periods of the year in the behaviour towards oxygen of the bacteria of the water furnished by a London company deriving its supply from the Thames; differences which seem to require for their explanation that there is variation in the power of different bacteria (present at one and another time) to resist a temperature of 60° C., or else that there are seasonal fluctuations in the power of the surviving bacteria to use the oxygen of water-dissolved air; differences which, it is to be observed, would not be in any way discerned by ordinary chemical methods. 2. The faculty of consuming oxygen, after resisting a temperature of 60° C., possessed by waters taken from the Thames and Lea, and attributed to the bacteria contained in them, is present in a higher degree in deep well waters; their special faculty, again, varying at one and another time, as in the case of the Thames water. This latter consideration leads Dr. BUCHANAN to point to the possibility that we may here be confronted with the existence in deep well water of unrecognised spores of bacteria, and with the question of the influence of light on bacterial life. Indeed, the research tends to show how much we stand in need of knowledge as to harmless as well as to disease-producing bacteria. In fact, the whole subject naturally calls forth a plea for the further study of bacterial life, and Dr. BUCHANAN urges that instead of dealing with the harmful bacterium, when detected, as we now do by poison or by boiling, we may find it more scientific to turn against it such forces of nature as are customarily antagonistic to it. The whole history of bacteriology and of epidemic disease points to the existence of such forces, and pathologists have long been inclined to believe that amongst "agencies antagonistic to the bacteria of disease, none will be found to equal in potency the agency of other bacteria." Holding such points in view, Dr. BUCHANAN, whilst promising in the immediate future further inquiries into the pathology of scarlatina and into other matters of immediate urgency, expresses a hope that opportunity may be afforded for some more general

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researches into the important subject of the life-history of bacterial organisms. There are reasons for believing that in such study a clue may be found to much that is still mysterious and unintelligible in connexion with epidemic disease, and no more fitting work than that suggested could be undertaken by that department of the Government which is above all others, interested in controlling those influences which tend to injure public health.

THE Oldham poisoning case is remarkable in many ways, and is well deserving an analysis. The facts which transpired at the Liverpool Assizes just concluded, where on Feb. 25th the prisoner was convicted and sentenced to death, are briefly as follows. The prisoner, ELIZABETH BERRY, aged thirty-one, was a nurse at the Oldham workhouse infirmary. She was a widow, with one child aged nine years and six months. She was indicted for having wilfully murdered this child by administering to her a corrosive poison. The deceased girl had been living for some years with a sister-in-law of the prisoner, who paid certain sums for her maintenance, clothing, &c., in all between £12 and £13 per year. On Dec. 27th, 1886, the prisoner visited her daughter at Miles Platting, and returned to Oldham with her and a child companion on Dec. 29th. The deceased remained well in health up to the morning of Jan. 1st, 1887. The sitting-room of the prisoner was next to the dispensary of the infirmary, and she alone had the key of the dispensary. At 9.30 A.M. on the aforesaid day deceased was running about with her playfellow; at 10.15 A.M. she was in the dispensary, accompanied by no one except her mother; fifteen minutes later she was seen vomiting in the sitting-room. The prisoner was holding a tumbler in her hand, and the deceased was heard to exclaim, "Oh, mamma, I can't drink it." The vomited matter was thrown away at the request of the prisoner. Dr. PATTERSON, the infirmary medical officer, was asked to see the child. He prescribed iron and cinchona. A vessel was shown him in which was some matter streaked with blood. He seems to have suspected that the child's illness might not have been due to natural causes, but this suspicion he evidently did not consider sufficiently grounded to act upon.

The prisoner would have no one to sit up with deceased but herself. Curiously no explanation of her illness seems to have been given by or sought from deceased. Next morning (Jan. 2nd) the patient was better—so much so that Dr. PATTERSON expressed himself as hopeful of her recovery. Towards evening, however, she became much worse, and Dr. PATTERSON was again sent for. His attention was directed to a "towel covered with matter which contained blood." Feeling dissatisfied, he asked Dr. ROBERTSON to meet him in consultation. As the result of this, morphia and bismuth were prescribed to combat the symptoms—vomiting and pain at the stomach. On the same day (Jan. 2nd) redness and, according to one witness, blistering of the lips were observed. It is certain a blister had formed by the morning of the third day. The symptoms noted above continued more or less pronounced until death, which occurred from exhaustion at 5 A.M. on Jan. 4th. During life Dr. ROBERTSON noticed that the lips, gums, and tongue were white, but moist. The whi was not from furring, for, as Dr. ROBERTSON testified, he had never seen a tongue like it before.

The prisoner gave two explanations of the marks on the lips: (1) that they were caused by some lemon and sugar, and (2) that they were due to the "ulceration of the mouth." Post mortem these marks became dry and brown, and were clearly owing to the action of some powerful irritant or corrosive. The outline of the marks on the lip, extending on either side from the middle to the angle of the mouth, and in one place for three-quarters of an inch on the cutaneous surface, was quite inconsistent with the theory of *herpes labialis* suggested by the counsel for the defence. In addition to the state of the lips and mouth just described, other evidence of corrosion was forthcoming at the necropsy. In the œsophagus was a black charred patch, and there were black streaks below this. The stomach was not charred, but it showed signs of recent inflammation, and so did the small intestine. With the exception of an old caseous nodule found in one lung, there was no organic natural disease. The contention that the deceased was tubercular had thus no foundation in fact. The weakness of the defence was shown by challenging the view taken by Drs. HARRIS PATTERSON, and ROBERTSON, and Mr. ESTCOURT—viz., that the tissues had been acted on by some corrosive agent. This was futile in the extreme, for the evidence on that head was overwhelming. There seems no reason to doubt that something was taken by, or administered to, the deceased at the time she went into the dispensary. Had she taken anything accidentally or mischievously, would she not have confessed the fact when seized with obstinate vomiting and acute pain? The lull in the symptoms on the second day might have been deceptive and accounted for by the state of exhaustion; but, considering that the blisters on the lips were not observed until the end of the second day, it seems probable that a second dose of the poison was given. It was hinted in cross-examination that the creasote, or the iron and cinchona mixture ordered by Dr. PATTERSON, might explain the brown marking on the lip; but allowing for one moment this visionary hypothesis, the main question was still unanswered: What was the cause of the antecedent symptoms which set in with such fatal rapidity and violence? It is easy to invent several theories to explain certain isolated sets of facts, but in the case under consideration some theory was needed to cover a continuous chain of circumstantial evidence, and we maintain that the only tenable theory was that embodied in the finding of the jury.

Many statements made by the prisoner were known to be untrue. She averred that the life of deceased was not insured, when it was proved that she had herself taken out a policy for £10, which was paid to her after her daughter's death. Further, she had applied for a mutual insurance policy for £100, and although the company had not acceded to her request the prisoner was not aware of the refusal. Again, she tried to explain the disturbance of the alimentary canal in deceased by falsely saying that she suffered from constipation and had been treated for it. On no ethical standard—legal, religious, or social—could a motive be based at all adequate to such a crime as that which the prisoner was charged with having committed; but history shows that the motive to ill-doing is rarely commensurate with the

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deed. At the Durham Lent Assizes, 1873, MARY ANN COTTON was found guilty of murder of a stepchild. Afterwards facts transpired which made it all but certain that she had compassed the death of her mother, fifteen children, three husbands, and a lodger—and mainly, if not entirely, for the sake of getting small sums from burial insurance societies. Later still a similar tragedy happened at Liverpool. There was nothing, then, as regards motive inconsistent with the likelihood of guilt in ELIZABETH BERRY'S case.

There is still some doubt as to the nature of the corrosive employed by BERRY; for on chemical analysis of the stomach, intestines, and other parts no poison was discovered, either organic or inorganic. The prevailing opinion points to sulphuric acid. If this be correct, we imagine the acid must have been diluted, or some traces would have been found, in the form of corrosion of the floor, carpet, towels, &c., in the room which deceased occupied during her illness. So far as the presence of soddening of the mucous membrane of the mouth and charring of the gullet and the absence of corrosion of the stomach are concerned, there is no bar to the supposition that sulphuric acid had been given in the concentrated form. It is the exception for the mouth to be charred, and not rarely the œsophagus looks pale, shrivelled, and corrugated, even when there is extensive blackening and perforation of the stomach. The local patch of corrosion in the œsophagus in this case was probably owing to the sudden arrest at that spot by contraction of the circular muscular layer just below. Some may then have passed on to the stomach, and some returned by vomiting. Sulphuric acid, even when considerably diluted, may prove quickly fatal. A man took on an empty stomach six drachms mixed with eighteen drachms of water, and died in two hours and a half (TAYLOR). The emptiness or fulness of the stomach, the degree of dilution of the acid, and the rapidity with which it passes over the mucous membrane, are conditions which greatly affect the extent of corrosion and the violence of the symptoms.

Sentence of death was passed upon the prisoner on Feb. 25th. Three days later a coroner's jury sitting at Castleton to inquire into the death of Mrs. FINLAY (mother of the convict), who died a year ago, returned a verdict of "Wilful murder" against ELIZABETH BERRY. Mrs. FINLAY was seized with attacks of "convulsions and delirium, ending in coma," and the medical man who attended her gave a certificate to the effect that the deceased died from apoplexy. No post-mortem was made at the time. During the illness BERRY was noticed to examine her mother's eyes. After the death BERRY received nearly £100 from an insurance society, and £13 4*s.* from a burial club. A person who gave her name as "ELLEN SAUNDERS," procured a quantity of atropine a short time prior to the death of Mrs. FINLAY, and it was alleged that BERRY was that person. The body of Mrs. FINLAY having been exhumed, an examination was made by Drs. HARRIS and PAUL, and an analysis of the viscera by the latter gentleman, who found traces of an alkaloid which he believed to be atropine judging from its physiological effects. The detection of atropine in a body that had been buried for a year is an interesting and unique event. There seems some doubt, however, whether the substance discovered by Dr. PAUL may not have been of the nature of a ptomaine or cadaveric alkaloid.

DR. LUCAS-CHAMPIONNIÈRE contributes the first paper in the January number of the *Revue de Chirurgie*, and in it he speaks of his experience of the operation of excision of the knee. His results have been so good, and his opinions are so opposed to some current surgical notions, that we desire to call special attention to them. He speaks of the earlier results of this operation as so discouraging that he was not tempted to perform it until 1883, the time when he had come to entertain absolute confidence in the aseptic treatment of wounds. And he lays special stress upon this fact. His opinions and conclusions do not apply to excisions of the knee in general, but only to aseptic operations, in which not only is the risk of blood poisoning entirely abolished, but the occurrence of suppuration prevented. The presence of suppuration he regards as evidence of failure in the operation, and, unless extremely limited in amount, as an imperative indication for amputation. It is clearly essential to realise Dr. LUCAS-CHAMPIONNIÈRE'S position in this respect before dealing with his results and recommendations. His series of cases includes eleven in whom the age varied from seventeen to thirty-four; the disease was tubercular arthritis in all but one case—that of a man, fifty-four years of age, who was suffering from rheumatoid arthritis. All the patients recovered; in nine there was union without any suppuration, in one there was very limited and transient suppuration, and in one case the suppuration necessitated amputation. In no case was there any local recurrence of the disease, and some of the patients were able to walk one or two months after the operation. Such results are extremely good, and cannot fail to excite the envy of most surgeons who have had a considerable experience of this operation. In view of the serious interference with the growth of the limb, the operation is not recommended in children; but, on the other hand, Dr. LUCAS-CHAMPIONNIÈRE thinks that middle-aged adults are suitable subjects for it, provided that the wound be kept aseptic and free from suppuration. He makes some important remarks in reference to tubercular disease. First of all, he has not found that excision of the knee leads to general tubercular infection, and furthermore he does not regard tubercular disease of the lungs as a necessary bar to the operation. Where the pulmonary disease is far advanced, of course no one would entertain the operation; but where the disease in the lungs is in its first or second stage only, he has found removal of a diseased knee-joint exert a distinctly beneficial influence, and lead to a subsidence of the chest trouble. He explains the discrepancy between this opinion and that more generally held by saying that the key to success in this class of cases is the prevention of suppuration. Where the wound heals entirely by primary union, the operation exerts only a good influence upon the lung mischief; but if the wound becomes septic and suppurates, this further drain upon the system shows its presence by the gradual failing of the patient's powers and a more rapid advance of the disease in the lungs.

As to the mode of operation there is not much to say. Dr. LUCAS-CHAMPIONNIÈRE prefers the transverse incision below the patella. He makes the excision very free; always

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removes the patella and every suspicious portion of femur or tibia; and then, having done this, he, with the most patient care, searches for and removes every particle of "granulation tissue." He drains the wound by three tubes, one at each end of the incision and one from the back of the joint out through the ham. All the ligamentous structures that have been divided, as well as the bones, are united by buried sutures of catgut.

This paper would appear to be an important contribution, and it is another proof of the revolution in surgical opinion and practice that the antiseptic treatment of wounds has brought about. For that is the central fact: upon the possibility of getting complete primary union of the wound hangs all the rest.

WITHIN a few days of the termination of the sittings of the General Medical Council a volume has been issued containing the confirmed Minutes of the Session,[1] as well as the various reports presented to the Council. The latter especially will be read with much interest, for they relate to questions which intimately concern the future of the profession and its usefulness to the public.

The chief of these in point of importance is undoubtedly the final report of the Visitation of Examinations Committee, which shows in every paragraph the extreme care which has been taken to consider the details of professional education and examination. The Committee are evidently impressed with the need for the introduction of practical teaching in every branch which is included in the medical course. The question of the relative values of systematic teaching by lectures and demonstrations and of practical training by the performance of individual work is seriously considered, and the fact is noted that to a large extent lectures have been replaced by more practical methods of teaching. The Committee, however, believe that lectures cannot altogether be superseded, and although text-books give opportunity for students to obtain information outside the class-room, the lecturer should be able to present material of so much value to his pupils, and arranged in such a form, as to render this method of teaching still an important element in medical education. No doubt there are many students whose power of acquiring knowledge is dependent rather upon the eye than upon the ear; a well-arranged course should, however, appeal to both, and the personal qualities of the teacher will go far to create interest in a subject which would otherwise prove tedious, however clearly it might be described in the many text-books which are now written for the students' use.

The period of time which should be devoted to medical and surgical education before the student is permitted to present himself for examination is touched upon in the report. It must be admitted that there is some ground for the argument that the specification of any period is tantamount to an admission that examinations cannot entirely be trusted to adequately test the state of a candidate's knowledge. The Committee, however, evidently regard this requirement as important in the student's interest, as well as of those who will subsequently come under his care, for they give as their reasons for not extending the time to be devoted to medical education the fact that a large proportion of students already voluntarily prolong their studies during five and even six years.

The necessity is recognised for the better teaching of pathology, including mainly pathological anatomy; of therapeutics, considered essentially as comprising the action of remedies on the healthy body; and of hygiene, embracing public as well as private health. These, it is said, are three expanding subjects, and demand special attention and separate teaching. Such recommendations will doubtless be carried out by the majority of the medical schools, and due regard will be had to the comments on the advantages of class examinations and of clinical teaching to classes of limited numbers of students which are embodied in the report. The subject of obtaining practical knowledge by the holding of dresserships and clerkships is given due prominence, but this will also engage the attention of the Committee to which Dr. GLOVER'S motion was referred.

It is impossible to pass from the report without referring to the admirable service which is rendered by the Registrar (Mr. W. J. C. MILLER, B.A.), both to the Medical Council and to the profession, by thus promptly making available for general use the lessons which the report contains, and which especially deserve the earnest attention of all engaged in the important duty of professional teaching and examining.

[1] Spottiswoode and Co.

Annotations.

"Ne quid nimis."

THE SANITARY CONDITION OF WINDSOR.

THE action which the Town Council of Windsor have taken, upon the report of Dr. Hubert Airy and Mr. Arnold Taylor on the sanitary condition of New Windsor, will, we trust, lead to reforms which have been often advocated in the columns of THE LANCET. A meeting was immediately called by the Mayor, and the report was read and carefully considered. The clerk, the medical officer of health, and the borough surveyor were requested to advise them as to what steps might be taken to improve the condition of South-place, and as to the powers conferred by the Public Health Act of 1875 and the Artisans and Labourers' Dwellings Acts, which would enable them to deal with the matters mentioned in the report. A committee was also appointed to consider and report upon the duties of an inspector of nuisances, and it was decided to make inquiry if the guardians of the Windsor Union would unite with the New Windsor Sanitary Authority in the erection of a hospital for infectious diseases and the provision of a disinfecting chamber. The Street Committee were also requested to consider and report on the recommendation that a furnace should be provided for the destruction of house refuse. No time has therefore been lost in taking preliminary steps to giving effect to the recommendations of the Inspectors, and it may be anticipated that under the guidance of Mr. Simpson, the present Mayor, who has a high reputation for public spirit, Windsor will soon attain the position which should be held by the Royal borough. It will be specially interesting to observe the effects of the changes which we hope to see made on the rates of mortality of New Windsor. Dr. Casey has well pointed out that, although these cannot be regarded as excessive—indeed, in some respects are distinctly low,—this is due to the fact of the comparatively small proportion of young and old persons in the population of the town. It is probable that a reduction can still be effected, and this is more likely to take place if steps are

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taken for preventing the inundation of the low-lying parts at times of overflow of the river. Windsor must not be surprised if England expects her not to rest content with being superior as regards health conditions to some other towns in the country; she must, indeed, strive to be not inferior to the best; history marks her place in our national records, and she should be representative of everything that is best in English life. That she will become so there is now every prospect, and it may be remembered that the conditions which affect health are not limited in their result upon the body alone. The promptitude with which the Town Council are proceeding to carry out their promise to the President of the Local Government Board proves that there is every desire to make the town worthy to be a residence of our Queen.

MEMORIAL OF LONDON SURGEONS TO THE COUNCIL OF THE COLLEGE OF SURGEONS.

WE print in another page an important memorial which has been presented to the Council of the College of Surgeons by the teachers of surgery connected with the metropolitan hospitals. The signatures attached to it include, with only two exceptions, the names of all the surgeons at these institutions who do not occupy seats on the Council. The memorial contains a courteous but earnest appeal for the establishment of a pathological and surgical laboratory in connexion with the Hunterian Museum. Such an institution would be in complete harmony with Hunter's work, and would render the museum a more complete memorial of the founder of scientific surgery. But—and this is of more importance—it would supply a great and pressing need, and would do much to remove the necessity which undoubtedly exists at present of looking to Germany for nearly all advances in those departments of science upon which surgery depends. It is impossible for the Council to ignore so influential a memorial as this, even if it had the will to do so. It is almost equally hard for it to return a *non possumus* to such a request. The fact that the men who are busily engaged in the teaching and practice of surgery have with practical unanimity joined in this request is both evidence of the need that exists and is felt to exist, and a guarantee of the response that would be made to any action of the Council on the proposed lines. We are aware that the funds at the disposal of the College are by no means inexhaustible, and that special difficulties may be encountered before such a laboratory as is asked for could be established on a thoroughly satisfactory footing. But we trust that the Council will do its utmost to meet the very reasonable request now made to them.

THE ANTISEPTIC VALUE OF IODOFORM.

IT was hardly to be expected that the experiments and statements founded thereon which threw doubt upon the antiseptic property of iodoform (see THE LANCET, *ante* p. 328), recently published by Drs. Heyn and Rovsing, would have passed unchallenged. They were promptly and somewhat contemptuously dismissed as untrustworthy by a writer in the *Wiener Med. Wochenschrift* (No. 6); and in the current number of the *Fortschritte der Medicin*, the editor, Dr. Friedländer, warmly defends his contributors against this onslaught. The attack threw doubt upon the experiments as coming from unknown observers, and suggested that the paper had gained entrance to the pages of the *Fortschritte* through editorial inadvertence. Dr. Friedländer has no difficulty in dispelling this idea as being utterly baseless, for not only was the article communicated to him by Dr. Salomonsen of Copenhagen, but he had himself been struck with its thoroughly scientific character and value, as proving at least that iodoform belongs to a class of antiseptics differing from carbolic acid and corrosive sublimate. That the subject deserves further study he freely admits, and carries this out by inserting in his journal a criticism of the paper by Dr. Poten of Hanover, written in a far different spirit from that of the Vienna writers. Dr. Poten points out that the virtues of iodoform as a dressing depend largely upon the liberation of iodine in contact with the tissues and secretions, and also that owing to its insolubility it is not possible to test its action on pathogenic organisms in the same way as other substances can be tested. He does not endorse the statement that iodoform is dangerous because of its possibly being contaminated with septic material, and considers the united testimony of practical surgeons as to its efficacy to override such rather problematical risks.

SIR MICHAEL HICKS BEACH.

THE health of our statesmen is a matter of supreme interest to the public, especially if there be any suspicion that it is affected by their public duties. Some months back Dr. Robson Roose, finding that Sir Michael Hicks Beach was suffering from cataract, suggested a consultation with Mr. Anderson Critchett. It was then found that the sight of the right eye was of little value owing to the density of the lenticular opacity; but as with suitable glasses Sir Michael could still, though with some difficulty, conduct the work of his high official position, he was allowed to continue his labours. Within the last few weeks the sight has rather rapidly declined, doubtless owing to constitutional causes; and at the consultation held on Friday, the 4th inst., at Sir William Jenner's, it was decided that Sir Michael could no longer retain office without grave risk. The cataract in the right eye is diffused, and that in the left eye is now confined to the centre of the lens. Sir Michael will shortly visit Germany for the benefit of his health, and, as it is essential that his case should be under medical supervision, he will while there be under the care of Dr. Pagenstecher, of Wiesbaden. Some little time must of necessity elapse before Sir Michael returns to England to place himself in Mr. Critchett's hands for operation. The hope that this procedure may be successful will be shared widely by the public, who have not been insensible to the unselfish patriotism with which Sir Michael undertook his thankless office, and the devotion to duty which has exhausted his powers.

NEW INSTRUCTIONS TO PUBLIC VACCINATORS.

THE Local Government Board have issued new instructions to public vaccinators, to supersede those of sixteen years ago. The alterations, which are wisely conceived, relate specially to ensuring the better performance of the operation of vaccination, and to the avoidance of septic poisoning. For the former, it is ordered that the insertions of lymph shall be such that the total area of vesiculation on the same day in the week following the vaccination should be not less than half a square inch; for the latter, a caution is given against the use of any means of protection or "shield" that cannot readily be destroyed and replaced whenever it becomes soiled. Public vaccinators are also required to enter in their register the initials of the person operating, and subsequently inspecting the vaccination, and they are cautioned against the employment of lymph supplied by any person who does not keep exact record of its source. It is further required that lymph be not taken from children who have any sort of sore at or about the anus, or from a vesicle around which there is any conspicuous commencement of areola. The caution contained in the superseded instructions not to take under ordinary circumstances more lymph than will suffice for the immediate vaccination of five subjects, or for the charging of seven ivory points, or for the filling of three capillary

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tubes from such a vesicle as vaccination by puncture commonly produces, is now replaced by the requirement that more than this amount of lymph shall not be taken from a well-formed vesicle of ordinary size except under circumstances of necessity. Lymph, moreover, is not to be taken that has run down the skin, the vesicle is not to be scraped, and the lymph is to be changed if on the day week after vaccination the cases show any conspicuous areolæ round their vesicles, while formerly the presence of any areola was regarded as reason for omitting to take lymph from such a vesicle. Vaccinating lancets are not to be used for any other purpose whatever, superseding the old instructions, which required that they should not be used for other surgical operations. The instructions end with the advice which experience has shown to be necessary: "Never use any ivory point or capillary tube a second time, either for the conveyance or storage of lymph; but when points or tubes have once been charged with lymph and put to their proper use, do not fail to break or otherwise destroy them."

THE SIGNIFICANCE OF THE RETENTION OF THE MEMBRANES AFTER LABOUR.

THE importance to be attached to the retention in the uterus of portions of membrane after the completion of the third stage of labour has been variously estimated by different obstetricians: some—e. g., Winkel, Dorn, Ahlfeld, and Graefe—holding that grave dangers are to be apprehended when this occurs; while others—as Alshausen, Credé, Fischer, and Cohn (who has reported two cases in which nearly the whole membrane had been retained for five days without causing any pyrexia)—believe that little or no danger of hæmorrhage, septicæmia, or other puerperal mischief is caused by the retention of even considerable portions of the membrane. An explanation of this divergence of view has recently been attempted by Professor Lazarevich in the opening article of the new Russian *Obstetrical and Gynæcological Journal*. His explanation is founded on the fact, unrecognised by most obstetricians, that "the membranes," even at the full term, are composed of and more or less separable into three distinct layers representing the chorion, the decidua, and the amnion. The strength of these has been investigated by Poppel, Duncan, and Ribemont, and the amnion shown by them to be much tougher than the chorion in conjunction with the decidua. Professor Lazarevich has also made a number of researches on the subject by means of an apparatus consisting of two rings covered with indiarubber, between which the membrane to be examined was stretched, the resisting force being estimated by means of a wooden hemisphere on which weights were placed, which the membrane was made to support, more weights being added until it gave way. These observations showed that the integrity of the ovum depends almost entirely on the amnion. During labour some separation of the membranes from one another usually occurs, and this is especially the case when the chorion, split or torn below, maintains a close connexion with the decidua, and the decidua with the uterine wall; the progress of the labour also separates the amnion from the chorion. Roemer explains the separation of the membranes from one another by their unequal elasticity, and Professor Lazarevich believes that the chorion, being less elastic as well as more easily torn than the amnion, is frequently ruptured in several different places, some portions coming away attached to the amnion, and some being left behind attached to the uterus. The causes of retention of the chorion with the decidua are: (1) the presence of villi on the chorion; (2) extravasation of blood on the decidua, with consequent formation of fibrous adhesions; and (3) adhesions in consequence of endometritis and choriitis. The amnion may be retained in consequence of—(1) occasionally occurring adhesions between it and the chorion and decidua; (2) early rupture and escape of all or part of the liquor amnii; (3) a low attachment of the placenta or placenta prævia; (4) intra-uterine manipulation; (5) anteversion of the uterus after the birth of the child; (6) exceptional weakness or thinness of the amnion. Retention of the decidua (which is formed from the uterine mucous membrane, not from the ovum) is as a rule of little moment, though it is perfectly possible for endometritis decidualis to occur, and for the retained portions of the decidua to serve for the development of micro-organisms introduced from without. Shreds of the chorion, if retained either by themselves or together with the decidua, do little harm, as they rapidly undergo chemical and mechanical destruction, and are carried away with the lochia. The amnion, when retained, is much more liable to become the developing ground for bacteria, and it is to the retention of this part of the membranes that alarming symptoms are usually due. Professor Lazarevich lays considerable stress on the importance of straightening or replacing the uterus in its proper position after the birth of the child, before the after-birth comes away.

THE JUBILEE AND LONDON HOSPITALS.

WITH the exception of one or two schemes for commemorating the Jubilee of Her Majesty which it is understood have her special favour, there is no other suggestion more popular or more worthy of support than that the moneys raised should be devoted to the relief and support of the great hospitals, which constitute the home of the working classes when afflicted and disabled by illness or accident. This proposal has had our steady and earnest support. It would indeed be a Jubilee to be remembered till a similar Jubilee should occur if these institutions could be relieved of the incubus of debt which depresses them and hampers their operations. The schemes specially favoured by the Queen should be supported for their own sake and out of respect to Her Majesty's wishes. But the public must not forget one claim which, above all others, should command their practical sympathy—the claim of the great hospitals, which now languish for want of money, and whole wards of which have to be closed. The rich and the poor alike admit their indebtedness to these institutions. We can only hope that attention may be concentrated on this subject. The Jubilee is a great and august occasion; it will commemorate much, and will, we trust, be productive of real and permanent benefit. But it is weakened by multiplying modes of commemoration, and by fantastic ones. On this proposal—to free the great hospitals of debt—we are on a rock, and on this rock we would rest the Jubilee Fund. Her Majesty has not so far felt at liberty to indicate her special support of it, but her sympathetic nature is too strong to allow us to doubt that any object could be more satisfactory to her than the welfare of our hospitals.

DRUNKENNESS IN 1886.

THE report just published of the number of arrests made on Sundays for drunkenness in the year ending Sept. 29th last affords some ground for congratulation on the improvement in this respect which is undoubtedly taking place in our national manners. That a change for the better has occurred in recent years, and is still in progress, is matter of common observation and attested by many indications. The new report shows in the most satisfactory way that this improvement is general in its character, being exhibited by all classes of the people and all parts of the area under observation. An absence of summary and comparative tables makes it a little difficult to perceive at a

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glance what is the exact meaning of the figures given, but it is evident upon the face of them that they mark an improvement upon previous years, for in almost every case the number of arrests grows steadily less from year to year; and this in spite of increase of population. Thus, for the whole of England and Wales the figures are—for 1884, 15,942 convictions; for 1885, 14,658 convictions; for 1886, 12,917 convictions. Here it will be seen that the number of convictions has been actually reduced in two years by 3000 odd, or nearly 19 per cent. If allowance were made for the increase of population within the same period, the ratio of improvement would be seen to exceed this figure. As might be supposed, the return shows a much higher proportion of drunkenness in the case of urban than in that of rural populations. In agricultural districts the convictions vary from one in ten thousand to one in a hundred thousand inhabitants, whereas in the metropolis they run as high as one in fourteen hundred, and at Manchester, which enjoys an unenviable pre-eminence in this respect, they reach the appalling figure of one in three hundred and fifty. Altogether, Lancashire, with its teeming population and its laborious industries, makes but a poor figure in this report. The one satisfactory feature in its record is that it has fully shared in the improvement of recent years. It must, of course, be borne in mind that police supervision is much more efficient in these districts, where vast populations are crowded thickly together, than in sparsely occupied rural parts; but when all allowance is made for considerations of this sort, it is quite clear, even on a mere comparison of different towns, that there are localities, and especially in the mining districts, which in point of sobriety lag far in the rear of our civilisation.

CONDURANGO IN CANCER OF THE STOMACH.

FIFTEEN years ago there was introduced from Brazil a remedy which was claimed to be a specific for cancer. Since then, as before, other remedies have been similarly vaunted, and none have stood the test of experience. The remedy in question was condurango bark, of which a trial was made at the Middlesex Hospital, the negative results being read before the Clinical Society by Messrs. Hulke and De Morgan (Clin. Soc. Trans., vol. 5). In Germany almost the only favourable report came from Professor Friedreich, who related instances of its value in gastric cancer. Since then it has fallen much into disrepute, having been regarded as little better than a stomachic, and prescribed thus with advantage (Wilhelm: Year-book of Treatment, 1886, p. 49) in cases of carcinoma and ulcer. But Dr. Riess of Berlin has just published (*Berl. Klin. Wochensch.*, March 7th) some striking testimony to the value of the drug in gastric carcinoma, more conclusive than any that has hitherto appeared. It is noteworthy that he doubts whether its qualities as a stomachic are better than those of other drugs of that class, and that he has not found it efficacious in cases of cancer where the stomach is not primarily involved. (Messrs. Hulke and De Morgan's reports did not deal with gastric cancer.) It was in cases presenting the symptoms of cancer of the stomach (many with a tumour) that the best effects were noticed. In 105 such cases—i.e., where gastric cancer was diagnosed—treated at the General Hospital from 1878 to 1886, condurango was prescribed, and in no case, even in those in the last stage, without some effect. The drug was often given every hour—the total amount per diem reaching ten grammes of the decoction—and continued for long periods without ill effect. The appetite improved in a few days, vomiting and pain diminished, and eventually ceased, and the patient gained in weight. Whether life is actually prolonged is, of course, difficult to prove; but Riess quotes statistics which show that the cases treated with condurango, both the fatal ones and those discharged in improved health, remained much longer in hospital than those not treated by the drug. He even states that of sixty-four cases in which a palpable tumour was present, in seventeen it diminished in size, and in eight quite disappeared; and he details three cases of such disappearance of obvious tumour, which, subsequently dying, presented only cicatricial structure, with no trace of malignant disease. Obviously, before we can accept such cases as examples of the *cure* of cancer we must be certain that the original diagnosis was correct, and the same scepticism may be allowed respecting the whole series of cases. For cancer of the stomach may not only be latent, but may be simulated by non-malignant ulceration, as every physician knows. Dr. Riess fairly discusses this point, being quite alive to the objection. He claims, at least, that condurango has some local effect upon a diseased stomach, and considers that in all suspected cases it should be prescribed. It need hardly be pointed out that a local action as here claimed is a very different thing from a specific action in cancer generally, which was sufficiently disproved by the observations at the Middlesex Hospital.

THE "RELATIVE RANK" QUESTION.

WE see no reason to modify the opinion we have already expressed, and which is fully borne out by the statement of the Secretary of State for War in the House "that the abolition of the term 'relative rank' had not altered the position of the medical officers in any respect whatever." It must not be lost sight of that the abolition of the *term*—for the *fact* of the existence of relative rank must exist so long as medical officers are placed in relation to other officers—is not confined to medical officers alone, but applies also to the officers of the Adjutant- and Quartermaster-General's staff and to all the departments of the army. It is difficult, therefore, to understand how the change can be deemed derogatory to medical officers. But this would seem to be the view advanced by those who have called in question the good faith of the authorities in this matter. The fact is, that so much distrust has been engendered in the Army Medical Service by past experience, that we cannot be surprised at its sensitiveness to, and suspicion of, any changes likely to affect it in any way; and undoubtedly the result of the statements put forth, unfounded though they be, has been to create a strong feeling of that nature on the part of the medical officers. It would be perfectly easy, as it appears to us, for the Secretary of State to issue a satisfactory official statement on the subject by so far altering the wording of the Warrant as to prevent its being misinterpreted. This could be effected by a clause enacting that "the respective grades in the Army Medical Staff shall take rank with, and carry all precedence and advantages attaching to, corresponding military rank," and following this up with the classification laid down in paragraph 125*a* of the Warrant. We cannot see any difficulty in such a course, and it would remove all ambiguity as to the position of the medical officers.

RUPTURE OF THE INTESTINE.

ON March 6th Mr. John Croft of St. Thomas's Hospital performed abdominal section on a patient aged thirty-four, who had been admitted with acute peritonitis due to injury received about eighteen hours previously. The patient, who had received severe injury to the abdomen the night before, walked to the hospital. He had vomited, and in addition to the symptoms of most acute peritonitis and a temperature of 103°, had some dulness in the hypogastric region. A rent was found almost dividing the small intestine; there was feculent material in the peritoneal cavity, and acute inflammation in the neighbourhood. The peritoneum was washed out with a 20 per cent. solution of boracic acid, and the intestine sutured to the wound. Since the opera-

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tion his progress has been very satisfactory; he has had neither pain nor vomiting, and the distension of the abdomen has disappeared. Although he was complaining of cough and had a rapid pulse, his condition was otherwise favourable on the 10th. The same surgeon operated on the 4th in a case of abdominal injury, accompanied by much hæmorrhage into the peritoneal cavity, and removed the spleen, the hæmorrhage being due to an extensive laceration of that organ. The patient, however, did not survive the loss of blood and the additional shock of the operation.

THE MINUTE ANATOMY OF THE BRACHIAL PLEXUS.

A PAPER of some interest appears in the forty-first volume of the Proceedings of the Royal Society, under the authorship of Dr. W. P. Herringham. The results were obtained from careful dissections, partly of fœtuses or still-born children and partly of adult subjects. The following conclusions were arrived at:—1. Any given (nerve) fibre may alter its position relatively to the vertebral column, but will maintain its position relatively to other fibres. 2. Of two muscles, or of two parts of a muscle, that which is nearer the head-end of the body tends to be supplied by the higher, that which is nearer the tail-end by the lower, nerve. 3. Of two muscles, that which is nearer the long axis of the body tends to be supplied by the higher, that which is nearer the periphery by the lower, nerve. 4. Of two muscles, that which is nearer the surface tends to be supplied by the higher, that which is further from the surface by the lower, nerve. The next conclusions relate to sensory nerves. 5. Of two spots on the skin, that which is nearer the pre-axial border tends to be supplied by the higher nerve. 6. Of two spots in the pre-axial area, the lower tends to be supplied by the lower nerve, and of two spots in the post-axial area, the lower tends to be supplied by the higher nerve.

THE PORT OF LIVERPOOL.

OUT of 20,928 vessels entering the port of Liverpool during 1886, 4120 were inspected by the sanitary officers, and 276 were found to be defective. The coasting trade is now largely carried on by steamers, and the accommodation for the crews is stated to be both good and double that which is usually provided. The steamers carrying Lascars were also found to be in fair condition, and in no case was any infectious disease found on board. The number of emigrants was large, reaching 191,491; and the American Government have acted wisely in appointing medical inspectors to examine those going to that country, in order to ascertain if any of them have come from infected districts. If they have, measures of disinfection and other precautions are adopted; and some intending emigrants have, in the first instance, been isolated in hospital. During 1886, the number of cases of infectious sickness found on board was forty-six, and in a majority of instances removal to hospital was adopted by Dr. Stopford Taylor.

CANCEROUS AXILLARY GLANDS.

AT the Harveian Society, on the 3rd inst., the entire evening was taken up in the discussion of an extremely practical paper by Mr. Mitchell Banks, upon the advisability of extirpating the axillary glands in all cases of amputation of scirrhous mammæ. Mr. T. Bryant went a considerable way with the author in his bold and thorough treatment, but felt that there must still be a considerable number of patients for whom the old-fashioned or incomplete operation would be preferable. Mr. Pick took exception to much of the argument put forward in the paper, as also did Messrs. Butlin and Cripps. The latter two gentlemen brought forward statistics from St. Bartholomew's Hospital and elsewhere which differed widely in percentage results; Mr. Cripps' figures, indeed, offered considerable support to Mr. Banks' views. Mr. T. Smith suggestively remarked that surgeons must not lose sight of the fact that many women are living in comparative comfort who for years have been the subjects of cancer of the breast which has never been subjected to any surgical treatment. This Mr. Banks readily accepted, and remarked that far better was it to leave the patient alone than to inflict on her any incomplete operation. The President (Mr. Edmund Owen) expressed himself strongly in favour of opening up and clearing out the axilla in every operation for mammary cancer, whether enlarged glands have been previously felt there or not.

THE NEW PHARMACY BILL.

A BILL has been introduced in the House of Lords by the Earl of Milltown, under the title of the 'Pharmacy Acts Amendment Bill," to amend the Pharmacy Acts of 1852 and 1868. It is proposed to provide for the division of the examination into preliminary and other parts, and to make it incumbent on candidates presenting themselves for the final test to produce certificates of having attended a course of lectures on materia medica, botany, and chemistry. They must also have served for a period of not less than three years as pupils or apprentices in the shop of some duly-qualified chemist or druggist. The Pharmaceutical Society of Great Britain is to be entrusted with the power of regulating these examinations, and the Council of that body may, under certain circumstances, waive the whole or any part of the term of apprenticeship, provided they are satisfied that the candidate has by other means received adequate instruction. It is not intended that the Act shall apply to Ireland.

DEATHS OF EMINENT FOREIGN MEDICAL AND SCIENTIFIC MEN.

THE deaths of the following foreign medical and scientific men are announced:—Professor Arlt, the eminent oculist, at Vienna, on the 7th inst., at the age of seventy-five, after a long illness. Dr. Reinhold von Reichenbach, whose name is well known in the chemical world, on Feb. 23rd, at Gratz. Professor August Wilhelm Eichler, director of the Royal Botanic Garden and Museum at Berlin, at the age of forty-nine. Dr. A. Borodin, professor of Organic Chemistry in the Military Medical Academy of St. Petersburg.

THE EXISTENCE OF PEPSINE AND TRYPSINE IN URINE.

DR. VASILEVSKI, at Professor Chudnovski's suggestion, recently undertook some observations on the urine of twenty patients suffering from various diseases, in order to confirm the statements made by a number of authors—Brücke, Grützner, Sahli, Leo, Mya, Belfanti, and others—as to the constant existence of pepsine and trypsine as urinary constituents. He found that in both healthy and diseased states pepsine in greater or less quantity was constantly present. The smallest quantity was found in patients who were badly nourished, the state of nutrition of the body having apparently more influence upon the amount of pepsine in the urine than the nature of the disease. The least quantity of pepsine was found in the urine of a patient with pulmonary phthisis four days before death, and in that of another who suffered from carcinoma of the pylorus. In this case the pepsine was greater in amount when the pylorus was pervious and less when it was impassable and the patient vomited matter in a high state of fermentation. A high body temperature appeared to lessen the pepsine. In three

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cases in which the urine contained albumen, the quantity of pepsine coexisting with it appeared to be much the same as might have been expected from the state of the patient's nutrition if there had been no albuminuria. In regard to trypsine Dr. Vasilevski was unable to obtain definite results.

THE MARGARET STREET INFIRMARY.

AT a meeting of the Medical Board of the North London Consumption Hospital, held on Monday last, the following resolution was carried:—

"That the medical staff of the North London Hospital for Consumption and Diseases of the Chest are unanimous in their sympathy with the action of the members of the Margaret-street Infirmary—Drs. Hawksley, Cholmeley, Carr Beard, Phibbs, Willis, Walford, and Powell—who lately resigned their appointments under painful circumstances; and, further, that the secretary be instructed to forward a copy of this resolution to Dr. Hawksley, late senior consulting physician to the infirmary, and ask him to convey the substance of this resolution to his former colleagues."

We are glad to see the above timely expression of sympathy on the part of the medical staff of the North London Hospital for Consumption. It will no doubt be gratifying to Dr. Hawksley and his late colleagues. Meanwhile, it would be interesting to know what effect the resignation of these gentlemen will have on the position and future management of the Margaret-street Infirmary.

GASTRITIS IN RENAL DISEASE.

IN a paper read before the Société de Biologie (*Le Progrès Méd.*, No. 9), M. Pilliet described the lesions of the gastric mucous membrane in the dyspepsia of renal and urinary disease. The lesions—observed in a large number of cases of different kinds of renal disease—comprise infiltration of the connective tissue in the round and fusiform cells in groups between the glands or in bands along the vessels The gland tubules are diminished in number, much shortened, often dilated at their lower extremity, flattened superficially, and variously contorted. The cubical or prismatic cells are ill developed, as in the new-born, and show little or no formation of Nussbaum's peptic granules. The changes are best marked in interstitial nephritis, and resemble those described by Parrot in athrepsia, those met with in chronic alcoholic gastritis and in cirrhosis of the liver, and in gastritis of tubercular subjects.

BURIAL REFORM.

THE reply given by Mr. Plunket in the House of Commons to the question recently put to him by Mr. Baggallay respecting Brompton Cemetery suggests very serious reflections as to our present mode of burial. From that reply (a note of which appeared in THE LANCET of the 5th inst.) it appears that the cemetery contains in all 38 acres and 20 perches, and that there now remain 4 acres and 34 perches available for burial purposes. The space already used is therefore less than 34 acres, and in this there have been buried the enormous number of 135,617 bodies, an average of 3988 per acre. It has been calculated that 1000 graves can be made in every acre of land set apart for burial purposes, leaving a reasonable margin for spaces between graves, walks, &c. Hence, as the depth of graves is often eleven or twelve feet, and sometimes even deeper, the figures, large though they at first appear, are not excessive. Nor would there be anything to fear if it were the truth that all these bodies are really buried. But, as Mr. Seymour Haden has said, speaking of modern burial, a large proportion cannot be considered as buried at all. The first burial in Brompton cemetery took place in 1840, and, as it has always been what may be termed a fashionable place of interment, the probabilities are that a large proportion of the burials have been in lead coffins and in vaults or bricked graves. The result is, as it always must be when the dead are disposed in this manner, that the cemetery becomes filled with what Mr. Haden severely, but truly, describes as a mass of boxed-up putridity. It appears, moreover, that the burials therein still average in round numbers 5000 yearly, and that the Government derived last year a profit of £7070 from the cemetery. Considering all these circumstances, and also how completely the cemetery has become surrounded by dwellings it appears only reasonable that, if burials are to continue there every inducement should be made by reduced tariff &c. to bury in perishable coffins and in graves. It would indeed be well if all existing vaults or bricked graves could be converted into real graves by filling them up with earth or charcoal, so as to neutralise the poisonous gases which must sooner or later pass through the best soldering or most perfect cement. Meanwhile, much may be done by the force of example, and if the friends of the next titled and other celebrities who may be buried there would set the example of burial in perishable coffins, and in the earth, the example would soon be followed.

RUPTURE OF THE BLADDER.

A PATIENT was admitted into St. Bartholomew's Hospital on the morning of March 1st with symptoms of a ruptured bladder, in consequence of a blow on the hypogastrium whilst the bladder was distended. The injury had been received the previous evening, and Mr. Walsham operated soon after admission. A large quantity of urine escaped from the peritoneal cavity when the abdomen was opened, and a rent about an inch and a half long was found in the bladder wall. Sutures were used, passing through the peritoneal and muscular coats only; the abdominal cavity was irrigated with a 1 per cent. solution of boracic acid, and the abdominal wound closed as after ovariotomy. The patient suffered very little shock, and passed his urine naturally without the aid of a catheter every four hours. There has been no sign of peritonitis, and he may be looked upon as convalescent.

DENTAL IRREGULARITY.

MR. CHARLES TOMES, in his presidential address delivered at the Odontological Society, spoke of the influence of heredity in the production of dental irregularities. He does not believe, as has been maintained, that these deformities are things of quite modern date and due to disturbed innervation, the result of over-pressure (like the headache of Board School children), and points to the portraits by Vandyke at the Grosvenor Gallery and the exhibition of the old masters at the Royal Academy as showing several examples of dental irregularity, such as underhung jaw and protrusion of the upper incisors.

TREATMENT OF CHOLERA IN BUDA-PESTH.

IN a paper lately read before the Royal Buda-Pesth Medical Society, Dr. B. Anayán gave some particulars of the results of various kinds of treatment during the recent cholera epidemic in Buda-Pesth, an epidemic which he considered to have been of a mild character. He divided his cases into four groups—viz., 76 of choleraic diarrhœa, 85 of cholerine, 90 of slight cholera, and 454 of severe cholera. In the first three groups and in 180 of the cases belonging to the fourth group he employed only enemata; in the rest he employed, besides enemata, hypodermic injections of tannin and opium, corrosive sublimate, or hydrochloric acid. The results were that the cholerine and choleraic

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diarrhœa cases were all cured, and 63·6 per cent. of the slight cholera cases, but only 20·7 per cent. of the severe cases, which were treated with enemata only, so that in all the milder forms enemata had proved most successful. In the severe cases where hypodermic injections were used 38·6 per cent. recovered.

TRAVELLING MEDICAL REFEREES.

ACCORDING to information from colonial sources, the lot of medical officers attached to some Australian insurance companies is far from being a happy one. The "travelling medical referee" is one of those persons upon whose judgment and integrity the success of such associations chiefly depends. His position, privileges, and emoluments unfortunately stand in a nearly inverse ratio to the value of his services. These consist in making a series of professional visitations in town or country in company with an agent, who canvasses the inhabitants in favour of the office which he represents. The agent is commonly a hail-fellow-well-met, and the medical examiner frequently finds it almost obligatory to conform to the rough free-living customs of a young and growing colony. Of work and fatigue he has more than enough, food is apt to be inferior, and accommodation is but another name for barbaric dirt and roughness. The pay allowed is in some cases not illiberal, provided that business is brisk; in others it does not vary with the market, but is fixed at the low rate of four guineas per week. As to provision in case of accident or illness, the principles of the society do not, as a rule, stretch as far as the requirements of its medical referees. Altogether the life of these gentlemen appears to present few, if any, enviable features.

HYPODERMIC INJECTIONS IN ACUTE ANÆMIA.

DR. PREGALDINO of Ghent, taking into consideration the observations of Kronecker, showing that in acute anæmia death is not directly due to the want of oxygen owing to the paucity of the blood-corpuscles, but to the diminution of pressure in the bloodvessels, suggests that in these cases pressure may be restored either by intravenous injections, or, more simply and less dangerously, by hypodermic injections into the cellular tissue. He made observations on eighteen dogs, injecting into the cellular tissue a solution of common salt of the strength of 6 per 1000, and warmed to 37° C. This he found was very quickly absorbed, raising the blood-pressure in a quarter of an hour. Dr. Pregaldino has been requested by the Royal Belgian Academy of Medicine to continue his experiments.

MEDICAL HONOURS IN ITALY.

KING HUMBERT (*motu proprio*) has nominated Surgeon-Major Francesco Guerriero Chevalier of the Order of Saints Maurice and Lazarus, in consideration of professional duty heroically discharged in the Abyssinian campaign. Similar honour, equally merited, will, it is understood, be shortly conferred on others of the profession who have, at great risk to life and limb, saved many sufferers from the recent earthquakes in the Ligurian littoral.

ELECTROLYSIS OF AN ANEURYSM IN SPAIN.

DR. BERNARDO DIEZ UBELAR of Molinaseca publishes in *El Siglo Médico* the notes of a case of aneurysm of the first part of the aortic arch in a military officer, which produced dysphagia and terrible suffering, and required immense doses of morphia, so that the patient entreated that some operation might be performed, expressing himself as ready to run any risk in the hope of obtaining some relief. Electrolysis by means of needles was therefore resorted to, a Spamer battery being used. At first the maximum number of cells employed was ten, but in the later sittings twenty were brought into action. Some slight effect was produced, the tumour becoming small and more solid; the distressing dysphagia also diminished, but the pain remained as severe as before.

MEDICAL ATTENDANCE ORGANISATION COMMITTEE.

THIS Committee met on Tuesday, Sir Spencer Wells presiding. The principal resolutions were to the following effect:—That persons joining were to be approved by the medical officer under whom they wish to be registered. The question of an entrance fee was postponed, except for emergency cases, and, after much discussion of several amendments, the following resolution was passed: "Persons requiring immediate attendance must pay an entrance fee of 2*s.* 6*d*, which shall entitle them to treatment for one week, after which, should they continue ill, they shall pay 1*s.* per week if able to call on the doctor, and 2*s.* 6*d.* if visited at home. Upon recovery they shall be expected to continue as ordinary members with the consent of the medical officer." A further resolution was passed to guard the medical officers and the institution against an influx of chronic cases on ordinary terms, but providing for their admission at special rates, subject to the approval of the medical officer. It is necessary to remember that all these resolutions apply to persons whose wages do not exceed 30*s.* (for single persons), or 45*s.* (for a family). At the next meeting the questions of midwifery fees, general rules, fines, &c., are to be disposed of, after which it is hoped that the great point of a union between hospitals and provident dispensaries may be reached. Several hospital physicians are expected to take part in the discussion.

THE NEW EXAMINATION HALL.

ON and after Monday next, the 14th inst., the business of the examinations for diplomas of the Royal Colleges of Physicians and Surgeons of London under the old regulations, as well as under those of the Examining Board, will be conducted in the new Examination Hall, situate, as our readers are aware, on the Victoria Embankment.

ALLEGED INACCURATE CERTIFICATION OF DEATH.

AT a recent meeting of the Dartford Petty Sessions, Mr. Thomas Wheeler, medical officer of health for Bexley, was charged on a summons with making and issuing a false certificate of the death of a woman named Asker. For the prosecution it was stated that Mr. Wheeler certified that he had seen the deceased on Dec. 24th, when as a matter of fact he had seen her on the 19th. For the defence it was contended that the object of the Births and Deaths Registration Act was simply to ascertain the cause of death, and if this were correctly given no medical practitioner could be compelled to give other particulars. The magistrates accepted this view, and on the facts dismissed the summons, making, however, no order as to costs.

FINE FOR FALSE USE OF MEDICAL TITLES.

ON the 3rd inst. David Thomas of Peckham-rye—who must not be confounded with Mr. R. W. Thomas, L.R.C.P. Ed., of Temple Villa, Rye-lane—appeared to an adjourned summons, taken at the instance of R. H. S. Carpenter, for having on January 31st unlawfully taken a title, that of "Dr.," implying that he was registered as a medical practitioner, under the Medical Act of 1858. Mr. Pridham showed that the defendant said, in answer to a question, that he was "Dr. Thomas." This was denied, but the

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magistrate, Mr. Chance, decided that the Act had been violated, the object of which was to enable the public to distinguish between qualified and unqualified medical men. The defendant was ordered to pay £3 fine and £4 costs, but an appeal was granted.

THE BRITISH MEDICAL ASSOCIATION.

AT the fifty-fifth annual meeting of this Association, to be held at Dublin in the first week of August next, Dr. John T. Banks, Regius Professor of Physic in the University of Dublin, will succeed Dr. Withers Moore as President. The Address in Medicine will be delivered by Dr. W. T. Gairdner; the Address in Surgery by Dr. E. Hamilton; and the Address in Public Medicine by Dr. S. Haughton. Dr. G. F. Duffey will act as local hon. secretary.

A NEW SKIN HOSPITAL.

WE have received intimation by a paragraph, which seems meant for the press generally, that it is intended to set up a new Skin Hospital in Cranbourne-street, Leicester-square, to be "promoted by Mr. James Startin and Mr. Walter Pocock, for the gratuitous treatment of poor persons suffering from skin disease." We trust this proposal will be reconsidered. Leicester-square is already blessed with a Skin Hospital, and it is a poor compliment to it to erect another. Besides, the whole charity of the community just now is taxed to the utmost to sustain those great general hospitals where skin disease can be treated with reference to its constitutional bases. Mr. Startin will agree with us, too, in thinking that hospitals should be "promoted" by the public, and not by members of the profession. For all these reasons, and others, we trust that Mr. Startin and his friend will abandon a project which is not likely to succeed, and which would only injure other institutions, where their knowledge of skin disease might be exercised with greater advantage to the community and to the poor.

TYPHOID FEVER AT MEXBOROUGH.

AT a recent meeting of the Mexborough Local Board of Health, Mr. Sykes, the medical officer of health, reported that since the commencement of the outbreak, which had principally centred itself at Sparrow Barracks and Clay-lane, there had been a total of eighty-five cases. Of these, four had died and eighteen remained ill. Since then three fresh attacks had been heard of. The Local Government Board are pressing on the authority the action recommended to them by Mr. Spear of their medical department, and locally some preliminary action has been decided on as to the establishment of an Isolation Hospital, which, it may be hoped, will in the future aid in staying the progress of such epidemic diseases as that from which the town is suffering.

A CASE FOR INQUIRY.

THE name "Dr. T. Young, L.R.C.P., L.R.C.S., L.M.," is paraded in the large paragraph advertisements of Mr. E. W. Alabone, to whom allusion was made in our last issue. We ask why the Colleges from whom "Dr. T. Young" obtained his diplomas have not inquired into the matter.

CHOLERA IN SICILY.

CHOLERA is stated to be still prevalent at Catania in Sicily, although the number of cases and deaths is not numerous. According to information from Rome, six more attacks, of which four were fatal, were announced on the 5th inst.

FOREIGN UNIVERSITY INTELLIGENCE.

Basle.—A new ordinary professorship is about to be created, which, strange to say, has not up to the present time existed—namely, that of Midwifery and Gynæcology. The number of medical students has increased since 1862 from 30 to 130. Up to 1873 there were only four professors, now there will be seven.

Berlin.—Professor Gusserow has been selected to fill the chair of Obstetrics vacant by Professor Schroeder's death, the name of Professor Winckel of Munich being mentioned for Professor Gusserow's post.

Bonn.—Professor Ludwig of Giessen has been appointed Professor of Zoology and Comparative Anatomy.

Leipsig.—Dr. Benno Gottlob has been granted the position of Honorary Professor. Professor Hankel, Chief of the Physical Institute, has retired, being in his seventy-third year.

Montpelier.—The chair of Pathological and Histological Anatomy is vacant.

Nancy.—A serious fire has occurred in the buildings belonging to the Faculty of Medicine, the laboratory and collections belonging to the therapeutical department, as well as the natural history collections, having been destroyed.

Paris.—The Faculty of Medicine has thus arranged the candidates for the office of Dean: (1) M. Brouardel; (2) M. Jaccoud.

Zurich.—Professor Wyss is to have charge of the new Hygienic Institute.

A LARGELY attended meeting of the Portsmouth Hospital committee was held on the 4th inst., to consider the proposal made by the Admiralty in reference to reopening the lock wards. The Admiralty offered to contribute £35 a year for each bed occupied, provided the number did not exceed thirty, while the minimum contribution should be for fifteen beds, whether occupied or not. The committee agreed to accept the offer if the minimum number was increased to twenty-five and the maximum to thirty-two, without any reference to compulsory powers. It was stated that there are at the present time close upon 300 of this class of cases at Haslar Naval Hospital, and that the disease is so prevalent that only the worst cases could be received at the Station Hospital, Portsea; also that while there were only twelve of these patients at the workhouse in 1882, there are now fifty-five.

A BILL has been prepared for presentation to Parliament by the friends of some of the London and other hospitals which proposes "to restore the exemption from taxation which charitable institutions enjoyed for 250 years," but to which it is alleged they have been subjected since 1866 owing to the decision of the House of Lords in the case of the Mersey Docks and Harbour Board.

ON April 27th the Senate of the University of London will elect examiners in the departments of Arts and Science, Laws, Medicine, and Music. In the medical department two examinerships in Medicine and one in Forensic Medicine are vacant, the retiring examiners being eligible for re-election, and intending so to offer themselves.

IT is stated that Sir W. Foster, M.D., will be asked, after the funeral of the late member for the Ilkeston division of Derbyshire, to become the Liberal candidate for that constituency.

ON the 4th inst., at the Royal Institution, Mr. Victor Horsley, F.R.S., delivered an address on "Brain Surgery in the Stone Age."

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HERBERT PERCY FREUND, who has been repeatedly charged with creating disturbances at St. Paul's Cathedral, was again charged with the same offence on the 7th inst. Medical evidence was given on the question of the sanity of the defendant, and, no evidence being offered by the authorities of the Cathedral, he was discharged.

As will be seen by an announcement in our advertising columns, a change has been made by the Senate of the University of London in the time of holding the next Matriculation Examination—viz., from the week commencing Monday, June 20th, to the preceding week, commencing June 13th.

AN important inquiry has been opened by Mr. S. J. Smith, civil engineer, of the Local Government Board, as to the sewerage of West Cowes. The proposed scheme is a costly one, and meets with considerable opposition. The inquiry stands adjourned to March 19th.

DR. HUNTER STEWART and Mr. COSMO BURTON are engaged in making an analysis of the air of Edinburgh. A report on the whole work will be submitted to the Public Health Committee as soon as the investigations are completed.

A BILL to amend the law relating to the election of coroners will be introduced in the House of Commons to-night (Friday) by Mr. Wootton Isaacson.

DR. SAMUEL FENWICK has been elected a member of the Royal Institution of Great Britain.

Pharmacology and Therapeutics.

CHAPOTEAUT'S MORRHUOL.

THE difficulty frequently experienced by patients in taking cod-liver-oil has induced M. P. Chapoteaut, the well-known pharmacist of Paris, to turn his attention to the subject, and he has recently introduced a preparation of this valuable remedy, which proves to be of considerable utility in the treatment of phthisis and other wasting diseases. The active principle, if such it may be called, is extracted and enclosed in capsules, which, in the words of the prospectus, have "the advantage of possessing in a small volume the curative medicinal properties without the inconvenience of the oil." It is claimed for morrhuol that it represents twenty-five times its weight of the crude drug. Professor Germain Sée and his colleague, Dr. Labadie-Lagrave, in the fifth edition of their clinical lectures recently published, speak highly of extract of cod-liver oil, and assert that it is not only tolerated without difficulty, but is readily absorbed. We find that some patients take the capsules who certainly would not take the oil. Whether morrhuol is equally efficacious as a therapeutic agent remains to be seen, and can only be determined by a series of clinical observations extending over many months. We think, however, that we are justified in calling attention to what may prove to be a new departure in the treatment of certain intractable diseases. The capsules may be obtained direct from M. Chapoteaut, 8, Rue Vivienne, Paris.

MELON ROOT AND OIL OF BEN (MORINGA APTERA).

The above possess purgative and emetic properties. An emetic principle has been extracted from the root by Torosicviez. A solution containing nine centigrammes of it is, says the *Pharmaceutical Journal*, sufficient to induce emesis. Fifty centigrammes of powdered root is necessary to cause vomiting.

HASCHISCH PURUM AND CANNABINON.

This is a preparation of cannabis indica prepared by treating the alcoholic extract of Indian hemp with caustic alkali, by which all acid ingredients are solved. The brown soft resinoid residue is "pure haschisch," and is composed of the soft resin cannabinon and the alkaloid tetanine. It is insoluble in water, but forms golden-yellow solutions in alcohol, ether, and chloroform. A third of a grain is said to act as a cerebral stimulant, and a larger dose causes all the symptoms, including sleep, of Indian hemp. The drug should be in a fine state of division, and may be given in pastille form, with powdered cacao or roasted coffee as a vehicle. Tannic acid dissolves out the alkaloid on which the stimulant action depends, whilst the remaining cannabinon has the narcotic property. Cannabinon is triturated with sugar of milk in the strength of 10 per cent. Made up with cocoa or coffee in pastile form, it may be given as a hypnotic, in doses of one-half to one grain and a half, especially for hysterical or insane patients, but it is contra-indicated when heart-disease exists.—(*Pharmaceutical Journal.*)

THE USE OF IODOL IN BELGIUM.

Dr. Edouard de Smeth, in a clinical lecture on iodol given at the Hospital of St. Pierre, Brussels, details several cases of syphilis and soft chancres in which iodol proved very useful. In one of these, iodoform had first been used, but had to be abandoned because of the objection made to its smell by the landlord of the hotel in which the patient was staying. The lecturer also mentioned a case of very obstinate varicose ulcers which had been treated with great success by one of his colleagues by an ointment composed of five grammes of iodol in thirty grammes of lard. He says that iodol is prescribed in Belgium by Dr. Coppez in various ophthalmic cases, by Dr. Houzé in tubercular ulceration of the throat, and by Dr. Lebrun in the form of ethereal injections in endometritis, also by others in various affections under the forms of iodol-collodion, iodol-bougies, &c. In addition to the experiences of Belgian surgeons, those of foreign observers were mentioned, especially those of Marcus of Pyrmont, showing by injections of iodol and iodoform in animals that iodol is far less poisonous than iodoform.

VASELINE FOR HYPODERMIC MEDICATION.

This method of hypodermic medication is extending, especially in France, where it is advocated by M. Meunier, of Lyons, as a vehicle for the introduction of active principles into the system. It is contended that vaseline is absolutely harmless to the tissues, and may be employed in large doses without causing accidents. But the vaseline must be perfectly pure. Pure vaseline treated with warm sulphuric acid does not blacken, but any impure specimen would. Eucalyptol has been thus employed in phthisis, and turpentine in sciatica. Iodoform, phenol, iodine, and camphor may be injected in the strength of 1 per cent., and thymol in ½ per cent., or menthol 10 per cent.

RHUS AROMATICA FOR NOCTURNAL ENURESIS.

A fluid extract has been sent into the market by Parke, Davis, and Co. It is prepared from the cortex of the root of the rhus aromatica, sweet sumac. It acts on the plain muscular tissue of the bladder, uterus, and rectum, and may be employed to check hæmorrhages in these situations. Atonic dyspepsia is said to have been relieved by it. Dr. Unna, after a trial of three years, believes the extract to be very efficacious in the nocturnal enuresis of children. Five drops may be given morning and evening to a boy two years old, and ten-drop doses to children of six.

SALICYLATE OF SODA IN GONORRHŒA.

Dr. Avsitidiski recommends salicylate of soda in gonorrhœa; the quantity he gives is thirty grains a day dissolved in linseed-tea. The way in which this acts is by being eliminated by the urine, and thus washing out the urethra with an antiseptic solution. Dr. Avsitidiski tried the effect of a 2 per cent. salicylate of soda solution as an injection, and found that it acted similarly to a solution of boracic acid of the same strength, rapidly changing the puriform secretion to one of a mucous character.

MENTHOLEATE.

Mentholeate is a solution of menthol in oleic acid, and is recommended by Professor Remington as the best form for the outward application of menthol. Two hundred grains of menthol may be dissolved in half an ounce of oleic acid by heating together in a test-tube.

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IODOFORM IN HEART DISEASE.

M. Testa has employed iodoform in cases of organic lesion of the valves. The administration of small doses of iodoform (seven centigrammes—about a grain—in four pilules, one to be taken every two hours) rapidly dissipated the functional derangements dependent on the valvular disease. The experimental results obtained in dogs completely concur with those furnished by clinical experimentation in demonstrating that in dogs iodoform retards the cardiac contractions, and this delay increases the total duration of each cardiac cycle, and also the efficiency of the systole.

PHENOL MERCURY.

The chemical formula of this mercurial compound is $C_6H_5OHg.OH$. It is given in the form of pills, each containing two centigrammes of the preparation. Two pills may be given the first few days, and the number gradually increased to six. Salivation and stomatitis are said to be but very occasionally produced.

LOBELINE AND INFLATINE.

These are two alkaloids obtained from the seed of lobelia inflata. The former has powerful emetic properties, and the emesis is not followed by disagreeable symptoms. The powdered alkaloid is very irritant to the nasal passages, perhaps more so than veratrine. The inflatine has not any therapeutic effects, so it is stated.

NASAL POLYPI.

It is recommended by Dr. Bell of Canada to treat nasal polypi by daily injection of tannin, from five to ten drops of a concentrated solution being injected by means of a hypodermic syringe. After a few days of this treatment the polypus sloughs and comes away without bleeding.

THE HIGH ALTITUDE TREATMENT OF PHTHISIS.

(FROM A SPECIAL CORRESPONDENT.)

No. III.

Davos-Dörfli; Frauenkirch; Wiesen; St. Moritz; The Maloja,—Concluding Remarks.

HAVING dealt fully with the general principles of the high altitude treatment of phthisis with special reference to Davos, I shall conclude by a brief consideration of the other Alpine sanatoria. Frauenkirch and Davos-Dörfli need not detain us, being both in the Davos valley and sharing in the general climatic conditions of Davos-Platz. Owing to the rapid increase of patients at the latter village, they are likely to grow in popularity as the opinion gains ground that the aggregation of large numbers of consumptives is a peril to be shunned. Davos-Dörfli has more sunshine, but less shelter than Davos-Platz. The climatology of Frauenkirch is practically identical with that of the parent sanatorium.

Wiesen demands a more extended notice, as it possesses many attractions as a health-resort, and probably has a future before it. Situated on the side of a declivity which slopes abruptly down to the wild gorge of the Landwasser, surrounded by pine woods, and encircled by a range of magnificent snowy peaks, Wiesen possesses all that Alpine charm of scenery which Davos so conspicuously lacks, and is hardly inferior to the latter in all the essential requisites of an admirable sanatorium. It possesses rather more sunshine, an almost equal immunity from wind, and a site superior to that of Davos for the purposes of drainage. From its situation on the brow of a hill overlooking a deep Alpine valley, it might be conjectured that Wiesen would be much exposed to winds, but the gorge of the Landwasser is so deep and its bed so far below the level of the village that the valley wind sweeps past without rising so high as the site of the hotels for invalids. The chief point of difference between Davos and Wiesen arises from the fact that the latter lies at a considerably lower elevation, and hence has a shorter winter and a higher mean temperature, amounting to about 2° C (Tucker Wise). The climate is thus milder and less bracing than that of Davos, and hence likely to prove advantageous in those cases where the latter proves too stimulating. There can be little doubt that Wiesen is capable of affording as good results as Davos, and it seems particularly worthy of trial in those doubtful cases where dyspepsia, insomnia, or deficiency in circulatory vigour renders recourse to the mountains a tentative measure. There are two good hotels where ample provision is made for the comfort of the invalid; but the village itself is one of the smallest and poorest in Switzerland, and the visitor must be prepared to dispense with many of the social attractions afforded by Davos. Wiesen can be recommended only to those who are superior to the charms of gaiety, who possess much resource for amusement and occupation in themselves, and who are prepared to make every necessary sacrifice which their condition of health may demand. Wiesen is only eleven miles distant from Davos; hence visitors to the former resort can have their medical wants supplied by the physicians of the latter. Between thirty and forty visitors spent last winter at Wiesen, and the results of treatment are said to have been satisfactory. We are still without definite statistical information on this point. Wiesen is usually approached from Coire, from which it is twenty-four miles distant.

The sanatoria hitherto considered all lie in the same valley, Davos-Dörfli representing its highest and Wiesen its lowest point. I have now to deal with the long famous, and still very important, health-resorts in the Engadine. The valley of the Inn has long been justly celebrated for its magnificent scenery, its mineral waters, and its bracing air. For many years it has been a favourite playground for tourists in the summer and autumn, but it is only since Davos arose into sudden popularity that St. Moritz, Samaden, Pontresina, and the Maloja have put in their claim to rank as winter sanatoria for phthisis. This claim must still be reckoned on its trial, as the results of treatment in the Engadine have hardly hitherto been of a nature to justify the expectation that it will ever supersede Davos. We may safely confine ourselves to the consideration of St. Moritz and the Maloja, as Samaden and Pontresina have grave disadvantages as winter resorts: the former in its windiness; the latter in the contour of the surrounding hills interfering with the sunshine. They have hitherto had few winter residents, and it seems unjustifiable to recommend them when there are several resorts equally accessible and in all respects superior.

St. Moritz enjoys a very charming situation. It is 6089 feet above the level of the sea (nearly 1000 feet higher than Davos), and the village rests on the crest of a hill 300 feet above the level of the Inn valley. Beneath lies a lake, on the edge of which are the baths of St. Moritz (St. Moritz Bad), with numerous splendid hotels, while beyond stretches a range of snowy peaks of great grandeur. The baths have their season in August and September, when St. Moritz is the favourite resort of wealth and fashion, but are closed in winter. Several hotels in the village proper now remain open throughout the year for the benefit of winter visitants, and the accommodation provided is in every way excellent. Good medical attendance can be procured.

A few miles beyond St. Moritz, on the margin of the lake of Sils, is the Grand Kursaal de la Maloja, a magnificent hotel (perhaps the finest in Europe), recently erected. All that money and art can do has been done both to provide for the comfort and to promote the pleasure of winter residents. The scenery in the neighbourhood, though somewhat inferior to St. Moritz, is nevertheless very fine, and a view of the lake with its grand encircling peaks, when the moon rides high and the snow is on the ground, is a scene one cannot easily forget. It must not be forgotten, however, that this fine winter sanatorium is in one of the most secluded positions in Europe. The railway does not approach nearer than Coire on the north, and Chiavenna on the south. There is no village in the vicinity of the hotel, and no opportunity for any social pleasures beyond those afforded by the visitors themselves

What are the climatic peculiarities of the Inn valley, and wherein do they differ meteorologically and in their application to disease from those prevailing in the valley of Davos? St. Moritz and the Maloja are both at a materially higher elevation than Davos; hence they have a lower mean temperature, a longer winter, and a greater duration of frost and snow. Nevertheless, owing to peculiarities of local position, they both enjoy somewhat more sunshine during the winter than Davos, and in this respect the Maloja takes precedence of St. Moritz; but there is one essential point in which, according to the unanimous report of invalids and permanent residents, Davos enjoys an undisputed pre-eminence—namely, stillness of the atmo-

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sphere. That the Alpine winter climate would be utterly unsuitable to the invalid did not the profound atmospheric calm permit the full influence of the solar heat to be felt while the shade temperature is far below freezing-point is a cardinal and indisputable principle in all theories regarding the efficacy of the high altitude treatment. This point is really the pivot on which the whole question turns. Hence windiness is simply a fatal objection to any *luftkurort*. It would be inaccurate, however, to describe the winter climate of St. Moritz and the Maloja as windy. Perfect days—days of absolute stillness, spotless skies, and uninterrupted sunshine—are by no means rare during winter in the Inn valley, but they are unquestionably less frequent than at Davos. That this must necessarily be so is evident to the eye of any observer who is familiar with the principles which regulate the relation of topography to climate. Just as the waters of the Inn rush down the long funnel-shaped valley of the Engadine, so must there also at times be a descent of atmospheric currents. As the writer drove up from Süs to Samaden on a brilliant day in October, the whistling of the wind reminded him, in spite of the bright sunshine, that he had left behind the atmospheric placidity of Davos. The position of the Maloja hotel, situated almost at the apex of the long double valley formed on one side by the Engadine and on the other by the Maloja Pass and the Via Bregaglia, seems particularly obnoxious to the charge of windiness. The climate of the higher Alps is one of great stimulation and much tonic influence, and these characteristics will be exaggerated in proportion to the amount of wind. But in those cases in which the climate fails to confer benefit, the usual explanation is that it is too stimulating; hence the calm of Davos is all in its favour. At Davos one meets with numerous cases of patients who have crossed over into the Engadine, often for the mere purpose of varying the monotony of existence, but who have been driven back by the over-stimulation of the climate. On the other hand, the results of treatment at St. Moritz and the Maloja have frequently been excellent, but there cannot be a doubt that extreme care is necessary in the selection of cases. Debilitated patients, patients with nervous irritability or the least suspicion of circulatory weakness, should on no account be sent to the Engadine. If Davos and Wiesen are of doubtful applicability to such cases, St. Moritz and the Maloja are absolutely contra-indicated.

The high altitude treatment of phthisis has fought its way into favour against heavy prejudices, and has at least established its claim to careful consideration. It is not a specific, as the rapidly-filling graveyard of Davos abundantly proves, but in properly selected cases its results probably excel those obtained by the older methods. It is to assist the profession in the choice of suitable cases, and to save a hopeful advance in therapeutics from the odium which follows from its improper application, that the present series of articles has been written.

MEDICAL SOCIETY OF LONDON.

GREAT was the success of the Medical Society's Dinner held in the Venetian Chamber of the Holborn Restaurant on Tuesday, Mr. Brudenell Carter, the retiring president, being in the chair. After the loyal toasts had been duly honoured, the toast of "The Army" was responded to by Sir Thomas Crawford, who referred to the question of the "relative rank" of medical officers. His observations entirely supported the position which we took on this question (see THE LANCET, page 482). There was nothing in the Royal Warrant that trenched in any way on the prerogative of the Medical Department of the Army. We have no doubt that the strong assurance of the Director-General of the Army Medical Department will quiet the unnecessary alarm that has been excited. Captain Crozier replied for the Navy, and Colonel Edis for the Volunteer forces. To Mr. T. Bryant was entrusted the toast of "The Houses of Parliament," and this was answered by Colonel Duncan, M.P. Dr. Ord proposed "The Medical Corporations," and Mr. Shillitoe, the Master of the Society of Apothecaries, responded. Sir Joseph Fayrer did the honours of the toast for "The Retiring President." Dr. Hughlings Jackson was warmly received as the new President of the Society. The remarks of Mr. J. H. Morgan, the retiring secretary, Dr. Samuel West the senior secretary, Mr. Bernard Pitts, the new secretary, and Mr. Poole, the much-respected registrar, were received with acclamation. We were greatly pleased with the suggestion of Dr. Samuel West that the clinical meetings of the Society should become a still more prominent feature—a suggestion that we have advocated for some time past as likely to prove of great practical value and interest, and certainly conducive to the welfare of the Association.

THE MANCHESTER MEDICO-ETHICAL ASSOCIATION AND CORONERS' INQUESTS.

AT an ordinary meeting of the Manchester Medico-Ethical Association, held on April 24th, 1885, Dr. Sinclair read a paper upon "Coroners' Inquests." This paper led to the appointment of a sub-committee of the Association for the purpose of obtaining and considering evidence as to the present inefficient working of the Coroner's Court. The sub-committee, with Dr. Sinclair for their chairman and Dr. Owen as secretary, commenced their labours on Sept. 15th, 1885, and held fourteen sittings. Evidence was obtained of the inefficiency of the present system from (1) the personal experience of each member of the sub-committee; (2) from published statements which have appeared from time to time in the medical journals and public papers; (3) from statements received in reply to a circular letter asking for information based upon personal experience. In all 300 letters were addressed to various medical men, including members of the Association, medical officers of health, police surgeons, professed medical jurists, and public analysts. The evidence thus obtained was considered under the following heads: (1) The coroner, his functions, qualifications, and mode of election; (2) the position of medical men as skilled witnesses; (3) the present system of registration of deaths; (4) the coroner's jury. The third branch was found to be inseparable from the inquiry, as much of the inefficiency complained of was found to be due to a faulty system of death registration. After giving a number of cases illustrative of the defects of the present system so far as the coroner is concerned, the sub-committee expressed their opinion: 1. That the qualification and position of a coroner should be those of a stipendiary judge, who should devote the whole of his time to the duties of his office, and that his salary should in no case be dependent upon the number of inquests. 2. That the present mode of election to the office is unsatisfactory, and that the election should invariably rest with the Crown. 3. That the functions of a coroner should be to conduct public inquiries into the cause of death in certain cases by means of the evidence of experts and of other witnesses, and to sum up such evidence in its legal aspects before a properly constituted jury. 4. That he should have no discretion, but to hold an inquest in every case of death, sudden or otherwise, in which the cause of death cannot be certified by a legally qualified medical man. But it is not implied that the coroner should be necessarily debarred from holding an inquiry, provided there exists reasonable grounds for suspicion, because a death has been certified by a legally qualified practitioner. 5. That no inquest shall be held without a previous examination of the body by a properly qualified medical man. After giving details showing the unsatisfactory way in which necropsies are too often made and medical evidence given, the sub-committee made the following suggestions:—1. The examination of the body upon which an inquest is to be held should be made by a medical man specially skilled in such matters, who should be designated the Public Pathologist, and that for every coroner's district there should be one or more such pathologists appointed to conduct the examination of the body previously to the inquest. 2. The appointment of the public pathologist should be made by the same authority as in the case of the coroner. 3. The pathologist should, in cases in which he may deem it necessary, suggest to the coroner the advisability of calling in the aid of other scientific experts (for analysis, &c.). 4. The duties of the public pathologist should not preclude the medical attendant in the case from giving evidence as a skilled witness when necessary. 5. For every coroner's district one or more mortuaries, with proper appliances, should be provided, which would be available for post-mortem examinations in the absence of proper accommodation elsewhere, or in such other circumstances as the coroner might think would

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warrant the removal of the body; and that the removal of the body to a mortuary should be compulsory under the coroner's order. The report concludes with further suggestions, among them being that registrars of births and deaths should be required to report to the coroner every uncertified death, that the period of medical attendance should be stated in each death certificate, that all still-births should be registered, that the status of coroners' jurors should be improved, and that the present custom of viewing the body is objectionable and unnecessary.

We hope at an early date to take into consideration the views of the sub-committee, which are of a somewhat sweeping character.

SCIENTIFIC RESEARCH.

THE following memorial, signed by medical and surgical teachers of all the London medical schools, has just been presented to the Council of the Royal College of Surgeons:—

To the Council of the Royal College of Surgeons of England.

MR. PRESIDENT AND GENTLEMEN,—We venture to bring to your notice the anxiety that is felt by those who are directly concerned in the teaching of surgery in London with reference to the proposed extension of the buildings in Lincoln's-inn-fields, inasmuch as the present moment offers a unique opportunity for the establishment and endowment of an institute for the advancement of surgery by research.

The progress of surgery largely depends upon the facts obtained by research in the following branches of science: 1. Morbid anatomy, including histology. 2. Experimental pathology, including bacteriology. 3. Experimental operative surgery. The present Museum, which offers a splendid field of study, can never be considered a complete memorial of Hunter's work, and can never be thoroughly utilised for the benefit of surgical science until a laboratory is added to it for the pursuit of the objects above indicated. In view of the increased power and wealth of the Royal College of Surgeons of England, we hold that any Fellow or Member who is competent to carry out scientific investigations should be able to do so without inconvenience and without expense. Within the walls of our own College fresh knowledge would thus be gained, new methods of surgical treatment would be brought to light, and British surgury would no longer be compelled to lean upon the information derived from foreign laboratories for the solution of the many problems which surround its progress. We therefore earnestly hope that in the contemplated enlargement of the College adequate provision will be made for the study of these most important branches of our art.

(Here follow the signatures.)

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Bilston Urban District.—Bilston is one of the urban districts in which some cases of typhus occurred last year, but at the end of December no further cause for apprehending an outbreak of this disease remained. Bilston is, however, a district needing much improvement as regards the lodgment of the people, and this especially as to the vicious practice which formerly obtained of building so-called back-to-back houses. We hope the present bye-laws of the town require every house to have its own appointed open space to the rear. Child mortality causes Dr. T. R. Bailey some anxiety. The rate under one year of age exceeds 180 per 1000 of the children born, but he very much fears that it is largely due to conditions of trade and parental mismanagement, which it will be difficult to overcome. There is, however, room for progress in many matters affecting child life, notably as to the through-ventilation of dwellings and improved means of excrement and refuse disposal. As regards the latter, a change may be hoped for, since the authority are considering an alternative method suggested by Dr. Barry of the Local Government Board.

Ashton-in-Makerfield Urban District.—The general death-rate of this district for 1886 was 17·1 per 1000. The births were 475 in number, and the deaths under one year of age were 64; this gives a rate of 13·5 per cent., which can hardly be regarded as very excessive, but Mr. Hannah evidently thinks it might be further substantially reduced. Especially should the diarrhœa mortality be lessened, due as it largely is, in his opinion, to improper feeding, including the excessive dilution of milk. The general account of nuisances dealt with points to a satisfactory performance of the current duties by the sanitary officers.

Newton-Abbott Combined District.—Mr. Harvey gives the birth- and death-rates of the Newton-Abbott rural district for 1886 as 29·1 and 16·5 per 1000 respectively. In Broadhempstone there were in the early part of the year twelve cases of diphtheria, of which five were fatal. The disease was imported into the local school by children who, for geographical reasons, were allowed to attend the Broadhempstone school, instead of their own in an adjoining district. This circumstance leads Mr. Harvey, as it has led others, to point to the difficulties attending the procuring of information as to outbreaks involving sanitary frontiers. Both this outbreak and a subsequent occurrence of diphtheria led to the discovery, and as far as possible to the remedy, of conditions of filth and of dampness of sites with which the disease was associated. At Kingsteignton the water question was discussed during the year, and Mr. Harvey's description of the sources of contamination in the village, as also of the millions of gallons running through the place continually, convinced the inhabitants of the desirability of securing a proper supply. The first scheme unfortunately broke through, owing to difficulties as to mill-owners' compensation; and now another scheme for securing a spring at Tor Hill is under consideration. At Bishopsteignton a new water-service has been completed, at Bovey new sewers have been laid, at Ashburton new water-works have been commenced, and at Pottery near Bovey and at Fairwater improvements in water-supply have been effected. Indeed, this district has made sanitary progress of a sort which is calculated to improve it very materially, and to give confidence to those who seek a healthy residential neighbourhood. In the *Wolborough* urban district the death-rate was 15·28 per 1000, and the record of work given shows that no opportunity is lost to ensure further improvement in its sanitary circumstances. At *Dawlish* the death-rate was 17·6 per 1000, after making the necessary correction for visitors. Measles and scarlatina prevailed in the last quarter of the year, no epidemic disease having previously existed in the place since 1880. By rigidly excluding children living in infected houses from attending the schools, and by means of other precautions, the diseases appear to have come to an end. During 1886 they each caused three deaths. A difficulty in enforcing a strict bye-law as to the distance of piggeries from houses in the more rural parts of a nominally urban district has arisen in Dawlish. The same has occurred elsewhere, and we believe the Local Government Board now assent either to the division of the district for the purposes of such a bye-law, or else they make the distance clause apply, not to each house separately, but to any two or more houses. The sewerage scheme for Dawlish has again been delayed, and it has been found necessary to prepare new designs by which the sewage may be delivered to the eastward and below low water-mark.

Carlisle Urban District.—Crozier Lodge, the sanitary hospital for this and the rural district, has again served an excellent purpose. The immediate isolation of small-pox in the rural district is held by Mr. William Brown, F.R.C.S., to have saved the spread of infection into the city. Typhus was in a similar way isolated and checked. Carlisle has long been comparatively free from scarlet fever, but there is now an ominous increase of attacks, and seven deaths occurred in 1886. Typhoid fever mortality, though decidedly below the average, showed an increase in 1885, but the causes are carefully ascertained, and, we may assume, also remedied. Diarrhœa was exceptionally fatal in October, 1886, it being associated with an abnormally high temperature for that month. Some important sanitary works were executed during the past year. Extra-mural abattoirs were commenced, the filter-beds of the Carlisle Waterworks were extended, and a portion of the ward accommodation at Crozier Lodge was remodelled and reconstructed. The general mortality for 1886 was at the rate of 19·4 per 1000.

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VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5792 births and 3776 deaths were registered during the week ending March 5th. The annual death-rate in these towns, which had been equal to 19·5, 21·1, and 21·3 per 1000 in the preceding three weeks, was again 21·3 last week. During the first nine weeks of the current quarter the death-rate in these towns averaged 21·9 per 1000, and was 2·3 below the mean rate in the corresponding periods of the ten years 1877-86. The lowest rates in these towns last week were 11·6 in Bolton, 14·1 in Brighton, 15·3 in Sunderland, and 17·1 in Birkenhead. The rates in the other towns ranged upwards to 26·5 in Wolverhampton, 26·7 in Huddersfield, 28·1 in Blackburn, and 31·2 in Manchester. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 340, 371, and 372 in the preceding three weeks, further rose last week to 385; they included 152 from measles, 93 from whooping-cough, 41 from scarlet fever, 34 from diarrhœa, 31 from "fever" (principally enteric), 31 from diphtheria, and 3 from small-pox. These zymotic diseases caused the lowest death-rates during the week in Bolton, Halifax, and Bradford, and the highest rates in Oldham, Manchester, and Huddersfield. The greatest mortality from measles occurred in Liverpool, Salford, Manchester, and Huddersfield; from whooping-cough in Birmingham, Oldham, Preston, and Plymouth; from scarlet fever in Manchester, Salford, and Birkenhead; and from "fever" in Blackburn. The 31 deaths from diphtheria in the twenty-eight towns included 19 in London, 2 in Bristol, and 2 in Birmingham. Small-pox caused 3 deaths in Manchester, but not one in London and its outer ring, or in any of the twenty-six other large provincial towns. Only 6 cases of small-pox were under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease. The deaths referred to diseases of the respiratory organs in London, which had increased in the preceding four weeks from 364 to 466, were last week 459, and were 28 below the corrected average. The causes of 72, or 1·9 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Newcastle-upon-Tyne, Nottingham, Leicester, Portsmouth, and in six other smaller towns. The largest proportions of uncertified deaths were registered in Salford, Oldham, Halifax, and Sunderland.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 24·3 and 22·5 per 1000 in the preceding two weeks, rose again to 23·6 in the week ending March 5th; this rate exceeded by 2·3 the mean rate during the same period in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 17·4 in Dundee and 18·7 in Leith, to 25·6 in Glasgow and 32·4 in Aberdeen. The 589 deaths in the eight towns last week showed an increase of 27 upon the number in the preceding week, and included 32 which were referred to whooping-cough, 27 to measles, 19 to scarlet fever, 11 to diarrhœa, 5 to diphtheria, 4 to "fever" (typhus, enteric, or simple), and not one to small-pox; in all, 98 deaths resulted from these principal zymotic diseases, against 103 and 99 in the previous two weeks. These 98 deaths were equal to an annual rate of 3·9 per 1000, which exceeded by 1·7 the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had increased in the preceding five weeks from 19 to 33, rose last week to 32, of which 18 occurred in Glasgow, 5 in Edinburgh, and 5 in Aberdeen. The 27 deaths from measles showed a decline of 3 from the number in the previous week, and included 19 in Aberdeen and 8 in Glasgow. The fatal cases of scarlet fever, which had been 13, 25, and 17 in the previous three weeks, rose again last week to 19, of which 13 occurred in Edinburgh and 4 in Glasgow. The 11 deaths attributed to diarrhœa corresponded with the number in the previous week, and included 5 in Glasgow and 3 in Dundee. Of the 5 deaths from diphtheria, 2 occurred in Glasgow and 2 in Edinburgh; and the 4 deaths referred to "fever" included 2 in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 146 and 121 in the preceding two weeks, rose again last week to 142, but were 38 below the number returned in the corresponding week of last year. The causes of 76, or nearly 13 per cent., of the deaths registered during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 35·3 and 30·7 per 1000 in the preceding two weeks, further declined to 28·1 in the week ending March 5th. During the first nine weeks of the current quarter the death-rate in the city averaged 31·0, the mean rate during the same period being but 20·8 in London and 21·7 in Edinburgh. The 190 deaths in Dublin last week showed a further decline of 18 from the numbers in the previous two weeks; they included 7 which were referred to scarlet fever, 5 to "fever" (typhus, enteric, or simple), 1 to measles, 1 to whooping-cough, and 1 to diarrhœa. Thus the deaths from these principal zymotic diseases, which had been 14 in each of the preceding two weeks, were last week 15; they were equal to an annual rate of 2·2 per 1000, the rates from the same diseases being 1·6 in London and 4·2 in Edinburgh. The deaths from scarlet fever, which had been but 3 and 2 in the previous two weeks, rose last week to 7; the 5 fatal cases of "fever," on the other hand, showed a decline of 3 from the number in the previous week. The deaths of infants showed an increase of 3, and those of elderly persons a decline of 2, compared with the numbers in the previous week. Four inquest cases and only one death from violence were registered; and 40, or nearly a quarter, of the deaths occurred in public institutions. The causes of 29, or more than 15 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

A SPECIAL COMMITTEE, composed of Sir Archibald Alison (who is to preside), Sir Evelyn Wood, Mr. G. Lawson, Sir Thomas Crawford, and Colonel Methuen, has been appointed to consider the full organisation of the medical department for an army corps in the field, as well as the number of horses and servants required for medical officers on active service.

WAR OFFICE.—Army Medical Staff: The date from which Surgeon-Major S. Moore, M.B., is granted retired pay, with the honorary rank of Brigade Surgeon, is Jan. 22nd, 1887, and not, as stated in the *Gazette*, February 11th, 1887. The undermentioned Surgeons on probation to be Surgeons:—F. J. Morgan; W. H. Horrocks, M.B.; C. H. Hale; H. C. Thurston; B. H. Scott; W. C. Poole, M.B.; O. R. A. Julian; G. Raymond, M.B.; E. A. Burnside; T. McCulloch, M.B.; A. B. Hinde; A. Y. Reily, M.B.; J. W. Cockerill; J. Ritchie, M.B.; H. St. G. S. Hore; S. Macdonald, M.B.; E. Corcoran; A. O. C. Watson, M.B.; E. W. Gray, M.B.; D. Stiell, M.B.; L. E. A. Salmon; G. A. Wade, M.B.; J. Minniece, M.D.; R. H. Penton; M. P. C. Holt; W. L. Gray, M.B.; E. G. Browne; J. C. Morgan; H. I. Pocock; G. Hilliard, M.B.; C. R. Elliott, M.D.; C. A. Young; J. W. Bullen, M.D.; J. C. Weir, M.B.; B. J. Innis; R. C. Thacker; W. N. Murphy, M.D.; S. F. Clark, M.B.; and E. M. Hassard.

ADMIRALTY.—The following appointments have been made:—Surgeon John Lownes, to the *Landrail*, to date from the 10th inst.; Staff-Surgeon J. Lyon, to the *Ajax*; Surgeon G. A. Spiller, to the *Duke of Wellington*, additional, for disposal; Surgeon W. C. Spiller, to the *Ganges*, additional, for disposal; Surgeon W. Belt, to the *St. Vincent*, additional, for disposal; Surgeon H. W. Rickards, to the *Boscawen*, additional, for disposal; Surgeon F. W. Brice, to the *Britannia*, additional, for disposal; Surgeon J. W. Slaughter, to the *Cambridge*, additional, for disposal; Surgeon J. B. Clibborn, to the Lisbon Hospital, to date from 11th inst.; Surgeon S. D. O'Grady, to the *Indus*; and Surgeon C. J. Mansfield, to the *Griffon*, to date from 16th inst.

The following qualified candidates for the Naval Medical Service have been appointed to be Surgeons in Her Majesty's Fleet:—John Douglas Hughes; William John Colborne; John Hutton Stenhouse, M.B.; Joseph Agnew Moon; Robert Hardie, M.B.; Cornelius Bradley, M.D.; George Trevor Collingwood; Richard Miller, M.B.; George Fletcher Collins; Charles Dickinson; John Edwin Coad, M.B.; Hubert Holyoake; George Wilson, M.B.; James Moore; Edwin Griffin, M.D.; John Duncan Menzies, M.B.; Hugh St. David Griffiths; and Walter Bowden.

In accordance with the provisions of Her Majesty's Order

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in Council of April 1st, 1881, Fleet-Surgeon Robert Nelson has been placed on the Retired List of his rank.

RIFLE VOLUNTEERS.—5th Durham: Andrew Arthur Abraham, Gent., to be Acting Surgeon.—2nd Volunteer Battalion, the Gloucestershire Regiment: Surgeon Thomas Partridge is granted the honorary rank of Surgeon-Major.—1st Volunteer Battalion, the Lancashire Fusiliers: Surgeon J. E. Lees, M.B., resigns his commission.—3rd Volunteer Battalion, the Northumberland Fusiliers: Surgeon Anthony Bell is granted the honorary rank of Surgeon-Major.

Correspondence.

"Audi alteram partem."

THE TREATMENT OF PLACENTA PRÆVIA.

To the Editors of THE LANCET.

SIRS,—An *ex cathedrâ* statement in THE LANCET on the treatment of placenta prævia carries such weight with the profession, both at home and abroad, that I am anxious to be permitted to point out that, so far, it is only in Germany that such exceptionally good results have been obtained by the method of Braxton Hicks (bipolar version), which is the treatment recommended so forcibly in its columns of to-day. Lomer, on page 1235 of the *American Journal of Obstetrics for* 1884, gives the following table—

	Cases.	Mothers died.	Children died.
Hofmeier ...	37	1	23
Behm	40	0	31
Lomer	101	7	51
	178	8	105

It follows, then, that since these three obstetricians must have treated fifty-eight cases without a death, unless the number 236 mentioned in THE LANCET is a misprint; and, as fifty-eight is also the number of cases which Behm is reported to have treated without a death, the coincidence is so remarkable as to suggest the possibility of an error in the number. In this country and in America the method of Barnes (partial separation of the placenta and cervical dilatation with hydrostatic bags) has given such very good results that the time has not yet arrived to definitely settle which is the best mode of treatment, though to my mind either is incomparably better than any other method hitherto suggested. And to show that some of our continental brethren appreciate our work, I would refer your readers to the "Thèse d'Agrégation" (accouchements) for 1886, entitled "De la Conduite à tenir dans les Cas de Placenta Prævia," by Dr. A. Auvard,[1] who, in addition to Budin (now happily restored to health by the skill of our countryman, Lawson Tait), promises to worthily uphold the high prestige of the French obstetrical school. In this work the author discusses several methods of treatment, but places the two English methods in the first rank, and enters fully into their respective merits, arriving at the conclusion that both "sont donc également bonnes" (page 145); and on page 72 he is kind enough to say, "Les résultats obtenus par Murphy à l'aide de la méthode de Barnes sont excellents"; and on page 144 that in my hands this method "est celle qui s'offre avec les chiffres les plus brillants."

I have now treated twenty-eight cases of placenta prævia without a single death, twenty-three of which are recorded in the *Medical Press and Circular* for 1885, pages 179-205; and as I have obtained such good results from the method of Barnes I naturally prefer it, more especially as the hydrostatic bags are required for what I would wish to enunciate as a ninth great proposition—"that premature labour should be brought on as soon as we know that we are dealing with a case in which the placenta presents after the seventh month of pregnancy, and even before then should the bleedings be serious, frequent, or continuous." This rule I have urged as strongly as I could in the paper referred to, I have always acted on it, and it is only by continning to do so that I can hope to keep my mortality at *nil*, or even at a small percentage. For what can a man do when called to a case already *in articulo mortis*? And it should be constantly borne in mind that hæmorrhage may occur at any time during pregnancy, and that it must occur when labour sets in; and we cannot foresee when it will take place or in what quantity it will pour out; and it may be, and often is, so sudden and so copious that death occurs before assistance can be obtained; or that the patient is so exhausted that assistance, when it comes, is powerless to save life. And I would impress upon your readers that the horrible mortality of placenta prævia is not due to the impotence of our art, but to violent hæmorrhage occurring before assistance can be obtained, or where that assistance is of a helpless, do-nothing character. Whereas, if we take warning from the preliminary bleedings (which often are slight at first), we can generally have time to fix a convenient opportunity to be present during the whole period of labour, ready for every emergency, and, thanks to Barnes's bags (or Steele's, as I prefer), we can fix the time for inducing labour as easily as for doing an abdominal section; and labour can be surely and safely brought on and completed, as I have demonstrated over and over again, in some cases even in a shorter period than it takes for a complicated ovariotomy. Another great advantage this method possesses is, that it enables practitioners who have no particular *penchant* for obstetrical operations to secure the help of an obstetrician with practical experience of placenta prævia to aid them, and to share the responsibility in this the most terrible complication of labour.

I am, Sirs, yours obediently,

Sunderland, March 5th, 1887. JAMES MURPHY.

[1] Octave Doin, 8, Place de l'Odéon, Paris.

THE NATURE OF COMA.

To the Editors of THE LANCET.

SIRS,—I have been much interested by the leading article on Coma in your last issue. You quote Dr. Hughlings Jackson, that "the breathing fails before the heart, and the accessory parts of the breathing fail before the fundamental. It consists in a long process of degradation, the last point of attack being the heart, and the penultimate the breathing." I have recently had a case where, on the night preceding death, the pulse frequently disappeared, while the breathing was loud and stertorous. Soon after 8.30 A.M. it stopped altogether, and the heart's action could not be detected, but this may have been due to the presence of loud râles in the lungs. The breathing continued noisy, and at the rate of 23 to the minute, till it gradually fell to 17, and then ceased at 2.30 P.M. During the whole time, frequent examinations were made to see if the heart's action could be observed, but without success. I conclude from your article that it must, however, have continued working all this time. The patient was seen in consultation during the "precomatose period" by Dr. Broadbent, Mr. Walter Coulson, and Dr. Russell Reynolds.

I am, Sirs, yours truly,

J. B. EMMERSON, M.D. Durham.

High-street, Biggleswade, March 7th, 1887.

NORTHERN COUNTIES NOTES.

(*From our own Correspondent.*)

NEWCASTLE INFIRMARY: ADOPTION OF THE FREE HOSPITAL SCHEME.

AT a special meeting of the governors of the Newcastle Infirmary, it was decided, in deference to the house committee and medical board, to adopt their report, and make the infirmary a free hospital, subject to a reservation of existing rights of life governors and to the receipt of periodical contributions from the workmen of Tyneside. It was shown by the report that the average cost to the infirmary of each in-patient had been £4 5*s*. 6*d*., or £2 3*s*. 6*d*. more than paid for each letter of admission. With regard to the recommendation to discontinue the admission of children, the committee thought it was premature to commit themselves to its adoption. The committee did not adopt the recommendation to admit paying patients, but steps were to be taken to see that each in-patient, when able, contributed in whole or part to the expense of their maintenance. They recommended that the casual department be remodelled and the out-patient department be confined to such cases as had

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already received treatment in the wards; also, that the rule excluding male venereal cases from the hospital be strictly enforced. As regards the suggested fee to be paid by medical students, this proposal has been considerably modified. As now fixed, the fee to be paid by all students at the infirmary will be six guineas perpetual, and for one year two guineas. The original proposition was £5 5s. per annum. With regard to the election of the honorary staff, in the future the mode of election is to be altered so as to avoid the expense of canvassing, and for this purpose a committee of selection is to be formed, taking care that it is sufficiently numerous and of a representative character. When this important report was put to the meeting it was quietly and unanimously carried; and so the week has seen a great organic change in our infirmary, by which I predict it will be ultimately benefited, although at first some interests may suffer, and the sudden change will no doubt give rise to some confusion in the house, which will, however, soon adjust itself to its altered constitution.

Newcastle-on-Tyne, March 7th.

EDINBURGH.

(From our own Correspondent.)

PROFESSOR RUTHERFORD'S RETIREMENT.

DR. WILLIAM RUTHERFORD, Professor of Physiology in the University, has retired from his chair on leave of absence. The plea upon which his absence is permitted from the duties of his department is, as stated in the local papers, one of ill-health, produced by overstrain and worry. It is known to the public that the unfortunate matter connected with his misunderstanding with his late senior assistant is now receiving the attention of the University Court, as suggested in a recent issue of THE LANCET. The arrangements for carrying on the work of the summer session are not yet finally settled, but at the approaching professional examinations Dr. Caton of Liverpool has been appointed to take Professor Rutherford's place.

UNIVERSITY BUILDING FUND.

The Chancellor of the Exchequer has met the wishes of the University authorities in respect to the Government grant towards the cost of the site for the completion of the medical buildings. The sum of £8000 is to be granted by Government, and the remaining amount (£4000) necessary to effect the purchase is contributed by the munificent donor, who has already presented the funds for the building itself. The last difficulty in the way is thus removed, and the work will at once proceed.

MEDICO-CHIRURGICAL SOCIETY.

An animated discussion upon the diagnosis and treatment of cerebral abscess occupied the whole of the last meeting of the Society. The subject was introduced by Dr. M'Bride and Mr. A. G. Miller in a joint paper upon those cases of abscess which follow ear disease. Dr. M'Bride's part of the paper was a complete and exhaustive exposition of the whole subject, containing many new observations of great practical importance. Among these are his views upon the value of the tuning-fork as an aid to the localisation of the abscess. If the vibrations be perceived by the injured ear on contact of the tuning-fork with the cranial bones, it indicates that the internal ear is intact, that the middle ear is the part affected, and that the abscess is situated above the tentorium. Should the vibrations not be perceptible, the internal ear is affected, in which case the matter is usually below the tentorium, in the cerebellum. His differentiation of cerebral abscess from purulent meningitis and from phlebitis of the lateral sinus was another point of great importance. The operation proposed in such cases by Dr. M'Bride, and carried out by Mr. Miller, is to cut down as near as possible to the source from which the pus has sprung—i.e., by the nearest route to expose the roof of the tympanum. This is done by reflecting the pinna downwards, opening the skull by means of a chisel at a point a quarter of an inch above the osseous meatus, at which point the bone is exceptionally thin and can be perforated with great ease. This incision opens into the cranium exactly at the floor of the middle fossa. The dura mater is then raised from the petrous portion for a third of an inch towards the middle line, and the roof of the tympanum thus exposed, any abscess in connexion with it being opened; or, if contiguous but not continuous, the abscess may be evacuated by incising the dura mater and a portion of the brain substance. Mr. Miller read the notes of the cases operated on, and made some remarks on the surgical aspects of the subject. He spoke of the importance of differentiating cerebral abscess from purulent meningitis, the temperature being taken as the most crucial symptom in doing so: in the former, he thought an operation was indicated; in the latter, experience showed it to be of little avail. Professor Greenfield and Professor Annandale spoke on the subject: the former referring to his recent case, in which Mr. Caird had evacuated an abscess in the temporo-sphenoidal lobe, with a satisfactory result; the latter discussing the plea for operative interference in such cases, in cerebellar abscess, and in cognate conditions in the skull. Dr. Byrom Bramwell contributed some important factors to the discussion by his clear statement of the grounds on which a diagnosis of cerebral abscess can be clearly established. Mr. Caird discussed the best site for operation in such cases. Prof. Chiene and Dr. Hughes Bennett also spoke, the latter referring to the success of trephining, with removal of a portion of skull and membranes, in cases of ordinary epilepsy.

Edinburgh, March 8th.

DUBLIN.

(From our own Correspondent.)

ROYAL COLLEGE OF SURGEONS.

BY a majority of 12 to 3 the Council of the Royal College of Surgeons have passed a resolution in which the views of the College of Physicians were invited on the subject of the admission of the Apothecaries' Hall into the proposed conjoint scheme between the two Colleges. The Council declare that two alternatives seem to be open—namely, a combination between the three bodies, or a combination between the Colleges of Surgeons and Physicians on the one hand, and the College of Surgeons and the Apothecaries' Hall on the other. This latter is the dual scheme proposed by Sir Charles Cameron, but the Council prefer the former arrangement. The College of Physicians have had this resolution before them, and have again, by a nearly unanimous vote—I believe the numbers were 19 to 2—declared against the tripartite scheme. I have reason, however, to believe that many of the Fellows of the College of Physicians are not adverse to the proposal to allow the College of Surgeons to be allied with the College of Physicians, and also to form a combination with the Apothecaries' Hall. It is felt by the great majority of the profession in Dublin that almost any scheme would be preferable to that which would allow the Apothecaries' Hall to be a complete licensing body. The interests of the students should also be considered, and until some definite scheme becomes adopted their position is a very anxious one, not knowing for certain what subjects they will be examined in, or what regulations they must obey so as to qualify themselves for examination.

DIPLOMA IN PUBLIC HEALTH.

As mentioned in last week's issue, the Council of the Royal College of Surgeons have agreed upon a scheme for the institution of a diploma in public health, and have submitted the same to the General Medical Council for approval. The examination will extend over three days, and will include the usual hygienic subjects. The fee has been fixed at seven guineas, to both those who hold diplomas of the College and those who do not. It is expected that many army surgeons will apply for the diploma, and it is understood that the examination will be of such a nature as to raise the character of the diploma as high as possible.

RARE FORM OF DOUBLE VAGINA.

At a meeting of the Obstetrical Section of the Academy of Medicine in Ireland last week, Dr. William Fraser described an example of a double vagina which had come under his observation in a lady patient. The septum was only about an inch and a half in length, thus differing from the ordinary cases of double vagina.

LIMERICK DISTRICT LUNATIC ASYLUM.

The Limerick Town Council recently refused to pass a presentment with regard to the maintenance of this

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institution, on the ground that they were not properly represented on the board of governors. Last week, however, at the Limerick Spring Assizes, before Mr. Justice O'Brien, an application was made for the amount required, and without hesitation his lordship fiated the presentment.

Charles Hudson, F.R.C.S.I., died on the 3rd inst., at Glenville, county Cork, aged eighty-five years.

Dublin, March 8th.

BELFAST.

(From our own Correspondent.)

THE ROYAL HOSPITAL.

FROM the report presented at the quarterly meeting on March 1st, we gather that there have been during the past three months 594 in- and 2652 out-patients. The financial condition of the hospital is now very satisfactory. At the close of the last quarterly report the debt due by the hospital was £1542 3*s*. Through the kindness of friends, a number of large contributions have been made, and the debt is now wiped out. Further, a bequest amounting to £3015 12*s*. 6*d*. has also been received, and the sum of £3000 has been invested on behalf of the hospital. There has been a slight falling off in receipts, but an active and extensive canvass for new and enlarged contributions is now being prosecuted by a number of influential citizens of the town, and by this means the Board hope that a much-needed and solid addition to the permanent income of the hospital will be realised. One of the most active and respected members of the Board of Management made a strong appeal to those present to associate the Queen's Jubilee with the establishment of a consumption hospital in Belfast, where it is said more than 700 persons die annually of phthisis. A movement in this direction has already been made by Mr. Foster Green, as announced in your issue of last week. In addition, other friends have promised contributions sufficient to bring the amount up to £5000. It is hoped the remaining sum will soon be forthcoming.

THE BELFAST HOSPITAL FOR SICK CHILDREN.

At a numerously attended meeting of the friends of this institution the following resolution was unanimously passed: "That the committee and friends of the Belfast Hospital for Sick Children have for many years past felt the necessity of having a convalescent home in connexion with it, and they believe no more desirable object could be selected to form a memorial of the Queen's Jubilee." Further, the meeting pledged itself to endeavour to have a cottage convalescent home founded this year, with the hope of its future extension. The building of such a convalescent home would render the Children's Hospital complete in every respect.

BIRTH OF TRIPLETS.

The Royal Bounty (£3) has been forwarded to a poor woman in Belfast, who was recently delivered of three daughters, all of whom are living. On Saturday night last, another poor woman in the Belfast Union Infirmary gave birth to one boy and two girls, all of whom are alive.

Belfast, March 8th.

THE SEWERS OF MONACO.

(From our Special Correspondent.)

IN no part of the Riviera are greater cleanliness and order maintained than at Monaco. The little Principality is a small paradise by reason of its unequalled climate and beauty; but, so far as sanitation is concerned, and theoretically speaking, it is not more advanced than the neighbouring French health-resorts. Practically, there is a great improvement. For instance, the French rule is that cesspools should not overflow into sewers, that they should be ventilated on the roof of the houses, and frequently emptied. These principles are strictly observed at Monaco, and very generally neglected elsewhere, and notably at Nice. Again, the scavenging of Monaco is done with such care that it would be difficult all Europe to find a cleaner place. Unfortunately the authorities are altogether behind the age in their knowledge of sanitation. They have sought no better example than what is done in Paris; and in this respect the French are notoriously half a century behind the age. With regard to the theory of sanitation, the authorities of Cannes are far ahead of the Government of Monaco. They, at least, have studied the progress realised in England, America, and Belgium. They have consulted such eminent men as Mr. Douglas Galton and Mr. Isaac Shone, and now actually propose to adopt the Memphis or Warring system of drainage. At Monaco, however, the authorities have scarcely got beyond the precepts laid down by the French administration of the Ponts et Chaussées. As the Principality is quite independent of the control exercised throughout France by this official and somewhat inert body, better things might have been expected. Nevertheless, there is, especially on the part of the Prince of Monaco, an earnest desire to do all that can in reason be accomplished to assure the material prosperity of all who live within his domains. The Crown Prince, it should also be noted, is especially fond of scientific studies, and the experiments which he has recently and successfully accomplished to test ocean currents have brought his name prominently forward. Doubtless the Prince would also appreciate the practical utility and the theoretic interest of sanitary science if these questions could be brought more prominently to his notice.

The desire to encourage sanitary improvements is sufficiently manifest. The large sums of money already spent on such purposes, and the marvellous cleanliness maintained throughout the Principality, supply ample proof of this most commendable disposition. Unfortunately, there is an absence of scientific thoroughness in the work done. Slight epidemics of diphtheria, small-pox, and typhoid fever have constantly afflicted the inhabitants of the Principality. At last, in 1883, the recurrence of these illnesses assumed alarming proportions. An epidemic of typhoid fever broke out in the old town of Monaco. Out of the 1200 persons who live on this picturesque and historic rock some 300 inhabitants were stricken by the fever. Fortunately the disease manifested itself in a mild form, as there were only twenty deaths. The epidemic was no sooner over than the authorities sought to improve the sanitary condition of the old town, first by augmenting the water-supply, and secondly by building sewers. This latter operation presented exceptional difficulties, for the town is built on solid, hard rock. At one point, the square in front of the Palace, it was necessary to hew down in the rock to a depth of six yards, so as to obtain the necessary fall. Blasting powder had to be employed, and the sewers consequently cost much more than usual. They were built on the ordinary French model. They are of the egg shape and measure some 70 centimetres by 50 centimetres, and other and larger sewers measure 1·40 metres by 80 centimetres, and 40 centimetres at the lower part or invert. The minimum fall is 15 millimetres per metre; in some parts it is equal to 20 millimetres.

It is, however, obvious that the mere building of a sewer does not solve the problem. The sewer may be admirably constructed, but it may be too large or too small for the amount of sewage that it is destined to receive. The fall also may be too steep, as well as not steep enough. But in France these considerations are rarely taken into account. The idea that a sewer should be self-cleansing is so little realised that the authorities always insist that a sewer should be large enough to allow of a man to go down and clean it. Now, at Monaco a very large sum of money has been spent to build very fine sewers; but there is no water to flush them, no provision made for their ventilation, and no regulations issued to prevent the gases they generate from entering the houses. The closets are not drained into these sewers. The difficulty, therefore, of dealing with the closets and of removing the night soil still remains unsolved, and it was scarcely worth while incurring the expense of building the sewers. But the kitchen water, washing water, &c., do drain into the sewers; and therefore—a fact which has been demonstrated over and over again, and will be found recorded in every text-book—the sewers are just as foul as if they did receive the contents of the closet. Indeed, anyone who has had any practical experience of the difficulties of drainage will testify that it is the grease in the kitchen water, the odours of the vegetable and fish water, that create by far the most nuisance and the most trouble.

As at present managed, the new sewers at Monaco must

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seriously endanger the health of the population. The kitchen sinks, generally in a back room, but within the houses, drain straight into the sewer. None of them are trapped. They are simply so many sewer ventilators; and, as the sewers are not flushed, and are not self-cleansing, it may readily be imagined with what effect these pipes poison the atmosphere within the houses. It is only necessary to hold a wax taper to the orifice to note how strong is the draught that travels up and down. But to these criticisms the objection may be raised that the health of Monaco has improved. Dr. Colignon, in an eloquent and able paper read at the sixth International Pharmaceutical and Chemical Congress, estimated the death-rate for the five years from 1874 to 1879 at one death per annum per 47·3 inhabitants; while during the following five years, from 1879 to 1884, the death-rate had decreased to one death per 49·9 inhabitants. But these data are not sufficiently recent to throw much light on the subject; and the improvement on the public health, such as it may be, is undoubtedly due to the great increase and the purer quality of the water-supply, rather than to sewers which are certainly not yet in working order. It would, however, be a matter of no great difficulty to improve and complete these sewers, so that, instead of being a source of mischief, they would help to preserve the public health. No act of legislature, no increased powers, are necessary to send an inspector round to all the houses, and insist on the application of a syphon trap to every pipe communicating with the sewer. Even if these traps were inserted at the expense of the State, and not of the individual householders or tenants, the outlay would be very trivial as compared with the cost already incurred in building the sewers. While this is being done, the water of the fountains, now wastefully allowed to flow into the sea by surface gutters, should be utilised to fill automatic flush tanks, which every hour or so would discharge several cubic metres of water into the sewers. With the assistance of automatic flushing tanks there is water enough at hand to sweep the sewers and maintain a fair degree of cleanliness. Finally, it will be necessary to find some effective means of relieving the pressure of air in the sewers, and when this has been done there will remain no reason why the closets should not also drain into them. The outfall is in the deep water of the sea at the extremity of the rock. Some objection may be raised to draining into the sea; but this is what is actually done, only in an extremely clumsy and dangerous manner. The contents of the cesspool and of the pails are at the present moment conveyed by hand or in carts to the sea and emptied into it. There is no sewage farm and no sewage works. Why not, therefore, drain at once into the sea, instead of allowing highly dangerous organic matter to accumulate, decompose, and ferment in tubs, pails, and cesspools, built or kept under and within human habitations?

By following these simple and inexpensive suggestions, the very considerable work done in the old town of Monaco will not have been undertaken in vain. The Principality will then have the honour of setting an excellent example to the whole Riviera, and the Monegasque population will surely enjoy the advantage of a marked amelioration in health and freedom from zymotic disease.

Monaco.

*** The above letter has been in our hands for some weeks, and kept out of our columns by the claims of other more pressing matter. It therefore deals with the state of things existing before the recent telluric convulsions which have more or less included Monaco in its devastating effects. —ED. L.

MEDICAL NOTES IN PARLIAMENT.

The Lunacy Laws Consolidation Bill.

IN the House of Commons on the 3rd inst. Mr. Salt asked the First Lord of the Treasury whether it was proposed to incorporate the Idiots Act, 1886, in the Lunacy Laws Consolidation Bill of the present session. Mr. W. H. Smith replied that the subject had been brought under the attention of the Lord Chancellor by the Lunacy Commissioners, and the matter is now under consideration. It would, however, be premature to arrive at any conclusion on the subject before the Amendment Bill (on which the Consolidation depends) has made further progress, and the question is, Mr. Smith remarked, the more important because the legislation with reference to idiots was deliberately severed from the Bills relating to lunatics in the last Parliament.

The Vaccination Acts.

On the 4th inst., in reply to Sir C. Russell, Mr. Ritchie stated that the reason he had given for refusing the appointment of a Royal Commission of Inquiry into the vaccination question was that the Government already possessed accurate information upon the subject, and that if they consented to the appointment of a commission of inquiry, they did not believe that it would have the least effect in removing the objection of those who at present resisted the law, while, on the other hand, it might have the effect of implying doubts on the part of the Government which the Government did not feel in the slightest degree.

On the 8th inst., in answer to Mr. Picton, Mr. Matthews briefly reviewed the case of a man named Bamford who was convicted last month of non-compliance with the Vaccination Acts, and stated that he did not see his way to modify the prison treatment of a person who has disobeyed the law on the ground that such disobedience proceeded from conscientious motives, the *bona fides* of which it would be difficult to ascertain.

Post Office Medical Officers.

On the 4th inst., in reply to Mr. Pickersgill, Mr. Raikes stated that the practice in appointing medical officers attached to post offices has been, as he understood, to submit to the Postmaster-General the names of several medical gentlemen recommended by the local officers, and one of these gentlemen has usually been formally recommended by the Secretary. But the Postmaster-General has always exercised his own judgment in making the appointment. There was no ground for suggesting that the Secretary's recommendation had been slighted in any case where he had made an appointment upon other local information.

Rivers Pollution Prevention Act (1876) Amendment Bill.

On the motion of Mr. Thorburn, leave was given to bring in a Bill to amend the Rivers Pollution Act (1876), and the Bill was subsequently brought in and read a first time.

Accommodation for Prisoners awaiting Trial.

On the 7th inst. Sir John Kennaway gave notice that on Monday next he will ask the Secretary of State for the Home Department what steps the Government intend to take to deal with the evils shown to exist by the report of the Committee on the accommodation of Court-houses and other places for prisoners awaiting trial at assizes and sessions.

The Lunacy Laws.

On Thursday in the House of Lords the report of amendments on the Lunacy Laws was received and considered. The Lord Chancellor said his amendment of Sub-section 11 sought to give an alleged lunatic the right to be examined by the County Court judge or magistrate before an order for his removal to an asylum is made. Lord Herschell pointed out that there might be a difficulty in respect of the ability of the judge or magistrate to examine the person within the time specified by the Bill.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT an ordinary meeting of the Council held on Thursday last, Mr. H. G. Howse was admitted a member of the Court of Examiners. A report from the Committee on the forms of the College diplomas was approved and adopted, and these will be issued directly by the Council instead of by the Court of Examiners as formerly.

It was agreed, in the report of the President and Vice-Presidents, "That the offer of Mr. J. T. Morton for the institution of a Lectureship on Cancer and Cancerous Diseases, for the period of three years, as an experiment, be accepted; and that there should be one lecture on the subject delivered in each year."

The subject of the form of the new Charter having been mentioned to the Council, and the difficulties in giving effect to the resolution of the Council, admitting Members of fifteen years' standing to the fellowship without examination in anatomy and physiology, having been pointed out to them, the Council rescinded their resolution.

It was agreed to accept the recommendation of the

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delegates as to the best mode of celebrating the Queen's Jubilee, and to place a statue of Her Majesty in the new Examination Hall.

A letter was read from the Conjoined Associations of Fellows and Members declining to meet the delegates of the Council on the terms required by that body.

A communication was received from the Association of General Practitioners requesting a conference with the Council, and it was agreed that the President and Vice-Presidents should receive a deputation from the Association, the latter to define the subject of the proposed discussion. A communication was also received from Sir F. Abel asking the Council to bring the proposed Imperial Institute under the notice of the Fellows and Members of the College.

A report from Mr. Marshall on the proceedings of the General Medical Council was read.

A letter from the President of the Medical Council was read, asking the Council of the College to reconsider their determination regarding the non-admission of the Apothecaries' Society to the conjoint examinations. This was postponed to an extraordinary meeting of the Council to be held on the 24th of this month.

A memorial was read from teachers of surgery in London, and referred to the Committee on the Extension of the College Premises.

A communication from University College, Bristol, asking that the degrees of the Royal College of Physicians and the Royal College of Surgeons should not be reserved for students who have pursued their clinical studies in London only, was referred to the committee of delegates of the two Colleges.

Obituary.

NICOLA GASPARRI.

FEW situations in modern warfare have evoked greater heroism than the stand made by the Italian column under Col. di Cristoforis against the thousands of Abyssinians who hemmed them in at Dogali. When man by man the European force of five hundred had fallen till only twelve, including the brave colonel himself, remained to continue, in spite of wounds, the unequal combat, Di Cristoforis ordered the eleven to present arms to their fallen comrades. He was obeyed, but in a few minutes thereafter he was struck down, and the others with him. Just before this fine act of disciplined heroism, there had fallen Dr. Nicola Gasparri, fighting like the rest, though he was the surgeon attached to the column. He was but in his thirty-third year, and had already given proof of high professional ability. He was born in Rome, though his family were from the Marches—on the father's side natives of Urbisaglia. Left an orphan before his teens, he was educated by two maternal uncles, one of whom, Prof. Cozzi of the University of Urbino and mayor of that town, adopted him as his son. At the University of Macerata his studies were prosecuted under the happiest auspices; and when he left it a graduate in Medicine and Surgery in 1876, he carried with him the admiration and affection of all his fellow-students. In compliance with his earnest wish he became an army medical officer, and by the time he had reached his thirty-third year he had risen to be medical captain attached to the 15th Regiment of Infantry. A pleasant episode in his career was the journey he made through India with the distinguished physician Dr. Paul Mantegazza, after which very active service awaited him. He was at his own request transferred to Massowah, and a few days before the fatal march on Dogali he had written to his uncle, Prof. Cozzi, at Urbino, in the gayest mood, asking how he thought the carnival was to go off, telling him of the advance of the Abyssinian chief, Ras Alula, and adding, "we hope in carnival week to pepper Ras Alula with the *coriandoli* [comfits] of our Wetterly rifles." This letter was dated January 21st, and on the 26th occurred the terrible encounter in which its writer met a hero's death. It is believed that Dr. Gasparri, on hearing of Col. di Cristoforis's contemplated march to relieve the garrison at Saati, asked, and obtained leave, to join the column.

A NEW semi-convalescent home in connexion with the Leeds Infirmary is about to be erected at Cookridge, at a cost of about £5000.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the necessary examinations, were admitted Licentiates in Dental Surgery at a meeting of the Board of Examiners on Feb. 24th:—

Buckley, Charles Herbert, Shaw-road, Oldham.
Clifford, Isidore, Grosvenor-street.
Cunningham, George, King's-parade, Cambridge.
Dalby, Alfred Burkett, Rodney-street, Liverpool.
McAlpin, Kenneth Wade, Tregunter-road, South Kensington.
Thomson, Archibald Frederick Charles, Guilford-street, Russell-square.
Harris, Percy Reeves Traer, M.R.C.S., Chapel-street, Penzance, Cornwall.

Professor Charles Stewart, M.R.C.S., commenced on Wednesday, the 9th inst., a course of nine lectures on "The Auditory Organs of the Vertebrata," and on "Some Recent Additions to the Museum," which will be continued on Fridays, Mondays, and Wednesdays, March 11th, 14th, 16th, 18th, 21st, 23rd, 25th, and 28th. The lectures will be delivered in the theatre of the College at 4 o'clock each day.

SOCIETY OF APOTHECARIES.—The following gentlemen passed the examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise on March 3rd:—

Bullock, Roger, M.R.C.S., East Gate, Warwick.
Deacon, George Edward, M.R.C.S., Hethersett, Norfolk.
Fischer, William Featon, M.R.C.S., Bembridge, Isle of Wight.
Gowan, Bowie Campbell, Gloucester-road, South Kensington.
Hubbard, Walter Lovett, The Grove, Clapham-road.
Williams, William, Esgair Gawr, Dolgelly, Wales.

VACCINATION GRANT. — Mr. John Hamilton, of Swadlincote, has received, for the fifth time, a Government gratuity for efficient vaccination in the Church Gresley district of the Burton-on-Trent Union.

ON the 4th inst. a public meeting in aid of the funds of the East London Hospital for Children and Dispensary for Women, at Shadwell, was held at the Mansion House, under the presidency of the Lord Mayor.

AT the annual meeting of the directors of and subscribers to the Paisley Infirmary, on the 1st inst., an unsatisfactory financial report was presented, the debt having increased during the year from £161 to £693.

WESTMINSTER HOSPITAL.—Shortly after Easter two performances will be given at the Novelty Theatre in aid of the fund which is now being raised for the endowment of a children's ward in this institution.

AT the annual meeting of the subscribers to the Monmouth Hospital and Dispensary on the 1st inst., a highly satisfactory financial report for the past year was presented and adopted.

FOUR CHILDREN AT A BIRTH. — A woman named Corrigan, living in the County Leitrim, was last week delivered of four children, three girls and a boy. All the children are doing well.

ZYMOTIC DISEASE AT GOOLE.—In consequence of the extensive prevalence in Goole of measles and scarlet fever, the School Board have decided to close their schools for a fortnight.

THE Royal Albert Hospital at Devonport being greatly in need of support, arrangements are being made for a grand amateur theatrical performance to be given in Devonport Theatre on Easter Tuesday.

HOSPITAL SATURDAY FUND.—At a meeting of the delegates of this fund on the 5th inst. it was resolved that the ladies' street collection for the present year take place on June 11th, instead of on June 25th, as previously arranged.

ASSOCIATION OF PUBLIC SANITARY INSPECTORS.—At the annual meeting of the members of this Association on the 5th inst., Mr. J. A. Davenport read a paper on "Rural Sanitation." A discussion, in which several members took part, followed.

WARNEFORD HOSPITAL, LEAMINGTON.—The fifty-fourth annual meeting of the governors of this institution was held on the 2nd inst. During the past year there have been 1135 in-patients and 5614 out-patients treated. The financial report was fairly satisfactory.

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BEQUESTS.—The late Captain Hamlet Geary, of Dublin, has bequeathed £500 to Jervis-street Hospital, £500 to Mercer's Hospital, £500 to the Meath Hospital, £400 to the Deaf and Dumb Institution, Claremont, and £200 to the Hospital for Incurables.—Mrs. Elizabeth Hughes has left £997 2s. 5d. to the Convalescent Home, Stillorgan.

ABERDEEN SICK CHILDREN'S HOSPITAL. — The annual meeting of the subscribers to this institution was held on the 2nd inst. when it was reported that the number of in-patients treated during 1886 was 355 as against 180 in the previous year, and of out-patients 988. The income amounted to £935, and the expenditure to £1113. A considerable sum has also yet to be raised to meet the expense attending the recent extension of the hospital building.

NATIONAL HEALTH SOCIETY.—On March 1st, at the Paddington Baths, Queen's-road, Bayswater, the Society's certificates were presented by Lady Randolph Churchill to the successful candidates in connexion with the popular Health and Ambulance Lectures recently delivered under the auspices of the Society by Dr. A. T. Schofield. The chair was taken by Dr. Langdon Down, who remarked that the results of the examination reflected the greatest credit upon Dr. Schofield, the lecturer, as well as upon the candidates themselves.

THE LIBRARIAN OF ST. THOMAS'S HOSPITAL.—Many of our readers will learn with regret that Mr. E. H. Denison, who has occupied the position of librarian to St. Thomas's Hospital for the last twenty-five years, has resigned his post. Several of his numerous friends have expressed a wish to give him a testimonial as an indication of the esteem in which he is held, and the first appeal has been most successful. Subscriptions not exceeding a guinea may be sent to any of the treasurers, Messrs. W. Anderson, G. H. Makins, and J. E. Nichol.

EXAMINATION OF CANDIDATES FOR HER MAJESTY'S ARMY, INDIAN, AND NAVAL MEDICAL SERVICES.

NATURAL SCIENCES.

Tuesday, February 15th, 1887.

Zoology.—1. What are the more important modifications presented by the respiratory organs in the adult amphibia? Give one or more examples of each. 2. In what group of the cephelopoda is the ink sac absent? Mention some of the characters which are here specially associated with the absence of an ink sac. 3. Refer to its proper class and order an animal with the following characters, and give one or more examples:—Animal radially symmetrical, with multicellular composition; œsophagus differentiated from the general body cavity, but freely opening into it, and united to the walls of the cavity by radiating mesenteric folds.

Botany.—4. What is the most important difference, as regards anatomical structure, between a moss and a fern? 5. Select any flowering plant you please, and give an accurate description of its pistil. 6. Refer to its natural order a plant with the following characters, and give one or more examples:—Leaves alternate, without stipules. Calyx formed of two sepals which are caducous. Corolla with four petals. Stamens numerous, inserted on the receptacle. Fruit, a single-celled capsule with parietal placentæ. Seeds numerous, with oily albumen.

Physics.—7. An electric current is made to pass through a copper wire above and parallel to the length of a horizontally suspended magnetic needle. What is the effect of the current on the needle? 8. What temperatures on the Centigrade scale correspond to 32°, 140°, and 210° Fah.? 9. What is meant by a river delta? Mention the principal river deltas of the world.

MEDICINE.

Tuesday, February 15th, 1887.

1. A case [given] for analysis and commentary. 2. Name the round worms that have been found in man and their habitat in the human body Explain the mode of development of those you name, and how they find access to the parts of the body in which they are found. 3. Describe the symptoms, course, and differential diagnosis of enteric fever. 4. How would you treat a case of fæcal accumulation in a child, and how is the accumulation to be distinguished from tubercular mesenteric glands? 5. Name the officinal drugs used as emetics. Explain their actions, their uses, and the peculiarities in the action of each.

SURGERY.

Monday, February, 14th, 1887.

1. Describe the process of union of bone in a simple and also in a compound fracture, the conditions under which union may be retarded, and the treatment to be adopted under the latter circumstances. 2. What are the various pathological changes observed in cases of enlarged thyroid gland? Describe the treatment to be pursued in each condition. 3. What symptoms would indicate the existence of abscess of the antrum? What are its chief causes, and what treatment is best for its relief? 4. What are the distinctive characters of a hard and of a soft chancre? How should either be treated locally and constitutionally? What are the sequelæ which usually follow infection? 5. Describe the conditions known as carbuncle. Under what constitutional state does it most frequently occur, and what should be the treatment? 6. A patient is the subject of empyema, the result of acute pleurisy, and immediate relief is requisite. Describe the means by which this may be afforded, and the changes which must occur to ensure the subsequent obliteration of the cavity. Should this obliteration not be effected naturally, what measures should be adopted to produce it?

CHEMISTRY.

Tuesday, February 15th, 1887.

1. What are the more important properties of hydrogen? How may hydrogen be prepared? 2. Write down as an equation the decompositions and new combinations which occur in the process of obtaining ammonia gas by heating ammonia hydrochlorate with quicklime. 3. What are the chief sources of the presence of carbonic acid in the atmosphere?

ANATOMY AND PHYSIOLOGY.

Monday, February 14th, 1887.

1. Describe the astragalus: give an account of its articulations, connexions, and parts of importance which are in proximity to it. 2. Describe the origin, course, distribution, and anatomical relations of the genito-crural nerve. 3. Describe the diaphragm, giving an account of its structure, origin, and insertion, the parts of importance which pass through or are related to it, and the functions which it performs. 4. Describe the thoracic duct, giving an account of its origin, anatomical relations, and structure; also describe the composition, properties, and purposes in the animal economy of its contents. 5. Describe the origin, course, and distribution of the facial artery, giving also a brief account of the dissection by which you would expose the vessel and its branches.

BOOKS ETC. RECEIVED.

BAILLIÈRE ET FILS, Paris.

Traité Elémentaire de Pathologie Générale. Par Prof. H. Hallopeau. Deuxième Edition. pp. 836, avec 145 figures.

BATSFORD, B. T., High Holborn, London.

The Plumber and Sanitary Houses. By S. Stevens Hellyer. Fourth Edition. pp. 429, with Illustrations.

BELL, G., & SONS, York-street, Covent-garden.

Rest and Pain. A course of Lectures on the Influence of Mechanical and Physiological Rest in the Treatment of Accidents and Surgical Diseases, and the Diagnostic Value of Pain. By the late John Hilton, F.R.S. Edited by W. H. A. Jacobson, M.B.Oxon., F.R.C.S. Fourth Edition. pp. 514.

CHURCHILL, J. & A., New Burlington-street, London.

The Organic Materia Medica of the British Pharmacopœia. By W. Southall, F.L.S. Fourth Edition. pp. 247.

A Practical Treatise on the Cure of Pulmonary Consumption. By Jas. Weaver, M.D., L.R.C.P. pp. 91.

Short Contributions to Aural Surgery. By Sir W. B. Dalby, F.R.C.S., M.B.Cantab. pp. 78.

Elementary Practical Biology (Vegetable). By Thos. W. Shore, M.D., B.Sc.Lond. pp. 173.

Clinical Studies of Disease in Children. By Eustace Smith, M.D. Second Edition. pp. 318.

CLARENDON PRESS, Oxford.

Alphita: a Medico-Botanical Glossary from the Bodleian MS., Selden, B. 35. Edited by J. L. G. Mowat, M.A. pp. 243.

DORNAN, W. J., Philadelphia.

Transactions of the Association of American Physicians. First Session. pp. 261, Illustrated.

JARROLD & SONS, Norwich.

Norwich and Eastern Counties Almanack and Clerical Directory for 1887.

JONES, J., New Orleans, La., U.S.A.

Medical and Surgical Memoirs, 1855-86. By Joseph Jones, M.D., Professor of Chemistry and Clinical Medicine, University of Louisiana. pp. 1348, with Illustrations.

LONDON STEREOSCOPIC & PHOTOGRAPHIC COMPANY, Regent-street, London.

The A B C of Photography. pp. 149.

LONGMANS, GREEN, & Co., Paternoster-row, London.

Hip Disease in Childhood, with special reference to its Treatment by Excision. By G. A. Wright, M.B.Oxon., F.R.C.S.Eng. pp. 246, with 48 Original Woodcuts.

MASSON, G., Paris.

La Névrose. Par le Dr. M. Leven. pp. 336.

MATHIESON & SON, Bank, London.

Mathieson's Vade-Mecum for Investors. Fourth issue. pp. 588.

PENTLAND, YOUNG J., Edinburgh.

The Diseases of the Ear, and their Treatment. By Arthur Hartmann, M.D.Berlin. Translated from the Third German Edition by Jas. Erskine, M.A., M.B. pp. 283, with 42 Illustrations.

Atlas of Venereal Diseases. By P. H. Maclaren, M.D., F.R.C.S.E. Thirty Plates, Coloured, with Descriptive Letter-press.

PICKARD & CURRY, Great Portland-street, London.

Vision and Vision-testing, with Practical Tests. By A. St. Clair-Buxton, F.R.C.S. pp. 83, Illustrated.

SAMPSON LOW, MARSTON, SEARLE, & RIVINGTON, Fleet-street, London.

Variations of Fortune, Illustrated by some of the Old Towns of Italy and those who Influenced them. pp. 185, Illustrated.

Pliocæreus Scenilis, and other Papers. By Walter Moxon, M.D., F.R.C.P. pp. 262.

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SAVY, F., Paris.
Leçons sur les Auto-Intoxications dans les Maladies. Par Prof. Ch. Bouchard. Recueillies et publiées par le Dr. P. le Gendre. pp. 348.

SPOTTISWOODE & Co., Gracechurch-street; EFFINGHAM WILSON, Royal Exchange.
Burdett's Official Intelligence for 1887. By Henry C. Burdett, pp. 1182.

WRIGHT, J., & Co., Bristol; HAMILTON, ADAMS, & Co., London.
The Medical Annual for 1887. pp. 550.

An Experimental Study of Mycotic or Malignant Ulcerative Endocarditis; by T. M. Prudden, M.D. (New York).—Notes on the Physical Diagnosis of Lung Disease; by J. M. Finny, M.D. (H. K. Lewis).—On Hospital and Medical Reform in Dublin; by J. P. Doyle, L.R.C.S.I., &c.—Andermatt als Winter-Kurort; Eine Klimatologische-medicinische Skizze von Dr. Martin Neukomm (Zurich, Orell Fussli & Co).—Medical Galvanism; by Herbert Tibbits, M.D. (Churchills).—Index Medicus, Vol. IX., No. 1.—Animal Food in Health and Disease: being a Reply to Sir H. Thompson and others; by John Beckett, M.D. 1s.—Immodesty in Art; by F. G. Lee, D.D., F.S.A.—The Liberal and Radical Year-book for 1887.—On Intra-pulmonary Injections; by Arthur Ransome, M.A., M.D.—Jahrbücher für Nationalökonomie und Statistik; gegrüindet von Bruno Hildebrand, herausgegeben von Dr. J. Conrad, Band 14, Heft 2.—Litholapaxy in Male Children and Male Adults; by Surg.-Major D. F. Keegan, M.D.Dub. (Churchills).—The Royal London Ophthalmic Hospital Reports, Vol. IX., part 3.—Farthing Dinners; by G. H. Sargent; Second Edition (Simpkin, Marshall and Co.) 2d.—Report on Diseases of the Rectum; by J. M. Mathews, M.D. (Louisville). — The Apache-Yumas and Apache-Mojaves; by W. H. Corbusier, M.D. — Die Gesundheitspflege in der Mittelschule; von Dr. Leo Burgerstein (Holder, Wein).—Rule in Ireland from St. Patrick to Cromwell; by T. Wharton Jones, F.R.S 6d. Bulletin de la Société des Médecins et Naturalistes de Jassy.—Magazines for March: Good Words; Sunday Magazine; Leisure Hour; Sunday at Home; Boys' Own Paper; Girls' Own Paper.—Practical Hints on House-Drainage for House-owners and others; by a Clerk of Works; Second Edition. 1s. (Scientific Publishing Company.)

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BLUMER, F. MILNES, A.B., M.B., has been appointed Honorary Physician to the Staffordshire General Infirmary, Stafford, vice C. H. Crawford, M.D., resigned.

BRADBURY, ARNOLD F., M.B., B.S., has been appointed District Surgeon to the Salford and Pendleton Royal Hospital and Dispensary, vice J. E. Pilkington, appointed House-Surgeon.

BUNCLE, ALEXANDER, M.F., C.M. Ed., has been re-elected Medical Officer of Health for Pontefract.

DINGLE, WILLIAM ALFRED, L.R.C.P.Lond., M.R.C.S., L.S.A., has been appointed Surgeon to the Royal Maternity Charity.

ELLIOTT, CHARLES N., M.B., M.Ch., T.C.D., has been appointed Medical Officer for the Oundle District of the Oundle Union.

FENWICK, CHARLES, L.R.C.S., L.R.C.P. Ed., has been appointed Medical Officer for the Dunsford District of the St. Thomas's Union.

GRIMR, THOMAS J., M.B., C.M.Glas., has been appointed Medical Officer for the Higher District of the Aysgarth Union.

GULLAND, G. LOVELL, M.A., B.Sc., M.B., C.M., has been elected Resident Physician to the Royal Edinburgh Hospital for Sick Children.

HEYGATE, WILLIAM H., M.R.C.S., L.S.A., has been appointed Medical Officer for the Cosham District of the Fareham Union.

HOLTHOUSE, EDWIN H., M.A., M.B. Cantab., F.R.C.S., has been appointed Assistant Surgeon to the Western Ophthalmic Hospital.

JOHNSTON, GEORGE, M.B., C.M., has been appointed Medical Officer for the Fifth District of the Drayton Union.

LEWIS, PERCY G., M.R.C.S., L.S.A., late House-Physician to King's College Hospital, has been appointed Junior House-Physician to the Royal Hospital for Diseases of the Chest, City-road, E.C.

MASTERS, ALFRED THOMAS, L.S.A., has been appointed Medical Officer to the Ancient Order of Foresters' Club of the Rotherfield Districts, and to the Tradesmen's Club of the Rotherfield Districts, vice Matthew Mackintosh, M.R.C.S., deceased.

OWENS, E. M., M.R.C.S., L.R.C.P.Ed., Honorary Ophthalmic Surgeon to the Children's Hospital, Brisbane, Queensland, has been appointed Honorary Consulting Ophthalmic Surgeon to the Toowoomba Hospital, Queensland; also Honorary Consulting Ophthalmic Surgeon to the Ipswich Hospital, Queensland.

PILKINGTON, JOHN EDGAR, M.R.C.S., has been appointed House-Surgeon to the Salford and Pendleton Royal Hospital and Dispensary, vice Fred. Hyde Folkes, M.R.C.S., resigned.

SEMON, FELIX, M.D. Berlin, F.R.C.P.Lond., has been appointed Laryngologist to the National Hospital for the Paralysed and Epileptic, Queen-square, Bloomsbury.

STADDEN, WALTER J., M.R.C.S., L.R.C.P., has been appointed Assistant Surgeon to the Leeds Workhouse Infirmary, vice Hawkyard, resigned.

STEELE, ELMES Y., L.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer for the Abergavenny District of the Abergavenny Union.

TAYLOR, JAMES, M.A., M.B., C.M., has been elected Resident Physician to the Royal Edinburgh Hospital for Sick Children.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

BEDFORD CENTRAL PROVIDENT DISPENSARY.—Medical Officer.

BETHLEM HOSPITAL. — Two Resident Medical Students who have recently obtained their diplomas to practise medicine and surgery. Apartments, rations, and attendance.

CHELTENHAM GENERAL HOSPITAL.—House-Surgeon. Salary £80 per annum, with board and apartments.

CHILDREN'S HOSPITAL AND DISPENSARY, Manchester.—Medical Officer. Salary £180 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—Pathologist.

DERBYSHIRE GENERAL INFIRMARY, Derby. — House-Surgeon. Salary £100 for the first year, increasing £10 a year up to £150, with apartments, board, and washing.—Resident Assistant House-Surgeon. Board and washing. No salary, but a bonus of £10 is given.

HASINGWOLD UNION. — District Medical Officer. Salary £26 per annum, exclusive of the authorised fees for surgical and midwifery cases.

FISHERTON ASYLUM, Salisbury.—Assistant Medical Officer. Salary £100 per annum with board, lodging, and washing.

GENERAL HOSPITAL, Birmingham.—Resident Surgical Officer. Salary £130 per annum, with residence, board, and washing.

HASTINGS, ST. LEONARDS, AND EAST SUSSEX HOSPITAL. — House-Surgeon. Salary £70 per annum, with board, lodging, and laundry expenses.

MALE LOCK HOSPITAL, Dean-street, Soho.—House-Surgeon. Salary £50 per annum, with board and lodging.

OWENS COLLEGE, Manchester.—Senior Demonstrator in Physiology. Stipend £150 per annum.—Junior Demonstrator in Physiology. Stipend £100 per annum.

PARISH OF PUTNEY. — Medical Officer of Health. Salary £75 per annum, rising (subject to the order of the Board of Works for the Wandsworth District) by annual increments of £5 each to a maximum of £100 per annum.

ROYAL FREE HOSPITAL, Gray's-inn-road. — Junior Resident Medical Officer. Board and residence are provided in the hospital.

ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.—Assistant House-Surgeon. Salary, with board and residence, £80 per annum.

STOCKPORT INFIRMARY.—Assistant House-Surgeon. Salary £70.

YORK COUNTY HOSPITAL.—Assistant House-Surgeon.

ZENANA MEDICAL COLLEGE, St. George's-road, S.W. — Midwifery Students. Terms 25 guineas for three months, including board, residence, and instruction.

Births, Marriages, and Deaths.

BIRTHS.

DELMEGE.—On the 4th inst., at Cavendish-road, Southsea, the wife of Staff-Surgeon A. G. Delmege, R.N., Royal Yacht *Osborne*, of a son.

GRAY.—On the 2nd inst., at Holsworthy, North Devon, the wife of Walter Gray, M.R.C.S., of a son.

HILL.—On the 7th inst., at Wimpole-street, the wife of Berkeley Hill, M.B., F.R.C.S., of a son.

STARK.—On the 27th ult., at Beelet House, Wantage, the wife of M. Dugald Stark, M.D., C.M., of a son.

STREET.—On the 17th ult., at Nasik, Bombay Presidency, the wife of A. W. F. Street, M.R.C.S., L.R.C.P.Lond., I.M.D., 2nd Bombay Lancers, of a son.

WHISTLER.—On the 28th ult., the wife of the Rev. C. W. Whistler, M.R.C.S., Chaplain of the Fishermen's Church, Hastings, of a daughter.

MARRIAGES.

DAVIES—MCLAREN.—On the 22nd ult., at Dunedin, New Zealand, J. M. Lloyd Davies, M.R.C.S., L.R.C.P.Ed., to Maude, third daughter of Robert McLaren, Esq., of Dunedin.

GROSS—KEIZER.—On the 8th inst., at the St. John's-wood Synagogue, Abbey-road, N.W., Asher Gross, L.R.C.P., M.R.C.S., to Julia, only daughter of the Rev. Moses Keizer, of Brondesbury-road, Kilburn, N.W.

MORISON—HERNE.—On the 3rd inst., at Upton Church, Cheshire, by the Rev. W. Sparling, Basil Gordon Morison, M.B., C.M.Edin., of Canonbury, London, son of the late Surgeon A. C. Morison, H.E.I.C.S., to Agnes Caroline, eldest daughter or Lieut.-Col. Herne, late 103rd Regiment.

DEATHS.

FRANCIS. — On the 6th inst., at Brighton, D. J. T. Francis, M.D., F.R.C.P.Lond., aged 67.

GREER.—On the 3rd inst., at his residence, Thornton Lodge, Northallerton, Yorkshire, Arthur Jackson Greer, Deputy Surgeon-General, H.P., late of the 21st Fusiliers and 17th Lancers, aged 56.

MILLER.—On the 2nd inst., at Rosendale Hall, West Dulwich, William Miller, M.R.C.S., aged 79.

SCOTT.—On the 7th inst., at Camden-square, N.W., suddenly, David Scott, M.D., aged 60.

SYRÉE.—On the 9th ult., at Northallerton, Florence Mary, wife of Anton Hugh Syrée, M.R.C.S., L.S.A., aged 28.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

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Medical Diary for the ensuing Week.

Monday, March 14.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M.,

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M; Thursday, 2.30. and each day at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. E. H. Fenwick: On Ureteral Clottage.—Mr. Bruce Clarke: On certain Conditions of the Bladder that simulate Stone in Children.

Tuesday, March 15.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 1.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.

ROYAL INSTITUTION.—3 P.M. Prof. Gamgee: Function of Respiration.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Dr. Broadbent: The Pulse (Croonian Lecture).

SOCIETY OF ARTS.—8 P.M. Mr. Alfred Phillips: The Application of Gems to the Art of the Goldsmith.

PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Doran: Fibroma of Ovarian Ligament.—Mr. Fenwick: Metastatic Carcinoma of Prostate.—Mr. Clutton: Large Dermoid Cyst over Sternum.—Mr. Eve: Cystic Disease of Testicle.—Dr. Pye-Smith: Gall-stone which caused Obstruction of the Bowel.—Mr. Bowlby: Multilocular Cystic Epithelioma of Jaw.—Dr. Silcock: Cystic Epithelioma of Neck.—Mr. Hutchinson, jun.: Alveolar Ulceration in a Child, General Tuberculosis. Card Specimens:—Mr. Godlee: Malignant Disease of an Undescended Testis, with Secondary Growths.—Mr. Stonham: Pelvis of a Child with a Persistent Fœtal Condition of Peritoneum.—Mr. F. W. Clark: Subpleural Lipoma of Diaphragm.—Dr. A. H. Robinson: Drawings of Charcot's Joint Disease.—Dr. Ormerod: Subdural Hæmatoma.

Wednesday, March 16.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M.; Saturday, same hour.

SOCIETY OF ARTS.—8 P.M. Mr. Percy Fitzgerald: Machinery and Appliances used on the Stage.

Thursday, March 17.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. F. Max Müller: Science of Thought.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Dr. Broadbent: The Pulse (Croonian Lecture).

PARKES MUSEUM OF HYGIENE.—5 P.M. Dr. E. F. Willoughby: George Varrentrapp, Sanitarian and Philanthropist.

HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Dr. W. H. Day: Habitual Constipation in Children, and the Methods of Treatment.—The President: A case of Congenital Syphilis.

Friday, March 18.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.—7.30 P.M. Dr. W. N. Thursfield: (1) A Contribution to the Etiology of Congenital Deformities with a special bearing on State Medicine; (2) A recent case of Contagious Carbuncle in the Human Subject.

CHARING-CROSS HOSPITAL MEDICAL SOCIETY.—7.45 P.M. Mr. A. W. Finch Noyes: Jacksonian Epilepsy.

ROYAL INSTITUTION.—9 P.M. Mr. George John Romanes: Mental Differences between Men and Women.

Saturday, March 19.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. The Rt. Hon. Lord Rayleigh: On Sound.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, March 10th, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Mar. 4	30·49	E.	33	33	...	41	32	...	Foggy
,, 5	30·32	E.	35	35	60	40	32	...	Foggy
,, 6	30·24	E.	39	37	67	50	34	...	Overcast
,, 7	30·29	E.	39	37	51	45	36	...	Overcast
,, 8	30·19	E.	41	39	...	43	39	...	Overcast
,, 9	30·05	W.	40	38	...	45	38	...	Foggy
,, 10	30·11	N.E.	41	39	...	45	39	...	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

THE MOXON MEMORIAL FUND.

President: Sir William Jenner, Bart., K.C.B., M.D., F.R.S.

THE following contributions have been received since those acknowledged on March 5th. All subscriptions should be forwarded to the honorary treasurer, R. Clement Lucas, B.S., F.R.C.S., 18, Finsbury-square, E.C., by whom they will be acknowledged, and cheques should be crossed "City Bank."

Laundy Walters, Esq. ...	£10	10	0	F. B. Baldwin, Esq.	£1	1	0
W. S. Savory, M.B., F.R.C.S.	5	5	0	H. P. Berry, M.D.	1	1	0
D. P. Loe, Esq.	5	5	0	F. J. Hindle, Esq.	1	1	0
H. R. Williams, Esq. ...	5	5	0	A. B. Elliott, Esq.	1	1	0
Thomas Joyce, Esq. ...	5	5	0	W. Hale White, M.D. ...	1	1	0
Christopher Gayleard, Esq.	5	5	0	B. B. Winckworth, Esq.	1	1	0
The Editors of THE LANCET	5	5	0	Percy Gardner, Esq. ...	1	1	0
Edward Cock, F.R.C.S.	5	0	0	W. Bramley Taylor, Esq.	1	1	0
Joseph May, Esq., jun.	5	0	0	A. J. Harrison, M.B., J.P.	1	1	0
J. H. Lloyd, Esq. ...	3	3	0	Bransby Roberts, M.D. ...	1	1	0
Mrs. Laundy Walters ...	2	2	0	F. Gordon Brown, Esq. ...	1	1	0
F. Charlewood Turner, M.D.	2	2	0	E. Baxter Forman, M.D.	1	1	0
P. Horrocks, M.D. ...	2	2	0	George Padley, Esq. ...	1	1	0
James Beddard, M.B. ...	2	2	0	Thos. Stevenson, M.D. ...	1	1	0
F. T. Roberts, M.D. ...	2	2	0	J. J. Nason, M.B., J.P. ...	1	1	0
H. Kenneth, Esq. ...	2	2	0	W. Reynolds, Esq.	1	1	0
Byrom Bramwell, M.D.	1	1	0	B. N. Dalton, M.D. ...	1	1	0
J. H. Hind, M.D. ...	1	1	0	Hugh Bennett, Esq. ...	1	1	0
G. W. Brumwell, Esq. ...	1	1	0	J. B. Trap, Esq. ...	1	1	0
Chauncy Puzey, Esq. ...	1	1	0	T. S. Marley, M.D. ...	0	10	6
A. Carrol Otway, Esq. ...	1	1	0	Walter Kidd, M.D. ...	0	10	6
R. H. Perks, Esq.	1	1	0	J. H. Gibson, Esq. ...	0	10	6
N. Davies-Colley, M.C.	1	1	0	Surgeon E. S. Marder ...	0	10	6
				B. Walker, Esq. ...	0	10	6
				C. T. Griffiths, Esq. ...	0	10	6

Errata.—The name of T. A. Spalding was the name on the cheque for £2 2s. sent by Dr. L. E. Shaw, which was thus twice acknowledged last week. "J. F. Table, Esq." should be J. F. *Tabb*, Esq. The names of Dr. Langdon Down and W. A. Garrard, Esq., each for £1 1s., were omitted last week.

Mr. G. W. Hambleton.—There can be no objection to publishing the cases with the treatment adopted.

Dr. C. J. Parsons.—An advertisement, no doubt.

"THE MEDICAL PROFESSION AND LIFE ASSURANCE OFFICES."

To the Editors of THE LANCET.

SIRS,—I was one of those favoured, as was Dr. Thursfield, by a communication from the National Life Assurance Society, and, like him, I indignantly declined to enter into an engagement which, in my opinion, would be most injurious to the interests of the profession, as well as to the offices themselves.—I am, Sirs, yours faithfully,

Cardiff, March 9th, 1887. C. T. VACHELL, M.D. Lond.

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STEAMSHIP ARRANGEMENTS FOR THE AMERICAN CONGRESS.

Mr. Boyd B. Joll states that, so far as he can ascertain, the reason why the principal American steamship companies, such as the "White Star" and "Cunard" lines, have not offered to make any reduction in the tariff for members of the medical profession who purpose attending the Congress at Washington in September next is that so few have hitherto signified their intention of being present at the meeting. If those who wish to proceed by one of the Royal Mail lines will communicate with Mr. Joll, stating by which company's steamers they wish to travel, he will wait upon certain of the directors of these lines with whom he is personally acquainted, and see what reduction they can be induced to make. Of course, the greater the number proceeding by one line of steamers, the better chance of getting favourable terms with the directors.

Juvenile will do well to follow the custom which has hitherto been observed in the locality.

Mr. H. C. Fox.—The address is No. 2, Delamere-crescent, Bayswater, W.

Mr. Patwardhana (Poona).—We cannot exchange.

PROVIDENT DISPENSARIES: THE WANDSWORTH MEDICAL AID SOCIETY.

To the Editors of THE LANCET.

SIRS,—If Mr. Cox, by the aid of Johnson's Dictionary, described to Mrs. Bouncer the correct definition of a grumbler as being a "person who finds fault without cause," your correspondent, in his letter of to-day, in rejoinder to Mr. Dickinson's of Dec. 7th on the above subject, has very properly adopted that designation. As regards provident dispensaries in general and the Wandsworth Provident Dispensary in particular, his opinion may be allowed to pass, but as regards the Wandsworth Medical Aid Society, his remarks demand some comment, for he is wrong in his facts, in his premisses, and in his conclusions concerning that institution. The latter is not a charitable society; based on the principle of mutual assurance, it is independent of eleemosynary or other extraneous aid, and is entirely self-supporting. By payments that are very small from each individual, but which collectively furnish a not unreasonable fee to the medical attendants, it ensures to the working classes efficient medical attention, without which (inasmuch as about 72 per cent. of all pauperism results from sickness) a large number of them would become paupers. The medical attendants do not attend cases of sickness at 4*s.* per annum, but the number of sick that occur in a given number of healthy members for the sum total subscribed by the latter. And as the sickness averages 5 per cent., "A Grumbler" will find that the sum paid for each case attended per annum constitutes a by no means ignominious fee. The medical attendants therefore do not put on "the cloak of charity" for the base motives imputed to them by "A Grumbler," nor do they give their services in the manner described for the purpose of "starving a new man or of giving vent to their professional jealousy." Jealousy of whom? Of the new man? It would rather seem to be the jealousy or envy of the new man that has brought forth "A Grumbler.' Is it their fault that the newcomer is at his wits' end "how to start a practice" without the aid of that class of persons styled by him the "ragged lot," whose shilling or two he nevertheless does not affect to despise? The idea that the old-established practitioner ought "to stand and deliver," on demand of any newcomer, one portion of his practice as a means of getting himself "eased" of the remainder, is a bit of new morality, so simple in conception that it is scarcely likely to be entertained in any mind but that of "A Grumbler." His accusations are simply without foundation; although ostensibly general, they are obviously intended to have a local application.—I have the honour to be, Sirs, your obedient servant, and not ashamed to subscribe myself,

G. H. NICHOLAS, M.D.
(One of the Promoters of the Wandsworth
Church-row, S.W., Feb. 12th, 1887. Medical Aid Society.)

A Medical Poet.—We do not think the suggestion could be usefully carried out. The troughs would not be likely to be employed by the careless class of persons referred to.

Mr. Leonard Keyser.—The reply to both questions must be in the affirmative.

NIGHTMARE.

To the Editors of THE LANCET.

SIRS,—I think if your correspondent, "M.D.," will take the following mixture the nightmare from which he suffers will give place to more peaceful sleep. When he has taken the mixture a fortnight it would be interesting to know the result. Personal experience has taught that great relief will follow:—℞. Pulv. rhei, gr. ii.; liq. ammon., ♏x.; sod. bicarb., gr. xii.; ol. menth. pip., ♏i.; aquæ ʒi.; ter die. I am supposing "M.D." to have eliminated indigestible articles from his usual diet.

I am, Sirs, yours truly.
March, 1887. R. W. W.

To the Editors of THE LANCET.

SIRS,—In answer to "M.D.," I believe that any of the following may cause disturbance of sleep such as he describes:—supper, sexual excess, smoking, tea-drinking, over-reading, the last three especially if indulged in at night. Treatment:—Avoid the above. If possible, take a short holiday, and make a point of having out-door exercise.

I am, Sirs, faithfully yours,
March, 1887. G. H. S.

FURNEAUX JORDAN TESTIMONIAL FUND.

Final List.

Crompton, D. W., Esq.	£3	0	0	Jackson, Vincent, F.R.C.S.	£1	1	0
Parkes, Ed., M.D.	2	2	0	Lafarelle, J., Esq.	1	1	0
Boddy, E. M., Esq.	1	1	0	Messiter, A. F., Esq.	1	1	0
Chambers, W. R., Esq.	1	1	0	Moore, J. W., Esq.	1	1	0
Edginton, R. W., M.D.	1	1	0	Raynor, T., M.D.	1	1	0
Freer, J. F., Esq.	1	1	0	Smith, Richard, Esq.	1	1	0
Hart, G. H., Esq.	1	1	0	Fuller, Andrew, Esq.	0	10	6
Hogg, Jenner, M.D.	1	1	0	Wright, Wm., M.D.	0	10	6

T. H. Bartleet, Treasurer; Bennett May and Jordan Lloyd, Secs.

Surgeon-Major.—We trust that our correspondent will feel reassured by the statement made by the Director-General, at the dinner of the Medical Society, which he will find reported in our present issue.

Cyclist.—We see no objection to the patient's riding the machine, providing a carefully applied and well-fitting truss is worn, and racing is forbidden.

Dr. Bennett (Leicester).—The criticism had, perhaps, better wait for publication until the whole of the paper has appeared.

PARALDEHYDE.

To the Editors of THE LANCET.

SIRS,—The great advantage possessed by paraldehyde over chloral is that it has no depressing or paralysing effect upon the heart. In all other respects it is almost indentical with chloral. If your correspondent, "Subscriber," will refer to THE LANCET of Jan. 31st, 1885, he will find a short paper written by me on the action of paraldehyde. I there stated that I had found the drug to be an equally sure hypnotic with chloral; that in the rare cases in which it did not produce sleep it never caused excitement; that it left no headache or other unpleasant after-symptom, and that it did not affect the appetite even when given regularly for a considerable time. During the two years that have passed since I wrote the paper alluded to I have regularly prescribed it, and have no reason to change the opinions there stated. It possesses every good quality of chloral and is without its most dangerous—viz., its paralysing action upon the heart. It may be given in doses of from forty to ninety minims with safety, even where the heart is weak and irregular, or, as in the second stage of febrile diseases, where the cardiac muscle has undergone fatty degeneration. In ordinary cases of insomnia forty minims are generally sufficient to induce sleep; and this dose repeated, if necessary, in fifteen minutes I have found more efficacious than a larger single dose. I may say I have discovered no better mode of administration than with a vegetable bitter in simple syrup.

I am, Sirs, yours faithfully,
March, 1887. S. A. K. STRAHAN, M.D.

MEDICAL ADVICE THROUGH NEWSPAPERS.

Mr. T. R. Allinson, L.R.C.P. Edin. & L.R.C.S. Edin., continues to give his advice with much profusion through a newspaper, accompanied with a little commercial advice to his correspondents, to recommend "his paper." Much of Mr. Allinson's advice is good enough. Some of it is very doubtful, as, for example, that to "Jimmy," who is afflicted with diabetes, and told to drink nothing but milk, which will stop his thirst. However, our object is not to discuss "Jimmy's" prospect with diabetes on a milk diet, but the newspaper method of advertising one's professional wisdom and the particulars of "Jimmy's" or "Jessie's" complaint.

JUBILEE SUGGESTIONS:

To the Editors of THE LANCET.

SIRS,—With a view of celebrating our Queen's Jubilee, and of accomplishing the wishes of various medical bodies of gaining higher professional and distinctive titles, will you allow me to suggest the following:—1. That all L.M.K.Q.C.P.I.'s should be allowed to add the *few* remaining letters of the alphabet to their names. 2. That as the examination of the Apothecaries' Hall now includes surgery, those holding that diploma should be considered eligible for the post of consulting surgeons to hospitals, and be allowed to use the title of professor. 3. That all members of the Colleges of Surgeons, and licentiates of the Colleges of Physicians in Great Britain, should have the right of using the title "M.D. Jubilee" after their names. 4. That all who hold the university title of M.D. at present should be made baronets, or at least life peers. 5. That all unqualified assistants of more than fifty years' standing, and who can prove that they have never entered the walls of a hospital except as patients, should be admitted at once upon the Medical Register and rank as Fellows of the College of Surgeons. If these suggestions be carried out in the spirit in which they are offered, the present dissensions would soon cease, and a time come when the highest and lowest medical titles will be as one, and the rivalry of the licensing bodies put a stop to altogether.

I am, Sirs, yours faithfully,
A. G. BATEMAN.
Constitutional Club, Northumberland-avenue, March, 1887.

A NEW GULLY FOR YARDS.

MR. SHAW, of Willington-on-Tyne, has sent us a drawing of a gully to be used in houses and yards. It is a great advance upon the old bell-trap, for the reason that it has in combination with it a syphon trap, which will effectually prevent the drain from becoming untrapped so long as water is supplied to it.

Dr. J. B. Sim (Nottingham).—Yes, shortly.

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DENTAL STATISTICS.

ACCORDING to the *Dental Review* there is in America one dentist for every 4000 inhabitants; in France, one for every 37,000; in Germany, one in 88,000; and in Austro-Hungary, one in 200,000. In England there is one for every 7000.

G. A. M.—We doubt if our correspondent has any legal claim.

THE LONDON HOSPITAL STUDENTS' DINNER: A WAIL FROM THE WILDERNESS.

To the Editors of THE LANCET.

SIRS,—The other evening I attended the first annual dinner of the London Hospital students, where it was suggested that I should respond for the "The Visitors." Up till then I had fondly imagined myself a student of the hospital, having paid a composition fee, attended lectures, dissected several parts, and dressed in the hospital. My connexion with the school is briefly this: After taking an Edinburgh diploma I spent five or six years abroad and otherwise, and then came to town to read for the higher qualifications. Looking round for a hospital, I deliberately chose the "London" for its brilliant staff and fine clinique, and entered there, intending to go through such a course as would enable me in time to apply for a house-surgeoncy. Events prevented me from carrying out that intention, but I still considered myself a student of the hospital until there came the sudden awakening. Now, one is tempted to ask, with Truthful James, "Are things what they seem, or is visions about?" If the receipt before me from the warden for forty-five guineas, the first instalment of a composition fee, does not constitute one a student of the London Hospital, how is that enviable position to be attained? Evidently not by purchase, wherefore I thank heaven with mild philosophy that the second instalment has not been paid. Some months back I met a medical man, an old student of the London Hospital, and in answer to his inquiry explained my connexion with the place; whereupon he said: "Oh, you are one of those qualified men who go there for the appointments!" This remark showed a want of breeding or want of tact that inclined one to ignore and forget it as soon as possible; and the incident had passed out of my mind until recalled by the dinner. In ancient times death was often the penalty for those who strayed into sacred enclosures, and by comparison it is terrible to think what may be the sentence on composition students who have trespassed into these charmed circles. For my own part, I should be sorry to thrust myself into any society of men, however distinguished, were it made plain that my presence was not wanted, and I am willing formally to resign all claim to be called a student of the London Hospital. Not that this declaration is likely to fill either of the contending camps with great joy or despondency; but one cannot hear too many sides of a question. Besides, now that I have tasted the delights of suburban practice and am freed from scholastic thraldom many things appear in a different light. House-surgeoncies have lost the halo of glory that formerly surrounded them, for a small practice in the wilds has permitted perineal section, removal of deep-seated glands, osteotomy, and other operations denied to resident officers. Bearing these things in mind, the feeling gathers weight that a man of fair education, energy, and self-reliance, with the help of a few books of reference and thorough antiseptic methods, may live a happy and useful life (and even occasionally operate) independently of consultants, high degrees, hospital appointments, or connexion with particular schools. One comfort is that the fields of literature, science, and art are just as open to a humble licentiate as to one who writes a string of titles after his name.

In conclusion, the students of the London Hospital have my hearty wishes for success in efforts which seem to have a solid groundwork of justice, although this goodwill must sound rather strangely coming from one who has been put "outside the walls."

I am, Sirs, your obedient servant,

DAVID WALSH, L.R.C.S. and L.R.C.P. Ed.

Hammersmith, W., March, 1887.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Prof. Ogston, Aberdeen; Dr. Mac Alister, Cambridge; Dr. Bantock, London; Mr. W. Whitehead, Manchester; Mr. Fitzroy Benham, London; Mr. Startin, London; Dr. Charteris, Glasgow; Mr. W. Curran, London; Mr. S. Snell, Sheffield; Dr. Drysdale, London; Mr. R. Cuff, Scarborough; Mr. Haslam, Birmingham; Dr. J. B. Mattison, Brooklyn; Mr. Richard Harris; Mr. Smither, London; Mr. Keyser, Slough; Messrs. Brady and Martin, Newcastle-on-Tyne; Mr. Meadows, Hastings; Dr. Beavan Rake, Port of Spain; Dr. Nicholas, Wandsworth; Messrs. Kent and Co., London; Mr. Prince, Sidcup; Mr. W. White; Mr. Kendle, South Molton; Mr. Manning, London; Mr. A. A. Bowlby; Messrs. Archer and Co., Liverpool; Dr. F. W. Bennett, Leicester; Messrs. McLachlan and Co. Edinburgh; Mrs. Hitch, St. Leonards-on-Sea; Dr. Spurgin, Maryport; Dr. Illingworth, Clayton-le-Moors; Dr. N. Y. Bowditch, Boston, U.S.; Dr. Rentoul, Liverpool; Dr. Strahan; Messrs. Beal and Son, Brighton; Mr. Vincent, Shouldham; Mr. Oliver; Mr. Mead, Bow; Mr. Birely, Portsea; Dr. Stuart, Leamington; Mr. Hughes, Pwllheli; Mr. Barraud, London; Mr. Fox, Birmingham; Mr. Davis, Detroit; Mr. Gurner, London; Mr. D. Walsh, London; Dr. Frederick Taylor, London; Dr. C. J. Parson, Whitchurch; Mr. A. G. Bateman, London; Mr. R. W. Thomas, London; Mr. Ballance, London; Mr. R. C. Baber, Brighton; Dr. Emmerson, Biggleswade; Mr. W. K. Haten, Bombay; Dr. Jones, Ilford; Mr. Paine, Worthing; Dr. Wilde, South Kensington; Mr. Holtby, York; Mr. Sharfin, Bedford; Messrs. Blake and Co., Leeds; Mr. Leighton, Cheltenham; Mr. Morton, Brighton; Dr. Ralfe, London; Mr. Davies, Llandrindod; Messrs. Burgess and Co., London; Mr. Joslen, Workington; Mr. McArdle; Mr. McAdam, Glasgow; Mr. Briscombe, Bolton; Mr. Green, Derby; Mr. Painter, Sandymount; Dr. Finch, Salisbury; Mr. Green, Hull; Mr. Elbow, Croydon; Dr. Diver, Kenley; Mr. Armstrong, Manchester; Mr. R. W. Parker, London; Mr. A. C. Preston, Lincoln, N.Z.; Mrs. Thompson, London; Mr. L. Hill, London; Mr. Smith, Essingwold; Mr. G. R. Turner, London; Mr. T. McC.; Puzzled; A Medical Poet; Retired Brigade-Surgeon; A Reader; Surgeon-Major; M.K.Q.C.P.I.; Whole Meal; Secretary, Glasgow; Aorta, Edinburgh; M.B. & C.M. Aberd.; Yankee.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Williams, Truro; Mr. Martin, Purton; Mr. Morton, Sheffield; Mr. Murchison, Hull; Mr. Aveling, Paddington; Dr. Stuart, Wigan; Mr. Mackenzie, Templeville; Mr. Sacker, Dulwich; Mrs. Wastnage; Mr. Taburner, Wigan; Mr. Brown, Tredegar; Dr. Swinson, Baldock; Mr. Jeffreys, Chesterfield; Mr. Kalkuhl, Obercassel; Mr. Davis; Mr. Cooper, Great Bradley; Mr. Mills, Glasgow; Mr. Swain, Manchester; Dr. Taylor, Newcastleton; Miss Birmingham, Bromley; Mr. Parker, London; Mr. Syree, Northallerton; Mr. Harries, Barnsley; Dr. Partington, Manchester; Mr. Hendry, Eastbourne; Dr. McLean, Harpenden; Mr. Harris, Liverpool; Mr. Clay, Edinburgh; Messrs. Porteous and Co., Glasgow; Mr. Cocking, Plymouth; Mrs. Saunders, Tunbridge Wells; Dr. Phillips, Egham; Mrs. Martin, Hastings; Dr. Guy, West Cowes; Mr. Davis, Bewdley; Mr. Brooks, Ludlow; Mr. De Lisle, New Zealand; Mr. Rideal, London; C. J.; Gratz; Dr. F., Shepherd's-bush; L. M.; Medicus, Liskeard; C. D., Tunstall; Thesis; Surgeon, Brierley Hill; Delta, London; M.B., London; A. C., Cardiff; J. R. W., Manchester; M.D., Crewe; T. W. H., Southport; Salopian; C. S.; T. S., London; R. L. S., Hollingwood; Yorkshire; J. B. Peckham; Statim.

Leeds Mercury, Scotsman, West Cumberland Times, Bradford Observer, Western Morning News, Hawick Express, Richmond and Twickenham Times, Haslingden and Rossendale Gazette, Liverpool Daily Post, York Herald, Birkenhead News, Portsmouth Times, Hospital Gazette, &c., have been received.

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Gulstonian Lectures
ON THE
NATURE OF FEVER.

Delivered at the Royal College of Physicians,

BY D. MACALISTER, M.A., M.D., F.R.C.P.,
PHYSICIAN TO ADDENBROOKE'S HOSPITAL, LECTURER IN MEDICINE AT THE UNIVERSITY OF CAMBRIDGE.

LECTURE II.

MR. PRESIDENT AND GENTLEMEN,—Let me recall to your memory the point we have now reached in our discussion of the nature of fever. Perhaps I can best do so by reciting the conclusions arrived at in 1875 by Dr. Burdon Sanderson in the important memoir I have already referred to. These conclusions will not only serve to indicate the first stage of our argument, they will be useful as a starting-point for the considerations that are yet to come. "Two possibilities [as to the origin of fever] are open to us. One is that fever originates in disorder of the nervous centres, that by means of the influence of the nervous system on the systemic functions the liberation of heat at the surface of the body is controlled or restrained, so that 'by retention' the temperature rises, and finally that the increased temperature so produced acts on the living substance of the body so as to disorder its nutrition. The other alternative is that fever originates in the living tissues, that it is from first to last a disorder of protoplasm, and that all the systemic disturbances are secondary..... The facts and considerations we have had before us are, I think, sufficient to justify the definitive rejection of the first hypothesis in all its forms; for, on the one hand, we have seen that no disorder of the systemic functions or of the nervous centres which preside over them is capable of inducing a state which can be identified with febrile pyrexia; and on the other, that it is possible for such a state to originate and persist in the organism after the influence of the central nervous system has been withdrawn from the tissues by the severance of the spinal cord. We are therefore at liberty to adopt the tissue origin of fever as the basis on which we hope *eventually* to construct an explanation of the process. But if we attempt to do so *now*, we shall at once find ourselves in face of an unsolved physiological problem—that of the normal relation between temperature and thermogenesis,—for the elucidation of which it is necessary to investigate much more completely than has yet been found possible the influence of temperature variations on those chemical processes in living tissue with which thermogenesis is necessarily associated."

As these sentences are somewhat condensed in expression a word or two of comment may prevent misunderstanding. In the first place, the "disorder of the nervous centres," which is without hesitation condemned as inadequate to explain the genesis of fever, means primarily disorder of that part of the nervous system which governs the circulation and the respiration—"the systemic functions," as they are called. This is clear from the whole course of the previous argument. The apparently sweeping rejection of the hypothesis of nervous disorder "in all its forms" is really levelled at the hypothesis of merely vaso-motor disorder, which is associated with the names of Traube and Marey; hence if we are led hereafter to consider a theory involving another kind of nervous disorder we shall not necessarily come under Dr. Sanderson's condemnation. In the next place, since 1875 something has been done to supply the missing physiological data for the establishment of the tissue origin of fever, and something more has been done on other lines which help us to get round the outstanding problems. Moreover, as I explained in my last lecture, we have had an authoritative re-examination and re-determination of some of the points in regard to febrile thermogenesis which Dr. Sanderson was inclined to regard as doubtful or not proven in the earlier experiments of Leyden and Senator, with the result of showing that though the methods were imperfect quantitatively the deductions from them were qualitatively correct. Thirdly, we have had from various quarters—England, France, Germany, and America—valuable researches on the relation of the body temperature and the body heat to certain parts of the central nervous system, researches which were not before Dr. Sanderson when he wrote, and which open up new lines of thought regarding the mechanism of fever. Lastly, some light has been thrown on the relation of the nervous system in general to the "chemical processes in living tissue with which thermogenesis is necessarily connected." All these gains to knowledge enable us to advance further towards a true theory of fever than was thought twelve years ago to be possible, though the "unsolved physiological problem of the normal relation of temperature to thermogenesis" is not yet fully solved. I shall endeavour to show the bearing of these later contributions, and so lead step by step to a theory of the "tissue origin of fever," such as Dr. Sanderson forecasts.

We start with this: that fever of necessity implies—(1) A disorder of the thermotaxic mechanism; (2) an excessive production of heat associated with excessive chemical changes in the tissues, the excessive production being more or less than that of a normal patient on full diet (perhaps oftener less than more), but more than that of a normal patient on fever diet; and (3) that the body temperature, depending on the state of the balance between production and discharge, fluctuates as one or the other is in the ascendant, and is not *per se* a true *measure* of either, or of the consumption of tissue which may be going on. An essential factor of fever being thus excessive production of heat in proportion to the food consumed, a natural question to ask is, What tissue or tissues in particular are concerned in the excessive thermogenesis? If there is increased combustion, what is the fuel, and where the furnace? To answer this question we shall first have to ask another—the licence is permitted to a Scotsman: What are the sources of heat production in health?

The older notion connected with the great name of Liebig, that the hydrocarbons of the food are the "fuel" of the body, being consumed chiefly in the lungs during respiration, while the nitrogenous constituents are mainly plastic or tissue forming, has been so effectually disproved that I need not pause to discuss it. It still reappears in popular books, and we occasionally see in the medical journals—at least on the outside pages—published analyses of particular foods which are duly parted into "heat-givers" and "flesh-formers." Now, however, to use Professor Foster's words, which I need not paraphrase, because I cannot improve on them, "we may at once affirm that the heat of the body is generated by the oxidation not of any particular substances, but of the tissues at large. Wherever metabolism of protoplasm is going on heat is being set free. ..... In growth and in repair, in the deposition of new material, in the transformation of lifeless pabulum into living tissue, in the constructive metabolism of the body, heat may be undoubtedly to a certain extent absorbed and rendered latent; the energy of the construction may be in part, at least, supplied by the heat present. But all this, and more than this—namely, the heat present in a potential form in the substances themselves so built up into the tissue—is lost to the tissue during its destructive metabolism; so that the whole metabolism, the whole cycle of changes from the lifeless pabulum, through the living tissue, back to the lifeless products of vital action, is eminently a source of heat."[1] But of the "tissues at large," whose oxidation is in general the immediate source of the body heat, the muscles for various sufficient reasons must be regarded as the chief contributors. In the first place, the muscles form something like one-half the whole mass of the body. When we reflect that of the other half a large portion is made up of the bony tissues, whose oxidation cannot be active, we see that the muscles must play a very large part in thermogenesis. In the next place, even when the muscles are at rest the blood which leaves them by the veins contains more carbonic acid than the blood even of the right ventricle. The mean rate of oxidation in the muscles is higher than that of the average of all the tissues, including the muscles themselves. And, lastly, muscular exercise, in which the metabolism, as evidenced by the increased excretion of carbonic acid, is markedly increased, is accompanied by a large concomitant increase of heat production. Fick makes a calculation, based on the actual observation that during severe muscular work the quantity of exhaled carbonic acid may be five times the

[1] Physiology, p. 461.

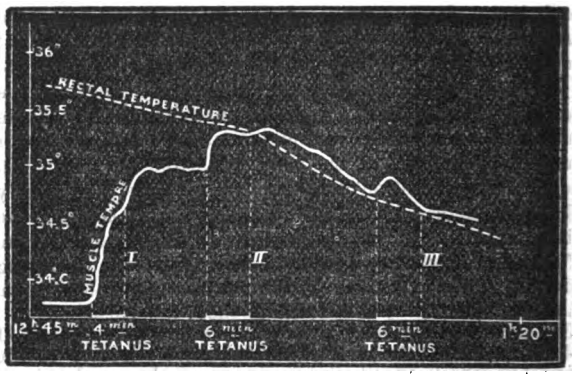
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normal, showing that of the total energy derived from the food one-sixth goes to the work and five-sixths to the extra production of heat that accompanies it.[2] I need not enumerate all the other reasons for regarding the muscles as "the thermogenic tissues *par excellence*;" those I have given are perhaps enough. Next to the muscles come the various secreting glands, and the alimentary canal in digestion. But when we remember that in fever the functional activity of these latter is to a great extent in abeyance, we shall probably not credit them with any large share in the genesis at least of febrile heat. As regards the muscles, however, they are estimated to contribute four-fifths of the body heat in health; in fever their proportion must be higher still. Briefly, then, we may say that the muscles are the chief furnaces of the body both in health and in fever. Let us consider more minutely this thermogenic function of the muscles, and the nature of its connexion with the more familiar motor function. The investigation will be worth our pains, even if it only leads us to hesitate in regarding the heat produced in muscles as a mere excretion, a waste-product like urea or carbonic acid.

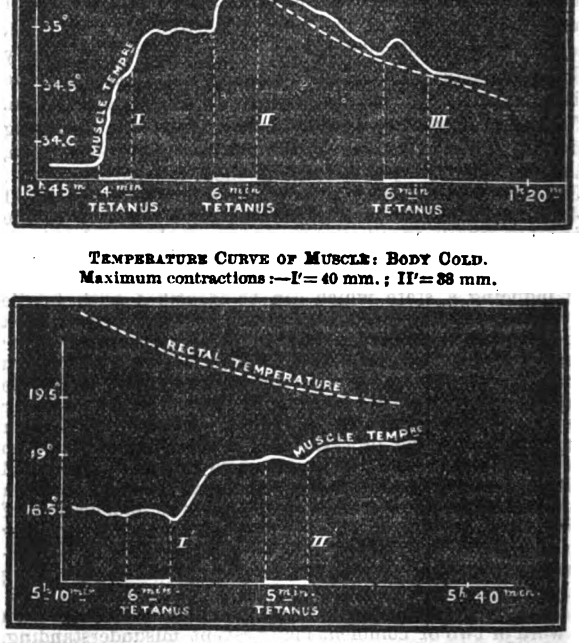
It has long been known that each contraction of a muscle is accompanied by the production of a certain modicum of heat. The earlier experimenters put forward the idea that as in a steam engine the energy supplied by the hot vapour from the boiler is given out partly as work and partly as heat, so in a muscular contraction the energy set free by a given stimulus appears partly as mechanical effect and partly as inevitably waste or degraded energy in the form of heat. It was inferred on the principles of the dynamical theory that if we should add the work done by the muscle to the mechanical equivalent of the heat wasted we should have a constant sum. The more work done in contracting the less waste energy in the form of heat, and *vice versâ*. But when exact quantitative experiments were made, such as those by Fick, Heidenhain, and many others, it was found that no such constant relation could be demonstrated. The proportion of heat to work, and the sum of these two elements, depended not on the intensity of the originating stimulus, but on various external conditions, such as the load the muscle had to bear, the extent to which it was stretched, and so on. In fact, the productive efficiency of the muscle considered as a machine was far more complex in character than that of a steam-engine. Many have been the attempts to determine more precisely the quantitative laws of this efficiency, but they all seem to proceed on the assumption that some necessary thermo-dynamic connexion exists between the function of work-producing and the function of heat-producing, between the motor and the thermogenic activities of the muscle; and it has been sought to define the nature of the assumed connexion in terms of a small number of variables. For some years I have asked myself the question: Must in *all* circumstances heat be produced when a muscle contracts? If heat is produced without contraction, may not contraction take place without heat? The older methods of investigation offered practical difficulties when I came to seek an answer to this question. The muscle experimented on was generally that of a frog or cold-blooded animal; it was removed from the body, and therefore from the influence of the circulation—in fact, it was a dying muscle rather than a living one. Moreover, the quantities of heat and the temperatures which were measured were on the whole extremely small, being reckoned in hundredths or thousandths of a degree. The limits of error in such measurements are naturally wide, and the measurements require the most sensitive thermo-electric instruments to make them apparent.

Working under the inspiring guidance of Professor Ludwig in 1881, and still possessed with the idea of the thermo-dynamic interdependence of muscle work and muscle heat, I thought it worth while to see whether the heat production of a frog's muscle still connected with the body and permeated by the circulating blood might not be great enough to admit of thermometric measurement instead of thermo-electric. Some previous experiments of Dr. Meade Smith in the same direction had made this probable. I procured very sensitive thermometers with fine-drawn bulbs, and openly graduated in tenths of a degree Centigrade. I found that one of these could be introduced beneath the skin of a pithed frog into the natural intermuscular cleft between the muscles of the thigh, so as to be surrounded on all sides by living flesh, but without injuring anything. When the sciatic nerve was suitably stimulated, the muscle contracted tetanically and the temperature rose. The rise was easily legible, amounting to four or five tenths of a degree. When several successive tetanic contractions were induced, the rise of temperature grew less and less, and at last could not be read at all, though the contraction was quite marked. In a word, the muscle was fatigued as a heat-producer before it was fatigued as a work-producer. These experiments were performed in winter on frogs collected in autumn, and I observed that as spring came on the heat production in the muscles under uniform conditions gradually grew less and less, though the tetanic curves given by them on stimulation were excellent. I attributed this to the gradual exhaustion of the frogs by their long winter fast. But the point of interest was that the heat-producing power was sooner exhausted than the work-producing power of the muscles. Fatigue from repeated stimulation, exhaustion from long abstinence, each appeared to differentiate the thermogenic function from the motor function. I next proceeded to inquire whether in warm-blooded animals it might not also be possible to separate the two functions, to show that, though generally called into play together, they were capable of being performed independently. Using dogs, guinea-pigs, and rabbits, narcotised with chloral in all cases, I made a number of experiments on the fatigue of the thermogenic function, and almost accidentally discovered another method of practically abolishing it while the motor function remained nearly, if not quite, intact. By controlling the temperature of the whole animal, including that of the muscle under observation, I found that I could vary within wide limits the relation between the work and the heat produced. It is not necessary to give the experimental details at length. Suffice it to say that by enclosing the profoundly narcotised animal in a box with double walls, through which water of any desired temperature could be made to circulate, I was able to raise or lower its body temperature at will. Arti-

TEMPERATURE CURVE OF MUSCLE: BODY WARM.
Maximum contractions:—I = 47 mm.; II = 41 mm.; III = 38 mm.



TEMPERATURE CURVE OF MUSCLE: BODY COLD.
Maximum contractions:—I' = 40 mm.; II' = 38 mm.



I illustrates the post-tetanic rise of temperature, owing to the flushing of the muscle with warmer blood.
II illustrates the effect of fatigue in reducing the thermogenesis; the tetanic rise is diminished; the post-tetanic rise is almost absent, the blood being scarcely warmer than the muscle.
III illustrates the post-tetanic fall when the blood is cooler than the muscle.

[2] This and other facts recited in this lecture I owe to the kindness of Dr. A. Sheridan Lea.

ficial respiration was maintained for hours together. The temperature of the blood in the aorta, in the rectum, and in the mass of the calf muscles could be ascertained from minute to minute by means of fine thermometers; the mechanical work done by the muscles of the calf could be estimated by the motion of a cord fastened to the Achilles tendon; and, lastly, the sciatic nerve, severed from the spine, could be electrically stimulated. The arrangements were elaborate, but after much experience and many failures I succeeded in getting some fairly satisfactory results.

The experiments were made in triads. First, say, at ordinary temperature, the reading of the thermometers showing that all was steady, a tetanic contraction would be set up, and the muscle temperature read at minute intervals, before, during, and after the stimulation. The whole arrangement would then be cooled down, say, to 16° or 18° C. (say 61° or 64° F.) When things were once more steady, a tetanus of the calf muscles was again induced, the muscle temperature being read at short intervals as before. Once more the temperature of the animal as a whole was raised back to the original point, and the experiment repeated. By varying the stimulus the extent of the mechanical contraction was kept as nearly as possible the same in all three experiments. Usually such a triad of experiments lasted the whole day, as the processes of cooling down and warming up occupied several hours each. In some cases I varied the procedure by first cooling the animal, then warming it, and lastly cooling it again; but it was difficult to get very satisfactory results by this method, which was very exhausting to the observer, as well as to the animal. I need hardly say that the latter was never suffered to regain consciousness. The general character of the thermal results may be gathered from the rough diagrams I present. (See *ante*.) Take first an experiment at about 35° C. As soon as the muscle contracts, its temperature rises, and continues to rise for some time after the contraction ceases. The animal is then cooled to, say, 19° C. On stimulation the muscle contracts forcibly, but the rise of temperature is trifling or absent. On rewarming the animal to something like its first temperature, we once more restore the rise of temperature on contraction. There are several other points of interest exhibited in these curves, but I do not propose to dwell on them at present. I will only say that the post-tetanic rise of temperature, when it exists, is due to the post-tetanic flushing of the muscles with blood that is warmer than the muscle. When the blood is cooler than the muscle, as sometimes happened, we have a post-tetanic fall of temperature. Some plethysmographic experiments convinced me that this explanation, based on what in Germany is sometimes called "das Gaskell'sche Phänomen," is applicable to all the peculiarities of the curves. A study of these peculiarities, moreover, shows that the absence of thermal phenomena was not due to any perceptible impairment of the vaso-motor mechanism of the muscle at the lower temperatures. The lesson taught by these experiments appears to be—first, that the motor function may persist while the thermogenic function is in abeyance; and secondly, that *cold* is capable of abolishing or notably depressing the latter function, while the former is still but little or not at all affected. The therapeutic bearing of the second lesson is not unimportant.

Since 1881, two investigators also working in Professor Ludwig's laboratory have carried on the research in other directions. Dr. Meade Smith and Dr. Lukjanow,[3] in a memoir that has lately been published, display in minute detail the laws which govern the fatigue of the thermogenic function of a living muscle—(1) with the blood-supply shut off for a time, and (2) with the blood in full circulation. They also investigate the law of recovery of this function when it is completely exhausted, so far as it is effected by simple rest with or without blood-supply. The outcome of these experiments may thus be expressed: The effect of stimulating a muscle through its nerve is to start in it two processes—one, as it were, explosive, and manifested by change of form and the performance of mechanical work; the other more continuous, and manifested by the increased development of heat. Each process has its own laws as regards (1) the influence of external conditions—such as intensity of stimulus, load, extension, and so on; (2) the influence of fatigue from repeated stimulation; (3) the influence of general exhaustion from inanition or other debilitating causes; (4) the influence of the general temperature of the protoplasm of the muscle; and (5) the influence of rest and of the circulating blood in restoring lost power. This independence, I think, justifies us in assuming that the two processes are largely independent and coördinate. The heat developed in the second or thermogenic process is not simply a thermo-dynamic waste-product, an excretion of no greater dignity than urea or carbonic acid. On mechanical principles, the dislocation of the parts of the muscle on contraction, and again on relaxation, must give rise to a small quantity of heat, which one might call thermo-dynamic waste. It is the outcome of the degradation of the kinetic energy of contraction, such as occurs when any moving mass overcomes friction or is reduced to rest. But the amount of this waste heat is calculable, and it comes out as perfectly trifling in comparison with what I may call the thermogenic heat. In some of the experiments of Lukjanow it was much less than 1 per cent. of the heat liberated simultaneously with contraction.

The processes which issue in motion on the one hand and in thermogenesis on the other are of course associated with chemical movements in the muscle, with metabolisms whose terminal steps are the accretion of oxygen and the excretion of carbonic acid and water. The considerations I have adduced, and especially those relating to the power of recovery in a fatigued muscle under the influence respectively of rest and of the blood-supply, point to the conclusion that the two metabolisms are in some way different. In other words, that the "contractile stuff" in the muscle is not the same as the "thermogenic stuff." Both of them are stored in the muscle; so far as function is concerned they *are* the muscle. The store of each can be exhausted by repeated stimulation, but in some cases the thermogenic store sooner than the other. Both can be upbuilt again by the circulating blood, but in some cases the contractile store sooner than the thermogenic. Both the metabolisms are affected by cold, but the thermogenic much sooner and much more intensely than the contractile. We know little of the exact nature of the chemical changes involved in either form of metabolism. Oxygen is taken up in each, and carbonic acid is discharged, but the processes passed through between these terminal stages are much more complex than simple oxidations. The evidence rather goes to show that it is the living substance as a whole, contractile stuff and thermogenic stuff, which is continually being decomposed and as continually being recomposed by the blood. The net balance shows only gain of carbonic acid and loss of oxygen, but the nitrogenous parts also of the working substance have in the process undergone partial destruction and equivalent reconstruction. This is in health; but if the reconstructive part of the process is inadequate or absent, the balance of accounts will give evidence of a nitrogenous residuum which is morbid. The muscle substance will appear to be itself consumed; it will no longer be what I may call merely the circulating medium of consumption. I say it will *appear* to be consumed; this only means that the *net* result is loss of nitrogenous substance. The cast-out nitrogenised molecules of the muscle are not really excretionary in the sense that carbonic acid is excretionary. They have merely failed of that immediate upbuilding into muscle substance again which is characteristic of the healthy metabolism. This incessant upbuilding of the muscle substance, which is a necessary consequence of the fact that no increase of urea or other nitrogenous matter is produced in the ordinary processes of muscular metabolism, must require the expenditure of a certain amount of energy. If in any measure the upbuilding is checked or abolished, so much energy is of course unexpended. It was on some such asset of energy as this that, as I presume, Dr. Ord fixed his attention in the suggestive paper[4] of which I spoke in the last lecture. He asks: "Is the increment of heat of the body in fever due not only to combustion or other disintegrative processes thereto allied, but also to the persistence in the form of heat of energy which should have taken another form?" I believe that Dr. Ord's claim on this asset must be allowed, at least so far as it refers to that part of the muscle substance which in fever fails to be reconstructed. But I fear the asset is a very small one at the best, and quite inadequate to provide a large addition to the heat-production of fever. Moreover, it would be measured in a rough way by the loss

[3] Du Bois Reymond's Archiv, 1886.

[4] Brit. Med. Journal, vol. ii., 1885.

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of nitrogenous substance in the muscle—in other words, by that very combustion of the tissues which Dr. Ord himself regards as already inadequate to account for febrile heat. When he goes further and extends his claim over the whole field of the tissues, in which normal constructive metabolism implies the locking up of energy, and when he infers from the absence of tissue formation in fever that the locked-up energy must therefore all "run wild" and take the form of heat, I fail to follow his argument. Granted that in fever tissue formation is to some extent in abeyance, are the materials and the energy for tissue formation still being supplied in normal quantity? We cannot credit ourselves with the possession of unused energy till we are sure that the full tale of energy is being supplied and not used. In other words, until account is taken of the low diet of fever we cannot say with Dr. Ord that the energy which in health is utilised in tissue-forming is in fever all available for heat-producing.

To return now to the thermogenic metabolism of the muscles. I have already implied, but may usefully state here in so many words, that in ordinary conditions it is continually going on as a quiescent but unceasing process. Contraction is accompanied by an increase of it, but contraction is not necessary to it. So long as the blood-supply and the nerve-supply are intact, the muscle, whether visibly moving or visibly resting, works unceasingly at its business of heat production. I say so long as the blood-supply and the nerve-supply are intact: we have already touched on some of the ways in which the blood-supply is related to the thermogenic function; we have now to consider the relation of the nerve-supply.

When we stimulate the nerve going to a muscle, two obvious processes are set up in the muscle substance. The one issues in temporary contraction; the other temporarily increases the production of heat. When a muscle is poisoned by curare, both these effects of the stimulation are done away. As we know, curare abolishes the function of the peripheral nerve endings, and thus blocks the way for the transmission of impulses from the nerve trunk to the muscle. The thermal behaviour of an animal in whom the thermogenic tissues are thus cut off from the influence of the nervous system is very remarkable. The vaso-motor mechanism is intact, but the animal can no longer maintain its temperature. If it is plunged in a cooler medium, its temperature steadily falls; in a warmer medium it steadily rises. It is, in fact, the plaything of the external conditions: it is to all intents a cold-blooded animal. Still more remarkable is the change in the quantity of its oxidative metabolism, as manifested by the consumption of oxygen and the exhalation of carbonic acid. Both of these fall in the cooler medium to a mere fraction of the normal.[5] The circulation remains unaffected; the respiration can be artificially maintained. The cause of the change can only be the interception of the nervous influences that normally reach the muscles. Two inferences are inevitable: (1) that the thermogenic function of the muscles is primarily dependent on their innervation; and (2) that the share of the muscles in the oxidative metabolism, the combustion processes of the body, is so great that when they are excluded a mere fraction of the whole alone remains. This second inference confirms and justifies the attention we have concentrated on the muscles as the chief sources of heat, normal and febrile. The first inference leads us from the muscle to the nerve. But if when no contraction is going on the normal muscle is continually undergoing an active oxidative metabolism, and if this metabolism is dependent on active innervation, we must conclude that through the nerve trunks at all times there is kept up a continuous stream of nervous influence. In other words, that in the resting muscle a constant *thermogenic tonus* is maintained. The old arguments for the existence of a constant motor tonus in muscle now appear to be inadequate, though its impossibility is by no means proved. As regards the vaso-motor muscular system, however, there seems no doubt that such a tonus, such a degree of steady moderate contraction, does exist. There is, if I may so call it, a state of strained equilibrium between the vaso-constricting and the vaso-dilating influences, and the result is that mean condition—ready to be altered either way as one influence or the other preponderates—which we call arterial tone. And in the case of the respiration we have something very similar. In ordinary automatic breathing there is a steady rhythmic balance between the inspiratory and the expiratory impulses sent to the muscles of respiration—rhythmic but yet balanced, as are the impulses that maintain a planet in its elliptic orbit round the sun. Indeed, as I have already hinted in passing, it is possible to explain the automatic mechanism of respiration by regarding the balanced impulses as simply motor and inhibitory of the inspiratory muscles. The periodic equilibrium is capable of perturbation by various reflex and volitional causes; the breathing can be augmented or depressed in various ways; but in the normal self-regulated condition we have what we may call a *nervous tonus* of the respiratory centres. Now, as the vascular tonus is the result of a strained equilibrium between the opposing impulses given to the unstriped muscle of the arterial wall—the opposing impulses sent along the vaso-constrictor and the vaso-motor fibres,—and as the nervous tonus of the respiratory centres is in like manner due to what I have called a rhythmic balance or periodic equilibrium between motor and inhibitory influences, so I am fain to regard the thermogenic tonus of the muscles as the manifestation of a balance between two opposing innervations. But you will perhaps say, Granted that in respiration there is a balance between two tendencies, the nature of these tendencies is obvious—there is inspiration and there is expiration; and in the tonus of the arteries the two opposing tendencies are equally obvious—there is constriction and there is dilatation. What are the two tendencies that are balanced in the thermogenic tonus? The answer is: first, the tendency to the upbuilding and storing of what I have bluntly called the "thermogenic stuff" of the muscle—the *thermogen*, if I may coin the word; and, second, the tendency to disintegrate this by a process involving oxidation. At Cambridge we are accustomed to speak of the upbuilding aspect of metabolism as anabolic, and the unbuilding aspect as catabolic. If I were to compress what I have ventured to suggest to you into a formula, it would be: the thermogenic tonus of a resting muscle is dependent on a balance between the nervous impulses subserving anabolism and those subserving catabolism of thermogen. The words have a formidable sound, but I trust the idea they are meant to convey is clear enough. They emphasise the *particular* processes referred to in general terms by Dr. Broadbent in his admirably terse article in "Quain's Dictionary of Medicine." "If a theory of the febrile process is to be formed," he says, "it must be based upon a theory of the relation between the nervous system and the processes of nutrition and oxidation, and especially the latter." A few years ago such a theory of the relation of the nervous system to the processes of anabolism and catabolism would have been at best a pure speculation. Imperfect understanding of the true nature of one whole side of the relation—namely, the anabolic side—stood in the way of every attempt at demonstration. Now, however, thanks in great part to the suggestive work of my colleague Dr. Gaskell, we are beginning to have clearer light on the subject; he has given a basis of facts for a new and comprehensive generalisation, and has opened out a vista for research whose limits we cannot now estimate. I will here ask your attention only to so much of his investigation as may help us to an insight into thermogenesis.

As examples of a tonus or balance of opposing tendencies, I have mentioned, first, the tonus of the arterioles maintained by the joint continuous action of the motor and inhibitory nerves subserving contraction of the vascular muscles; and, secondly, the tonus of the respiratory apparatus maintained by the joint rhythmic action of the motor and inhibitory centres controlling inspiration. There is a third example which is hardly less familiar, though it is only of late that we have approached a consistent theory of it. I refer to the action of the cardio-motor and cardio-inhibitory nerves in maintaining the rhythmic contraction of the heart. The complicated apparatus of intrinsic ganglia, of local inhibitory mechanisms, and so on, is being gradually simplified as our knowledge of the cardiac nerves increases. Suffice it here to say that to maintain the heat at its normal rate only two concurrent and continuously acting *central* influences need be assumed. The one is exerted through the branches of the cervical sympathetic—the motor nerves of the heart. Dr. Gaskell, in his epoch-making memoir[6] on the sympathetic system, shows that we may class these nerves as functionally, structurally, and morphologically equivalent to the motor nerves of the

[5] Röhrig and Zuntz, Pflüger's Arch., 1871.

[6] Journal of Physiology, 1886.

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vessels—the vaso-constrictors. The other influence is exerted through the vagus nerve, and, as we all know, its action is to check the heart's beat; when the nerve is cut the rhythm is suddenly quickened; when we stimulate the nerve the heart remains motionless and flaccid. It is the typical inhibitory nerve; it corresponds to the vaso-dilators.

But what is the nature of the influence on the cardiac muscle exerted through the motor nerve? and how does it differ from the apparently opposite influence exerted through the vagus? The characteristic effects of motor stimulation on the heart are primarily increased rhythm, increased vigour, and increased conduction of the beat through the muscular tissue. "But our knowledge of the action of any nerve is not complete so long as we only know its primary action; the chemical changes which the action of the nerve sets up in the tissue must manifest themselves in a more or less permanent after-effect, which must be recognisable apart from the more temporary primary effect of stimulation. ..... A motor nerve causes a muscular contraction by means of chemical changes in the muscle which are of a destructive nature, so that the after-effect upon the muscle is in the direction of exhaustion; and if the activity of the muscle be long continued this exhaustion becomes very manifest. ..... The subsequent exhaustion is as important a factor as the contraction." Dr. Gaskell shows that the sympathetic nerves of the heart are motor in this sense also—that their continued stimulation leads to exhaustion of its muscle. He describes such a nerve as the *catabolic* nerve of the tissue, the nerve which produces its motor effect by augmenting suddenly the destructive metabolism of the resting muscle, and thus by excessive repeated action exhausts the store of "contractile stuff" within it. What now is the after-effect of vagus stimulation when the primary and temporary effect of stopping the beat is gone by? Dr. Gaskell has shown that as regards all the functions of the muscle "the after-effect is nothing but beneficial." If before the stoppage the heart was beating at its normal rate, the rhythm afterwards is perfectly maintained or even quickened; the contraction power is maintained, or, if it was weak before, increased; the conduction power is restored if from exhaustion it was impaired: in a word, the tissue, if damaged, is repaired and restored as the result of stimulation of the inhibitory fibres. In fact, the result of vagus action is exactly opposite to that of sympathetic action: from the latter we have increased activity followed by exhaustion—symptoms of catabolic action; from the former diminished activity followed by repair of function—symptoms of anabolic action.

There is thus "no greater mystery involved in the conception of a nerve of inhibition than in the conception of a nerve of contraction. In the former case, the cessation of function, the relaxation of tissue, is a symptom of constructive chemical changes going on in the tissue—that is, of anabolism, or assimilation, or trophic action,—in precisely the same way as the activity of function, the contraction of the tissue, is a symptom of destructive changes—that is, of catabolism or dissimilation. ..... The evidence is daily becoming stronger that every tissue is innervated by two sets of nerve fibres of opposite characters, so that I look forward hopefully to the time when the whole nervous system shall be mapped out into two great districts, of which the one is catabolic, of the other anabolic, to the peripheral tissues; two great divisions of the nervous system which are occupied with chemical changes of a synthetical and analytical character respectively, which, therefore, in their action must show the characteristic signs of such opposite chemical characters. ..... The decisive proof that inhibition is a symptom of anabolism in the same way as contraction is a symptom of catabolism will, in all probability, (first) be found in the heart; and perhaps the most important investigation that must be done before this theory of anabolic nerves is based on an absolutely firm footing is to find out what are the electrical and thermal changes in the heart muscle which accompany the stimulation of its inhibitory nerve fibres." Since this was first written a remarkable confirmation of the doctrine has been obtained. When the motor nerve of a quiescent muscle is stimulated, the contracting muscle assumes an electrical condition different from that of the uncontracted—the *negative* variation. Dr. Gaskell finds that when the inhibitory nerve of a piece of quiescent heart muscle is stimulated, the muscle exhibits an electrical change of precisely the opposite character—a decided *positive* variation. He is now at work on the thermal changes accompanying inhibition, and the next news I expect to hear is that, as on stimulating a motor nerve we have a simultaneous evolution of heat, so on stimulating the inhibitory nerve the muscle becomes cooler.

It seems to me that from the considerations advanced in this lecture it is not rash to proceed to a provisional generalisation. It is this: that not the visceral and vascular muscles only, but all the muscles of the body, have their double nerve-supply. The one set of fibres are essentially catabolic; they set up disintegrative changes in the muscle, which are manifested first by thermogenesis, and secondly by contraction. The other set of fibres, whose path is perhaps anatomically different, are essentially anabolic; they set up reconstructive changes in the muscle, which are manifested by inhibition of motion on the one hand, and the absorption of energy on the other. Does the motor fibre also subserve the thermogenic function? Does the same catabolic nerve convey the stimulus which determines motion and the stimulus which determines the evolution of heat? Or are the stimuli only quantitatively, not qualitatively, different? Or again, as I have suggested, is the stimulus the same, but the "stuffs"—contractile and thermogenic—different, one impulse starting two kinds of catabolism, as when the same electric spark simultaneously fires a mixture of two explosives? These questions are as yet unanswered, though I am persuaded that the answer is not far off. Meanwhile we have brought our argument to this, that the heat production in the muscles, the chief furnaces of fever, is probably carried on under the influence of a twofold nervous mechanism: the one part exciting to thermogenesis, accompanied by destructive metabolism; the other staying thermogenesis, and subserving constructive metabolism. The thermogenic tonus is the manifestation of the normal balance between these two parts. In other words, the character of the nervous mechanisms subserving heat loss is paralleled by an analogous twofold character in the nervous mechanism subserving heat production. The relations of this nervous mechanism to the central nervous system and to the thermotaxic mechanism will occupy us in the next lecture.

ABSTRACT OF

Lectures

ON THE

ACTION OF NERVE CENTRES AND MODES OF GROWTH.

Delivered at the Royal College of Surgeons, February, 1887,

BY FRANCIS WARNER, M.D., F.R.C.S.,

HUNTERIAN PROFESSOR OF COMPARATIVE ANATOMY AND PHYSIOLOGY AT THE COLLEGE.

LECTURE III.

THE STUDY OF PATHOLOGY.

IN studying any fact in physiology or pathology, as in studying any scientific problem, we must first describe it in exact physical terms, such as connote what may be observed. In giving descriptions for scientific purposes it is advisable to avoid using metaphysical terms, as also to avoid speaking of pathological states as special entities. Let us then seek to describe pathological states in terms connoting facts capable of observation. The work in hand is divided into two parts—to describe facts, and to seek their explanation in the antecedents and sequents of these facts. The importance of pabulum and its supply in bringing about pathological processes has often been insisted on. I would insist on the equal importance of the forces or stimuli incident to the subject observed as necessary factors in determining the action in it.

There are two great classes of pathological facts—those indicated by movements (conveniently called "kinetic"), and those indicated by acts of growth (conveniently called "trophic"). The results of movements are postures, which may be represented by casts or drawings; the results of growth, normal or abnormal, may be preserved in the

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museum. If the pathological fact to be studied is kinetic, either active or in a state of equilibrium, we analyse it as we analysed movements and postures, and it will then be found that in many cases both healthy and pathological characters often depend upon the antecedents, upon the surroundings, or upon the sequents, rather than upon the intrinsic attributes of the action. Similar relations between normal and abnormal acts of growth will be demonstrated. There is a very prevalent and apparently well-founded opinion among biologists and pathologists that the modes of action termed "reversion" are potent factors in the production of many of the conditions termed "pathological." This idea has principally guided investigation concerning the action of the nerve system and the origin of morbid growths.

I shall not attempt to prove any view, but put forward an hypothesis for the purpose of illustrating what I believe to be the advantages derived from the definite observation and study of movements. The theory may be advanced that "chorea is a condition of the brain analogous to that found in healthy infancy, such brain state occurring at a period of life when the force, generated by nutrition, is greater than in infancy." A reversion has been defined as a repetition of a series of movements or trophic acts, similar to a series previously existent; the criteria indicating similarity have also been defined. The child can never again become an infant, but it may become "infant-like"; its body is heavier and larger than that of the infant; its quantity of nutrition and movement are greater. In chorea the reversion is indicated by a repetition of the ratio of the attributes of the infantile state; the ratio of kinesis to weight is repeated; it is infant-like in the ratio of kinesis to trophic action. The nerve centres are observed at two periods of life—infancy and childhood; comparison is made as to the quantities and time of their action. Observation shows the combinations of movements in the infant and in the choreic child to be similar; there is said to be similarity as to the parts and their order of acting. The quantity of movement depends upon brain nutrition; the total quantity of nutrition may roughly be estimated by the weight of the body—say 15 lb. in the infant and 45 lb. in the child; the nutrition, then, in the child is three times as great as in the infant; if the ratio of kinesis and nutrition were maintained during development there would be three times as much movement in the child as in the infant. I believe this is not usually the case, but as development advances kinetic action is lessened in its ratio to other functions. We say that in health the ratio of kinetic action to nutrition lessens as growth proceeds; if this ratio reverts to that of infancy there will be an amount of movement altogether abnormal. It seems to me that this reversion to the infantile ratio between nutrition and movement is what we observe in chorea. Lessened nutrition tends to produce reversion; in chorea the weight falls, and the condition is not removed till it is restored to near the normal; mitral regurgitation tends to produce irregular supply to the brain.

Coma may be described in terms of lessened movements and reflexes. All movements may be absent, except those of organic life; the head is not turned towards a source of light or sound; the word of command and pressure on the chin are not followed by protrusion of the tongue; there may be subsultus tendinum. The arm held passively free falls into the posture of "the feeble hand."[1] [Further illustration was given by a comparative study of hemiplegia and hemispasm.] The nerve-muscular area is the same in each. The decrease of quantity of motion in hemiplegia is proportional to its increase in hemispasm, in the small and large parts respectively. Fatigue and exhaustion of the brain-muscular power on both sides is common; if, however, one side of the body or one limb be powerless, there being no evidence of organic disease, then the state is often called "hysteria." It appears, then, that a bilateral diminution of nerve force of short duration is less pathological than a one-sided weakness. In observing patients as to their movements and postures, note the action of small muscles—e.g., the interossei, causing lateral movements of fingers, as distinguished from flexor movements produced by larger muscles.

[Asymmetry of action was then dwelt upon; it was suggested that lateral curvature of the spine often commences thus. A *nervous child* was described.] Let the child stand up, and observe the conditions of growth, make of skin, the form of features; he is often too tall and too thin, the face being less emaciated than the body. Let the hands be held out; the left upper extremity is usually at a lower level; "the nervous hand posture" is probably seen on either side, perhaps more marked on the left. There may be finger twitching, with flexor or lateral movements; the spine is arched too forward in the lumbar region, often with slight lateral curvature. The face as a whole is usually too immobile, but there may be twitchings of face, eyes, tongue, &c.; the head is often flexed with inclination and rotation to the same side. The teeth are often ground.[2]

It has been demonstrated that ratios of growth have much to do with the character and results of acts of growth; we are thus led to seek examples where the pathological character of growth is due to the ratios of action. We saw that many forces can regulate proportional growth; they will be seen in some cases as the antecedents of pathological processes. Hypertrophy or over-growth may be due to an extra supply of blood, as seen in Hunter's specimen of a spur transplanted into the comb of a cock. Growth may be lessened by pressure, as in a Chinese foot, and in atrophy resulting from pressure. Hypertrophy may result from pressure, as in the large heart accompanying arterio-capillary fibrosis. The leaf-stalk of Solanum jasaminoides becomes thickened by pressure when it has twined round a support. Nerve force may regulate the quantity of growth. In anterior poliomyelitis the muscles waste; occasionally in hemiplegia the paralysed limb remains shorter in a child. It has been said atrophy follows disuse of parts, and that hypertrophy results when they are much used. [It was argued that muscles often become atrophied when they receive too little stimulus of nerve force, and that when strongly stimulated by incident nerve currents their growth is increased thereby; cases and examples were given in support of this view.] It is necessary to inquire in this place, what is meant by "the use and disuse of parts." The phrase is usually applied to voluntary action, which is followed by increased growth; lessened growth follows from lessened stimulation by the nerve centres in disuse. In anterior poliomyelitis the muscles waste because not stimulated; in hysterical palsy they do not waste because nerve-currents do reach them, though not in quantity sufficient for motion. [Certain crustaceans from the mammoth cave were shown whose eyes had been lost from their long residence in darkness; other members of the species, living in light, had perfect eyes.] What is called voluntary action appears to produce more growth than chorea, athetosis, &c.; it is probable that in the former cases the stimulation is greater.

We may next proceed to demonstrate that many unusual or pathological cases of growth may be due to the ratios or quantities of growth. In the signs of old age we see altered proportional growth; those first mentioned are almost normal to the time of life; the latter are clearly pathological, as tending to destroy the life of the individual. At the approach of old age we see diminished growth; atrophy of the hair of the scalp, the skin, muscles, and the heart, while fat may either be absorbed or may accumulate about the abdomen, &c. At the same time increased quantities of growth may occur in the prostate, and in the hair bulbs of the chin of the female; while in some cases overgrowth is further seen in the development of epithelioma, sarcoma, and cancer. [Examples were then given showing the results of varying ratios in the growth of different tissues.

Passing on to consider the causes of curvature in rickety bones, it was suggested that some are produced by mechanical strain, while others are due to unequal bilateral growth of the shafts.] Curves which are only exaggerations of the normal curves, and which are symmetrical, are probably due to unequal bilateral growth; such are seen in children who have never walked and whose muscles are very feeble. Further, in such cases the skull is often defective in form, being a bony growth, but slightly acted on by muscles at the part most misshapen. [It was shown that Glisson put forward very similar views, and facts concerning the growth of stems of plants were used as illustrations of the hypothesis. Defects in proportional growth are often seen in teratological specimens; various specimens were shown in support of this statement. In some cases there was a history of inheritance of the deformity. It was argued that the inheritance was rather that of a stimulus to nutrition than of the pabulum; while in the case of an hypertrophied kidney when its fellow had been destroyed by calculus, it

[1] See Physical Expression, International Science Series, chap. ix.

[2] See Analysis of Fifty-eight Cases, Brit. Med. Journal, Dec. 1879.

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was an example of altered proportion of growth from over-supply of blood. Cases of coincident deformities were given, and it was shown that often the brain is likewise defective.]

Analogies may be made as to the distribution or seat of the parts affected by a pathological process. Many skin diseases are maculated, affecting small loci of tissue symmetrically or asymmetrically distributed. Among young infants, in the spontaneous movement of many small parts, we have evidence that separate scattered loci of brain tissue are in action. Some processes are considered pathological when asymmetrical, but not so when symmetrically distributed. Sunburn is normal; freckles are less so; one-sided pigmentation is abnormal. *Time* is an attribute of acts of growths that may give them an abnormal character—as late or irregular dentition, the development of pubic hair before adolescence, premature ossification of the skull, &c. These various considerations lead us to study the forces which control the time, quantity, and kind of growth—e.g., the effects of light, pressure, or mechanical irritation, &c.

[In conclusion, it was shown that motor actions may be described in terms of time and quantity of movements, and growth in terms of time, quantity, and kind of action in the component parts, and evidence was advanced that the attributes which give special characters may be controlled by physical forces.]

Inaugural Address

DELIVERED BEFORE THE

OBSTETRICAL SOCIETY OF LONDON,

BY JOHN WILLIAMS, M.D., F.R.C.P.,

PRESIDENT OF THE SOCIETY.

GENTLEMEN,—I thank you for the honour you have done me in electing me to this chair—a chair which has been occupied by the greatest and best physicians practising obstetric medicine in this country—an honour the greatest which the Society can confer on any one of its members. In accepting this high position, I feel I undertake a great trust; for the work of this Society has had, has now, and should always have, a great and beneficial influence upon the progress of the science and the practice of the art for the cultivation of which the Society mainly exists. I am, however, encouraged by my knowledge of the character of the officers associated with me in carrying on the work of the Society, as well as by my knowledge of the Fellows of the Society, alike those who are regular attendants at its meetings, and those who contribute to its Transactions and take part in its discussions. I feel sure that I shall not fail of the help of all.

My first duty on taking this chair is to address you—to deliver an inaugural address, and I at once confess at the very outset that I have been perplexed and in difficulty. It would have been no easy task to have written a contribution of a scientific character for discussion by the Society. Whenever I have ventured upon such an undertaking, it has been with diffidence, and misgiving of the thoroughness of my clinical and pathological observations, as well as of my knowledge of the work of those who had preceded me; but on those occasions I have been buoyed up by the feeling that what I was about to bring before the Society was brought there to be tested, put to the proof, subjected to your criticism, which I have always found to be not only gentle, but generous also. To night, however, the circumcumstances are changed. I have to speak *ex cathedrâ*, and this fact naturally does not give me greater freedom, but rather increases my difficulties, for I feel that my utterances cannot be corrected by your better wisdom. After the many able and learned addresses which have been delivered from this chair in the past, addresses which embrace almost every topic of temporary or permanent interest in connexion with obstetric practice, it would have been difficult for me to find a new theme for my discourse—unless, indeed, I had chosen to discuss a purely scientific subject; and it would have been equally difficult for me to tell you anything new about an old one. On occasions like the present, however, it cannot be amiss to take observations and determine the place to which we have steered or drifted; and I would look back, not at the history of this Society and its work only, but at the history and progress of obstetric science and practice, and I would do this not merely with a view to recount our triumphs, to survey our acquisitions, and lose ourselves in admiration of our brilliant achievements, but—which may perhaps prove more profitable—to recall to mind our defeats and failures, inquire into the causes of our disasters, and hold up to the light our errors in the past, so that they may prove of some use at least as beacons to point out the places where we departed from the path of truth, and to warn us against the will-o'-the-wisps which have been but too often mistaken for the light of science. I would look around with a view to examine the position we at present occupy, and I would look forward with the object of planning the best course for our progress in the future. As it would be impossible for me in the time at my disposal to discuss these subjects even in the briefest manner, I shall confine myself to a few observations which appear to me to be not uncalled for at the present time.

Obstetric medicine is divided into two branches—midwifery and the diseases of women. Great activity has been shown in both branches during the last thirty years, and great progress has been made. The estimate which is generally made of this progress is, however, of a one-sided character. The progress of midwifery has rarely been referred to; it has been overlooked, though not entirely; and yet to an impartial judge there can be no doubt about its extent and character. Indeed, to my mind, and to the minds of those who regard the saving of life as the crown of our work, the progress of our knowledge in midwifery has been far greater than in the diseases of women. Our knowledge of the use and application of the forceps, of the mechanism of labour in distorted pelves, and of pelvic measurement, and the means at our command for abolishing craniotomy, have saved many lives. And what shall I say of the introduction of antiseptics into the practice of midwifery? Forty years ago Semelweiss issued a few rules to be observed by the students attending women in labour in the Vienna Hospital. This proved to be the beginning of the greatest and most beneficent practice introduced into our department of medicine in this century. The work begun by Semelweiss has been crowned by the researches of Pasteur and Lister, and to-day we are in possession of the means to prevent the greatest scourge that afflicts lying-in women. When we compare the number of women who pass through the danger of childbed with that of the fit subjects of obstetric surgery, the latter sinks almost into insignificance, and the magnitude of the means placed in our hands for the prevention of puerperal fever looms high above that of all other possessions of the obstetric physician. I fear that this has been too little recognised by all who attend midwifery, for the strict use of antiseptics confers an infinitude of blessings upon the physician and upon his patients.

If we cast a glance at the history of that branch of obstetric medicine which deals with the diseases of women, the fact which strikes us first of all is the marked change which has come over it during the last thirty years—the surgical character which has been given to it. I am not going to recount to you the triumphs of abdominal and pelvic surgery. It has been done often, and indeed almost periodically, by those more fitted for the work than I. Their magnitude and their beneficent character are evident to us all. But all the pelvic and uterine surgery of the past cannot be described as triumphs. Much of it has better claims upon the term "disaster." There is hardly a malady ranged among the diseases of women, from the most trifling to the most severe, from vaginismus to uterine cancer, for which some surgical proceeding has not been suggested. This extraordinary state of things prevails nowhere else, and how is it to be accounted for? Is it to be ascribed to the failure of medical science, or to the slowness with which medical treatment accomplishes its objects? Is it due to impatience and hurry on the part of the practitioner? Does it arise from a plethora of surgical genius in our department? Or may not other causes play an important part in bringing about the present phase of the practice of the diseases of women? As with the diseases of other parts of the body, many of those which affect the female pelvic organs are, we readily confess, not amenable to treatment of a medical kind, and in some of these the art of the surgeon intervenes rightly and beneficently. There are others, again, in which the art of the surgeon has been

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practised in vain or with evil consequences, but which have been subdued by the skill of the physician. There are others, again, which are cured neither by the skill of the physician nor by the dexterity of the surgeon, and this fact we should not have the obliviousness to forget nor the recklessness to overlook in practice. Hitherto surgery has proved of the greatest use in the removal of excrescences and the repair of injuries. When it has ventured beyond this, has it not been productive of more evil than good?

We are next struck by the number of operations which have been devised, suggested, and practised, by the extraordinary divergence of opinion held by authorities with regard to their value, and by the number of them which have been practised for a time and then have been entirely or almost entirely discarded. This is a state of things which obtains in no other department of medicine or in the surgery of any other part of the body. The practitioners of obstetric medicine are divided and subdivided, and the various groups which they form are separated by impassable gulfs; they pursue diverging lines and continually increase the distances separating them from one another; and there is no chance of their ever meeting except by retracing their steps. What are the causes of this deplorable state of obstetric practice? Have the many operations which have been proposed and practised been based upon carefully ascertained data—data acquired by honest scientific labour? Or have they been based upon hypotheses—the offspring of a too active imagination? Or have those who have been opposed to the present surgical mode failed to appreciate ascertained scientific truths? It would not be possible for me under any circumstances, perhaps, to answer these questions fully, and now I can only refer to one or two facts which have a bearing upon the answer. The fact that many operations which have been proposed and practised have proved useless or injurious and have been discarded, indicates that such operations were proposed on insufficient and untenable grounds. This will appear beyond doubt if I remind you of the history of vaginismus and dysmenorrhœa. The operations proposed for the cure of the former have entirely failed! And how many a hypothesis has been started—with unfortunately its usual appendage, an operation—with regard to the etiology of dysmenorrhœa, and raised to the rank of a theory without even the shadow of a foundation! What disasters have they led to, and how barren of good results have they proved! There can be no objection to hypotheses as such—they are essential to scientific research; but they should be made to be tested and not acted upon, to discover truth and not to be taken for it. It appears to me that the present surgical aspect of obstetric medicine arises chiefly from the promulgation of flashy hypotheses and their acceptance as established truths. The mischief arising from the too ready acceptance of surmises cannot be exaggerated, and I will give you a further illustration of it from the other branch of obstetric medicine. About a quarter of a century ago Dr. Braxton Hicks enunciated the scientific method of treating placenta prævia. For nearly five-and-twenty years this was overlaid by a mass of teaching based upon false hypotheses and exceptional occurrences, and has only recently been rescued from beneath the mass of error and reintroduced to us through the exertions of a German explorer. Hypotheses and their ready acceptance have been the bane of obstetric science during recent years. We should prove all things, and especially hypotheses burdened with operations.

Although what I have mentioned is probably the chief cause of the surgical aspect of practice in the diseases of women, yet there are other causes for it, and I would mention one of them—namely, the wonder-inspiring character of many of the operations practised for pelvic diseases. This is the side of them which appeals to the public, and unfortunately also to a large number of the profession. Like the most dangerous feats of the acrobat, they appeal irresistibly to a quality of mind which is far from uncommon.

If we look around us and glance at the present, we find untiring activity everywhere—sometimes well directed, sometimes not. In France excellent work is being done; Germany sheds abroad the facts gathered in her large lying-in charities and her laboratories; and the Transactions of this Society and those of its sister societies in Scotland and Ireland attest the amount and excellence of the clinical and pathological work done in this country. To America we owe much that is excellent in midwifery and in the treatment of disease. In that great country much of the energy of the profession is, however, devoted to the impossible—to setting the coping-stone before the foundations have been laid. At the same time, we rejoice that many of our brethren there are devoting themselves to clinical and pathological work. But there is one phase of the work done in their obstetrical societies which I cannot pass by without an expression of regret, and that is the practice of publishing imperfect reports of operations before the results, immediate and remote, of the operations are known. I can conceive no good to result from publishing operations on a Thursday which were performed on the previous Monday. Indeed, I know of no practice so likely to be productive of unalloyed mischief. It is a practice which I trust will never be introduced into our Society. If it is intended to benefit science by it, the intention must fail; and if it be for the purpose of mere advertising, I have no words bitter enough to express my contempt for it. Were this Society a mere advertising medium, I would neither hold office in it nor be a member of it for an hour. It is, however, an excellent publishing medium, and it is right that it should be such. We do not light a candle and place it under a bushel; nor do we bring new facts and new discoveries into this room to hide them, but for the enlightenment of one another and of the profession. My faith in this Society and my hope for its future are not based upon its excellence as an advertising medium, but upon the number of the scientific workers among its members. These are increasing, as is attested by the number of papers in the hands of the secretaries and the pressure on our time and space. And what is the work before us in the future? Is it the cure of disease and the relief of suffering? Yes. Is it the discovery of new drugs and their effects? Yes. Is it the improvement of obstetric surgery? Yes; all this and a great deal more. The present surgical aspect of the treatment of diseases of women is surely destined to pass away; it cannot be permanent. Were it otherwise, we should have to confess that medical science has proved a failure. Mutilation is not the highest goal to which medical and surgical skill can reach. A time will come when obstetric science will assume a preventive character. Although we cannot hope to abolish disease, yet we may be able to discover the means of preventing it, and perhaps of curing it without the aid of surgical art in its present mutilating character. We are already possessed of the means of preventing a large number of the chronic diseases and sufferings of women in the application of antiseptics to midwifery. This gives us the control of a large class of the inflammatory affections of the pelvis. Forty years ago the idea of preventing or abolishing puerperal fever and puerperal inflammations would have been scouted as Utopian, and who knows but that forty years hence some president of the Obstetrical Society may not be able to announce to his audience that obstetricians of that day possessed the means of preventing the growths of ovarian tumours or of fibroids or of cancer?

The progress of our science is not to be limited. It is not to be made, however, by happy guesses, but by steady work, and in no long time by co-ordinate work. Facts of all kinds, great and small, are to be accumulated. The present surgical activity would, if rightly employed, prove of service in bringing about the time I anticipate, and its own extinction, by making known facts which cannot well be otherwise discovered. No operation should be performed for cure simply, but also for investigation. No operation should be performed without a reasonable chance of cure or relief. Many of the operations now performed can be reasonably regarded as experiments only. If they can be justified at all, they can only be justified when done under the strict conditions of an experiment. Unfortunately, however, we know but little of the real results of operations of doubtful utility. But the help of surgery of a debatable character is not the only or chief means of sound progress. This has always been, and will be in the future, the result of patient watching by the bedside and careful observation of disease extending over years, and by continuous work in the laboratory. It will also be the work of the profession as a whole. It cannot be accomplished by the hospital and consulting physician and surgeon alone; it requires the help of the family doctor, of the town doctor, and of the country doctor. Each one has his work to do. As a rule, passing phases of disease only come under the observation of the hospital physician, while the whole course of it passes under the eye of the family doctor. Many of the diseases peculiar to women are of a very chronic character, and, as in other branches of medicine, their source is to be sought in antecedents long passed which come under the ken of the family practitioner only. But the country doctor has his part to do in this work. It is only by

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research everywhere, in town, in country, in patients of different occupations and different constitutions, that the necessary facts can be obtained, and the country doctor is in this respect placed at an advantage over his town brother, although in other respects he may be placed at a disadvantage. This Society should gather facts from all quarters and from all sorts of practitioners—all kinds of facts bearing on health and disease. I have pointed out to you fields where each one of you may by patient work attain distinction and become contributors towards the progress of the science which we cultivate. To this work I invite you, and while I occupy this chair I shall welcome with equal partiality every fact—the smallest and the greatest—which is calculated to contribute towards the object which we have in view.

PYREXIA AND HYPERPYREXIA.

BY T. J. MACLAGAN, M.D., M.R.C.P.,
PHYSICIAN IN ORDINARY TO THEIR ROYAL HIGHNESSES PRINCE AND PRINCESS CHRISTIAN OF SCHLESWIG HOLSTEIN.

(*Continued from page 519.*)

WITH distinct evidence that paralysis of certain parts of the body may occur without any organic lesion to account for it, there is no ground for claiming for the thermic centre immunity from such disturbance, and there is much evidence to show that it enjoys no such immunity. With that evidence we have now to deal. We shall consider it as it presents itself in hysterical pyrexia, in the hyperpyrexia of heat apoplexy, and in that of acute rheumatism.

Hysterical pyrexia and hyperpyrexia.—The name here expresses all that we really know about this condition. Cases are on record in which hysterical symptoms have been accompanied by a rise of temperature for which no explanation could be found. With distinct evidence that hysteria may cause paralysis of a limb, of the vocal cords, and of the bladder, we need have no difficulty in admitting the possibility of its causing impairment and even paralysis of the thermic centre. The essential symptom of such a condition would be rise of temperature.

Heat apoplexy results from exposure to heat. In the fully developed disease there is complete insensibility with a very high temperature; but the onset of this alarming condition is generally preceded for some days by headache, giddiness, restlessness, or other evidence of disturbance of the nervous system. That continued exposure to a high temperature is likely, in a native of a temperate climate unaccustomed to such exposure, to cause disturbance of the thermal apparatus there can be no doubt; and a brief consideration of the mode in which this disturbance is likely to be brought about makes it apparent that such exposure, if sufficiently great or long continued, may cause paralysis of the heat-inhibiting centre, and consequent great rise of temperature. Heat is an excretory product requiring to be eliminated; its main channel of elimination is the skin; a high temperature of the atmosphere necessarily interferes with such elimination, because in such an atmosphere heat cannot readily be thrown off. Heat elimination being thus checked, and heat production continuing as usual, heat must accumulate in the system, unless some agency steps in either to increase the former or diminish the latter. Under ordinary circumstances nature provides the remedy; for the same atmosphere which makes heat elimination difficult causes also increased activity of the skin, and so to some extent meets the difficulty which itself creates; while the general influence of residence in a hot climate leads to habits of life which diminish heat production: thus the risk of heat accumulation is diminished at both ends. But circumstances every now and then arise which break through these habits. Such circumstances are those which call for exposure and muscular effort during the heat of the day, as in the case of soldiers on the march. Tissue metabolism and heat production are stimulated, while the body is exposed to a temperature which makes impossible a corresponding increase in heat elimination. Under such circumstances, the only way in which the danger attendant on undue accumulation of heat can be warded off is by restraining heat production, and this end can be attained only by increased activity of the heat-inhibiting centre. Heat is the natural stimulus of that centre, and accumulation of heat in the system naturally excites it to increased effort. But the call may be beyond its powers to meet: it continues to make the effort and struggles to keep the temperature down, till over-stimulation leads to exhaustion; its efforts become feebler, and ultimately, paralysed by fatigue, it ceases to act. Thus is removed the last safeguard; heat rapidly accumulates in the system, and heat apoplexy, with its attendant hyperpyrexia, results. What takes place in the thermic centre under such circumstances is the exact analogue of what takes place in the respiratory centre, when, under allied circumstances, carbonic acid accumulates in the blood. The first effect of increase of carbonic acid in the blood is to stimulate the respiratory centre and cause increased frequency of respiration. If the gas goes on accumulating, that centre begins to show evidence of fatigue, and the respirations become slower and more laboured, the interval between them becomes wider, and finally they cease altogether, the heart continuing to beat for some time longer. The cause of their cessation is paralysis of the respiratory centre, induced by accumulation of carbonic acid, the natural stimulus of that centre. In the same way, accumulation of heat in the system causes first stimulation and ultimately paralysis of the thermic centre; and thus we explain the great rise of temperature in heat apoplexy. Post-mortem examination of fatal cases shows only a tendency to rapid decomposition, a fluid condition of the blood, and more or less congestion of the lungs.

Rheumatic hyperpyrexia.—Every now and then cases of acute rheumatism occur which, after presenting the symptoms of the malady in their ordinary form, suddenly develop alarming nervous symptoms, with a temperature rapidly rising to 108°, 109°, 110°, and even higher, and a tendency to death by coma. How is this great rise of temperature brought about? 1. It might be merely an exaggeration of the ordinary pyrexia of the disease. 2. It might result from a direct paralysing action of the rheumatic poison on the thermic centre. 3. It might be produced in the same way as heat apoplexy, by over-stimulation of the inhibitory centre, resulting in paralysis of heat inhibition, and consequent rapid rise of temperature.

A very little consideration suffices to show that the first hypothesis is not adequate. Were the hyperpyrexia of acute rheumatism merely an exaggeration of the ordinary pyrexia of the disease, cases in which it occurs would be characterised by inordinate severity of the rheumatic symptoms. But such is not the case. In cases which become hyperpyretic the disease up to the onset of the hyperpyrexia presents no unusual features. The temperature, the joint pains, the acid sweats, the heart complications, are all such as are met with daily in ordinary rheumatic attacks; and there is nothing in their symptoms to lead the physician to anticipate so alarming a complication.

The hypothesis that it may result from paralysis of the thermic centre consequent on the direct toxic action on that centre of the rheumatic poison, or some product of the rheumatic process, is one regarding which no more can be said than that it is possible. Against it may be adduced the argument that were such the mode of production of rheumatic hyperpyrexia, that condition would arise more frequently than it does. The rheumatic poison and the products of the rheumatic process operate in every case, but hyperpyrexia is of rare occurrence.

The third hypothesis is one for which more may be said, for between heat apoplexy and rheumatic hyperpyrexia there are many points of analogy. The symptoms and clinical features of both are very much alike, and the description of the post-mortem appearances observed in the one serves equally to describe those noted in the other. In each the tendency is to death by coma. Treatment, too, is the same in both. The main difference between them is in the circumstances which lead up to their occurrence. With so many points of resemblance between them we cannot but look for a common mode of production, some common pathological bond. The question for consideration is the possibility of the rheumatic process, as it exists in acute rheumatism, producing the same result as we find follow exposure to great heat. This latter acts by over-stimulating, fatiguing, and finally paralysing the thermic inhibitory centre. The question before us, therefore, narrows itself into a consideration of the point as to whether or not over-stimulation and consequent fatigue of the heat-inhibiting centre is a possible result of the process of acute rheumatism. Wide as is the difference between that process and great heat, and great as seems the improbability of two such different agencies

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producing the same effect on the system, a careful consideration of the facts nevertheless leads to the conclusion that such result is not impossible. Certain it is that if overstimulation of the thermic inhibitory centre could be a result of any fever, rheumatic fever is the one in which it would most likely manifest itself, and that for the following reasons:—

In all fevers the rise of temperature results from increased tissue metamorphosis, as will be presently explained. This is the case in rheumatic fever, as it is in typhus, typhoid, and other fevers. But the circumstances under which that increased metabolism takes place in rheumatic fever are altogether peculiar to itself, and the peculiarity of these circumstances it is which leads up to the phenomenon which we are now considering—the greater tendency to the occurrence of hyperpyretic complication. Nearly every form of fever has for its essential and characteristic feature the occurrence of some local lesion—of some affection, generally inflammatory, of one particular organ or tissue of the body. The characteristic lesion of rheumatic fever is inflammation of the textures of the motor apparatus of the body. Part of this motor apparatus—viz., the muscles—is the chief seat of heat production. The more active the metabolism of the muscles, the greater the amount of potential energy produced. This potential energy may take the form of work or heat. As a matter of fact, it generally assumes the form of work, for it is when muscles are actively contracting that this potential energy is chiefly formed. But if the same metabolic changes which take place in a contracting muscle were to take place in that muscle when quiescent, the potential energy would take the form, not of work, but of heat. This is what occurs in acute rheumatism. The rheumatic poison causes a general febrile disturbance, accompanied by inflammation of the fibrous textures of the large joints. Inflammation of these textures is of course accompanied by increased flow of blood to, and increased metamorphosis in, them. Apart from the muscles with which they are connected, the fibrous tendons and ligaments have no function, no *raison d'être*. So intimately are the muscles and the textures involved in acute rheumatism connected in their function, in their innervation, in their vaso-motor and blood-supply, and in all that concerns their vital activity, that inflammation of the latter could not fail to produce in the muscles some degree of the same increased tissue change, the same abnormal metabolism, which is taking place in the fibrous textures as the result of the action of the rheumatic poison. This is not mere hypothesis, for we have distinct tangible evidence that there does occur in acute rheumatism such increased metabolism of muscle as is usually associated with active exercise. This evidence is the persistent presence in the system during the course of that disease of an excess of lactic acid. That acid is a metabolic product of muscle; it is formed in increased quantity during muscular exercise; and its constant presence in excess in the course of acute rheumatism is distinct and clear evidence that that disease has for one of its phenomena increased metabolism of muscle. It is the only form of fever in which such evidence exists. Muscle being the chief seat of the formation of heat, and the metabolism of muscle being the chief source of heat, it follows that the disease in which such metabolism is most active is also that in which most heat will be formed. That disease is acute rheumatism. Theoretically, there is thus reason to believe that heat production is more active in acute rheumatism than in any other disease; and there is also practical evidence that such is the case. The natural result of increased formation of heat is its increased elimination. The skin is the channel by which heat is eliminated. We accordingly find that profuse perspiration, the evidence of excessive action of the skin, forms one of the characteristic features of rheumatic fever. It is the only form of fever which is so characterised. Excessive production is thus met by excessive elimination of heat, and no undue rise of temperature occurs.

But another result of such increased activity of the heat-producing process must be stimulation of heat inhibition. The function of the thermic centre is to restrain excessive formation of heat; that function is therefore likely to be called into more active operation in acute rheumatism than in any other disease. It might happen, either from want of vigour or from unusual susceptibility of that centre, aided possibly by more or less failure in the heat-eliminating action of the skin, that heat production was in excess of heat elimination. Under such circumstances heat would accumulate in the system. The thermic centre would be first stimulated to excessive effort, then fatigued, and finally paralysed, as in heat apoplexy, and hyperpyrexia would result. That is a sequence of events which might occur in any form of fever or in any ailment, accompanied by increased activity of the heat-producing process. The more active that process the more likely is it to happen. Acute rheumatism, being the ailment in which heat is most abundantly and rapidly formed, is also the one in which inhibition is most likely to be over-matched. Hyperpyrexia is therefore more common in it than in any other form of fever.

It is evident that the neurotic theory of fever rests on a very adequate basis, and affords a reasonable explanation of the rise of temperature noted in many morbid conditions; and that it specially affords of the occurrence of the very high temperature of hyperpyrexia an explanation which, if not the only one possible, is at least more satisfactory than that offered by any other theory. But, adequate as this theory is—nay, necessary as it is—to the explanation of the rise of temperature noted in the ailments to which reference has hitherto been made, we must be careful not to let our advocacy of it carry us too far, or to try to explain by it the rise of temperature of ailments whose pyrexia can be better and more satisfactorily explained on the combustion theory. As already said, the neurotic and the combustion theories are not antagonistic. Each has its own special sphere of application. The most important and typical examples of neurotic pyrexia have already been instanced.

The maladies to the explanation of whose pyrexia the combustion theory applies are more numerous and important. To consider them all would be impossible here, and would not lead to a clearer understanding than the plan which we shall adopt of illustrating this theory by important and typical examples. For this purpose we shall take the specific fevers. They are chosen—(1) because they are the most important group of diseases to which man is liable; (2) because they are the maladies in which the evidence of increased tissue metabolism is most marked; (3) because the febrile process can be more conveniently studied in them than in any other maladies; and (4) because we know more about the nature of the cause (the specific poison) which gives rise to them than we do about the cause of most other febrile ailments, and can therefore more readily investigate its probable mode of action in the production of febrile disturbance.

(To be continued.)

NEW PELVIC TOURNIQUET FOR AMPUTATION AT THE HIP-JOINT AND OTHER OPERATIONS.

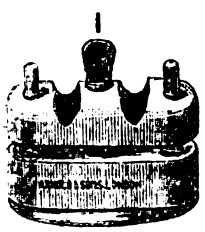
BY JOHN WARD COUSINS, M.D. LOND., F.R.C.S.,
SENIOR SURGEON TO THE ROYAL PORTSMOUTH HOSPITAL, AND TO THE PORTSMOUTH AND SOUTH HANTS EYE AND EAR INFIRMARY.

THE recognition of the operation of amputation at the hip-joint as a surgical proceeding occurred about the end of the last century, and in the pre-anæsthetic period the effectual restraining of hæmorrhage was always a matter of difficulty and danger. During the last few years the operation has been widely practised, and various methods have been employed by surgeons for controlling the circulation through the limb. 1. Digital compression of the femoral and external iliac arteries. When the flap operation is performed, this manipulation must be entrusted to a steady assistant who can undertake to follow the knife and to grasp the end of the vessel as soon as it is divided. An operation rendered tedious from any cause is sure, however, to excite painful weariness of the hand, and sometimes even severe cramp from prolonged muscular tension. Except for operations upon children, digital compression ought now to be regarded only as an auxiliary measure. 2. External compression by means of a rigid tourniquet. For this purpose Lister's aortic compressor has been very generally employed. It consists of a bar of steel shaped like a horseshoe, having at one extremity the spinal pad, and at the other a rod working through a female screw and carrying the abdominal pad. The application of this method is certainly not free from risk. The pressure of the instrument over the centre of the

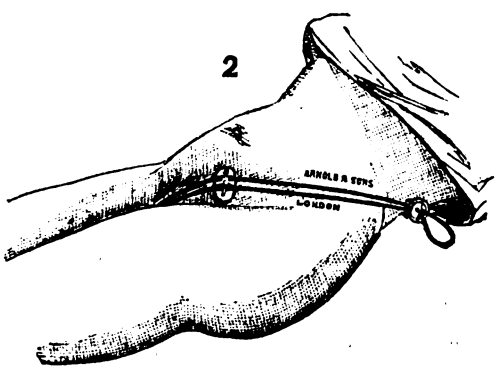
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abdomen interferes with the movements of respiration; at the same time, the occlusion of the vessel by the force of an unyielding screw involves the bruising of internal structures and the dangerous compression of important organs. 3. Internal compression of the iliac artery through the rectum. The rectal lever, recently introduced by Mr. W. Davy, is a very powerful instrument for controlling the circulation, and in the hands of the inventor it has been used with marked success; still, it is my opinion that it can never receive universal adoption. The finger cannot guide the rigid extremity of the instrument, and the greatest care and dexterity are insufficient to protect the pelvic structures from the dangers of contusion and injury. 4. Elastic compression of the iliac artery over the pelvic brim, and simultaneous pressure upon the posterior vessels at the sacro-sciatic notch. This excellent method is the invention of Mr. Jordan Lloyd of Birmingham. It can be effectually carried out by one assistant, armed with a calico roller, a piece of indiarubber bandage, and a safety-pin. From my own experience, I regard this form of elastic compression as far preferable to all the other devices which have been hitherto employed for the purpose of preventing hæmorrhage during hip operations; and I venture to express the opinion that it is destined to obtain general adoption in the future.

The pelvic tourniquet represented in the engraving has been designed for the purpose of facilitating the practice of elastic compression. It is a modification of the elastic cord tourniquet introduced by me some years since. It does not require the hands of an assistant to keep it in a state of tension, and the pressure of the cords over the compressor can be regulated with great exactness. The instrument consists of three parts: 1. A metallic clamp by which the cord is instantly tightened and loosened. 2. An endless elastic cord with a mark at the spot where the clamp is to be attached to it. 3. An iliac compressor consisting of a well-padded wooden block, with grooves on its upper surface for holding in position the elastic cords. (See Fig. 1.) The compressor can be elevated and depressed by the



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action of a central screw and two powerful recoil springs. (See Fig. 2.)

The method of application is very simple. After fixing the clamp on the cord, and emptying the limb of blood by elevation and friction, the patient must be turned over to the opposite side, so that the cord may be accurately adjusted, and the abdominal organs displaced out of the way of the compressor. The centre of the elastic ring is now inserted between the thighs—one loop is passed behind the tuberosity of the ischium, while the other loop, carrying the clamp, is placed in the grooves on the compressor. Both loops are now drawn upwards and outwards, and when they are sufficiently tightened the clamp is shut above the crest of the ilium. The external iliac artery can now be completely occluded by releasing the screw, at the same time the posterior vessels are controlled by the cords at the sacro-sciatic notch. Sometimes it will be found convenient to place the compressor in position under the cords after the closure of the clamp. The pelvic tourniquet is neatly made for me by Messrs. Arnold and Sons of West Smithfield.

Southsea.

THE INFLUENCE OF ALTITUDE ON PHTHISIS.

BY NATHANIEL ALCOCK, L.R.C.S.I.,
SURGEON-MAJOR, MEDICAL STAFF.

IN the third volume of Professor Hirsch's great work, "Handbook of Geographical and Historical Pathology," it is shown that while the influence of latitude upon phthisis is scarcely appreciable, that of altitude is most striking. The explanations hitherto offered of the action of altitude upon phthisis amount to three: greater expansion of the chest from aerial rarefaction; absence of bacterial organisms from the air; and general tonic effect.[1] Were the first of these effective, some improvement would be expected to follow the use of gymnastics at lower levels; of the second it may be said that every consumptive carries his own microbes with him; and the third is too vague to need discussion. It may therefore be assumed that no satisfactory explanation has as yet been suggested. The specific organism of tubercle has an established identity; consequently, the disease must be ranked among the special infections, and its aggravation or arrest must depend upon the fertility or sterility of the microbe to which it is due.

Pasteur, in his splendid researches on the poison of splenic fever, has shown that "splenic fever can never be taken by fowls; in vain are they inoculated with a considerable quantity of splenic blood." "Now, the temperature of birds being between 106° and 108°, may it not be," said Pasteur, "that the fowls are protected from the disease because their blood is too warm? A hen was taken, and, after inoculating it with splenic fever blood, it was cooled down to 100°. At the end of twenty-four hours the hen was dead. Again, a hen was inoculated, subjected like the first to cooling, and when the fever was at its height it was wrapped in cotton-wool and placed in an oven at 95°. In a few hours it was fully restored to health. Hens killed after having been thus saved no longer showed the slightest trace of splenic organisms." Thus it is proved that the microbe of one of the most virulent diseases reaches its condition of highest life and greatest reproduction in blood at a temperature of about 100°, but that in the same blood at 107° it ceases to exist. Presumably, then, if the subjects of some forms of bacterial infection could survive a proportionate elevation of temperature, they too would overcome the poison.

The question here arises, Are there any conditions in which the blood of a living man can be made to assume the molecular action equivalent to a temperature of 105° while the animal heat remains at 98°? Clearly such is quite possible by diminishing atmospheric pressure while the temperature remains fixed. We know that it would be quite impossible to boil water at the sea level with 199° of heat, but that if the water be removed to St. Gothard, 6808 ft. high, boiling will at once take place. Professor Thomson, in his opening address at the British Association, said: "It is scarcely possible to help anticipating in idea the arrival at a complete theory of matter, in which all its properties will be seen to be merely attributes of motion." It is already accepted that the only difference between the liquid and gaseous states is that of molecular motion. Consequently, if 199° of heat can make water boil at St. Gothard, it is apparent that this temperature can there produce an amount of molecular motion which not less than 212° could excite at the sea level. Further, as 199° is to 212° so is 98·4° to 104·8°; therefore the rate of molecular motion to which a temperature of 98·4° would give rise at St. Gothard could only be attained at the sea level as the result of a temperature of 104·8°.

Professor Clifford has shown that "the energy of the single particles is always proportional to the temperature of the gas," provided the pressure remains unaltered. Consequently, since the condition of every organism is but the aggregate of its ultimate atoms, if a man whose temperature at the sea level is 98·4° be removed to St. Gothard, it is evident that both the gaseous and liquid molecules in his blood must attain a rate of motion corresponding to what would have been produced at sea level by a temperature of 104·8°. But the experiment of Pasteur has demonstrated that the optimum temperature of certain infecting organisms is about 100°, and that when the vibration-rates equivalent

[1] THE LANCET, Jan. 8th, 1887.

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to 106° or 107° are communicated to their constituent molecules, disorganisation follows. Hence it is intelligible that, if a consumptive patient whose temperature at sea level is 98·4° be raised to an elevation of 6000 ft., such alteration of molecular motion will take place in the blood as to be incompatible with the healthy existence and effective reproduction of the tubercular microbe; in fact, the patient will be placed in the position of the bird to the splenic fever poison. If this reasoning be sound, wide is the vista with regard to the epidemic levels of yellow fever, malaria, cholera, &c., which it must open up, and strange the possibilities which might result from the artificial production of the required conditions.

Military Prison, Dublin.

ONE HUNDRED CONSECUTIVE CASES OF ABDOMINAL SECTION.

BY GEO. GRANVILLE BANTOCK, M.D., F.R.C.S. ED.,
SURGEON TO THE SAMARITAN FREE HOSPITAL.

(*Concluded from page 481.*)

Hydatids of the peritoneum.—The patient was a young single woman, aged twenty-five, by occupation a cook. When admitted in May, 1886, she gave the following history. She had been aware of "a lump in the stomach" for six or seven years. Three years and a half ago she had retention of urine, which was relieved by passing the catheter two or three times. She then entered a suburban hospital, where she was told she had a tumour. Nine months ago she had a child, and since that time the increase in the size of the tumour had been very marked. On opening the peritoneum, it was at once evident that I had to do with a case of hydatids—which I may say was suspected. The incision was enlarged to about 4 in. to admit of extraction of the different tumours before separating them from their connexions with the omentum, &c. I began by breaking down the connexions of the largest cyst, but they were so firm and the bleeding so great that I was obliged to resort to the method of ligaturing first and then cutting. In all, I removed about half a dozen cysts of various sizes, from that of a hen's egg to that of a small cocoa-nut. One of medium size occupied the right half of Douglas's pouch, where it hung pendulous with a slender attachment to a tag of omentum, where it was felt before operation, and regarded as an enlarged ovary. Down in the left iliac region, one, as large as an orange, lay amongst the coils of intestine. On seizing the exposed portion of the cyst wall between the finger and thumb, it at once gave way, and many daughter cysts, from the size of a pea to that of a walnut, escaped amongst the intestines and were with difficulty recovered. That one eluded my search was evident from the fact that at a subsequent period a small collapsed sac came away through the tube-hole. The cyst wall was so friable that it could only be detached from the intestines by means of the sponge. A small cyst was attached to the edge of the liver, and there was a larger one on the under surface of the liver, very far back. As it would have been impossible to drain these if opened, I let them alone. After thoroughly washing out the peritoneum a drainage-tube was inserted, and the patient made a good recovery. She is now in excellent health and able to follow her occupation. Nor is there any increase in the liver cysts. The weight of the cysts exceeded 2½ lb.

Retro-peritoneal cyst.—This tumour occurred in the case of a young lady aged fifteen, who came under my notice about the end of January last, having been sent to me by Dr. Robson Roose. The tumour had been observed for about eighteen months, and when first discovered was about the size of a Mandarin orange. During this time the patient was subject to attacks of severe pain, often accompanied with fever, the temperature sometimes running up to 105°. There was much bewildering consultation over the unfortunate patient, and the case forcibly illustrates the remarks made by Mr. Lawson Tait in a paper read before the Medical Society of London on Nov. 8th last, when he denounced many consultations with physicians over surgical cases as farcical proceedings. At last, however, Sir Joseph Lister agreed with me as to the propriety of surgical interference, on the ground that there was distinct evidence that the tumour was growing rapidly. Accordingly it was removed on Feb. 16th, 1886, the incision along the outer border of the left rectus muscle extending about an equal distance above and below the umbilical level. The tumour was covered by the mesentery, whose vessels were enormously enlarged, and it lay just over and in close contiguity to the left kidney, for which it was mistaken, owing to the impulse communicated to that organ on bimanual palpation, and it pushed the splenic flexure of the colon towards the umbilicus. Many ligatures were required in the course of the enucleation, the vessels being doubly secured before division; and, finally, the greater part of the sac was cut away after the application of a double stout ligature. A drainage-tube was inserted, as there was still some oozing from the remaining torn surfaces. The patient made a good though tedious recovery, owing to the occurrence of some superficial suppuration in the track of the drainage-tube. The temperature only once reached 100·8°, and was above 100° for only one day. The patient is now quite well. The tumour weighed over 1 lb. It is now in the museum of the Royal College of Surgeons. Mr. Eve kindly furnished me with the following report:—"The tumour is composed of a number of inter-communicating loculi, separated by numerous septa, and contained a glairy mucoid fluid. I am quite at a loss to explain its origin, the situation being so unusual, and only conjecture that it originated from some fœtal structure, possibly some of the rudiments of the permanent kidney; it was too high for the Wolffian body. The other possibilities that occur to me are that it was an ovarian cyst which had become separated by twisting of its pedicle, or that it was of the same nature as the cysts which have been found in the great omentum." I take Mr. Eve's first idea as probably the correct explanation of the origin of this remarkable tumour. It was situated too much behind the mesentery for an ovarian tumour which had become separated from its natural attachments, and its relations in no respect resembled an instance of that kind which occurred in my practice in October, 1884, in which I removed a small ovarian tumour from the right side of the abdomen, and whose pedicle had been severed from the *left* side.

Incision and drainage.—A married woman, aged thirty-seven, the mother of three children, the youngest of whom was eight years old, was sent to me by Dr. Amand Routh. There was a history of acute disease within the peritoneum in January last, with uncontrollable sickness for two days, severe pain for five days, and fever. At the end of February she was tapped of over half a gallon of a thickish, pale-yellowish fluid. In another month she was again tapped of three pints of a thicker fluid of the same appearance, and was recommended to apply poultices over the abdomen. In a few days the puncture hole began to discharge a thick puriform fluid. After three months' confinement to her bed she began to get about, and at the end of May came under the care of Dr. Routh in the out-patient department of the Samaritan Hospital, but I was unable to admit her until the end of July. She was then in a very emaciated condition; the puncture hole was still open, but only occasionally discharging. An ordinary surgical probe was passed in to its full length, but nothing came out on its withdrawal. I therefore thought I had to deal with a multilocular tumour suppurating in its centre loculus, and I was not a little surprised in the operation that when the parietes were divided I opened direct into a single cyst filled with a purulent-looking fluid, to the amount of about four pints. After washing out the cavity till quite clean with simple warm water, the cyst wall was seen to be lining the whole pelvic cavity, the intestines having been pushed out and the uterus pressed forwards and downwards; in fact, looking into the pelvis was like looking into a hat. It was therefore evident that this was not a case for further interference, and I accordingly closed the wound and left in a drainage-tube, and for the purpose of excluding air I filled up the cavity with warm water. After forty-eight hours, when there was a slight odour from the discharge, the cyst was washed out with sulphurous acid several times daily, and the odour at once disappeared. Whilst the temperature previously to the operation daily rose towards evening to 102°, it remained perfectly normal afterwards. In fifteen days she went to a convalescent institution, and in a few weeks more returned home. She presented herself at the hospital in November in perfect health.

Exploratory operations.—The list of seven includes nearly as many different conditions. In the first case the whole

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peritoneum was studded with sago-like granulations, and the patient was much benefited by the removal of the fluid. When last seen, three months after operation, the fluid had not reaccumulated. The diagnosis made was "probably malignant disease." Whether this was correct, or whether the disease may turn out to be of a non-malignant nature, remains to be seen. It is, however, a singular fact that whilst tapping in these cases is always followed by a rapid reaccumulation of the fluid, the operation of abdominal section has been followed, in my experience, by complete immunity, even in cases that have proved fatal in a few months, from the progress of the initial disease.

The second and third were instances of supposed tubal disease: one of the patients being a young married woman, aged twenty-five, with two children, the youngest being six months old; and the other aged forty-six, with one child aged twenty-five. In both cases the adhesions of omentum, and especially of intestine, over the pelvic contents were very extensive, and so firm that there seemed no possibility of reaching the pelvis without rupturing the intestines, and after stopping the oozing from the ruptured adhesions by means of ligatures and the pressure of sponges the wound was in each closed. I have seen the latter of these cases quite recently, and while at the time of the operation, in November, 1885, the uterus was quite fixed in the pelvis, with considerable surrounding tumefaction, it is now quite mobile and the swelling has almost disappeared. This result would seem to disarm criticism directed against the non-completion of the operation, especially as the patient is already so advanced in years, and yet the attempt appears to me to have been justified by the physical signs and symptoms existing at that time.

The fourth case was one of papilloma extensively involving the left broad ligament, and the operation confirmed the diagnosis. The patient was a married but sterile lady aged fifty-six. She had been tapped three weeks previously, and the fluid had rapidly re-formed. Abdominal section was performed with the view of taking advantage of the curious fact to which I have just referred, and in this I was not disappointed; for while the patient was under my observation—three weeks—there was no reaccumulation of fluid. How long that might have been the case cannot now be determined, as the patient died a few weeks afterwards of an acute pulmonary disease.

In view of Mr. Doran's paper, recently read before the Obstetrical Society of London, on "Papilloma of the Fallopian Tubes," I may here state that I am inclined to believe that many, perhaps the majority of cases in which we find this form of disease, are instances in which the papilloma, taking its origin within, has burst through the tube and then spread itself over the broad ligament and adjacent structures. The last case I shall refer to (the second in the paper above noticed) appears to support this view, and if it be correct, then papilloma of the tube is not so uncommon as Mr. Doran's researches would lead us to suppose.

The fifth case is one of very great interest. On Dec. 8th, 1885, I was asked by Mr. Tapson of Clapham to see Mrs. R——, aged thirty-eight, the mother of two children, of whom the youngest was seven and a half years old. The history was as follows:—For the last year she had been "generally out of sorts": menstruation, previously normal, had become very irregular, with intervals of two and three months, and the last period occurred in the end of August. By the end of September she began to complain of pain in the right groin, which had gradually become very severe. She therefore consulted Mr. Tapson in November, and he, finding a small tumour in the right ovarian region, requested me to see her. On examination, a tumour, the size of a large orange, was found on the right side of, and closely attached to, the uterus, tender on palpation, non-fluctuating, but elastic. The fundus uteri could be distinctly defined. There was nothing characteristic in the condition of the cervix. As the result of this examination, I gave it as my opinion that the disease was either an enlarged ovary very closely attached to the uterus, or an affection of the (right) Fallopian tube, and I advised that Mr. Tapson should watch the case. By the beginning of January the pain had become so severe, coincident with an enlargement of the tumour, that he requested me to take her into the hospital as soon as possible, and she was admitted on January 11th. I was at once struck with the great change that had taken place in the local condition, and came to the conclusion that she was pregnant. Remembering the fact that on my first examination the fundus uteri could be distinctly made out, and recognising the change which had taken place in the cervix, I further concluded that the pregnancy was Fallopian, and I communicated to this effect with Mr. Tapson, who visited her with me in the hospital. The sound was passed and entered over four inches, running up on the left side of the mass, where its point could be distinctly felt. The tumour now extended as high as the umbilicus, and lay almost wholly *on the right of the median line*. She was seen and examined by several of my colleagues, the majority of whom agreed with me as to the existence of pregnancy. The pain continuing as severe as ever, and no signs of uterine disturbance having resulted from the use of the sound, it was determined, with the concurrence of Mr. Tapson and my colleagues, that abdominal section should be performed to avoid the risk of rupture, which appeared very probable from the severity of the pain. The case was thoroughly explained to the patient and her husband, and by the former the risk was most cheerfully accepted as affording the prospect of relief from her well-nigh intolerable sufferings. I must state that, had I been guided solely by the results of this examination and had not seen the case at an earlier period, I should have looked upon the case as a uterine pregnancy of which the pain could not be explained. After a lapse of eight clear days from the passing of the sound, the patient was submitted to operation. On opening the abdomen it was at once apparent that, after all, the fœtus was in the uterus. On the left side the ovary was in its normal position, and there was a considerable space between the uterus and the side of the pelvis. On the right side the ovary was low down behind the tumour, which was in close contact with that side of the pelvis; in fact, the ovary had not risen out of its usual position in the unimpregnated state. Very little of the tube beyond the fimbriæ could be made out. It is almost needless to state that I at once closed the abdomen. The temperature on the following day rose from 99° to 100·2° (for four hours), and by the next day was quite normal. On the seventh day uterine action set in, and a fœtus weighing 1 lb., with a placenta 6½ oz., was expelled in a few hours. The patient had an uninterrupted convalescence, got quite rid of the pain, and returned home on Feb. 16th, much gratified with the result. Some there are, probably, who will say this was a simple uterine pregnancy. I think a careful study of the history will not support that contention. There can be no doubt that the uterine cavity did not contain the fœtus in the first instance, for both Mr. Tapson and myself were agreed that the body of the uterus could be distinctly defined at our first examination. The conclusion I have come to is that the ovum was arrested in the uterine extremity of the tube, and gradually worked its way into the uterine cavity. This view is supported by a case reported in THE LANCET of Jan. 16th, 1886, by Dr. Alexander Hay, and by another brought before the Obstetrical Society of London in October, 1885, by Dr. Grün, in both of which the physical signs very much resembled my case in its early stage. On submitting this report to Mr. Tapson, he replied, under date Dec. 10th: "I have nothing to add except that I saw her (Mrs. R.) about a week since, and she is in better health than she has been for years."

The sixth case was that of a single lady aged twenty-three, who till within a year had enjoyed good health. On dividing the peritoneum, which was very much thickened, a small quantity of a clear amber-coloured fluid escaped, and a very thin and delicate membrane presented, within which was contained a whitish flocculent fluid to the amount of two pints. No intestine was seen, but on removing as much as possible of this membrane the exposed surface presented a glistening and injected appearance. The cavity appeared to be limited by adhesion to the parietes. It was washed out with warm water, and the wound completely closed. The disease appeared to be of a tubercular nature. On the evening before operation the temperature was 100·6°, and it rose to the same height on the same evening, but for the next two days was nearly normal; it then began to rise in the evening for about ten days. At the end of three weeks she was out of bed, and when about to return home she complained of hypogastric pain, and on the twenty-third day a small quantity of fluid, similar to that removed at the operation, escaped. The temperature then became normal, and she returned home on the thirty-first day with a small sinus. This had not closed when I last heard of the patient, at the end of November, though she was then in very good health.

The seventh and last case was that of a married sterile

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woman, aged fifty-one, whose case had been a puzzle to more than one, at one time presenting the signs of a cyst and at another those of ascites. As the latter had become predominant, and no definite explanation could be offered of this condition, I decided to explore rather than tap the patient. I operated on her on Nov. 10th last, removing ten pints of free fluid. There was no disease of the pelvis or abdomen to account for the fluid. The body of the uterus appeared to have completely atrophied, and what should have been the body of that organ formed the floor of the pelvis. No ovary could be found. At the splenic flexure the colon adhered to the parietes. The temperature remained normal, and when the patient left the hospital on the nineteenth day there was no reaccumulation of fluid.

Incomplete operation.—A married sterile lady, aged forty-five, consulted me on Sept. 16th, 1885, complaining of a dragging pain in the pelvis, a severe pain in the region of the bladder, frequent micturition, and sometimes retention of urine. On examination, an elastic mass filled the pelvis, bulging down into the vagina, and pressing the uterus upwards and forwards, close up behind the pubic symphysis. The cervix was almost obliterated; the uterine cavity measured two inches and a half, and was directed to the left side. I recommended operation, though I could not urge it, and the patient preferred to wait for two or three months. She returned at the end of December with all her symptoms much aggravated, especially the bladder trouble; and having made up her mind for active treatment, I operated on Dec. 26th. The pelvic tumour was then distinctly fluctuating. On opening the abdomen, the first thing that presented itself was the right Fallopian tube close to the cornu of the uterus, forming a mass as large as a hen's egg, and having a knuckle of intestine very intimately attached to it. On separating these, the muscular coat of the intestine was laid bare, and the edges of the peritoneum were brought together by several points of continuous suture. In the course of the separation the tube was opened into and seen to contain papilloma. External and posterior to this was a cyst with thin walls, which was aspirated, and yielded about half a pint of a thin fluid like weak tea. An attempt was now made to separate the collapsed cyst, and in doing this another cyst, deeper in the pelvis, was opened, with the escape of a similar fluid. I was, however, obliged to desist from the attempts at separation, and had to be content with freely laying open the cysts and removing a portion of cyst wall together with the papillomatous portion of the tube. I then washed out the cavity with warm water, put in a drainage-tube, and closed the wound. The patient went on very well for forty-eight hours, then the urine became scanty, the pulse rapid, the temperature rose to 102°, and the mind was obscured. With the decreasing urinary secretion, which ultimately ceased, the pulse increased in rapidity, with a falling temperature, the patient became comatose, and died towards the third day. No post-mortem examination was obtained. This case, I think, illustrates the danger of delay when there are symptoms of urinary pressure and obstruction. I have already spoken of the papilloma, and it is scarcely necessary to point out the necessarily fatal character of the disease, which must in a very short time have opened into the intestine.

This case, then, constitutes the last of the consecutive series of one hundred cases of abdominal section—consecutive not in point of date, but according to the table. All of them were performed between Feb. 13th, 1885, and Nov. 17th, 1886, inclusive, and without any of the so-called antiseptic precautions; some of the hospital cases were done whilst patients were dying of septicæmia in neighbouring wards, and I did not adopt the precaution of hanging up a wet carbolised sheet over the door. But the greatest care was taken to ensure cleanliness, which I described some years ago as "the most efficient of all antiseptic systems and the only perfect one." That, I think, is borne out by the results. It would be foreign to my purpose to institute any comparison with the results of other operators. The above narrative of one hundred consecutive cases is a statement of facts at the service of those who have a mind to exercise their ingenuity in the manipulation of statistics.

Granville-place, Portman-square, W.

AT a well-attended meeting of the governors and friends of the Charing-cross Hospital on the 9th inst., a committee was appointed to organise a special appeal on behalf of the funds of the institution.

CASE OF

GOITRE, FOLLOWED BY ASPHYXIA; TRACHEOTOMY; DEATH.

BY J. B. HURRY, M.A., M.D.

EMILY B——, aged thirteen, when first seen, was suffering from a goitre of very moderate dimensions, which had been growing for a year. No history of goitre in the family. The first symptoms appeared about Nov. 3rd, 1886, when the girl began to complain of dyspnœa, stating that it obliged her to rise early in the morning. This continued till Nov. 7th, when Mr. Christian of Reading (to whom I am indebted for permission to use these notes) was sent for, who saw the girl at 12 noon, and found her with some, but not urgent, dyspnœa; the breathing was noisy, but not stridulous; no signs of inflammation or feverishness; she ate well that day. At 11.30 P.M. the same day, Mr. Christian was again sent for, and on arrival found the girl in a state of extreme dyspnœa, and only partly conscious. He immediately came for me to assist him, and we both returned as quickly as possible, provided with the means of performing tracheotomy. On reaching the girl's house at 12.30 A.M. on Nov. 8th, all the signs and symptoms of asphyxia were present: the face was pale; conjunctival reflex almost abolished; complete unconsciousness; breathing excessively laboured. Mr. Christian proceeded at once to open the trachea between the cricoid and the enlarged isthmus of the thyroid gland. No anæsthetic was necessary, owing to the state of unconsciousness. On making the superficial incision, much venous hæmorrhage occurred; as soon as this had for the most part ceased, and the girl evidently being at point of suffocation, the trachea was incised, and a small silver tube rapidly introduced. Air passed in and out through it, but not freely, and a moderate amount of blood came with it at first. A larger tube was therefore substituted, but even then the breathing appeared very obstructed. The tube was kept clear by a feather, but the breathing was far from satisfactory; indeed, the asphyxia became more and more complete, till at about 2 A.M. on Nov. 9th (i.e. about half an hour after tracheotomy) death occurred.

I made the post-mortem examination on the same day, at 6 P.M., by removing the larynx, œsophagus, and the entire thyroid growth. On dissecting the mass, and opening the larynx and trachea from behind, nothing abnormal was found, except a moderately large goitre and a bilaterally compressed trachea. The incision made by the tracheotomy began immediately below the cricoid, and measured about two-thirds of an inch in length, two rings being cut through. A short distance below the incision, the trachea was considerably flattened from side to side for the distance of an inch; both walls were affected, but the left one most; instead of being convex outwards, it was slightly so inwards. There was no softening or kinking of the trachea. On introducing the tracheotomy tube as it would have lain during life, the lower end was found to reach nearly to the lower portion of the region of flattening. The tumour itself was nearly symmetrical on the two sides. The isthmus was continuous with the right lobe, but separated from the left by a groove; it measured one inch from above downwards and also from before backwards, and began immediately below the lower end of the incision. Each lobe was about as large as two hen's eggs; together they entirely encircled the trachea, and behind it came into contact for about the surface of one inch in an antero-posterior direction, and two inches from above downwards; they separated the œsophagus from the trachea. On making incisions into the thyroid, the tissues were uniformly firm; there were no cysts visible to the naked eye, nor any softened portions. On bringing the two lobes into the position they occupied during life, the lumen of the trachea was seen to be reduced to a narrow antero-posterior slit (the *Säbelscheide* of the Germans). The relation of the recurrent laryngeals to the growth was unhappily not noted.

Remarks.—This is one of the few recorded instances of sudden death from goitre, and the interesting question arises, What is the cause of death? No perfectly satisfactory answer has been given, especially in regard to the cases where (as in the above) there is no evidence of sudden increase in size. The view generally adopted is, I believe,

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that the enlarged thyroid mass presses on the recurrent laryngeal nerves, and thus leads to closure of the glottis, and it has been proved experimentally that when these nerves (which supply both dilators and constrictors) are stimulated, the constricting muscles overpower the dilators and close the glottis. This view, however, hardly explains why a condition of very slight dyspnœa sometimes becomes suddenly intensified, and may lead to sudden death (in a case published by Seitz of Zürich death occurred in two minutes after the commencement of the severe dyspnœa). Another explanation occurred to me, while dissecting the muscles from off the growth, especially the sterno-hyoids and thyroids, which pass over the thyroid gland, and were found well developed in the above case. Suppose for a moment that the gradual enlargement of the growth causes some dyspnœa by pressure on the trachea or recurrent laryngeals. This will produce no special trouble, till suddenly one day, perhaps after an unusual muscular effort, the dyspnœa is sufficient to call the sterno-hyoid and thyroid (and possibly mastoid) into action, in their capacity of supplementary inspiratory muscles. These muscles, when contracted, will press the lateral masses of the gland down upon the trachea (which in this instance was already greatly narrowed), and thus increase the dyspnœa; this dyspnœa must, again, throw the muscles into greater activity, and thus a "vicious circle" might be set up, one factor increasing the other, and rapidly leading to a fatal issue. The same sequence of events may possibly occur where the muscles above mentioned and the recurrent laryngeals are the efficient agents, and where therefore death is due to closure of the glottis.

Reading.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

ST. GEORGE'S HOSPITAL.

A CASE OF CEREBRO-SPINAL MENINGITIS; RECOVERY; REMARKS.

(Under the care of Dr. EWART.)

THIS case is of some interest, as being a sporadic case of cerebro-spinal meningitis, which recovered, but retained the permanent sequelæ left in cases of the epidemic form. For the notes we are indebted to Dr. Griffiths, medical registrar.

W. T——, a carpenter, twenty-nine years of age, admitted Sept. 17th, 1886, had a family history of good health, and had always been himself strong and well. He worked in a carpenter's shop, under, so far as could be ascertained, good sanitary conditions. He had had no injury or blow, nor did he remember to have "taken cold." He first felt dull and heavy on Sept. 10th, and next day had rigors with much frontal pain, and some pain about the nuchal region; no vomiting, but there was obstinate constipation. On the 12th both eyes were inflamed, the inflammation increasing rapidly. On the 14th he lost the sight of the right eye, and on the 15th that of the left. Delirium set in on the 13th, with high temperature.

He was admitted on the seventh day of the illness, and presented a condition of much prostration, with subsultus tendinum occasionally. He had a coated tongue; the pulse was 88, the temperature 102°, and the respiration 24. He had much difficulty in bending the neck, and had some retraction of the head. He presented much chemosis, with turbidity of the cornea, and tension in both eyes was −2. His heart showed slight hypertrophy, with a general soft systolic murmur. There were no adventitious sounds over the lungs, and no enlargement of the abdominal viscera. His urine was high-coloured, sp. gr. 1024, but non-albuminous; and he was passing loose green stools in bed, having been given a purgative before admission. His deep reflexes were about normal; tache cérébrale well marked; an apparently normal abdomen.

The man remained in an apathetic state for three days, when he began to mend. His temperature was irregular—the maximum 103°; his pulse-rate averaged 108, and was quite regular. At no time had he any vomiting, and only slight pain in the neck, the chief seat of pain being in the frontal and occipital regions. His eyes showed gradually less chemosis, but the pupils dilated irregularly under atropine, points of lymph being seen on the anterior surface of the lens; the media, however, continued to be thick, though the cornea regained to a great extent their transparency. On Sept. 21st he had slight improvement in vision, and the media seemed slightly less thick, but he could only distinguish between light and shade, and by degrees this power diminished until he became absolutely blind. His general condition began to improve on the ninth day after admission, his temperature being then normal, and remaining at that level; and though he suffered from frontal headache, he continued to improve until discharged. He was then in fair health, but was completely blind, the media being quite thick and precluding ophthalmoscopic examination. He was treated during the acute stage with an ice-bag applied to the head and neck. He was given two drachms of solution of perchloride of mercury and ten grains of iodide of potassium every four hours, while a strong solution of atropine was applied to the eyes, at first frequently, but only twice daily after the second day. Six ounces of brandy were given daily at first. Later on aconite and belladonna liniment was painted over the forehead to relieve pain, and he was put on tonic treatment till his discharge.

This patient presented all the points of a case of cerebro-spinal meningitis, though many not of a marked character. His condition on admission was more that of prostration than of actual collapse, but the rapidity of onset, want of exciting cause, retraction of head, and progressive ocular symptoms all confirmed the original diagnosis. Among the many interesting papers written on the subject, we would especially refer to Dr. Wilson's paper in the *Dublin Quarterly Journal* for May, 1867, in which, though speaking of the epidemic form of this disease, he describes the ocular symptoms from conjunctivitis through suppurative choroiditis to amaurosis, either from collapse of the globe, detachment of retina, or actual atrophy of the same.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, CITY ROAD.

CASE OF EMPYEMA; FREE INCISION AND DRAINAGE AT LOWEST POINT; RAPID RECOVERY.

(Under the care of Dr. OSWALD BROWNE.)

FOR the notes of this case we are indebted to Mr. Harold Simmons, house-physician.

C. G——, a well-nourished girl, aged eight, was admitted from the out-patient department on Sept. 8th, 1886, giving a history of four months' illness, commencing, after unusual exposure, with rigor and cough, and marked by gradually increasing shortness of breath, pain in the left side, emaciation, and weakness. She had had no previous illness, nor was there any history of hereditary tubercular tendency.

Condition on admission.—Her face was pale and somewhat livid; lips bluish; respiration hurried and shallow, 40; pulse small and soft, 128; temperature 102°; skin moist. Thorax: The left side scarcely moved with respiration, the intercostal furrows were obliterated, and there was bulging of the upper walls of the chest; the percussion note was absolutely dull all over the side, and the respiratory murmur absent, except some distant tubular breathing audible at the extreme apex above the second rib, and some faint sounds along the spine at the inner border of the scapula. No tactile vocal fremitus was perceptible, and the voice sounds, feebly heard at the apex, were totally inaudible below. The right side was resonant; respiration loudly heard, and accompanied posteriorly by sonorous rhonchi. The heart's impulse could be felt in the right nipple line, one inch below the nipple, and the cardiac dulness extended thus far and joined the general dulness on the left side, its upper limit being the third cartilage; the heart sounds were loud and clear. The liver margin was an inch below the costal border in the right nipple line; the spleen not perceptible. Urine acid, containing no albumen.

Sept. 10th.—She was considerably more distressed and cyanosed, temperature had continued at 102°, and there had

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been abundant expectoration of thick purulent sputa. An exploratory puncture of the left side procured thick pus.

Operation.—Chloroform having been administered, a short incision was made into the chest in the fourth intercostal space in the anterior axillary line, and through this a shortly curved rigid urethral sound passed as far as possible down and somewhat backwards, its point being projected in the ninth space in the line of the angle of the scapula, and on it a second incision made; on digital examination the finger entered the pleural cavity, a mass of soft adhesions being perceptible immediately in front of the incision; a large quantity of pus escaped freely. A drainage-tube about three-eighths of an inch in diameter and six inches long having been inserted in the lower opening, the upper wound was closed by sutures; there was little hæmorrhage. The side was dressed with carbolic gauze, the spray having been used throughout. The child had been extremely faint during the later stages of the operation, but revived quickly. The dressing was changed the same evening, the discharge being thin, blood-stained, and profuse; the patient in little pain, warm, and comfortable. Temperature 100·8°.

Sept. 12th.—Re-dressed; the dressing contained about four ounces of blood-stained pus, free from odour; the tube clear. The heart's apex was to the left of the sternum. Temperature, morning, 98°; evening, 99·8°. Expectoration of yellow sputa still continued.

13th.—The upper incision had almost healed; stitches removed and tube shortened. Temperature 99·2°.

15th.—Discharge less. The whole of the side was fairly resonant; over the upper half respiration could be well heard, but harsh and accompanied by coarse friction; at the base the breathing was audible, but distant; the heart's impulse was close to the left nipple line, the dulness reaching to the mid-sternum to the right.

16th.—Cough slight, and expectoration much less. Bowels had been extremely constipated. One-tenth of albumen was found in the urine. A mixture containing sulphate and carbonate of magnesia was ordered every morning.

17th.—She had passed a large quantity of uric acid in big crystals. Ordered eight grains of bicarbonate of potash three times daily.

20th.—The discharge had lessened much, and the general condition had much improved. The tube was again shortened. A trace of albumen still existed in the urine.

22nd.—The side had fallen in considerably; there was fair resonance all over and free air entrance in the upper two-thirds; the apex beat in the fifth space, one inch outside the nipple line. Bowels still very costive. Five minims of liquid extract of cascara sagrada ordered.

25th.—Discharge very scanty. The tube left out.

27th.—The spray was discontinued. Wound superficial and healing rapidly. There was no evidence of re-collection.

Oct. 5th.—Granulations pale and œdematous; a probe would not pass. She had no cough or expectoration, and felt quite well.

On the 21st the wound had quite healed, and on the 28th the patient left the hospital. The left side, sunken considerably, especially over the apex in front, yielded a resonant note of good quality; respiration was heard well all over, and free from adventitious sounds, except some coarse crackling with inspiration at the extreme base. Her temperature never rose higher than 99·2° after Sept. 13th, and albuminuria ceased on the 25th. She continued to pass uric acid occasionally.

Jan. 10th, 1887.—The child attended at the out-patient department. She had gained strength, weight, and colour. The affected side was more flattened anteriorly and posteriorly; breathing was loud and clear to the extreme base.

SEAMEN'S HOSPITAL, GREENWICH.

SURGICAL CASES OF INTEREST, WITH REMARKS.

(Under the care of Mr. G. R. TURNER.)

CASE 1.—*Sequel to a successful case of Fractured Patella treated by Wiring.*—William W——, aged twenty-five, a sailor, fractured his right patella whilst at sea. He had no treatment for twelve days, and was then in a foreign hospital for a month. The fracture was treated by strapping and a plaster-of-Paris splint. He left the hospital in a month's time, and then came under the care of Mr. Mayo Robson of Leeds, in June, 1885, four months after the accident. He had an ununited fracture of the patella, with an inch and a half's separation of the fragments. His limb was very weak, and perfectly useless to him. Mr. Robson cut down on the fragments and wired them together. Great difficulty was experienced in approximating them, the lateral expansion of the vasti and the quadriceps requiring division. The wound ran an aseptic course, and he was made an out-patient in September. He could walk freely, could flex his knee nearly to a right angle, but complained of a little pain below and to the outer side of the patella. A note says: "This may be due to some of the gold wire sutures which were not removed." On leaving Leeds he went to sea, and whilst on board ship fell and hurt his knee again, and was taken to a hospital at Sulina and treated. After this he came to the Seamen's Hospital, Greenwich. He had almost perfect use of his knee, and the patella appeared soundly united. Protruding from a sinus on the outer side of the joint was a wire, which he said had been catching his trousers as he walked since his last accident. There was a little suppuration around. On April 1st he complained of considerable pain in the knee-joint, which became rapidly distended with fluid. His temperature rose to 104°; pulse 128. The face and body were covered with an erythematous rash. On seeing him the next day, Mr. Turner, with full antiseptic precautions, laid the joint freely open on each side of the patella and introduced a drainage-tube. The fluid that escaped consisted of turbid lymph, hardly to be called purulent. The distension of the joint was very great before the operation. The projecting wire was removed; it could be traced in the cavity of the joint to just below the patella, and was there lost. The man's temperature and pulse rapidly fell nearly to normal after the operation, and the wound ran an aseptic course. His convalescence was interrupted now and then by epileptic fits, to which he was subject. Two other wires became prominent under the skin, and one projected through it. These were dissected out on the 4th of July, and he shortly afterwards was up and about. After he was discharged he again fell down (? in an epileptic fit), and refractured the same patella very close to the insertion of the ligamentum patellæ. This fresh accident brought to light yet another wire, which was removed in September, and the man shortly afterwards left the hospital. He could walk perfectly, and could bend his knee to more than a right angle. He could not, however, perfectly extend it, as there was some slight wasting of the quadriceps—not sufficient, however, to interfere in any way with his activity. It should have been mentioned that his second fracture was treated simply by rest and strapping, the lower fragment being obviously too small for wiring, even had such a proceeding been contemplated.

Remarks by Mr. TURNER.—This case (the notes of which were kindly sent to me by Mr. Mayo Robson) is of interest, I think, as showing how troublesome, and even worse, wires may become if the knee which contains them is subjected, as in this instance, to renewed injury. The man's frequent accidents were no doubt due to his epileptic tendency. His present condition is, on the whole, satisfactory. At one time he was very near having acute suppuration of the knee-joint. Timely incision into the tense distended joint at once reduced his temperature from 104° to 100°, and materially improved his general condition. The wires were troublesome to remove, and were not finally got rid of for some considerable time. Mr. Mayo Robson used but three gold wires to suture the patella. I must have had to deal with two fragments of one of these. The strength of the osseous union obtained by their means is shown by the second fracture occurring below instead of at the seat of the first.

CASE 2. *Compound Comminuted Fracture of the Ulna into the Elbow-joint; recovery with a movable joint.*—Wm. C——, aged thirty, presented himself at the hospital with a wound leading down to a comminuted fracture of the ulna at the junction of the olecranon and coronoid processes due to direct violence. Two loose fragments of bone were removed by enlarging the wound, and the parts and joint were washed out with carbolic lotion. The wound ran an aseptic course, and healed shortly after a drainage-tube that had been introduced into the joint on his admission was removed. Passive motion was then daily employed. Shortly after commencing this a peri-articular abscess formed, and was opened. A second abscess appeared later on, and was likewise opened. As soon as it was possible passive motion was again practised, and the patient encouraged to use his elbow. He remained in hospital doing

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work about the place for three months or so. He suffered from pain referred to the distribution of the ulnar nerve. He was of a very sensitive nature, or there is no doubt his progress would have been more rapid. When last seen the relations of the olecranon to the condyles of the humerus were normal. An inch below this process is an irregular transverse depression indicating the seat of fracture. There is a depressed cicatrix at the site of the old wound, and the bone beneath is somewhat irregular. He can flex the elbow so as to touch his shoulder with the tips of his fingers, and extend it to an angle of 150°. The radius can be rotated, and both flexion and extension are "getting better every day." The joint is very strong; he "can carry four gallons easily," or "with another man can lower thirty gallons of rum." All the symptoms referable to the ulnar nerve have disappeared.

Remarks.—This result to a compound comminuted fracture into the elbow-joint is a very satisfactory one, and better than if a formal excision of the articulation had been practised.

CASE 3. *Dislocation of the Foot backwards.*—Henry H—— aged sixty, was knocked down in a scuffle, and fell with his right foot under him. On admission, the dorsum of his right foot was considerably shortened and the heel correspondingly lengthened. The foot was at right angles to the leg, and the lower end of the tibia very prominent; the fingers could almost be placed under the anterior edge. The internal malleolus was fractured and carried backwards with the astragalus. Reduction was easily effected by extension and then carrying the foot forwards. The position was then good. The man recovered, with some increased width between the malleoli.

The interest of this case rests solely on the rarity of backward dislocations of the foot.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Fibroma of Ovarian Ligament.—Metastatic Carcinoma of Prostate.—Large Dermoid Cyst over Sternum.—Gall-stone causing Obstruction of Bowel.—Cystic Disease of Testicle.—Multilocular Cystic Epithelioma of Jaw.—Cystic Epithelioma of Neck.

AN ordinary meeting of this Society was held on Tuesday last, Sir James Paget, F.R.S., President, in the chair.

Mr. SHATTOCK read for himself and Mr. R. W. Parker the report of the Morbid Growths Committee on Mr. Butlin's case of Recurrent Tumour of the Breast. It had a foliaceous aspect, like some cases of adeno-sarcoma of the breast, but the histological characters of the growth were those of villous carcinoma originating from the ducts, as distinguished from the acini.

Mr. ALBAN DORAN showed a small Spherical Tumour in the Substance of the Left Ovarian Ligament. A microscopic section was also shown. It proved that the tumour was made up of plain muscular fibres, mingled with white fibrous tissue; in fact, it was a "fibroid" precisely similar to several other fibroid growths which, in this case, were found in the uterus. The ovarian ligament was a prolongation of uterine tissue, its fibres passing into the parenchyma of the ovary. Hence it was subject to fibro-myoma, like the uterus, whence it was derived; and hence, also, fibro-myoma was sometimes developed in the ovary into which it ran. It was probable that fibro-myoma of the ovarian ligament had been sometimes mistaken for a so-called supernumerary ovary. In this case the latter condition existed on the right side.—Mr. SHATTOCK said that he often had a difficulty in differentiating fibrous tissue from plain muscular tissue in examining ovarian tumours.—Mr. ALBAN DORAN, in reply, said that he sympathised with Mr. Shattock's difficulty, but thought that well-marked nuclei such as might be seen in plain muscular tissue in the uterus of the new-born was diagnostic, and these were also to be found in incipient myoma of the ovary.

Mr. HURRY FENWICK showed a specimen of Metastatic or Secondary Carcinomatous Deposit in the Prostate. He could only find four examples of this class of carcinoma of the gland in medical literature (Mercier, Langstaff, Guyot, and Lebert). In three of these cases the primary growth was found in the stomach; and in the last the dura mater was the site of the initial deposit. The specimen was removed from a man aged twenty-six, whose first symptom was great lumbar pain. The duration of the entire illness was two months and a half. The spinal cord finally became attacked, and paraplegia ensued. The necropsy revealed the lung to be primarily affected, and the liver, spleen, kidneys, prostate, and cord secondarily. The growth was of the "scirrhoid" type.

Mr. H. H. CLUTTON showed a large dermoid cyst removed from over the sternum in October, 1886. The subject of it was a married woman aged thirty-nine. The tumour was noticed at the age of six weeks to be of the size of a pea. At ten years it was tapped, but no fluid withdrawn. At nineteen it was of the size of a hen's egg. It remained stationary for many years, but during the last five years it had grown to twice the size. The tumour hung in a pendulous fashion from the sternum on a level with the breasts, and measured thirteen inches in circumference. The entire cyst was removed. Its lining membrane appeared to be of cutaneous structure, and one hair could be seen projecting from its surface. Microscopically, neither sebaceous glands nor hair follicles could be found. The contents, which measured eleven ounces, were composed of epidermis, cholesterine, and fat.—Mr. F. S. EVE had examined several dermoid cysts which did not contain sebaceous glands or hairs. Dermoid cysts occurred in various situations, as over the scapula, where they were in no relation with the branchial clefts or with the middle line of closure. They originated from displacement of epiblast.—Dr. ANGEL MONEY referred to a case (recorded in the *Journal de Médecine de Bourdeaux*) of apparent dermoid cyst communicating with the central canal of the spinal cord at the level of the lower end of the cervical enlargement.—Mr. STEPHEN PAGET said that in hairy chests there was regular parting of the hair at the angulus Ludovici, the hair above growing upwards and below growing downwards.—Mr. J. HUTCHINSON, jun., said that he had met with three cases of dermoid fistula in the middle line at the junction of the nose and forehead.—Mr. BLAND SUTTON said that the situations mentioned by Mr. Hutchinson was a common site for meningoceles.—Mr. HUTCHINSON, jun., said the cases he referred to were undoubtedly dermoid cysts, and not meningoceles.—Sir JAMES PAGET had removed three such growths, and in none was there any connexion with the interior of the skull; but in one case a pedicle extended between the nasal bones. They were undoubtedly dermoid. One case was also associated with a spina bifida. There was sometimes an unusual growth of the dermoid cyst at the time of puberty, when there was a greater activity of the organs derived from epiblast.—Mr. A. A. BOWLBY had observed two undoubted dermoid cysts in the area of junction between the nose and forehead.—Mr. CLUTTON said there was no evidence of increased growth until the patient got married. He had removed two dermoid cysts from the forehead at the root of the nose. Such cysts occurred in any part of the body, though most commonly in the middle line or along the lateral fissure.

Dr. PYE-SMITH showed a large Gall-stone removed from a lady aged seventy-eight, who had never had jaundice, but suffered from increasing constipation, which culminated in obstruction. Examination per rectum revealed something abnormal, which was regarded as possibly carcinomatous and situated above the sigmoid flexure. It was very movable. After thirteen days' obstruction the stone was passed and the patient remained free from trouble. A second larger stone of cylindical shape was also shown. It came from a woman aged sixty, in whom constipation never proceeded to complete obstruction. The date at which the communication between the duodenum and gall-bladder occurred was unknown.—Mr. J. HAMMERSLEY said that the patient in the first case remained perfectly well.—Mr. SHATTOCK mentioned a fatal case of complete obstruction from gall-stone. It was an unpublished case of Dr. Bristowe.—Dr. COUPLAND thought it unlikely that any subsequent difficulty would occur, for the opening into the duodenum from the gall-bladder must be large to have allowed the safe passage of a stone of that magnitude.

Mr. EVE read a paper on Cystic Disease of the Testicle. It was based on a microscopic examination of twelve selected specimens, and a table of twenty-eight recorded cases in which a microscopic examination had been made. There

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were three forms—cystic fibroma, cystic myxoma, and sarcoma, the second being intermediate between the other two. In the cystic fibromata the cysts and tubules were commonly lined with spheroidal or flattened epithelium, but some, in most tumours, with columnar, and in five specimens with columnar ciliated epithelium. Unstriped muscle was rarely, and cartilage generally, present in the fibrous stroma. Cystic myxomata were composed of mucous and fibrous connective tissue, containing tubules of columnar, ciliated, and occasionally flattened epithelium—very like the same tumours in the breast. In cystic sarcoma the cysts were a less prominent feature, and more commonly lined with columnar than flattened epithelium. The characteristic components of cystic fibromata—viz., ciliated epithelium, unstriped muscle, and cartilage—were present in sarcomata, and in three cases striped muscle was found. After reviewing the evidence regarding the origin of tumours, the following conclusions were stated:—1. No specific difference exists between innocent and malignant cystic tumours. 2. They originate in the hilum testis. 3. There is probably a new formation of epithelium, or adenomatous growth. 4. The prototype of this is found in the tubules of the vasa efferentia, rete testis, and coni vasculosi, which are formed from the Wolffian body. 5. There are grounds for believing that the epithelial formations in cystic tumours originate from certain outgrowths from the Wolffian body described by Klein as interstitial cells, and normally occupying the hilum. 6. It is incorrect to attribute their origin to the organ of Giraldès, as this lies outside the testicle.—Mr. C. B. LOCKWOOD said that a perfect series of complete transverse sections through the organ would be the best way of determining the relations of any relics of the Wolffian bodies.

Mr. A. A. BOWLBY exhibited a specimen of Multilocular Cystic Epithelioma of the Jaw. The patient was a woman aged twenty-four, in whose lower jaw on the left side the tumour began to grow at the site of a decayed molar tooth. It was removed by Mr. Walsham, but one year later it began to recur. It had grown both outwards into the masseter muscle and inwards into the mouth, which could not be shut. The duration of the case was twelve years and a half. The cysts contained a reddish-brown blood-stained fluid. Microscopically, the growth was composed of fibrous tissue, into which the processes of epithelium of cylindrical, spheroidal, and flattened sort grew. The cysts originated from the epithelial ingrowths. The specimen corresponded closely with those described by Mr. Eve.

Mr. QUARRY SILCOCK showed three cases of Cystic Epithelioma of the Neck. Case 1: A man aged thirty-two, was admitted into St. Mary's Hospital with a large inflamed suppurating swelling under the lower third of the left sterno-mastoid muscles; he had first noticed a small lump in that situation about three months earlier; it was painful, and the patient, who was a strong healthy man, began to lose flesh and strength. The swelling had been opened, and after admission Mr. Owen scraped away large portions of the growth, with temporary relief. After death, though no complete necropsy was allowed, it was ascertained that the growth occupied the posterior as well as the anterior triangle, and infiltrated all the structures. There was a large cystic cavity lined by large papillary granulations, which were found to consist almost entirely of epithelial cells, the most highly developed being of the squamous type, but not prickled, forming well-marked nests and long columns running downwards into the mass of the tumour. The enlargement of lymphatic glands lying over the growth was found to be due to inflammatory irritation only. Case 2: A man aged fifty-six was admitted with a large, partly cystic, tumour on the right of the neck, which had been growing for about five months. He was emaciated. The cyst was incised by Mr. Pepper, and a quantity of glairy yellow fluid escaped. The cyst, which was lined with papillary granulations, subsequently suppurated. Examination after death revealed the same macroscopical and microscopical appearances. Case 3: A man aged sixty-four, who was admitted with a large tumour on the left side of the neck lying in greater part beneath the sterno-mastoid muscle, but involving both triangles; it extended from the jaw to the clavicle, to the middle line in front, and to the mastoid process posteriorly. Mr. Silcock tapped the cyst several times, and drew off a thick, yellow, grumous fluid, which was found to contain numerous large epithelial cells, which left little doubt that the growth was of the same character as in the other two cases, from which he was able to show specimens. In none of the cases was there any evidence of a primary growth elsewhere. He thought the only hypothesis which could be entertained was that they owed their origin to the development of some belated portion of epiblast, perhaps the representative of a branchial cleft, although the advanced age of the individuals in whom they were usually found appeared to negative such a supposition.

The following card specimens were shown:—Mr. Godlee: Malignant Disease of an Undescended Testis with Secondary Growths. Mr. Stonham: Pelvis of a Child with Persistent Fœtal Condition of the Peritoneum. Mr. F. W. Clark: Subpleural Lipoma of Diaphragm. Dr. A. H. Robinson: Drawings of Charcot's Joint Disease. Dr. Ormerod: Subdural Hæmatoma. Dr. Maguire: Bullet Wound of Heart passing through the Left Ventricle.

CLINICAL SOCIETY OF LONDON.

Pneumothorax with Recovery in the apparently Healthy.—Intra-peritoneal Excision of Rectum.—Gymnastic Treatment of Scoliosis.

AN ordinary meeting of this Society was held on Friday, the 11th instant, Dr. W. H. Broadbent, President, in the chair.

Dr. DE HAVILLAND HALL communicated a case of Pneumothorax which he had had under observation, with notes of four other cases. Case 1: F. R. P——, aged twenty-four, was sent to Dr. de Havilland Hall by Dr. W. D. Penny on June 27th, 1885. The account given by Dr. Penny was that on May 8th the patient complained of sharp pain in the left side of the chest. In the mid-axillary line, low down, there was pleural friction with slight dulness on percussion and tubular breathing. The dulness only covered a very small area, and the rest of the chest was quite normal. Pulse 110; temperature 100·4°. The patient was sent home to bed, and next day there was hyper-resonance all over the chest and extending half an inch to the right of the sternum. Breathing replaced by amphoric roaring and loud tinkling, except that at the angle of the scapula the respiratory murmur was faintly audible. Heart sounds muffled, apex beat half an inch inside right nipple. Pulse 140; temperature 99°. The patient stated that while getting into bed he suddenly felt faint, and had a peculiar sensation about the heart. In the course of a month the symptoms slowly subsided, the heart returned to its natural position, and the breath sounds returned. A fortnight later there was a return of pain and shortness of breath. When examined by Dr. Hall the patient had just come from business. There was only slight complaint of pain, and there was not much dyspnœa. Pulse 120; heart sounds clear. Impulse in epigastrium. The left side of the chest hardly moved at all; there was general hyper-resonance and obliteration of the cardiac dulness. No breathing sounds were audible over the left side. The bell sound could not be elicited. The right lung was normal. The urine contained a trace of albumen. On Sept. 30th the patient was again examined, and both lungs were found perfectly free from disease. Case 2 (notes supplied by Mr. B. Rix, of Tunbridge Wells): J. W——, aged thirty-nine, mason's labourer, previously in good health, and in constant work for the past eleven years. While sweeping, he was seized with sudden pains just above the left nipple, and came over faint. He continued at work for five days, but owing to increasing dyspnœa and pain had to take to his bed on the fifth day. On examination, there were the physical signs of pneumothorax on the left side. He was under observation for seven weeks, during which time the heart gradually resumed its normal situation, the hyper-resonance disappeared, and normal breathing returned. Case 3 (recorded by Dr. Delagrange, *London Medical Record*, 1881, p. 196): A healthy youth, aged nineteen, while exhibiting the powers of his chest, suddenly felt severe pain in the left side; his face became blanched, and he experienced great oppression. During an effort to vomit he was seized with a sense of something tearing in his side, followed by syncope; there were unmistakable signs of pneumothorax. The patient recovered in about eight days. Case 4 (recorded by Biermer, *Würzburgher Med. Zeitschrift*, Bd. i., p. 385): K. D——, a law student, aged nineteen, while dancing, was seized with a peculiar sensation in the region of the heart, accompanied with giddiness, oppression, and sweating; when examined four days later, there were the physical signs of pneumothorax on the left side, accom-

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panied by a moderate amount of liquid effusion. In seven weeks all objective signs of the pleural affection had disappeared. Case 5 (recorded by Ricker, *Wien. Med. Wochensch.*, March 28th, 1860): A badly developed young man of eighteen years of age, was seized, while coughing, with a stabbing pain in the left side. A week later he complained of considerable shortness of breath, and the physical signs were those of a pneumothorax. The distress increased so much that he was punctured, and the operation was followed by an alleviation of all his symptoms. Two months later, he presented a more healthy aspect than before his illness. After remarking on the comparative rarity of cases of pneumothorax occurring among the apparently healthy, Dr. Hall drew attention to the cases collected by Dr. Samuel West in a paper read before the Society in 1883, and to the cases reported to the Medical Society in March, 1886, by Dr. Whipham. Dr. Hall considered that the explanation of great preponderance of males over females in the subjects of this affection is to be found in the greater muscular exertion of males compared with females, and that, whatever might be the predisposing cause, the immediate cause of the pneumothorax is some strain. He had no doubt that in a majority of cases the rapid breaking down of a small tuberculous mass before a secondary pleurisy had had time to set up adhesions was by far the most frequent cause of pneumothorax. The paper concluded with some remarks on diagnosis and treatment.—Dr. S. WEST considered that Dr. Hall was right in styling his paper "Pneumothorax in the apparently Healthy," for the lungs were not perfectly normal. He referred to cases which originated in slight cases of phthisis. The pressure at which healthy lung would burst was very much greater than might be supposed. He was working at this subject experimentally. As to traumatic pneumothorax, he believed that its occurrence in association with fractured rib was rare, though surgical emphysema was common. He inquired as to the experience of surgeons in this matter.—Dr. BURNEY YEO thought that the title of the paper rather begged the question, for it assumed that patients were previously healthy. Dry pleurisy as a cause of this accident was not laid sufficient stress on by Dr. Hall. This form of pleurisy was frequently latent.—Dr. S. MACKENZIE related a case, seen with Mr. Drake of Stratford, that occurred in a graduate of a university who left the drawing-room after dinner to fetch a banjo; he was found seated on the stairs suffering severely. He had suffered some time previously from a "stitch in the side," which was probably due to pleurisy.—Dr. S. COUPLAND agreed that small patches of phthisical change and relics of small foci of tubercle of the lung were causes of this kind of pneumothorax. He had had under his care two cases of recovery. There was no evidence of phthisis in either of the patients, and their family history was good. They both followed a sedentary occupation. He did not think that much exertion was necessary to produce a rupture of the lung if there be a suppurating area. Coughing probably caused more violent strain on the lung than any muscular voluntary exertion. The first case was that of a clerk aged eighteen, whose right side was affected. In one month all the signs had disappeared. The second case occurred in a still more healthy-looking man, who five days before admission caught a cold, and three days later had pain in the side. When first seen the pneumothorax was well developed. At first no improvement resulted, but after leaving the hospital ten days all the signs had disappeared. The patients suffered very little from their affections after the first symptoms had subsided.—Mr. G. R. TURNER had not observed any cases of pneumothorax with fractured rib. He had seen a boy who had hæmoptysis, and who died from pneumothorax due to phthisis.—Dr. TYSON mentioned a case of emphysema due to pyæmia, the consequence of a sloughing ulcer of the leg in an elderly woman.—Mr. RIVINGTON had only met with two or three cases of pneumothorax of all the cases of thoracic injury he had seen during his long experience at the London Hospital.—Mr. HOWARD MARSH referred to a case of a boy who was run over and died with much dyspnœa and collapse. The lung was clean torn away from the bronchus on that side. He mentioned cases of ruptured lung from falls; in one a woman fell across the step of an omnibus, and the visceral pleura was found to be largely rent at the necropsy. He considered that pneumothorax was not unfrequent when the ribs were fractured.—Mr. B. PITTS had seen several cases of traumatic pneumothorax. In one case, that of a boy aged six years, aspiration gave much relief to the dyspnœa, but death ensued from inflammatory symptoms. Rupture of the lung, but no fracture of the ribs, was found at the necropsy.—Dr. WEST said that he had asked for information concerning the occurrence of pneumothorax with fractured rib.—Dr. BROADBENT had seen three cases of the kind. In one it occurred while the patient was taking a cold bath in the morning. All occurred in young men; two on the left side, and one on the right.—Dr. HALL, in reply to Dr. B. Yeo, said that perhaps the pleurisy was caused by the phthisis which also caused the pneumothorax.

Mr. FREDERIC S. EVE read a case of Intra-peritoneal Excision of the Rectum, with recovery. The patient, a woman aged thirty-four, had suffered from symptoms of cancer of the rectum for nine months. The growth encircled the rectum, and it was thought that the finger could be passed beneath its upper margin. The usual operation of excision was undertaken, but as the upper limit of the growth could not otherwise be reached, the peritoneal reflection encircling the bowel was divided, and the diseased portion removed with the écraseur. The bowel excised measured nearly six inches in length. The upper end was readily brought down to the anal margin. The patient is now, five months after operation, in good health. Good recovery, without symptoms of peritonitis. Remarks in recent researches on the experimental production of peritonitis tended to show that this operation should not theoretically be exceptionally dangerous, and that the limits of cases deemed fit for operation might be determined.—Mr. HARRISON CRIPPS considered that the title was a little misleading, for he had expected to hear that abdominal section had been performed. Speaking out of book, he should say that in one case in every five it was necessary to remove a portion of peritoneum in excision of cancer of the rectum. He said that he had not had a single fatal case of twenty-five operations, and in six of these the peritoneum was involved and excised. Immunity for two or three years often followed, when the lowest portion only of the rectum was affected; but if the disease extended higher up, six months was the average period of immunity.—Mr. GOLDING BIRD asked what power the patient had of holding the motion, to which Mr. EVE, in reply, said that there was no specific information on this point in the letter received from the patient. Mr. Eve was surprised to hear that the peritoneum was opened so frequently by Mr. Cripps, for in the latter's work only two cases were specially mentioned. The value of the method practised in the case read was to enable examination of the bowel to be made for a distance above the cancerous portion. He had left a considerable part of the external sphincter. In reply to Mr. C. Heath, he said that stitches were used to unite the bowel to the anus.

Mr. KEETLEY read a paper on Scoliosis, and said that, having received from Mr. Bernard Roth a paper on the results of the Gymnastic Treatment of Scoliosis, he asked that gentleman for permission to see the treatment. Mr. Roth consented, on condition that Mr. Keetley should send him a case (of the hospital class) for treatment. This condition being fulfilled, Mr. Roth (with Mr. Keetley's consent) exhibited the patient at the Clinical Society twice, once before and once after, a course of gymnastic treatment. (Mr. Roth's views of this case are stated—with illustrations—in the Clinical Society's Transactions.) Mr. Keetley, while acknowledging that the patient's spirits and muscular strength were improved by the gymnastics, states that she had lost in height, and that the scoliotic curves had undoubtedly increased during the treatment.—Mr. BERNARD ROTH said the patient had been sent to him by Mr. Keetley with a request to do what he could for her, and no intimation was given of an intention to read a paper until last Saturday; further, he had applied in vain to know what line of criticism Mr. Keetley intended to follow. He defended his history of the cases reported in the Transactions, and protested against Mr. Keetley's paper being published by the Society unless his answer was appended. The patient in question had suffered from lateral curvature for ten years, and had been under various treatments. In spite of plaster jacket &c., she had become frightfully deformed, and this had gradually got worse. He had told Mr. Keetley that he would do his best, and would make her independent of spinal supports in three months, though the osseous deformity would of course remain. He showed photographs and tracings of the ribs. The patient was shown at the Society in November, 1885, and again, after the three months' treatment, in March, 1886, and Mr. Keetley then made no objection. Both patients were pre-

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sent, and had been examined by members. If his reply could not be appended, he would urge the appointment of a committee to report upon the cases, as well as on the case which he had shown in April, 1883.—Dr. BROADBENT thought that the best course would be to appoint a committee.—Mr. CHRISTOPHER HEATH said that the permission of the Council for the production of Mr. Keetley's paper at the Society would perhaps have been withheld if it had been known that the character of it was to be so entirely controversial. The Council gave permission for a paper on scoliosis generally. As the subject was of great importance to the profession at large, he thought that the appointment of a committee to inquire into the whole subject of scoliosis and its treatment would be a good step for the Society to take.—Mr. H. MARSH seconded Mr. Heath's motion, and thought that the pathology and treatment of lateral curvature was still in an undecided condition.—The committee was appointed, and consists of the following gentlemen:—Messrs. Christopher Heath, Howard Marsh, Walter Rivington, Warrington Haward, and R. W. Parker, the surgical hon. sec.

MEDICAL SOCIETY OF LONDON.

"Clottage" of the Ureters.—Certain Conditions of Bladder in Children.

AN ordinary meeting of this Society was held on Monday last, Dr. Hughlings Jackson, F.R.S., President, in the chair. The new Surgical Secretary, Mr. Bernard Pitts, took his seat at the presidential table, and Dr. Samuel West occupied the post of senior honorary secretary.

Dr. ORD proposed, and Mr. WM. ADAMS seconded, a cordial vote of thanks to Mr. Brudenell Carter for the admirable way in which he had fulfilled the duties of president during the past year. Mr. BRUCE CLARKE and Mr. MARMADUKE SHEILD did the honours of the vote of thanks to Mr. J. H. Morgan. Both votes were duly carried.

Mr. HURRY FENWICK submitted for criticism an operation which he termed "Clottage of the Ureters." The procedure consisted in an attempt on the part of the surgeon to "block" or "cork" up a ureter with blood clot. He argued from statistics that it ought to be performed in those cases where the surgeon has to combat profuse and uncontrollable hæmaturia from a kidney hopelessly crushed by an accident or affected with advanced carcinoma. He considered it a conservative operation, and one that ought to rank in front of the operation of nephrectomy. Mr. H. Fenwick's ureter aspirator[1] is introduced into the bladder. Suction is then practised on the ureter of the damaged kidney so that the blood clots are drawn into the eye of the instrument; light pressure is then made with the back of the instrument against the opposing finger in the rectum, thereby nipping the ureter lightly. Time is thus given for the blood clot to collect in the pelvis of the kidney. A case in which the operation was successfully performed was related. It was that of a man aged fifty-one with right renal carcinoma. The hæmaturia had lasted thirteen months; it had been intermittent and profuse. The urine remained free from blood from the time of the operation till his death six months later. No necropsy was made.—Dr. TUCHMANN thought it was impossible for the finger or any instrument in the rectum to nip the ureter. He handed round his own instrument for aspiration of the ureters.—Mr. HENRY MORRIS considered that Mr. Fenwick had introduced an ingenious thought. It would have been impossible, even had a necropsy been made, to have said whether the obstruction was due to the blood clotting naturally or to the result of the procedure practised by Mr. Fenwick. If hæmaturia from traumatism were not checked by ergot or hazel witch, the better treatment would be nephrectomy.—Mr. R. W. PARKER inquired whether the hæmaturia were due to the traumatism or to the malignant disease itself. He agreed with Mr. Morris that the *rationale* of this method was not clear. He questioned even whether actual clotting would stop the hæmorrhage.—Mr. BRUCE CLARKE said that it seemed to him that the best method of stanching the hæmorrhage was to cut down upon the kidney and to attack the bleeding vessel. He considered that it was almost impossible to be sure that the instrument would effect the desired object.—Mr. BERNARD PITTS agreed that the danger arose from intra-peritoneal hæmorrhage rather than from hæmaturia, in traumatic cases. In severe cases treated by rest, and without surgical interference, he had known casts of the ureters to be passed. The suggestion was made that the instrument might be used to clear out clots by aspiration, as for instance in attempting to cure some cases of hydronephrosis.

Mr. BRUCE CLARKE read a paper on Certain Conditions of the Bladder in Children. The roughened interior of the bladder was a far more frequent occurrence in children than adults, and the symptoms of stone were far more often present than a stone itself. Cases illustrative of these two facts were narrated. He believed that chilling of the surface of the body was an important causational element in these cases. The treatment of rest in bed, including universal warmth of the surface, with regulation of the diet and the administration of tonics, was mostly efficacious.—Mr. R. W. PARKER considered that text-books were often incorrect in the statement of the symptoms of stone in a child. He had known stone in girls to give rise only to tenesmus and dysenteric diarrhœa. Preputial irritation and tubercular disease of the bladder should be borne in mind in analysing the symptomatology of stones in the bladder.—Mr. MARMADUKE SHEILD had known malignant disease of the pelvis to be mistaken for stone. Retention of urine might be the only and first symptom of vesical stone in children.—Mr. HENRY MORRIS ventured to ask whether the condition described by Mr. Bruce Clarke might not be due to something very different from phosphates. In fact, in some cases he believed that the urine might have been over-acid in the first place. Might not errors of diet be a cause of the over-acid state of the urine, which led to the cystitis and alkaline urine?

[1] THE LANCET, Sept. 18th.

OPHTHALMOLOGICAL SOCIETY.

Ophthalmoplegia Externa.—Papillary Movement in Lateral Deviation.—Picture painted after Extraction of Cataract.—Fibroid Degeneration of Ciliary Muscle.—Paralysis of External Recti.—Associated Movements of Upper Lid and Eyeball.—New Formation in Vitreous.—Tubercular (?) Disease of Choroid: Extirpation of both Eyes.—Closure of Sclerotic Wounds by Conjunctival Sutures only.—Lateral Nystagmus.—Conjugate Palsy of Ocular Muscles and Nystagmus.

AN ordinary meeting of this Society was held on the 10th inst., Mr. J. Whitaker Hulke, F.R.S., President, in the chair.

The PRESIDENT announced that Mr. James Dixon, consulting surgeon to the Royal Ophthalmic Hospital, Moorfields, had presented a complete series of Von Graefe's *Archives*, from the beginning up to the year 1875.

Dr. C. E. BEEVOR showed a case of Ophthalmoplegia Externa without other symptoms. It was that of a woman aged forty, who had rheumatic fever six years ago, after which the right eye suddenly turned outwards, but it was doubtful whether the left eye was affected. The patient did not know that her eyes were fixed till told so. The up-and-down movements are weak, but there is almost complete paralysis of the lateral movements. There is a considerable degree of ptosis, probably due to the consensual movement of looking, which is very deficient. The pupils are equal, and react to light and accommodation; convergence is lost. The optic discs are normal. There was no history of syphilis, and no evidence of tabes, but some improvement has followed treatment with iodide of potassium.

Mr. MARCUS GUNN showed a case of Pupillary Movement in association with Lateral Deviation. The boy, aged ten, had a blow on the left eye with a cricket ball two years ago, which had left sight dim on that side. There is considerable lenticular opacity, and no fundus reflex; there is bare perception of light; projection is extremely defective, being accurate only outwards. On fixing a distant object with the right eye for some seconds, nystagmus commences in the left only, slight in degree, and lateral. On looking strongly to the left, both eyes exhibit nystagmic movements. On lateral deviation to the left both pupils contract, while they do not change on lateral deviation to the right, nor in association with any other muscular movement except convergences, when they act normally. Both pupils react well to light, but the left alone contracts feebly to exposure from the great defect of vision. The downward movement of the left eye is somewhat impaired, and on looking upwards the left is strongly divergent.

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Mr. BRUDENELL CARTER showed a picture painted after recovery from Extraction of a Senile Cataract. The artist is about fifty-five, and was operated upon for mature senile cataract of the left eye in November. The right lens was at that time partially opaque, and became completely so by the end of 1885. It has not been operated upon, and the picture was painted in October, 1886, with the left eye only. The drawing of the lines about the upper part of the porch show the absence of astigmatism, the correcting lens being spherical only.

Mr. KAROP showed a case of (?) Fibroid Degeneration of the Ciliary Muscle.—Dr. BRAILEY was not satisfied that there was fibrous degeneration; it might be that the muscle had been displaced, stretched, and extended, but he said that there was an abnormal layer of nuclei; he did not say it was fibrous.

Mr. J. G. MACKINLAY showed a case of Paralysis of both External Recti, probably congenital. The patient was a girl, aged sixteen. There was no diplopia, nor has there ever been. No other muscles were affected. The pupils reacted well to light. Acuity of vision was greater in the left eye. There was astigmatism of both eyes. Partial deafness existed on both sides.

Dr. ERNEST CLARKE showed a case of New Formation of Vessels in the Vitreous Body.

Mr. BRUDENELL CARTER showed a case of Large Spontaneous Vitreous Hæmorrhage in a young man which had almost completely absorbed.

Mr. C. HIGGENS showed a case, in a boy aged seven, of Hæmorrhage in the Vitreous Body with a peculiar deposit behind the retina (? inflammatory).

Dr. SIDNEY PHILLIPS showed two cases of Associated Movement of the Upper Lid with Movement of Eyeball. The cases occurred in brothers, and was seen in one at the age of six months. The eyeball directed to one side, the opposite upper eyelid droops, and also on the side used, though this latter is rendered less apparent by an effort which contracts the occipito-frontalis muscle.

Mr. ROCKLIFFE related two cases of New Formation in the Vitreous: in the first case there was high myopia; in the second there was a history of a blow. There was no syphilis in either patient, and in each the eye was quite blind. He also narrated a case of Ossification of the Choroid, causing sympathetic ophthalmia. There was no history of syphilis or injury, but there had been an attack of kerato-iritis eight years previously. After removal an extensive layer of bony tissue extending in all directions from the site of the disc, the lens, which was entirely absorbed, was encapsuled in a bony shell.—The PRESIDENT observed that the first two cases were clearly instances of inflammation, and not new growth. He had seen true bone formation, but doubted if it was not in inflammatory products rather than in the choroid.

Drs. BRAILEY and HARTLEY communicated a paper on Tubercular (?) Disease of Choroid, with extirpation of both eyes. Five years previously the patient's left eye was struck with a piece of metal. No notice was taken of the accident; but in June, 1886, the eye was tender, and he applied for relief. A small triangular piece of metal was then discovered resting upon the iris at its lower part. Faint horizontal streaks of opacity were also visible in lower half of lens. The metal, with the iris to which it was adherent, was removed by a downward iridectomy, and the eye seemed to become quiet. In about a month, however, the patient returned, complaining of intense pain in left side of head, with some diminution of sight in right eye, which before was normal. Right eye: V ⅔, cornea bright, but surrounded by distinct zone of pink injection. No pain or photophobia in this eye; only "dulness" of sight. Left eye: Intense vascular injection of the whole eyeball, which appeared enlarged. Cornea uniformly opaque; tendency to bulging of iris at the upper and lower ciliary margins. V = *nil*. T + 2. This eye got rapidly worse, in spite of treatment, so that in a day or two it was extirpated. The right eye, meantime, was being vigorously treated with biniodide of mercury, leeches, atropine, &c.; but, on August 4th the notes said: "Pain in right eye and right side of head, much chemosis, V = barely fingers." On Aug. 21st there was marked prominence of the ciliary region; cornea slightly hazy (from altered T?); eyeball as a whole large and prominent. Iris swollen and pupil obliterated. T + ; V = *nil*. Pain and swelling continued. Eye eventually extirpated. Examination of eye by Dr. Brailey: Globe slightly enlarged (generally), especially in antero-posterior diameter. Cornea small, probably opaque, and flat when fresh. Extensive and prominent bulging of ciliary region, especially above and below. Anterior chamber was probably wanting or shallow when fresh. Optic nerve larger than normal. Antero-posterior vertical section through cornea and yellow spot showed the lens *in situ*: vitreous gathered up so as to occupy only the anterior half of its cavity; a thin fluid fills up the remaining space. Retina *in situ*, but thickened and much wrinkled. Choroid *in situ*, but much changed in appearance; at and near the posterior pole much thickened; this thickening closely surrounded the optic disc. It tapered off forward to the ora serrata, but even there it measured two or three times its normal thickness. Great thickening began again at the ciliary body, and extending thence to the iris, diminishing towards its pupillary margin, which hardly appeared implicated. In the iris the new growth appeared mainly posterior to the uveal pigment layer, which appeared scarcely altered. In the ciliary body the uveal pigment was scattered, and the new growth appeared both internal and external to it. The sclero-corneal tissue was abruptly thinned at the anterior termination of the ciliary body, and enormously stretched. This change extended over an antero-posterior space of at least five millimetres. The vastly thickened base of the iris was pushed close into the projecting part. Thus was constituted the ciliary bulging. A thin, pretty uniform layer of new formation and slight consistency was found between the retina and its pigment epithelium layer, and appeared to be due to the coagulation of a fluid effused in this position. The growth did not seem to have extended either into the substance of the sclerotic or into the retina, or to have perforated the lumina vitrea of the choroid. It was fairly consistent and non-pigmented.—The PRESIDENT thought the evidence of tubercle was indistinct: there was no history of it, and it was not proved by the microscope.—Dr. BRAILEY said that the growth in the second eye was clearly tubercular, there were well-marked giant cells and broken-down matter; no bacilli were found, but he laid no stress on that, as it might have been due to the Muller's fluid.—Mr. LAWFORD said that this did not interfere with the detection of the bacilli.—Dr. SHARKEY considered the anatomical peculiarities of tubercle much more characteristic than the bacilli; even in cases of general tuberculosis, he had failed to find them in any of the organs. The earlier the tubercles, the less the chance of finding them.—Mr. NETTLESHIP thought that, apart from the histology, a subacute destructive sympathetic inflammation would satisfy all the conditions found.—Mr. HARTLEY said there was nothing in the accident or in the behaviour of the first eye in favour of sympathetic inflammation.

Mr. SIMEON SNELL (Sheffield) read a paper on the Closure of Sclerotic Wounds by Suturing the Conjunctiva only, and said that for a long time he had been convinced that it was unnecessary and undesirable to suture the sclerotic directly for wounds of that tunic. Perfect apposition was obtained by suturing the conjunctiva only; a needle threaded with carbolised catgut or silk was passed well underneath the conjunctiva on either side of the scleral wound, and the grip thus obtained allowed, on tying the suture, the lips of the wound to fall into perfect apposition. The resulting union was perfect. He referred to his article in the *Ophthalmic Review* for 1884, where he related cases and advocated this method: more recent experience had confirmed his opinion as to its value. He had employed it in a large number of cases where he had incised the sclerotic to remove or search for foreign bodies with the electro-magnet, as well as in several cases of accidental wounds, examples of which he related. The method advocated avoided passing a suture through the sclerotic, choroid, and retina, and left no loop in the interior of the eye to act in some degree as a foreign body in a cavity where the vitreous was already broken up; it made the deep wound into a subcutaneous one; it did not disturb union by removing sutures; the insertion of needles in the sclerotic often increased the loss of vitreous; this was avoided.

Mr. JESSOP read a case of sudden and lasting Lateral Nystagmus, most marked when looking to the left. It was a man aged seventy, who came to the Central London Ophthalmic Hospital on Nov. 12th, 1886. Three days previously, he noticed, on waking up, that fixed objects moved and rocked laterally. His previous general health had been good, but he had been troubled with slight diplopia for fifty ysars, which he attributed to his aniso-metropia. For the last week he had been giddy, but had never fallen down.

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No syphilitic history or signs. Fourteen years deaf with his right ear, and five years with left. Eyes: no apparent squint, and fields for diplopia showed the images very little distance apart. Lateral nystagmus most marked when patient looked to the left, scarcely seen when looking to the right. Pupils equal; act to light and accommodation. Hippus irregular as to time and degree, not synchronous with respiration, pulse, or nystagmus, and not altered by looking to the right or left. He said that, on looking to the left, objects passed to the left, but he did not see them come back again. The nystagmic movements were not increased by pressure on the ear, as in Dr. Hughlings Jackson's case in the Transactions of the Ophthalmological Society, vol. iii., p. 261. The nystagmus was increased by active movement, especially coming downstairs turning to the right. Knee-jerks normal. Heart: loud mitral systolic murmur. Urine normal. Mr. Cumberbatch had examined the ears, and said that the deafness was the ordinary deafness connected with chronic middle ear catarrh.

Dr. GOWERS first drew attention to the forms of Conjugate Palsy of the lateral movements of the eyes caused by disease on one side of the pons. The lateral movement was excited by the sixth nucleus on one side, acting through its own nerve on the external rectus, and through the posterior longitudinal fibres (and cells and fibres of the opposite third nucleus and nerve), on the opposite internal rectus. It was probable that these third nerve fibres did not actually arise from the sixth nucleus, but that their cells were connected with those of the sixth. It had been sometimes assumed that the centre for this lateral movement was the sixth nucleus, but this view was erroneous; the centre was possibly the superior olivary body, which, according to Betcherew, was connected with the sixth nucleus, the auditory nucleus, the cerebellum, and the spinal cord. There were three classes of palsy from disease of this region. 1. Paralysis of the sixth nerve only, from disease of its fibres within the pons, causing absolute palsy of the external rectus and deviation of the eye inwards. 2. Disease of the nucleus of the sixth, causing the total palsy just mentioned, with, in addition, loss of the associated action of the opposite internal rectus, so that this eye could not be moved inwards beyond the middle line, except in some instances, in convergence or alone; the facial nerve was also involved in these cases. (An instance of this form was described.) 3. Disease above the sixth nucleus causing palsy of the lateral movement of both eyes, but without the total palsy of the external rectus, and consequent deviation of the eye inwards, present in the first two forms. If the eyes were moved towards the opposite side, they could be brought back as far as the middle line, but not further. Thus the affected muscles could bring the eyes back from the position produced to the action of their antagonists, although they could not effect a primary movement. Hence, this return movement must be excited in some other way than through the path by which the same muscles caused a primary lateral movement. The excitation for the return movement was probably due to the influence of the centres of the opposite side. Thus, in disease of the right side of the pons, in which the eyes could not be moved to the right, if they moved to the left the centres on the left side excite the corresponding centres on the right side to bring the eyes back to the middle line; to move them further the interrupted right path was necessary. It was perhaps, a special instance of the associated action of opponent muscles, continuing longer in the centres for the opponents than in those for the primary movement. This consideration simplifies the problem of the immediate mechanism of nystagmus, reducing it to the causation of the intermissions of the primary contraction. Given intermitting contraction and the return movement, the oscillation necessarily followed. It was probable that a tendency to intermission was inherent in the centres, but was normally restrained, and the contraction rendered uniform by some influences, perhaps complex. One such influence might be the mutual action of opposing centres. A case was mentioned of disease of one side of the pons, with loss of the movement towards that side, in which there was nystagmus in the movement towards the opposite side; and, two years ago, he had brought a case before the Society in which an acute lesion on one side of the pons caused deviations towards the opposite side, with nystagmus. But many more facts as to the position of lesions causing nystagmus were required before the speculation as to its mechanism could, with profit, be carried further.—Dr. HUGHLINGS JACKSON, after remarking on the great value of the case Mr. Jessop had brought forward, and on the thoroughness with which it had been investigated, and after expressing his admiration of Dr. Gowers' paper, said that he had long held that nystagmus and tremor signified paralysis. He believed that, notwithstanding the complete excursions of the globes, there was loss of some few ocular movements in the case of Mr. Jessop's patient. It was of very great importance to distinguish between loss of power of muscles and loss of movements. In nystagmus there was, he thought, loss of some movements and development, and sometimes over-development of other movements of the very same muscles. He considered that in miners' nystagmus and in other professional cramps (writers' cramp, for example) there was loss of some movements, with forcing of other movements of the same muscles. If, after gazing out of a rapidly moving railway carriage, we look at the seat, the seat seems to move: here is negative after-movement; there is loss of a few ocular movements with over-development of other movements. Is there not here nystagmus in the making? It was submitted that there was temporary exhaustion of some cells of the lowest motor centres for certain ocular movements. If one might make the ridiculous supposition that a man's occupation consisted in looking out of a railway carriage window, he might come in time to have railway travellers' nystagmus, the genesis of which would point to a paralytic element—loss of some movements owing to atrophy of some cells of lowest motor centres, with over-development of other movements. Dr. Hughlings Jackson then adverted to a case of hemiplegia from disease of the upper part of one-half of the pons Varolii with turning of the eyes from the side of the lesion—that is, to the side paralysed—which had been investigated by Dr. Gowers and himself (*Medical Times and Gazette*, Jan. 3rd, 1874). It was well known that there were in cases of epileptiform seizures the mobile counterparts of ordinary hemiplegia with deviation of the eyes from the side paralysed. Dr. Jackson thought he had twice recently seen the mobile counterpart of the hemiplegia from disease of the pons he had mentioned; nearly tonic spasm of the limbs of one side with turning of the eyes to the other side, presumably depending on discharge beginning in some part of the pons. He mentioned the case of a boy, reported to the Medical Society in November last, who had fits when his head or face was touched. In the fits the eyes turned to the right; there was hemiplegia of the left side. A case of more direct ophthalmological interest was that of a patient who had paroxysms of lazy clonic, almost tonic, spasm of the right side of the face, but of the two obiculares palpebrarum, and turning of the two eyes to the left. Fully aware that face fits occurred from limited discharges of the mid-cortex, he believed the face fit mentioned to belong to the class of ponto-bulbo-spinal fits (lowest level of evolution). The work the ophthalmologists were doing in precisely distinguishing losses of ocular movements from paralyses of ocular muscles was of vast interest to the neurologist. Dr. Jackson had never seen loss of ocular movements in cases of general paresis, except perhaps in one case in which there was a want of smoothness in the excursions of the globes, not amounting to nystagnus. Theoretically, loss of some movements would be expected, and, theoretically, a change so slight as not to amount to that supposed to occur in nystagmus.—Mr. PRIESTLEY SMITH suggested that the correspondence in the direction between the ocular movement and the displacement of the images of objects might be explained by the patients not perceiving the image of external objects during the spasm, but only on the return of the eye to its former position. As to the occurrence of hippus in the conjugate lateral movement, he asked whether it occurred during convergence. Did cases of convergent nystagmus exist? He had not seen one. From the nature of the nystagmus we should suspect that it originated from disturbance of motor centres situate at a lower level than those which were producible by voluntary effort. He had seen one case only of vertical nystagmus. Von Graefe referred to six. As supporting Dr. H. Jackson's view, that nystagmus was in one sense of the nature of a paralysis, he said that normal movements of the eye might easily become of a jerky character. In gazing at the sun, for instance, and then looking at the landscape away from the sun, he had always noticed that the negative image of the sun had the appearance as of a number of dots, which he ascribed to displacement, the result of disturbed innervation of the

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muscles.—Mr. W. H. JESSOP, in reply, said there was hippus during convergence, and in right lateral deviation also.—Dr. GOWERS, in reply, alluded to the fact that in nystagmus objects sometimes appear to move in the same direction as the quick movement of the eye, as of great importance as probably affording grounds for ultimately distinguishing the functional relations of the phenomenon in different cases. It brought the movement into relation with vertigo, with which it is sometimes associated, and in which the sense of movement in the individual and in external objects usually agrees in direction. The explanation of the agreement is to be found in the motor character of vertigo, and in the fact that any resulting movement is secondary, and falls short of the actual motor tendency which is felt as a sensation. If a person turns round, and an object remains opposite to his eye, he infers that the object moves in the same direction as he does, and a sensation of movement leads to the same inference; actual movement would only prevent the inference if it were equal to the tendency, and there would only be a sensation of movement in the opposite direction if the actual movement were in excess of the tendency.

OBSTETRICAL SOCIETY OF LONDON.

Galactorrhœa.—Mechanism of the Third Stage of Labour.

AT the meeting on March 2nd, Dr. GALABIN showed a Uterus removed in November last by Porro's operation. The patient made a good recovery.

Dr. HORROCKS exhibited a Fibromyoma from a case of Cæsarian section. The patient in this case died.

The President, Dr. JOHN WILLIAMS, delivered the Inaugural Address, which will be found on another page. At the conclusion a warm vote of thanks was proposed by Dr. GRAILEY HEWITT and seconded by Dr. BRAXTON HICKS, which was carried by acclamation.

The discussion of the paper on Galactorrhœa, which was read at the previous meeting by Dr. Gibbons, was opened by Dr. MATTHEWS DUNCAN, who noticed the neglect of the science of lactation and deficiency of literature connected with this important and interesting department of practice. He believed Dr. Gibbons' paper to be the fullest account of the subject. Galactorrhœa required definition, for there were many kinds. That prolonged and exhausting suckling which led to depression and melancholia might be, but was not classed as, galactorrhœa. In Dr. Gibbons' case there was no excessive flow, for thirty ounces a day could only be regarded as a long continuance of the flow in quantity nearly what was secreted by an actively nursing woman. Dr. Duncan had seen in a healthy young woman a constant flow so excessive as to run through the bed and over it to the extent of many pints a day, but not for many weeks. Another kind of excessive flow was not very rare in rich-blooded young women—milk running from the idle breast while the other was being sucked. He had watched such a case where the wasted milk was apparently more than the child could be swallowing, the flow going on only while the opposite breast was stimulated by the sucking infant. The unilaterality of Dr. Gibbons' case was interesting but it was not rare in ordinary healthy nursing. In Dr. Gibbons' case cure came at once on the appearance of delayed menses, and it was most natural to ascribe the arrest of lacteal secretion to the appearance of menses, the one function alternating with the other as the growth of stags' horns with the rutting.—Dr. CLEVELAND drew attention to what he preferred to call "incontinence of milk." In this condition the infant at the breast would cry more than usual, not being satisfied; it did not sleep so long as it should, and did not present the appearance of thriving. On inquiry as to the suckling, the frequent reply is that "there is plenty of milk and that it runs away." Dr. Cleveland was satisfied that where a primipara suffered from this form of galactorrhœa she would prove an inefficient nurse.—Dr. JOHN PHILLIPS mentioned a case, as did Dr. HORROCKS, and the latter compared the physiology of secretion of saliva with that of milk, and suggested that galactorrhœa might be due to vaso-motor or pure nerve influence. The secretion of milk was intimately associated with the ovaries, but the nervous pathology had not yet been fully ascertained.—Dr. C. H. ROUTH asked why local pressure of the breast was not carried out in these cases. It was a well-known method of treatment in cases of orchitis or swollen limbs. Dr. Routh mentioned a case in which a lady continued to secrete milk long after the weaning of her child, and which persisted some three years and then became restricted to one breast. It yielded partially to treatment by pressure, but completely stopped when treatment was directed to the womb. He thought that by the introduction of a piece of caustic within the uterus, as suggested by Sir James Simpson, the flow of blood or menses might have been determined and the cure of nature anticipated.—Dr. PLAYFAIR knew a good deal of the practice of the late Sir James Simpson, but was not aware that he ever adopted or recommended the treatment named by Dr. Routh.—Dr. GALABIN and Dr. DAWSON related their experience.—Mr. J. BLAND SUTTON said he had found galactorrhœa in the cow due to tubercular disease of the ovaries, and in a case of unilateral galactorrhœa in a kid there was a cystic ovary on that side.—Dr. HERMAN asked if the mammary abscess from which Dr. Gibbons' patient had suffered might not be the explanation of the unilateral character of the galactorrhœa, one breast not secreting because of destruction of gland tissue by the abscess.—Dr. CHAMPNEYS said that Dr. Gibbons' case exemplified the antagonism or alternation between lactation and menstruation. There were cases in which secretion of milk coexisted with uterine hæmorrhage.—He had seen a case in which the more the breasts swelled the greater was the uterine loss. Nursing was stopped, ergot given, and the breasts soon subsided. With regard to treatment, Dr. Champneys could not see why eczema need have prevented the application of pressure. A drying powder on lint or cotton-wool could have been used, with strapping over, the straps reaching more than half round the body. He thought there was evidence in favour of the use of ergot in these cases. Derivation to the uterus by hot foot-baths was also not mentioned. Dr. Champneys could imagine that uterine hæmorrhage might be caused by the introduction of caustic within the womb, as named by Dr. Routh, but such hæmorrhage could not be considered menstruation. Dr. Champneys had heard of wholesale spaying of milking-cows in Texas, with the result that the milk had gone on to the owner's satisfaction for a long time, in one case for eleven years.—Dr. HEYWOOD SMITH thought the discussion would lead us to give more attention in such cases to the condition of the uterus and ovaries.—Dr. W. J. COLLINS had seen lacteal secretion in infants, male and female. He would like to hear what the condition of the breast was in Dr. Gibbons' case after the arrest of secretion. Was it atrophic? From analogy with the salivary glands the galactorrhœa might be of the nature of a paralytic secretion.—In reply, Dr. GIBBONS said that the eczema was due to constant saturation of the skin with the milk that flowed away, and that his case was so entirely unilateral that not a drop of milk could be squeezed from the right breast. When the patient was well the left breast assumed a normal appearance.

Dr. CHAMPNEYS read the first of a series of papers on the Mechanism of the Third Stage of Labour. 1. The Separation of the Placenta, reviewing the facts furnished by our knowledge of the clinical course of natural labour, and by that derived from Porro's operation. From the former it is known that until the birth of the head the placenta is not detached, and that after the birth of the head it is not at once detached. Leenser found by examination of 168 women that the placenta is completely detached as soon as the child is born. As regards Porro's operation, the inferences drawn from it must be regarded with suspicion on account of the great interference which has taken place with the uterus. The facts derived from these two sources do not tally. He next discussed the theories of the cause of placental detachment. *A.* By contraction and retraction alone, through reduction of the placental site. *B.* By contraction and retraction indirectly. (*a*) By separation of the centre, which is less firmly attached than the edge, leading to aspiration of blood; (*b*) by squeezing blood towards the surface during contraction; (*c*) by rapid diminution of intra-uterine pressure consequent on the birth of the child. *C.* By detrusion (Leenser), the placenta being forced in the direction of least resistance—i.e., the axes of the parturient canal. He then reviewed the theories of the modes of placental detachment. *A.* According to the situation of the placenta. *B.* From edge. *C.* From centre. *D.* According to firmness of attachment of its parts, and to the question whether the separation of the placenta is independent of rupture of utero-placental vessels as a cause, the decision depends (*a*) on proved hæmorrhage behind the placenta in normal labour; (*b*) on

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the mode of expulsion of the placenta. Pending the decision of the above questions to be dealt with in a subsequent paper, Dr. Champneys concluded that hæmorrhage to a moderate amount plays a certain though subsidiary part in the mechanism of the detachment of the placenta.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

AT a meeting held at the Scottish Corporation Hall, Crane-court, Fleet-street, on Friday, Feb. 18th, Dr. Alfred Hill, President, in the chair, a paper was read, entitled "A Practical Illustration of the Protective Influence of Vaccination," by C. E. PAGET, medical officer of health for the Westmoreland Combined Sanitary District. The paper had reference to an outbreak of small-pox in a village in Westmoreland and its neighbourhood, and details of each case were very carefully given. The outbreak had lasted from March to September, 1885, the disease having first appeared outside the village in a sparsely inhabited hill district, and then found its way into the village, where it attracted attention. The early cases outside the village, numbering nine, were not seen by a medical man, except one, on a single occasion, in an incipient stage of illness before the rash was out, and it was not till severer cases occurred on the introduction of the disease into the village that medical advice was sought. The total number of cases in the outbreak was seventeen, and there was no mortality. All the cases showed marks of "pitting." The chief point of hygienic interest in the outbreak seemed to be in the illustration it afforded of what has been noticed in other outbreaks of infectious sickness, such as scarlet fever, diphtheria, and measles, especially in scattered rural districts—that the spread of such diseases may be often largely due to the mildness of initial cases. With respect to the influences of previous vaccination upon the outbreak, the paper was illustrated by several tables, and showed, first, that all persons that might be said to have been unvaccinated sickened; second, that one child only out of nine under fourteen years of age that had been primarily vaccinated, and had been definitely exposed to infection, sickened; third, that thirteen persons out of twenty-two over fourteen years of age that had been primarily vaccinated sickened (though the numbers might more fairly be taken as thirteen out of nineteen, since three adults were not exposed to nearly the same degree of infection as the others); and fourth, that the only (though very poorly) revaccinated adult sickened, but only in a moderate degree. The chief practical interest of the epidemic in respect of the partial protection of persons seemed to be in the enormous mitigation of illness, even where there was incomplete vaccination and a general want of revaccination. It was in the highest degree unlikely that if there had been an absence of even a partial vaccinary protection the attacks of small-pox would have been mild, and that in such a circumstance, in spite of the distances between the patients and medical advice, they would not have come under medical treatment. Such an epidemic history could scarcely have been given but for the half measures of protection enjoyed by the community of whom it was told.—In the discussion which followed the President, Drs. Gibbon, Louis Parkes, Sykes, Yarrow, and Ashby, and Messrs. Butterfield, Lovett, Eyre, and Murphy took part.

ACADEMY OF MEDICINE IN IRELAND.

Aspergillus Nigricans.—Dermoid Tumour.—Œdema Glottidis.

AT the meeting of the Pathological Section held on Jan. 14th,

Mr. STORY exhibited and described microscopic specimens of Aspergillus Nigricans, which he had removed from the auditory meatus of three individuals suffering from deafness and inflammation of the external ears. He exhibited also a fourth fungus of an undetermined character, but most probably also one of the aspergillus tribe. He gave a brief *résumé* of the literature of the subject of otomycosis, and stated his conviction that the fungi were the cause and not the consequence of the ear disease—a view which had been advocated by some of the writers on the subject.—Dr. MAPOTHER mentioned that in the year 1880 he himself had an acute attack of this otomycosis. He had never suffered, either before or since, from any aural disease. One night he went to bed in a house in the suburbs of Dublin with his hearing perfect, and the following morning he arose almost completely deaf. He bore the affection for one day, and on the next consulted Mr. Swanzy, who, partly by means of forceps and partly by syringing, removed a quantity of white cottony material from his ears. Besides the deafness, the only sensations he had were stuffing and a sort of ramming, as if something like cotton-wool was being pushed into both ears. The material removed from his ears was examined by himself and his friend, the late Dr. Richardson, and they both came to the conclusion that it contained aspergillus. After the extraction of the fungi from his ears, and a week's washing with sulphurous acid lotion, they disappeared and never grew again. He had observed that the wall paper of the room, next to which he slept, was extremely damp and almost completely separated from the wall by the dampness; and he believed that it was that which produced the fungi. Since the wall had become dry no similar attack of mycosis had occurred to anyone else occupying the room.—Mr. STORY, in reply, said he remembered having, as a patient suffering from this disease, a farmer who, sitting up all night with a sick cow, had stuffing and pain in his ears next morning, which were found to be caused by aspergillus.

Mr. STORY also exhibited a Dermoid Tumour growing from the corneo-scleral margin of the left eye of a middle-aged man. The tumour was of a pinkish-yellow colour, and had one long hair growing out of its centre. No other hairs could be detected, even with a magnifying glass. The tumour had existed ever since the man's birth, and remained quiescent until two months ago, when it began to grow over the surface of the cornea. It was a flat sessile growth, of a circular shape, about 4 mm. in diameter, half corneal, half scleral. In his opinion, it was to be regarded as a dermoid growth.

Dr. CHRISTOPHER NIXON exhibited the larynx and trachea of a patient who had died under his care of what is it the custom to call Œdema Glottidis, occurring in the course of Bright's disease.—The PRESIDENT observed that whether or not the disputed point was conceded that in Bright's disease the large smooth kidney might, in process of time, change to the small contracted kidney, there was no difficulty in assuming that other cases might occur in which that change did not happen. He would have no difficulty in accepting a history of any number of years' duration of Bright's disease, and yet in finding a large smooth kidney after death. He did not think anyone maintained that the large smooth kidney necessarily turned into the small kidney. The point in dispute was whether the small kidney ever represented a large kidney which had undergone atrophic change. But that a large kidney might remain so for an indefinite time was no subject of wonder.

Reviews and Notices of Books.

Diseases of the Joints. By HOWARD MARSH, F.R.C.S., Senior Assistant-Surgeon to, and Lecturer on Anatomy at, St. Bartholomew's Hospital; Senior Surgeon to the Hospital for Sick Children and to the Alexandra Hospital for Hip Disease. With 64 Illustrations and a Coloured Plate. London: Cassell and Co. 1886.

THE volume before us is one of Messrs. Cassell's series of Clinical Manuals. It avowedly deals with diseases of joints from a clinical as opposed to a pathological point of view, and is mainly taken up with a description of diagnosis and treatment. Such pathology as is given is the work mainly of Mr. A. Bowlby, who is well fitted for such a task. We could have wished that he had had more space allotted to him, for there are several points in the pathology of diseases of joints which merit a fuller discussion than they receive in Mr. Marsh's book. At the same time we have to remember that a limit was necessarily imposed upon the author, and we cannot question his wisdom in preferring to make his book clinical rather than pathological. Mr. Marsh's experience at St. Bartholomew's Hospital and at two other hospitals has enabled him to

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enrich his chapters with many excellent clinical histories which admirably illustrate the diseases he describes, and this feature of the book is sure to make it popular with most readers. Altogether the work is pleasant reading, practical, and trustworthy. The general teaching of Mr. Marsh is that with which the majority of English writers are more or less familiar. He does not advocate novel or radical procedures, and it is for this very reason that the book will be most acceptable to the majority of practitioners, who will be told how to treat articular affections without resorting to formidable operations. The chapters on the early recognition and treatment of Scrofulous Disease of Joints, on Syphilis of Joints, on Internal Derangement of the Knee, and on Bone-setting, seem to us to be some of the best in the book, while that in which the Injurious Effects of Intra-articular Pressure are described is well worthy of study. The early chapters on Synovitis &c. might have been arranged in a more systematic manner, and in them we think we notice a few omissions—such as the absence of any mention of over-use and of wounds among the causes of simple synovitis, or of heat as a local application in acute suppurative arthritis, the omission of any notice of the value of antiseptic irrigation of joints, and the omission of any treatment for purulent synovitis as distinguished from acute suppurative arthritis. These are, however, minor defects, and should in no way blind us to the fact that Mr. Marsh has produced a readable and useful work on a subject of the very highest importance. The illustrations are not of a high order of merit; the coloured plate which is said to represent a knee-joint affected with Charcot's disease may be that or anything else, and, whatever it is, it fails to give any adequate conception of the changes met with in this remarkable disease.

Leçons sur les Maladies du Système Nerveux. Par J. M. CHARCOT. Recueillies et publiées par MM. BABINSKI, BERNARD, FÉRÉ, GUINON, MARIE, et GILLES DE LA TOURETTE. Tome III. (2ème Fascicule). Paris: A. Delahaye et E. Lecrosnier. 1887.

WE owe the collection of M. Charcot's lectures, delivered at the Salpêtrière, of which the present forms the conclusion of the third volume, to the devotion of his friends and pupils. They are lectures which are classical and will have a permanent place in literature. Many of them have appeared from time to time in the pages of our contemporary *Le Progrès Médical*, whose editor, M. Bourneville, was associated with the production of the first volume of this notable series. It is interesting to note how M. Charcot has gradually in the course of his teaching tended to pass from the region of structural to that of functional disease. Thus, in the present volume there are several lectures devoted to male hysteria, isolation in the treatment of hysteria, hysterical paralysis, hysterical coxalgia, contracture and mutism; two others to word-blindness; another upon a case of abrupt and isolated suppression of the mental vision of signs and objects (form and colour), and on choreiform tremors and movements; while as to organic disease, there is one lecture on double sciatica in cancer, and cervical pachymeningitis, and another on a nosographical revision of amyotrophy. Some of the subjects are further dealt with in an appendix, affording additional observations upon the particular points treated of. Interesting as the subject of hysteria always is, and practically important as the recognition of its various forms must always be, it cannot but be felt that among less emotional races the remarkable phenomena described by M. Charcot as exhibited by the hysterical are to be rarely witnessed. These lectures, therefore, may attract less universal attention than those earlier ones which did so much to enlighten the medical world upon the pathological nature of organic disease of the brain and spinal cord. But if they fail to be so widely read, it is not that they do not merit it, for they exhibit in their clear and well-considered language the same vigour of treatment and masterly exposition that constitute the great charm of all Professor Charcot's writings. As in the domain of organic disease, so in the more intricate and complex region of functional derangement, Professor Charcot cannot but be regarded as a pioneer, whose observations are always exact, and whose ideas are at once sagacious and fruitful.

OUR LIBRARY TABLE.

The Factors of Organic Evolution. By HERBERT SPENCER. Pp. 76. London: Williams and Norgate. 1887.—This small volume is a reprint of two essays originally published in the *Nineteenth Century* for April and May of last year, in which Mr. Spencer endeavours to show that there are several factors in the process of evolution which have been allowed to drop out of view owing to the followers of Darwin having too exclusively devoted themselves to the single factor of natural selection of favourable variations. He thinks that one important factor thus neglected has been the inherited changes induced in structure owing to modification of function, as by the excessive use or disuse of parts, such changes being inheritable, so that, for example, "any change in the fore parts of a giraffe which affects the action of the hind limbs and back will simultaneously cause, by the greater or less exercise of it, a remoulding of each component in the hind limbs and back in a way adapted to the new demands; and generation after generation the entire structure of the hind quarters will be progressingly fitted to the changed structure of the fore quarters, all the appliances for nutrition and innervation being at the same time progressively fitted to both." Another factor, he considers, is the direct action of surrounding agencies on organic life, which in its varying influence on different members of the same group must always have tended to differentiate individuals and led to the formation of types or species.

The Quarterly Journal of Microscopical Science.—Edited by Professor E. RAY LANKESTER, THISLETON DYER, KLEIN, MOSLEY, and SEDGWICK. New Series. No. CVII. (Vol. XXVII., Part 3). London: J. and A. Churchill. 1887.—This part contains the following memoirs:—Gilbert Bourne, on the Madreporian Coral Fungia, with three plates. 2. Arthur Shipley: Some Points in the Development of Petromyzon Fluviatilis, with four plates. 3. Robert Smith: The Ammoniacal Decomposition of Urine, with two illustrations. 4. Herbert Carpenter: Notes on Echinoderm Morphology, with an illustration. 5. R. v. Lendenfeld: The Function of Nettle Cells, with an illustration. 6. Hanbury Hankin: Some New Methods of Using the Aniline Dyes for Staining Bacteria. 7. Marshall Ward: Illustrations of the Structure and Life History of Phytopthora Infestans, the Fungus causing the Potato Disease, with two plates. 8. Martin Hartog: The Formation and Liberation of the Zoospores in the Saprolegniæ. Dr. Smith has made a series of experiments to determine the cause of the decomposition of urea, and finds that it is owing to the presence of a special form of microbe belonging to the micrococci, which differs from the micrococcus ureæ of Professor Leube, inasmuch as it liquefies gelatine.

Vision and Vision-testing, with Practical Tests. By A. ST. CLAIR BUXTON, F.R.C.S., Assistant-Surgeon to the Western Ophthalmic Hospital, London. Pp. 83. London: Pickard and Curry. 1887.—Mr. St. Clair Buxton supplies in this little work a popular and very brief account of the anatomy and physiology of the eye. A novelty is introduced in the shape of a figure showing the mode of formation of distinct and indistinct images upon a screen of a candle flame by means of a lens. The fact which will prove most serviceable is the account of the tests to which

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Government officials are now subjected, and which, if every intending clerk were to try upon himself, would spare much disappointment and annoyance.

Obstetrical Transactions. Parts I., II., and III., for 1886.—The Obstetrical Transactions for 1886 fully maintain the character of the series as a record of interesting cases, and, more important still, as a result of solid work done by the Fellows. In this work we are glad to find seniors and juniors happily united in friendly rivalry, some of the communications being the result of investigation spread over several years. The appearance of the Transactions in parts is a decided improvement, as the matter is more easily assimilated in detail, and is laid before the medical world in a tangible form before it becomes stale. Among the more important scientific papers we may mention those by Dr. Herman on the Oblique Pelvis of Naegele (January), and on one of the causes of Difficulty in Turning; by Dr. Matthews Duncan on Contraction, Inhibition, and Expansion of the Uterus (April), and another on Elasticity, Retraction, and Polarity of the Uterus (May); by Dr. Champneys on the Artificial Production of so-called "Lymphatic Varix" (June), and Observations on the Uterine Bruit (July); by Dr. John Phillips on Spurious Hermaphroditism (with a remarkable family tree); and by Mr. Doran on Malformations of the Fallopian Tube (July). Among the most interesting cases the following may be named:—Gastrotomy for Extra-uterine Gestation in which the placenta never came away, by Dr. Braithwaite; Removal of both Ovaries during Pregnancy, by Mr. Thornton (February); Multiple Fibromata complicating Twin Pregnancy, by Dr. John Phillips (June); and Chronic Abscess of the Urethra, by Dr. Herman. Of the specimens shown, the following are of interest:—Gestation in one Horn of a Uterus Bicornis Unicollis, by Dr. Campbell Pope (March); a Series of Uteri at the Onset of Labour and After Delivery, by Dr. Barbour (March); and a Naegele Pelvis, by Dr. W. Griffith (April). We congratulate the Society on so creditable an amount of work done during nine months. The final part of the Transactions is still to come.

Archiv für Pathologische Anatomie und Physiologie. Herausgegeben von RUDOLF VIRCHOW. Bd. 107, Heft I. Berlin: G. Reimer. 1887.—The January number of Virchow's *Archiv* contains the following articles: 1. On the Influence of Hardening Methods upon the Condition of the Ganglion Cells of the Spinal Cord in the Rabbit and Dog, by Dr. Trzebinski. 2. Researches on Heat-radiation of the Human Body, by A. Masje. 3. The Structure of Fœtal Membranes in Abdominal Pregnancy, by Dr. A. Walker. 4. On the "Reducing" Substances in Diabetic Urine, by Dr. Hans Leo. 5. Contribution to the Doctrine of Trophic Nerves, by Dr. Max Joseph. 6. The Fascia Umbilicalis and its Connexion with Umbilical Hernia in Children, by Dr. H. Sachs. There are also some minor contributions by various writers.

Centralblatt für Bacteriologie und Parasitenkunde. Herausgegeben von Dr. O. UHLWORM in Cassel. Bd. I. Nos. 1 and 2. Jena: J. Fischer.—The activity of bacteriological research has led to the issue of a "Centralblatt," which is to appear weekly. The editor, Dr. Uhlworm, acts in co-operation with Professor Leuckart of Leipsig and Dr. Loeffler of Berlin, names which will sufficiently guarantee the high character of the journal. Professor Leuckart contributes an original article upon the Bothriocephalus question, which occupies the first place in each of the first two numbers, the remaining pages being devoted to abstracts and reviews of recent work. The second number also contains a list of recent literature compiled by Dr. Würzburg, librarian to the Imperial Sanitary Institute.

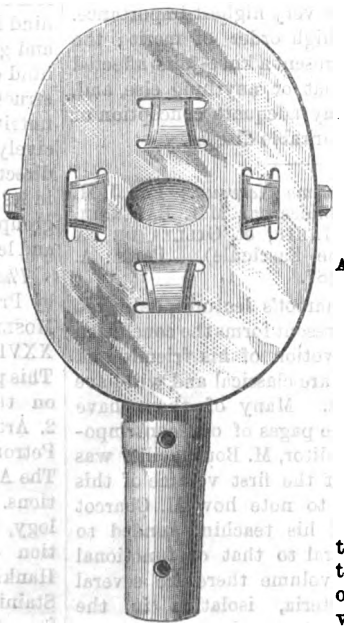
Revue Générale de Clinique et de Thérapeutique (*Journal des Praticiens*) is a new journal, of which the first number appeared on the 17th ult. It is published every Thursday, and its chief aim is to supply within a small compass all that is of special interest to the actual practitioner. The official address is 16, Rue Clément Marot; the chief editor is M. Huchard, and the acting secretary M. Eloy. The first two numbers are very well done.

New Inventions.

EMPYEMA-TUBE.

A TUBE which will provide satisfactory drainage in cases of empyema has long been a desideratum. The simple indiarubber tube is liable to have its calibre obliterated by the pressure of the ribs, or thickened pleura in long-standing cases, or by becoming kinked just inside the chest wall. The ordinary silver empyema-tube does not adapt itself well to the varying conditions of the chest, and often causes injurious pressure on the lung. The silver tube I have had made is non-compressible, cannot become kinked, will fit any chest, is comfortable to the patient, and keeps well in position. It is composed of a shield (A) measuring two inches by one inch and a half, and a lobster-tailed tube (B) attached at right angles to it. The shield gives a firm base of support to the tube, and prevents it from slipping into the chest, while the pressure of the dressings on the broad surface guards against any untoward displacement. The lobster-tailed tube (B) is two inches long, with an oval bore of half an inch by a quarter of an inch. The joints nearest the shield are made especially mobile, to enable it to fit accurately round the inside of the ribs and pleura. It has several openings to give exit to the fluids. Over the silver tube one end of a thin piece of indiarubber tubing of the required length can be drawn; the outer end of this tube is slit into four parts, each of which is passed through two slots in the corresponding side of the shield (A). This arrangement fastens the two tubes securely together. In practice I have found this tube answer all my expectations. Great care must be taken, on account of its numerous joints, to purify it thoroughly. It is made in three series by Messrs. Ferris and Co. of Bristol, one larger and one smaller than the above. I have found it advisable, however, to use as large a tube as possible.

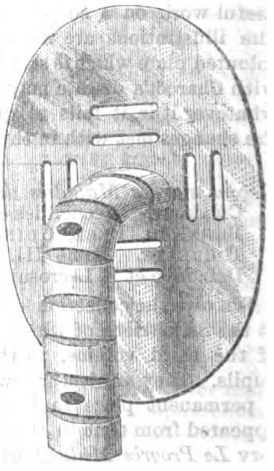
FIG. 1.



B

Front view, with indiarubber tube attached.

FIG. 2.



A A

B

Back view.

W. J. PENNY, F.R.C.S.,
Assistant-Surgeon to the Bristol General Hospital.

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THE LANCET.

LONDON: SATURDAY, MARCH 19, 1887.

THE complaints which have from time to time been made as to erysipelas after vaccination are evidently leading to a careful examination of all the circumstances associated with such occurrences, and the report which has recently been submitted to the Local Government Board by Dr. AIRY on three cases of fatal erysipelas after vaccination in the Sudbury Union is fairly typical of the facts which are usually elicited. The three cases occurred in October and November of last year, the deaths taking place on the 2nd, 9th, and 11th of November respectively. The three children were vaccinated by three separate medical practitioners, two of them being public vaccinators. In all three instances the operators performed the vaccination with all the needed care, and except as regards time and general locality the cases had nothing in common. Moreover, in each case other children had been vaccinated with the same lymph, and this without the occurrence of any untoward symptoms.

In the first case the vesicles were first broken accidentally after the eighth day, and it was after this followed by spreading erysipelas, which caused death. But rupture of vesicles, as Dr AIRY points out, is not sufficient to cause erysipelas, otherwise the intentional opening of vesicles would often be ollowed by a similar result. The poison, the contagium, the seed of erysipelas must be implanted into the scratch or wound thus induced. And it should be noted that if the erysipelas had been inoculated when the operation was performed, it would have shown itself at a much earlier date than the second week. The introduction of the poison took place after the accidental rupture of the vesicles, but beyond the fact that the infection of erysipelas was about in the town and neighbourhood, nothing to prove the occurrence of the infection could be ascertained. The child, however, lived in a spot where a low form of sore-throat was common. In the second case, which had no apparent connexion with the first, vaccination had been performed with calf lymph, and the child was well on the eighth day, when on inspection it was found that the vesicles had been broken. In this case the surroundings of the house were found to be insanitary; the mother had recently suffered from abscess of the arm; the father had an ulcer of the leg; when the child was brought to the surgery for inspection, a woman was sitting in the waiting-room with erysipelas of the face, and the practitioners connected with the case were at the time attending a case of erysipelatous inflammation of the leg, also a child with erysipelas, besides two cases of scarlet fever. Such facts abundantly account for the erysipelas in the vaccinated child. In the third case no definite source of infection could be discovered, but the child lived in a low-lying place close to swampy and unhealthy meadows.

In connexion with the origin of these cases of erysipelas, it is curious that in October and November three fatal attacks of the same disease after vaccination took place in the same union; and the indications also pointed to an endemic prevalence of erysipelas last autumn, a considerable amount, together with undefined sore-throats, being recognised. Under these circumstances, the wound produced by a lancet-scratch, or by a ruptured vesicle, is liable to receive the infection of erysipelas just in the same way as is any other wound. And this raises the question whether vaccination accidents are at all frequent preliminaries to erysipelas. This is answered by an instructive note which is placed at the head of the report by Dr. BUCHANAN. Taking septic diseases registered as having followed vaccination, Dr. BUCHANAN points out that in England and Wales during 1883—the latest period for which comparable official data were available—the number of infants receiving scratches or pricks in the process of vaccination was 763,192. The operation was followed by ill consequences in certain of these children, and 51 of them died, all or almost all from septic diseases. Now, in England and Wales the number of infants under one year of age was in 1883 over 760,000. By one mischance or other, but apart from any recorded connexion with vaccination, a certain number of these children became the subjects of septic disease, and of that number 724 died before completing one year of age. The facts may well be borne in mind, for they point to the circumstance that whilst a vaccination scratch is, like any other wound, liable to receive the erysipelatous poison, this result is really a rare one when compared with erysipelatous and septic occurrences following on other causes. The report[1] in which the facts recorded are set out has been placed on sale as an official publication.

THE committee which has been appointed to consider how best to organise medical attendance on the working classes in London has a difficult task before it, and will have many critics. We have reported from time to time the main conclusions reached, and it is to be admitted that the committee in these conclusions shows a perception of some of the chief rocks upon which the Metropolitan Medical Provident Association struck. They have agreed on a wage limit and upon terms of admission during sickness which it is thought will be, while not discouraging to providence and forethought, enough to induce those actually in need of medical attendance to join the dispensaries. We do not propose at present to discuss all the resolutions of the committee, but rather to emphasise the importance of a question which they are approaching, and which they must discuss at either the next meeting or the one immediately following—viz., the possibility and the advantage of co-operation between the hospitals and the provident dispensaries. It is thought by many that the out-patient department of hospitals is greatly abused, and that many of the patients so treated ought to be refused treatment there and relegated on system to the provident dispensary nearest to their homes—a point to be ascertained by a list of such institutions to be kept in each out-patient room of the various hospitals; and that the dispensaries, on the other hand, should be in close and organic relations with hospitals, and their officers have the power to ask

[1] Eyre and Spottiswoode, East Harding-street, E.C.; Adam and Charles Black, Edinburgh; Hodges, Figgis, and Co., Dublin.

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consultation and co-operation with the medical staff of hospitals in all cases of difficulty or severity.

The medical staff of hospitals will do well to consider this proposal in a kindly spirit. They will perceive at once some of the objections to it, and be apt to imagine the out-patient rooms deserted, and its usual occupants crowding to the nearest provident dispensary. With this change they will be likely to apprehend diminished means of teaching common diseases, which are alleged already to be insufficiently studied and taught at hospitals; and the financial authority of hospitals may say that it is no business of theirs to inquire into the social condition and means of patients, and to serve as promoters and feeders of provident dispensaries. Such objections will not, we feel sure, be pressed too far. The hospitals are too great in their function, and in their services to the public and to the poor, to need to fear lest they should be left unsought. The more serious cases will still repair to them in numbers; and by enabling the medical officers to treat them with more thoroughness than is possible now with promiscuous crowds in the out-patient rooms, greater credit will redound to the hospital, and greater gratitude be forthcoming from patients. We have never been insensible to the vagueness of the charges of abuse of hospitals. The million of patients in London out of its five millions has always appeared to us as a most misleading statistic, including, as it certainly often does, the same patient over and over again in the same institution, admitted under different letters, and also the same individual as a patient in different institutions. But it is an undoubted fact that many persons frequent the out-patient rooms of hospitals who can afford to pay a private practitioner, or who ought to come under a system of insurance against medical bills, which it is the object of provident dispensaries to enable those of small means to avoid. And we do not know any way in which hospitals would do better service than by co-operating in a systematic and organised attempt to eliminate such persons from their patients. They would not only be lessening the heavy demands on their own funds, but by showing a disposition to co-operate for the removal of the only abuse seriously charged against them they would make their claim on the liberality of the public incontestable. We look forward with much interest to the discussion of this question by a committee, including very influential members of the profession who, with singular disinterestedness, have tried to view it in all its bearings.

THE Trade Depression cloud has not yet passed away, although the Report of the Royal Commission is rapidly descending into the limbo of forgotten things. It is true that a more hopeful tone prevails among the *vates*, and the opinion has now become current that if Europe can keep out of war, it will shortly enjoy in a large measure the commercial results of peace. Happily, although the risk of war is still undeniably great and even disquieting, it is yet open to us to hope that both the condition and the promise will be fulfilled. In that fulfilment the professional classes, and especially that of medicine, have a much nearer and livelier interest than is perhaps generally supposed. It is very commonly assumed that, as the state of trade affects them only indirectly for the most part, they can only be slightly interested in it, whether as sentimentally sharing the sufferings of their neighbours or as practically involved in the hardship of overdue accounts and bad debts. But in point of fact this is only half of the mischief. Another and more permanent inconvenience is the overcrowding which it produces in the ranks of the professional classes. The clouding over of the commercial horizon causes hundreds of youths, who in happier circumstances would have found their places in the van of the trading community, to divert their energies into what looks at the time the fairer field of professional toil. It does not strike them, until in after years their mutual competition has involved them all in a common disappointment, that the equation of supply and demand holds as rigorously true in the schools and the forum as in the mart; and then enlightenment has come too late. The generation must pass away before the consequences of such an incursion can wear off. Thus the effect upon the career of an ordinary professional man, if less direct, is much more lasting than on that of the ordinary commercial man. The disorder does not assume quite such an acute form, but it is less amenable to remedies, and certainly no less trying to the body politic. We make no claim, therefore, to the praise of altruism in respect of the keen interest taken by medical men generally in the subject upon which the Royal Commission so lately reported, and with so little apparent effect.

There is, indeed, one suggestion made by the Commission which seems to be in a fair way of yielding fruit, and it happens to be the one in which medical men have perhaps the most direct interest. It is that which relates to the amendment of the Joint-Stock Companies Acts. In the suggestion we heartily concur, regretting only that the Commissioners were not more explicit and precise as to the remedy to be applied. That, however, is a defect which can easily be repaired. Already a deputation of practical men has interviewed Lord SALISBURY, and had the opportunity of explaining to him the defects in the law to which experience points. He has replied that the Government proposes to deal with this matter in the way of legislation, and assuredly the time for legislation has fully come; for great as is the impulse which these statutes have given to the commercial development of the country, it is only too patent that they have opened the door to enormous abuses. Unscrupulous promoters have plundered the public, and not less unscrupulous wreckers have plundered the Companies, until between the Company-producer and the Company-consumer, it might almost seem as if a new industry had been created, having for its special object the destruction of all other industries whatsoever. It is high time that a remedy should be applied to this crying evil, and no class of society is more directly interested than are our readers in its being done, and done soon. The medical man who is laying by for the period of repose to which every hard-working man is entitled to look forward, can find no better investment for his savings than a well-managed and sound industrial company. As a rule, he is a fairly shrewd investor, but no acumen can make him safe from the depredations of knaves whom a defective law furnishes with the means of power of mischief, and protects from condign punishment. Is it too much to ask that these anomalies should be redressed, and that the law should be armed for the effective punishment of wrong-doers of this class? Surely we may fairly

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ask to be defended from the swindler as we are already defended from the burglar and the bully.

THE *Hospital* reports and justly comments upon a marvellous and mischievous misstatement, or rather a series of misstatements, by which, it alleges, a City Company was induced to send "a very large grant" to one of "the metropolitan hospitals." The statements (by the mover of the grant) as given by our contemporary, were much as follows:—"That Hospital Sunday was everywhere a failure, because it not only lessened the aggregate amount of the income received by hospitals as a whole, but it destroyed the source of income. People who formerly gave pounds now give pence, or more probably 'buttons only,' through the offertory; and, finally, that so serious was this injury to hospitals, that the late Dr. WAKLEY expressed the deepest regret that he had ever been associated with Hospital Sunday." It is devoutly to be hoped, for their own sakes, that the City Companies are treated to more accurate statements in general, and that their liberal gifts are extracted by sounder arguments than these. Our contemporary has well disposed of the statement that Hospital Sunday has resulted in a loss to the hospital revenues. On the contrary, there is a clear gain to them of £20,000 per annum, on comparing the receipts of 1885 with those of the year preceding the institution of Hospital Sunday. At a very recent meeting of the Hospital Sunday Fund, the treasurer of the London Hospital and the treasurer of another metropolitan hospital explicitly stated that they had lost no subscriptions by Hospital Sunday. The London Hospital alone—that light in the dark end of London—has received in the last thirteen years from the Hospital Sunday Fund £40,742, and, according to its treasurer, this is all money to the good. We do not believe in the "buttons" theory much. The man who in a church would put buttons into a hospital collection is exceptionally mean and base, and must be a rare exception; and it is certain that the appeals and personal efforts of the ministers of religion have stimulated the erstwhile latent charity of many thoughtless and unimaginative people, who till then never considered what a hospital and its ministrations did for the sick who "cannot recompense" those who benefit them. It is possible and even true that some of the "Dispensaries" do not receive from the Fund all that they received from the collections of local churches. But this is a small set-off against a great movement, and one that should be easily corrected by local charity. But we have to make stronger protests still against this misleader of City Companies and other liberal bodies. His assertion that the late Dr. WAKLEY regretted his association with Hospital Sunday is one of the worst forms of misrepresentation that we can imagine, both as regards the deceased and the institution which he was the means of establishing in London, and which in the sufferings of his last days he cherished and supported so warmly. We have no idea which hospital is referred to, nor do we know the name of the City Company, but, assuming the accuracy of the report, it would have been more creditable to the orator if he had urged himself and his audience to a personal imitation of Dr. WAKLEY'S example, instead of misrepresenting his deepest sentiments, and on this misrepresentation founding an appeal for a hospital which is described in the pages of a journal specially devoted to the material interests of medical charities as one of the "least well-managed" hospitals. We may add that the late Dr. WAKLEY has bequeathed by his will, in addition to his former gifts, £1000 to the Metropolitan Hospital Sunday Fund.

Annotations.

"Ne quid nimis."

ARMY MEDICAL SERVICE.

As the groundless alarm on the subject of relative rank has been set at rest, it may not be amiss again to bring to the notice of the War Minister a real and substantial grievance seriously affecting a considerable, and yearly increasing, number of the medical officers of the Army. We allude to the date of their commissions on entering the Service. Prior to 1877 the commissions of all the officers who passed through Netley were dated from the day on which they joined the Army Medical School. In that year, however, a change was made, and has since continued in operation, by which the commissions of Army medical officers are dated from the completion of the course of instruction, while those of the surgeons for the Indian Service continue to bear the date of its commencement. The Naval candidates, who were withdrawn from Netley, enjoy the same privilege as the Indians, their appointments dating from the period of their joining at Haslar. The practical result of this system is that the Army medical officers must always—at least, until selected for administration rank—be the juniors of the Indian and Naval medical officers who pass the competitive examination at the same time with them, and who have no recognisable claim which would justify their being placed over the heads of their fellow-competitors. We do not know upon what grounds this invidious distinction has been made, but in our opinion it is a most incomprehensible act of injustice. It cannot fail to have an injurious influence upon the supply of candidates for the department, and, unless it is remedied, will create a marked difficulty in procuring a desirable class of candidates for the Army Medical Service. We trust that Sir Thomas Crawford will press upon the attention of the War Office the claims of his officers to have this grievance redressed, and that the War Minister will take an early opportunity of altering a regulation which acts so unjustly upon a meritorious class of officers. We can scarcely doubt that it will only be necessary to bring the case under his consideration to ensure the placing of candidates for the Army Medical Service upon a footing of equality with those who enter the other branches of the public Service under precisely similar conditions as regards competition and qualifications.

THE SANITARY CONDITION OF NEW WINDSOR.

A MEETING of the Urban Sanitary Authority of Windsor was held last week, and the sanitary administration of the town naturally occupied the attention of the Council. An important step was taken in the adoption of the report of a committee recommending the appointment of an inspector of nuisances. The Council are to be congratulated on the promptitude with which they have carried out the advice on this point of the Local Government Board's inspectors. By systematic house-to-house inspection much can be done for the maintenance of the town in better sanitary condition; the more serious improvements will doubtless be undertaken after a conference which is to be held between the Authority and the owners of property mentioned

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in the report of the Local Government Board. Already letters have been exchanged between the clerks of the Sanitary Authority and of the Board of Guardians with reference to the erection of a hospital for infectious disease and for the provision of a disinfecting chamber. A proposal appears to have been made to erect in the first instance an administrative block only, and then, as stated by a member of the Council, "if a disease broke out, a temporary erection could be put up in which the patients could be treated." It is to be hoped this course will not be pursued, for it is quite obvious that the authority would then be deprived of the opportunity for the immediate isolation of cases of infectious disease. While temporary accommodation was being prepared it is likely enough the disease would spread and the town would probably have to bear the expenses of a more serious outbreak for want of means for isolating the first cases. A temporary hospital is moreover in the end, more costly than a permanent building. The experience of the Metropolitan Asylums Board and of many hospital-providing boards throughout the country has shown this, and Windsor would be acting more wisely in providing for immediate use, whenever occasion occurred, accommodation for the isolation of any infectious cases which could not with safety be treated in their own homes. The last recommendation of the inspectors—the erection of a furnace for the destruction of house refuse—has been referred to the Street Committee for their consideration. An interesting report by Dr. Casey, the medical officer of health, on the sanitary condition of Windsor during 1886, was presented at the same meeting. The report is mostly of a statistical nature. It contains no description of the more insanitary parts of the town, probably because the Authority are already in possession of much information on this subject. The report states, however, that "one house was condemned as unfit for human habitation." It may be hoped that Torrens' Act will be more freely used in the future than in the past.

ABDOMINAL SECTION STATISTICS IN KIEFF.

PROFESSOR REIN of Kieff, in a paper read at the recent Moscow Congress, gave the results of the ninety-five cases in which he had performed abdominal section from 1883 to 1886. Of these, sixty were ovariotomies with four deaths, twelve were for removal of large cysts of the broad ligaments with one death, fourteen for myomata with three deaths. The remaining nine—viz., three exploratory incisions, one enucleation of a cyst in the broad ligament, one section of a purulent abdominal cavity, one section of a purulent cavity in the pelvis, one castration (*kholoshchenie*), one ovariotomy with excision of cancerous omentum, one removal of an echinococcus of the omentum—gave three deaths. The causes of the eleven deaths are thus stated:—Purulent peritonitis, four; gangrene of the pedicle, one; gangrene of the remaining part of the tumour, one; erysipelas of the leg, one; exhaustion, one; effusion of blood into the pelvis and acute nephritis, one; sepsis, one; and carbolic-acid poisoning during the operation, one. The general percentage of fatal cases was therefore 11·5. Professor Rein remarks that he has tabulated every case he had without making any exceptions, though two or three of the patients were almost moribund when the operation was performed. The arrangements of the hospital wards, too, were far from being satisfactory. Regarding the operations themselves, some difficulty is usually experienced with the subperitoneal or connective-tissue cysts. He, however, had always succeeded in getting them away entire, enucleating them from under the peritoneum, or cutting them out from the broad ligament. He does not agree with Schroeder's plan of washing to prevent hæmorrhage, but recommends instead the ligature of the ovarian and uterine arteries. He practised drainage in nine cases, using indiarubber tubes passing through the vagina in three and glass tubes passing through the abdominal wall in the other six. These glass tubes are twelve millimetres in diameter, and are shaped like a tracheotomy tube. The later operations show a decidedly lower mortality than the earlier, owing to various improvements which have been made in the wards rendering them less septic. Though Professor Rein recognises the importance of antiseptic measures, he is quite alive to their possible dangers. Latterly he has contented himself with disinfecting the room, instruments, air, and operator's hands, not applying any disinfectant directly to the surface of the wound, and not irrigating it. The instruments and operator's hands were washed in simple boiled or sterilised water.

UNIVERSITY OF CAMBRIDGE.

AN important report has just been presented by the Special Board for Medicine to the Vice-Chancellor of the University of Cambridge for communication to the Senate. It recommends that the period of study necessary for the M.B. degree be made in all cases five years, the exception hitherto existing in favour of Honours students being done away with. The examination in pharmacy and pharmaceutical chemistry, forming part of the second examination, has for some time, it appears, been unsatisfactory; and though the Board has on several occasions revised the schedule issued by them for the guidance of students, the reports of the examiners show that a considerable number of the candidates are imperfectly prepared, and fail to grasp the particular application of chemical principles which the subject involves. The Board now recommends that the student should, during the earlier part of his course, have his attention directed to the chemical aspect of the materia medica, the parts of the subject relating to the dispensing and prescribing of medicines being studied at a later stage in immediate connexion with therapeutics and clinical medicine. They propose to indicate this change by altering the title of the examination to pharmaceutical chemistry, and by making the examination itself mainly practical; while the practical study of pharmacy or dispensing may be deferred until the student is attending hospital practice. The regulations for the degrees of M.B. and B.C. are to be so modified as to ensure every person who is admitted to either degree being fully qualified in both branches of practice. Certain other minor changes are recommended, and should the report be approved by the Senate, of which there can be no doubt, the new regulations will come into force at the beginning of the ensuing academical year, October, 1887.

THE USE OF UNCOOKED MILK.

THE question of the habitual use of uncooked milk which prevails in this kingdom is one which demands serious attention. Again and again have milk epidemics of typhoid fever, scarlet fever, and diphtheria shown conclusively how severely the incidence of the disease in question has been felt upon those using uncooked milk, as opposed to those taking milk only after it has been boiled or otherwise cooked. At one time it was thought that the matter involved only the question of the cleanliness of the dairy, and the freedom of those engaged in its management from communicable disease; and the mere fact of milk coming from country dairies has been held to be a sufficient guarantee of its wholesomeness. As a matter of fact, our experience goes to show that the danger is at its greatest according as dairies are situated in the more remote and rural localities; for it is precisely in scattered rural areas that first cases of ill-defined sore-throat and other affections in the families of those having to do with cows and milk are most

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likely to pass unnoticed. But recent experience has shown that disease in the human subject, whether unrecognised or concealed, is not the only—perhaps not the greatest—danger that has to be contended with in connexion with our milk services. It has now been shown that the cow herself may suffer from a disease which at present is rarely, if ever, regarded as of any importance by dairymen, and which may give to the milk, at the actual moment of entering the pail, the power of producing scarlet fever in those who consume it in its raw state. Just as the excellent arrangements which have been made for the medical supervision of dairies must at times fail to detect certain cases of disease in the human subject, so must any veterinary or other inspection of cows fail in certain cases to prevent scarlatina-producing milk from being despatched from the dairy. We would therefore once again urge the importance of using milk only after it has been boiled or otherwise cooked. And for those who have not habituated themselves to the somewhat altered taste of boiled milk as a beverage, we may note that if milk be boiled immediately after its delivery by the milkman and be then set aside in a cool place for some six hours, the taste which is sometimes objected to will be found to be almost entirely removed; and not only so, but milk so treated keeps good and wholesome for a longer period than does unboiled milk.

MICROCOCCUS PYOGENES AUREUS.

MM. GABRIEL, ROUX, and LEPINE presented to the Société des Sciences Médicales, at a recent meeting, a series of tubes enclosing cultivations of the M. pyogenes aureus, modified by the action of acetanilide. If a mixture of equal parts of agar-agar solution and a watery 1 per cent. solution of acetanilide be inoculated with a dose of M. pyogenes aureus taken from a normal cultivation, the development may be carried out as usual in a stove at a temperature of 35·6° C. The area formed by the growing colony is, however, less compact, less thick, more flocculent, and, what is more interesting, does not assume the yellow orange tint after growing for from twenty-four to thirty-six hours, but remains dirty white, and preserves this tint; but a particle of this cultivation transferred to ordinary agar gelatine grows into a colony which regains the ordinary characters and colouration of the micro-organism.

WORRY NOT WORK.

THERE is nothing new in the dictum that "It is not work that kills men, it is worry." This has been said, and in nearly the same words, scores of times previously, by most writers on the subject. Nor is the remark "Work is healthy—you can hardly put more upon a man than he can bear," original; but Ward Beecher puts the facts forcibly when he says "Worry is rust upon the blade," except that rust commonly accrues upon inaction, whereas there is not a little worry associated with work, although the two things are quite different. "It is not the revolutions that destroy the machinery, but the friction." This is the truth absolutely. Work is not only harmless, but beneficial, because it stimulates the organism to recuperate. Worry exhausts not only the power which nature sets apart for action, but the vital strength upon which depends the replenishing of this power; and so by living at high pressure, which means a worried and anxious life, we both spend interest and eat up capital, with the result that nothing less than beggary stares us in the face, and all because we will haste to be rich, or famous, or great, or in some way prosperous. It would be well worth while to endeavour to teach people to take things easily, and remember that most of the very best things of life, whether of mind, body, or estate, are those which come only to those who can wait, and are not to be had at all for "pushing," "hurrying," or "struggling." How directly and practically it is true, as a maxim of life, that *patience* is the highest virtue, none know better than those whose business it is to keep a ceaseless watch on the course of life, and to be ever ready with head and hand to aid and smooth its progress from the beginning to the ending.

PHYSIOLOGICAL ACTION OF COCAINE.

DR. FREIBERG, working under Dr. Blumenthal, at Kowno, Russia, has arrived at the following conclusions respecting the physiological action of cocaine (*Berl. Klin. Woch.*, No. 10). Cocaine is a powerful anæsthetic, its action being limited to the surface in its immediate neighbourhood; and when brought into contact with an exposed nerve the anæsthesia is distributed over the periphery, but the central end of the nerve and motility are unaffected. In doses of half a grain to a grain in rabbits, and rather more in dogs, cocaine causes anæsthesia of the cornea, dilatation of pupils, retraction of eyelids, and exophthalmos; tonic and clonic spasms may occur, with loss of consciousness, and often fatal issue. The epileptiform spasms are doubtless of cortical origin. A difference as to the anæsthesia is observed between dogs and rabbits when cocaine is applied to nerve trunks. In dogs reflexes are abolished; in rabbits they are increased. Cocaine has a special affinity for the sensory and terminal sensory fibres of the cortex cerebri, whose function it inhibits. The disturbance of coördination may be attributed to interrupted conduction in the sensory fibres, both central and peripheral; and the convulsions, which are the main cause of death in cocaine poisoning, are due to the vaso-motor spasm and anæmia of the cortex. Bromide of potassium and the application of cold to the surface counteract this tendency; but with the first appearance of symptoms of cerebral anæmia, these toxic effects of cocaine may be mitigated or banished by nitrite of amyl.

CRIMINAL ABORTION.

AN inquest was opened at Islington by Dr. Danford Thomas on Feb. 28th last, and concluded a week later, touching the death of Catherine Tupner, aged thirty-five years. The deceased woman was married and the mother of five children. She aborted on Feb. 12th, and on the following day Mr. Wickers was called in to attend her. She died on Feb. 22nd. A death certificate of "puerperal metritis" was given and registered, but, from information received that foul play was suspected, the coroner ordered an inquiry. At the post-mortem examination it was found that the abortion had been induced by operative measures. There were no wounds of the vulva, vagina, or os uteri; but in the cervix uteri were several deep elongated lacerations, extending for nearly the whole length of the canal. These lacerations tapered off at each end. The body of the uterus, which was uninjured and empty of the products of conception, save for portions of the uterine part of the placenta, showed pregnancy to have advanced for fully three months. The peritoneum was acutely inflamed, especially in the pelvis. On the left of the uterus there was extensive cellulitis and abscess formation. There was suppurative pia arachnitis over the anterior two-thirds of the upper surface of the brain. The spleen was pultaceous and enormously enlarged. In the left kidney was a hæmorrhagic infarct occupying a quarter of its substance. The liver was large and fatty, the result of pyrexia and blood poisoning. There were thus the local and general effects of septic inflammation developed to a marked degree. In the right ovary was a corpus luteum fully half an inch in diameter, consisting of a large black central blood clot and a peripheral corrugated zone of orange-coloured tissue. In the same ovary was a minute stellate cicatrix, the remains of a ruptured follicle due to a past menstruation or conception. In the left ovary was a cyst a quarter of an inch in diameter containing sepia-like fluid. These facts

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relating to the ovaries are interesting, inasmuch as it is said the pregnancy was a twin one. It appears, then, that either both ova were liberated from the same follicle, or else the second corpus luteum failed to develop. Now, considering the extent of the lacerations of the cervix, and that the parts external to it were free from wounds, the opinion formed by the medical men consulted that the operation had been performed by a practised hand was well grounded. Clearly the deceased could not have inflicted the injuries herself, and it is scarcely possible that a person wholly unskilled in instrumentation of the uterus could have avoided wounding the vagina and os uteri. The jury returned a verdict of "Wilful murder against some person or persons unknown."

SIR JAMES PAGET ON THE DENTAL HOSPITAL.

THE efforts which were made this year to render the annual dinner of the Dental Hospital of London a success were amply rewarded. Sir James Paget took the chair, and amongst the guests were many eminent members of the medical profession, and all those present showed the greatest sympathy with the object of the meeting—namely, to create an interest in the good work done by the Dental Hospital, and to appeal to the general public for subscriptions to enable the premises to be extended, since they are quite inadequate to the increasing number of patients. Sir James Paget, in proposing the toast of the evening, observed:—

"It was difficult to estimate, for example, the amount of happiness which was given to the 40,000 people who had been attended in one year. This total was still increasing, and had increased, he believed, 4000 within the last month. Few persons had passed through life without knowing the happiness of good dental surgery. Let them imagine 40,000 people suffering without any hope of remedy. They might consider the comfort we had from the teeth. That very evening a great part of their enjoyment of a good dinner had been due to them. On the morrow their comfort would be in some way determined by the way in which their teeth had been judiciously employed. If they multiplied their pleasure by 40,000, they would estimate more nearly the benefits conferred by the institution. Besides, they were aware of the influence of the teeth on the general health. There they stood—the boundary between that which was dead and that which was to be living,—and upon them depended the first and often the principal step of what should be the progress in the change of the dead into the living by the process of digestion, and what the value of the living texture should be which had begun to form. Here the amount of good which they did was past measurement. The Dental Hospital was, as far as he knew, the best institution of the kind which was to be found in Europe, if not in the whole world."

SCHEDE'S METHOD OF DRESSING WOUNDS.

PROFESSOR MIKULICZ communicates to the *Przeglad Lekarski* an account of fifty cases of surgical operations which were treated by the method recommended by Dr. Schede at the last surgical congress in Berlin—viz., to allow blood to fill the wound and to lie between the lips after they are brought together, any deficiency in the quantity of blood being remedied by the use of the knife, the idea being that the blood either actually becomes organised or serves as a protection for the granulations as they are formed. The wound is covered with protective, to prevent evaporation. Professor Mikulicz's observations included six resections of joints, four amputations, six dissections, two ligatures of arteries, seven extirpations of large tumours, &c. In thirty-six of the fifty cases union took place without suppuration, in four there was extensive formation of pus, in five superficial suppuration starting from the points of suture, and in the remaining cases pus had existed previously to the operation, and the disinfection at the time not having been complete, it continued subsequently. The general condition of the patients was highly satisfactory, even in those cases where suppuration occurred, the temperature in no case rising much beyond normal. The dressings were not removed or changed for at least a fortnight, sometimes not for a month. This appears to be of great advantage in the case of bone and joint operations, where complete immobility of the parts is a desideratum. Other specified advantages attributed to this plan are that wounds attended with a loss of substance rapidly fill up, and the cicatrices that form are peculiarly soft and smooth. Professor Mikulicz does not find, as Schede did, that the existence of silver sutures in osseous lesions has any unfavourable influence on the cicatrisation of the wound. He remarks that it is important not to bind the external dressings too tightly to the wound.

THE VICTORIA UNIVERSITY.

A NUMEROUS deputation waited upon the Chancellor of the Exchequer, at the Foreign Office, on the 11th inst., to lay before him the claims of the Victoria University to an annual grant from the national exchequer in aid of the expenses of examinations for degrees, memorials in support of which had been adopted by a large number of public bodies in Lancashire and Yorkshire. The deputation, which was introduced by the Marquis of Hartington, urged that the Victoria University had exercised a beneficial effect on the general education of the district; that the future annual expenditure of the University was estimated at about £2500; and that it will be seriously impeded in its progress, and prejudiced in its usefulness as a centre of higher education, unless its resources can be supplemented by a grant from the public funds. Mr. Goschen undertook to give the matter his consideration, and to bring it before his colleagues, and stated that the consideration he would give it would be, if he might use the phrase, a benevolent consideration. The deputation then withdrew.

THE INTERNATIONAL STATISTICAL INSTITUTE.

THE next Congress of this Association will be held in Rome on the 12th proximo, and the preparations already on foot for the reception and entertainment of its members give promise of a brilliant gathering. Its president will be our countryman, Sir Rawson W. Rawson, and the programme just issued under his name is varied and interesting. The noble palazzo of the Ministry of Finance will be placed at the disposal of the Institute by his Excellency Signor Maghiani, Chancellor of the Exchequer; while Government and Municipality will vie with each other in making the sojourn of their guests both pleasant and profitable. In April the Roman spring is in its most enjoyable phase, whether for sight-seeing in the city or for excursions beyond the walls, and the high standard of health maintained throughout the winter is not likely to be lowered by steadier and more genial weather. In the various sections there is a rich fund of topics of medical interest, in which the voice of the profession will make itself heard through some of its most authoritative representatives. Sir Rawson's opening address will be followed by the arrangement of proceedings and other business formalities, and then the Congress will settle down to work on "Census Statistics—the differences which exist in the published results of different censuses, and proposals for arriving at the means of an international comparison" (reporter, M. Joseph Körösi); on "Social Statistics—the best method of measuring the social and economic condition of a country at any particular period" (reporter,

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Professor von Neumann-Spallard); on "Economic Statistics—budgets of family expenses, as to the measure of the well-being of individuals, families, and nations" (reporter, Dr. Ernst Engel); and on "Vital Statistics—report on the fecundity of marriages, by M. A. N. Kiœr, in continuation of the report which he presented to the Statistical Society of Paris at its twenty-fifth anniversary." Other sections in which the reporters are such well-known statisticians as Mr. Robert Giffen, Major P. G. Craigie, M. Emile Levasseur, Dr. von Inama-Sternegg, and M. A. de Foville, will further enhance the interest of the discussions; and after the place and time of holding the next Congress of the Institute has been agreed upon, the proceedings will close on the 16th prox. Those of the profession who intend to assist at the approaching Congress with special contributions of their own or of their friends are requested to intimate the same to the President, Sir Rawson W. Rawson, at his London address, 68, Cornwall-gardens, S.W., before the 31st inst.

THE FACULTY OF NANCY ON THE ASSISTANT PROFESSORIATE (AGRÉGATION).

THE Nancy Faculty of Medicine having deputed MM. Hecht, Bernheim, and Heydenreich to examine into the regulations for the competition for the grade of *agrégé*, or assistant professor, and into those concerning the subsequent employment of the fortunate candidates, this committee has just published a report on the subject in the *Revue Médicale de l'Est*. This report recommends that, considering the difficulties of obtaining the coveted grade, the tenure of the position should be extended from the nine years, which is its present duration, to fifteen years, at all events in the provincial faculties. This would tend to assure most of the *agrégés* of ultimate appointments to professorships. The report also suggests some alterations in the examination for *agrégation*—namely, the omission of the essay on an anatomical or physiological subject, and of the thesis and disputation on it: the judgment of the jury being instead based upon (1) the previous record and works of the candidates; and (2) a lecture of three-quarters of an hour, similar to that which is now required, but giving the candidate the choice of three subjects, instead of confining him to one as at present. No opinion is expressed on the locality of the examinations. At present they are always held in Paris, and complaints are sometimes heard that provincial candidates are at a considerable disadvantage in comparison with those who have studied in Paris.

SCHOOL HYGIENE.

A CORRESPONDENT sends us his own experience of the sanitary condition of private schools, which is no doubt shared by others who have directed attention to this subject. He sent his son to a private day school where the drainage and ventilation were defective, and an attack of gastric fever resulted in his removal to another school, where again the house was not free from unwholesome smells. A complaint to the schoolmaster was met with the request that the boy should be withdrawn. A third school was found, but this had the important disadvantage of being so constructed that the pupils were required to work in shadow while they faced the full glare of windows. Our correspondent pleads for some proper control over these institutions; the matter is indeed very much in his own hands and those of other parents. If schoolmasters found that the guardians of children required satisfactory evidence of the hygienic condition of the schools to which they propose to send their children, there is but little doubt the necessary improvements would be effected. It is not probable the Legislature would consider that school-houses should be dealt with differently from dwelling-houses; nor, indeed, if sanitary authorities were endowed with special powers for these institutions, can it be expected they would be adequately exercised. It is therefore desirable that efforts should be made to induce parents to recognise the importance to their children of health conditions, and we might suggest that schoolmasters would be consulting their own interests in meeting the reasonable requirements of those who entrust their children to their care.

CONDITIONS OF SUCCESSFUL PRODUCTION OF LOCAL ANÆSTHESIA IN TOOTH EXTRACTION.

DR. A. LEBRUN of Brussels and his house-surgeon, M. Andries, have published the notes of twenty-nine cases in which they employed local cocaine anæsthesia for the extraction of teeth. In twenty-three cases the anæsthesia was complete, in one case partial. In the remaining five cases the procedure was unsuccessful. This is attributed by them to the difficulty of introducing the short straight needle of the ordinary hypodermic syringe in the case of the second and third molars, and also perhaps to no precautions having been taken to prevent the escape of the liquid. They point out that M. Viau of Paris, who succeeded in producing complete anæsthesia in every one of his eighty-six cases, made use of a specially constructed syringe, with a holder by which it could be grasped firmly between the index and middle fingers, and provided with needles of various degrees of curvature; also that he surrounded the tooth with plugs of cotton-wool, and applied the finger over the puncture after the withdrawal of the needle. Besides which he made the patient keep rinsing his mouth with cold water during the five minutes that intervened between the introduction of the cocaine and the actual operation. These precautions were not observed by MM. Lebrun and Andries. They used, however, a solution similar to that of M. Viau—viz., fifty centigrammes (seven and a half minims) of a 2 per cent. solution of carbolic acid containing five centigrammes (three-fourths of a grain) of hydrochlorate of cocaine, half of which quantity was injected into each surface of the gum.

THE TEACHING UNIVERSITY MOVEMENT.

THE Councils of University and King's Colleges have arranged to act conjointly in the movement for promoting a new university in London. They have accordingly addressed letters to the Presidents of the Royal Colleges of Physicians and Surgeons offering to join the Councils of those bodies in promoting a joint charter for the proposed new university in London, in which the Faculties of Arts and Science would be formed by University and King's Colleges, and that of Medicine by the Royal Colleges. If this proposal be favourably entertained, the movement will satisfy those who wish for an academical status, as well as those who only ask for a purely professional degree.

THE GENESIS OF ELASTIC FIBRES.

DR. SERGIO PANSINI of Naples publishes the results of his researches into the origin of the elastic fibres of connective tissue and elastic organs in *Il Progresso Medico* of January and February last, as follows:—1. Elastic fibres, large and small, have a cellular origin, derived from cellular elements, which, on account of the transformations they undergo, may be considered as having special characters. 2. The process of transformation consists in the elongation of the cellular elements, first of the protoplasm, afterwards of the nucleus. 3. The process of transformation begins in the protoplasm, and is continued by the nucleus, which on this account has an important histogenetic value. 4. Once formed, the elastic fibre is solid, not hollow. 5. The granular appearance shown by all elastic fibres is not an indication

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of the origin of these fibres by fusion of the granules of a fundamental substance, but is due to the arrangement of the integral substance of the fibres. 6. Elastic fibres in the ligamentum nuchæ are not united by simple cementing substance, but by a connective network, which embraces each individual fibre in its meshes. In thickened portions of this connective tissue the arteries and veins ramify, and also by its means the plasmic juices are distributed in organs poorly supplied with vessels.

GUY'S HOSPITAL.

"AN Inquirer" in the *Daily Chronicle*, who has not the courage to put his name to his letter, suggests extravagance in the administration of Guy's Hospital, as in sums spent in the treasurer's house and in highly paid local stewards on each estate. We need not say how easy it is to stop the flow of charity and to insinuate extravagance, where probably none exists. To do this to an institution like Guy's suffering acutely from the depression of the times, is not a creditable achievement. We do not pretend to know much about the details of the administration of Guy's, and we think it quite possible that the authorities would act wisely in taking the public a little more into their confidence. But we are able to say that the suggestions of the letter are most inaccurate and unfair to the hospital. It is not the case, as suggested, that the sum of over £5000 was spent on the treasurer's house when rents were greatly falling; only £2000 were spent on the house and furniture, and that when the treasurer came into office in 1876, and as a condition of his doing so, nothing having been done to it for twenty-seven years prior to that time. When these necessary repairs were made the hospital was in prosperous circumstances and saving money. It is not true, as implied, that the treasurer is a "highly-paid" official. He is an unpaid officer, but has a furnished house, on which no money has been expended for eleven years. The management of the estates is a matter on which opinions may differ. They consist, we believe, of 50,000 acres, chiefly in Herefordshire and Lincolnshire. There is a land steward in each case. One has a house only, and the other is paid a commission on the rents. We have said enough to make anonymous critics of great charities a little more careful in pursuing their easy but unwise calling.

RESEARCHES ON THE REFRACTION OF THE EYE IN STOCKHOLM.

PROFESSOR JOHANN WIDMARK has recently concluded a long series of researches upon the state of the refraction of the eye in the schools of Stockholm, and he has had the opportunity of examining 704 males and 742 females. The results he obtained were as follows: In the first schools, comprising children from six to seven years of age, there was no myope. In the second set of schools, comprising girls from eight to nine years of age, there was only one myope. In the corresponding school for boys the myopes had risen to 14 per cent. This difference is probably due to the fact that the boys have to undergo a special examination for entrance into the first class of the secondary schools, and are consequently compelled to work harder in the preparatory school. At the age of sixteen, when female education usually ceases in Swedish schools, 33 per cent. of the girls were myopic, the mean amount of myopia being −2·5 D, which was about equal to that of the boys at the corresponding age. In the higher schools the girls proved to be more frequently and more highly myopic than the boys, the proportion being 54·28 per cent. with an average of −3·3 D, although the girls' schools took from one to two years' more time over the same subjects. The maximum frequency of myopia, 66·67 per cent., occurred in a girls' school, and the maximum amount of myopia, −4·16 D, also occurred in a girls' school, which seems to show that an excess of work for the eye is more injurious to girls than to boys. This depends in part perhaps upon the greater feebleness of the girl as compared with the boy, but it is in part due to the fact that in leisure hours the girl occupies herself with handiwork requiring close attention, and with music. Moreover, the means of physical education are very inferior in schools for girls, and gymnastic exercises are either not at all or very insufficiently practised.

AFTER-EFFECTS OF THE EARTHQUAKES ON THE NERVOUS SYSTEM.

IT is curious to note that many persons who were calm and apparently not greatly disturbed by the earthquakes which recently occurred in the Riviera have since suffered seriously from the effects of shock. This fact shows beyond the possibility of question that more may be done in the way of injury to the nerves by an undue excitement than is at the time perceived, just as more may be done in the way of restoration to nervous health after an illness than is immediately evident. The explanation of these seemingly paradoxical effects is to be found in the fact—perfectly familiar to every student of nerve-troubles—that in a very special manner health in respect to the nervous system is dependent upon the integrity or orderly performance of nutritive functions. Muscular tissue may be badly nourished for a time, as in the course of an ordinary illness, and as soon as convalescence is fairly established recovery of the wasted muscles will commence, use stimulating re-growth naturally, with the result of perfect recovery in a comparatively short time. It is not thus with nervous tissue, whether in brain, spinal cord, or nerve trunk. When from any cause nutrition is impaired in a nerve centre or branch, not only is there extraordinary difficulty in restoring the integrity of nervous function, but the wear and tear of ordinary life, even when these are reduced to a minimum, seem to increase the exhaustion instead of reducing it by stimulation of the recuperative faculty. The reason of this seems to be that nerve centres, like batteries, are apt to be discharged suddenly and sometimes unconsciously; and when once what may be termed the residual stock of energy is consumed, it takes a very long time and often extreme carefulness to restore this reserve. Until the loss of strength held in reserve is slowly accumulated by an excess of production over consumption, the nervous system is, so to say, working on its daily strength, and can have none of that buoyancy which is due to the existence of a stock of force which has been unexhausted. No doubt those present in the earthquakes, though calm, were subjected to a severe strain, and they have not yet had time to recuperate.

LIABILITY OF AGENTS FOR MEDICAL CHARGES.

THE County Court judge at St. Helens, trying an action by Dr. Edward Casey to recover £14 12*s.* for attendance on four men from the Collin's-green Colliery Company, said that the manager of a company might send for a medical man on grounds of humanity without thinking that he incurred liability. The claim of the plaintiff was based on the fact that he had been sent for by the manager on the occurrence of an explosion by which the men were injured. The charge was for one day's attendance and operations. The particulars are not given, and we cannot pretend to judge of the reasonableness of the charges. But the judge's doctrine is one to which we cannot assent. The manager of a company is a responsible agent, and must be held so when he sends for medical men. It is very easy to be humane at the expense of the medical profession, but there has been too much of this kind of humanity. The judge gave judgment against the manager for three guineas, and laid down that

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he company were not liable. The manager had himself offered £10 in settlement, but this had been declined by the plaintiff, who obtained leave to appeal. We are glad of this, for the view taken by the judge is, as the counsel for the plaintiff said, one of serious import to the profession, and ought to be settled by higher authority.

"DEATH-TRAPS."

WE are glad to find that those wretched gratings which afford means of ventilating (!) the sewers on the street level in the great majority of our public thoroughfares are beginning to be regarded in their true character as "death-traps." Nothing but the most strange obtusity, or an inexplicably perverse ingenuity in the defence of a hopelessly condemned system, can account for the fact that there are still persons who speak with authority on the subject of sanitary engineering to be found saying smooth things of the street level ventilators and man-holes. There is something so grotesque in the notion of intentionally establishing any way of escape for the gases generated in sewers into the atmosphere at the levels where people walk that nothing but amazement can be excited by the re-utterance of all the silly things that have been said by the defenders of this system. There is only one rational remark to be made on that side of the question, and it is that it would cost a great deal of money to get rid of these surface ventilators and man-holes and to replace them by reasonably sanitary apparatus; for example, high ventilating shafts reaching above the level of uppermost rooms and chimneys. This is the very most that can be said in defence of the *status quo*. The reply is obvious. Nothing can be done to amend a condition of matters which is wholly indefensible without a large expenditure; but when we remember that lives are distinctly sacrificed to the evil genius of persistent blundering, it may well be concluded that it would be worth a good deal to put an end to the slaughter if only because we do not know *who* the next victim may be.

THE LONDON HOSPITAL.

WE regret to hear that there is a considerable amount of friction existing at present between the medical staff and students of the London Hospital. For some time there has been dissatisfaction felt, and partly expressed, by the students, but this recently culminated when one of the surgeons was openly hissed by a body of the students when about to visit his wards. The commencement of the difference would appear to have been the appointment to the new office—that of receiving-room officer—of a gentleman holding University degrees, but who had not gone through the full course at the hospital.

THE ETIOLOGY OF DYSENTERY.

IN a communication to the Bohemian Medical Society Professor Hlava gives an account of a number of observations he has made on the subject of the etiology of dysentery. He examined the stools and the bowels with their contents post mortem in sixty cases of epidemic dysentery, also in two cases of a sporadic nature, and in ten where the symptoms of dysentery were developed as complications of other diseases. He also injected the fresh stools of dysenteric patients into the rectum or duodenum in seventeen dogs, six cats, eight rabbits, hens, and porpoises, and made seventy cultivations of bacteria of various kinds found in dysenteric stools. The conclusion he arrived at was that bacteria are not the cause of dysentery, for none of the micro-organisms were reproduced in the animals experimented upon, only a transitory catarrh being found. No qualitative anatomical distinction could be made out between cases of epidemic and of sporadic origin. Professor Hlava investigated the amœbiform large-grained protoplasm which he found in the dejections in considerable quantity in sixty-five cases, and on the intestinal mucous membrane and in the submucous tissue in twenty cases. On putting these bodies under the microscope, he found that the amœboid movements continued for ten hours. He has commenced a series of observations on the effects of injecting them into the intestines of animals, with the object of showing that these bodies have a causal relation to the disease.

PRECAUTION AND PANIC.

ITALY must clear herself of the reproach that in face of an epidemic she has recourse to measures which the calmness begotten of forethought might have spared her. The reappearance of cholera at Catania, due to her neglect of the sanitary precautions suggested by its recent presence in other parts of Sicily, has made her impose in hot haste a five days' quarantine on all departures from Sicilian ports, so that to get from that island to the mainland one must steam from Palermo to Bastia in Corsica, and thence make the best of one's way to the Italian seaboard. Her better-inspired organs of opinion are denouncing this hygienically useless and commercially disastrous measure. "Notre politique sanitaire est déplorable," says the Roman *Italie*; but how is it to be helped when the deputies to the Corps Législatif yield to the clamour of their ignorant and panic-stricken constituents, who insist on imposing quarantine on their compatriots? The enlightenment of the masses, the deepening and elevating of their sense of citizenship, must in Italy precede much sanitary legislation which in England has long been the law of the land. Italian physicians, too, by their adhesion to quarantine and hygienic cordons, must cease to justify the superstitious laity in its reliance on such "precautions."

DEATH OF DR. CARRINGTON OF GUY'S.

WE regret to say that Guy's has sustained another misfortune in the death of Dr. Carrington. He was senior assistant-physician, and died on Wednesday morning from pleuro-pneumonia after two or three days' illness. On Sunday last he made an important post-mortem of a man who died from symptoms much resembling those of glanders, and it is thought that he may have become infected with some animal poison. This is the fourth physician which Guy's has lost in four years. We shall reserve any further notice of Dr. Carrington, only now remarking that in his death the profession loses one of its most popular members, who was as modest as he was promising.

"BLUE-STONE" AS A TOXIC AGENT.

A LABOURER was recently charged at the West Ham Police Court with attempting to commit suicide by taking sulphate of copper. From the evidence it appears that the accused went to a chemist's near his residence and purchased a pennyworth of "blue-stone." On being served, he put the drug in his mouth and commenced eating it. The chemist attempted to stop him, but the prisoner declared that he was tired of life and would do as he liked. In a few minutes, however, the sulphate of copper acted as an emetic, and the man was then given into custody. On being brought before the magistrate, he expressed regret at the occurrence, and was discharged with a caution. We do not know what quantity is usually supplied by chemists for a penny, but an ounce not infrequently gives rise to disagreeable symptoms, and might even be attended with a fatal termination. The best treatment would be to give eggs and milk freely, or arrowroot and barley-water, with a hypodermic injection of morphine to allay pain. It does not appear that in this case any large quantity was taken.

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MYXŒDEMA.

THE Myxœdema Committee of the Clinical Society of London has completed its investigation of the etiology, symptoms, and morbid anatomy of this interesting disease, and it is now engaged in studying the question raised by Professor Kocher's observations of the effects of total extirpation of the thyroid gland. For this purpose Dr. Felix Semon has issued a letter to all surgeons who are known to have performed this operation, asking for a statement of the results observed. We are requested to state that it is very desirable to have this part of the committee's investigation as complete as possible, and it is hoped that all who can will return full and accurate replies to the questions given. If anyone who has information on this point does not receive a circular, he is requested to apply at once to Dr. Felix Semon, who will be pleased to furnish him with one. The circular contains an admirable account of the clinical features of the disease and a photograph of a typical case. We trust that the committee will meet with a hearty response to its request for facts, and that it will be enabled to furnish its report quickly.

CHOLERA IN SICILY.

CHOLERA continues at intervals to occur at Catania. From midnight on the 10th inst. to the morning of the 12th there were seven cases and one death. So far, the disease appears limited to this one town in the island of Sicily.

On this subject our correspondent at Rome writes, March 14th:—"Grave doubts having arisen in medical circles as to whether or to what extent the recent outbreak at Catania is choleraic in character, the Superior Council of Health has deputed thither a sanitary commission composed of Professors Albanesé of Palermo, De Renzi of Naples, and Marchiafava of Rome, to study and determine the nature of the disease."

DEATHS OF EMINENT FOREIGN MEDICAL AND SCIENTIFIC MEN.

THE deaths of the following foreign medical and scientific men are announced:—Dr. Bonamy, Professor of Anatomy at Toulouse. Dr. Carl Heinrich Reclam, Professor of Hygiene and Medical Jurisprudence in Leipsic, and editor of *Gesundheit*, at the age of sixty-five. M. Emile Leudet, chief of the Preparatory Medical School at Rouen.

A NEW INHALER.

DR. COZZOLINO, lecturer on Laryngology &c. at the University of Naples, has introduced a very simple form of inhaler, consisting merely of a pair of metal tubes three-quarters of an inch in length connected by a curved band, which are inserted into the nostrils and can be worn for some time without discomfort and without attracting much attention. Within the tubes a bit of blotting-paper is placed, which is then saturated with whatever substance the patient is ordered to inhale; he must then inspire by the nose and expire by the mouth, and by this means will take the whole of whatever dose of volatile liquid the blotting-paper may contain.

DIRTY AND TROUBLESOME INCURABLES.

THESE classes of patients ought surely to be removed from asylums and provided for elsewhere, if asylums are to be expected to do curative work. Dr. Rorie insisted strongly on this reform in a paper read before the Medico-Psychological Association in Edinburgh, and we entirely agree with the opinion he expressed. If the non-dangerous classes can be accommodated in workhouses, those which only need supervision for the enforcement of cleanliness and the promotion of ordinary comfort ought to be disposed of in the same manner. As we have so often contended, if only it could be seen that *hospitals* for the insane would do infinitely more to reduce the proportion of persons attacked with mental disease who became hopelessly insane than *asylums* can possibly do, there would be not only a large economy of brain-power and sanity in the population as a whole, but a great saving of money to the ratepayers, to the general advantage and content.

MEDICAL HONOURS.

AT an investiture held by the Queen at Windsor Castle on the 14th inst., Sir George Christopher Molesworth Birdwood, who had been already knighted, was introduced into the presence of Her Majesty and invested with the insignia of his dignity in the Order of the Indian Empire. In like manner Surgeon Charles William Owen was introduced and received the badge of his dignity in the Most Distinguished Order of St. Michael and St. George. The following Companions of the Order of the Indian Empire also received their badges: Brigade Surgeon Henry Elmsley Busteed and Dr. Thomas Beath Christie.

GASTROTOMY IN ITALY.

THE *Gazetta degli Ospedali* of February 23rd gives the details of a gastrotomy performed by Professor Loreta of Bologna, on account of severe pain suffered by a young woman who had swallowed a large quantity of needles with the intention of committing suicide. On searching the stomach carefully with the hand, few needles could be found. The cause of the pain and suffering was explained by further search and extension of the abdominal incision to the right over the liver. The points of several needles were found protruding above the surface of the margin of the left lobe of the liver, and these were deemed to be the source of the pain. Some were withdrawn, but others were so fragile that they broke off. The wound in the stomach and the abdominal parietes was accurately sutured, and the patient recovered without a bad symptom, entirely freed from her suffering.

SUPERVISION OF SLAUGHTERHOUSES.

THE London Model Abattoir Society is doing excellent work in the interests of both humanity and public health. The atrocious cruelty of some of the men and boys employed in slaughterhouses, partly because they are brutal and partly because they are ignorant of their business, calls urgently for reform; while the perils to which health is exposed by the way in which meat is prepared for use as food are of a very alarming character. Better inspection is clearly necessary, and upon this need the Society, which has Dr. B. W. Richardson for its president, strongly insists.

INSTANT AND EASY DEATH FOR CRIMINALS.

IN so far as it is prudential to divest the death penalty of its ignominy and terror, it will be satisfactory to find the progress made in obedience to the dictates of humanity in searching for an instantaneous and easy death to supersede that by hanging. The Legislature of New York having appointed a committee to deal with this grim subject, the result is a recommendation to employ electricity. The whole question seems to us to be one of policy. If it be decided, first, that it is justifiable to take life at all, and, second, that the least appalling mode of execution is to be preferred, then there can be no question that electricity offers a promising mode of killing quickly and painlessly. On a recent occasion we commented with regret on what certainly appeared to us a too theatrical mode of execution.

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It is most desirable to avoid casting a glamour of fascination about the death penalty. Is there not a peril of doing this in the impulse to be humane?

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—The recent medical vacation classes have been well attended by foreign practitioners. Out of 148 there were seven from England and Scotland, thirteen from North America, thirteen from Sweden and Norway, six from Brazil, and two from Japan.

Buda-Pesth.—Dr. David Onodi has qualified as *privat docent* in Embryology.

Dorpat.—The Russian Ministry of War has arranged to give a grant of £250 to a laboratory and clinic that is about to be established in connexion with the Veterinary School for the express purpose of investigating the subject of glanders.

Gottingen.—Dr. Wolffhügel has been appointed Professor of Medical Chemistry and Hygiene, and Director of the Institute in connexion with these subjects in succession to Professor Flügge, who has gone to Breslau.

Leipsic.—Professor Heubner, who had at first accepted the invitation to the chair of Therapeutics at Prague, has, at the urgent solicitations of his friends, decided to stay in Leipsic.

AT a late meeting of the Hexham Board of Guardians the following resolution was proposed and carried: "That the medical officers of this Board be requested to discontinue as much as possible the use of intoxicating drink to the pauper patients of this union, and only to order its use in urgent cases." One of the guardians had the good sense to say it was a very delicate thing to interfere with a medical man's prescriptions for his patients, and another stated that the consumption of alcohol in the Hexham Union was much below the average of England. How little this absurd resolution was required at Hexham was pointed out by the master of the workhouse, who stated that there was now only one inmate, an old woman of ninety-five, receiving alcohol in the house. There are other matters, perhaps, to which the Hexham guardians might profitably devote their attention rather than medical prescriptions.

BY Lord Gifford's will, which was published on the 11th inst., it is proposed to found in each of the four Scotch Universities a Professorship of Natural Theology, the lecturers to be submitted to no test of any kind, to be of any denomination whatever, or of no denomination at all, and to be charged with the free discussion of all questions about God and the Infinite, their origin, nature, and truth. In case the Senatus Academicus of any university should be tempted to decline the munificent bequest in consequence of the condition with which it is accompanied, it is specially provided that the Faculties of Physicians and Surgeons, or of Advocates, may, if necessary, take the place of the university.

A WORK, by Dr. Alfred Carpenter, of interest to educationists and social reformers, entitled "The Principles and Practice of School Hygiene," will be issued next week by Mr. Joseph Hughes, of Pilgrim-street, Ludgate-hill. The book will be profusely illustrated, and will contain special chapters on the cure and prevention of disease in the family.

THE Gordon Boys' Home is to be commenced at once on a piece of ground near Bagshot, and is expected to cost £10,000. This estimate does not include a small hospital, which the committee consider necessary, and for which funds are wanted.

WE may remind intending candidates for the vacant posts of Examiners in Medicine and in Forensic Medicine in the University of London that their names must be sent in, with any attestations of qualifications they may deem desirable, on or before Tuesday, March 29th. Our note last week was inaccurate in stating that the former holders of the offices of Examiners in Medicine offered themselves for re-election, the appointments being actually as well as nominally vacant.

THE Bishop of Peterborough has lately made an excellent speech on Temperance, insisting that intemperance has many causes, and that moral and social remedies are of as much, if not more, consequence than legislative ones. He expressed the opinion that this country was more deficient in social and innocent amusements than any other, and that the sanitary condition of the people required careful consideration—views in which we heartily concur.

STATE MEDICINE in Italy has just lost an able and energetic representative in the Senator Angelo Grossi—a physician of high reputation as a consultant before his patriotic services secured his election to Parliament for his native Lombard constituency, and his further nomination as one of the "Patres Conscripti" of the new Italian kingdom.

ON Saturday last Dr. Waters was presented at Chester with a testimonial in the form of his portrait by Mr. Frank Holl, and a cheque for £296. The profession to which he belongs, and for which he has worked heartily, will be gratified by this latest tribute to him.

A SEVERE epidemic of measles has recently been raging in Norwich. Scarcely one point of the city has escaped infection, and the schools, both day and Sunday, in the neighbourhoods in which the disease has been most prevalent, have been closed.

WE are asked to state that the Jacob testimonial fund now amounts to a sum nearly approaching £500. The subscription list will close on Monday next. Professor E. Hamilton, 120, Stephen's-green, Dublin, is the hon. treasurer.

As the result of injuries received on the Great Western Railway a few days since, Mr. A. Ellis Eyton, L.R.C.P. Ed., L.F.P.S. Glas., lost his life. Mr. Eyton was forty-five years of age, and practised in Hammersmith.

THE objects of some sections of the Rivers Pollution Prevention Act of 1876 having been ascertained to be impracticable, Mr. Thorburn, M.P., has introduced a Bill to amend certain of the sections of the Act.

ARMY ESTIMATES.

THE army estimates for 1887-88 show a decrease under the head of "Medical Establishments and Services" of £9000. There is a reduction of £5980 in the pay of "medical staff," £3300 in "departmental and duty pay of medical staff corps, nurses, and miscellaneous labour," and £1100 in "cost of medicines," while there is an increase of £1280 in the pay of civilian medical practitioners. The *personnel* of the department, inclusive of the staff at headquarters, but exclusive of 335 officers employed in India, is estimated at: 1 Director-General, 8 Surgeons-General, 18 Deputy Surgeons-General, 559 Brigade-Surgeons, Surgeons-Major, and Surgeons, and 54 acting medical officers. The latter are officers on the retired list, who are employed in special appointments and receive £150 per annum, in addition to their retired pay.

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The pay and allowances of the medical staff and of an average of 25 surgeons on probation at Netley amount to £254,720. The expenses of the Army Medical School at Netley are stated at £7641, but this includes £700 as the allowance to the examiners of candidates for admission to the service, and also an item of £200, which appears for the first time, under the head of "Allowance to Army Surgeons in Aid of Expenses incurred in obtaining Certificates in Operative Surgery." Deducting these two items, the sum required for the school amounts only to £6741. From the amount taken for surgeons on probation, the number of vacancies to be provided for in the department during the year appears to be estimated at 50. In addition to the charge for army medical officers, £6400 are wanted for the pay of civilian medical practitioners and medical bills, of which £6000 are for home and £400 for colonial services.

The retired pay for medical officers is estimated at £182,000, being £20,000 in excess of the preceding year, almost entirely due to an increase in the number of surgeons-major. There are at present only fourteen medical officers on half-pay who are eligible for employment. The usual amount of £1400 is taken for rewards to medical officers for distinguished or meritorious services.

The strength of the Army Hospital Corps is estimated at 2640 of all ranks, of whom 2080 are on the home and 560 on the colonial establishment. The amount taken for the regimental, departmental, and extra duty pay of the corps is £112,410. There is also a sum of £11,650 provided for the pay of nurses, extra duty of regimental orderlies and miscellaneous labour. For the pay of surgeons of the Militia, including allowance for medicine &c., £6000 are provided, and £500 for departmental pay, Militia Reserve Medical Staff Corps. Under the head of "Army Sanitary Committee" there is a charge of £1150, being an allowance of three guineas a day, when employed, to one civilian member, and contingent expenses of the committee.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5782 births and 3836 deaths were registered during the week ending March 12th. The annual death-rate in these towns, which had been equal to 21·3 per 1000 in each of the two preceding weeks, further rose last week to 21·6. During the first ten weeks of the current quarter the death-rate in these towns averaged 21·9 per 1000, and was 2·3 below the mean rate in the corresponding periods of the ten years 1877-86. The lowest rates in these towns last week were 16·1 in Derby, 17·1 in Birkenhead, 17·2 in Leeds, and 18·1 in Wolverhampton. The rates in the other towns ranged upwards to 28·9 in Cardiff, 29·0 in Huddersfield, 30·3 in Oldham, and 33·7 in Manchester. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had increased in the preceding four weeks from 340 to 385, further rose last week to 412; they included 195 from measles, 83 from whooping-cough, 44 from scarlet fever, 32 from diarrhœa, 31 from diphtheria, 27 from "fever" (principally enteric), and not one from small-pox. No death from any of these zymotic diseases was registered last week in Wolverhampton, Derby, or Birkenhead; they caused, however, the highest death-rates in Huddersfield, Sunderland, and Manchester. The greatest mortality from measles occurred in Salford, Leicester, Bristol, Huddersfield, Manchester, and Sunderland; whooping-cough in Norwich, Oldham, and Plymouth; scarlet fever in Huddersfield; and from "fever" in Portsmouth. The 31 deaths from diphtheria in the twenty-eight towns included 13 in London, 4 in Manchester, 3 in Oldham, and 2 in Cardiff. Small-pox caused only one death in Greater London, and not one in any of the twenty-seven large provincial towns. Only 4 cases of small-pox were under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease. The deaths referred to diseases of the respiratory organs in London, which had been 466 and 459 in the preceding two weeks, further declined last week to 433, and were as many as 72 below the corrected average. The causes of 92, or 2·4 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Bristol, Preston, and in four other smaller towns. The largest proportions of uncertified deaths were registered in Sheffield, Halifax, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 22·5 and 23·6 per 1000 in the preceding two weeks, further rose to 25·0 in the week ending March 12th; this rate exceeded by 3·4 the mean rate during the same period in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 14·7 and 18·9 in Leith and Edinburgh, to 28·2 in Paisley and 29·4 in Glasgow. The 625 deaths in the eight towns last week showed a further increase of 36 upon the number in the preceding two weeks, and included 43 which were referred to measles, 25 to whooping-cough, 14 to scarlet fever, 11 to diarrhœa, 7 to diphtheria, 1 to "fever," and not one to small-pox; in all, 101 deaths resulted from these principal zymotic diseases, against 99 and 98 in the previous two weeks. These 101 deaths were equal to an annual rate of 4·0 per 1000, which exceeded by 1·7 the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of measles, which had been 23, 30, and 27 in the preceding three weeks, further rose last week to 43, of which 16 occurred in Glasgow and 27 in Aberdeen. The 25 deaths from whooping-cough showed a decline of 7 from the number in the previous week, and included 13 in Glasgow, 3 in Dundee, and 3 in Aberdeen. The 14 fatal cases of scarlet fever also showed a decline from the numbers in recent weeks; 7 were returned in Edinburgh and 3 in Glasgow. The 11 deaths attributed to diarrhœa corresponded with the number in the previous week, and included 4 in Glasgow and 3 in Edinburgh. The 7 deaths from diphtheria, of which 4 occurred in Edinburgh and 3 in Glasgow, exceeded the numbers in recent weeks. The single death from "fever" was registered in Paisley. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 121 and 142 in the preceding two weeks, declined again last week to 135, which were 56 below the number returned in the corresponding week of last year. The causes of 72, or more than 11 per cent., of the deaths registered during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 35·3, 30·7, and 28·1 per 1000 in the preceding three weeks, rose again to 31·3 in the week ending March 12th. During the first ten weeks of the current quarter the death-rate in the city averaged 31·3, the mean rate during the same period being but 20·8 in London and 21·5 in Edinburgh. The 212 deaths in Dublin last week showed an increase of 22 upon the number in the previous week; they included 5 which were referred to "fever" (typhus, enteric, or simple), 1 to measles, 1 to scarlet fever, 3 to whooping-cough, and not one either to small-pox, diphtheria, or diarrhœa. Thus the deaths from these principal zymotic diseases, which had been 14 and 15 in the preceding two weeks, declined last week to 10; they were equal to an annual rate of 1·5 per 1000, the rates from the same diseases being 2·1 in London and 3·2 in Edinburgh. The deaths from "fever" corresponded with the number in the previous week, and those of whooping-cough showed an increase, while the mortality from scarlet fever was smaller than in any previous week of this year. The deaths of infants showed a decline of 2, while those of elderly persons showed a further increase upon the numbers returned in the preceding two weeks. Seven inquest cases and 6 deaths from violence were registered; and 59, or more than a quarter, of the deaths occurred in public institutions. The causes of 30, or more than 14 per cent., of the deaths registered during the week were not certified.

BRISTOL CHILDREN'S HOSPITAL.—At the annual meeting of the supporters of this hospital on the 5th inst., it was reported that 584 children and 29 women have been under treatment as in-patients during the past year—being 70 per cent. more than the average number of the last ten years in the old building. In the out-patient department 755 women and 2116 children attended respectively 8305 and 16,743 times. The income just met the expenditure, the former amounting to £2109, and the latter to £2091.

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Correspondence.

"Audi alteram partem."

THE JUBILEE AND THE HOSPITALS.

To the Editors of THE LANCET.

SIRS,—As the Queen's Jubilee requires commemoration in some manner worthy of her great reign, I beg to suggest that no better method could be found than to raise a fund for the permanent endowment of our great London hospitals. I think a fund such as you suggested last week, to free them from debt, would not be adequate to the occasion. The Imperial Institute and Church House will be supported by Loyalists and Churchmen all over the world, but unless some great scheme is started in London, to which all will feel bound to contribute, the money of the charitable will be frittered away in a thousand hobbies of doubtful utility. A sum of this magnitude would never be raised in the ordinary method of appeals to the benevolent few; but if the scheme were to receive the assent of the great body of the people, a voluntary assessment of a fiftieth part of the income of all those who now pay income-tax would receive a response sufficient for even so great a purpose.—I am, Sirs, your obedient servant,

Clifford-st., Bond-st., W., March 15th, 1887. G. SLIGHT, M.D.

*** We shall be only too happy if Dr. Slight's suggestion should find favour, and prove successful. Could not the heads of the medical colleges and the great hospitals organise a meeting to give form to the extensive wish to signalise the Jubilee by help to the hospitals?—ED. L.

PERFLATION IN EMPYEMA.

To the Editors of THE LANCET.

SIRS,—The method of perflation described by me in your issue of July 31st, 1886, was capable of improvement, and has been improved in two essential particulars. 1. The idea suggested by Dr. Sansom at the last meeting of the Royal Medical and Chirurgical Society (which the lateness of the hour prevented my acknowledging), as to the advantages of an antiseptic air-filter instead of a column of antiseptic fluid, occurred to me several months ago, and was put into practice. Instead of containing a short column of carbolic acid solution, the Woolff's bottle was filled with tow saturated with liquefied carbolic acid or with strong solution of thymol, with a view to securing the following advantages: (*a*) absence of any fluid which, through inadvertence, might be allowed to run into the chest; (*b*) considerable subdivision of the air during its passage through the tow, and thorough mechanical cleansing of the same; (*c*) increased facility for warming the air in the bottle when necessary. At an early date, however, I discarded the Woolff's bottle, preferring to use a broad tube (one inch and a half in diameter and about ten inches long) fitted at either end with an indiarubber plug and short glass tube, and packed with medicated tow. This apparatus can lie flat on the table or on the bed, and is simply a broader segment inserted in the length of the tubing. It can readily be warmed by placing it in an appropriate hot-water trough, or by keeping it surrounded with hot flannel. 2. For the other improvement I am indebted to a suggestion from Mr. Marten, house-physician to Addenbrooke's Hospital, Cambridge. Instead of Richardson's bellows, I now employ a Fletcher's foot-bellows. This apparatus enables the operator to use both hands, whilst his foot works the bellows and controls the delivery of air. It thus becomes possible (provided a steam spray-producer is available) to dress an empyema without a trained assistant. The pressure which can be obtained from Fletcher's bellows is in excess of surgical requirements. But it is easy to obviate this difficulty with the help of a screw-clamp placed on the tubing between the chest and the air-filter. By this means the diameter of the tube may be varied so as to regulate to any extent the quantity of air delivered into the chest. I may add that perflation can be applied whether two openings exist into the chest or only one. A free incision (if possible in the posterior or lateral aspect of the chest) will usually suffice. I believe, however, that an advantage is often gained by making in front a counter-opening, which need not be so large as the posterior wound.

I remain, Sirs, yours truly,

Curzon-street, Mayfair, March 11th, 1887. WM. EWART.

P.S.—I avail myself of this opportunity of setting at rest the doubts expressed by some Fellows of the Royal Medical and Chirurgical Society as to the nature of the specimen exhibited as gangrenous lung tissue on the 8th inst. Dr. Délepine's microscopical examination confirms the conclusion drawn from naked-eye appearances that this was a portion of the lung, and the surmise that embolism was the cause of the gangrene.

CANCER OF THE BODY OF THE UTERUS.

To the Editors of THE LANCET.

SIRS,—I shall be glad to be allowed to correct an error in my letter on the above subject which appeared on March 5th. In referring to Case 22, described in Dr. John Williams's Harveian lectures, I stated that, according to my recollection, the disease had commenced in one of the fibroids, and had spread thence to the uterine wall. I have since had an opportunity of making a more complete examination of the specimen, and from the appearances presented by deeper sections, it is clear that the uterine wall, and probably the mucous membrane, was the site of the primary disease.

With regard to the question on which our opinions differed—viz., the frequency with which cancer affects the body of the uterus,—I find that at the Middlesex Hospital we have had only two such cases in the post-mortem room during the last eleven years. This may possibly be due, as Dr. Williams suggests to me, partly to the fact that such, not being recognised outside as cases of malignant disease, are not sent into our cancer wards, and that, when diagnosed, they are considered too "good" to be given up to a hospital. On the other hand, Dr. Williams's experience of such cases may be exceptionally large, as they would certainly present difficulties, and on that account would be likely to be submitted for the opinion of a consultant.

I am, Sirs, yours truly,

J. KINGSTON FOWLER, M.D.

Clarges-street, W., March 15th, 1887.

IODOFORM AS AN ANTISEPTIC.

To the Editors of THE LANCET.

SIRS,—The doubts cast upon the antiseptic power of iodoform are surprising, and must surely be contradicted by the experience of every practical surgeon. It really seems absurd to quote instances to prove the superiority of iodoform (through the penetrating character of its volatile particles) to other antiseptics, it is a matter of such daily experience. I will just mention one case, however, if you will permit me. When surgeon on board the Orient steamship *Lusitania* (temporarily an armed cruiser), I had an invalided engineer from the Nile boat corps handed over to my charge at Alexandria, with the worst "poisoned hand" I ever saw. It was riddled with abscesses back and front; it had been deeply incised in several places, the pus burrowing up the tendon sheaths above the wrist; and it was horridly offensive. It had been treated with carbolic baths continuously. I kept it four hours in a carbolic bath, and then syringed it well and dressed it with carbolic solution (1 in 40). At night it was as offensive as ever. I then wrapped the fingers and hand with strips of lint on which was spread a weak iodoform ointment (twenty grains to an ounce of zinc ointment). The hand in the morning was *perfectly sweet*. The dressing was simply renewed, first twice a day, then daily. The healing process commenced immediately, discharge rapidly diminished, and there was never the slightest odour from the hand after the first dressing. The man's temperature became normal (it had been 101°), appetite good, and he went ashore with his hand healed. I would only say, in conclusion, that, as my supply of this invaluable drug was very small, I learned how exceedingly small an amount was necessary, and that the waste to which I had been accustomed in London hospitals was simply sinful. To powder a wound over or stuff a sinus with pure iodoform is utterly unnecessary. I am convinced that drachms are used when grains would suffice, especially in hospital practice.—I am, Sirs, yours obediently,

March, 1887. J. P. GLOVER, M.D. Lond.

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INEQUALITY OF THE PUPILS IN TUBERCULAR MENINGITIS.

To the Editors of THE LANCET.

SIRS,—In your issue of the 12th ult. I notice a letter from my friend Dr. Alderson. The subject—"The Inequality of the Pupils in Tubercular Meningitis"—is one that occupied my attention considerably some time ago, when I had the opportunity of examining the eyes of several children suffering from this disease. Granting that inequality of pupils is liable to exist in these cases, I own that I am somewhat surprised that Dr. Alderson—whom I know to be a very careful observer—should attach such enormous weight to this single symptom. Tubercular meningitis is simply acute tuberculosis affecting (principally) the pia mater at the base of the brain, with serous exudation into the lateral ventricles; and it seems to me that it is a mere accident whether pressure is greater on one side than on the other, or whether it is equal on both sides. To reject the diagnosis of tubercular meningitis because pressure is symmetrical would therefore appear to be going rather too far. I can give Dr. Alderson details of an undoubted case of tubercular meningitis which terminated fatally, in which there was wide dilatation of *both* pupils, with immobility under the strongest light, and also double optic neuritis. Personally, I should attach greater importance to the fact of dilatation being present (whether equal or unequal), and especially to the insensibility (partial or complete) of the iris under the stimulus of light. Dr. Alderson does not tell us whether he examined the fundi of any of his cases, and whether he found any change therein indicating a descending perineuritis. It would be interesting to hear the opinions of others on these diagnostic points, which is my apology for sending this letter to you instead of direct to my friend.—I am, Sirs, your obedient servant,

A. ST. CLAIR BUXTON, F.R.C.S.,
Assistant-Surgeon to the Western Ophthalmic
Orchard-street, W., March, 1887. Hospital.

ANATOMY AND PHYSIOLOGY IN CHARACTER.

To the Editors of THE LANCET.

SIRS,—Accept my thanks for your careful analysis of my recent work. One point your reviewer has misapprehended. I expressly state that the rule for shrewish men and women to have clear, pink skins has many exceptions. My book is so compressed that misapprehensions are perhaps not unnatural. The *Saturday Review*, for instance, declares that many non-shrewish persons have round backs. I myself said this as clearly as I knew how. I am sure you will permit me to advert to a matter of fact. In matters of opinion I am well aware that I run counter to so much popular belief and feeling that the wide and generous reception already given to my book excites my genuine surprise. I am, Sirs, yours obediently,

Birmingham, March 14th, 1886. FURNEAUX JORDAN.

VEXATIOUS ACTIONS AGAINST MEDICAL MEN.

To the Editors of THE LANCET.

SIRS,—The following short statement of facts may perhaps serve as a warning to some of my fellow-practitioners, if there are still any who need it, and will in any case, I trust, help to strengthen the hands of those who are striving for the reform of a most unjust law.

One fine day in August, when most of my professional neighbours were enjoying their holidays, I was served with a magistrate's order, directing me to visit and report upon the state of mind of a supposed lunatic. I did as I was ordered, found that the individual was undoubtedly insane, and certified to that effect. Next day she was brought before the magistrate, who satisfied himself by personal examination of the correctness of my opinion, and signed an order for her removal to a public asylum, where she was detained for two months. Some months afterwards I was served with notice of an action, then with a long list of "interrogations"; then one of the plaintiff's witnesses was examined by commission; and at last, after various other distractions and annoyances, was put to the inconvenience of a trial extending over four days, at the conclusion of which the jury without hesitation gave a verdict in my favour, the judge awarded me "costs," and I was overwhelmed with friendly congratulations. Again an interval of a few months, and I receive a bill for £240 8*s.* 1*d.* The plaintiff professes herself a pauper. I am told that it is open to me to institute proceedings in bankruptcy against her; but I have had enough of law for the present, and even the lawyers do not hold out much prospect of a successful result. There is nothing to be done but to pay the demand as best I can out of hardly-earned savings, and with the hope that the time is not far distant when such flagrant injustice will be a thing of the past.

I am, Sirs, yours truly,

March, 1887. A VICTIM OF THE LAW.

THE ACCOMMODATION FOR PRISONERS AWAITING TRIAL.

To the Editors of THE LANCET.

SIRS,—I am directed by the Mayor of Marlborough to write to you on the subject of your remarks on the Report of the Committee of Inquiry into the Accommodation for Prisoners awaiting Trial, in your issue of the 12th inst. So far as Marlborough is concerned, there seems to be no doubt that the Committee's Report is founded upon information furnished by the Governor of Devizes Prison of the state of things antecedent to 1885, and does not take cognisance of alterations and improvements effected by the Town Council since that date. As regards the sanitary arrangements, there has been a complete change, a proper watercloset being now provided in a separate room, and the repulsive practice as quoted by you from the report done away with. The prisoners' room has also been enlarged, and improvements effected in the lighting and warming of it. I may add that the accommodation now provided has been favourably reported on by one of Her Majesty's inspectors, and can compare favourably with that of any other town in the county of Wilts. I trust that, for the credit's sake of our town, you will give prominence to this letter.

I am, Sirs, your obedient servant,

E. LLEWELLYN GWILLIM,
Marlborough, Wilts, March 16th, 1887. Town Clerk.

"PARTIAL ENTEROCELE (IRREDUCIBLE) ASSOCIATED WITH HYDROCELE OF THE HERNIAL SAC."

To the Editors of THE LANCET.

SIRS,—Since the publication of my case of partial enterocele, Mr. Day, jun., of Harlow, who was present at the operation, has sent me a few facts of importance which add to its interest: "She had not been wearing a truss previously to the operation, and her local inflammatory symptoms before she was sent up to town had been *nil*. Since the operation her condition has been excellent, and she has had no further trouble with regard to the rupture."

I am, Sirs, yours sincerely,

March, 1887. WILLIAM HY. BATTLE.

LIVERPOOL.

(*From our own Correspondent.*)

OUR LOCAL ASSIZE COURTS AND THE ACCOMMODATION FOR PRISONERS.

THE committee appointed by the Government to inquire into the accommodation for prisoners awaiting trial were satisfied with the arrangements made in our Assize Court. The steps from the prisoner's dock lead to a large waiting-room, closely adjoining which are a sufficient number of separate cells, both for male and female prisoners, with every proper sanitary arrangement. These courts were erected in 1854, and it would appear that so far as the prisoners are concerned nothing is required. But, as remarked in previous letters, the accommodation for witnesses is most inadequate, and, as Liverpool is probably not singular in this respect, it is to be hoped that the Government may, now that the prisoners have been considered, inquire into the arrangements made for other persons concerned—the witnesses, the jurors, and all whom justice requires to be present.

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DEATH OF DR. MATTHEW HILL OF BOOTLE.

Dr. Matthew Hill of Bootle died last week. The deceased, who had practised in Bootle for many years past, was well known, not only in his professional capacity, but also as having taken an active part in municipal affairs, and recently filled the office of Mayor of Bootle. His funeral, which took place at Anfield Cemetery on the 12th inst., was a military one, the deceased having been surgeon-major to the 1st Liverpool Rifle Volunteers, and it was attended by a very large number of medical and lay friends.

THE OLDHAM POISONING CASE.

The last penalty of the law was inflicted upon Elizabeth Berry, on the 14th inst., within the walls of Her Majesty's prison, Walton-on-the-hill, which is virtually the borough gaol. Formerly all prisoners sentenced to death at the Liverpool assizes were hanged within the county gaol at Kirkdale, but recent changes have made it necessary to alter this arrangement, and in future male prisoners will be executed at Kirkdale, females at Walton. This makes the fourth female executed in this county for murder by poisoning within the last three years. It being the first execution at this gaol, great care was taken to ensure the prompt and humane carrying out of the sentence. The wretched woman was spared the task of ascending steps to the scaffold, it being on a level with the prison yard, and death was almost instantaneous.

THE HOSPITAL FOR WOMEN.

A special general meeting of the governors of this hospital was held on the 11th inst., when the amended laws were submitted for approval. Among them one of the most important was that the election of medical officers shall in future be by the committee, instead of by the governors. Another was as follows: "No operation of dangerous character or which involves abdominal section shall be performed, except in cases of extreme emergency, without previously summoning a consultation of consulting and acting surgeons for in-patients, and no such operation except as aforesaid shall be performed in the hospital without a consultation between the operator and one of the before-mentioned officers. No person who is not officially connected with the hospital shall be called in consultation without the acquiescence of the medical staff. No medical gentleman unconnected with the hospital staff shall be permitted to assist at any operation without the acquiescence of the medical staff, unless in cases of emergency; and such cases shall be reported to the committee, with the names of the gentlemen assisting thereat." The committee have thus acted upon the recommendation of the Liverpool Medical Institution Committee, appointed as a committee of inquiry into the 1885 cases of abdominal section. The proposed amendments were unanimously adopted.

THE PIANO-ORGAN NUISANCE.

An Italian organ-grinder was recently summoned before the county magistrates for persisting in playing a piano-organ after being requested to go. The offence was committed close to the residence of an invalid lady, who had suffered severely in consequence; and her son was compelled to prosecute, not to punish so much as to prevent the nuisance from being repeated. By recent local Acts, any residents in the borough and suburbs may request musicians and singers to remove "out of hearing," and any refusing to do so are liable to be fined to the extent of forty shillings. The wisdom of this wholesome regulation will be appreciated by medical men, who know well what suffering is inflicted upon themselves and others by this intolerable nuisance. In this case the defendant was made to pay the costs, and warned not to repeat the offence.

THE NETHERFIELD ROAD HOSPITAL.

At the last meeting of the City Council the appointment of Dr. Robert Robertson as visiting physician to the City Hospital, Netherfield-road, was confirmed.

Liverpool, March 15.

PRISON SURGEONCIES IN SPAIN.—The profession is so overcrowded and the desire to obtain some public appointment so universal in Spain, that a few vacancies in the medical officerships of the penal establishments having recently been notified, the applications for the appointments poured in on the astonished officials to the number of 3200!

EDINBURGH.

(From our own Correspondent.)

UNIVERSITY OF EDINBURGH.

A NUMBER of honorary degrees about to be conferred by the University at the annual graduation ceremonial in April have been announced. Amongst those upon whom the honorary degree of D.D. is to be conferred are Professor Duff, of the United Presbyterian College, and the Rev. Thomas C. Edwards, M.A., Principal of the University of Wales. The degree of LL.D. is to be conferred, amongst many others, upon Professor Dittmar, of Anderson's College, Glasgow; Professor Edward Dowden, of Trinity College, Dublin; Professor Momerie, of King's College, London; and Sir Bhagvat Sinh, Thakoor of Gondal, an Indian prince, who has attended lectures in the Faculty of Medicine during the last two years. The same degree has been offered to Dr. Gunning, late of Rio Janiero, Mons. F. Xavier Michel, and Mr. C. J. Lyall.

A YEAR'S DISPENSARY WORK.

The annual report of the New Town Dispensary, an historical medical institution in Edinburgh, and a very popular charitable agency for the relief of the sick poor, shows that upwards of 9500 patients have been treated under the auspices of the dispensary in the last twelve months. Over 1000 vaccinations have been successfully performed during the same period, and 2300 patients visited in their own homes by the medical staff. The balance-sheet shows a similarly satisfactory condition in other respects.

Edinburgh, March 16th.

ABERDEEN.

(From our own Correspondent.)

ABERDEEN GENERAL DISPENSARY.

THE annual meeting of the managers of the Aberdeen General Dispensary was held on Friday, the 4th inst., when the annual report was read and approved. It showed that relief had been afforded to 8290 cases during the past year, and that 6372 visits had been paid to 2549 patients at their homes; there were 220 obstetric cases, 697 children were vaccinated, and 770 dental operations had been performed. There were also 219 cases in the ear and throat department, which is under the charge of Dr. McKenzie Booth and Dr. Edmond. Another member of the staff has arranged to attend twice a week for the treatment of diseases of women. The finances of the dispensary show a pleasing exception to those of our other charitable institutions; the income exceeds the expenditure by £378 19*s*. The members of the staff and other officials were re-elected. The Committee of Management, at the request of the Medical Faculty of the University, had under consideration the appointment of a public vaccinator in connexion with the dispensary, whose position and qualifications to grant certificates to the students would be recognised by the Local Government Board. The committee approved of such an appointment if the necessary funds could be provided without entrenching on those of the institution. At present the members of the staff do the work in rotation, each one attending once a week for two months; but they are not qualified to grant certificates to students.

THE ROYAL INFIRMARY.

A quarterly court of the managers of the Royal Infirmary was held yesterday. Dr. Angus Fraser was promoted to the position of second physician, rendered vacant by the death of Dr. Beveridge, and Dr. Blaikie Smith, assistant-physician, was appointed third physician. For the office of assistant physician Dr. Rodger was the only candidate, and he was elected unanimously. By this appointment the office of pathologist to the infirmary, which Dr. Rodger held for seventeen years, becomes vacant, and it is generally expected that Professor Hamilton will be elected to fill it. The annual financial account, as presented to the meeting, discloses anything but a satisfactory state of affairs. The expenditure still largely exceeds the income, and the same has to be said of the convalescent hospital. The "Jubilee Fund" for the extension of the infirmary now amounts to

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£11,531 14s., and the committee in charge of it are hopeful that the necessary sum, £30,000, will be subscribed before the required time. They are about to make a personal appeal to every elector in the city and county of Aberdeen, and in the county of Kincardine.

ABERDEEN UNIVERSITY.

The winter session closes on the 25th of this month and the professional examinations begin on the Monday following. Professor Cash has appointed Dr. John Gordon to be assistant in materia medica.

THE CITY HOSPITAL.

The Epidemic, or City Hospital, as it is now called, is in disgrace. Some time ago grave charges were made by the Trades Council of the city as to the character of the nurses, the want of cleanliness in the beds and persons of the patients, and the want of proper discipline in the hospital generally. These charges were practically admitted by the Public Health Committee, and were the means of bringing about a marked improvement in the general management of the hospital: the wards were made more comfortable, and it was said a staff of well-trained nurses had been engaged. But a sad accident, which took place lately, shows that things are far from what they should be. Of the few cases of typhus fever, three were sent to the Children's Hospital as cases of typhoid fever, and were admitted as such, and unfortunately before the true nature of the fever was detected a probationer nurse caught the infection. She was removed to the City Hospital, and there, it is said, she was attended by a nurse who also had to attend to some case of measles in an adjoining but entirely separate ward. On one occasion, while the nurse was absent, her typhus fever patient got out of bed in a state of delirium, and in her wandering through the ward set fire to the bedclothes which she had wrapped round her. She was found lying on the floor terribly burnt, and in a few days she succumbed to the combined effects of the fever and burning.

HEALTH OF THE CITY.

The death-rate for some time has been unusually high. Scarlet fever, measles, and whooping-cough are all epidemic; there have also been a great many cases of typhoid fever and a few of typhus. The cases of typhus were on the whole mild, and it is satisfactory to find that this disease is not likely to become epidemic.

March 15th.

DUBLIN.

(From our own Correspondent.)

ROYAL COLLEGE OF SURGEONS IN IRELAND.

MEETINGS have been held between delegates from the College of Physicians and the Royal College of Surgeons in Ireland in reference to the proposal to empower the London Colleges to confer the M.D. degree. They have recommended the Dublin Colleges to lodge a *caveat* against the proposal unless similar privileges be granted to them. From a correspondence with the Edinburgh and Glasgow medical and surgical corporations, it appears that in Scotland there is an actual desire to get powers similar to those asked for by the London corporations. In Dublin, however, there is no desire to obtain such a privilege unless it be given to the London bodies. A meeting of the Council of the College of Surgeons will be held on Thursday, the 17th inst., when a motion by Sir Charles Cameron will be under consideration. The motion is to the effect that, should counsel's opinion be favourable as to the legality of the College combining with the Apothecaries' Hall, a conference with that body be invited with the object of preparing a scheme of examination to be held by that corporation and the College of Surgeons conjointly. — A petition in reference to the grievances under which army medical officers at present labour has been sent to the House of Commons by the Council of the College.

CITY OF DUBLIN HOSPITAL.

Mr. H. Gray Croly, senior surgeon to this institution, some time since suggested that "observation wards" would be found convenient and useful, and the recommendation has now been carried into effect. This desirable result is due to Mr. Marcus Tertius Moses, one of the governors, who has built at his own expense substantial male and female observation wards at the rear of the hospital. At a meeting of the Board of Governors last week a vote of thanks was accorded to Mr. Moses for his liberality.

DEATH OF DR. WILLIAM BEAMISH.

This gentleman, who died at his residence, near Dublin, on the 7th inst., practised for many years in Cork, where he was well known and justly esteemed for many sterling qualities. He held the post of senior physician to the Cork Fever Hospital for many years, and also was surgeon to the Cork Male and Female Prisons. About four years since he retired from practice and removed to Dublin. The deceased was the author of a paper on Fever, and a communication "On the Pathology, Prevention, and Treatment of Asiatic Cholera, with cases in the Epidemics of 1849, 1853, and 1866."

ZYMOTIC DISEASES IN DUBLIN DURING FEBRUARY.

As compared with the previous month there was a large decrease in the deaths from scarlatina. Eight deaths were recorded from enteric fever, as compared with four the month preceding. On the whole there was a slight decline in the zymotic death-rate as contrasted with January, and the rate was much below the average of the month for the previous ten years.

MONKSTOWN HOSPITAL.

The report for the past year is a satisfactory one, the cases treated being in excess of that of 1886, and the cost of management somewhat less. On one item, that of pay patients, there has been a considerable increase. This arises from the payments made by the Admiralty, the hospital being the naval sick quarters for Her Majesty's ships on the Kingstown station.

ADELAIDE HOSPITAL.

The annual meeting of the friends of this institution was held on Tuesday, the 15th inst., and the report shows the hospital to be in a very flourishing condition, and to be accomplishing a good work in Dublin. There were 482 cases in the surgical wards during the year, necessitating 213 operations, the deaths among these cases amounting only to a little over 2 per cent. The committee refer to the great prevalence of phthisis among the poorer classes in Dublin, and state that year by year the need of a special institution for cases of this disease becomes more urgent.

Dublin, March 15th.

BELFAST.

(From our own Correspondent.)

THE MEDICAL STUDENTS' CONVERSAZIONE.

THE first conversazione in connexion with the Medical Students' Association was held in Queen's College, on March 10th. This society was established for social intercourse, the discussion of subjects peculiar to the medical profession, and for bringing before the students matters affecting their position, so as to give united expression of opinion. All the rooms of the College were available for the evening, the entrance and examination halls being very profusely decorated. There was a very large assemblage of students and their lady and gentlemen friends; and as the professors and graduates appeared in their academic costume the scene was very picturesque. Among those present were the Mayor of Belfast, the General in command of the district, and the President of Queen's College. The tea-tables were arranged round the examination hall, and were presided at by the wives or lady friends of the professors and members of the hospital staffs at which the students attend. This hall was decorated and illuminated by the electric light. The band of the Queen's Royal West Surrey Regiment was stationed in the hall, where they performed during the evening. In the chemistry lecture-room Professor Letts was very successful in a series of popular chemical experiments, and in the physics lecture-room Dr. Everett gave a number of experiments on vibration. Professor Fitzgerald showed several electrical experiments, and a number of microscopes were exhibited in the council chamber. A number of amateurs executed admirably a variety of musical items, while a very successful series of *tableaux vivants* were given by the students in the en-

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trance hall. A committee of the students (of which Mr. Weatherup, B.A., and Mr. Haslett were secretaries) had charge of the arrangements, and to them the great success of the entertainment is due. It is hoped the conversazione will become an annual one.

ULSTER MEDICAL SOCIETY.

At a meeting of this Society held on March 9th, Dr. Esler showed an ovarian cyst which he had successfully removed, and Dr. Byers introduced a discussion on the treatment of abortion. Dr. Dempsey read a paper on the same subject, and Professor Dill took part in the subsequent discussion.

Belfast, March 16th.

PARIS.

(From our own Correspondent.)

TYPHOID FEVER.

THE frequency of typhoid has been steadily on the increase for the last six weeks, and at the present time there is an unusually high mortality. In my letter of Feb. 5th I had anticipated this possibility, but, strangely enough, the number of deaths registered during the following week was exceptionally small, and it was thought by many that the danger had been over-estimated. Since then, however, the death-rate has increased week by week, and the last two returns have been forty-one and forty respectively. Comparing these numbers with the statistics for last year, which gave 1009 fatal cases for the twelve months, it will be seen that the mortality during the past fortnight has been more than twice the average. The water-supply is now said to be derived from pure sources, but if this is true the temporary sojourn of the Seine water in the mains has produced a contamination of the water-pipes that has not yet disappeared. I have not seen a glass of water in Paris for the last two months that has not been visibly full of organic impurities and unpleasantly suggestive of the infinitesimally small.

PASTEURIANA.

It has been tacitly agreed at the Academy of Medicine that the discussion upon rabies be suspended until M. Pasteur's return, but in the meanwhile advocates and opponents of the method remain as uncompromisingly hostile as ever. Whilst the *Annales de l'Institut Pasteur* continues to herald the enthusiasm of its directors, its adversaries of the medical and political press throw in a discordant note from time to time under a new stereotyped heading, which recurs with lugubrious monotony—the "Nécrologie Pasteur." The *Journal de Médecine de Paris* has discovered two new cases in Russia. The first of these is quoted from the Warsaw newspapers, and relates to the wife of a farmer named Ozimaki, who was bitten nine months previously, and underwent the treatment by the first method in Paris. The second was a peasant named Wassilieff, inoculated on the third day after the bite at St. Petersburg, who died within a few days of the completion of the treatment. It has also been shown by the inoculation test that the death of Bergé, at Bordeaux, was due to rabies, and the fact is not contested. To these the *Journal de Médecine* adds three new victims for France—the child Santés of Algiers; an Italian, Rovati of Modena; and a man called Alphand, said to have died of the paralytic form of the disease. In the *Annales* it is stated that there is no evidence of rabies in this last instance, and the death is attributed to another cause. *A propos* of rabies, it is somewhat surprising that those learned in "suggestion" should have hitherto neglected so promising a field for hypothesis and experiment. If, as the Paris Biological Society allows, the gonococcus can be annihilated with the greatest ease by neurypnologic command, why not also the virus of rabies? Does not M. Pasteur cure his patients by a kind of indirect auto-suggestion, or, to use the expression of forty years ago, by "credencive induction"? And, on the other hand, is not M. Peter morally responsible for the fatal results by a similar but baneful *action à distance!* Grave and important questions for students in hypnotism, and which will be none the less novel to them, if not exactly new.

NARCEINE.

M. Laborde has been studying for the last few months the action of a new narceine. The preparation of this substance is extremely difficult, and that found in the trade contains a large proportion of other alkaloids of opium. M. Duquesnel has succeeded in obtaining narceine containing only a small quantity of laudanine and codeine, and from numerous trials upon animals and upon man, M. Laborde states that this product has a happy sedative effect upon the nervous centres, and is an admirable medicine for whooping-cough and bronchitis, an opinion which is shared by M. Brown-Séquard.

A "SPECIFIC" FOR DIABETES.

At a recent meeting of the Société de Thérapeutique, M. Martineau stated that he had been treating diabetes for the last ten years, with almost invariable success, by a method which he had borrowed from a practitioner now dead. He had hitherto made no communication upon the subject, because he had wished to be perfectly certain that his conclusions were not premature. The treatment consists in the administration of a solution of carbonate of lithia and arseniate of soda in aerated water, to the exclusion of all other drinks. Besides taking this with his meals, the patient uses the same as a beverage when thirsty at other times. M. Martineau affirms that this regimen has cured sixty-seven of seventy diabetic patients he has had occasion to treat.

MEMORIAL TO THE FRENCH ARMY MEDICAL STAFF.

A monument has been erected in the Salle d'Honneur of the Val-de-Grâce, the military hospital and school of medicine, to the memory of those members of the medical staff of the French army who lost their lives in the performance of their duty during recent campaigns. They number one hundred and twenty-three, and of these eleven were killed in action by the enemy's fire. The others fell victims to malaria, typhoid, cholera, and other diseases, and although, from a military point of view, their death was a less glorious one, still their devotion to the public service is honourably recognised.

THE FACULTY OF MEDICINE.

M. Brouardel has been appointed Dean of the Faculty for a period of three years. For the post of perpetual secretary of the Academy of Medicine the candidates are M. Jules Bergeron and Professor Jaccoud.

Paris, March 16th.

THE SERVICES.

Deputy Surgeon-General Sir J. Hanbury, K.C.B., Principal Medical Officer of the Home Military District, has been ordered on foreign service, and will embark at once for the Mediterranean.

Deputy Surgeon-General A. F. Bradshaw has been appointed Principal Medical Officer on the Staff of the Northern District at York; Surgeons J. G. Black, M.D., J. Kearney, M.D., C. A. Renny, M.B., and E. C. G. Dell have arrived in India for duty in the Bengal Presidency; Surgeon B. O. W. Norfor, M.B., has joined at Canterbury for duty on his return from Egypt.

WAR OFFICE.—Royal Malta Fencible Artillery: Surgeon Lorenzo Manché, M.D., to be Surgeon-Major.

ADMIRALTY.—Staff Surgeon Thomas Bolster has been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet.

The following appointments have been made:—Staff Surgeons E. R. H. Pollard and Robert W. Williams, to the *President*, additional; Surgeon Edward G. Swan, to the *Imogene;* Surgeon George A. Draper, to the *Duncan:* Surgeon Alexander L. Christie, to the *Devastation;* and Mr. John Elliott to be Surgeon and Agent at Bantham.

ARTILLERY VOLUNTEERS.—1st Aberdeenshire: James Aymer, M.B., to be Acting Surgeon.

RIFLE VOLUNTEERS.—2nd Cambridgeshire (Cambridgeshire University): Surgeon Bushell Anningson is granted the honorary rank of Surgeon-Major.—1st Elgin: George Leslie Hodgson Milne, M.B., to be Acting Surgeon.—1st Volunteer Battalion, the Buffs (East Kent Regiment): Honorary Assistant-Surgeon W. Beet, M.D., resigns his commission.—2nd Volunteer Battalion, the Loyal North Lancashire Regiment: John Edwin Scowcroft, M.D., to be Acting Surgeon.—West Suffolk: Acting Surgeon H. C. C. Shaw resigns his appointment.

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MEDICAL NOTES IN PARLIAMENT.

The Lunacy Acts Amendment Bill.

IN the House of Lords, on the 10th inst., the Lord Chancellor, in moving that the report of the amendments to this Bill made in committee be agreed to, said that he proposed to amend Subsection 11 by inserting a provision into it to the effect that where a person has been sent to an asylum or a private house, and has not been visited by a County Court judge or a magistrate having jurisdiction at the place where he is confined within seven days after the commencement of such confinement, the person confined shall have a right to be seen by any county court judge or any magistrate having any jurisdiction whom he shall designate.—The Earl of Selborne objected to the proposed alteration on the ground that it did not carry his view into effect.—Lord Herschell also objected to the amendment on a similar ground.—After some conversation, Subsection 11 was struck out, and the further consideration of the proposed amendment was postponed to the next stage of the Bill.—The Earl of Selborne said that on the third reading he would move as an amendment that the magistrate who made the order should be the person who visited the lunatic.—Several other amendments proposed by the Lord Chancellor were agreed to.

Accommodation for Prisoners awaiting Trial.

On the 15th inst., the Marquis of Ripon asked whether Her Majesty's Government intended to lay before Parliament the report of the Committee appointed by the Home Department to inquire into the state of the lock-ups and other places in which prisoners awaited trial in various parts of the country.—Earl Beauchamp stated that the paper referred to had been presented to Parliament, and was circulated on the 11th inst. The question was a grave one, and as soon as the report reached the Home Secretary he took it into his consideration, and addressed a circular to the county and borough authorities. But those matters did not rest entirely with those authorities, as the sanction of the Treasury might be necessary before any expenditure was incurred.

In the House of Commons on the same day, in reply to Lord Elcho, who asked the Secretary of State for the Home Department whether, in all cases when in consequence of the report of the committee on the accommodation of untried prisoners it was proposed to rebuild, extend, or otherwise alter the proposed accommodation, Her Majesty's Government would be prepared to examine the plans before the proposed works were carried out, in order to see that the intended alterations complied with the recommendation of the committee, and were in every respect suited to the requirements of the case.—Mr. Matthews stated that in the circular which he had lately issued he had invited the local authorities to communicate with him what works they propose to undertake. Such communications he should refer to the Surveyor-General of Prisons, and, acting on his advice, inform the local authorities of his own opinion on their proposals.

Smoke Abatement Bill.

On the 14th inst., Lord Stratheden and Campbell presented a Bill dealing with the abatement of smoke in the metropolis. The Bill was read a first time.

The Pharmacy Act Amendment Bill.

On Thursday night, the 17th inst., the Earl of Milltown moved the second reading of a Bill to amend "The Pharmacy Act, 1852," and "The Pharmacy Act, 1868." He said: The Bill is framed with the view of enabling the Pharmaceutical Society of Great Britain to make adequate regulations for the education and curriculum of those persons included amongst its members. The Bill is a short one, but the matter is important when it is considered that these persons alone have the power to dispense medicines and to sell poisons. The Pharmaceutical Society was founded in 1841, and received its charter in 1843. The Pharmacy Act, 1852, confirmed that charter, and made it for the first time penal for any unauthorised person to assume the title of pharmaceutical chemist. The Act of 1868 went a little further, and made it unlawful for anyone not duly qualified to sell or dispense poisons, or to assume the title of chemist and druggist. That Bill for the first time introduced the name druggist into an Act, and made it illegal for any person not duly qualified to sell poisons. The Society consists of members, associates, and registered apprentices, each having a separate qualification and having to undergo a separate education. Clause 6 of the Act 1868 apparently makes it imperative on the examiners to pass any person who presents himself for examination; and that being so, the Council of the Pharmaceutical Society have found themselves almost powerless in requiring such qualification in those who pass the qualifying examination as they deem absolutely essential for the safety of the public; and, in point of fact, persons who answer the questions may become qualified, although they have undergone no technical training at all. The Society has framed bye-laws for remedying this defect, and establishing what they consider a sufficient curriculum of study; but the Privy Council, to whom all bye-laws have to be submitted, found themselves unable to confirm them, as they were of opinion that the statutes of the Society did not empower them to frame any such bye-laws. This Bill has been introduced to remedy that defect. This Bill has the unanimous consent of the Pharmaceutical Society, and I believe, subject to a verbal amendment which I shall hereafter make, that it has the approval of the Lord Privy Seal. The second clause of the Bill gives power to the Council of the Pharmaceutical Society, in cases where persons have acquired in their judgment sufficient technical knowledge in England, in any other part of the United Kingdom, and in the colonies, to dispense with the three years' curriculum, but not with the qualifying examination. The Act is not to apply to Ireland. The Bill was then read a second time.

Lunacy.

The Lord Chancellor moved the third reading of the Lunacy Act Amendment Bill, and this having been agreed to, the Earl of Selborne, on the motion "That the Bill do now pass," moved an amendment providing that where a person was under care by order of a magistrate who had not thought it necessary to see the alleged lunatic, if subsequent examination became necessary, such magistrate should not be debarred from making that examination on the ground that he had signed the committal order.—The Lord Chancellor said if the amendment was inserted it must be on the authority of their Lordships' House, as he could not accept the responsibility of adopting a proposal which would practically allow a magistrate to sit in judgment on his own Act.

The House divided, when there were—for the amendment, 22; against, 46; majority against, 18. The Bill was then passed.

Brigade Surgeons in India.

In the House of Commons on the 11th inst., Colonel Hughes-Hallett asked the Under-Secretary of State for India whether he would take into consideration the case of brigade surgeons on the medical staff in India, having regard to the severe examinations they have to pass for their promotion, with a view to placing them, as was contemplated by the Royal Warrant of December 2nd, 1879, on the same footing as brigade surgeons in all other parts of Her Majesty's dominions as regards pay, position, and pension, instead of allowing them to remain as at present in India on the same pay after twenty-five and thirty years' service as surgeons-major, and subject at times to routine duties under medical officers of the latter rank who may be their juniors.—Sir J. Gorst replied that when the Royal Warrant created the rank of brigade surgeon in 1879 the Secretary of State for India declined to allow any increased expenditure to be cast on the revenues of India by reason of that warrant, and that the present Secretary of State adheres to that determination.

The Sewage Works at Barking.

In answer to Mr. Salt, Sir J. M'Garel Hogg stated that a tender amounting to £406,000 for the sewage works about to be executed at Barking was accepted by the Board in pursuance of the powers of the 135th section of the Metropolis Management Act, 1875, and of other provisions conferring jurisdiction upon the Board with reference to the disposal of sewage and refuse from the sewers of the metropolis and for the purpose of preventing the discharge of sewage sludge into the Thames. The £406,000 applies to the works at Barking only and is not final. A further sum will probably have to be expended in the completion of the works at both outfalls and the purchase of sludge ships.

The Relative Rank of Army Medical Officers.

On the 14th inst., on the motion to go into Committee of Supply on the Army Estimates, Dr. Clark desired to know

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from the Government why a change of a prejudical character had been made in the relative rank of the medical officers in the service.—Dr. Tanner also pressed upon the attention of the Government the necessity of a reform in the Army Medical Department.

Staines Sewage.

On the 15th inst., in reply to Mr. Dixon-Hartland, Mr. Ritchie stated that the sums to be paid to the Thames Conservators by the metropolitan water companies were fixed by statute, and it was impossible for the Local Government Board to oblige the companies to devote some part of their profits to help to defray the cost of diverting the sewage from the river. The Staines Local Board had long evaded their statutory duties, with the result that the River Thames had been polluted with the sewage of the district. It devolved upon the Staines Local Board, as upon every other sanitary authority, to defray the cost of any sewage works required.

Vaccination in India.

In reply to Mr. Hunter, Sir J. Gorst stated that in British India vaccination is compulsory in certain selected areas only. No penalty is imposed for simple refusal or neglect to vaccinate a child. For mere disobedience to a magistrate's order to vaccinate the maximum penalty is 50 rupees. Contumacious and persistent disobedience may in certain cases entail a fine of 1000 rupees and six months' imprisonment.

Local Government Board Loans.

In reply to Mr. Leighton, Mr. Ritchie stated that the total amount of the loans sanctioned by the Local Government Board to be raised by local authorities during the year ended December 31st, 1886, was £2,827,867, being a decrease of £459,054 as compared with the total amount so sanctioned during the preceding year. The Board had no information as to the amount of the local loans which were contracted during the year without the sanction of any central department, but it might be stated that the total amount of the specific sums which by local Acts passed during the year were authorised to be raised by sanitary authorities and municipal corporations without the sanction of any central department was £1,496,287.

The Boarding-out of Pauper Children.

In reply to Mr. Norris, Mr. Ritchie stated that the initiative as regards the adoption of the boarding-out system rests with the boards of guardians, and not with the Local Government Board. The Board are always ready to entertain applications from guardians for the adoption of the system where the circumstances of the union appear to be such as to render that system appropriate, and provision has been made for complying with the requirements prescribed by the order of the Board.—Mr. Mundella asked whether the Local Government Board would undertake to extend the system of boarding out.—Mr. Ritchie said that the Local Government Board was always ready to consider any application for the extension of the system from boards of guardians.—Mr. Mundella asked whether the right hon. gentleman would promise to send circulars on the subject to the boards of guardians.—Mr. Ritchie replied that the Local Government Board had already caused the system to be thoroughly well known, but if necessary they would take further steps.

House-boats on the Thames.

On Thursday evening Colonel Dawnay asked the President of the Local Government Board whether his attention had been called to the proposed new bye-laws of the Thames Conservators, by which "no direct action will be taken to put a stop to the insanitary nuisances caused by house-boats and steam launches," and whether, in the interests of the millions of people who depend upon the Upper Thames for their water-supply, he will compel the Thames Conservators to take immediate and efficient steps to free the river from its present and ever-increasing state of pollution.—Mr. Ritchie said his attention had been called to the proposed bye-laws, and he had been in communication with the conservators of the River Thames on the subject. His hon. friend was incorrect in his assumption on the matter. The bye-law had intentionally been drawn as widely as possible in order to cover any possible pollution, and the conservators believed that when the bye-law came into operation it would have the effect of preventing the nuisance now arising from vessels moored in or navigating the river. He would, however, be happy to consider any suggestions relative to the bye-law.—Col. Dawnay gave notice that he would move a resolution on the subject.—Mr. H. H. Fowler asked if the legal advisers of the Local Government Board were satisfied that the bye-laws made by the Thames Conservators would in their present shape prohibit boats from discharging watercloset refuse into the river?—Mr. Ritchie: I have not considered it necessary to consult the legal advisers of the Local Government Board on the subject, but so far as I have been able to ascertain the opinion of the officials of the Local Government Board they believe that the bye-laws will have that effect.

MEDICAL TRIALS.

CITY OF LONDON COURT.

A MIDWIFERY CASE: DAWSON *versus* LANE.

THE plaintiff in this case stated that he was called at 8.30 A.M. on Oct. 3rd to defendant's wife, who was stated to be in labour. Believing it to be premature, and that no one was engaged to attend, he went at once. On arriving at the patient's house he found that another practitioner (who had been engaged, and sent for two hours before) had the conduct of the case. He therefore charged half-a-guinea for a "night visit." Defendant: It was not a night visit, but at half past eight in the morning. Plaintiff: Technically a "night visit," your worship. His Honour (to defendant): What have you to say? Defendant: He never did anything; why should I pay him? Judge: It does not matter; you called the doctor from his bed, and took him to your house, and you must pay the debt.

Judgment was given for plaintiff, with costs.

Obituary.

PROFESSOR BORODIN.

ON Feb. 28th, Dr. Alexander Porphyryevich Borodin, Professor of Organic Chemistry in the Military Medical Academy of St. Petersburg, died quite suddenly from cardiac paralysis, probably from embolism of highly diseased coronary arteries. He was born in 1834, and had held his professorship since 1864, having been twice reappointed for periods of five years. In his days of studentship the deceased Professor had distinguished himself in chemistry under the instruction and guidance of his teacher, Professor Zinin. His published works are tolerably numerous, and include papers on the analogy between phosphorous and arsenious acids from a toxicological point of view, on the estimation of salts in mineral waters, on brick tea, and a number of important articles on the estimation of nitrogen. By means of Professor Borodin's process combined with that of Kjeldahl, the clinical physician has now a means whereby this estimation may be made with a very moderate amount of difficulty and trouble. In spite of his arduous professorial and laboratory work, Professor Borodin found time for the cultivation of the art and science of music, in which he was quite an adept. He is, indeed, said to have rendered valuable service to the cause of music in Russia.

Medical News.

SOCIETY OF APOTHECARIES.—The following gentlemen passed the examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise on March 10th:—

Charlesworth, George, Elstead, Godalming, Surrey.
Down, Arthur Reed, Newton-square, Bampton, Devon.
Paterson, George Snider, Toronto, Canada.
Vinter, Sydney Garratt, Monmouth-road, Bayswater.

HOSPITAL SUNDAY collections were made at Middlesborough on the 6th inst.

A FAMILY, consisting of father, mother, and several children, at Grimsby, have been poisoned by eating tinned meat.

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AT an inquest held at South Tottenham recently on the body of a boy, the jury returned a verdict of "Death from hydrophobia, caused by the bite of a cat."

GUY'S HOSPITAL.—The treasurer of Guy's Hospital, London, has received another anonymous donation of £500 towards the special fund.

MEDICAL MAGISTRATE.—The Lord Chancellor has added the name of Sir James Sawyer, M.D., to the Commission of the Peace for the borough of Birmingham.

TWO sons of the late Mr. Samuel Morley have each presented £2250 to the Deaconesses' Institution and Hospital, Tottenham, in order that the debt on the third wing of the hospital, lately built, may at once be cancelled.

THE date of the annual festival in aid of the funds of the Hospital for Sick Children, Great Ormond-street, has been altered from the 17th inst. to May 25th. The chair will be occupied by the Marquis of Ripon, K.G.

AT a public meeting at Portsmouth on the 3rd inst., it was resolved, amongst other plans for celebrating the Jubilee, to provide a fund for use in connexion with the Royal Portsmouth, Portsea, and Gosport Hospital.

PRESENTATION.—The members of the Leith police ambulance class have presented Mr. O. H. Garland with a handsome pair of silver candelabra, in recognition of his services as lecturer.

THE BRITISH ASSOCIATION will this year meet in Manchester, and the session will commence on Aug. 31st. Sir Henry Roscoe, M.P., F.R.S., has been chosen president. It is anticipated that the meeting will be one of the most successful ever held.

MANCHESTER SOUTHERN HOSPITAL.—At a meeting of the Board of this institution on the 28th ult., it was resolved that a lying-in hospital be formed in connexion with the hospital, and a sub-committee was appointed to give effect to the resolution.

THE East Sussex and West Hants Infirmary was reopened on the 8th inst., after having been closed in sections for three months during the renewal and remodelling of the sanitary arrangements of the building, at a cost of about £1000. The work has been designed and carried out by Mr. Mark Judge.

NOTTINGHAM BOROUGH ASYLUM.—An important extension of the Nottingham Borough Lunatic Asylum is about to be undertaken, whereby accommodation will be provided for 200 extra patients, the number at present in the building being 280. It is estimated that the work will cost nearly £30,000.

THE PROPOSED HOSPITAL AT BOURNEMOUTH.—At a largely attended meeting in Bournemouth on the 10th inst., it was announced that Mr. W. Clapcott Dean had offered a free site, valued at £1000, for the erection of the proposed public hospital. The subscriptions promised towards the building expenses amount to £3632.

AT the annual meeting of the subscribers to the Chesterfield and North Derbyshire Hospital on the 9th inst. it was reported that 217 patients had been admitted during the year, and that the dispensary patients had numbered 1851, as against 1983 in the previous year. The income amounted to £1848.

NORTH-WESTERN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—At the usual monthly meeting of the members of this Association on the 10th inst. Dr. Sidebottom (Hyde) read a paper on "The Small-pox Epidemic in Hyde in 1886." A discussion, in which several members of the Association took part, followed the reading of the paper.

BEQUESTS.—The late Miss Hargreaves of Mellor, near Blackburn, has bequeathed the sum of £1000, less legacy duty, to the Blackburn and East Lancashire Infirmary. A residuary legacy has also been left to the institution by an East Lancashire gentleman recently deceased, but the exact amount has not yet been stated.

A MEETING convened by the London Tailors' Machinists' Society was held on the 12th inst., for the purpose of explaining and condemning the sweating system. Resolutions calling for a Royal Commission of Inquiry, and for the appointment of additional factory inspectors in East London, were carried.

AT the meeting of the Lambeth Board of Guardians on the 9th inst. the medical officer of the infirmary reported that there were seventy-five men and seven women in that institution in excess of the proper number of inmates.

UNIVERSITY OF CAMBRIDGE.—At Gonville and Caius College, Dr. Shuttleworth's Scholarship, of the annual value of £60, and tenable for three years, open to the competition of medical students of the University of not less than eight terms' standing, given for proficiency in botany and comparative anatomy, has been awarded to Francis Henry Edgeworth, B.A., scholar of the College.

OLEOMARGARINE.—A Bill regulating the importation, manufacture, and sale of butter substances has been brought into the House of Commons by Sir Richard Paget, M.P. for the Wells Division of Somerset. According to it, oleomargarine is to be sold only under its own name, the penalty incurred by infringement of this provision being £20 for the first offence, and £50 on subsequent occasions.

HEREFORD GENERAL INFIRMARY.—The annual general meeting of the governors of this charity was held on the 10th inst. The annual report, which was adopted, stated that the number of in-patients received during the year was 654, and of out-patients 2521. The receipts, inclusive of a balance in the hands of the treasurer of £667, amounted to £4915, and the expenditure to about £3000.

YORK EYE INSTITUTION.—On the 11th inst., at a meeting of the subscribers to this charity, it was decided to hand over the funds and property of the institution to the York County Hospital, on condition that Dr. Anderson be appointed ophthalmic surgeon, and that in-patients be admitted into the hospital by ordinary hospital recommendation, and out-patients be attended to without recommendation.

BELVIDERE HOSPITAL, GLASGOW.—This hospital, for infectious diseases, has just been completed, and was on the 4th inst. formally handed over to the care of the Health Committee of the Town Council. For small-pox patients there are five brick pavilions, comprising ten wards and containing 150 beds. Other infectious diseases are provided for by thirteen pavilions, with twenty-six wards and 390 beds. The hospital has cost £106,402, exclusive of the value of the site, which is an estate of thirty-three acres, situated on the banks of the Clyde, in the east-end of the city.

EXTENSIVE SEIZURE OF DECOMPOSED TINNED MILK.—At a late sitting of the Newcastle Police-court the sanitary inspector applied for an order for the destruction of 136 tins of condensed milk, which, according to the evidence of the medical officer of health, was in a state of decomposition. It is right to state that the tins were not branded with the name of the manufacturer, and in the opinion of Dr. Robinson the milk had been bad when packed. The order was at once granted. The use of condensed milk has very much increased in the north, especially in the winter, and, as a rule, it is found to be pure and economical.

BOLTON INFIRMARY AND DISPENSARY.—The annual meeting of the subscribers to this institution was held on the 10th inst., when the secretary reported that the average daily number of in-patients during the past year was seventy-two, the greatest number at one time being ninety-two, and the smallest number fifty. The total receipts for the year amounted to £5023, and the total expenditure to £5417. The committee appeal for additional annual subscriptions to enable them to provide fourteen more beds, for which there is room in the hospital, but which, through want of funds, it has hitherto been impossible to maintain.

ST. MARY'S HOSPITAL, MANCHESTER.—The annual general meeting of the subscribers to this charity was held on the 14th inst., when the secretary stated that the income for the past year had amounted to £3514, and the expenditure to £3862. The number of cases under treatment during 1886 was 15,098, as compared with 14,240 in 1885. It was resolved to appeal to the general public in Manchester, Salford, and surrounding district for funds necessary to provide for an extension of the present accommodation in the hospital, and a list of donations for this object amounting to about £10,000, which have been already promised, was read out.

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WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—The annual meeting of the governors of this hospital was held in the Medical Institute, Cleveland-road, on the 8th inst. The annual report stated that during the last year the number of in-patients had been 1956, and the number of out-patients 11,858. The income had been £6854 8s. 10d., and the expenditure £7116 12s. 2d. The Hospital Saturday contributions have amounted to £2182 0s. 5d., being a decrease of £30, and the Hospital Sunday collections to £578 15s., being a decrease of £76. The bequests received during the year have amounted, after deduction of legacy duties, to £1202 9s. 2d. The average stay in the hospital of each patient was twenty-four, days, as against twenty-two days last year. The number of patients sent to various convalescent homes has been 97.

SANITARY REGISTRATION OF BUILDINGS BILL.—At the meeting of the Council of the Sanitary Assurance Association, on March 14th, a communication was read from the Association of Municipal and Sanitary Engineers and Surveyors requesting the Council to convene a conference on the subject of the Sanitary Registration Bill, and, in the event of the request being acceded to, offering to co-operate in the matter. After some discussion, the following was passed unanimously:—"That, in compliance with the request of the Association of Municipal and Sanitary Engineers and Surveyors, a conference be convened to consider and report upon the principle and details of the Sanitary Registration of Buildings Bill which is now before the House of Commons; that the first meeting of the conference be held on Monday, April 4th, at 3 P.M.; that Sir Joseph Fayrer, Sir Kennett Barrington, Mr. Mark H. Judge, and Mr. H. Rutherfurd, barrister-at-law, be appointed to represent the Sanitary Assurance Association at the conference; that Mr. C. C. Lacaita, M.P., Dr. R. Farquharson, M.P., Sir Guyer Hunter, M.P., Dr. Charles Cameron, M.P., and Sir Henry E. Roscoe, M.P., be invited to attend the conference; and that the governing bodies of the following institutions be requested to appoint four gentlemen to represent them at the conference: The Royal Institute of British Architects, the Institution of Civil Engineers, the Royal Institute of Architects of Ireland, the London Sanitary Protection Association, the Society of Medical Practitioners registered as qualified in Sanitary Science, the Institution of Surveyors, the Association of Municipal and Sanitary Engineers and Surveyors, the Society of Medical Officers of Health, and the Sanitary Institute of Great Britain. Further, that the question of inviting other bodies to join in the conference be left in the hands of the conference."

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ARGO, ADAM, M.B., C.M.Aber., has been appointed Medical Officer for the Bridworth District of the Runcorn Union.

COLLINSON, F. W., M.B., C.M.Edin., M.R.C.S., has been appointed Senior House-Surgeon to the Preston and County of Lancaster Royal Infirmary, vice W. F. Moore, resigned.

FRASER, ANGUS, M.A., M.D., C.M. Aber., has been appointed Second Physician to the Aberdeen Royal Infirmary, vice Beveridge, deceased.

GOSTLING, T. P., M.R.C.S., L.R.C.P.Lond., L.S.A., late House-Surgeon, House-Physician and Obstetric Assistant to University College Hospital, London, has been appointed House-Surgeon to the General Infirmary, Worcester, vice J. Allman Powell, M.D., resigned.

GRIFFIN, ALBERT W., M.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer for the First District of the Uckfield Union.

MACKIE, JOHN, M.D.Ed., L.R.C.S.Ed., has been appointed Medical Officer to the Brechin Local Authority, vice Lawrence, resigned.

MORIARTY, PATRICK HICKSON, L.R.C.S., L.R.C.P. Ed., has been appointed Medical Officer for the Listowel Union, and Medical Officer of Health, vice Rice, deceased.

MUDGE, THOMAS H. T., M.R.C.S., L.R.C.P.Lond., has been appointed Medical Officer for the Paignton District of the Totnes Union.

RODGER, JAMES, M.A., M.D., C.M.Aber., has been appointed Assistant Physician to the Aberdeen Royal Infirmary.

ROSS, RICHARD A., M.R.C.S., L.S.A., has been appointed Medical Officer for the Eighth District of the Bedminster Union.

SMITH, PATRICK BLAIKIE, M.D., C.M. Aber., has been appointed Third Physician to the Aberdeen Royal Infirmary, vice Fraser, promoted.

THOMPSON, WILLIAM C., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer for the West Drayton District of the Uxbridge Union.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

BETHLEM HOSPITAL.—Two Resident Medical Students who have recently obtained their diplomas to practise medicine and surgery. Apartments, rations, and attendance.

BURTON-ON-TRENT FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Resident Surgeon.

CHELTENHAM GENERAL HOSPITAL.—House-Surgeon. Salary £80 per annum, with board and apartments.

CHILDREN'S HOSPITAL AND DISPENSARY, Manchester.—Medical Officer. Salary £180 per annum.

GENERAL HOSPITAL, Birmingham.—Resident Surgical Officer. Salary £130 per annum, with residence, board, and washing.

HUDDERSFIELD INFIRMARY.—Junior House-Surgeon. Salary £40 per annum, with board, lodging, and washing.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary £70 per annum, with board and residence in the Institution.

MANCHESTER ROYAL INFIRMARY.—Resident Medical Officer of the Convalescent Home at Cheadle. Salary £150 per annum, with board and residence.

OLDHAM INFIRMARY.—House-Surgeon. Salary £80 per annum.

OWENS COLLEGE, Manchester.—Senior Demonstrator in Physiology. Stipend £150 per annum.—Junior Demonstrator in Physiology. Stipend £100 per annum.

ROYAL FREE HOSPITAL, Gray's-inn-road.—Junior Resident Medical Officer. Board and residence are provided in the hospital.

ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.—Assistant House-Surgeon. Salary, with board and residence, £60 per annum.

TOTTENHAM AND EDMONTON DISPENSARY.—Dispenser. Salary £50, plus £20 a year allowance for fuel and service, with house free.

YORK COUNTY HOSPITAL.—Assistant House-Surgeon. Salary £50 per annum, with board and residence.

Births, Marriages, and Deaths.

BIRTHS.

BALLANCE.—On the 11th inst., at 56, Harley-street, Cavendish-square, W., the wife of Charles A. Ballance, M.S., F.R.C.S., of a son.

NICHOLS.—On the 9th ult., at Nowgong, Bengal, the wife of Surgeon F. P. Nichols, M.B.Cantab., M.R.C.S., Army Med. Staff, of a daughter, who only survived her birth a few minutes.

OAKES.—On the 9th inst., at Merimbula, Priory-road, N.W., the wife of Dr. Arthur Oakes, of a daughter.

SMYTH.—On the 15th inst., at Holly Lodge, Brockley, S.E., the wife of F. Sydney Smyth, L.R.C.P., F.R.C.S.E., of a son.

STEWART.—On the 16th inst., at Glenharr, Mapperley-road, Nottingham, the wife of Donald Stewart, M.D., of a son.

WELLS.—On the 11th inst., at Cuckfield, Sussex, the wife of A. R. Wells, M.D., of a son.

MARRIAGES.

ELLIOTT—SLADE-GULLY.—On the 9th inst., at Chute, F. H. Elliott, M.D., to Eleanor Louisa, eldest daughter of the late Captain Slade-Gully, Bengal Staff Corps.

JOLLY—LESTER.—On the 10th inst., at St. Mary's Episcopal Church, Glasgow, Sydney Blake Jolly, M.B.Cantab., M.R.C.S., to Maude Helena, younger daughter of Wm. Lester, Esq., of Donne-terrace, Glasgow.

LOWNDS—IMRAY.—On the 16th inst., in the Chapel Royal, Savoy, by the Rev. Henry White, M.A., Chaplain of the Savoy, and Chaplain in Ordinary to the Queen, Henry Arthur Lownds, L.R.C.P., L.R.C.S., of Kirkburton, Yorks, to Ethel, daughter of John Imray, Esq., M.A., of Sedgemere, East Finchley.

ORR—WILKINSON.—On the 12th inst., at Granard Presbyterian Church, Putney, London, Wm. Young Orr, M.B.Ed., M.R.C.S., to Margaret, fourth daughter of the late Frederick Wilkinson, of Cleveland House, Barnes, S.W.

PRIESTLEY—JACQUES.—On the 12th inst., at the Parish Church, Streatham, S.W., Joseph Priestley, B.A., M.D., M.R.C.S., to Edith Blanche, youngest daughter of Edwin Jacques, M.D., of Fir-grove, Brixton, S.W.

DEATHS.

FLECK.—On the 14th inst., at Frogmoor Lodge, High Wycombe, Kathleen, only daughter of William Fleck, M.D. (of croup), aged 2 years.

FRANCIS.—On the 6th inst., at Brighton, Dayrell Joseph Thackwell Francis, M.D., F.R.C.P. Lond., of Wethersell Grange, Cranleigh, Surrey, aged 67.

GILLAND.—On the 8th inst., at Sevenoaks, Robert Bryce Gilland, M.D., late Medical Superintendent of Berks County Lunatic Asylum, Moulsford.

HARTLEY.—On the 10th inst., at Roxeth Lodge, Carshalton, Surrey, James Hartley, M.R.C.S.

MARKWICK.—On the 12th inst., at his residence, Ventnor-villas, West Brighton, Alfred Markwick, L.R.C.P., F.R.C.S. (late of Leinster-square, Bayswater), aged 64.

STUTTER.—On the 9th inst., at Wickhambrook, Newmarket, Suffolk, William Gaskoin Stutter, F.R.C.S., aged 71.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

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Medical Diary for the ensuing Week.

Monday, March 21.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.
SOCIETY OF ARTS.—8 P.M. Prof. W. C. Unwin: Machines for Testing Materials, especially Iron and Steel (Cantor Lecture).
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. R. Brudenell Carter: A case of Swollen Optic Disc in which the Sheath of the Optic Nerve was excised behind the Eye.—Dr. Ralfe: Renal Calculus passed after the Use of Solvents.—Dr. Allchin: Case of Intussusception.—Mr. J. Astley Bloxam: Case of Congenital Malformation of the Diaphragm.

Tuesday, March 22.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 1.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.
ROYAL INSTITUTION.—3 P.M. Prof. Gamgee: Function of Respiration.
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Dr. Broadbent: The Pulse (Croonian Lecture).
ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8.30 P.M. Dr. H. Rink: On the Migrations of the Eskimo.—Mr. Coutts Trotter: Notes on the Inhabitants of the Polynesian Islands.—Lieut. F. Elton, R.N.: Extracts from Notes on Natives of the Solomon Islands.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. Godlee: On a case of Obstruction of one Ureter by a Calculus, accompanied by Complete Suppression of Urine.—Mr. R. W. Parker: On a case of Suppression of Urine, following Injury to a Sacculated Kidney containing Calculi, the other kidney being entirely disorganised.—Dr. Warner and Dr. Fletcher Beach: A case of Chronic Meningitis, probably syphilitic, and causing Progressive Dementia.

Wednesday, March 23.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M.; Saturday, same hour.
SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND COMMERCE.—8 P.M. Dr. Percy Frankland: Some of the Conditions affecting the Distribution of Micro-Organisms in the Atmosphere.
HUNTERIAN SOCIETY.—8 P.M. Dr. Turner: Actinomycosis.—Dr. Dundas Grant: (1) A case of Caries of the Vertebræ from a Fish-bone in the Throat; (2) Laryngeal Growths; (3) Carcinoma of Œsophagus.
SOCIETY OF ARTS.—8 P.M. Dr. Percy Frankland: Some of the Conditions affecting the Distribution of Micro-organisms in the Atmosphere.
BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens will be shown by Drs. Pearse, J. Mansell-Moullin, Bdls, and others.—Mr. Lawson Tait: Methods of Cleansing the Peritoneum. Council at 8 P.M.

Thursday, March 24.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. F. Max Müller: Science of Thought.
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Dr. Priestley: Pathology of Intra-uterine Death (Lumleian Lecture).

Friday, March 25.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
SOCIETY OF ARTS.—8 P.M. Mr. Frederick Clifford: Indian Coffee.
CLINICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Davies Colley: On Contraction of the Metatarso-phalangeal Joint of the Great Toe.—Dr. Samuel West: Cases of Internal Suppuration, acute and chronic, without fever.—Mr. Treves: A Form of Glandular Swelling that is cured by Arsenic.—Mr. Parker and Dr. Robinson: Inherited Congenital Deformity of the Hands and Feet, Plastic Operation on the Feet.
ROYAL INSTITUTION.—9 P.M. The Right Hon. Lord Rayleigh: Colour of Thin Plates.

Saturday, March 26.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. The Rt. Hon. Lord Rayleigh: On Sound.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, March 17th, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Mar. 11	30·05	E.	36	35	59	45	32	...	Hazy
,, 12	29·78	N.E.	36	35	58	40	35	·23	Snowing
,, 13	30·17	N.	35	33	70	41	24	...	Fine
,, 14	29·91	N.W.	30	...	60	42	26	...	Foggy
,, 15	29·84	E.	34	34	...	35	29	·09	Snowing
,, 16	29·95	E.	33	32	68	40	30	.42	Overcast
,, 17	30·11	E.	30	...	57	37	27	...	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

OBSTINATE CONSTIPATION IN INFANTS.

ON this subject *Whole Meal* writes that Dr. Simmonds (see THE LANCET, *ante*, p. 506) has "hit the right nail on the head" in his suggestion of the use of wheat bran for the constipation of infants. Our correspondent says he had been a martyr to both indigestion and constipation for years, but the sole use of whole meal as bread has entirely freed him from the pain and discomfort attending those affections.

L.R.C.P.—1. The nervous system of the patient should be thoroughly investigated. The positive pole should be placed at the back of the neck, and the negative moved about the forehead.—2. Perhaps the Secretary of the Royal College of Surgeons would give our correspondent the information he desires. It would obviously be unadvisable to publish the details referred to.

Dr. N. Whitelaw Bourns.—The qualifications are ample for the recovery of all reasonable medical and surgical charges.

M.R.C.S. will find the information he desires in Cates' Dictionary of General Biography (published by Longmans), under the heading "Roderic."

PROFESSIONAL ETIQUETTE.

To Editors of the THE LANCET.

SIRS,—Some time ago one of my patients was sick, and during her illness her mother went home to London. In London she consulted a physician about her daughter, and he gave her a prescription and actually sent out medicine, at least the medicine and the prescription duly arrived, though too late to be of any use, as my patient had quite recovered. This was, perhaps, fortunate, as the case was such as made it impossible for him to be sure of his diagnosis. But as yet there has been no word to me of excuse for the liberty that has been taken with my practice. As this is the second time such a thing has been done to me by London medical men, I would be glad to know if it is the usual custom, if it fulfils their idea of "doing to others as they would have others do unto them." The position of my patient being known to both, and being such that no time would pass before seeking medical aid in every case except the most trifling, neither can have the excuse of "not knowing that I was in attendance." Medical practice in Jerusalem is disagreeable enough, in all conscience, without being made so by conduct such as I have described. We number nineteen in Jerusalem, mostly all of different nationalities, and the jealousy of race is added to professional jealousy, and in consequence, we make a very unhappy family. I have not written to either of the gentlemen to whom I refer above, but probably they will know whom I mean when they see this letter in THE LANCET. It is not at all uncommon for tourists of our profession, especially in its middle grades, to give their advice here to patients who may seek it without ever inquiring, or ignoring that they were under treatment at the time.—Yours faithfully,

Jerusalem, Feb. 28th, 1887. JOHN H. OGILVIE.

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Errata.—"J. B. Trap, Esq.," should have been J. B. *Trapp*, Esq., and "T. S. Marley, M.D.," should read T. S. *Morley*, M.D.

C. O'H.—It is usual to call medical evidence in such cases, but the coroner is not under any obligation to do so, especially when the cause of death is obvious.

Dr. M'Mordie's letter shall have attention.

REMARKS ON VACCINATION AND REVACCINATION.

To the Editors of THE LANCET.

SIRS,—In a society journal this week the following occurs:—"The illness of Prince Alexander of Battenburg has put the Darmstadt *ménage* in a very pretty fright, and vaccination has become a rage with Prince Alexander of Hesse's household, every soul of which has now a sore arm, which it takes him all his time to guard from injury. One lady, proud of her arms and unwilling to have their beauty marred by inoculation marks, wanted the operation to be performed on the calf of her leg. Her request was refused by the physician." Without entering into discussion on the above passage, I shall ask the question, Should a physician refuse to comply with the patient's request under similar circumstances? I say, No. I have for some years advised vaccination and revaccination on the thigh in preference to the arm or any other part. The position I prefer is the middle or lower third of the outside, in infants selecting the leg which is least likely to come in contact with the mother or nurse. I find the operation to be more easily performed here than on the arm; the surface is larger, smoother, and less apt to bleed, the arm being frequently congested at the time from the undressing of needlessly profuse and tight-fitting garments. In cold weather this situation has increased advantages. I have never had the vesicles injured afterwards. It is especially for women that the question of site is of so much importance, with their ever-eccentric tyrant, fashion; and never was fashion more unseemly and insanitary than the present style demanded by the etiquette of the Court!

I am, Sirs, yours faithfully,

Ladbroke-grove, W., March 11th, 1887. W. SINCLAIR THOMSON, M.D.

H. X.—No; there is no illegality in the operation *per se*. The duty of a medical man if consulted on such a question is quite clear. As a rule, he ought to discountenance the practice. It is, moreover, highly reprehensible, as offering an inducement to vice.

Puzzled.—The only reply we can make our correspondent is that made by Lord Bacon to so many of his own queries—*Fiat experimentum*.

Mr. G. Nelson has not enclosed his address.

THE TREATMENT OF PHTHISIS.

To the Editors of THE LANCET.

SIRS,—I see by THE LANCET of the 5th inst. that Professor Kremianski of Moscow has been endeavouring to effect the cure of phthisis (tuberculous) by means of atomised aniline. I may say that I have been for some time experimenting in the same direction, using a spray of solution of mercuric chloride ($HgCl_2$) of the strength of 1 in 5000. And so far as I have been able to judge, the results are decidedly promising, and likely to prove very satisfactory. I shall prepare a record of all cases which I may treat by this method (both successfully and unsuccessfully), and when the list is completed and arranged, I shall, if you consider the matter of sufficient importance, send the same to you for publication. I should have communicated with you regarding this subject before this, but thought it better to wait until fairly sure of my ground. The article above referred to in your last issue has induced me to ventilate the matter sooner than I had intended.

I am, Sirs, your obedient servant,

J. REYNOLDS, M.D. Brux., &c.

Cold Harbour-lane, Brixton, S.W., March 9th, 1887.

IMPROVED METHOD OF PACKING TINNED PROVISIONS.

IN view of the injury to health sometimes resulting from the ingestion of provisions secured in tin boxes, any intelligent attempt to avoid the possible dangers attendant upon that method of food preservation is to be commended. Such an attempt has been made by Mr. N. Ruffin, of Charlotte-street, Fitzroy-square, who has submitted to us specimens of tin cases in which the contents are kept from contact with the metal by means of a covering of muslin in the first place, followed by a coating of fat, and then by a layer of gelatine. This plan seems well calculated to effect the purpose intended.

G. Sheppard.—We understand that a proposal for giving the nursing in Indian hospitals into the charge of English ladies is now engaging the attention of the Indian authorities. Military nursing in England and in the Colonies is conducted by lady nurses who must have been trained before acceptance. Application should be made to the Director-General, Medical Department, Whitehall. Regarding other hospitals—to mention one or two,—the lady superior, All Saints, Margaret-street, would be able to give information about the Cape Town and, probably, many other colonial hospitals. The nursing at Kimberley is under the Bishop of Bloomfontein's Mission. There is a Greek hospital at Alexandria, where, we believe, English nurses are wanted. The superintendent might be communicated with. According to a letter in the *Hospital* for Nov. 20th, 1886, trained nurses are much valued and highly paid at the Philadelphia hospital.

N. L.—We certainly think that testimonials of the kind submitted to our notice are highly objectionable. But in this case, as in some others, evidence is wanting to show how far the testimonial-giver approves of the use made of his expression of opinion.

Dr. Elder.—The paper is marked for insertion.

STREET SEWER-VENTILATORS.

To the Editors of THE LANCET.

SIRS,—I would call attention to a very manifest possible cause of disease—i.e., the unprotected sewer ventilators which are generally placed in the centre of the road. The exhalations are not only unpleasant, but dangerous. I have myself suffered from them, and have attended patients who have similarly suffered (one died of intercurrent pneumonia after six weeks' illness). The symptoms are great feverishness, subsequently followed by exuviation of the mucous epithelium of the tongue and gullet (so that in swallowing there is a sensation as of burning, which extends to the stomach), inflammation of the tonsils, the gums (particularly) becoming inflamed, very painful, and spongy, and the teeth loosened in severe cases; where there are bad teeth or stumps inflammation of the periosteum occurs. I attribute this disease, which, in order well to fix its cause, I have called "gully-hole fever," to those ventilators from the fact that all my patients have lived close to one.

Of course, the ventilation ought to be conducted through hollow iron shafts, and drawn through this by means of burning gas-jets. Modifications of the Argand burner would be best, as the air would then have to pass through the flame, thoroughly destroying the germs by burning (as I suggested ten years ago as the resolution of the small-pox hospital difficulty). One advantage of this system is that the ventilation remains no longer passive, but becomes active, the vacuum formed by the heat drawing up the air forcibly, so that probably not more than one-tenth the present number of ventilators would be required. In addition, the shafts so arranged could be used as brilliant gas-lights.

I am, Sirs, yours obediently,

HENRY GODRICH, B.A., 1st B.Sc. Lond.

Long Ditton, March 9th, 1887.

PROVIDENT DISPENSARIES: THE WANDSWORTH MEDICAL AID SOCIETY.

IN answer to the letter on this subject from Dr. Nicholas, which appeared in our last issue, "A Grumbler," whose communication appeared on the 12th ult., states that he knows nothing of the promoters of the Wandsworth Medical Aid Society, nor of the place itself. He distinctly stated in his letter that he only took that particular society as a type, and contends that its promoters have really acknowledged the justice of his remarks, which were directed against the system of combination to obtain medical services at small fees.

A Recent M.R.C.S., L.R.C.P.—There is no basis for doing so, either in law or bye-laws.

Ambulator is referred to THE LANCET of March 12th, page 541.

MEDICAL PRACTICE IN THE WESTERN STATES.

To the Editors of THE LANCET.

SIRS,—I shall feel much obliged if any of your readers will give me some information about medical practice in Western America, especially in California and British Columbia. Are British diplomas fully recognised in both places? Is there a fair opening in either? And is the climate suitable for patients suffering from lung diseases? Can drugs be obtained easily there? Any other information will very much oblige.

Yours faithfully,

March 15th, 1887. A CONSTANT READER.

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PLACENTA PRÆVIA.

As Dr. Murphy, in his letter published last week, intimates, there *is* a misprint in our article on the above subject. On page 479, second column, the commencement of the first paragraph should read as follows: "These accoucheurs treated *139* cases, with eight maternal deaths—a mortality of 4·3 per cent." It is hardly necessary to remark that the argument is not affected by the error.

Sister Jessie's lines are hardly of sufficient merit for our columns.

NITRITE OF AMYL: RELIEF OF AFTER-PAINS.

To the Editors of THE LANCET.

SIRS,—The following note may be found interesting to many of your readers.

A lady whom I had the day before delivered of a fine boy complained to me on my second visit of excruciating after-pains, which she declared were worse than any she had experienced during the labour. On examination I found the womb firmly contracted. Her loss was slight, and no clots larger than beans had been passed. As it was some distance from home, and several hours must necessarily have elapsed before I could have sent her any medicine, I broke a couple of nitrite of amyl capsules (four grains in each) into a smelling-bottle, and directed the patient to take two or three deep inhalations when she felt a pain coming on. The effect was simply magical; the pains were immediately relieved, and shortly ceased altogether, the patient being soon able to take some refreshing sleep. She quickly made an excellent recovery. I have since tried the same remedy in two other cases of less severity, with similar results. I have also found this useful drug invaluable in the sickness of pregnancy and in obstinate cases of dysmenorrhœa. I have hitherto not had a single failure or bad result. Inhalation seems to be more certain and lasting than the internal exhibition of the drug. To all who are called upon to prescribe for the above common ailments I can strongly recommend this simple and, in my hands, efficacious plan of treatment. I am, Sirs, yours truly,

South Molton, March 4th, 1887. F. WELLESLEY KENDLE, M.R.C.S.

CONSTIPATION.

To the Editors of THE LANCET.

SIRS,—I shall be glad if any of your readers can give me a hint as to the treatment of the following case: The patient, a lady aged twenty-two, has been suffering the last four months from obstinate constipation. All the usual remedies have been tried, but without success; and relief can now only be obtained by the use of enemata. I may add that the patient is about three months advanced in pregnancy, and there is nothing abnormal with the pelvic viscera.

I am, Sirs, yours faithfully,

March, 1887. A CONSTANT READER.

COLORADO.

To the Editors of THE LANCET.

SIRS,—In your issue of Feb. 19th "A Physician" asks for information relative to Colorado as a health resort. I have seen no replies to that request, and would therefore suggest that he refers to papers noted in the Medical Digest and Appendix, Section 676: 4.—Yours truly,

Boundary-road, N.W., March 11th, 1887. RICHD. NEALE, M.D. Lond.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Kingston Fowler, London; Dr. Bantock, London; Dr. Hurry, Reading; Sir J. Sawyer, Birmingham; Mr. Clement Lucas, London; Dr. Mac Alister, Cambridge; Dr. F. Warner, London; Dr. W. Ewart, London; Dr. John Williams, London; Mr. Gwillim, Marlborough; Mr. Milner; Dr. R. Lee, London; Mr. W. Norman; Mr. Hughes, London; Mr. P. Dunn, London; Dr. G. N. Pitt, London; Mr. Gravely, Newick; Mr. Outhwaite; Dr. Weaver, Southport; Mr. G. R. Keeling, London; Mr. Furneaux Jordan, Birmingham; Mr. Cooper, Chester; Mr. A. Pierson, Bolan Pass; Dr. Childs-Macdonald, London; Mr. H. Godrich; Mr. Leighton Kesteven, Brisbane; Mr. H. C. Flory, Poynton; Messrs. Murray and Sons, Glasgow; Mr. Bennett May, Birmingham; Messrs. Beale and Son, Brighton; Mr. Kershaw, London; Mr. Hunt, Hull; Mr. Bruce Clarke, London; Mr. J. H. Ogilvie, Jerusalem; Messrs. Oppenheimer and Co., London; Mr. W. K. Hatch, London; Messrs. Brady and Martin, Newcastle-on-Tyne; Mr. A. Street, Cambridge; Dr. Sinclair Thomson, London; Dr. H. R. Bigelow, Leipsic; Messrs. Peebles and Son, London; Mr. L. Humphry, Cambridge; Mr. G. W. Hambleton, London; Dr. J. Niven, Oldham; Mr. T. Laffan, Cashel; Mr. H. K. Lewis, London; Dr. Dawson, London; Mr. Weaver, Epsom; Mr. H. Welch, Blackpool; Dr. Cousins, Southsea; Mr. S. M. Copeman, London; Mr. Long, London; Mr. Dalton, Newhaven; Messrs. Blake and Co., Leeds; Mr. N. W. Bourns, London; Mr. W. C. Nickels, London; Mr. Garner, London; Mr. C. Roberts, London; Mr. C. J. Bond, Leicester; Dr. O'Neill, Belfast; Mr. Saul, Tottenham; Mr. A. Millman, London; Mr. Easterbrook, London; Messrs. Trübner and Co., London; Mr. Heiniger, Erlangen; Mr. Haslam, Birmingham; Mr. A. E. Barker, London; Dr. M'Mordie, Belfast; Mr. Corbishley, Macclesfield; Mr. Steptow, Bisley; Mr. Luca, London; Mr. Oliver, Doncaster; Dr. Fisher, Punjaub; Mrs. Heslop, Preston; Mr. Birchall, Liverpool; Mr. Cosburn, Newbury; Mr. H. J. Gilbert; Messrs. King and Co., London; Mr. Ricker, St. Petersburg; Mr. Edwards, Chesterfield; Mr. Cohen, Birmingham; Mr. Sturmfel, London; Mr. Taylor, Aberdeen; Mr. Heywood, Notts; Mr. Carter, Cambridge; Miss Dykes, Hammersmith; Mr. Saunders, Manchester; Messrs. Hopkinson and Co., Notts; Mr. Davies, Bath; Mr. Ross, Edinburgh; Messrs. Dawson and Sons, London; Mr. Armstrong, Manchester; Messrs. Street and Sons, Guildford; Mr. Massingham, Clifton; Messrs. Hopcraft and Co., London; Dr. Wall, Peterboro'; Mr. Immisch, London; Mr. Parker, Sandymount; Messrs. Orridge and Co.; Mr. Thompson, Oldham; Dr. Harman, Australia; Messrs. Riddle and Co.; Mr. W. Grant, Blantyre; Ambulator; A Recent M.R.C.S., L.R.C.P.; A Victim of the Law; A Grumbler; C. O'H.; H. X.; Chirurgicus; Josephine, Notts; Sister, London; Medicus, London; Matron, Grantham; M.D., Brighton; A. C. E., Brompton; N. L.; An Old Indian; A Constant Reader; Chathamite; Spes.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Heelas, Ventnor; Mr. Priestley, Worcester; Mr. Smythe, Sheffield; Mr. Ness, Oldham; Mr. Holcombe, London; Miss Lütticbau; Messrs. Wheatley and Co., Huddersfield; Dr. Kirkpatrick, Woodbridge; Mr. Hammond, Bristol; Dr. Paige, Hartlepool; Mr. Paine, Worthing; Mr. Sharpen, Bedford; Mr. Boud, Nottingham; Miss Yate, Bridgnorth; Mr. Parry, Bagillt; Mr. Ralfe, Gorey; Mr. Casella, London; Messrs. Moore and Co., London; Mr. Stutter, Wickhambrook; Mr. Cornish, Manchester; Mr. Davenport, London; Dr. Finch, Salisbury; Messrs. Battle and Co., London; Mr. Challand, Matlock; Mr. Alcan, Paris; Mr. Smith, Easingwold; Mr. Boyce, Shrewsbury; Mr. Eminson; Messrs. Tribe and Co., Chatham; Mr. Trosise, Burton-on-Trent; Messrs. Thompson and Co., Liverpool; Mr. Hughes, Holyhead; Messrs. Sumner and Co., Liverpool; Miss Rogers, Truro; Mr. Field, Hackney; Mr. Johns, Newport; Mr. Rideal, London; Mr. Aitken, Aberdeen; Dr. Stewart, Notts; Mr. Peat, Trebeigh; Mr. Lewis, Wigan; Mr. McKenzie, Ryde; Dr. Cox; H. L.; North of England; Medicus, Dover; M.B., Surbiton; Surgeon, Grimsby; Cretonian, London; Medicus, King's-cross; Lady Superintendent, Coventry; S. R. H.; J. A. M., Wakefield; Catholic Practice; Zeta; T., Leeds; A. B., Bradford; C. B.; Medicus, West Brighton; Matron, Bournemouth; C. H., Mile-end.

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Croonian Lectures
ON
THE PULSE.

Delivered at the Royal College of Physicians of London, March, 1887.

By W. H. BROADBENT, M.D., F.R.C.P.,
PHYSICIAN TO ST. MARY'S HOSPITAL, CONSULTING PHYSICIAN TO THE LONDON FEVER HOSPITAL, AND PRESIDENT OF THE CLINICAL SOCIETY.

LECTURE I.

MR. PRESIDENT AND GENTLEMEN,—The subject I have chosen for the lectures which I have the honour to deliver before you, if it is to be judged of by its importance to the medical man, is well worthy of the attention of the College. It is to the pulse that we look first of all for trustworthy information as to the condition of the patient who seeks our aid, and the knowledge obtained from it is a sort of foundation upon which is built up the opinion we form from the collective symptoms he exhibits and from the results of our physical examination. On the other hand, since the pulse has been the object of attentive examination on the part of every physician here, from the first moment of his entering upon the study of medicine up to the present time, and by countless generations of physicians from the time of Galen onwards, it may appear to be an act of presumption on my part to bring before the College a subject with which every Fellow is equally familiar with myself. I might reply to this that there has been a great reawakening of interest in the pulse; that new methods of study and of investigation have been brought to bear upon it; that greater precision has been introduced into the descriptive terminology of its variations. But the justification I would plead is simply this, that I have myself learnt much, and still find that I have much to learn, with regard to the pulse, with regard to the significance of the changes observed in it, and especially with regard to the indications for treatment to be obtained from it.

We examine habitually the pulse at the wrist, and at first sight it seems strange that the radial artery, which supplies merely the structures of a part of the hand, a few small bones with their articulations, a few muscles and tendons, the skin and the nerves distributed to it, should afford the varied and far-reaching knowledge we look for in the pulse. The hand is not essential to life; it contains no organ of any importance, and *a priori* it might have been supposed that the variations in the circulation of the blood in so small a member could have no significance. We know as a matter of observation, however, that the pulse of the wrist indicates the condition of the circulation generally, and on reflection it is seen that, as a branch of the great arterial system, it receives every impulse starting from the heart, and reveals the frequency and force of its beats; and not only this, but as fluid pressure is equal, or tends to become equal in all parts of a freely communicating system of tubes, it shows the degree of freedom of the general outflow through the capillaries as well as the kind of propulsion by the heart. The very fact that the hand has no special circulation of its own liable to extreme variations for functional purposes, such as, for example, those which occur in the salivary glands, makes the radial pulse a more trustworthy index of the general circulation.

A preliminary question, upon which a distinct understanding must be arrived at, is the following: The pulse, what is it; and what is the exact information it furnishes? Now, it is not, as is commonly understood, and as is explicitly stated in text-books of physiology, much read by our students, an expansion of the artery. This, at any rate, is not what we feel or what is recorded by the sphygmograph. A moment's reflection as to the volume of blood discharged by the left ventricle into the aorta, and a comparison of this with the capacity of the entire arterial system, will convince us that it is altogether inadequate to produce any expansion of the smaller arteries appreciable to the touch. The aorta and its primary branches are, it is true, dilated somewhat by the injected blood, but even in a vessel the size of the carotid it is difficult to measure the increase of diameter, so minute is it; whereas in the radial, in which it must be much less, the sphygmograph, if its trace were taken to indicate actual enlargement of the artery, would show it to be considerable. Nor is the pulse a sinuous movement of the artery in its bed from elongation, which throws it into curves. To feel the pulsation in an artery, or to take a sphygmographic trace, a certain degreee of pressure must be applied to the vessel, and, as is well known, there must be a bone behind it against which it can be compressed. What happens, then, is as follows: in the intervals between the pulsations, when the resistance by the contained blood is at its lowest, the tube of the artery is more or less flattened; then comes the so-called wave of blood propelled by the systole of the left ventricle, or, to speak more accurately, the liquid pressure in the vessel is increased, and this forces the artery back into the circular form. It is this change of shape from the flattened condition impressed upon the vessel by the finger, or by the sphygmographic lever, to the round cylindrical shape which it assumes under the distending force of the blood within it which constitutes for us the pulse. Such a pulsation can be felt on a large scale by placing the foot on the unyielding and unelastic leather hose of a fire-engine in action, or shown in a schema of the circulation with inelastic vessels. It is not, then, an increase in the diameter of the vessel, but an increase of the blood-pressure within it, created by the systole of the ventricle of the heart, which constitutes the pulse.

Another common misconception must be cleared up—namely, that the pulse signifies onward movement of the blood in the artery. Since a certain amount of blood is propelled into the aorta at each systole, it would seem, at first sight, that there must be a corresponding propulsion of blood along the vessel which is under the finger, and misapprehension has been carried so far that the pulse wave has been understood to mean the actual transport of the blood, and even to indicate the rapidity of such motion. Short of this, it is more commonly taken for granted that the rate of movement of the blood in the vessels is directly proportionate to the strength of the pulse—that a good strong pulse implies a vigorous rush through the capillaries, and a weak pulse a languid flow. The stream from a divided artery and the pulsatile jet seem to countenance this conclusion. It is, however, an erroneous idea; if the radial is compressed close to the hand, the pulsation above is not extinguished, but exaggerated, and when an artery is tied the pulsation up to the ligatured point is more vehement than before. Pulsation is thus no evidence of onward movement of the blood, and resistance in the arteries and capillaries will have *pro tanto* the effect of a ligature, hindering or even arresting the onward current; and there can be no doubt that peripheral obstruction does at times reach a point which almost stops the flow from the arteries to the veins, the pulse appearing to be all the stronger on this account; in fact, we infer the existence of obstruction in the cerebral circulation from the exaggerated carotid beat on that side. This is a consideration which, it seems to me, is not adequately borne in mind. I think it enters into the explanation of dropsy, and especially of the varying amount of dropsical effusion under apparently similar conditions, and that it also helps to clear up obscurities in the relation between circulatory conditions and head symptoms.

The pulse, then, indicates simply the degree and duration of increased pressure in the arterial system caused by the ventricular systole. There is a certain mean blood-pressure maintained by the elasticity of the large arteries, varying greatly in different individuals, which keeps up the flow through the capillaries, and the level of which is determined by the resistance in the capillaries and the amount of force stored up by the elastic walls of the large arteries. This pressure is lowered by the outflow through the capillaries into the veins, and is reinforced by the successive contractions of the left ventricle and the pulse marks, and indicates the minimum and the maximum pressures, with the gradation from one to the other. The term "tension," as applied to the pulse, means simply the degree of fluid pressure within the artery, putting its walls on the stretch. Distension might, perhaps, be more expressive than tension, if less exact and technical. With these preliminary observations we may proceed to consider the factors of the pulse.

There are three factors in the production of the pulse, and the influence of each on the variations observed in it must be understood. I shall not enter upon them minutely here,

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but certain observations are necessary to a full comprehension of the effects which will be studied later. The three factors are—1. The action of the heart. 2. The elasticity of the great vessels. 3. The resistance in the arteries and capillaries. The heart determines unconditionally the frequency and regularity or irregularity of the pulse, and, with certain qualifications, its force or strength. The great vessels, acting as an elastic reservoir, convert the intermittent jet issuing from the ventricle into a more or less continuous stream, impressing at the same time certain characters upon the pulse, according as the elasticity of their walls is perfect or impaired, and according as they are kept fully distended or only slightly on the stretch. The capillaries and arterioles, by the varying resistance which they offer to the passage of blood through them, determine the character of the pulse, and influence materially the action of the heart. Each of these must be considered in some detail.

It has just been said that the heart determines absolutely the frequency of the pulse; and this is true, in so far that the number of beats of the pulse corresponds with the number of the heart-beats, except when a certain proportion of the latter are too weak to reach the wrist, or when very little blood enters the ventricle during its diastole; with the exception, again, of that curious modification of the heart's action, in which there are two heart-beats coupled together for every beat of the pulse. It must not be lost sight of, however, that resistance in the peripheral circulation reacts upon the rate of the heart's action, as well as upon its character, the frequency being increased as resistance is lessened, and *vice versâ*, subject, however, in both cases to the intervention of the nervous system. The rhythm as well as the rate of the pulse is determined by the heart, and the pulse, generally speaking, is regular or irregular, according as the action of the heart is regular or irregular. The pulse, however, may be made irregular, when the heart is acting regularly, by beats failing to reach the wrist, and irregularity of the heart's action may be greatly exaggerated in the pulse.

With regard to the strength or force of the pulse, again, this must be directly dependent upon the strength of the ventricular systole. The pulse cannot be strong or forcible when the heart's action is weak, and it will not, as a rule, be weak when the heart's action is vigorous. But the volume of blood discharged by the ventricle into the aorta is another element in the production of the pulse. If from any cause the ventricle is not properly filled, as may be the case when there is obstruction in the pulmonary circulation, or when the mitral orifice is greatly narrowed, or when the ventricle has not time to dilate, as may happen in palpitation, the systole will have little effect in increasing the pressure in the arterial system; and there may, under such circumstances, be powerful action of the heart with a feeble pulse. As will be seen, however, when the influence of peripheral resistance is discussed, the apparent strength of the pulse may not correspond with the energy of the ventricular contraction, even when the amount of blood propelled is normal, and tension, or the degree of distension of the arteries while it is maintained by the heart and is dependent upon the pressure supplied by the ventricular systole, is by no means proportionate to its vigour.

The principal effect of the large arteries is to act as an elastic reservoir, which converts the intermittent jet of blood which issues from the ventricle into a continuous stream. They are kept in a state of continual distension, which is increased momentarily by each ventricular systole, and runs down to some extent in the intervals, but never during life, to a point at which the elastic coats of the vessel cease to exercise some compression on its contained blood. The force of the heart is thus stored up and delivered out gradually in the form of a steady pressure, which keeps up an almost uniform flow through the vessels of the periphery. The regular current of blood sustained in this way is essential to the functional efficiency of the central nervous system.

But the elasticity of the great vessels is concerned in the production of the dicrotism of the pulse. The conditions favourable to its manifestation are low tension in the arteries and sharp contraction of the heart. When the outflow by the capillaries is rapid, the pressure in the aorta and great vessels will run down speedily during the cardiac diastole, and there will be a great and sudden rise with the systole. There being, moreover, comparatively little resistance to the blood entering the aorta from the ventricle, its systole takes place rapidly. The force of the systole is divided; there is, at the same time, a launching forwards of the column of blood, and an expansion of the great vessels laterally, their elastic coats not being on the stretch, and so yielding easily. A rebound follows, which starts along the arteries the dicrotic wave from the closed semilunar valves. When, on the other hand, the onward movement of the blood in the periphery is obstructed, the pressure in the great vessels cannot reduce itself, the aorta is distended and its coats are on the stretch, there is little room for the contents of the ventricle, and the exact converse of the effects above enumerated will hold. There will, in particular, be little or no dicrotic wave. In proportion as the distension is extreme, the condition obtaining in the arteries will resemble those which would be present in a system of inelastic tubes. When, from atheromatous or other senile changes, the aorta and its primary branches have lost their elasticity, the resemblance to a system of inelastic tubes is more complete, and the pulse curve not being modified resembles that of the ventricle.

Not less important than the action of the heart in its influence on the circulation of the blood, and even more important in the modifications it produces in the character of the pulse, is the resistance in the arterioles and capillaries. It is by their resistance in front and the force of the heart's action behind that the mean pressure in the arterial system is determined. If the outflow through the capillaries is free, then no amount of blood which the heart in a normal condition can pour into the arteries, and no degree of energy with which this is projected into the aorta, will maintain the general arterial pressure at a high point. It is possible that great frequency of the heart's action, with the discharge of a full volume of blood by each systole, may pour blood into the arteries more quickly than it can run off by the capillaries even when relaxed, in which case the pressure would rise; but this is a rare occurrence, except for brief periods in excitement or the early stage of effort. On the other hand, when the passage through the capillary network is obstructed, the blood is dammed back in the arteries, and the pressure within them is raised, it being understood always that the heart is capable of supplying the requisite force, which must, of course, be sufficient to overcome the peripheral obstruction and keep up some onward movement of the blood, or life would cease. This average or mean tension present is a most important part of the knowledge to be obtained from the pulse; it is measured by the degree of fulness and resistance in the artery between the beats; the variations in the character of the pulse contributing to an accurate estimate of it. It follows from theoretical considerations which need not be here discussed, and it is proved both by observation and experiment, that the higher the constant or mean pressure in the arteries, the less is the difference between the maximum and minimum; or, in other words, the more full and firm the artery is between the beat, the less marked will be the pulse, and, *vice versâ*, the lower the tension and the more conspicuous the pulsation. The significance, again, of the constant or mean and the variable or pulsatile pressure is different. The mean pressure tells most with regard to circulation and the circulatory system. The variable pressure or pulse tells most with regard to the general state of the individual. These variations in the pulse, and the way in which they are produced by changes in the arteries and capillaries, must now be considered.

When the peripheral vessels oppose little resistance to the passage of the blood through them, the pressure in the arteries will not only be low, but it will also be variable. It will rapidly run down in the intervals of the ventricular systole and rise suddenly with each systole. This would be the case even were the rapidity of the individual contraction constant, and uninfluenced by the amount of force to be overcome; such, however, is not the case, for with diminished resistance the ventricle expels its contents more rapidly. The pulse, then, will be more sudden or sharp, and will seem to be more vehement. The artery at the wrist and elsewhere will allow itself to be flattened more easily and completely, as there is little pressure of blood within it to resist the external pressure; it is then suddenly distended and resumes its cylindrical form, repelling the finger and jerking up the sphygmographic lever. This effect is all the more marked from the fact that the walls of the artery will be relaxed and its diameter increased.

The converse effect will be produced by peripheral resistance. With a higher mean pressure the variations will be

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less, and the rise of pressure, which constitutes the pulse, more gradual; this difference being accentuated when the artery is contracted. But another consequence flows from the varying resistance in the peripheral arterioles and capillaries. A given volume of liquid will pass more rapidly through a large channel than through a smaller under the same pressure. When, then, the resistance in the periphery is weak—which is equivalent to the channel being larger—the pulse will be short; that is, the wave is sudden and soon over, and, conversely, it will be long when the resistance is considerable. It is easy to confound the fulness of the artery between the beats with a prolonged beat; but, although these two conditions are often met with together, they are distinct, and must be kept so in our minds.

The sphygmograph has been invaluable in research; it has given precision to our ideas, and, in the hands of Marey and others, has made clear and comprehensible many intricate and doubtful problems of the circulation. It is capable, too, of rendering important aid in clinical investigation, especially where demonstration and records of changes in the circulation are required. To me personally the sphygmograph has been of immense service. I worked with it under the eye of Sibson, and shared Anstie's enthusiasm with regard to it when he and Professor Burdon Sanderson took up the instrument with which Marey endowed medical science. It is not, therefore, from ignorance of or want of familiarity with the sphygmograph that I have come to the conclusion that it is not specially useful in practice—that in any form known to me it is not a clinical instrument for every-day work. It is rarely necessary for diagnosis, and scarcely ever to be trusted in prognosis. The indications obtained from it are not, like those of the thermometer, independent of the observer. Skill and practice are required in applying it, judgment is called for in determining the position and pressure which give the best trace, and, indeed, in deciding which of the traces obtainable is the best representative of the particular pulse; the personal equation of the observer therefore comes in, and if any special result is greatly desired, an enthusiastic investigator can obtain it, and may without the least conscious intention twist facts in the required direction. It is necessary, also, before a trace can be interpreted with any degree of confidence, to know what form of sphygmograph has been employed. Marey's is still, in my opinion, the best, and his traces appear to me to correspond most closely with traces taken without instrumental multiplication and magnified by the lens. English modifications of Marey's sphygmograph often magnify the pulsation too much, and in doing so introduce exaggerations due to the rapid movement of the writing lever. Pond's and Dudgeon's instruments are extremely handy and convenient, but a gratuitous provision for exaggerations and for extraneous jerks and vibrations exists in the loose and unmechanical way in which the motion of the intermediate lever is communicated to the writing lever and in the weight which acts as counterpoise in the last-named lever.

The pretence, again, to measure the exact pressure employed in taking the trace, and thereby to obtain corresponding knowledge of the intra-arterial pressure, is illusory. To say nothing of the varying thickness and resistance of the skin, which would of itself vitiate all conclusions of this kind in at least three ways—by difference of flexibility, by affecting the position of the spring, and by varying the area of the button or pad actually in contact with the skin,—the size of the artery would introduce an element of uncertainty. Hydraulic pressure is equal at every point of the containing surface, and its force is multiplied by increase of area; the greater surface, therefore, of a large vessel would exercise greater lifting power, so that the same blood-pressure would appear to be higher or lower according to the diameter of the artery. For the same reason buttons or pads of different size resting on the vessel would affect the degree of force required in order to compress it, as would slight differences of adjustment. A knife-edge resting transversely across the vessel eliminates some of these uncertainties, and gives a more accurate trace, but requires delicate adjustment of the strength of the spring. The above would be true if the pressure exercised by the spring were accurately graduated; but this is far from being the case in any sphygmograph known to me, and graduation by the eccentric commonly employed is ridiculously inexact. While, then, I think that every student ought to be familiar with [illegible] sphygmograph, and will gain from a study of its [illegible] of the pulse in its different forms obtainable in no other way, I am of opinion that we learn by means of the educated finger all that the sphygmograph can teach, and more. It is invaluable as a means of educating the sense of touch, and of cultivating the faculty of observation; it is most useful in resolving doubts as to the difference between the pulse of the two sides in some cases of aneurysm, and in recording pulses in the graphic form; but it is not an infallible court of appeal, and there are niceties of information which are out of its reach. I need only point to the groups of pulse-tracings exhibited, which are by experts, to show that a sphygmogram does not speak for itself, but requires interpretation. One set is a series of normal traces made for me by the late Dr. Mahomed to illustrate my lectures at St. Mary's; the other is a copy from Marey's pulse of aortic regurgitation.

In examining the pulse our object is to obtain the most complete and exact knowledge attainable as to the circulation, and to interpret accurately the facts we observe, and I must be the more careful in describing the method to be followed, as I do not propose to refer to the sphygmograph. The point first noted is the frequency, the number of beats per minute and the regularity or irregularity of the beats, with regard to time, and their equality or inequality in force. This is simple and easy. We should naturally wish, in the next place, to estimate the force or strength of the pulse, but, considerations which modify the idea derived from the impression made on the fingers may first be conveniently discussed. It will be well, therefore, after counting the pulse, to give attention to the size of the artery. This varies greatly in different individuals, and may differ in the two wrists of the same person. It varies, again, greatly according as the muscular coat is relaxed or contracted. We have, then, to distinguish between congenital differences in the diameter of the vessels and variations induced by physiological or pathological influences. Now a large artery will communicate a more perceptible impression to the fingers placed lightly upon it than a small one, and the beat will seem more forcible. On the other hand, the pulse wave can usually be arrested more readily by pressure in a large artery, and the pulse is more compressible; one mode of examination thus controls or corrects the other. When the artery is small, and especially when it is rendered small by contraction of its muscular coat, there appears to be little pulsation in it, and the pulse may easily be set down as weak; but let an attempt be made to obliterate it by compression, and it often seems as if the pulse grew stronger as the pressure on the vessel increased.

An important point to be investigated is the degree of constant pressure prevailing in the arteries. The constant intra-arterial pressure, or pulse tension, is determined first by rolling the artery transversely under the three fingers, or endeavouring to do so. In a pulse of average tension, the vessel only stands out so as to be felt distinctly during the actual beat, and subsides gradually or rapidly in the interval; it cannot, therefore, be rolled by the fingers at all periods, though it may generally be distinguished with care, even between the beats, especially when the skin is thin and flexible. In a pulse of low tension the vessel can scarcely be said to be felt as such at all; it starts up with the beat, and is at once lost again when the brief wave has passed. In a pulse of high tension, on the other hand, the artery stands out among the structures of the wrist like another tendon, and can be rolled like a cord under the fingers, and followed often half-way up the forearm. While the vessel is thus being rolled about, the pulsation in it may scarcely make itself felt, and the artery can often be seen distinctly, if the skin is thin, projecting on the surface without any appearance of pulsation, except where it is thrown into curves. Pressure, however, brings out the pulsation and develops its force.

The character of the beat is another matter for study; and, brief as is the period occupied by it, each pulse-wave presents a rise, duration, and fall. It may strike the finger suddenly, or lift it deliberately; the distension of the artery may be momentary only, or it may persist for a time; the fall of pressure finally may be abrupt or gradual. For the most part, a sudden rise, brief duration, and abrupt fall go together, and constitute the short pulse of large arteries and low tension; while a gradual rise, persistent fulness, and slow decline are usually associated, and give the long pulse of contracted arteries and high tension. Exceptions, however, occur, and they are often of great significance. There may be a large vessel and sudden pulse when the tension is relatively high with dilatation of the left ventricle, and a

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small artery, slowly and feebly filled, in extreme low tension with cardiac weakness.

We are now prepared to estimate the strength of the pulse. Three fingers are placed on the vessel, as is supposed to be the case from first to last. With that nearest the heart, pressure is made till the wave is arrested, so as not to be felt by the other fingers, or, if necessary, two fingers are employed to extinguish the pulsation. In this way, by the degree of pressure required, and by varying the pressure with one, two, or all three fingers, an idea is obtained of the force with which the heart is propelling the blood onwards. Account will have been taken already of the size of the vessel, and the method of noting the tension will have brought out other points which enter into consideration.

I have spoken of the manœuvre of rolling the vessel transversely under the fingers as a means of estimating the pressure and tension by which it is maintained in the cylindrical form. Another manœuvre by which the state of the coats of the artery is ascertained is to carry the skin along it longitudinally with varying pressure; curves in its course and bulging in its walls are thus detected; inequalities of thickness and density in the coats are felt, sometimes mere thickening and hardening, at others actual patches of rigidity and calcareous deposit; or the entire vessel may be found to have a thick, leathery, inelastic feel, or may be converted into an irregular, hard, calcareous tube, or may feel like a string of beads under the finger.

One more question of observation must be taken up—the recognition of dicrotism. For this purpose the fingers must rest as lightly as possible on the vessel, and uniform gentle pressure must then be made by all three. The dicrotic wave, when well within physiological limits of variation, will be felt like an echo of the principal beat, and when well marked is extremely distinct. A complete account of the pulse then should specify (1) the frequency—that is, the number of beats per minute, with a note of any irregularity or intermission or instability of the rhythm; (2) the size of the vessel; (3) the degree of distension of the artery between the beats; (4) the character of the pulsation, whether its access is sudden or gradual, its duration short or long, its subsidence abrupt or slow, note being taken of dicrotism when present; (5) the force or strength of both, the constant and variable pressure within the artery, as measured by its compressibility; (6) the state of the arterial walls. How far the description of the pulse usually given, even in cases in which much turns upon it, falls short of these requirements it is unnecessary to state.

It is impossible to examine with attention a large number of pulses, whether among the healthy or sick, without being struck by the extraordinary diversity of frequency, size, character, tension, and force met with. This diversity prevails quite independently of disease, in both sexes and at all ages, especially with regard to diameter of vessel and tension and force of pulse. If we judged only according to the size of the blood-channels, together with the pressure within them, we should be compelled to estimate the amount of blood flowing through the arterial system as three or four times as much in some persons as in others. But the amount of blood actually put in circulation is determined by the volume of blood discharged at each systole, and the number of contractions a minute, and assuming that the ventricles empty themselves at each contraction, there is no such difference in the capacity of the ventricle or in the rate of the heart's action as would corroborate the above estimate. Still, taking everything into account, there must, when we compare the small, short, compressible pulse of one man with the large, firm, and long pulse of another, be great differences in the rate and energy of the movement of blood through the capillaries in different individuals, and clearly there are great differences in the circulation of the same person at different times. The fact that such differences are compatible with health and vigour is conclusive evidence that nutrition and functional efficiency, even of the nerve centres, are not in such close relation with and intimate dependence upon the blood-supply as we are sometimes apt to suppose; and additional evidence, pointing in the same direction, is furnished by certain cases of valvular disease of the heart, as, for example, mitral stenosis, and of such functional derangements, for example, as that in which the pulse-rate is only 35 or 40 a minute, and there are two beats of the heart to one of the pulse, which still render the transit of blood through the heart more slow. There must, in effect, be provision for a very large margin of excess beyond the minimum blood-supply required for the purposes of the tissues and organs generally. It is a noteworthy fact, too, that in acute disease, which is attended with weakness and wasting, the circulation of the blood is accelerated, as is indicated by the larger diameter of the vessels and the increased frequency of the heart's action.

I have not been able to connect differences in the circulation with any constant bodily or mental character. A marked tendency to obesity appears usually to be associated with small arteries and low tension; and the thin wiry individual commonly has large arteries, which are conspicuous, not only from the thinness of the skin and absence of subcutaneous connective tissue, but also because, together with their size, they are markedly full between the beats. People with low arterial tension seem to wear out less quickly, and to furnish most of the examples of longevity; but they appear to have less power of resistance in acute disease. These, however, are given as mere impressions. Speaking generally, I have found physical strength, energy, and endurance impartially associated with small low tension pulse, and with large arteries and high tension, and the reverse. I can say the same of intellect, perseverance, courage, and force of character generally; they appear to be absolutely independent of circulatory conditions. It is, indeed, clear that the circulation is not the determining influence in the production of the differences which are found to exist in respect of bodily or mental energy. The circulation is the servant, and not the master; and, physiologically, it is tissue activity which conditions the blood-supply, and not the blood-supply which conditions the tissue changes. In disease, again, the modifications of the circulation which are observed are far more frequently effects than causes, and the pulse is an index not so much of a more or less rapid movement of the blood, to be taken into account as a factor in the morbid processes, as of the state of the nervous system and of the body generally which has determined its rate and character.

It would be impossible to discuss systematically all the indications afforded by the pulse in the course of these lectures, and it would be most undesirable to attempt it. Many of them do not depend upon a comprehension of the circulatory conditions which the varieties of pulse denote, or, indeed, upon a knowledge of the circulation at all. Observant physicians before the time of Harvey could gauge thoroughly the state of the patient in fever from the pulse, and it is not for the purpose of estimating the movement of the blood that we ourselves in a case of fever count the beats and note their force and volume. We calculate from the data thus obtained the strength of the sufferer and the effect upon him of the disease; and we might or might not do this more accurately than our predecessors. On the other hand, it is only through a knowledge of the conditions which govern the circulation that such facts as the connexion between kidney disease and cerebral hæmorrhage can be understood, and that the prognostic significance of the hard pulse which betrays this connexion can be appreciated. The ordinary diagnostic and prognostic indications of the pulse, then, which are learnt only by experience, and which would gain nothing by exposition in lectures, will not be considered, and I shall take up only such points with regard to the pulse as illustrate either effects of circulatory derangements or advances in our knowledge obtained by the more profound investigations of recent years.

I propose, then, to consider, first, deviations from normal frequency and abnormalities of the rhythm, which I hope to dispose of in this lecture; next, variations of tension, their causes and consequences, and the indications for treatment which they furnish—these, with perhaps the pulse of heart disease, will occupy the second lecture; the subject of the third will be the pulse and cerebral affections.

Frequency.—The rate of the heart's action, with which the frequency of the pulse corresponds, is governed by various influences. Resistance to the onward current of blood in the arteries, or, in other words, increase of pressure in the arterial system, whether produced by compression of large vessels, such as the femorals and brachials, or by obstruction in the arterioles and capillaries, tends to slow the action of the heart and render the pulse less frequent, and, conversely, diminished resistance or lowered tension accelerates the heart and pulse rate. But more direct and powerful than these varieties of the arterial pressure, and entirely overruling their tendency, are nervous influences, of which the channels are the pneumogastric and sympathetic nerves. It is not my intention to enter at all upon a discussion or

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explanation of the respective action of these nerves; this would help us very little clinically, and knowledge with regard to them has not yet reached a perfectly stable condition. The question, too, is rendered complex by the fact that nervous influences reach the arterioles and capillaries as well as the heart, and modify the outflow of blood and the arterial tension; and an effect upon the heart, apparently direct, may be brought about indirectly through variations in the degree or resistance in the circulation. Almost all departures from a normal state of health are attended by increased frequency of the pulse, and it would serve no useful purpose to enumerate and attempt to classify the causes of pulse frequency, while its prognostic indications are so varied and delicate that they would elude description. They are, besides, among those matters of experience which are independent of scientific investigation, and are excluded under the rule which I have taken for my guidance. There are, however, cases in which frequency of the pulse, or rather of the heart's action, constitutes in itself the disease, or if not actually the disease, yet at least a source of danger and suffering. Such frequency is one form of palpitation of the heart. The fugitive attacks of hurried and violent action of the heart, induced by indigestion or emotion or over-exertion, need not occupy our attention; and I shall not do more than allude to the persistent frequency of the pulse in Graves' disease, or in hysterical conditions, or associated with aortic pulsation.

Persistent frequency of pulse.—Persistent frequency of pulse is one of the consequences of over-strain of the heart by exertion. It is met with in young men who have over-taxed their powers in rowing, training for races, or heavy gun drill; and was observed on a large scale in the American war. The name "irritable heart" employed as a descriptive term may very well be accepted. Besides the beating of the heart of which the patient is conscious, there are breathlessness on exertion, nervousness, depression of spirits and anxiety, sensations of faintness, sleeplessness, and incapacity for sustained exertion. In all the cases of this kind which I have seen, the pulse tension has been high. The great remedy for this condition is rest, and from one to three weeks in bed, however irksome and wearisome at this period of life, may be well spent in allowing the heart to settle down. During and after middle age, persistent frequency of pulse may be induced by a single act of excessive exertion, such as running to catch a train. The effects upon the heart of such an imprudence vary; there may be dilatation of the heart, with or without insufficiency of the mitral valve, or a valve may be actually damaged, or the action of the heart may become irregular; but, besides these, it may become hurried without irregularity, and the frequency may persist till the strength of the patient is worn out. Here, again, the arterial tension is, according to my experience, high, spasm of the peripheral vessels contributing to the effect, so that the distension of the arteries is not simply the result of blood being driven into the arterial system in consequence of the increased frequency of the heart's contractions. No satisfactory explanation has been given of these cases, and I have none to offer. Perhaps the most plausible is that the plex of minute nerve-ganglia and network of fibres so copiously distributed beneath the endocardium may have been stretched and rendered unduly irritable.

Paroxysmal palpitation.—It is late in life that paroxysmal palpitation with frequency of pulse is most commonly a cause of suffering and danger, shortening life and rendering it miserable. It may complicate heart disease of any kind, and may possibly sometimes be one of the consequences of the disease, but it may occur independently of valvular affection or of any structural change sufficiently advanced for recognition, and it has seemed to me that when disease of the heart is present the palpitation is often rather a complication than a consequence. The exciting cause may be indigestion and flatulence, or the mere act of taking food, lying down, emotion, apprehension of an attack at a particular hour or under given circumstances associated with former attacks; but, whatever this may be, the onset of the paroxysm is frequently accompanied by a sudden relaxation of the arteries, and the palpitation seems to resemble the excited action of the heart set up by nitrite of amyl or nitro-glycerine. Resistance to which it is habituated is suddenly removed, and the heart starts off like the engine of a locomotive when the wheels fail to bite the rails. In the course of a prolonged attendance upon a medical man advanced in years and long subject to gout, who suffered greatly from palpitation, this occurred more than once; when my hand was on the pulse the artery became large and soft, there was a flutter of the heart, which then bounded off. A remarkable complication occurred in this case which is worthy of being related. Early one morning the patient began to bring up bloody fluid from the lungs, and in the course of twenty-four hours expectorated several pints of it. A pink froth covered the bright-red liquid to the depth of half an inch, and the whole looked very much like the boiling red-currant juice in the process of making jelly. There was no rise of temperature, the flux of blood-stained serum gradually ceased, and palpitation did not recur for several months, when, after imprudent fatigue and exposure, it returned, and ultimately wore out the patient. It should be added that there was no valvular disease, and only moderate dilatation and hypertrophy with old-standing high arterial tension.

There still remains for notice the extraordinary rapid action of the heart, which can only be referred to some neurotic condition, lasting for days or weeks or months, of which numerous examples are on record. One of the most remarkable is that recently brought before the Neurological Society by Dr. Bristowe, to whom I am indebted for the following particulars: The patient was nineteen years of age, and there was reason to think that the affection dated from the age of eight, the attacks of rapid action of the heart recurring from time to time. When he entered St. Thomas's Hospital, he was suffering from anasarca and pulmonary apoplexy, which had supervened in the course of an attack which had lasted some months. The pulse varied, but often numbered 200 or 240. Under the influence of iron and digitalis, the action of the heart quieted down to about the normal, but was easily excited, and during one visit to the hospital the beats were counted at the rate of 304 or 308 a minute. He had resumed work as a draper's assistant, and on Feb. 26th was at work till midnight. Next morning he did not seem much the worse for it, but at midday, while playing the piano, he suddenly stopped and fell down dead. The heart was somewhat enlarged and dilated, but the valves were normal, and no other disease was discovered.

For particulars of another interesting case, with post-mortem examination, I am indebted to Dr. Dreschfeld and Dr. R. Maguire. The patient, a labourer, aged thirty-six, who had had syphilis and had been a heavy drinker, had suffered, when first seen in October, 1883, from attacks of palpitation for twelve months, which came on suddenly after a heavy supper, and were attended with vomiting, and usually lasted from fourteen to twenty days. The pulse rate was found to be from 215 to 230. No cardiac or other disease was discoverable. He improved under digitalis, the pulse falling rapidly to 86. He was again seen in December, 1883, and March, 1884, with relapse of palpitation and a pulse of from 200 to 215. On this last occasion, while under treatment by convallaria, he died in an attack of convulsions. The heart was large, and its structure presented degenerative changes, but nothing was found which could explain the rapid heart action.

Several cases have come under my observation in hospital or in consultation of which the course and sequel have not been known to me. In one seen with Mr. Stanley Smith in the course of last year, the patient, a lady aged sixty-four, died after seventeen days' illness, during which the pulse ranged from 150 to 200, the heart being apparently worn out. In one case I saw the patient, a lady of about forty-five, almost daily for about three weeks. The pulse was never under 200, usually 240, and there was every reason to believe that the heart was beating at the same rate during the whole of the time. The artery was small, full between the beats, not easily compressible, and the pulsation felt more like a vibration than a beat, and gave the impression of there being little or no onward propulsion of the blood. The heart sounds were short and equi-distant, and reminded me of the puffing of a distant locomotive. There was no opportunity of examining the pulse or heart during sleep, but the sleep was broken, and the feelings attendant on the palpitation were always present. This was a second attack after an interval of some years. I saw her in the first, which lasted about five days, and left her looking old and worn. She survived the second for at least two years, since which time I have not heard of her.

Another case was brought to me by Dr. Slocombe, in April, 1886. The patient, a gentleman aged fifty-six, was stout, and had a good colour, had lived freely in all respects, and worked hard. He had been suffering from palpitation night and day for three weeks, sleeping for two hours only, and

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then restless all night. The pulse was 160, and had the character described in the last case. [A trace was here shown.] There was a reduplication of the second sound of the heart, best heard near the apex. The liver and spleen were large. Three weeks later the patient still looked extremely well, and his appetite was good, but he was subject to feelings of suffocation, during which he flushed, and his eyes had an expression of distress; these were brought on by very slight exertion or by stooping. He refused to consider himself an invalid, and went about much as usual. He could lie in any position, but when on his left side required a pillow under the side. He usually slept till 3 A.M., and then woke up suddenly. The palpitation had never ceased; the pulse was always 160; the heart was not much enlarged, the sounds equi-distant, the aortic second having a ringing note at the right second space; slight jugular pulsation was visible on the right side, and the liver was large; crepitation was heard in both lungs posteriorly, as high as the angle of the scapula. In June, when seen again, the palpitation continued, having lasted now three months. He had been out of town, and looked as well as ever, but evidences of stasis in the circulation had made their appearance, the legs had suddenly swollen, he could not lie down, and the liver was extremely large. The pulse was still 160; the heart beats as before, equidistant. Various lines of treatment had been tried without effect, and digitalis seemed to do harm. I have not seen the patient since, but I learn from Dr. Seccombe that he continued to suffer very much until November, when improvement began, and the patient was recently said to be so much better as to wish to resume his official duties. A later account, however, describes him as having had an attack of hemiplegia. This rapid action of the heart is, so far as I know, unexplained, except by referring it to some obscure neurotic influence. It is met with almost at all ages (Dr. Bristowe's patient appears to have been subject to it from the age of eight, and died of it at nineteen, and I have seen it in a child of ten), although it is more common after middle life than before; usually there is some apparent exciting cause, such as would put stress upon the heart; overwork and anxiety are the most common, but the predisposition, which is of more consequence, eludes us; sooner or later sudden death is the result.

It is interesting to speculate on the condition of the circulation. Clearly it is not accelerated, and the dropsy in Dr. Bristowe's and Dr. Seccombe's cases show that the tendency is to stasis. The pulse, too, gives one the idea of vibratory alternations of pressure with little onward movement. The question then arises, What is the condition of the left ventricle? Either it does not fill in diastole, or it fails to empty itself on systole. It may be that in some cases it is contracted, and refuses to dilate to receive blood from the auricle, and that in others it is in a state of over-distension; but it seems to me that the former is the more probable condition. I have usually found the heart of normal size, whereas persistent distension would sooner or later give rise to dilatation. Again, the cardiac impulse is often extremely powerful—I have seen the stethoscope lifted through a woman's stays—and this is inconsistent with over-distension. It might be asked, again, whether the peripheral arterioles and capillaries played any part in the phenomenon, or the pulmonary circulation? These are questions which I am unable to answer, and it is a satisfaction to me to know that the subject is engaging the attention of Dr. Bristowe.

A CREMATION CONGRESS.—It is intended to hold an International Congress on Cremation in September of the present year, the place selected for the gathering being Milan. French will be the official language, but the speakers may, if they like, make use of any other language. Reports will be submitted as to the progress made in the practice of cremation in different countries, and the formation of an international league will be proposed. An exhibition of models of crematories, urns, and other objects connected with the campaign now being conducted against the present methods of disposing of the dead will be open during the congress.

MR. T. M'LEAN has already opened his spring exhibition of oil paintings in the Haymarket. The collection is of the usual cosmopolitan character, and contains some sixty pictures, of which a "Foraging Party" of wild boars by Rosa Bonheur and Sir John Millais' "Fern Gatherer" will probably command most attention.

Gulstonian Lectures
ON THE
NATURE OF FEVER.

Delivered at the Royal College of Physicians,

BY D. MACALISTER, M.A., M.D., F.R.C.P.,
PHYSICIAN TO ADDENBROOKE'S HOSPITAL, LECTURER IN MEDICINE AT THE UNIVERSITY OF CAMBRIDGE.

LECTURE III.

MR. PRESIDENT AND GENTLEMEN,—In the last lecture I gave at some length my reasons for believing that the thermogenic function of the skeletal muscles, the chief sources of heat in health and in disease, is dependent on their innervation. I spoke of this innervation as twofold, corresponding to the motor and inhibitory innervation of the vascular and visceral muscles and of the heart. From the point of view of the chemical changes which take place in thermogenesis, I spoke of the nerves concerned as respectively catabolic and anabolic. The latter nerves were inhibitory of heat production, inasmuch as their influence is towards the upbuilding of the hypothetical "thermogen" and the simultaneous absorption of energy. The former were excitors of heat production inasmuch as they induce destructive metabolism with oxidation and the liberation of energy. Briefly this view of thermogenesis was suggested (1) by the chemical fact that in the normal thermogenic, as in the normal contractile, metabolism of muscle there is no adequate evidence of increased nitrogenous waste, but only of the absorption of oxygen and the liberation of carbonic acid and water; the nitrogenous molecule of the muscle substance must be continuously upbuilt again as it is continuously being unbuilt, anabolism going hand in hand with catabolism; and (2) by the cardinal physiological doctrine taught us by Dr. Gaskell, that catabolism or disintegration is the symptom of "motor" or "excitor" nervous action, and anabolism or restoration of "inhibitory" nervous action. The physiological doctrine was, you will remember, strongly supported by the phenomena presented by the heart muscle and its double nerve-supply through the sympathetic and the vagus; it was rendered probable in the case of the visceral and vascular involuntary muscles, and on analogical and other grounds inferred in the case of the voluntary muscles and the secreting glands.

Another line of analogical reasoning to which you may or may not be inclined to give weight suggested that, as the nervous mechanisms of heat loss—namely, those subserving circulation and respiration—had a twofold character, and were maintained in balance by the joint action of opposing influences, respectively motor and inhibitory, so too the nervous mechanism of heat production was twofold, and in health maintained a "thermogenic tonus," a balance between tendencies towards the liberation of thermal energy on the one hand and its repression or absorption on the other.

I have to confess that we know little or nothing as yet of the anatomical course of the thermal nerves of the muscles. The motor trunks would appear to contain the thermogenic fibres—if, indeed, they are not identical with the motor fibres. But as to the course of the anabolic fibres we can only conjecture, and the analogies which we have to guide us are too obscure for me to dwell on here. This ignorance would be more depressing if we held to the notion that anatomy had fulfilled its task and explored exhaustively the whole field of the peripheral nervous system. But when I remember that it is only since the other day that the physiological, anatomical, and morphological relations of the so-called sympathetic system to the spinal nerves have been at all clearly understood, I do not despair of further great discoveries. In my own opinion the work of anatomy, guided by the light of physiological research, is in this domain scarcely even begun. When it is complete I have little doubt that the relations, anatomical and morphological, of the anabolic nerves to the central system will appear as definite as those of the motor nerves.

I proceed to consider some of the attempts that have been made to trace the thermal nerves into and through the central nervous system. I do not for a moment profess to

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give a complete summary of all that has been done, even in recent times, to investigate the relations of the cerebro-spinal system to thermogenesis. A very large number of these researches are to my mind vitiated, in that they are merely thermometrical. Without calorimetry, or—what in a sense we may regard as equivalent—the measurement of the oxidative or other destructive metabolism accompanying experimental lesions of the nervous centres, we can infer little that is certain as to the mechanism of heat production. The concurrent effects of the processes of heat loss are not easily to be eliminated or allowed for, and the results thus complicated are at best ambiguous.

To take a familiar example: it has been known from the time of Sir Benjamin Brodie that section of the spinal cord is in some cases followed by a surprising rise of the body temperature. In other instances the temperature falls; and some observers have found that according as the animal is exposed to a warmer or cooler medium, according as it is wrapped up or naked, its temperature will ultimately rise high or sink low. Wood has shown how these inconsistencies may be reconciled by measuring the actual heat produced by an animal before and after section. As the result of many rigorous experiments, he is able to state as demonstrated, that "section of the spinal cord above the origin of the splanchnic nerves is usually followed by an immediate very decided increase in the amount of heat dissipated from the body, and also by a decided lessening of the amount of heat produced." The vaso-motor tracts being divided in these experiments, it is certain that vaso-motor paralysis has a great deal to do with the increased loss of heat, while the paralysed muscles, being cut off from their regulating nerve-supply, are apt to have their thermogenesis increased or diminished by the high or low temperature of the surrounding medium, much as when they are poisoned with curare. The temperature of the body is thus the resultant of a number of diverse thermal tendencies; and as one or the other is in the ascendant the temperature rises or falls. Successively higher and higher sections of the cord at length carry us to a level above the highest or dominating vaso-motor centre in the medulla, and not till then do we get results that are fairly uniform and intelligible. If the medulla is partially divided close to its junction with the pons, the vaso-motor mechanism appears to remain intact; at any rate, the usual physiological test of its integrity—marked rise of blood-pressure when a sensory nerve is stimulated—is readily obtained. The operation itself is not easy, but when it is successfully performed the thermal consequences are remarkable. I attach little importance to the alleged results of Tschetschichin, now twenty years old, or to the alleged failure of others since to confirm them. Both the discoverer and his critics seem to have tested merely the temperature of the animals operated on; and this varies according to circumstances. But when we come to measure the thermogenesis the case is different. In the dog at least there is generally a rise of temperature; but whether this happens or not, the rate of heat production is invariably augmented. Heat loss is also increased, but it seldom keeps pace with the heat production. Moreover, the increased heat production is not simply transient, it goes on for a long time, and in some instances is greater twenty-four hours after operation than it is at first. Again, when the same region—namely, the part of the medulla which immediately adjoins the pons—is mechanically irritated by a puncture, in several instances a marked temporary fall in the rate of heat production has been observed (Wood), though in others electrical stimulation of the part is said to have been followed by a prompt rise of temperature at least.

These experiments certainly suggest the hypothesis that the region in question is traversed by some of the anabolic or inhibitory fibres. Severance of them is followed by a disturbance of the balance I have called thermogenic tonus; the inhibitory influence being cut off, the excitor influence has full sway. Irritation of the same tract is followed by a temporary diminution of thermogenesis, just as irritation of the vagus tract is followed by a temporary diminution of the contractile activity of the heart. I have scrutinised the tabulated results of the published experiments to see whether there were any traces of an increased vigour of the thermogenic function following the temporary diminution, such as might be expected to result from the stimulation of an anabolic nerve, and such as we find to follow the vagus inhibition of the heart (see Lecture II.). The figures are unfortunately insufficient for the purpose, with one exception, given in Wood's series. In this case puncture of the pons-medulla at first lessened the heat production by no less than two-thirds. But in twenty-four hours, in spite of the exhaustion of the animal, in spite too of its prolonged abstinence from food, the rate of heat production increased again to within one-fifth of the normal rate. This at least suggests considerable vigour in the thermogenic function, and it may be an instance of improvement following inhibition.

Professor Wood has gone further in his attempts to trace upwards the inhibitory tract. He has sought, following Eulenburg and Landois, to determine the influence of certain cortical and subcortical lesions upon thermogenesis. His methods for producing the experimental lesions are no doubt less refined and precise than those to which the classical researches of Dr. Ferrier have accustomed us. But his results, extending to some twenty laborious experiments, are so uniform and so striking that, if we accept his statement of them at all, it is difficult to resist the conclusion that severe injury of certain regions in the cortex or beneath it is, in the dog at least, followed not merely by rise of temperature—that is of secondary importance—but by increased production of heat. The cortical area is just posterior to the crucial sulcus, and corresponds in Hitzig's and Ferrier's scheme to the motor region for the muscular masses of the limbs. The experiments in which stimulation rather than destructive injury of this region was attempted are neither numerous nor altogether satisfactory, but so far as they go they agree with the older experiments of Eulenburg and Landois, in which local electrical stimulation of one of the areas was followed by a slight temporary *cooling* of the opposite extremities. Dr. Ferrier, in the last edition of his great work,[1] regards this as due to contraction of the bloodvessels, and the long enduring and considerable increase of heat production which follows destruction of the areas as due to dilatation of the vessels. Changes in the distribution of temperature may, and do, result from changes in the vascularity of the tissues; but I know of nothing that justifies us in straightway assuming that such changes affect thermogenesis. The *mere* flushing of a muscle with blood need not increase the metabolism of the muscle substance, unless the latter is simultaneously stimulated to functional activity, unless it is moved *ab extra* to take advantage of the opportunities for assimilation which are offered to it. Cut off the innervation of a muscle by curare, and you may cause the arterial blood to rush through its vessels without appreciably increasing its oxidative metabolism. For this reason, in addition to those given by Professor Wood, I am unable to correlate the thermogenic phenomena resulting from destruction or stimulation of the cortex with vaso-motor changes: I say nothing for the present of the thermometric phenomena. So far, then, it would appear that there is experimental evidence that the tract containing the nerve fibres inhibitory of the thermogenic function of the muscles runs through the medulla into the pons; there is, moreover, experimental evidence that, in the dog at least, a cortical or subcortical region coinciding in part with the motor region is concerned with thermogenesis, and is probably in connexion with the inhibitory tract.

Allow me next to call your attention to an interesting series of experiments by Messrs. Aronsohn and Sachs of Berlin. They are thermometric, not calorimetric, and therefore at first sight bear on temperature rather than thermogenesis; but as simultaneous measurements were made of the oxygen consumed and the carbonic acid discharged, we are able to draw from them certain conclusions of interest as regards febrile heat. Some of the striking phenomena in question were shown to a number of the visitors to the Berlin Medical Congress in 1885.

When a puncture with a fine needle is made through the brain of a rabbit in such wise as to pass vertically through the medial side of the corpus striatum near the *nodus cursorius* of Nothnagel, the temperature in the muscles and in the rectum promptly rises from 1½° to 2½° C., or say 2½° to 4½ F., and remains high for many hours, returning ultimately to the normal again. The animal appears to be but little affected by the operation, and eats and moves about gaily. It need not be tied up or confined in any way, and the temperature of the room may be ordinary. But the result seems invariably to follow, and it can be reproduced again and again in the same animal. It is not due to irritation or injury of the cortex or of the white

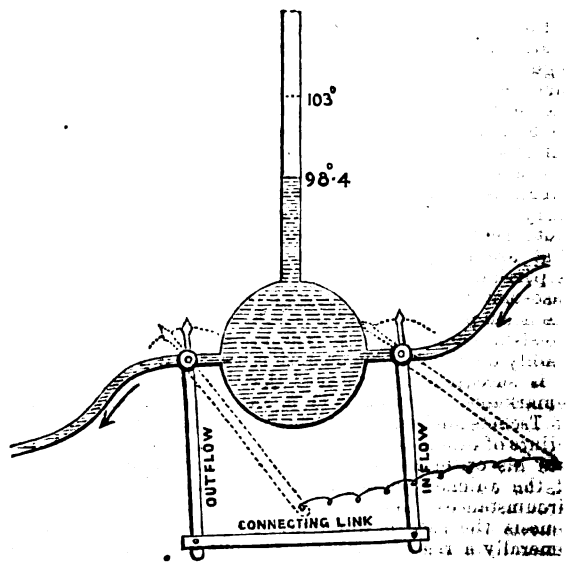
[1] Functions of the Brain, ed. 1886, pp. 87, 253.

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matter immediately underlying it, for superficial or shallow punctures are without effect. The sensitive region is of no great extent, and can be defined with considerable precision. The question that always rises in experiments of the kind rises here also: Is the result due to stimulation or to destruction of the nervous elements that are punctured? Our experimenters have apparently answered this question in a satisfactory way. By a highly ingenious method they succeeded in passing a weak electric current through the sensitive region, and that without exciting any of the neighbouring parts. The result was striking. The temperature in the muscles rose with every passage of the current, and could at will be kept at a febrile height for many hours together. The rise of temperature appeared thus to be unmistakably due to stimulation, and not to injury. And here remark that the febrile condition could hardly be due to any contraction of the cutaneous vessels, to any *retention* of heat, for it was observed that the temperatures of the skin, the muscles, and the rectum rose and fell together. Moreover, when means were provided for estimating the oxygen consumed and the carbonic acid given off, they were found to be increased during the artificial fever to about the same extent as in ordinary fever of like intensity, and the nitrogen excreted in the twenty-four hours after the puncture was something like 25 per cent. greater than in the twenty-four hours before the puncture. From all these facts the conclusion is hardly to be resisted—that by the stimulation of a particular region to the inner side of the corpus striatum the thermogenic function of the muscles is abnormally increased, and therewith their catabolic or oxidative metabolism; and this, without encroaching on the motor tract, without exciting the motor function, and without any action that can fairly be called vaso-motor, coming into play. I am not going to say that the circumscribed region of the brain so carefully explored by Messrs. Aronsohn and Sachs is a thermogenic "centre," for I know that by some pathologists the word is banned. But I do say that, if the evidence is worth anything, it proves that the region is connected intimately with the thermogenic tract; that the catabolic fibres which proceed to the muscles and in them excite the thermogenic function, are here capable of being reached and stimulated apart from the motor nerves. It is this fact which makes one hesitate at once to say that the thermogenic fibres to the muscles are identical with the motor fibres. It is not easy to see how they can dichotomise again at their central terminations, the motor running through the internal capsule, the thermogenic quite to the inner side of the corpus striatum.

There is another aspect in which we may view these experiments. During the period in which the sensitive spot is being at intervals electrically stimulated, the animal's temperature is markedly raised, its rate of heat production is apparently increased, it is consuming more oxygen and giving off more carbonic acid than is normal; by all the signs of disordered body heat, by all the symptoms which imply pyrexia, the animal is in a state of fever. When the stimulation ceases the fever subsides. In other words, by exciting to excessive action a particular spot within the brain, we can bring about a fever of moderate intensity indistinguishable while it lasts from any other produced in more familiar ways. We have generated a fever by a direct action on the central nervous system.

Before I proceed to suggest to you my own belief that all fever is due to an action on the central nervous system, I must anticipate a possible misunderstanding. I have more than once remarked, in passing, on the distinction between high temperature and increased heat-production. It is due to you, and necessary to my remaining arguments, that I should make clear wherein the distinction is of importance. In my first lecture I spoke of disorder of the body heat as the essential condition of fever, whose frequent and most manifest symptom is high temperature. But I now go further, and say that high temperature is not necessarily fever, and that fever is not necessarily accompanied by high temperature. We may have a *febris sine febre*, a morbid thermogenesis without high temperature, the increased heat-production being compensated or more than compensated by increased heat loss. And we may have a rise of temperature even with diminished thermogenesis, if the heat loss is so diminished as no longer to balance even the diminished production. The former would be fever, though the patient were cool; the latter would not be fever, even though the patient were hot. It is the excessive thermogenesis, with the excessive catabolism of nitrogenous tissue which that involves, that constitute fever. Without this condition the mere temperature may run for a time to a "paradoxical" height, to a point at which we might expect the albumens of the body to coagulate; and yet the patient may recover, and promptly too, for there has been no excessive combustion, no consuming of the tissues. Consider on how slight a dislocation of the normal relation of gain to loss a marked rise of temperature may depend. An adult man in ordinary health breeds enough heat in half an hour to raise his own temperature one degree Centigrade. In half an hour he discharges an equal amount of heat into the air, and so his temperature is *not* raised. But suppose for a moment that all automatic connexion between the two processes were broken for the space of an hour, that the two could work independently of each other and of the temperature. Suppose further that the heat loss were somehow checked entirely for the hour and then restored to its normal rate. The heat-production need not alter a jot, but it would all go to raise the temperature: at the end of the hour the temperature would be higher by 2° C. or 3·6° F. Open now the channels of heat loss: they will carry off at the old rate, and the temperature will rise no further; but it will now remain permanently at 102° F. This rise of temperature has been produced, not by any increase of thermogenesis, not by any ultimate diminution of heat loss, but simply by a little "lagging" of the latter process behind the



former. The two have become balanced again, but the temperature does not fall unless the loss goes beyond the balancing point. And what is thus true of lagging in time is obviously true of lagging in degree. If the heat loss is not in abeyance, but merely a little less than the heat gain, the temperature will rise until it reaches a point at which the two are balanced again, and will remain there if the balance once obtained is maintained. In other words, the difference between the rate of heat production and the rate of heat loss at any moment is measured not by the temperature, but by the *gradient* of the temperature. The temperature itself, when it reaches its height, indicates the time it has taken for the one process to gain upon and at length overtake the other, but tells nothing as to the absolute activity of either. High temperature may thus be an indication of mere sluggishness or lagging, and is not *per se* an indication of increased heat or of increased combustion.

I have imagined that a working model might be arranged to illustrate this plain but constantly overlooked fact. (See woodcut.) Suppose a tall vessel containing water: the level of the water shall represent temperature. Let two pipes be connected with the vessel, the one bringing water to it, the other carrying it off. Let each be provided with a stopcock, and let the two stopcocks be connected by a rigid link which ensures that they always turn together and by the same amount. If, to start with, the inflow and outflow are equal, then, however I move the linked stopcocks, the height of the water will remain the same. Loss balances gain in every

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position. Now remove the link and connect the stopcocks by a weak indiarubber band or a spiral spring. If I now move the inflow stopcock so as to increase the flow, the outflow one will not at once follow, and, the balance being broken, the level of the water will rise. Presently, as the elasticity of the spring comes into play, the outflow will become equal to the inflow, and the rise will cease; but the new high level will be maintained. Every movement of either stopcock will affect the level, which will fluctuate accordingly, but its height at any moment will not be an index of the amount of inflow at that moment. The inflow may be slight while the level is high. Of course inflow represents heat production, outflow heat loss, and the rigid link which first connected the two stopcocks the healthy thermotaxic mechanism. When this latter is weakened, or relaxed, or broken, the steadiness of the normal level is impossible. The fact that in fever, after the thermotaxic mechanism is disorganised, the temperature so frequently rises, shows that the next step in the process is usually excessive thermogenesis; and the fact that the temperature does not rise indefinitely shows that the mechanism of heat loss is less disordered or only transiently disordered, for though at first it lags behind the heat production, it ultimately overtakes it or overpasses it.

There is thus a certain order of progression observed in the disturbance of the thermal relations of the body. First and most easily disturbed is the thermotaxic nervous mechanism. If that is all that is disturbed, we shall have strange risings and fallings of temperature as the independent variations of production and loss are concurrent or the reverse, but there need be no fever. The balanced rhythm of anabolism and catabolism in the muscles is not disturbed; there is no excessive oxidation and no excessive inhibition. And the balanced rhythm of the respiration and the cutaneous circulation is also maintained, and with it the process of heat loss, but the latter need never be very excessive or very deficient. All that happens is that the two rhythms do not harmonise, and the fluctuations of the temperature correspond in a measure to the "beats" which are heard when two tones are sounded together that are nearly but not quite in concord. Cases of this thermal ataxia are not wanting; one such was under my charge for a time when acting for Dr. Paget at Addenbrooke's Hospital. He has described it in THE LANCET of July 4th, 1885. The patient was paraplegic, with at times a remarkably unstable temperature. For instance, on one day, when there was a trifling irregularity of the bowels, it ran up to 109·2° F., the pulse being at 80 and the respiration at 22; in three-quarters of an hour it was down to 97·8°. On another day it reached 110·4°, and in half an hour fell to 98·8° again. But there was no evidence of increased thermogenesis, no wasting, no failure of nutrition. Many similar "paradoxical" fluctuations of temperature, without fever, have been described.

The next degree of disturbance is that in which there is not only thermal ataxia, but disorder of the parts of the nervous system subserving heat production: there is under-action of the anabolic nerves with diminished construction and diminished absorption of energy; there is over-action of the catabolic nerves with increased oxidation and thermogenesis. Both factors of the normal thermogenic tonus are probably disordered together, but as I believe there is good reason for regarding the anabolic mechanism as "higher" than the catabolic, so there is reason for the view that it is in many cases the first and the most disordered. Weakening or abolition of the inhibitory influences with defective upbuilding of the "thermogenic stuff" in the muscles probably precedes excessive catabolic action, and to this may be due the pre-febrile discharge of urea which is occasionally observed. But soon the other factor of the thermogenic mechanism is disordered also, and there is excessive heat production. The net result is apparent wasting or "combustion," and generally high temperature. The thermotaxic mechanism is in abeyance; the immediate adjustment of heat loss to heat production is consequently hindered, the thermogenic mechanism gets a start, as it were, before the heat-discharging mechanism is called into play. Once the temperature is somewhat raised, the latter mechanism, if it is not itself disordered, is capable of increased activity and presently overtakes the work thrown upon it. But the "lagging" of the one process behind the other finds expression in the heightened temperature. This is ordinary pyrexia, and the nervous disorder does not in general go further. But there is another stage—namely, when the mechanism of heat loss is also profoundly disordered, so that the rise of temperature from the antecedent excessive thermogenesis does not stimulate it (or does not stimulate it enough) to make it overtake the latter until the temperature reaches an excessive or even a fatal height. This is hyperpyrexia.

To resume. The thermal nervous system has three parts; let us call them briefly the thermotaxic or adjusting, the thermogenic or producing, and the thermolytic or discharging mechanism. Disorder of the first implies irregularity of temperature only; disorder of the first and second implies, in general, heightened temperature and increased body heat—that is, ordinary fever; disorder of the first, second, and third implies, in general, hyperpyrexia, dangerous increase of heat, and steadily *rising* temperature. In the ascending scale of evolution we seem to rise from the thermolytic to the thermogenic and then to the thermotaxic nervous system. Cold-blooded animals possess the mechanism that in mammals becomes thermolytic—a nervous mechanism that controls the vessels and the breathing. The thermogenic system in them is ill-developed, and probably not well differentiated from the system of motor and inhibitory nerves that subserves locomotion. The frog in a normal condition hardly needs to generate heat in his muscles, but when the motor trunks are artificially stimulated heat *can* be produced in them. But his oxidative thermogenic metabolism is at best feeble, and we cannot easily throw him into an enduring fever. In young mammals the thermogenic system is developed before the thermotaxic. The instability of an infant's temperature is its chief characteristic. A little sends it into a high fever; a little restores it again. As the child grows, the range of its power of regulation increases, its temperature grows stable, and the thermotaxic mechanism is evolved.

Time fails me to say more as to the successive evolution of the three mechanisms from what we may call the historical point of view. The consideration of their organisation leads us, however, to a like result. In Dr. Hughlings Jackson's words, "Evolution is a passage from the most to the least organised—that is to say, from the lowest well-organised centres up to the highest least-organised centres; putting this otherwise, the progress is from centres comparatively well organised at birth up to those, the highest centres, which are continually organising through life." The order of organisation is, like that of evolution, — thermolytic, thermogenic, thermotaxic. The localisation of the thermolytic centres is admitted even by the opponents of localisation; they do not object to speak of the vaso-motor, respiratory, and sweat centres. The best organised and the most automatic centres are the best recognised, and the lowest. The cerebral thermogenic mechanism I have hardly ventured to speak of as consisting of "centres." Yet some observers claim to be able to point to the inhibitory centre, and others, as competent, to the excitor centre. I have laid before you specimens of both claims; that they are not universally admitted is to me evidence that the organisation of these thermogenic centres is less complete and therefore less localised; that they are, in a sense, in process of evolution; that they are higher than the thermolytic. As to the thermotaxic mechanism, no one, so far as I am aware, has been able to say it is at this spot or at that. Least organised, least automatic, least and last developed, its localisation is necessarily the most imperfect. But its existence I take to be as necessary as that of the "highest motor centres," which control and connect and represent the "middle motor centres" localised in the cortex. It coördinates because it represents the thermogenic and the thermolytic centres.

You will see from what I have said that, regarding the thermal mechanisms as a functional and evolutional hierarchy, I regard fever as a "dissolution," a progressive negative process, a relaxation of control from above downwards, in the same sense (and with the same reserves) that the term is used by Dr. Hughlings Jackson in his Croonian Lectures of 1884. The ideas set forth in that most suggestive course with reference to the evolution or dissolution of the motor functions I venture in all deference to apply to the correlative thermogenic function. If I may so express myself, the pains that have been taken to adjust our thermal relations to our environment, the nicety of the balance in widely varying circumstances, the impairment of all the higher functions which ensues when the balance is but a little disturbed in either direction move me to regard

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thermogenesis as no mere by-end of our nature, no mere casual but unavoidable concomitant of chemical processes performed for another primary purpose. I would put it in the vital scale a little "higher" than circulation and respiration, and a little "lower" than voluntary muscular action. The motor function of the muscles is related to the highest centres; their thermogenic function connects them with the lower or animal centres; and the innumerable variety of causes which disturb or "dissolve" the controlling nervous mechanism, the readiness of "fever" to result from injurious influences of so many kinds, is the expression of the fact that the habit of stable temperature is, so to speak, recently acquired. As a last test of the "dissolution" hypothesis, consider what happens in recovery from a typical febrile attack. First, the thermolytic mechanism is waked to adequacy, there is a critical sweat or a relaxation of the vessels of the skin, and a gush of heat from the surface brings down the temperature with a run. But the thermogenic centres have not yet recovered, and the temperature will swing backwards and forwards for some days, and an epicritical excretion of urea takes place. Thermogenesis becomes less and less excessive, and is vigilantly counterbalanced by thermolysis; but thermotaxis is yet feeble. The patient's temperature is down, but it is still far from stable. As convalescence proceeds the stability increases, and at length thermotaxis, the first to be disturbed and overthrown, is the last to be restored.

The task which I proposed to myself is fulfilled; it was to set before you, if not an idea, at least the germ of an idea concerning the nature of fever. At every turn I have been indebted to the work of others; theirs are the pearls of observation and experiment which I have so inadequately displayed to you: only this tenuous filament of a theory on which I have strung them together is mine. But as some coherent theory is better than none,[2] if only as an aid to the ordering of our facts, and as I have found this manner of looking at fever useful to myself, not only as a pathologist but as a physician, I have ventured thus imperfectly to propound it. I have said nothing of the many clinical facts which might be adduced in support of the nervous origin of fever; Dr. Hale White has done so once for all in an excellent paper in the Guy's Hospital Reports (1884). I have said nothing of the therapeutics of fever, for indeed there is probably no Fellow of the College here present who could not teach me many lessons as to its treatment. And if, lastly, I have said nothing about etiology, that has at least this advantage, that you have been spared even a single allusion to bacteria.

CASE OF

CEREBRAL ABSCESS DUE TO OTITIS MEDIA,

UNDER THE CARE OF DR. BARR, AND OPERATED ON.

REPORTED BY

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SUMMARY.—*Abscess in temporo-sphenoidal lobe, due to septic otitis media; doubtful condition of lateral sinus; lungs involved; symptoms; operation; complete recovery.*

W. H——, a boy, aged nine years, was admitted into the Hospital for Diseases of the Ear under the care of Dr. Barr, on Jan. 13th, 1887, suffering from septic purulent otitis media and abscess of the brain, for the latter of which I was ultimately consulted, and afterwards operated upon him.

History.—The history prior to his admission into the hospital, as given by his mother in answer to questions, is as follows:—A month prior to the operation about to be described he complained one day of pain in the region of the right ear, which made him fret and prevented him from sleeping at night. On the following morning his skin was hot and dry, and he vomited, after which he became drowsy, being frequently awakened, however, by sudden startings and "crying fits" due to acute pain. The pain over the region of the ear, the drowsiness, the feverishness, and the occasional vomiting continued to characterise the first seven days of his illness. On the eighth day he had a rigor which lasted a quarter of an hour, in which he shook all over, and his teeth chattered. Between this time and his admission into the institution, he had in all six rigors, at intervals of about two days.

On the nineteenth day of his disease he was admitted into the Hospital for Diseases of the Ear. His condition was then as follows: He was a greatly emaciated child, having a pale, shrunken face, with livid lips, his upper one being covered by herpetic eruptions. He had a short catching cough. His axillary temperature was 100·8°; pulse 108. He was very drowsy, and complained of pain over the right ear, from which there was an offensive discharge. Dr. Barr found a perforation to exist in the upper part of the tympanic membrane, from which some purulent secretion was escaping, although the quantity was not great. There was defective hearing on that side, but the boy's mental condition prevented an exact estimate of the degree of deafness. For two days after admission (twentieth and twenty-first days of illness) his complaints of pain were not obtrusive, but the drowsiness continued. On the next day the pain had become aggravated, and he had a slight rigor. There was no evidence of an acute inflammatory process, or of retention of pus in the ear, to account for the pain, and there was neither redness nor swelling over the mastoid process. The temperature at this time was 99·6°; pulse 92. Dr. Barr perforated the mastoid process, and opened into the mastoid cells by chiselling behind the external auditory canal, and succeeded in passing a stream of antiseptic fluid through the antrum and tympanic cavity, out by the external meatus, and also in the reverse direction. A small quantity of purulent and caseous débris was washed out. A drainage-tube was introduced into the orifice in the bone through which an antiseptic solution was injected twice daily from the opening behind to the external meatus, and *vice versâ*. For two days subsequently no change was observed in his condition, but a slight rigor occurred on the second day after the perforation (twenty-fifth of the disease), while the pain in the head and the drowsiness became worse. On the twenty-ninth day of his illness a copious discharge of most offensive odour escaped from the ear. His tongue was red and smooth, and he refused to take food or drink. Pulse intermittent and irregular. A blush of redness frequently suffused the face.

On the thirtieth day of his illness Dr. Barr asked me to see a case in which he suspected cerebral abscess. The boy's state was then as follows: On approaching his bed one perceived a heavy fetid odour, traceable to the discharge from the right ear. One saw an extremely emaciated child, with a pale, greyish face, wrinkled skin, prominent cheek bones, and somewhat sunken eyeballs. He lay upon his right side in bed, his hand beneath his head, looking as if he were asleep with his eyelids half open. His lips were livid, and on the upper one herpetic remains appeared. His tongue was red and dry. Sordes covered the teeth. When an attempt was made to rouse him the right upper eyelid drooped, and there was a shade of passivity of the right side of the face, with a slight dragging of the angle of the mouth toward the left. The conjunctiva of the right eyelid was congested, and the lids were smeared with pus. The pupils were equal, about medium size, and responded sluggishly to the action of light. The veins over the right side of the head were congested, and stood prominently out on his shaven head. Pain on percussion was elicited over the right temporal, while percussion over the head generally was calmly borne. There was no œdema about the mastoid process. The right sterno-mastoid muscle was rigid. There was no hard cord-like feeling along the line of the internal jugular, though the external jugular was prominent. Acute pain was elicited on digital pressure just behind the origin of the sterno-mastoid, in the tissues near the exit of the vein which passes through the posterior condylar foramen. He was in a state of stupor, from which he could only be partially aroused, and not to such an extent as to give an intelligent answer to any question. His pulse was markedly slow, 50 to 60 per minute, and was feeble and intermittent. His limbs were extremely attenuated, and there was an irregular muscular tremor over the body generally, such as one frequently finds in approaching dissolution. He had a frequent cough, with purulent expectoration, which had an offensive odour, and there were moist râles over both sides of the chest. His bowels were and had been obstinately constipated. His urine was

[2] "We should follow the method of science, and investigate by the use of hypotheses. This may seem a strange remark to those who erroneously suppose an hypothesis to be a conclusion in which we may rest. It is only used for the methodising of work by observation and experiment."—(Hughlings Jackson: Bowman Lecture, 1885.)

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free from albumen. It was somewhat difficult to believe that some weeks previously this boy was apparently stout and robust, and was vigorously engaged at playing football. There was a flow of excessively fetid fluid from the external ear, and as this was greater in amount than what would be likely to come from the antrum or middle ear, it was suspected that there might be a connexion between the middle ear and the intra-cranial cavity. There was no difficulty in concluding that this patient suffered from cerebral abscess, originating in septic otitis media. It was almost positive that it was situated in the temporo-sphenoidal lobe, and it probably had a tortuous and minute communication with the middle ear. It was feared that the lung affection was secondary to the septic absorption. The prognosis was almost hopeless, his youth being the one favourable point. Immediate operation was advised, and with Dr. Barr's concurrence it was at once carried out.

Operation.—The middle ear was washed out with an antiseptic solution, and rendered as nearly aseptic as possible. The scalp and parts around the ear were carefully washed with soap and water, then they were cleansed with turpentine, and finally with methylated spirit. An anæsthetic was administered. A half-inch disc of bone was removed from the squamous portion of the temporal, at a point an inch above and half an inch behind the centre of the external auditory meatus. The bone was normal; the dura mater was here slightly congested, and did not impart any brain impulse to the finger, neither was any discernible when the aperture in the skull was filled with fluid. When the membrane was opened and turned aside, the brain tissue immediately bulged into the osseous cavity and rose above its external level. The pia mater covering it was congested, and the brain substance had a yellowish-red appearance. A hollow needle was inserted into the brain in a direction which, if introduced far enough, would strike the eminence in the petrous bone above the middle ear. After it had penetrated the brain tissue for about three-quarters of an inch, there was a sudden escape of foul gas, accompanied by a bubbling sound and the escape of a few bells of fluid. Evidently the upper part of an abscess cavity had been tapped, and this contained fetid gas. The needle was inserted a little further, when pus flowed out. It was of an ordinary yellowish colour, and had a most offensive odour. After two drachms had slowly welled away, the aperture in the brain tissue was enlarged by forceps, and portions of the brain tissue, which had become necrosed, were removed. The latter consisted of shreds, two about the size of a large horse-bean, the others that of barley grains. On their removal more pus welled away. The cavity was then washed out with a saturated solution of boracic acid. After that, however, there was still a slow oozing of pus, along with the extrusion of minute shreds of brain tissue. It was evident that there was a considerable zone of purulent inflammation surrounding the abscess cavity, from which the pus continued to ooze. An aperture was then drilled into the base of the skull, just above the osseous boundary of the external auditory meatus, involving the squamo-petrosal suture. The dura mater was examined here and found intact. It was penetrated, and the abscess cavity was reached. A stream of boracic lotion was passed from this aperture so as to wash out the cavity of the abscess, and it was continued until it passed freely out by the upper opening. The current was then reversed. Even after that, when the drainage-tube was inserted, an oozing of purulent fluid took place into the tube. The ear was again cleansed. Chromicised chicken-bone drainage-tubes were introduced into both apertures. The parts were thickly dusted over with boracic acid powder, and dressed with sublimated wood-wool pads.

When placed in bed the patient was extremely weak, but rallied after the first few hours. A marked improvement was observable during the first week. The pulse became quicker and the temperature a little higher, both good signs. The face became brighter, the eyes clearer, the eyelids free from pus, the ptosis vanished, and the mental condition improved. After the first week, though kept on restricted diet, he improved in flesh, and continued subsequently to do so at a rapid rate. The wounds were dressed about once a week, when the parts were thoroughly syringed with saturated boracic solution, the drainage-tubes being gradually curtailed as the granulation tissue blocked them out. The softened brain tissue at the seat of the upper opening in the skull soon presented a mass of granulations, which increased in size, and rose into the aperture in the bone, uniting with the layer which formed on the exterior of the skull. Soon the two became blended together, and cicatrisation rapidly progressed. The chromicised chicken-bones answered admirably as drains, notwithstanding the action of the tissues, until they were removed, the upper one after fully five weeks. They also presented the advantage over silver ones, of being easily shortened when required.

The child put on flesh rapidly, and at the end of six weeks was quite plump.

Dr. Reid examined the eyes about the end of the fourth week after the operation, and could find no trace of optic neuritis. He was of opinion that optic neuritis could not have been present at the time of the operation, without having left some traces of its presence four weeks after.

On March 17th, Dr. Barr examined the affected ear. There was still slight purulent secretion coming from the granulation tissue in the middle ear. The hearing power was as follows: A watch heard forty inches from the ear in normal hearing was audible at a distance of five inches and a half. By bone conduction hearing was very good. A tuning-fork (C) applied to the middle line of the head was heard louder in the affected ear. Pressed in the mastoid process, the tuning-fork was heard much louder than when held near to, but not touching, the orifice of the ear. The results of these tests with the tuning-fork point to a normal state of the labyrinthine and nerve structures.

PYREXIA AND HYPERPYREXIA.

BY T. J. MACLAGAN, M.D., M.R.C.P.,

PHYSICIAN IN ORDINARY TO THEIR ROYAL HIGHNESSES PRINCE AND PRINCESS CHRISTIAN OF SCHLESWIG HOLSTEIN.

(*Continued from page 566.*)

THE poisons of the specific fevers are minute organisms which are reproduced in the system during the course of the diseases to which they give rise. It is this reproduction of the organism in the system which causes the whole disturbance. Before it takes place there is no fever; during its continuance fever is the prominent condition with which we have to deal; after its cessation the fever rapidly declines. How does such a result flow from such a cause? How does the propagation of this poison in the system raise the body heat? It can be only in one of two ways—by impairing heat inhibition, or by stimulating the processes which result in heat production. In favour of the former view, it is difficult to find anything to say except that it is possible. As rise of body heat may be produced in this way (as, for instance, in injuries of the nervous centres), it is within the range of possibility that the fever poison might act by impairing heat inhibition. A very little consideration, however, will show that, though not much can be said for this view, a great deal may be said against it. According to this view of the matter, the poisons of the specific fevers exercise for the time a more or less paralysing effect on the heat-inhibiting centre—the result of which is, of course, rise of temperature. But if such were the case, this action ought to be more and more pronounced as the poison which gives rise to it increases in amount in the system, and the temperature should go on rising as the disease advances, getting daily higher and higher, and keeping pace in its rise with the increasing prominence of the other symptoms—wasting, prostration, delirium, &c. It ought, too, to remain high so long as the poison exists in the system. That is what ought to be if the rise of temperature were due to a direct toxic action of the poison on the heat-inhibiting centre. But the facts are quite the reverse. Take typhus and typhoid fever as typical instances. We find that in these fevers the temperature reaches its highest point very early in the disease—may be even before its characteristic symptoms are fully developed,—and is no higher after two or three weeks of fever than after five or six days of it, though the poison which causes all the disturbance is being largely reproduced during the whole time. Again, it is a fact that in each of the specific fevers the temperature returns to the normal while there is still in the system a large quantity of the poison of the disease, as is abundantly evidenced by the contagiousness of these [illegible] during

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the early days of convalescence. Did that poison have a direct paralysing effect on the heat-inhibiting centre, and were the rise of temperature due to such an action, the body heat would rise with the increase of the poison, and fever would continue so long as that poison existed in any quantity in the system, and the temperature would not fall till it had been eliminated. As it is, the temperature does not rise after the first five or six days, and there is good reason to believe that the system contains more of the poison at the commencement of defervescence, when the temperature is rapidly falling, than it does during the first few days of the fever, when it is rapidly rising.

The evidence is all opposed to the view that the increased body heat of the specific fevers is of neurotic origin—due to the direct action of the fever poison on the heat-inhibiting centre. Indeed, nothing worthy of the name of evidence can be adduced in support of such a view, and there remains for us nothing but to reject it. It is quite otherwise with the view which attributes the rise of temperature to increased production of heat. What we have now to do is to consider how such increased production is brought about. It will facilitate our inquiry if we bear in mind, what has already been insisted on, that heat is essentially an excretory product, destined for elimination, and that it is not the only such product which is in excess in fever. Fever does not consist solely in rise of temperature; it is a collection of different and various phenomena, all of which are abnormal, and the coexistence of which in the system constitutes a condition which is conveniently characterised by the term "fever." In considering the pathogenesis of this condition, no one of its essential phenomena should be divorced from the others; they are all linked together by the bonds of a common causation, and must therefore be considered together. The specific poison of the disease is the cause which gives rise to each of the specific fevers; that poison must, therefore, be, directly or indirectly, the cause of the individual phenomena which go to constitute the fever. The question for consideration is not the competence of such a cause to produce such a result, for that is demonstrated by the occurrence of the fever, but its mode of action. How does the propagation of the contagium in the system give rise to the thirst, dry skin, quick pulse, rise of temperature, waste of tissue, and disturbance of the nervous centres characteristic of these maladies?

In investigating the action of ordinary poisonous and medicinal agencies, we have to consider only their action on one or more organs, or on the system generally, and have to deal only with the action of the quantity which has been swallowed. It is otherwise with the poisons of the specific fevers. Here we have to deal with an organism which is reproduced in large quantity in the system, and which in its growth and reproduction consumes the same materials as the tissues themselves. All organisms have a definite action on their environment. This action (in the case of such organisms as those of the specific fevers) essentially consists in the consumption of nitrogen and water. The environment of these organisms is the blood and tissues of the human body. The action of these organisms on the body therefore essentially consists in the consumption of its nitrogen and water. As nitrogen and water are the chief elements requisite to the nutrition and building up of the tissues, and as these tissues are dependent for their continued vitality and functional activity on a due supply of nitrogen and water, it is evident that the growth and reproduction in them of millions of organisms which consume these elements must have a seriously disturbing action on the whole system. It shall be my endeavour to show that all the essential phenomena of the specific fevers are attributable to this action—to the consumption by the poisons of these diseases of nitrogen and water destined for the nutrition of the tissues.

The essential phenomena of fever are:—1. Wasting of the nitrogenous tissues. 2. Increased consumption of water. 3. Increased elimination of urea. 4. Increased rapidity of the circulation. 5. Preternatural heat. What we have to do is to apply this view of the mode of action of contagia to the explanation of each of these phenomena.

All the tissues, nitrogenous and non-nitrogenous, waste during fever. In spite of all that is done to support him, the fever patient rapidly emaciates, and wastes almost [illegible] weeks of fever a strong, robust [illegible] as to be unable to sit up [illegible] in it. He may have administered to him during that time a quantity of milk and beef-tea which, were he in health, would tend to make him fatter and to increase his bulk. But the fever process which is consuming him more than counterbalances our efforts to keep him up. Under it he rapidly wastes. What is this process? and how is such wasting brought about? The one cause to which must be ascribed this, as all the other phenomena of the form of fever with which we are now dealing, is the poison which gives rise to the disease. This poison is an organism which is largely reproduced in the system during the course of the malady to which it gives rise, and which in its growth necessarily consumes a large quantity of nitrogen. The only source whence it can get this is one or other of the nitrogenous elements of the body. There exists in the system no spare store of nitrogenous material, but only what suffices for the wants of the system itself. The nitrogen requisite for the growth and propagation of the contagium must therefore be taken from this source, and must represent a loss to the tissues, which is directly as the extent to which the contagium is reproduced.

This consumption of nitrogen by the contagium is one of the main causes of the wasting of the nitrogenous tissues which takes place in the course of the specific fevers. But nitrogen exists in various forms and combinations, liquid and solid, in the body; and we have to consider at what point or points in its changing course through the system it is most likely to be laid hold of by the contagium. Voit has distinguished between the fixed or organ albumen which enters into the composition of the solid tissues and changes slowly, and the circulating or store albumen which is contained in the blood and fluids of organs, and very readily undergoes change. But a still further distinction must be made. The circulating albumen must consist of two parts—a *constructive* and a *retrogressive*: the former derived from the assimilated ingesta, and destined for the nutrition and building up of the tissues; the latter derived from the retrograde metamorphosis of these tissues, and destined for excretion. The former is converted into solid nitrogenous tissue; the latter is converted into urea in the urea-forming glands, and as such is eliminated by the kidneys. Nitrogen thus exists in the system in four different forms—as constructive store albumen, as solid nitrogenous tissue, as retrogressive store albumen, and as urea. From which of these is the contagium most likely to takes its nitrogen? Two things are likely to determine this point: first, the facility with which the nitrogen is yielded up by each of these compounds; and secondly, the special fitness of each for the purpose for which it is wanted by the contagium. The most stable of the nitrogenous compounds, and that which would least readily yield up its nitrogen, is the fixed or organ albumen; that is, therefore, the source whence the contagium is least likely to obtain its nitrogen. The increased wasting of these tissues would, on the first glance, point them out as its probable source; but such a result would equally follow the appropriation by the contagium of the nitrogen destined for their nutrition and repair.

Next in stability is the urea; next to the organ albumen, it is therefore the least likely source from which the contagium should get its nitrogen. But there are more cogent reasons for rejecting it. First, the consumption of the nitrogen of the urea would not lead to wasting of the nitrogenous tissues—would not, indeed, have any effect on these tissues; for nitrogen does not enter into the combination which results in the formation of urea till it has served all the purposes for which it was taken into the system, and is about to be eliminated. Indeed, it takes the form of urea only for that purpose. Secondly, the consumption by the contagium of the nitrogen of the urea would necessarily lead to greatly diminished excretion of that substance by the kidneys; but during the specific fevers there is increased elimination of urea. These reasons make it certain that the urea is not the source whence the contagium derives its nitrogen.

The only other available source is the store albumen. This consists of two parts—a constructive and a retrogressive. From one or both of these the nitrogen of the contagium must be derived. So far as the readiness with which their nitrogen is yielded up is concerned, the two are pretty much on a par; each is a transition compound, and has for one of its leading characteristics a readiness to undergo change and to part with its nitrogen, the one yielding it up to the albuminous tissues, the other parting with it in the gland cells which form it into urea. Any advantage which does exist is on the side of the constructive store albumen; for

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while this is ever undergoing change, and constantly giving up its nitrogen to the albuminous tissues in all parts of the body, the retrogressive yields up its nitrogen only in the urea-forming glands. Now, there is no reason to suppose that the growth of the contagium takes place only in these glands, or that it gets its nitrogen in them only. On the contrary, there is good reason to believe that the contagium appropriates nitrogen all over the body, and in all its tissues.

But there are more cogent reasons for rejecting the claims of the retrogressive store albumen—the same reasons, indeed, which led us to reject those of the urea. The nitrogen does not go to form retrogressive albumen till it has served all the purposes of the tissues; it is no longer required by them—is, indeed, rejected by them,—and assumes this form only that it may be conveyed to the glands, in which it is changed into urea for the purposes of elimination. The retrogressive store albumen is as essentially an excretory compound as is urea. The consumption of its nitrogen by the contagium, therefore, could not cause wasting of the nitrogenous tissues; it would lead only to decreased formation of urea. But all this is exactly the reverse of what takes place: the tissues do waste, and there is increased formation of urea. The retrogressive store albumen is evidently not the source whence the contagium derives its nitrogen. The only remaining source is the constructive store albumen; and a little consideration serves to show that it is also the one whence the contagium would by preference naturally take its nitrogen. The constructive store albumen is the source whence is derived the nitrogen destined for the building up of the nitrogenous tissues; it is only in it that they get nitrogen in the form suitable for their repair. Now, it needs no argument to show that the process by which the protoplasm of the contagium is formed bears a much closer analogy to that by which the albuminous tissues are built up than it does to any other action which goes on in the system. Each is a constructive step, and essentially consists in the appropriation by living protoplasm of the elements requisite for its growth. The particular nitrogenous compound, which serves to build up the protoplasm of the tissues is likely also to be the one which would best serve to build up that of the contagium. Every reason and argument thus lead to the conclusion that the source whence the contagium derives the nitrogen requisite for its growth is the constructive store albumen. The reproduction of the contagium in the system during the course of the specific fevers results in the consumption by it of the nitrogen of the constructive store albumen. This represents a direct loss of nitrogen to the nitrogenous tissues, and such loss is one of the primary causes of that rapid wasting of these tissues which forms one of the characteristic features of an attack of the specific fevers.

But though a primary, it is not the sole agency in producing this loss of bulk. All living and active protoplasm consists mainly of water. Of 100 parts of human flesh, 74 consist of water. A proper supply of water is, therefore, as requisite to the nutrition of the tissues and to the renewal of their protoplasm as is a due supply of nitrogen. But water enters as largely—probably even more largely—into the composition of the protoplasm of the contagium, and is therefore consumed by it during its growth. The growth of the contagium in the tissues means a large consumption of the water as well as of the nitrogen destined for their repair; and this appropriation by the contagium of the water destined for them is probably as potent a factor in the production of that wasting of the tissues which we are now considering as is the consumption by the same agency of the nitrogen of the constructive store albumen. Certain it is that this double loss to the tissues—the loss of water and the loss of nitrogen which must result from the growth of the contagium in the system—affords a reasonable and adequate explanation of the rapid wasting of the tissues which characterises the course of the specific fevers. This consumption of water by the contagium serves also to explain some of the other characteristic and essential ph[illegible]

(To be concluded).

[illegible] supporters of the [illegible] Hospital for Accidents was held on the 16th inst., when satisfactory financial and medical reports were [illegible]

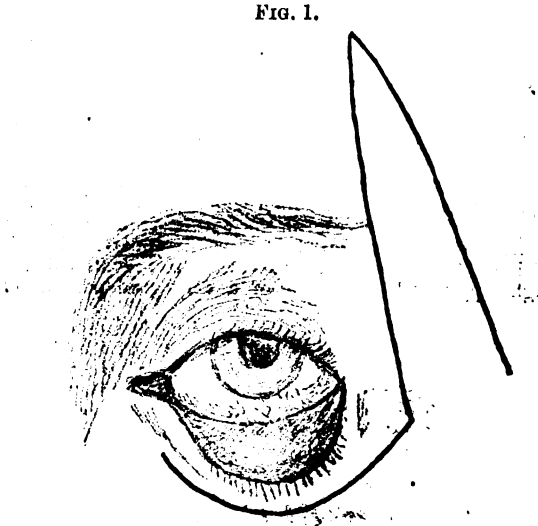
AN OPERATION FOR THE CURE OF ECTROPION.[1]

BY N. DAVIES-COLLEY, M.C. CANT.,
SURGEON AND LECTURER ON ANATOMY, GUY'S HOSPITAL.

I DO not know whether the mode of procedure adopted in the treatment of the following case is new, but, as I can find no mention of it in our text-books, I venture to bring it before the profession, in the hope that it may prove serviceable where the ordinary operations for the relief of this unsightly deformity have failed.

My patient, Michael R——, was a delicate boy of three years of age, who was admitted under my care into Guy's Hospital on Oct. 25th, 1883, with necrosis of the superior maxilla following measles. The left lower eyelid was then much everted, and it became still more so after the removal of sequestra from the front and outer walls of the antrum. In January, 1884, the eyelids were pared and stitched together, and an incision was at the same time made below the lower eyelid to free it. For ten months the child went about with the eye thus closed up, but at the end of that time, when, at the urgent request of the friends, the union between the edges of the lids was divided, immediately the eversion of the lower lid returned. In a short time he was found to have an ulcer of the cornea and considerable conjunctivitis, as the result of the exposure of the eyeball. In January, 1885, I again operated in the same way as before, but this time, in addition to the paring and uniting of the

FIG. 1.



lids, I took a flap more than two inches long, as indicated in Fig. 1, from the temple, and stitched it carefully into the gaping wound produced by the incision necessary to free the lower eyelid. The eversion was so great that I had much difficulty in paring the edge of the lower lid, for it lay at the bottom of a groove which intervened between the prominent granulations of the palpebral conjunctiva and the skin of the cheek. I was disappointed to find, at the end of a few months, that the flap which I had transplanted had not, as in many other cases in which I have operated similarly before, taken the place of the skin of the lower eyelid, but that although it had united perfectly, it had been drawn downwards by the contraction of the soft parts, so as to form the integument of the upper part of the cheek, while the upper eyelid had been elongated, so that its lower border was about on the level of the floor of the orbit. There was a small chink still patent between the inner thirds of the eyelids, through which the boy was able to see a little, but it was evident that if this chink were enlarged by the division of the artificial union between the lids, the eversion of the lower lid would return, and it was

[1] A paper read at a recent meeting of the Medical Society of London.

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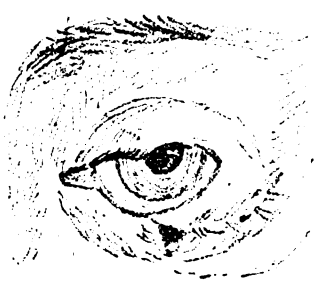
probable that in addition to the deformity the boy would also suffer as before from the exposure of the cornea and conjunctiva. The only way which I could devise for restoring the use of the eye without producing these results was to divide the upper eyelid, and to convert that portion of it which had for some time occupied the position of the lower eyelid into a substitute for it. Accordingly, in May, 1886, sixteen months after the previous operation, I divided, under ether, all the structures of the upper eyelid with a pair of scissors, beginning my incision at the outer end of the chink between the edges of the inner thirds of the lids, and extending it, as indicated in Fig. 2, outwards and slightly upwards for from five-eighths to three-quarters of an inch. To prevent the cut edges uniting again, I then attached

FIG. 2.



the skin to the mucous membrane by fine catgut sutures. From that time until now the boy has been able to use the left eye as well as the right, and there has been no return of the eversion. At first there was some epiphora, but of late the tears only occasionally fall down the cheek. The angle which was formed by the junction of the normal and artificial edges of the new upper eyelid has rounded off, and now hardly attracts notice. He is able to open his eye well, but cannot close it completely, the gap between the lids being about an eighth of an inch wide. There is, however, no conjunctivitis or disease of the cornea from this slight exposure. There are two defects still apparent in his condition. As will be seen by reference to Fig. 3, which is a rough copy that I have made of a very good portrait of

FIG. 3.



him, taken by my late dresser, Mr. Theodore Fisher, some eyelashes emerge from the lower border of what is now his lower eyelid, and there is a small gap, about one-eighth of an inch broad, which must have remained ununited when the eyelids were stitched together two years ago. The great tension of the parts has produced a triangular aperture below the gap, through which a patch of conjunctival granulations can be seen. When the boy has a cold, a few tears escape by the aperture and cause a slight epiphora. I hope on some future occasion to remove these slight defects by a further operation. If I had from the first intended to divide the upper eyelid, it would have been easy to produce a better result by paring away the eyelids so freely as to remove the eyelash bulbs before inserting the stitches. Moreover, I do not think that the preliminary transplantation of a flap is at all necessary to the operation.

Harley-street, W.

RHEUMATIC CEREBRO-SPINAL INFLAMMATION.

BY J. BROWN SIM, M.D., L.R.C.S. EDIN.

THE following case presents many points of interest, as the supervention of grave changes in the cerebro-spinal system are not commonly met with in the course of a rheumatic affection. In this case that disease could never have gone beyond the subacute stage; and beyond the suspicion that the mental faculties had not for some time been quite so sharp as they previously had been, there was no apparent cause why symptoms of so serious and grave a character should have been set up. It possesses many features of resemblance to the case of disseminated myelitis reported in THE LANCET of Nov. 13th of last year, as having been brought before the Royal Medical and Chirurgical Society by Dr. Thomas Barlow, where symptoms of a somewhat similar character had occurred during an attack of measles; and it will serve to point out that the liability to the occurrence of such complications is not confined to the acute specific fevers. Without attempting any explanation of them, I will proceed to give the clinical notes, only drawing attention to the transient character of the first paraplegic attacks, and the subsequent rapid progress of the disease to a fatal termination. I have to express my obligation to Dr. Ransom for his kindness in supplying me with the early notes of the case.

H. S. M——, aged seventeen, occupied as a clerk in a counting-house, first consulted Dr. Ransom of Nottingham on October 30th, 1886, complaining of his left knee-joint being enlarged, and of a swelling on the dorsum of the left hand. On inquiry it was found that the patient's father had had several attacks of rheumatic fever, and frequently the same malady in a subacute form. In other respects the family history was a good one. The patient had about a year before an illness accompanied with pain and swelling of the left knee-joint, which continued for some weeks, but did not lay him up in bed, and from which he completely recovered. For a month previous to his visit to Dr. Ransom the patient had a swelling on the dorsum of his left hand. This had become much reduced in size, but at the time of his visit it was readily felt as a firm substance about the size of half a nutmeg, and apparently deeply placed near the bone. It had been painful, but was not then so. A week previously the left knee-joint again swelled, and was slightly painful and tender. Dr. Ransom detected fluid in this joint. There was also some pain in the back and head. But he did not appear to be feverish, or to suffer much general malaise. Treatment consisted of salicine and iodide of potassium. On Nov. 8th the patient again visited Dr. Ransom, who noted that the symptoms were a trifle better all round. On Nov. 13th the father called on Dr. Ransom and reported that on the afternoon of the 11th his son had suddenly lost the power of moving his legs, and had remained in this state for about a quarter of an hour; that he then recovered, and walked upstairs. That again, about two hours previous to his call on Dr. Ransom, a similar temporary loss of power had come on and passed away. The same afternoon the patient was seen at his own home by Dr. Ransom and myself. He was in bed, and was noted to be thin, pale, and overgrown for his age. It was found that he had completely recovered the use of his legs, and that sensation was normal, as evidenced by his being able readily to localise a pinch or a light touch. The swellings on the hand and knee had almost completely disappeared. On asking the patient to describe the seizure on the 11th, he had at first no recollection of it. On being reminded by his mother, he was then able to recall and give a fairly connected account of it. He described the attack as coming on gradually, beginning with a feeling of numbness in his legs, and passing on to entire inability to move them. He thought it would be quite fifteen minutes in reaching this stage. There was also partial but very slight loss of power in both arms. Since this seizure he was noticed to have some difficulty in passing urine, and to fail in obtaining much relief after doing so. The second attack of paralysis was described as similar to the first, but only affecting the legs, and did not last long. He had not much pain, but complained of some over the region of the stomach. Examination of the spine failed to show any tenderness. The heart

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and lungs were both normal. The bladder contained a good deal of urine. The mental faculties were clouded, the patient often requiring to be helped out with his facts by his friends. He was stated to have been a bright, lively, intelligent boy, but his father thought him to have been less so for some months past.

Nov. 14th.—10 A.M.: Patient's mind appears to be more hazy this morning. He states that he has had a good night, and has no pain except in his abdomen, which he refers now to the hypogastric and now to the left hypochondriac regions. His memory is worse, as shown by his not remembering that two doctors had been to see him the previous evening. His friends state that he appeared to suffer acutely for four hours during the night, but this he had no recollection of himself. After this attack of pain he appeared to become hot and feverish. He forgets what month it is, and though he made inquiry as to what the thermometer was for when it was put into his axilla, yet he had no recollection of having seen it when it was taken out again. He had also an illusion that there was a clock on the wall. Patient had passed thirty-one ounces of urine during the night, but as his bladder still seemed distended a catheter was passed and thirty-one ounces withdrawn. On examination afterwards the urine was found quite free from albumen. Temperature 100·2°; pulse 114. At 4 P.M. I was summoned to see him, as he had become very violent. He was struggling so much that it was with difficulty he could be kept in bed, and he answered questions very incoherently. Temperature 100·2°.

15th.—10 A.M.: Patient had slept one hour and three-quarters after a sedative prescribed at the last visit, but since then he has been very restless, biting his upper lip, which was cut and much swollen in consequence. He has been passing urine in bed. Temperature 99·8°; pulse 124. Catheter passed and thirty-four ounces of urine withdrawn. —7.30 P.M.: Patient has passed a quiet day, taking liquid nourishment moderately well, but remaining unconscious. He has not been noticed to move his legs to-day. Tickling or pinching them makes no impression. He moves his arms freely, but with this exception he remains in the position he is placed in till he is moved into a fresh one. There has been no urine passed during the day. Twenty-three ounces withdrawn by the catheter. Temperature 98·4°; pulse 126.

16th.—10 A.M.: Patient has passed a quiet night, but was never conscious. He has taken a moderate quantity of milk and beef-tea. Coma this morning is not so profound, as he replies on being asked a question in a loud sharp tone, but could not recognise his friends. No urine passed during the night; thirty-one ounces withdrawn by the catheter. Temperature 102°; pulse 108.—7.30 P.M.: Patient has been comatose all day, only occasionally replying to a question; but has taken more nourishment. He has not been observed to move his legs at all to-day, though it has been specially watched for. He has been perspiring freely, and has been frequently belching. The urine is still retained; twenty-four ounces withdrawn by the catheter. Temperature 103°; pulse rapid, but difficult to count, as he is constantly moving his arm about.

From this time the coma rapidly became more profound, death taking place about 11 A.M. on the 17th, nearly six days from the time he had his first attack of paraplegia. No post-mortem was obtained.

Nottingham.

HULL ROYAL INFIRMARY.—The annual meeting of the governors of this institution was held on the 16th inst., when it was reported that, owing to the transition state which at present existed, it was difficult to frame any report as to the work that had gone on during the past year, or to compare the accounts with those of other institutions. The alterations of and additions to the building were reported to be nearly completed. Dr. Macmillan announced his intention of presenting to the infirmary, as a jubilee offering, a hospital ambulance carriage for the better conveyance of patients to the institution.

THE LUNACY BILL.—At the meeting of the Exeter Town Council on the 23rd inst. it was decided to communicate with the Lord Chancellor, with a view of securing the introduction into the Lunacy Bill now before Parliament of a clause authorising the repayment of money borrowed for building the asylum, to be spread over sixty instead of only thirty years. The Council has just spent £90,000 on a new asylum, and on the present terms of repayment the sum required entails a very heavy addition to the rates

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

AN OVERDOSE OF ESERINE.

BY ANDREW DUNLOP, M.D.,
CONSULTING PHYSICIAN TO THE JERSEY GENERAL DISPENSARY AND INFIRMARY.

A LADY of about sixty years of age, who had slowly advancing cataract in the left eye, and incipient disease of the same kind in the right, began, early last October, to suffer from irritation of the conjunctivæ. The eyes were suffused and the conjunctivæ often somewhat injected, and the discomfort was increased by fatigue, exposure to cold, or strong artificial light. The patient consulted an oculist in London in November, and a variety of constitutional and local remedies were employed without any very satisfactory result. On the 19th of January my friend Mr. Hind saw her with me, and recommended the use of eserine, with the view of lessening the amount of light passing into the eye. Accordingly a solution of the strength of one grain to the ounce was prescribed, and a drop was ordered to be placed in the eyes twice a day. At about 4.30 the same afternoon the first application was made, and a small drop of the solution placed in each eye. A good deal of smarting and lacrymation followed, and as this passed off, in about a quarter of an hour severe clonic spasm of the eyelids set in, the upper eyelid, as the patient described, falling down on the lower every few seconds. About a quarter of an hour later a feeling of spasmodic stiffness in the lips, especially the upper, set in, and soon there was the same sensation under the jaw on the left side. Within an hour there was a feeling of tremor or spasm, but without any actual muscular movements in the arms and thighs, and at the same time there was a sensation of pressure on the eyeballs and of weight and pressure within the head. The patient also began to suffer from some mental confusion, and her memory was impaired. By 11 P.M. the movements of the eyelids had diminished considerably, but the other symptoms had altered very little. She slept uneasily waking at frequent intervals during the first part of the night, and when she awoke was conscious of the same sensation, though in diminishing degree. In the morning the muscular sensations had disappeared, but she felt weak and shaken. I saw her a little before noon on the 20th, when I found the pupils contracted to a fine point, and the conjunctivæ a good deal injected. All the spasmodic muscular feeling had disappeared, but she complained of the pressure on the head and on the eyes. She said there was some mental confusion and a general feeling of weakness. Next morning, the 21st, the pupils were still minutely contracted, and as she still complained of the pressure on the balls I ordered a weak atropine lotion, at the same time advising her to go out for a drive. On the morning of the 22nd she told me that after her drive, and before using the atropine, the weight in the head and the pressure on the eyeballs passed off, and that she felt stronger and better. The pupils were now pretty fully dilated after two applications of the atropine lotion. When I saw the patient on the 20th I was much astonished at the effects produced by a comparatively weak solution of eserine, and after reassuring myself by an examination of the prescription that no mistake had been made in ordering it, I thought that possibly the unusually vigorous action of the drug might be due to the constitution of the patient, who was exceedingly susceptible to the action of some nervine excitants. A visit to the druggist who dispensed the prescription fully explained the matter, however, for it appeared that by mistake he had made the solution of the strength of one grain to the *drachm* instead of one grain to the *ounce*. I have thought that this case might be worth recording, as such an accident cannot often occur, and as the symptoms reminded one more of an overdose of strychnine than one of its antagonistics, the Calabar bean. It appears, however, that in poisoning by physostigma muscular twitchings and tremors often take place before relaxation sets in.

Jersey.

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ABDOMINAL SECTION FOR PYO-SALPINX AND SUBPERITONEAL MYOMA; SUBSEQUENT HÆMORRHAGE, REQUIRING RECOURSE TO HYSTERECTOMY; RECOVERY.

By GEORGE ELDER, M.D., C.M. GLAS.,
SURGEON TO THE SAMARITAN HOSPITAL FOR WOMEN, NOTTINGHAM.

MRS. R——, aged forty-two, living in Nottingham, had been an out-patient of the Samaritan Hospital for Women off and on for many months, complaining not so much of pelvic troubles as persistent and severe gastric symptoms, always aggravated by movement, sexual intercourse, and menstruation. These symptoms were nausea, occasionally sickness, and extreme pain after food; and so much had the reflex mischief overshadowed and masked the cause that several practitioners had treated her for stomachic ulceration. The pelvic trouble was diagnosed a considerable time before the consent of the patient could be obtained to the operation, and it was only after treatment by rest &c. had been long and fairly tried that the pains and induced weakness brought her to see the necessity of having something of a radical nature performed.

On Nov. 1st, whilst under the influence of ether, abdominal section was performed, and a firmly adherent left pyo-salpinx removed, and also a myoma about the size of a Tangerine orange, with a long thin pedicle, which was transfixed and tied by a Staffordshire knot. In tightening the silk a crack was made in the peritoneal coating of the uterus, from which oozing took place. Before the completion of the operation this was stopped by sponge pressure, but a drainage-tube was placed in position, to register, so to speak, the condition afterwards. Several times during the day recently effused blood, in no considerable quantity, but still showing no disposition to cease, was withdrawn by the syringe, and in the evening the abdomen was again opened. Ineffectual attempts to arrest the oozing by means of the actual cautery and the continuous suture were made; so after tying off the left broad ligament no difficulty was found in getting the wire of Koeberlé's serre-nœud round the cervix, and constricting it sufficiently to stop all hæmorrhage.

A good stump was obtained; the cervical canal was thoroughly scooped out and swabbed with strong carbolic acid; pedicle pins were applied, and the abdominal wound brought together and well round the stump, no drainage-tube being used. After rubbing the surface of the stump thoroughly with solid perchloride of iron, it was dusted with iodoform, and this was continued almost entirely till the clamp came off on the seventeenth day. The patient made a very good recovery. The highest temperature registered was on the evening of the fifth day, when it was 100·9°. On Jan. 9th she was up and getting about the house, with a small granulating sore left, which was rapidly lessening.

Remarks.—The prominence of the reflex symptoms was in this case the reason of mal-diagnosis and misdirected treatment, as it is in many others, on account of the insufficient appreciation which exists of the close intimacy there is between pelvic troubles and gastric disturbance. One very serious defect of Koeberlé's clamp came out very markedly in this case, and this is the impossibility of sufficiently constricting a thin stump by its means. A modification with an endless screw would be a great gain, and Mr. Lawson Tait's practice of removing it after a few days must of necessity do much to lessen the pain to the patient and to minimise the risk.

Nottingham.

ACUTE GASTRIC ULCER; HÆMATEMESIS; MELÆNA; FISTULA IN ANO; DROPSY; RECOVERY.

By WILLIAM FRASER, M.B. DUB.

ALBERT K——, aged thirty-seven years, a wheelwright, of short, stout build, with a good "corporation," a good liver and moderate drinker, (beer or cider), left work on the evening of Dec. 31st, 1885, complaining of a severe pain across the bowels. This was an old complaint of his, but now it seemed sharper than usual. When seen, the pain was just below and under the end of the sternum, ranging across and around the two sides; tender on pressure; bowels costive and very flatulent; tongue something like a ploughed field, with a dirty greenish brown fur on it. He continued to get worse. Vomiting set in; would eject any and everything, and was in great pain till the stomach was emptied. This pain coming on immediately after food made me suspect that I had to deal with an ulcer of the stomach, and to that I pointed my treatment. Things did not improve. Some days the man felt better and quiet, then went back to the old state. The pain continued, with vomiting now and then, and he lost flesh fast. His face was the picture of misery, and was getting haggard. His tongue remained the same, but looked glazed. On Jan. 28th, 1886, I suggested a consultation with Dr. Ramsay of Torquay, who agreed with my diagnosis. The patient was in great pain on the 29th and 30th, which seemed more violent and less controllable than before, but next day was easier. On Monday, Feb. 1st, about 2 P.M., I was suddenly called, and found him lying stretched on the floor, with three ordinary-sized chamber vessels nearly full of a reddish-black treacly fluid, having a horrid stench; two came from the bowels, and one from the stomach. He was at once placed in bed. He was quite cold, pallid, pulseless, and speechless—more dead than alive. Now came the critical period of the case. I prescribed lead (half a grain) and opium (quarter of a grain) every hour for two days and nights, then every three or four hours if required; ice both to suck and to be applied to the stomach. The watching and anxiety during this week cannot be described; it was like watching the dead, and at times it was even hard to say that he was living. The melæna did not return, but the hæmatemesis continued till 5.30 A.M. of Feb. 4th: he was now better, the pain had ceased, and things seemed favourable, when on the morning of the 9th he threw up some acid material, and at 11 A.M. he again vomited blood, this time fresh, which continued all that day and the next. The end seemed to have come; still we fought against it, and he again rallied. When seen on Feb. 12th the bowels had not been open for the previous ten days. I ordered an injection of a pint of warm gruel; he at first passed about a tablespoonful, but a little time afterwards a quantity of bloody watery material came away. I can best describe the amount by giving his wife's words: "I had a pair of blankets, a small blanket, a large quilt four or five times doubled, and right through the bed-tick, saturated." He remained in a stupor all the afternoon and night, but towards the morning he rallied again and went on to all appearances *in statu quo*. During April he improved; there was no more hæmorrhage, no pain, and the vomiting had ceased. He had been for the last few days complaining of pain about the rectum, when on examination I found that the poor fellow had added a fistula to his previous troubles; it did not communicate with the rectum, and was about an inch and a half deep; the pain of this dulled the ulcer, which had been progressing very well—in fact, healing up. This fistula with ordinary care and boric acid compresses healed up in due time, so that on April 24th he got downstairs for the first time. General dropsy now supervened, which was due to debility, for as he became stronger this disappeared. Convalescence was very slow, he being reduced to a skeleton. On June 16th he was sent to Brixham for change of air, and on July 12th he resumed work.

The treatment pursued during this long illness and the few headings I give do not represent the amount of medical and dietetic care he required, for, as everyone knows, the number of changes rung during an acute illness is legion. At the outset we used bismuth both solid and the liquor, with dilute hydrocyanic acid and nux vomica, sometimes adding morphia or chloral. Blisters were applied to the stomach, and then dressed with morphia ointment. The treatment for the hæmorrhage I have stated above. Later on iron and arsenic were given for fully three months.

Ashburton.

PRIMARY HUNTERIAN CHANCRE OF THE CHEEK.

By H. MITCHELL, B.A. CANTAB., M.R.C.S.,
SURGEON, ARMY MEDICAL STAFF.

THE following case may be of sufficient interest to justify its publication in THE LANCET.

Early in December last a soldier twenty years of age was admitted into hospital with an ulcer in the middle of the right cheek. In character this ulcer was circular, about the size of a sixpence, shallow, clean cut, but the edges not

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undermined; the surface had a glazed appearance, and secreted a very little watery discharge; its base was surrounded by slightly indurated tissue, which was somewhat inflamed. At the angle of the jaw on the same side was an enlarged gland, not inflamed, about the size of a bean. As the situation of the ulcer corresponded with the position of the chain of the man's helmet, it was thought probable that either the metal of the helmet chain or some substance used in cleaning it had irritated an abrasion on the cheek and so caused the ulcer. The man had no constitutional symptoms. The ulcer was considered to be a poisoned wound, and treated accordingly, first with poultices and hot fomentations, then, when the inflammation had subsided, with diluted red oxide of mercury ointment. In less than three weeks it had quite healed; the slight amount of induration at its base had disappeared; the gland, however, remaining as before, and showing no signs of inflammation. The man was about to be discharged from hospital, and was being examined as to his general condition for this purpose, when a copious rash was seen on his chest, back, and abdomen, extending also to the arms. The rash was mainly papular, but squamous and roseolar in places, and markedly polymorphic; in appearance and colour it was undoubtedly a secondary syphilitic eruption. There was no previous history of syphilis, or any appearance or traces of a sore in the usual situations, and the man stated that he had never had one. The patient was kept in hospital and treated with perchloride of mercury and small doses of iodide of potassium, and by Jan. 20th the rash and the enlarged gland were nearly gone.

The interesting points of this case are—(1) the very unusual situation of the infecting sore; and (2) the early appearance of secondary symptoms, which is probably accounted for by the very free blood-supply to the part. The sore was probably caused by an abrasion on the cheek becoming accidentally poisoned by syphilitic virus.

Portland.

ON THE INFLUENCE OF SALICYLIC ACID UPON ACUTE RHEUMATISM.

By T. F. RAVEN, L.R.C.P. LOND.

IN the treatment of acute rheumatism with salicylate of soda or potass very different results are obtained. Sometimes the remedy acts in a wonderfully satisfactory way, and in a few hours the patient is free from pain, and in a few days convalescent. At other times, but fortunately less frequently, the drug produces no beneficial effect whatever. Until lately I have been at a loss to distinguish the cases amenable to treatment with salicylic acid from those which give no results, but a recent experience has given me a clue which may possibly be of some value. During the prevalence of an epidemic of membranous tonsillitis in an institution, three severe cases of acute rheumatism, with cardiac complications, presented themselves, certainly resulting from the prevalent poison. In the treatment of these cases salicylate of soda entirely failed either to reduce temperature, to relieve pain, or to arrest the disease. I was so struck with the failure of the drug in three successive cases that the possibility occurred to me of explaining it by the origin of the disease. It may be that the acute rheumatism which results from zymotic influences is different in its nature, though not apparently in its symptoms, from that which arises from cold and damp.

Broadstairs.

AN ENORMOUS CALCULUS.

By E. COLSON, M.R.C.S.,
SURGEON-MAJOR.

JABTER NASSIR, a Bedouin Arab who had come eight days' journey to Hodeedah, and thence by sea to Aden, presented himself at the Civil Hospital for treatment for calculus of the bladder. On Feb. 1st, when on the operating table, the stone was carefully examined with the sound and per rectum. Having come to the conclusion that the stone was a very large one, I determined on the supra-pubic operation. The bladder was injected with twenty ounces of warm water, which raised it well above the pubes. An incision about three inches in length was made vertically above the pubes, and the parts carefully dissected down until the veins above the bladder were exposed. Whilst separating these with a director, it passed through into the bladder, which appeared soft and friable. The finger was immediately introduced through the opening, and an enormous stone was found to occupy the cavity of the organ. To extract this the original incision had to be much enlarged, and with great difficulty the stone was removed. This was found to weigh 9¼ oz. avoirdupois, and measured 7½ in. in its horizontal and 8½ in. in its vertical circumference. A large catheter was fastened in the bladder per urethram, and the wound in the skin closed and dressed antiseptically. The man recovered well from the immediate effects of the operation, and was doing well also in the evening. I regret to say he died suddenly on the following morning. No post-mortem examination was made, as the Arabs object to such a measure. The distension of the bladder alone appeared to answer every purpose, as the peritoneum was not seen from first to last. The man said he had had the stone for ten years, but as he would be entirely ignorant of means of computing time, such a history is quite untrustworthy.

Aden.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

ST. BARTHOLOMEW'S HOSPITAL.

SARCOMA OF THE TONGUE; REMOVAL OF HALF OF TONGUE RECOVERY; REMARKS.

(Under the care of Mr. BUTLIN.)

CONNECTIVE-TISSUE tumours of the tongue are so very rare that the account of the following growth will be read with great interest. Appended to the remarks will be found references to other tumours of this part, and the list is not a large one. The diagnosis has to be made from gumma, and in order to do this it is necessary to give large and increasing doses of the iodide of potassium. This treatment was fully tried in this case, and the swelling punctured, without improvement. For the following notes we are indebted to Mr. Knight.

C. J——, aged forty, car-driver, was admitted into Rahere ward, Oct. 12th, 1886, with a swelling of the left half of the tongue. The patient first noticed a soreness about the middle of the left side of the tongue two months ago, and a swelling at the same spot one month ago. The swelling had increased rapidly. He had had no pain except on eating; he never had syphilis; he had smoked cigars, but never a pipe. Always enjoyed good health. Family history good.

On admission he was a healthy-looking, strong man. Situated in the substance of the left half of the tongue was a smooth, soft, elastic swelling, bulging on the upper and under surface of the tongue, and about the size of a fives ball. It did not extend across the middle line, but reached from the junction of the anterior and middle thirds to the back of the tongue. The latter could not be protruded from the mouth. There was no ulceration. A hard and enlarged gland was felt beneath the jaw in the submaxillary region. The teeth in the upper jaw were mostly in a decayed condition. Under the impression that the tumour contained fluid it was punctured five days previously, but only blood exuded. He was ordered ten grains of iodide of potassium three times a day.

Oct. 16th.—Fifteen grains of the iodide were ordered. No change in swelling.

19th.—Iodide increased to twenty grains. Tongue can be protruded a little further.

22nd.—Twenty-five grains of the iodide to be taken. No further change.

23rd.—The under surface of the tongue was painted with a 4 per cent. solution of cocaine and the swelling again punctured. A few drops of blood only exuded.

25th.—Thirty grains of iodide of potassium ordered.

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28th.—No material alteration has taken place in the swelling since admission.

After consultation with his colleagues, Mr. Butlin decided to make an incision into the tumour, and if it should prove to be malignant, to remove it. Accordingly, on Nov. 5th the patient was placed under the influence of an anæsthetic, and Mr. Butlin cut into the tumour, which proved to be solid. He then cut through the mucous membrane in the median line above and below the tongue, and tore through the muscular tissue from the tip to the back. The left half of the tongue was then snipped through with scissors behind the tumour, all vessels being clamped as soon as divided. There was a good deal of hæmorrhage. The vessels were secured with silk ligatures, and the wound dusted with iodoform. The gland under the jaw was not removed. The growth on section proved to be a soft white tumour about the size of a fives ball; it was circumscribed, with the appearance of a capsule at one point. The microscope showed it to be a small round-celled sarcoma (lympho-sarcoma). Some hæmorrhage ensued five hours after the operation, and two small vessels were ligatured; the general oozing was stopped by the application of some styptic charpie.

Nov. 6th.—Temperature 99·8°; pulse 136. Fed, by a tube passed through the nose three times a day, with eggs, milk, essence, and beef-tea. Wound dusted frequently with iodoform; very little swelling.

8th.—Temperature 99·6°; pulse 96. Takes a little iced milk by the mouth. He is still fed by the tube.

10th.—Evening temperature 100·6°; to-day 98°; pulse 86. The gland in the submaxillary region is smaller. Takes liquid food, and is fed twice a day by the tube.

15th.—Got up for the first time. Wound nearly healed. Takes all his food by the mouth. Temperature 98·8°.

17th.—The enlarged gland has entirely disappeared. Wound healed. Talks fairly well, and takes solid food.

On the 19th the patient was discharged from the hospital. Three weeks afterwards he was in good health, and could talk plainly. There was no glandular enlargement, and no sign of recurrence.

Remarks.—The above case differs in some important points from those previously recorded—namely, in the age of the patient, the rapid growth of the tumour, and the healthy condition of the mucous membrane over it. The tumour, though not encapsuled, was perfectly circumscribed. The enlargement of the submaxillary gland was probably due to pressure upon the duct.

Previous cases.—Jacobi: *American Journal of Obstetrics*, 1870. Godlee; "Holmes's System of Surgery," vol. ii., art. "Tongue," by Barker. Hutchinson: Medical and Chirurgical Transactions, vol. lxviii., p. 311, 1885. Eve: Pathological Transactions, vol. xxxvii., p. 223, 1886.

CHARING-CROSS HOSPITAL.

FRACTURE THROUGH SARCOMA OF FEMUR; SECONDARY DEPOSITS IN SKULL AND CLAVICLE; DEATH; NECROPSY.

(Under the care of Mr. BELLAMY.)

THIS case presents several points of pathological interest, and is of value in showing how the real cause of fracture and of the non-union was unsuspected or overlooked. For the following notes we are indebted to Mr. H. L. Arnim, ward clerk.

Fred L——, aged forty-seven, was a sufferer from sciatica and rheumatism, and walked rather lamely with a stick. On Nov. 9th he was at Shaftesbury-road station, and on putting his walking-stick to the platform it slipped through a crevice. He fell heavily forward, at the same time putting out his left leg to save himself. He heard and felt something snap in the limb, and felt a sudden pain. Patient was unable to rise to his feet or, indeed, to bear any weight upon the left limb, and was brought to the hospital in an ambulance. The fracture, which was in the middle third of the left femur, with very little displacement, was put up in a long Liston splint with a starched bandage.

Nov. 18th.—No pain; temperature normal.

28th.—Progressing favourably.

Dec. 1st.—There is no pain; patient feels quite comfortable.

14th.—A bedsore about three by two inches has formed over the right buttock. It is dressed with boracic ointment.

21st.—A swelling of about the size of a Tangerine orange has appeared over the left side of the scalp. On an exploratory puncture being made, the contents were found to be blood. Over the anterior aspect of the inner third of the clavicle is a painful swelling occupying about two inches of the anterior aspect of the bone. The pain is of a lancinating character, worse at night. Skin not discoloured. A plaster-of-Paris bandage substituted for the starched bandage.

26th.—Patient got up yesterday and the day before.

27th.—The plaster-of-Paris bandage has been removed; there is much pain at the seat of fracture.

28th.—Skin over back broken; painted with balsam of copaiba.

Jan. 4th.—Patient put under ether. Ends of ununited bone rubbed together. Leg put up on long Liston splint.

6th.—The clavicle is better; swelling and pain decreased; fracture still painful.

18th.—Thigh put up in plaster-of-Paris. Sore on back size of palm of the hand. Slough separating and leaving ragged ulcer, which is discharging freely. Dressed with iodoform and boracic dressing. The sore extends from the tip of the coccyx to the upper border of the sacrum.

Feb. 2nd.—The patient is very emaciated; complains of loss of appetite. Slight sore appearing under right angle of the scapula. Still dressed with iodoform and boracic dressing. Leg put in plaster again.

21st.—For the last eight or ten days the patient has been in a half-conscious condition; mind wanders occasionally. Sore on back getting larger; edges of the ulcer undermined. Ulcer presents an indolent appearance. Patient's appetite bad; very weak. The patient died this evening at 11 P.M.

Necropsy.—Body emaciated; no rigor mortis. Abdomen (superficial view) normal. Heart distinctly fatty. Liver fatty; no secondary nodules; weight 3 lb. 8 oz. Kidneys normal. Spleen rather soft; post-mortem change. Apex of right lung emphysematous; base congested with purulent fluid passing from the bronchi. Left lung congested and slightly emphysematous; rest same as right. The convolutions of the brain were marked on the left side by a tumour pressing on them; the dura mater was not destroyed, and the tumour was not adherent to the brain substance. There was a large ovoid swelling on the left thigh at the junction of the upper and middle third; the upper and lower parts could be freely moved on each other, with a peculiar crackling distinctly felt by the hand. On removing the femur this ovoid swelling externally looked very much like brain tissue, being convoluted; and on section it was the same, but it cut much harder than brain tissue. There was a tumour on the left parietal region of the skull. On dissection it was beneath the pericranium, and the dura mater was intact on the internal surface; the whole of the parietal bone for the diameter of two inches and a half being replaced by a soft, brain-like tumour of the same nature as the tumour of the femur. The mass occupied the anterior superior portion of the parietal bone, extending about half-way from the sagittal suture down the bone, and less than half way back from the fronto-parietal suture. It projected about an inch and a half from the surface, and was almost flat inside.

MANCHESTER ROYAL INFIRMARY.

HYDATID CYST OF LIVER; RESECTION OF RIB; REMOVAL OF CYST WALL.

(Under the care of Mr. WHITEHEAD.)

WE are indebted to Mr. Brazil for the report of the following case.

E. W——, a slightly-built and somewhat delicate-looking woman, aged thirty-two, was admitted into the surgical wards on Sept. 18th, 1886. The patient gave the following history of her trouble. In January 1885, she had a slight attack of pneumonia, and on recovery was left with a pain in the right side, which has continued with varying intensity up to the present date. About six months previous to admission she appears to have had an attack of jaundice, and at the same time some swelling of the lower extremities. About two months after this she was admitted into the Bowdon Consumption Hospital, where she remained three weeks. While there an aspirating needle was introduced into the hepatic region, and some clear fluid withdrawn. From Bowdon she came to the Manchester Royal Infirmary, and was admitted into the medical wards. Here she remained about three months, after which she was transferred to the surgical side. While in the medical wards she was tapped twice; on the last occasion 15 oz. of fluid were withdrawn. The fluid was clear, contained abundance of chlorides, but no albumen. No hooklets were dis-

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covered on either occasion. Patient had lost flesh considerably during her stay in hospital.

Her condition on admission to the surgical ward was as follows: On physical examination some fulness was perceptible over the hepatic region. The liver dulness was markedly increased, and was found to extend upwards as high as the third intercostal space, and downwards for half an inch beyond the costal margin. There was slight tenderness on pressure. The patient complained occasionally of slight pain in the right side radiating into the right shoulder.

Operation.—On October 4th the patient was placed under chloroform, and an incision about two inches long was made parallel to and slightly below the right costal margin. The various layers of the abdominal wall were divided successively and the anterior border of the liver brought into view. No cyst, however, was found. The wound was now carefully stitched up again, each layer being sutured separately. From this operation the patient made a good recovery.

On Nov. 13th a second operation was undertaken. An incision about three inches long was made over the eighth rib in the mid-axillary line, and a portion of the rib about an inch in length resected, the periosteum being left. After cutting through a layer of thickened pleura a large cavity was reached, from which about twenty ounces of thick yellowish-brown fluid escaped. This fluid was afterwards found to be loaded with albumen and to contain distinct hooklets. The cavity was lined with a distinct homogeneous membrane of a bright yellow colour, about $\frac{1}{16}$th of an inch thick, and rather soft and friable. By careful manipulation the cyst wall was entirely removed. Numerous daughter cysts were removed at the same time, some coming away with the fluid, some with the cyst wall. After removal of the cyst the cavity was thoroughly washed out with boracic lotion and a large drainage-tube inserted.

Nov. 14th.—The patient passed a fairly good night. Temperature 98°. The dressings were soaked through with fluid highly coloured with bile. Cavity washed out as before. The patient is taking eight ounces of brandy a day.

20th.—The discharge is still very profuse and deeply bile-stained, but is now distinctly purulent. The cavity is washed out daily with boracic lotion. Portions of daughter cysts occasionally come away with the discharge.

December 6th.—The temperature last night went up to 101·6°, and the dressings were found to be saturated with blood. On examination it was found that the hæmorrhage proceeded from the cavity. This was washed out with boracic lotion and fresh dressings applied. This morning a quantity of blood was found on the dressings, and on syringing the cavity a few clots came away.

7th.—Temperature this morning 97·6°. More blood was found on the dressings, and a few more clots discharged.

10th.—There has been no more bleeding, and the temperature remains normal. The discharge is small in quantity, and consists of perfectly healthy pus. The cavity now holds rather more than an ounce of fluid. After this the patient continued to make a good and quite uneventful recovery. When seen in February, she was looking stouter, was in better health altogether than before the operation, complained of no pain, and ate and slept well. The wound in the side had not healed, but the discharge was perfectly healthy and trifling in amount.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST.—The seventy-third annual court of governors of this institution was held on the 15th inst., the Lord Mayor presiding. From the report it appeared that the financial condition of the hospital during the past year has been, on the whole, encouraging, but much remains to be done before it can be pronounced satisfactory. In order to carry on the work now in hand an annual income of between £4000 and £5000 is required, and when all the wards are in full work the annual expenditure will not be less than £7000. The present income from subscriptions and dividends amounts to less than £2000. These, added to the donations and collections last year, produced a general income of about £3100, exclusive of legacies. The Right Hon. Lord Charles Bruce has accepted the office of President of the Hospital.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Obstruction of one Ureter by a Calculus, associated with complete Suppression of Urine.—Sacculated Kidney containing Calculi with Disorganisation of the other Kidney, and associated with complete Suppression.

AN ordinary meeting of this Society was held on Tuesday last, Mr. G. D. Pollock, F.R.C.S., President, in the chair.

Mr. R. J. GODLEE read a paper on a case of Obstruction of one Ureter by a Calculus, accompanied by complete Suppression of Urine. Up till June 4th, 1884, the patient, a medical man, who was then thirty-one years old, had enjoyed good health, with the exception of an attack of blood-poisoning following a poisoned wound whilst he was a student in 1872, and occasional attacks of colic, supposed to be intestinal, which were relieved by morphia. He was then attacked with frequency of micturition and pain in the bladder. A week later sickness began and right renal pain, with fever and hæmaturia. There was pus in the urine. After a few days these symptoms subsided, but they soon returned and became worse. Intense tenderness appeared in the right loin, and the urine became highly albuminous, and contained large numbers of hyaline and granular casts, as well as masses of bacteria, but it was never putrid. On July 13th a deep-seated perinephritic abscess was opened. The kidney could not be discovered. The casts disappeared completely from the urine, and the albumen diminished to a very small quantity. No urine escaped from the wound, which healed without trouble. The patient after this remained well, with the exception of occasional attacks of colic, till Dec. 10th, 1885, when an attack of great severity set in, for which he took several hypodermic injections of morphia. On the 14th complete suppression of urine occurred, and lasted a week. No operation was undertaken, because it was assumed that there was only one working kidney, the ureter of which was blocked. On the 19th, however, the left kidney was felt and punctured, but the pelvis was found to be empty. On the 21st he began to pass highly albuminous urine, and the amount and character of this became more and more normal; but he did not rally, and died exhausted on the 26th. At the necropsy the right kidney was found to be dilated into a loose bag of pus, and a stone was impacted half way down its ureter, which was dilated throughout its whole extent. The left kidney was large and comparatively healthy, but showed signs of chronic interstitial nephritis; the pelvis and ureter on this side were normal. The interest of the case depends on the following facts: 1. That an abscess around a diseased kidney may cause intense albuminuria and the presence of copious casts, even though the other kidney be comparatively healthy. 2. Irritation of such a diseased kidney (aided perhaps by the presence of a certain amount of morphia in the system) may cause complete suppression, similar to that caused by complete obstruction of the ureters, and not like that occurring in Bright's disease. 3. Though the stone was impacted halfway down the ureter, this tube was dilated throughout its extent.

Mr. R. W. PARKER read a paper on a case of Suppression of Urine, following injury to a sacculated kidney containing calculi, the other kidney being entirely disorganised. S. C.——, aged thirteen, a well-built boy, fell over some steps and struck his right side in the region of the kidney. Up to this accident he was said to have been quite well. The fall caused him great pain, and he had some difficulty in getting home. He went to bed, and remained there for some days. Two days after the accident the boy "passed blood instead of urine." He vomited frequently, and suffered considerable pain at intervals, and the urine continued to contain blood. At the end of a week he appeared to have regained his usual health, but his symptoms all recurred at the end of another week, and he was brought to the hospital, where he remained three weeks, and was then discharged apparently well. Examination at this time failed to detect anything abnormal with or about the kidney. He had some slight pain from time to time, and for two or three days after admission the urine contained blood. In two months'

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time the boy was brought back to the hospital, with recurrence and aggravation of all his symptoms. It was then elicited, after closely questioning his mother, that the lad had had similar but less pronounced symptoms for twelve months past. On his readmission he was found to have a large, tense, elastic swelling in the region of the right kidney, extending as far forwards as the umbilicus. This was diagnosed as a traumatic hydronephrosis, and was tapped several times on account of the pain and discomfort which it caused. As it refilled rapidly, it was exposed in the loin and a free incision made into it. During the first five days in the hospital the boy passed an average of forty-five ounces of urine; in the next four days this average fell to thirteen ounces a day; on the tenth day only one ounce was passed. Unmistakable signs of uræmia now set in, and the boy died four days subsequently. The post-mortem examination showed that the left kidney was quite disorganised, and converted into a mere sac, in which one large and several small calculi were found. The right kidney (the injured one) was greatly hypertrophied; the calyces were much dilated, in one of these a large calculus was found, and in others smaller calculi. A small calculus was found in the right ureter, at the level of the brim of the pelvis. The author remarked on the awkward nature of the hydronephrotic sac as a complication; it prevented the finger reaching the front of the kidney, and the examination of the pelvis and ureter through the incision in the loin. It was thus impossible to make quite sure of the diagnosis. Calculus was suspected and the kidney was punctured in several places without result. When the urine diminished in quantity, less importance was attached to this fact than it merited, judged in the light of the post-mortem evidence; it was thought the urine found its way into the hydronephrotic sac, and that the diminished quantity, voided per urethram, represented the product of the other kidney. The treatment adopted was referred to, and the question was raised whether any surgical treatment directed through the loin could have dealt with this case successfully.

Mr. BELLAMY showed a specimen taken from a young man aged twenty-three. In this case it was difficult to reach the kidney, and altogether the case had considerable resemblance to that described by Mr. Parker.—Dr. S. COUPLAND said that the paper by Mr. Godlee raised questions of much moment in renal pathology. Was it possible that disease about one kidney could determine suppression of function in the other, presumably healthy, kidney. He inquired for further information as to the amount of disease found in it. Any irritation in the body would have a greater effect on a kidney which was the seat of some morbid change. The fact that the "good" kidney was slightly cystic and the seat of a little interstitial nephritis would predispose it to cease secreting. He inquired on which side of the body the patient experienced the last attack of renal colic preceding suppression of urine. He ventured to question, in view of the variety of clinical aspects of uræmia, whether it was not too much to endeavour to distinguish between the obstructive and non-obstructive kinds by a reference to mere symptomatology.—Mr. W. A. MEREDITH thought that the case illustrated the advantages of performing an abdominal exploration before determining on a lumbar incision. It might have been possible to have felt the stone in the right ureter.—Mr. HOWARD MARSH said that it must be admitted that in the three cases mentioned a defective diagnosis had been made. He thought that this circumstance, amongst others, was an argument in favour of an abdominal exploration. One point in renal surgery seemed to be coming to the front; that many stones were not to be reached from the loin. Our progress seemed to be in the direction of admitting the wisdom of an abdominal examination. Reference was made to the case read by him before the Clinical Society.[1]—Mr. A. A. BOWLBY raised with Dr. Coupland the question whether disease of one organ could cause suppression of urine in a sound kidney. He related the case of a man who sustained an injury in the loin, which was followed by sickness and hæmaturia. A urethral stricture gave some trouble at first, but after the catheter was tied in complete suppression of urine for thirty-six hours followed, and but twelve ounces were passed in the next twelve hours. The urine was then healthy, and had not a faint trace of albumen. As bearing on the question of the influence of injury on a subject affected with Bright's disease, he mentioned the case of a man who had a compound fracture of the tibia, and died soon after. It was found that there was evidence of chronic interstitial nephritis, on which an acute suppurative nephritis had supervened, probably as the result of the severe accident.—Dr. R. D. POWELL inquired what was the cause of the perinephritic abscess. Seeing that a perinephritic abscess existed, he asked whether it would be good surgery to attack it through the median line of the abdomen. He considered it would be bad surgery, from a physician's point of view, to perform the abdominal section in the presence of urine albuminous and containing casts. He also considered that it would be practically impossible to determine the state of the parenchyma of the kidney by mere palpation, or indeed by any other method of physical examination.—Mr. A. E. BARKER rather agreed with the views of Dr. Powell, and especially in the case of a perinephritic abscess. If a stone be impacted in the upper part of the ureter, and could be returned to the pelvis, a nephrolithotomy from the loin would still be necessary. In many advanced cases the lumbar nephrotomy would be most suitable. But he did not deny that there were cases in which the abdominal section would be not only justifiable, but more advantageous. The case of a young woman was narrated in which a stone was removed by the lumbar operation from the infundibulum of the renal pelvis; but it appeared that the stone had been there so long that it had led to an apparent cicatricial thickening of the upper end of the ureter; a permanent lumbar fistula was necessary. The patient remained well and suffered no discomfort. — Mr. MEREDITH said he only advocated abdominal exploration as a means of diagnosis. — Mr. BARWELL remarked on the importance of estimating the amount of urea discharged daily. Important information might thus be gained, and might be of service in determining the advisability of operation.—Dr. OGIER WARD said that much valuable information might be obtained by catheterising the ureters, a method which would allow of the separate examination of the urine discharged from each kidney.—Mr. GODLEE said there was some disease in the comparatively healthy kidney, and he did not contend that disease about one kidney could lead to cessation of function of the other kidney if the latter be perfectly sound. He did not venture to say whether we dwelt too much upon the distinction between obstructive and non-obstructive anuria. The stones in the kidney were the probable cause of the perinephritic suppuration. He considered that a hand in the abdomen could not determine the healthiness of a kidney. Reference was made to the invention some years ago of an instrument shaped like a lithotrite for the investigation of the urine from the ureters.—Mr. R. W. PARKER said that in his own case an abdominal exploration would have determined the state of the diseased kidney. The stone, too, would have been detected in the ureter.

[1] THE LANCET, p. 269.

MEDICAL SOCIETY OF LONDON.

Incision of Swollen Optic Nerve-sheath.—Solvent Treatment of Renal Calculus.—Intussusception.—Congenital Defect in Diaphragm.

AN ordinary meeting of this Society was held on Monday last, Dr. Hughlings Jackson, F.R.S., President, in the chair.

Mr. BRUDENELL CARTER read a paper on a case of Swollen Optic Disc, in which the sheath of the optic nerve was incised behind the eyeball. After alluding to the attempts of De Wecker and Power, he discussed the pathology of swollen optic nerve, and contended that it was primarily dropsical and only secondarily neuritic. He considered that there was a descent of fluid from the subarachnoid space to the space between the dural and pial sheaths of the optic nerve; the nerve was compressed by the fluid and the venous circulation was impeded. The results varied in different cases. Mr. Carter contended that incision of the nerve-sheath and evacuation of the contained fluid, if accomplished at or before the commencement of impairment of vision, would save the patient from blindness. The case related was that of a young woman who had impaired sight and headache of ten days' duration. The left optic disc was much swollen. Under iodides and mercury no improvement resulted. The disc swelled still more; hæmorrhages and patches of exudation also appeared; and, with the assent of Dr. Hughlings Jackson, Mr. Carter

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decided upon an operation which he first practised on the dead subject. The external rectus muscle was divided; the eyeball then rotated inwards; the sheath of the optic nerve was exposed and opened, and gave exit to the contained fluid. Recovery was uninterrupted, the patient was at once relieved of headache, which did not return for a month, and in ten days after the operation the swelling of the optic disc was found to have diminished by one-half. Further recovery has resulted. Mr. Carter claimed that the operation could be performed with certainty and without danger, and he urged its adoption in all cases of cerebral disease in which sight was beginning to be impaired.—Dr. HUGHLINGS JACKSON remarked that the case was of great interest because of the monocular optic neuritis and of the blindness of the temporal half only of the visual field. He expressed his approval of the operation in the case mentioned, and considered it resulted in a great success.—Mr. JULER was much interested in the operation, and congratulated Mr. Carter on the result.—Mr. ASTLEY BLOXAM thought that opening the sheath of the optic nerve might act as a drain on the subarachnoid space in cases of tubercular meningitis associated, or not, with optic neuritis.—Dr. HERRINGHAM inquired whether Mr. Carter would operate on cases of uræmic neuritis.—Dr. S. WEST asked whether the operation would be performed on one or both sides in cases of double optic neuritis, and whether many cases of optic neuritis became blind.—Dr. ORMEROD spoke of the effect of this operation on the actual cerebral condition: the headache appeared to be relieved in the case related. The operation might be beneficial in preventing blindness in those cases which ultimately recover from the disease which caused the optic nerve swelling.—Mr. B. CARTER considered that true neuritis could not exist without affecting the function of the optic nerve. He would not be disposed to incise the sheath in cases of granular kidney, nor in other cases unless there was defect of vision.

Dr. RALFE exhibited a specimen of Renal Calculus passed after six weeks of solvent treatment. It was oat-shaped, eroded on the surface, measuring one-third of an inch long, and weighing three grains and a half. It was composed chiefly of oxalate of lime, with a few crystals of uric acid scattered over the surface. The remedies employed consisted of lithia and turpentine in a mixture, with Dover's powder at night. The patient was also directed to drink at least three pints of filtered rain-water daily. Under this treatment the urine, which at first had a specific gravity of 1025 and contained much blood and pus, became clear, and the specific gravity fell to 1014, whilst the attacks of colic diminished. Dr. Ralfe's method differs from that proposed by Sir William Roberts, in that he does not seek to diminish the size of the calculus by chemical solvents—a doubtful and difficult process,—but by checking its growth, by keeping the specific gravity of the urine low, and also by diminishing existing pyelitis to allow free passage to the concretion. Dr. Ralfe observed that there are many calculi small enough to easily slip down a ureter, but are prevented by the swollen condition of the orifice. He illustrated this by a specimen, which had been retained for several days, owing to the patient suffering from gouty pyelitis, though the concretion was quite minute. As soon as the pyelitis was relieved the calculus passed easily. In addition to distilled water and turpentine, Dr. Ralfe spoke highly of benzoate of lithia or potash. He advises recurrence to this mode of treatment: 1. When the calculus is recently formed and is still small, and is retained chiefly by the swollen condition of the mucous membrane of the pelvis of the kidney. 2. In recurrent calculi, the pisiform concretions of elderly people. In these cases the calculi passed before the administration of the remedies are about the size of a pea; after, they diminish to that of a mustard-seed (specimens shown), or cease altogether. 3. In cases when, owing to the obesity of the patient or broken health, nephro-lithotomy is not advisable. In these cases we may hope the distilled water may in time lead to the disintegration of the calculus, as in a case recorded by Dr. Ralfe;[1] whilst the terebinthine remedies undoubtedly diminish the pyelitis and the tendency to colic.—Dr. MAGUIRE considered that it savoured of the irrational to send patients to foreign spas when so much could be done for them at home by the employment of distilled water which contained no salts, and therefore would presumably have a greater solvent action on stone than waters impregnated with salts.—Mr. F. B. JAGGARD said that larger stones had been passed without the treatment, which benefited rather by its diluent than solvent action.—Dr. RALFE said he did believe in a solvent action, and he attached considerable importance to the treatment of pyelitis.

Dr. W. H. ALLCHIN showed a specimen of Intussusception removed from a male infant aged six months. The tumour was of the size of a Cambridge sausage; the jejunum was drawn down so as to be close to the intussusception, which had descended into the rectum. There was a second duplication of the colon, doubtless secondary in time to the primary intussusception.

Mr. ASTLEY BLOXAM showed a specimen of Congenital Opening in the Diaphragm in an infant aged three months; it was situate near the left external arcuate ligament. The left lung had never been expanded; chronic vomiting led to exhaustion. He also showed a case of Plastic Surgery in which a new mouth had been formed.

[1] Pathological Society's Transactions, vol. xxxiii.

HARVEIAN SOCIETY.

Extirpation of the Axillary Glands: a necessary accompaniment of removal of the Breast for Cancer.

AT the meeting on March 3rd (Edmund Owen, M.B. F.R.C.S., President, in the chair), the sitting was occupied by a discussion on the above subject.

Mr. MITCHELL BANKS, in opening the debate, laid before the meeting a printed table showing the results of his practice in eighty-two cases. The complete operation as advocated by himself was indeed a very severe measure, and its mortality was very considerably in advance of that of the old incomplete method, in which the axilla was not opened. At the same time, however, his table showed that the duration of life was prolonged, and the recurrence of cancer less seldom occurred; and these results justified the greater risk to which the patient was exposed. The old incomplete operation he condemned as *unscientific* and *useless*. He laid great stress on not allowing the chest wound to remain exposed while the axilla was being cleared, but advocated closure of the wound from below upwards as the operation proceeded; the glands should best be removed by the knife, but enucleated with the aid of the fingers and two pairs of forceps. He did not hesitate to tie and remove portions of the axillary vein, if this last vessel interfered with complete removal of the glands.

Mr. BRYANT thought the operation advocated a very severe one, and its results, as shown by Mr. Banks' tables, disappointing. Theoretically, the complete operation was all that could be desired, but in practice he felt that it was open to criticism. In ordinary cases it might be right to perform the complete operation, but in some cases—e.g., in aged women with ulcerating cancers, and in feeble women possessed of only moderate powers—the incomplete one was justifiable. Speaking from his own experience, the mortality of the complete was but little over that of the incomplete operation. It would seem that the average duration of life after the severe operation was not much greater than after the milder procedure. Statistics showed that after the incomplete operation one-third of the cases lived for six years, and 25 per cent. for ten years and more. It might fairly be questioned whether the complete gave really better results; and, if not, was it justifiable to submit every patient to the greater risk? In his opinion, unless the glands could be easily felt, it was wisest, in dealing with aged or feeble patients, not to open the axilla. He approved of Mr. Banks' plan of closing the wound from below upwards as he proceeded, and likewise of his method of enucleating the glands in preference to removing them by section. No harm came from interference with the axillary vein, though he had only once had occasion to tie that vessel in the course of the operation.

Mr. PICK did not agree with Mr. Banks in his opinion that the operation for removal of the breast for cancer in the usual manner—by the method which Mr. Banks was pleased to call the "incomplete" method—was "useless or worse than useless," even though it did not prolong the patient's life by a single day. It freed the patient from the oppression of a disease which she knew was rapidly approaching a fatal termination, and gave her the chance, and certainly the hope, of immunity from recurrence. It afforded her an interval of health and freedom from pain, instead of a life of anxiety and suffering, and in a certain percentage of cases the cancer returned in some internal organ and

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afforded the patient a quiet and comparatively painless death, instead of the horrible suffering which an open cancer too often entailed. With regard to the "complete" operation of Mr. Banks, Mr. Pick quite agreed with him that the removal of the disease should be most thorough, and that, in order that this might be so, no heed should be taken to preserve sufficient skin to form flaps to cover the gap left, but that, if necessary, the sore should be left to granulate as an open wound. But he was not prepared to agree with Mr. Banks that clearing out of the axillary space was either necessary or judicious. The proceeding added very materially to the danger of the operation, as shown by Mr. Banks' tables; and in his (Mr. Pick's) experience it was only in a small percentage of cases that the disease recurred in the axillary glands, the cicatrix remaining healthy. He therefore regarded the proceeding as unnecessary, and it was also injudicious as adding to the mortality. Mr. Pick was inclined to attribute the success which Mr. Banks had obtained rather to the very free removal of the breast and surrounding tissues than to the extirpation of the axillary glands.

Mr. BUTLIN said that in the discussion on Dr. Gross's paper, during the meeting of the International Congress in London, he had been inclined to take a similar view to Dr. Gross and Mr. Banks with regard to the removal of cancer of the breast. Since that time, however, he had made a very careful study of the natural history and course of cancer of the breast, and of the cases published by the author of this paper, and had come to the conclusion that the very free removal of the mamma and opening of the axilla, recommended by Mr. Banks in every or nearly every instance of cancer of the breast, is an unsurgical and unscientific proceeding. Besides several minor propositions, Mr. Banks had put forward two main propositions: that the operation should include the entire mamma with the overlying skin and parts beneath in all cases, and that the axilla should be opened, whether enlarged glands could be felt in it or not. Mr. Butlin dissented from both propositions. From the first, because the operation bore no direct relation to the extent of the disease. The tumour was often of small size, and situated in the inner or the lower segment of the breast, and the incisions, instead of being carried equally far from it in every direction, were perhaps three inches from it in one direction, and less than one inch in other directions. Cancer of the breast must be treated in the same manner and on the same principles as cancer of the lip and similar parts; very free removal of the disease, the surrounding textures, the overlying skin, and the fascia over the muscle, if need be; but not removal of parts which were not, and probably never would be, affected. With regard to the second proposition, most surgeons were agreed that the glands in the axilla should be removed if they were enlarged and could be taken away. Mr. Butlin would go so far as to open the axilla in cases in which an indefinite fulness could be felt. But he would not open the axilla in other cases. He had collected notes of 101 cases in which the axilla had not been opened, and 209 cases in which the glands had been removed. The mortality in the first set was 10 per cent., the proportion of women alive and well at the end of three years, 18 per cent. The mortality in the second set was 20 per cent.; the number of women remaining well at the end of three years about 5 per cent. The cases in which there was no affection of the glands, and in which the axilla had consequently not been opened, were by far the best cases for operation, not only on account of the less severity of the operation, but because the disease was less malignant.

Mr. HARRISON CRIPPS thought the profession was much indebted to the persevering manner in which Mr. Banks had brought the subject of the removal of the axillary glands so prominently forward. Though he would not like to make an arbitrary rule that they should invariably be removed, he agreed that in the majority of cases such treatment was indicated. The question to some extent turned on whether or not the opening of the axilla and removal of the glands added greatly to the danger of the operation. According to the experience of St. Bartholomew's Hospital this did not appear to be the case. In the five years from 1863 to 1867, at a period when it was the exception rather than the rule to open the axilla, the mortality after amputation of the breast was as near as possible 11 per cent. Owing, however, to improved methods and better sanitary condition of the hospital, the rate of the mortality during the last five years only amounted to 6 per cent., and, moreover, during this latter period in about half the cases the axillary glands had been removed. In the last year's reports it is especially noted that of thirty-eight cases of amputation of the breast for cancer, in nineteen the axillary glands were also removed, but the rate of mortality was exactly the same—viz., one death in the nineteen cases in which the glands were untouched, and one death in the nineteen cases in which the glands were removed. The high rate of mortality in Mr. Banks' cases appeared to be entirely due to blood poisoning, the result of insanitary surroundings. Mr. Cripps considered that in operating for breast cancer the free removal of skin over the tumour, although it might appear to be supple and not complicated at the time of operation, was of the utmost importance, for it frequently happened that recurrence took the form of cancerous nodules in the skin bordering on the cicatrix, and that this phenomenon showed how often the skin was really infected, and should have been freely removed at the original operation.

The PRESIDENT expressed surprise at the amount of opposition which the important paper, just read, had elicited. He was under the apprehension that surgical opinion was steadily drifting in the direction of opening the axilla and enucleating all discoverable lymphatic glands, whether definitely implicated or not. Often it was impossible to say whether there was axillary invasion or not until the armpit had been opened up. Clearing away the glands was a desirable measure, in that it diminished the risk of subsequent pressure (from secondary malignant enlargement) upon the axillary vein and the cords of the brachial plexus, thus obviating, as he believed, the œdema and neuralgia of the arm so often met with when the glands were left untouched. Probably, also, the removal of the glands might be the means of checking a general invasion of the lymph currents; the risk of remote infections was certainly less if those centres of infection, the glands, were out of the way. The operation was a severe one, but it had the great recommendation of being thorough. He failed to see how an operation for malignant tumour could be complete which did not effect at the same time the cancerous glands associated with that tumour.

Mr. BANKS briefly replied.

MANCHESTER PATHOLOGICAL SOCIETY.

A MEETING of this Society was held on Feb. 9th, Dr. J. Dreschfeld, President, in the chair.

Cystoma of the Ovary.—Mr. W. A. STOCKS showed a preparation of a cystoma about the size of an orange which had passed down Douglas's pouch, and had been extruded through the anus, pushing the anterior wall of the rectum before it. It had been successfully removed by operation.

Vesical Calculi.—Mr. W. A. STOCKS also showed thirty-seven calculi which had been removed from the bladder of a man by lateral lithotomy. Each original calculus contained a minute millet-seed nucleus, around which had been deposited some buff-coloured urates, showing a distinct concentric arrangement, and having four or five lines of a much lighter colour radiating from the centre to the circumference, after the manner of those seen in the transverse section of an orange, each stone being about three-eighths of an inch in diameter. At this stage of their development many of these stones seemed to have undergone spontaneous division through the lines above mentioned, forming a second series of nuclei. Every stone had been covered with a thick layer of phosphates, those of the primary series forming stones three-quarters of an inch, and those of the latter series, stones of about half an inch in diameter, irregular in shape and furnished with a varying number of facets.

Mammary Tumours.—Dr. W. THORBURN exhibited a series of sections of various breast tumours. He demonstrated the varieties of cancer and their modes of growth, and showed preparations illustrating every stage in the development of cysts and intra-cystic growths in non-cancerous tumours. Among the rarer forms he showed a pure myxoma, an adenoma without overgrowth of the connective tissue elements, and a typical "villous cancer."

Intra-ocular Growths.—Dr. HILL GRIFFITH showed twelve glycerine jelly preparations demonstrative of intra-ocular growths and cyclitis, and mentioned the diagnostic appearances of sarcoma of the choroid, glioma of the retina, and plastic cyclitis on the so-called pseudo-glioma.

Changes in the Spinal Cord and Peripheral Nerves after Amputation.—Dr. E. S. REYNOLDS made some observations on the changes in the nervous system after the amputation

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of limbs, showing a series of specimens from a case. Having briefly referred to the history of the subject, and especially to some recent observations made by Friedländer and Krause, he pointed out that the changes in the case which he had investigated consisted in a simple atrophy of the majority of the fibres in the nerve trunk of the amputated leg, with increase of lymph spaces and connective tissue, and that this change could be traced up to the cord, principally in the posterior nerve root, but also in the anterior nerve root. In the cord the changes were limited to the lumbar region, and consisted of a slight decrease of the posterior horns and columns, and a more marked decrease of the anterior horns, affecting the number and structure of the cells in all the groups, but especially in the postero-lateral and central groups. Clarke's column was not affected.

MIDLAND MEDICAL SOCIETY.

A MEETING of this Society was held on March 2nd, Mr. Lloyd Owen, F.R.C.S.I., President, in the chair.

Locomotor Ataxia with Joint Disease.—Dr. SUCKLING showed a man aged forty-eight, who was suffering from locomotor ataxia with disease of his knee-joints. He was quite well up to twelve months ago, when he had attacks of vomiting with shooting pains in the legs. Soon after he complained of having girdle pains. The knee-joints began to enlarge about nine months ago, there being pain only in the left one. At the present time there is marked crackling on movement of each joint, with enlargement especially of the internal condyle of the femur on both sides, and partial dislocation outwards of the patella and tibia on the left side, on which side there is also some genu valgum; there is no excess of fluid in either joint. The knee-jerk is lost on both sides, the pupils are unequal and respond to accommodation, but not to light.

Tumour of Bladder treated by Supra-pubic Cystotomy.—Mr. BENNETT MAY reported this case, and showed the parts removed after death, which took place six months after the operation. In comparing the two methods of operating—viz., by the median perineal and by supra-pubic cystotomy,—Mr. May observed that the former was undoubtedly the simpler and possibly safer operation, and was an excellent means of exploring the bladder, whilst it was also quite adequate for the removal of some tumours. For the majority of cases of tumour of the bladder, however, it was far inferior to the supra-pubic operation, which gave opportunity for inspection and more thorough manipulation within the bladder. From the point of view, also, of the patient's subsequent condition, and for the purposes of permanent opening for micturition, when, as so often happens, the tumour cannot be removed, the supra-pubic operation was infinitely preferable. He had found the perineal operation a complete failure in relieving the patient's sufferings for any length of time; and for all cases of diagnosed tumour he should operate by the supra-pubic method, provided of course that the bladder could hold sufficient water.

Periosteal Sarcoma.—Mr. JORDAN LLOYD showed a girl aged eighteen who had developed a large malignant tumour of the forearm, probably a periosteal round-celled sarcoma of the ulna, with large ascending growths in the upper arm, the axilla, and the subclavian triangle. The tumour in the forearm was the first to appear, only fourteen weeks ago. This was cut into for the purposes of diagnosis, and on microscopic examination was found to be a small round-celled sarcoma. There was no history of malignancy or of injury. At the time of first seeing the case the disease had progressed too far to admit of removal.

Injury to Shoulder.—Mr. A. F. CLAY showed a man aged seventy-seven who had fallen downstairs on this shoulder; he was told by his medical attendant that he had "broken his arm high up." Three weeks after this Mr. Clay saw him, and found his humerus and clavicle intact, but about an inch and a half above the lowest part of the anterior boundary of the axilla a round hard prominence the size of a marble was seen and easily felt. It was then slightly movable, but more in the lateral than vertical direction. It followed the movements of the humerus. Since then it has become absolutely immovable and is smaller. The coracoid process on the injured side was not so prominent as its fellow.

Reviews and Notices of Books.

Lehrbuch der Chirurgischen Krankheiten des Ohres (Text-book of the Surgical Diseases of the Ear). By Prof. Dr. HERMANN SCHWARTZE. Stuttgart: Ferdinand Enke. 1885.

PROFESSOR SCHWARTZE'S text-book of aural surgery deserves the attention of all otologists, not only as coming from such a well-known writer, but also from the intrinsic value of the work. To the practitioner who is versed in otological subjects the book will derive its chief attraction from the parts devoted to the newer operations on the hearing organ, in which the author, besides collating the most recent views of others, gives his own extensive experience. A few of these may be briefly noticed.

Division of the tensor tympani is, he says, a procedure devoid of all practical value when employed for the relief of deafness, tinnitus, or giddiness. He has never seen it give any permanent relief to these symptoms, and cases are recorded in which it has provoked an aggravation of the same. As a preliminary operation in excision of the hammer it is more likely to come into use.

Excision of the drumhead and ossicles forms the subject of a very interesting chapter. Schwartze's first attempts at excising the drumhead and extraction of the entire malleus in sclerosis date from the year 1873; these failed regularly, owing to rapid regeneration of the membrana tympani. A method of preventing this regeneration was, however, devised by Kessel, which is adopted by the author. Schwartze's method of operating is as follows: The membrane is divided close to its periphery, the "tendinous ring" being also removed at the back part, according to Kessel's plan. The tendon of the tensor tympani and the joint between the stapes and incus are then divided. The membrane, together with the malleus and incus, is now grasped with a Wilde's snare and removed by a few careful to-and-fro movements. The chorda tympani is necessarily stretched, but if it should be torn across the loss of taste occasioned is usually only temporary. The cases in which the operation is recommended are mainly of two kinds: (1) Chronic suppuration of the middle ear, with caries of the ossicles, and cases of cholesteatoma of the tympanum; (2) Immobility of the malleus, caused either by total calcification of the membrana tympani or by ankylosis of the malleo-incudal joint, it having been previously carefully ascertained that the labyrinth is unaffected, and (by exploratory puncture of the drumhead, &c.) that the stapes is movable. Six cases briefly described by the author show the practicability of the operation, and that in some cases it is capable of relieving the tinnitus; the improvement in the hearing power gained, however, was not marked. On the whole, the results of excision are more favourable in suppurative cases or when there has been previous suppuration, than in cases of sclerosis.

We have dwelt at some length on this operation on account of its novelty, but there are many other parts of the book which deserve mention, notably the chapter on disease of the mastoid, a subject with which the author's name is inseparably connected. Without agreeing with all Professor Schwartze's statements, it may be said that the whole volume is replete with interest to the student and practitioner of aural surgery, and forms a valuable work of reference. It is liberally illustrated; some of the figures we recognise as coming from the author's "Pathological Anatomy of the Ear."

Diseases and their Commencement. Lectures to Trained Nurses. By DONALD HOOD, M.D. London: J. and A. Churchill.

DR. HOOD has in this small but useful work brought under the notice of nurses the fundamental facts connected with the causes, prevention, pathology, symptoms, and nursing treatment of a variety of diseases. The five

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lectures of which it is composed are expressed in a simple and graphic style, which renders them as interesting as they are instructive. Lecture I. deals with general physiological considerations, and impresses the paramount necessity of cleanliness and ventilation. In Lectures II. and III. inflammation in various situations is clearly though shortly discussed. Fever forms the theme of Lecture IV., while Lecture V. is devoted to the study of certain prominent symptoms, not so much with a view to diagnosis as in order to show that different causes may lead to the same condition, and to teach the unwisdom of too ready interference. Such practical matters as poulticing, disinfection, diet in typhoid fever, ventilation, &c., are treated in a judicious and careful manner. In speaking of temperatures, we observe that Dr. Hood places the normal heat of the body at 98·2°. Though not a great matter, it would be well if this figure were changed to 98·4°, the standard generally accepted. The book as a whole is likely to prove helpful to nurses by increasing their knowledge of the reason and purpose of their duties.

A Junior Course of Practical Zoology. By A. MILNES MARSHALL, assisted by C. HERBERT HURST. Pp. 440. London: Smith, Elder, and Co. 1887.

ALTHOUGH this handbook is entitled "A Junior Course of Practical Zoology," it is one that might with advantage be worked over by many men who consider that they possess something more than a rudimentary knowledge of biology. As the author observes, a student who works conscientiously through this book will acquire a good insight into the leading facts of animal structure and a technical knowledge of the principal methods of research. The book is divided into chapters, each of which gives the characters of a representative of one of the typical groups of the animal kingdom. Thus, we have the amœba, the hydra, the liver-fluke of the sheep, the leech, the earthworm, the freshwater mussel, the edible snail, the crayfish, the cockroach, the lancelet, the dogfish, the rabbit, and the fowl. In each case the several parts of the animal are described just as it might be by an intelligent teacher who, with knife or scissors and forceps in hand, was demonstrating the parts to a class. The descriptions seem to us to leave nothing to be desired. Mr. Marshall has had large experience in teaching, and avoids the mistake of being too prolix with young students. A few illustrations are given, but are not intended to supersede the sketches that should be made by the dissector. Directions are given in regard to the mode in which the dissection should be pursued. We venture to think that in our large public schools one afternoon in the week might be surrendered to natural science, and that those who exhibit a taste for zoology should be encouraged to hunt for specimens of the animals here described, and to dissect them with the book before them. It would be, we suspect, the most popular afternoon in the week, and would be a welcome change from the dry routine of Latin and Greek as at present taught.

New Inventions.

SEWER-AIR DESTRUCTOR.

MR. G. R. KEELING has sent us an account of an invention for destroying the air from sewers, and for promoting in them at the same time a current which would ensure their ventilation. The apparatus is a column to be placed over the sewer, and which could be used as a lamp standard; within it is situated a large gas-burner, which not only induces an upward current, but is said to consume all the air which passes through it. Mr. Keeling claims that some thousands of cubic feet of noxious gases can thus be extracted hourly from any sewer, and fresh air drawn into it. The amount of gas which is consumed is not, however, mentioned; but, if this be not great, it is likely that his invention will be of practical value.

AN IMPROVED CATGUT-HOLDER.

MESSRS. JOSEPH WOOD & Co., of York, have submitted to us an improved catgut-holder, which has certain excellent features. A reel of prepared catgut is enclosed in a glass vessel of oil, which is securely sealed at the top. One end of the catgut is brought out through a very small hole in the centre of the sealed top, but the aperture is so arranged that no oil leaks out, and there is no tendency for the end of the catgut to slip back into the bottle. By this means the catgut is well preserved, and as much as is required can very easily be at any time removed. The bottle seems to answer its purpose well.

LAPAROTOMY FOR GLUTEAL AND SCIATIC ANEURYSMS.

THE treatment of gluteal and sciatic aneurysms is attended with many difficulties, and cannot be considered as satisfactory. Dr. F. S. Dennis of New York has recently published a paper containing reports of three cases of the kind, which were treated by laparotomy and ligature of the internal iliac artery in the pelvis. The ligature of the internal iliac artery has been attended with a high rate of mortality—70 per cent.,—the causes of death being secondary hæmorrhage, uræmia, and various septic inflammations. In some cases the operation has been attended with very considerable difficulty. Dr. Dennis proposes to obviate these dangers by opening the abdominal cavity in the middle line, turning out the omentum and small intestines, and then, having clearly defined the artery, to divide the peritoneum over it and pass a ligature: the whole being conducted with stringent antiseptic precautions. He has himself practised this treatment in two instances. The first case was one of double gluteal aneurysm in a woman sixty years of age; both internal iliac arteries were tied; the patient died on the fourth day from suppression of urine. His second case was in the person of a girl eighteen years of age with what appears to have been aneurysmal varix of the left buttock, the evidence given in the paper not showing that there was any aneurysm proper; the internal iliac artery was tied, and the patient made a good recovery, the only complication being albuminuria for the first two days. A third case in which the same operation was performed is related by Dr. Dennis; it occurred in the practice of Dr. Locke Chew, in the person of a negro forty-six years of age, in whom a spontaneous gluteal aneurysm developed; the internal iliac artery was tied, and the patient made a good recovery. There are three quite distinct points which must be kept separate in estimating the value of Dr. Dennis's suggestion, which has the support of at least two admirable cases. The first of these is the propriety of ligaturing the internal iliac artery for gluteal and sciatic aneurysms; of this there seems no room for doubt, the Hunterian operation offers a better prospect of cure than any other known means. The second is the value of antiseptic surgery in this operation; the almost entire freedom from suppuration obtained in these three cases is the result of that, and not of the mode of operating, and there can be no doubt that the operation performed without opening the peritoneal cavity would give very different results in the hands of careful antiseptic surgeons from those hitherto obtained. The third point is the most convenient and best way of reaching the artery. Three ways at least suggest themselves—the old retro-peritoneal operation, laparotomy without removal of the intestines, and laparotomy with removal of the intestines. Dr. Dennis is very emphatic that "laparotomy in no way increases the danger of the operation, and that it is of very great advantage to remove the intestines from the abdominal cavity, as this gives the operator an easy access to the artery." On both these points there is room for difference of opinion, and we must await further experience before a definite opinion can be expressed. In any case Dr. Dennis's paper is a valuable contribution to surgery. We could have wished for fuller details than are given in the report, especially with regard to the condition of Dr. Dennis's second case, the account of the symptoms of which is meagre.

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THE LANCET.

LONDON: SATURDAY, MARCH 26, 1887.

THE breach between the conjoined Colleges and the Society of Apothecaries continues to widen. In spite of numerous efforts to adjust the differences between these bodies, there is no diminution in the obdurate resistance with which the very reasonable desires of the Society have hitherto been met. The late resolution of the General Medical Council earnestly advising the Colleges to reconsider their position and come to an agreement has, notwithstanding the zealous support of the direct representatives of the great body of medical practitioners, effected nothing in the way of reconciliation. On the contrary, it has, like every other effort in the same direction, served only to strengthen the resistance opposed by the Councils of the Colleges to any arrangement with the Society of Apothecaries. Though stated in terms of studied moderation, while at the same time clearly expressing the wish of the General Medical Council, the request has met with an unqualified refusal. We shall, therefore, in all likelihood find ourselves involved, perhaps more deeply than ever, in those very difficulties which it is the object of the Conjoint Scheme to remove. The Colleges and the Hall will henceforth be driven to compete with one another. A diploma, one of the far too numerous minor medical qualifications, will be invested with increased powers, and, for anything we can see, with increased popularity. Such a result, as is now sufficiently well known, is viewed with lively and natural apprehension by the great body of alumni of both Colleges. They foresee that the contest is fraught with possibilities of evil for the contemplated new London degree. The latter must in any case hold its own with the similar qualifications of existing universities, and it should by all means be spared the opposition of the remodelled diploma of the Apothecaries. It is somewhat difficult to ascertain the individual opinions of the members of the Comitia of the Royal College of Physicians on account of the secrecy which attends their deliberations. A greater degree of publicity would probably better subserve the interests both of the public and the College. We have reason to believe, however, that some of the Fellows do not even admit the probability of competition between the conjoint qualification and the licence of the Society. In their eyes the former is a thing by itself; it has no relation to any other diploma, consequently any suggestion of rivalry between it and the licence is out of the question. To reason thus may be logical after a fashion, but it is not practical. Whatever the authorities of the College may think, an actual competition between the two qualifications must be one result of their short-sighted and ill-advised policy—a result the significance of which cannot be ignored. The Society is determined to exert its right of appeal in order to obtain the requisite powers of examination in surgery. There is little, indeed no, doubt that those powers will be granted, and there is an absolute certainty that the influence of competition thus awakened will tell seriously against the work of the Colleges themselves, without in any way adding to the public good. As regards the general population, indeed, the prospect rather is that the exclusion of the Apothecaries' Society may become a disadvantage, which would be avoided by the adoption of an opposite course. When the powers applied for by the Society have been acquired, and a new class of practitioners (capable as regards the fulfilment of every legal condition, but with an admittedly lower qualification) is annually sent forth into professional life, we shall understand how sorely the cause of medical education has been wounded in the house of its friends, and practitioners will note how little their interests are considered by the Colleges of Physicians and Surgeons. The alternative policy should have been by no means difficult of adoption. All that is asked for on behalf of the Society of Apothecaries is the privilege of examination in certain subjects—botany, pharmacy, and chemistry—which it may fairly claim as natural to its province. The demand is a very moderate one. Its refusal is most unwise as well as illiberal, and we doubt much if the medical world in years to come, when it has to deal with the hydra of multiple qualifications, will readily forgive those who in our time are carelessly tossing aside the golden opportunity of curtailing that evil, at least in London. It is exceedingly doubtful whether the same question which is pressing for solution in Ireland will be settled otherwise than it is likely to be in London. In the interest of medical education and practice we hope for it a happier fate.

BY degrees London is being cleansed of its sores; the worst areas are being gradually cleared, and are being replaced by dwellings which, if not wholly free from objection, are a very distinct advance upon those which they replace. In no district of London has greater or better use been made of the legislation which dates from the year 1875 than in St. Giles's, where, thanks to the efforts of an able officer of health and a public-spirited vestry, changes have been brought about which have raised one of the most insanitary districts of the metropolis to a position which is very different from that it formerly occupied among other metropolitan parishes. The work of improvement has not been done without cost to the metropolis, but London will gladly bear the expense which has been incurred, for its prosperity is largely dependent upon the health of its inhabitants. London, however, is now represented by the Metropolitan Board of Works, and it is no secret that this Board does not regard with unmixed satisfaction the expenditure of large sums of money upon the removal of conditions which are prejudicial to health. Improvements of main thoroughfares, which all the world can see and admire, are more readily undertaken than those of some hidden area, which are, as a rule, known only to its own denizens and the few officials whose duties require them to be intimately acquainted with its evils.

Of this tendency there has been recent example. The Shelton-street area was reported by Mr. S. E. LOVETT, Medical Officer of Health of St. Giles's, to the Metropolitan Board of Works in 1883, under the Artisans and Labourers' Dwellings Improvement Act, 1875, but it was not until some nine months later that a Committee of this Board visited

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the spot, and then only with the result that they declined to prepare a scheme for its improvement; but the St. Giles's Board persevered with their intentions, and communicated to the Home Secretary a copy of the medical officer's report. In the beginning of 1885 an inquiry was held by order of the Home Secretary into the correctness of the report, and subsequently Lord CROSS himself inspected the site. The outcome of these proceedings was that the Metropolitan Board of Works were required to prepare a scheme, and the official inquiry which was held in consequence terminated last Saturday.

The nature of this investigation was such as to sadly perplex anyone not conversant with English procedure. The Commissioner, Mr. CUBITT NICHOLS, who was appointed by the Home Secretary to conduct the inquiry, was himself the official who had advised the necessity for the Metropolitan Board to prepare the scheme, and the authority whose duty it was to adduce evidence on behalf of its confirmation was the very Board which had previously declined to move in the matter. Notwithstanding these anomalies, the necessary facts were elicited, and no doubt can exist in the mind of anyone who heard the evidence, or who had inspected the site, of the urgent need for its improvement. The condition of the houses, the absence of sufficient back space, the impossibility of their ventilation, as well as their faulty arrangement, make it no matter for surprise that disease was rife among the inhabitants. In the four years from 1882 to 1885 the death-rates had ranged from 32·5 to 51·9 per 1000 of population, and an analysis of death-rates led to the same conclusion—that the area was unhealthy in a high degree, and that nothing short of its complete clearance would afford an effectual remedy.

The scheme which the Metropolitan Board have submitted for approval is by no means the best that could be designed. The desire to minimise the cost of the undertaking has, we believe, led them to hinder for many years to come the full changes which are distinctly needed. It is within the province of the Home Secretary to improve the plan proposed, and we trust he will do so with no illiberal hand. The enormous expense to which London is put through outbreaks of infectious disease is perhaps no concern of the Metropolitan Board, but is of vast importance to the ratepayers. To the steps already taken by Mr. LOVETT and the St. Giles's Board of Works is greatly due the freedom from typhus fever which London now enjoys. In past years St. Giles's was again and again the centre from which this disease spread to other parts of the metropolis, and the money spent in improvements of the district has already made ample return in leading to the disappearance of this serious cause of mortality. But this is not all. It must not be forgotten that high rates of general mortality are accompanied by high rates of sickness, and that sickness amongst the poor is attended by increased expenditure in poor relief. The interests of the ratepayers are, therefore, best consulted by the removal of those causes which tend to produce ill-health and its companion, poverty.

It may be hoped that this long-delayed improvement will be speedily carried into effect, and that no desire to lessen its cost will prevent the scheme being made in every sense of the word complete. There is no better investment of public money than that of purchasing health for the inhabitants of this crowded city, and the Metropolitan Board of Works may reckon upon the approval of the more thoughtful of the London taxpayers, if they utilise in the best way the powers with which they are endowed.

SIR RUTHERFORD ALCOCK, in another letter to *The Times*, returns to the subject of the impecuniosity of the London hospitals. This vast metropolis, with its unequalled wealth, its assessable property of £25,363,550, and its ever-increasing luxury, cannot, or rather does not, support its 150 charitable institutions for the treatment and comfort of the sick poor. None of them have yet actually closed their doors, but many have closed some of their wards. The supply of beds is seriously curtailed, and all these institutions are being carried on with a wholly inadequate support and are in a state of chronic insolvency. The great majority of the inhabitants do not subscribe at all—only 100,000 out of 4,000,000, or 2½ per cent. Sir RUTHERFORD ALCOCK does little more than repeat himself and his thesis. He takes occasion to show how unhelpful the critics of his first letter have been. Mr. BURDETT'S evidence that more is raised now than before the establishment of Hospital Sunday does not alter the fact that what is raised is still wholly inadequate and utterly unworthy of the wealth and the charity of London. Mr. BOUSFIELD'S lament of the unsuccess of the provident dispensaries is to little more purpose; and his complaint that Sir RUTHERFORD ALCOCK has too exclusively advocated the collection of unlimited funds for the maintenance of the present unorganised competition of medical charities is sufficiently met by SIR RUTHERFORD'S suggestion in his former letter that a Royal Commission should be appointed to inquire, amongst other things, if any better administration of hospitals can be devised. Sir RUTHERFORD ALCOCK will be readily acquitted of any want of sympathy with wise attempts to organise charity. He is notoriously one of the leading spirits in the Metropolitan Society for the Organisation of Charity. But his perception of the enormous need for hospital beds in a population of over 4,000,000 of people and sense of the depressing inadequacy of the support forthcoming fills his mind, and he is fain to confine himself to this one complaint until it be realised and felt by all classes, the working and the wealthy alike.

Sir RUTHERFORD ALCOCK is not without hope in connexion with the Jubilee. Her Majesty's intention is to devote a considerable amount of what is raised to some charitable object of adequate scope; he thinks the London hospitals in their present distress may well commend themselves to the ever-ready sympathy and consideration of the QUEEN. The London hospitals can only hope to benefit, of course, by money raised in London. But, as we have urged from week to week, no cause can compare with theirs in strength of claim. If this resource should fail and no substantial help should come out of the City parochial charities, nothing remains but a hospital rate, which would, with many objections, have this recommendation that it would make all contribute according to their means to this great object. Still, we trust, for the credit of old English charity, that it will not come to this. Hospitals supported by rates and administered by ratepayers would be very different things from the institutions of which we are all proud. They would be claimed, as of right, by those who

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used them, and by many whose cases were not fit, and all that personal kindness and gratuitous service which we associate with the provision and administration of hospitals in England, would be replaced by paid labour and officialism. They would differ but little from workhouse infirmaries. If this dismal change is to be averted, liberal gifts will have to be made, and made soon. Millionaires could remove the debt of every hospital in London, and leave to their less plethoric fellow-citizens the duty of endowing each approved hospital with a sum that, with current subscriptions, would restore the equilibrium of the finances and the peace of anxious committees. But no time is to be lost. A few leading citizens, a few leading physicians and surgeons, and the treasurers of the great hospitals in co-operation, might even now place this cause in the very front of those events that will make the Jubilee of Queen VICTORIA memorable in all after-time.

PROFESSOR ROMANES made the "Mental Differences between Men and Women" the topic of a lecture recently delivered at the Royal Institution. The views his remarks disclosed are those which must, we fancy, be entertained by every well-informed and unprejudiced observer. Mental differences do exist between men and women, which are not simply the differences between individuals of the two sexes, but of a nature to show that they depend upon the diverse characteristics and purposes of the two classes of organic development. And these differences, when they come to be studied closely, will be found to partake very much of the nature indicated by Professor ROMANES when he hinted that women are gifted with a more acute and facile power of acquisition than men, while they are less able to originate ideas, and therefore not so well qualified to take the lead in intellectual work. Professor ROMANES alluded to the somewhat smaller average weight of the brain in women than in men, the difference being about 5½ oz. The average male encephalon has been said to weigh 49½ oz., while the female average weight has been put at 44 oz. There are, however, very great variations. Of 278 male and 191 female brains, the smallest male weighed 34 oz., while the largest weighed 65 oz. The male encephalon in 170 cases out of the 278 ranged from 46 oz. to 53 oz. The smallest female brain of the total 191 weighed 31 oz., and the largest 56 oz.—that is, 9 oz. less than the weight of the largest male brain. Of 125 brains selected from the 191 female brains, the weight ranged from 41 oz. to 47 oz. So that we may say the average male encephalon weighs from 46 oz. to 53 oz., while the female weighs from 41 oz. to 47 oz. Thus, speaking broadly, it is correct to affirm that the male brain is heavier than the female, and those who, perhaps too hastily, measure the mind by the absolute brain-weight, infer that in its totality the mind of man must be greater than the mind of woman. This, however, leads us to make a remark which we do not remember to have encountered—namely, that as there is very little difference between the proportionate weight of the cerebellum to the cerebrum in the two sexes, the proportion being as 1 to 8¼ in the male and as 1 to 8¼ in the female, there scarcely seems ground to infer from the existence of a smaller brain in woman than in man that she is necessarily inferior in proportional mental powers because it cannot be forgotten that woma average a much smaller organism than man. so far as we are aware, been proved, or eve contended, that a small man with a proportio sized though actually small brain is not intellec good as a larger man with a brain only propor greater in size. We know that it has been the p. to weigh brains without reference to the total w of the bodies with which they were associated, but has always struck us as an unfair proceeding. It wou we believe, have been found to explain most of the di crepancies between actual mind-power and brain-weight which have done violence to the prejudices of those who weighed the understanding solely by the brain, to take into consideration the weight of the whole body. In short, we venture to urge that it is not, in our present state of knowledge at least, a justifiable proceeding to measure the mind by the brain without taking into account the organism of which the brain forms part. It may well be that a small brain in a small body may be equally effective as a mind-organ as a larger brain in a larger body; and it follows that too much importance may be attached to the fact that the average weight of the female brain is less than the average weight of the male brain, because the average weight of the female body as a whole, including the brain, is less than that of the male organism, and it has not yet been shown that the female brain is smaller *proportionally* than the male. We think "the mental differences between men and women" are rather differences of kind than of degree, and this will accord with the inferences of Professor ROMANES, though it may not so closely accord with the facts by which he seeks to support them. There are great differences in mental power and capacity between men and women, and we believe they are of a nature to render impracticable the levelling views and purposes of the promoters of uniformity, but it is not upon such coarse data as those of relative weight that the differentiation of mental power as exhibited by the two sexes can be satisfactorily established or elucidated.

THE nature and mode of action of the poisons of venomous serpents have always attracted considerable attention. The effects of snake-bite are so striking in their rapidity and severity as to stand in great measure apart from other animal poisons. Much was learnt of their constitution by the researches conducted by Drs. FAYRER and BRUNTON in 1872–75, and still more has been added to our knowledge in a monograph by Dr. WEIR MITCHELL and Dr. REICHERT, recently published by the Smithsonian Institute. These researches, although limited to a comparatively few species of snakes, including, however, the most venomous, bear out the view long since advanced by the first named, that snake venom is not simple, but that it contains one or more poisonous substances. In the first place, it must be acknowledged that the poisons are of chemical nature, and not vital or the product of vital action. They do not fall, then, into the class of ptomaines or other alkaloids which are the result of organised vital activity; for although micrococci are described in the fresh venom capable of multiplication, no support is gained to the idea that they have anything at all to do with the

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the spot, and ' The venom is, however, found to yield prepare a sc[illegible]ers which are held in solution, and can be Board pers[illegible]y dialysis into coagulable proteids or globulins, to the Ho[illegible]agulable proteids or peptones. In some venoms In the [illegible]lins are further capable of subdivision according the Ho reaction, but in cobra venom there is only one subse[illegible]n, and a peptone which differs from others in being outc[illegible]lated by prolonged boiling and not being precipitated Bo[illegible]nercuric chloride and absolute alcohol.

th[illegible]Drs. WEIR MITCHELL and REICHERT have submitted to a [illegible]ost careful physiological analysis these different products of snake-poison, and their interesting conclusions deserve to be widely known. The venoms resemble closely the salivary secretions of other vertebrates; and their active principle, which can be maintained in the dried state or in such preserving fluids as glycerine and alcohol, is contained in the fluid part of the venom only. This active principle is divisible, probably in all cases, into two classes of proteids—globulins and peptones—of which the former may consist of several distinct principles. If taken into the stomach during the intervals of digestion the poisons may prove fatal, provided that they contain a sufficient quantity of dialysable peptone, whereas during digestion they are rendered harmless. The chief local antidotes are permanganate of potash, ferric chloride, and tincture of iodine. The venom has a powerful local effect upon the living tissues, inducing more rapid necrotic changes than any other known organic substance. It renders the blood incapable of coagulation, and exerts a local effect on the capillaries, so that extravasation occurs from the vessel walls being unable to resist the normal blood-pressure, those capillaries yielding most which are nearest to the larger bloodvessels, and ligature of vessels lessening the amount of extravasation. The altered condition of the corpuscles, which become soft and spherical and tend to fuse together, is a further aid to the escape of blood into the tissues. Sometimes this extravasation occurs into the substance of organs—as the brain, kidneys, or heart. The effect of the venoms was also carefully noted upon the respiratory and nervous systems and on blood-pressure. They show that changes in the pulse rate following administration of the venom depend upon two antagonistic factors: the one, which excites the accelerator centre, tending to increase the rate; the other, which acts directly upon the heart, tending to diminish it. The variations noted in the arterial pressure were attributable in the main to three causes—viz., depression of the vasomotor centre, depression of the heart, and capillary obstruction. The respirations are primarily increased, and secondarily diminished in frequency; these being again due to the operation of two antagonistic factors—the one an irritation of the periphery of the vagus, the other a depression of the respiratory centre. Death may occur through the paralysis of the respiratory centres, or cardiac paralysis, or hæmorrhages in the medulla, or from the widespread destruction of the red corpuscles. The research clearly proves that the antagonistic and varying physiological effects depend upon the admixture of the separate principles—the globulins and peptones; and comparative study shows that the globulins are the chief agents in the blood-destruction, and in producing changes in the capillary walls; whilst they also act more upon the accelerator centres of the heart, and are therefore responsible for the increase in pulse rate; and, further, they are the chief cardiac depressants and paralysers of the respiratory centres.' In some respects, then, the globulins must be considered as more toxic than the peptones, which, although active in producing œdema and necrosis of tissue, have little power in preventing coagulation or in altering the corpuscles and capillaries; moreover, these constituents act on the blood-pressure, and are the chief factors in increasing the respiration rate by acting on the periphery of the vagi nerves.

The great merit of this research is the demonstration of these distinctions in the constituent poisonous principles, pointing to the differences in the action of different kinds of snake-bite, being explained by the relative predominance of one or other of the constituents. Thus in crotalus venom there is a much greater proportion of globulins than in the cobra venom, which may explain the marked local destructive effects of the former as compared with that of the latter; but the peptone of cobra venom would seem to be more active in proportion than that of the crotalus. The conclusion that, owing to their proteid nature and close relation in composition to the blood, it is almost futile to seek for a chemical antidote—for what would destroy the poison would have a similar action on the blood itself,—is, in spite of its hopelessness, unfortunately in accord with experience. What is required, and what should be sought for, is a physiological antagonist rather than a chemical antidote, and in this direction we may look for research to tend in the future.

THE report of the last Council meeting of the Royal College of Surgeons was unusually interesting from more than one standpoint. In the first place the Council have decided to rescind their former resolution to grant the Fellowship to members of fifteen years' standing without an examination in anatomy and physiology. We have more than once pointed out that such a method of bestowing the Fellowship would tend to deprive this diploma of some of its present academic status; we therefore gladly welcome the determination of the Council not to persevere in this course. The Council offer as their reason for rescinding the resolution the difficulties involved in giving effect to the resolution in the new Charter about to be applied for. Surely this is a very weak and paltry excuse. There could be no difficulty in inserting a clause in the Charter in the sense of the resolution, if the Council chose to do so. A far better reason, we think, exists in the incongruity of instituting a high-class diploma in surgery to promote the science and art of surgery, and then in giving this diploma away wholesale without adequate test examinations, merely for the purpose of increasing the number of Fellows, which was the avowed object of the Council in proposing changes in the existing conditions.

While congratulating the Council on their present change of tactics, we cannot resist the suspicion that the real cause for this rescission lies in the absence of any clear and well-defined policy on the part of the Council, and in their having acted hurriedly. These questions were not well weighed; they were not discussed as part and parcel of a general policy, nor were they submitted to the Fellows and Members previously to being formally and finally discussed in the

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Council. The proposed change was just one of those which could advantageously have been submitted for discussion. Would the Members care for a Fellowship diploma on those grounds? Would Fellows approve of an extended Fellows' list with the avowed object of simply increasing their number? Thus the Council is in the rather undignified position of rescinding a resolution—that is to say, of undoing at one meeting what they had done at a former one. On the other hand, the Members have already publicly declared their unwillingness to accept the Fellows' diploma on the terms offered. This rescinding reminds us of the memorable statement made by the then President at the general meeting of the Fellows and Members in 1884, about Resolutions of the Council which were binding and others which were not binding; and of more recent occasions—as for instance, when the Council decided not to accede to the recommendation of the Association of Fellows to create Honorary Fellows, and then within a few months changed their minds and decided that they would create a new class of Honorary Fellows.

The memorial from teachers in surgery concerning the proposed disposal of the ERASMUS WILSON legacy was referred to the Committee on the Extension of the College Premises. It is to be hoped that this Committee will give way in part on such a question as this. We believe that but a very small minority of the Council are at all strongly in favour of enlarging the present museums. The days of putting up mere "pickles" are past and gone. The interest of museum specimens lies not in their size so much as in a careful examination into their minute structure, their intimate nature, and mode of growth. For such studies as these laboratories are needed rather than more shelf-room for unstudied, and often unintelligible, crude specimens. The College of Surgeons' Museum is at present too much composed of bottle preparations. To spend this legacy in increasing these museum specimens is a waste of money, not justifiable while London, of all capitals in the world, is the only one in which adequate laboratories for scientific work are still unknown and non-existent. We can only hope that the Council of the College of Surgeons will not neglect this chance of helping to put London on an equality with Edinburgh and with foreign capitals in teaching capacity, and of filling a hiatus in the teaching apparatus which is of vital importance to its completeness.

Annotations.

"Ne quid nimis."

DEGREES FOR LONDON MEDICAL STUDENTS.

THE communications laid before the Fellows of the Royal College of Physicians of London, which are referred to in another page, presage a stormy career for the Charter now being drawn up by the two English Colleges conjointly. The Irish Colleges plainly say that they intend to ask for like privileges, and the Scotch Colleges intimate that, contrary to their desires, but as a necessary measure of self-defence, they will be obliged to take a similar step. The University College of Bristol appeals against a residential qualification being included in the terms on which a degree is to be granted, whilst King's and University Colleges have made a formal joint application to be included in the movement, and furnish the Arts and Science Faculties, leaving that in Medicine under the control and management of the two Royal Colleges. The letters from the Bristol College and from King's and University Colleges were referred to the Committee of Delegates, whose next meeting will be held shortly. The two most difficult points in the scheme will then be before them for consideration. Shall residence be a *sine quâ non*, and, if so, for how long a period? Shall the Colleges ask for a purely professional degree, or will they co-operate in forming, and take the initial step in creating, a new and a real University in London? It is difficult to understand the position of the Colleges, in putting into the foreground of their claim the advantages and superiority of clinical teaching and clinical opportunities in London, if some residential period is not insisted on, and this might be for the twelve months preceding the examination for the M.D. degree. We see no reason whatever why every candidate should not be compelled to attend definite courses in clinical subjects in London in order to obtain a London degree, which would be quite a special honour, and differ *in toto* from the mere qualifying titles granted by the Conjoint Examining Board in England. It is evidently clear that University and King's Colleges will go to the Government for a Charter to grant *non*-medical degrees, and that the Councils of those bodies would rather assist the Royal Colleges than be in opposition to them, and we hope that a conference may be held so as to allow a joint action to be pursued. The feeling against a purely professional degree is very strong in medical as well as in outside circles, whereas everyone acquainted with the higher education in London recognises the need for a real Teaching University, of which those Colleges only can constitute the non-medical factors. The opportunity for doing the work which the present University deliberately threw away is once more to the front, and we hope that the occasion for removing a grievance under which the metropolis, alone among great cities, is now suffering will be seized and promptly acted on. The Irish and Scotch Colleges are obviously animated by mere personal considerations. They cannot say for a single moment that Trinity College and the Royal University in Ireland on the one hand, or the Scotch Universities on the other, stand in a position as regards Dublin or Edinburgh students comparable with that in which the University of London places itself in reference to London teachers or London students. The latter is an imperial examining board with a mere habitation only in London; the others are local universities, and a local university is what London asks for, and against its formation no fair contention can be urged.

FEVERS AND FIRES IN BLACKPOOL.

IN his recently issued report on the health of Blackpool Dr. Henry Welch draws the serious attention of the sanitary authority to the want of preparedness on their part to deal properly with cases of infectious diseases by means of isolation. He says that for four years he has vainly endeavoured to persuade them to provide proper accommodation, that the borough is still not one whit nearer its possession, and he fears that nothing but a serious epidemic will awaken the sanitary authority to a sense of its duties in this respect. The advice thus given has been locally received in two very different fashions. The *Blackpool Times* evidently recognises in Dr. Welch the authorised local adviser in such a matter, and by supporting his views it shows that it appreciates the unflinching honesty with which the best interests of the town have been advocated by him. It goes on to remind its readers that Dr. Welch by no means stands alone in condemning the insufficiency of the existing hospital provision. Thus, it quotes Dr. Thorne Thorne, who, in his official report, describes the building as badly situated

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—hidden as it is behind a cemetery,—as faulty in construction, and as so imperfect in its accommodation that the medical practitioners in the town did not feel justified, except under special circumstances, in recommending their patients to resort to it. This was in 1879, but quite recently Dr. Page, also of the Local Government Board, felt it his duty to urge upon the authority the provision of "adequate hospital accommodation for infectious diseases." But the *Blackpool Gazette* adopts a precisely opposite tone. It takes the officer of health seriously to task for the performance of his duty in this matter. It talks of "blatant alarmists"; of the prospects of the season being injured "by the professional alarmists and gadling idlers of the borough"; and, with reference to the possibility of an epidemic, it rejoices in the fact that "we haven't got an epidemic." It then goes on to seek a simile in order to enforce its retrograde views. Noting the reference which Dr. Welch has made to the possibilities of an epidemic, it proceeds to say that the next discovery that will be made will be that "if all the houses in Blackpool took fire at once, the present fire brigade would be unable to cope with the flames." How this most inappropriate simile could have been put forth will surprise all who have the most rudimentary knowledge of the subject under consideration. Neither epidemics nor fires seize upon all houses "at once." Both the medical officer of health and the superintendent of the fire brigade know that epidemics and fires have beginnings, and that in order to prevent those beginnings from becoming wide extensions, over which the authority and their officers will lose all control, it is necessary to have the means for dealing with the first signs of the evil. We can hardly conceive that Blackpool has no sufficient means for extinguishing the ordinary fires to which such a borough is subject, and which, if not checked by efficient means, would end in a widespread and disastrous conflagration; neither do we imagine that the authority are priding themselves on any such unpreparedness, because "we haven't got all the houses on fire at once." But, on the other hand, we do know that they have not the means for properly isolating at the same time the most insignificant number of two or three different infectious fevers, such as every town with a population such as that of Blackpool is always liable to, and which a seaside resort on the Lancashire coast is exceptionally likely to receive; and all that Dr. Welch and others ask for is that, on the basis of the provision made by all sensible people for the prevention of fires, adequate provision should be made for the simultaneous isolation of a few cases in both sexes of the several current infectious fevers, and this without subjecting those who quit their houses for the protection of the public health to the risk of contracting a disease other than that for which they are professedly isolated. Perhaps we shall next be told that these, too, are alarmist views, and that the absence of the needed provision has not been associated with the occurrence of any epidemic. If so, we trust that the simile of fire prevention will still be adhered to, and that the inhabitants will be advised to drop their fire insurances and to trust to some old leaky parish fire-engine, on the ground that there has for years past been no general conflagration in the borough. But, quitting this unfortunate simile, we would remind Blackpool that its credit as a health-resort demands the limited provision which is asked for. The borough is one of those which has adopted the compulsory notification of infectious diseases, and the public naturally imagine that the sanitary authority wanted to know where infection existed in order that they might take the ordinarily received means of staying its spread. As yet this has not been done in the matter of isolation provision, and we would urge that the true interests of the borough—including its financial interests—will be best served by giving heed to the advice of their medical officer of health in this respect.

THE VARIATIONS IN THE SPECIFIC GRAVITY OF THE BLOOD IN HEALTH.

MR. E. LLOYD JONES has lately been investigating this subject, and has adopted, with some modification, the principle of the plan suggested by Professor Roy to determine the specific gravity of the blood. Professor Roy simply introduced a drop of the blood to be examined, taken up by a hypodermic syringe, into a mixture of glycerine and water of known specific gravity, observing whether the blood tended to rise or sink in the solution. Mr. Jones found that a better method was to use a fine glass pipette, the point of which was bent at a right angle. When the point was brought into contact with the blood a small quantity immediately entered the tube, and the point being then introduced into a mixture of glycerine and water of known specific gravity the blood could be blown out horizontally, and its disposition to rise or fall could be instantly seen. About thirty test mixtures of definite specific gravity were used, the conclusions at which Mr. Lloyd Jones, whose paper is contained in the last part of the *Journal of Physiology* (No. 1, 1887), were as follows: The specific gravity of the blood is highest at birth, being at a minimum between the second week and the second year, and rising gradually to a point attained in the male between the ages of thirty-five and forty-five, in the female after the climacteric. Mr. Jones finds, as a rule, the specific gravity of the blood tends to be higher in the male than in the female, and that in the female the child-bearing period is marked by a fall. The specific gravity in the two sexes is probably only the same at the extremes of life. The effect of pregnancy was found to be that the specific gravity of the blood was slightly diminished, though it still remained well within healthy limits. In regard to food, the immediate effect of mixed food is to cause a fall in the specific gravity of the blood; if alcohol were taken this fall was not observed. Exercise, if gentle and not too prolonged, causes a fall in the specific gravity; if perspiration becomes well marked the specific gravity rises, as it does when violent exercise is taken. The conditions of the circulation in the affected part modify the specific gravity of the blood circulating through it. It is always high in a passively congested part. It varies also in different parts of the body. It exhibits a certain diurnal variation, tending to fall during the day and to rise at night.

LONDON WATER-SUPPLIES.

THE report of General A. de C. Scott, the metropolitan water examiner, for the month of January has been issued, and, as the author states, is compiled from information collected under instructions issued by the late water examiner, Sir Francis Bolton. The results of the analysis of the different waters supplied to London will be read with interest. The Thames water supplied by companies from this source was characterised by the large proportion of organic matter present in all cases; in the previous month this pollution was limited to the water of the Grand Junction and Southwark Companies, but in the following month the whole of the Thames-derived waters had become equally affected, samples of the two first-mentioned companies containing finely divided suspended matter, which was found on microscopic examination to contain living organisms. The water drawn from the Lea and distributed by the New River and East London Companies also showed a very marked increase in organic matter as compared with the December samples. The pollution is said to be due to the floods; however this may be, it is no great consolation to London water-drinkers. In a letter appearing in *The Times* of last week, attention is called to the pollution which "is poured into the Upper Thames by the tributary streams which discharge into its

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waters the sewage of towns and villages, the filth of paper-mills and other works, and farmyard drainage." The town of Staines especially discharges all its sewage into the same river in uncomfortable proximity to the intakes of the water companies. The Thames has indeed been described as the natural outlet for sewage, and if this is to be accepted we are compelled also to regard London water-drinkers as the natural consumers of Staines sewage. The purity of London water-supplies calls loudly for improvement; the story of cholera in 1866, spread through water, has been too soon forgotten, and London possesses no organisation or administration which will enable a very definite danger to be seriously considered. It is, indeed, to be feared that some great calamity will be required to bring about a radical change in the sources of London water-supply.

EFFECT OF MASSAGE ON EXHALATION FROM THE LUNGS AND SKIN.

DR. STABROVSKI has published a series of laborious researches made with a view to determine the effect of massage upon the pulmonary and cutaneous exhalation. They were carried out in Professor Manassein's wards in St. Petersburg on fourteen persons, nine of whom were in good health and the remaining five convalescent from various acute diseases. In each case the duration of the observations was ten days, during the first five of which massage was practised. Deep kneading was practised for the first two days, after which the body was washed over with a wet sponge to remove the fatty matter adherent to the surface of the skin. During the next two days deep rubbing was practised, and then the wet sponge used again. On the fifth day deep rubbing with the dry hand was practised. The massage took place at 10 A.M., except in two cases, where it was performed at 7 P.M., with the object of observing its effect on nocturnal perspiration. The sittings were of an hour's duration. The results in the different cases were discordant. In five cases there was an increase in the pulmono-cutaneous exhalation and a diminution in the amount of urine, the increase occurring shortly after the massage, so that when this was practised in the morning the perspiration was increased during the day, but became normal during the night. Similarly the quantity of urine fell during the day and rose again at night. In three cases the massage increased the quantity of urine and diminished the pulmono-cutaneous exhalation. In the remaining six cases both the urine and the pulmono-cutaneous exhalation were increased during the period of massage. The general effect on the pulse was to lower it some ten or fifteen beats. No alteration appeared to be produced in the rate of respiration.

RAT POISONS.

AN inquest was held last week by Mr. Wyatt, the coroner for Camberwell, on the body of a young man who was found dying on his doorstep. The deceased recently lost his situation, and shortly afterwards quarrelled with the young woman to whom he was engaged. He was subsequently heard to remark that he had not a friend in the world, and that he contemplated putting an end to his existence. Dr. Power stated that he had analysed the contents of a box of rat poison found on the deceased, and discovered that it consisted of pure arsenic. There was more than enough to poison the whole street, and it could be purchased by any child at the nearest chemist or oilshop for a penny. The jury returned a verdict of "Suicide whilst in a state of unsound mind," and expressed the usual opinion that the indiscriminate sale of deadly poisons was not desirable, and that it would be as well if something could be done to put a stop to it. We have frequently pointed out that the various rat poisons and rat pastes now so extensively sold afford the public a wonderfully easy means of obtaining in unlimited quantities a selection of poisons without the inconvenience of question or inquiry of any kind. One of these preparations contains arsenic, another is composed of strychnine, whilst a third consists of arsenic, strychnine, and phosphorus combined—in fact, the choice is unlimited.

THE CHARGE AGAINST GUY'S HOSPITAL.

A MOST opportune and striking illustration of the straits to which even our great hospitals are reduced has lately happened. The public is, of course, very much shocked. But what a pity it is that the public was not shocked long since into doing more for the hospitals, and enabling them to provide more beds for patients. The case was that of a poor man who fractured his fibula. He was kept in hospital for the night. A plaster-of-Paris bandage was, after a few hours' rest, applied, forming a splint, and as the bed was wanted for a worse case, the poor fellow was treated as an out-patient and sent home, crutches being supplied to him by the hospital without charge, though the contrary has been alleged. His circumstances were poor and he applied at and was admitted into the Strand Workhouse. It is to be regretted, perhaps, that such a case should have to be sent out of a London hospital so quickly. But, as Dr. Steele points out, it is inevitable, unless the hospitals are better supported. Many fractures of the fibula can be dealt with summarily, as in this case. It is from want of charity that many patients cannot be supplied with a bed. But the authorities cannot put a quart into a pint pot. They must give their beds to the worst cases, and make out-patients of those for whom warmer charity would find a bed. Let the public realise that it is alone responsible for the straitened accommodation of the hospitals, and for this case being sent to a workhouse. Some such fate is likely to threaten all hospital patients unless more men like the founder of Guy's are forthcoming, and that quickly and in considerable numbers.

QUININE IN PNEUMONIA.

AT a recent discussion in the New York Academy of Medicine there was a general consensus of opinion upon the inability of quinine as an antipyretic in the treatment of acute pneumonia (*Boston Medical and Surgical Journal*, March 3rd). The subject was introduced by Dr. J. H. Ripley, who related his experience of the administration of the drug in large doses in cases where the temperature exceeded 108°. In two cases no reduction of temperature occurred; in two there was a slight rise in the temperature. The reduction that it did usually produce never lasted for more than from two to four hours. Not only, then, was quinine to be regarded as feeble and uncertain in antipyretic effect, but it was harmful from disturbing the digestive functions and producing cardiac and nervous depression. In one case opisthotonos was noticed; in many epistaxis; in one marked albuminuria with renal casts. Nor did it shorten the natural course of the disease. Dr. Fruitnight's experience coincided with that of Dr. Ripley; but he prescribed it for its tonic effect in small doses. Dr. Castle found that, if given in antipyretic doses, it must be at the expense of the nutrition of the patient, and during the last five years he had almost entirely abandoned the remedy in pneumonia. Dr. Billington, to obviate gastric disturbance, had given the drug in the form of a suppository. He also had been disappointed in its use as an antipyretic in pneumonia. Dr. Emmett Holt had given as much as sixteen to thirty grains a day to children from one to one and a half year old in cases of pneumonia, and felt that as an antipyretic it was useless in small doses and dangerous in large. Far better results were obtained from the cold pack. He

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had now discarded the drug in acute pneumonia, but found it of marked advantage in convalescence. Dr. A. Jacobi, the President, remarked on the changes in opinion with respect to quinine; he had himself always prescribed from six to twelve grains to children, usually in full dose in two instalments in the morning when the remission occurred. He thought the condition of the stomach in the febrile state accounted for some of the intolerance mentioned, and preferred hypodermic injection of the carbamide. Dr. Ripley, in reply, said that in a large number of cases the quinine had been given hypodermically in the form of strong solution of the muriate; but Dr. Jacobi remarked that it was not safe to use too concentrated a solution for hypodermic injection, and mentioned a case in point.

ANTHRAX IN CHESHIRE.

A SEVERE outbreak of anthrax has occurred in Cheshire. It arose a fortnight ago on a farm in the township of Aston, several cattle, sheep, and pigs having been attacked; and the latest advices prove that the epidemic has by no means abated. The recent order of the Agricultural Department of the Privy Council has been issued none too soon, and the recommendations embodied in it ought to be strictly observed. We were struck by one of the remarks reported to have been made by the secretary of the Cheshire Chamber of Agriculture last week when introducing the fact of the outbreak to the notice of the members. He said that "no one had yet been able to point out the cause of this disease." Now if there is one infective disease the etiology of which is clearly established it is anthrax. The fame of Koch and Pasteur rests largely upon their discoveries in this direction, and the knowledge contributed by pathologists in this country on their investigations upon woolsorters' disease should surely be in the memory of scientific agriculturists. But we may be doing Mr. Rigby an injustice. He may merely have implied that the cause of the particular epidemic was unknown, and therefore the step taken by the Council of the Chamber of Agriculture to ask the Privy Council to send an inspector is to be commended. Isolated cases of anthrax have, we believe, lately occurred in other parts of the country, and it is highly important that no delay should take place in stamping it out.

ITALIAN MEDICAL CONGRESS.

THOSE of the profession who purpose spending their holiday next autumn at the Italian lakes or in the art cities of the Lombardo-Venetian territory might do worse than "enter an appearance" at the Congress of the Associazione Medica Italiana, to be held at Pavia. It will take them but little out of their way, and will, like its recent predecessors at Siena and Perugia, provide them with much that is novel, interesting, and instructive. If they are so minded, they can take part in its proceedings, French or even English being a recognised medium of communication at such gatherings. They will also make acquaintance with not a few celebrities in the healing art and its cognate sciences, who will be glad of an occasion to requite the hospitality which won so many a continental brother at our great International Congress just ten years ago. Full details of the meeting, including the date of its opening, its duration, and an outline of its business, may be had from the secretary of the "Comitato Pavese," now sitting. Pavia, for its own sake, is full of interest. To say nothing of its churches, its palaces, and its far-famed Certosa, rich beyond any other ecclesiastical edifice in Italy in early Renaissance and Roman-Gothic features, it has its university, once the rival of Padua in attractions for English physicians, and immortalised by teachers like Spallanzani, Tissot, Volta, and Scarpa, whose monuments ennoble its spacious courts and grand old library. Its imposing hall, completed in 1845 at a cost of 200,000 fr.; its Teatro Fisico, with statues of Galileo and Cavalieri, and a bust of Volta; its wealth of literature in medicine and physics, embodied in a collection of over 200,000 volumes, are some among the many points of contemporary interest possessed by the Ticinum of antiquity, the "domus paterna" of Cornelius Nepos, the scene of famous deeds under Theodoric, Charlemagne, and Francis I. The congress at which the profession is now invited to assist will be the twelfth of the series, and its working committee are not likely to fail in rendering it worthy of its predecessors and of the historic and scientific associations of its picturesque seat.

SPAYING IN THE STATES.

ON Dec. 2nd, 1886, at the Obstetrical Society of Philadelphia, Dr. Kelly related a case in which he had removed the ovaries and tubes for subinvolution. We cannot do better than give the words of the report in the *American Journal of Obstetrics*:—

"Dr. Kelly considers the indications in this case so well defined and new that he designs making it the subject of a more detailed critical communication. The patient, about thirty-five years of age, had raised five children, but for several years had suffered from constant soreness of the whole hypogastrium, a spot of intense burning pain to the left of the uterus, and a constant dark leucorrhœa. The menstrual congestions greatly increased her symptoms, which were again aggravated by several early abortions. She had been under excellent treatment before coming to Dr. Kelly, and had been carefully treated by him, but with only moderate temporary improvement. Dr. Kelly then decided to stop the menstrual function, with a view to checking the periodical determination of blood to the uterus, and finally bringing about complete involution of the organ. The ovaries and tubes were removed through an incision two inches long. The ovaries were full of pea-sized follicles, and covered with a dense capsule, and were probably (not, however, in consequence of these appearances) diseased. The speaker insisted that the operation here had no reference whatever to any disease which might be found in the appendages, but the sole indication lay in the state of the uterus; the ovaries, whether diseased or not, were removed to correct that trouble. The recovery was as perfect and free from disturbance as any slight injury, and the patient was up in the next room on the fourteenth day, when the uterus was free from tenderness and already rapidly undergoing involution.—Dr. Chas. Meigs Wilson considered oöphorectomy a resort of doubtful propriety as a remedy for metritis; for, as the menopause occurring physiologically would not stop such an inflammation, we would scarcely expect it to be of greater benefit when the result of an operation. He doubted the moral right of exposing the patient to the risks of abdominal section for such a condition."

We refrain from commenting on this case, and prefer to leave our readers to draw their own conclusions.

ITALIAN BEGGARS IN LONDON.

IT seems that the padrone system of importing beggars from Italy having been checked by the combined action of the Italian and English Governments, this device has been superseded by a system of parental emigration with families introduced for the same purpose. There is only one real remedy for this begging system, and that is for the free-handed—we will not say the benevolent, for it is not benevolence to encourage dependence on alms—to steel their soft hearts against entreaties and refuse to give money in the streets. If this were generally done we believe there would be much less real distress. "Begging" is a trade that ought to be starved out of existence, if only because it is a bad one for those engaged in it.

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SCIENTIFIC MEMOIRS BY INDIAN MEDICAL OFFICERS.

WE note with pleasure the appearance of Part II. of the "Scientific Memoirs by Medical Officers of the Army of India," edited by Surgeon-General Simpson, M.D. The volume contains an interesting account by Surg.-Major D. D. Cunningham upon the effects which sometimes follow injection of choleraic comma bacilli into the subcutaneous tissues in guinea-pigs. Three out of five of such experiments were productive of symptoms closely resembling those of cholera, with abundant development of the comma bacilli in the intestine, and also in the peritoneal fluids. Dr. Cunningham's results are suggestive of the possibility of infection other than by the digestive tract, but he would doubtless be the first to admit that the experiments are hardly conclusive. Four papers deal with subjects of botanical and physiological interest. Surgeon-Major Barclay describes the life-history of a new Æcidium on Strobilanthes dalhousianus; and in another paper describes the character of Æcidium urticæ. Surgeon-Major Cunningham records his observations on the Phenomenon of Gaseous Evolution from the flowers of Ottelia alismoides, a plant very abundant in the tanks in and around Calcutta. Surgeon-Major King discusses the Fertilisation of Ficus hispida. Lastly, Surgeon-Major Bomford contributes a note on Eggs of Distoma (Bilharzia) hæmatobium, found in transport cattle, Calcutta. The parasite has never been found in India before, and the affected cattle had not been in Egypt.

JUVENILE INTERMITTENT ALBUMINURIA.

CONSIDERABLE interest attaches to cases of cyclical albuminuria, for their pathology is unknown, and perhaps is different in different cases. The causation of mere intermittency of symptoms generally has not received adequate attention. M. Teissier has collected a fresh series of ten cases of cyclical albuminuria. He lays stress on the following features: A separation of oily matter on the urine, and the presence in it of brilliant bluish or metallic-looking spangles; the absence of true casts, though cylindroids possibly of mucus, and sometimes drops of fat, may be detected with the microscope; the slightness of the subjective symptoms, which may consist of mere vague feelings of malaise, of pain in the back, of weakness, or of pains in the limbs. Neuralgic troubles are rare. There is great nervous excitability or impressionability. Physical examination has never revealed the "bruit de galop." The lowness of arterial tension, which is calculated to be equal to a column of mercury sixteen to seventeen centimetres high, is important as an item in the differential diagnosis of cyclical albuminuria from interstitial nephritis. Dilatation of the stomach was observed in three cases. Three patients had had eczema or urticaria. Neither œdema nor "dead fingers" was noted. Speaking generally, the aspect of the patients is one of good health. The complaint, if such it can be called, is commonly curable; but slight relapses may recur under the influence of fatigue or violent impressions. The age that is most liable to the affection is ten years from puberty onwards; males suffer more than females. Violent exercise and excessive emotional excitement are direct causes. Teissier does not accept the mechanical theory of Bar, nor the theory of disturbance of the glomerular circulation of Magnin. His own view, propounded two years ago at Grenoble, he now believes to be insufficient to explain all the phenomena. A slowing of the combustion of albumens will not explain the presence of fatty matters or the increase of urea in the urine. His present position is to regard the malady as due to over-action of the liver, which is the factory for urea, uric acid, and fatty matters. In treatment the importance of hygiene is very great. These patients are perhaps predestined to become gouty. Shampooing, plenty of fresh air, prohibition of alcohol and white wines, and moderate exercise, are to be prescribed for these young men. Arsenic, inhalations of oxygen, cold baths, bromides and hydrotherapy, tannin, benzoate of soda, &c., are recommended, but especially sweet spirits of nitre, twelve to fifteen drops a day (alcool nitrique); milk eggs, and ham may be eaten, but not fish; thermal waters are good.

THE ERASMUS WILSON BEQUEST.

OUR contemporary, the *Glasgow Herald* of the 16th inst., contains the account of an anti-vivisectionist meeting recently held in Edinburgh. The object of this meeting was "to consider the memorial recently presented to the Royal College of Surgeons praying that the bequest by Sir Erasmus Wilson should be devoted to the foundation of an institution for physiological and pathological research." We have already referred to this petition and to sundry comments by anti-vivisectionists which the petition has called forth. We should prefer to let the matter rest here, were it not that the mover of a resolution stoops to deliberate misrepresentation when he says that "the proposed institution would simply be an institution where from week to week men would follow *no other pursuit than experimenting upon living animals*." (The italics are our own.) Such a statement made concerning members of the medical profession and the managing body of the Royal College of Surgeons is simply a libel. There is not a tittle of evidence in support of such a statement—a statement which betrays profound ignorance of scientific research and the modes in which it is conducted, and exhibits an exaggeration in tone which can only be regretted.

WHAT WAS THE CAUSE OF DEATH?

A CURIOUS case has recently been investigated by the coroner at Cardiff. It appears that a lad named James Dunscombe, aged seven, was taken ill on March 7th, 1887, and died in about twenty hours. His symptoms were chiefly of a convulsive nature, but there was also some vomiting and pain at the stomach. The spasms were of a tonic character. There were marked remissions, but according to the report there were no intermissions. This, taken in conjunction with the fact that deceased lived for the greater part of a day after his first seizure, seems pretty conclusive that the illness was not due to strychnia poisoning. Unless an enormously large dose of strychnia has been taken so as to cause the spasms to follow one another so rapidly as to appear almost continuous, there are well-marked intermissions; and if the dose is large death ensues in a correspondingly short period. Moreover, in this case there was not a tittle of evidence to show that deceased had taken anything which could have contained strychnia; and lastly, an analysis of the contents of the stomach failed to detect the alkaloid. It is said a trace of lead was found in the walls of the stomach; but the analyst evidently thought the quantity too minute to account for the attack of spasms. We do not know whether it was suggested that deceased might have succumbed to saturnine epilepsy from chronic lead poisoning; if so, we should have thought that some mention would have been made of the gums and the muscular coat of the intestine. It could scarcely be contended that the case was one of acute lead poisoning. Were the spasms due to tetanus? They were quite consistent with such a hypothesis, but then no wound of any kind could be discovered. Nevertheless, we are not disposed altogether to discard the theory, for the solution of continuity may be extremely small and hidden away in some recess of a mucous membrane, so that nothing short of a

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minute and exhaustive search might succeed in finding it. We are much more inclined to acknowledge tetanus as the explanation of the symptoms than strychnia poisoning. There seems to have been no ground to suspect hydrophobia. It is just possible that the phenomena presented were due to the onset of some specific fever. In one instance we can recall a somewhat similar condition obtained in typhoid fever. To sum up, then, we conclude that the facts as presented fit in better with the theory of tetanus than any other. It is curious that two other children of the same family succumbed to convulsions, one of them dying from hydrophobia. We agree with the opinion of the medical man, who said at the inquest there might be a family tendency to convulsions, in the sense of instability of the reflex centres.

TYPHOID FEVER IN MELBOURNE.

IN an address delivered before the Medical Society of Victoria, Dr. James Jamieson, health officer of Melbourne, drew attention to the comparative prevalence of typhoid fever in that city and suburbs, and the causes of it. He pointed out that whereas in England the fever mortality had greatly and steadily diminished—viz., from 17,910 in 1870 to 7978 in 1883, in Victoria there had been no apparent diminution, even taking into account the increase of population, the average annual mortality of the five years 1871-75 being 360, and that of 1881-85 being 473. He also pointed out that the mortality in Melbourne from fever was much higher than in other parts of the colony; whereas in England the rate in the twenty chief towns is less than in the rural districts. Discussing the various etiological conditions, he dwelt first upon the water-supply of Melbourne, and showed that it could not be charged with the propagation of the disease. Nor was he able to trace during 1886 any cases due to infection of the milk-supply. As to direct contagion, isolated cases occurred, but not sufficient to account for the great and continued prevalence of the disease. He next discussed the influence of the pan system of night-soil collection and removal, which is carried on in Melbourne; and although doubtless accompanied by considerable risk, as well as discomfort, he was unable to adduce positive proof of its being a source of contamination. Lastly, he adduced the imperfection of drainage as the most important of all the conditions to which the prevalence of typhoid fever could be attributed; and gave instances in which this defect in sanitation was responsible for outbreaks of the disease. He quoted the experience of European cities as showing the efficacy of improved drainage in diminishing the mortality from typhoid fever; and contended that what Melbourne needs is a complete system of drainage, which should not merely carry off storm-waters and lessen subsoil dampness, but be utilised for the rapid and complete removal of excrementitious matters. He advocated the formation of a metropolitan board of works empowered to carry out this great and much-needed improvement, in the realisation of which the chief difficulty was one of finance. We are glad to note these opinions of Dr. Jamieson, and trust he will succeed in convincing the inhabitants of Melbourne of the need and importance of the sanitation he advocates.

THE CARRIAGE-TAX.

THE carriage-tax in its present form has few friends in the north of England, especially at Newcastle-on-Tyne, which is in some respects the headquarters of an agitation against its continuance, and, notwithstanding the unfavourable reply of Mr. Goschen to the late deputation, very strong pressure has been put on the northern members of Parliament by the profession there in prospect of the forthcoming budget, with a view to the modification of the tax.

THE APOTHECARIES' HALL OF IRELAND AND THE KING AND QUEEN'S COLLEGE OF PHYSICIANS.

THE King and Queen's College of Physicians in Ireland has published a statement in reply to the request of the General Medical Council that the College should reconsider the Conjoint Scheme for Ireland, with a view to admitting the Apothecaries' Hall, Dublin, to take part therein. In this statement the history of the apothecaries in Ireland is traced minutely, and it is maintained that by law their functions originally had strict reference to the preparing of drugs, inspecting and directing chemical and compound preparations and experiments, and the examination of persons wishing to become apprentices to and learn the business of apothecaries. Contrary to the opinion of Sir Richard Bethell in 1860, it is maintained by the College that there is no analogy between the Hall in Dublin and the Apothecaries' Society in London. Two or three points, however, in the other direction are admitted. It is allowed that the Army, Navy, and Local Government Board recognise the certificates of the Hall, and that there are some practitioners in Ireland holding no other qualification than that of the Apothecaries' Hall, Dublin. In the final result the King and Queen's College say that the Medical Council should decline to appoint assessor examiners to the Apothecaries' Hall, Dublin, and they (the President and Fellows) have no option but to adhere to their resolution to exclude the Hall; and they add that, if an inferior and low grade of practitioners is created and perpetuated, the responsibility will rest with the General Medical Council, and not with the King and Queen's College of Physicians.

INEQUALITY OF THE PUPILS IN HEALTH.

DR. G. T. IVANOFF, referring to some observations by Dr. Pasternatski on the inequality of the pupils in internal diseases (see THE LANCET, Jan. 15th, 1887), communicates to the *Vrach* (No. 7) the notes of a series of observations made by himself in 1885 on a number of healthy subjects, which show that inequality of pupils is a very usual condition when no disease at all is present. Of 134 persons the pupils were equal in 12; the left being the larger in 73, and the right the larger in 49. In these persons the two sides of the face were also carefully measured, with the following results: Of the 12 with equal pupils, the two sides of the face were equal in 3; the right side being the larger in 5, the left in 4. In all the 122 cases where the pupils were unequal the two sides of the face were also unequal; the right being the larger in 27, and the left in 95.

HEALTH OF CALCUTTA.

THE report of the health officer for the fourth quarter of 1886 shows the deaths in Calcutta to have amounted to 3829, which would give an annual ratio of 35·23 per 1000. This is under the average of the preceding decades, in only four years of which has the number of deaths been lower. The returns show a considerable reduction in the deaths by fevers and by dysentery and diarrhœa, but there has been unfortunately a considerable increase in those by cholera, which amounted to 942, as against an average of 383. This disease, which had been prevailing during the third quarter of the year, reached its highest number of deaths in the last week of November, since which date it has continued steadily to decline. Dr. Simpson points out two important facts in connexion with its prevalence in particular localities. "First, a large grouping took place around tanks; and, secondly, most of the cases took place in those localities where there was great scarcity of water"—that is, we presume, water fit for drinking. The water in the tanks of the Bustees was "very foul." He also again calls attention

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to the necessity for an amended Municipal Bill, with power to enforce "building regulations which will effectually prevent huts and houses being built irrespective of ventilation, drainage, air space, and means of scavenging." We are glad to learn that the Sanitary Commissioners have sanctioned the formation of the nucleus of a sanitary staff, by which inquiries may be made, under the direction of the health officer, into all cases of cholera, small-pox, typhoid fever, and other preventable disease, with a view to appropriate measures being adopted to arrest their spread.

THE MARQUIS OF SALISBURY.

RUMOUR has much exaggerated the recent illness of the Right Hon. the Marquis of Salisbury. The noble Premier has been suffering simply from the annoyance and feverish depression arising from an attack of what in ordinary parlance would be termed a severe cold in the head. Bronchitis has been mentioned in connexion with his illness. We are, however, able to state that no symptoms of this affection have been present. It is true that Sir William Jenner was in attendance; but merely, we would suggest, to enforce that rest from onerous and responsible duties so necessary, yet so difficult, to be obtained by one in the exalted position of his noble patient.

THE INTERNATIONAL MEDICAL CONGRESS.

THE programme of the proceedings of the Congress will not be completed till after the meeting at Chicago, in June, but it is expected that one of the general addresses will be delivered by Dr. Semmola of Naples, and another by Professor Austin Flint. Communications are expected amongst others from the following gentlemen:—Great Britain: Dr. W. Dunnett Spanton, Dr. Julius Althaus, Dr. W. M. Whitmarsh, Mr. Edmund Owen, Dr. R. Norris Wolfenden, Dr. Sidney H. C. Martin, Mr. Lawson Tait, Mr. Henry Power, Dr. Samuel Benton, Dr. W. Macewen, Dr. G. Feilding Blandford, and Dr. Geo. H. Savage. Ireland: Dr. Thos. More Madden. France: Dr. E. Landolt, Dr. P. Menière, Dr. M. C. Marquis Nadaillac, Professor Dr. A. Charpentier, Dr. J. Ameda-Doleris, Dr. Victor Aud'houi, and Dr. Max Durand Fardel. Germany: Professor Dr. Hegar, Professor Dr. Gusserow, Dr. A. Oldendorff, Dr. L. Lewin, and Dr. J. Veit. Hungary: Professor Joseph Korosi. Austria: Professor Dr. Gustav Braun, Professor Dr. E. H. Kisch, and Dr. Emil Ehrendorfer. Belgium: Dr. Alf. Struebens. Switzerland: Dr. A. Cordes. Canada: Dr. Daniel Clark and Dr. MacCullum. Italy: Dr. Luigi Casiti and Dr. Domenico Perruzzi. We cordially wish the Congress every success.

PARA-MYOCLONUS MULTIPLEX.

DR. HELSINGFORS has described a case of this unfamiliar affection. It occurred in a man aged forty-five, whose father was an inveterate toper. The disease began at the age of sixteen, one year after the patient had had an attack of malarial fever. A convulsive attack, apparently caused by a severe fright, was attended with loss of consciousness. The day afterwards his thighs were the seat of involuntary shocks, often followed by movements in the thighs, later in the arms, and rarely in the face. Ever since that time the shocks had continued, varying a little in frequency and intensity, without, however, disappearing for a long time together, and of late they had increased in frequency and intensity. Movement, emotions, and fatigue increased the movements. Small doses of brandy lessened the shocks, but inebriety might lead to a convulsive seizure and to augmentation of the chronic affection. His general health is said to have continued good all through, and he has never had any pains. Contractions of the facial muscles were observed, especially about the mouth. The chief muscles affected in the arms were the long supinator, biceps, triceps, deltoid, and carpal extensors. The shock extended throughout the whole muscle, and was often followed by a corresponding movement. The muscular contractions were often isolated; sometimes an irregular series of arhythmical contractions were to be observed in the same muscle. The intensity and frequency of repetition of the contractions were rather variable; a common interval was fifteen to twenty seconds. The contractions might be symmetrical without necessarily being isochronous. The movements did not interfere with the manual movements; he could write without trouble. Similar kinds of movements were noted in the muscles of the thigh. Attempts to evoke the ankle clonus were very efficient in calling forth movements in the thigh muscles. The diaphragm, as well as the face, was the seat of the spasms. The case differs from those recorded by Friedreich, Lowenfeld, Remak, and Marie in the last-mentioned facts, and, as in Seeligmuller's case, voluntary movements favoured the occurrence of the involuntary contractions. The knee-jerks were exaggerated in most cases, but diminished in the one now mentioned. The hypothesis of Friedreich supposed the motor cells of the spinal horns to be the seat of a hyper-excitability—a supposition which is so obvious as to be of no pathological value. We want to know why these nervous centres overact.

HALIFAX SUB-TOWNSHIPS AND THEIR MEDICAL OFFICER OF HEALTH.

AN effort is being made to break up the combination around Halifax for which Dr. Britton has hitherto acted as medical officer of health. At a public inquiry conducted by Mr. G. Kennedy and Dr. Frederick Barry, inspectors of the Local Government Board, Dr. Barry opened the proceedings by giving a summary of the advantages of combination over a large number of local appointments of medical men engaged in practice. The relative advantages of the two systems were considered in THE LANCET of Jan. 24th, 1885, and we have since then seen no reason to alter our opinion on the subject. In this special case, even those who advocated a break-up of the existing system had no complaint as to the manner in which Dr. Britton had performed his duties; and his supporters were strongly in favour of continuing the combination. We should much regret any alteration, for the simple reason that we do not believe a change can, in this instance, result in increased efficiency. Unfortunately, the proceedings at the inquiry were of a character not calculated to favour the views of the central authority, and many of those engaged in it came into open conflict with Mr. Kennedy, with the result that language was used on both sides which will not tend to a satisfactory settlement.

NURSING IN WORKHOUSE INFIRMARIES.

MR. SAMUEL BENTON lately read a paper on "Nursing in Workhouse Infirmaries" to the members of the Hospitals Association. It is a subject which requires constant attention. The conclusions he arrived at, and the soundness of which cannot be questioned, were as follows:—

1. The matron should be a lady and a trained nurse. 2. In building these infirmaries more accommodation ought to be provided for the nursing staff. 3. There should always be probationary nurses in training (at all events in the large infirmaries) to fill up vacancies as they occur. 4. The large infirmary and workhouse maternity wards ought to be thrown open for the training of midwives. 5. Every encouragement should be given by the guardians to the medical officers to instruct the nurses and interest them in their work by means of lectures and classes.

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THE PRESIDENCY OF THE ROYAL COLLEGE OF PHYSICIANS.

THE day for the annual election of a President by the Fellows of the Royal College of Physicians will shortly come round (Monday, April 4th). If there were any doubt on the last occasion as to who might be chosen to occupy the presidential chair, there can be none now. In the minds of some the habit of not re-electing the President beyond a term of five years had almost come to be regarded as an established rule. But happily that custom was broken through last year, and the precedents of earlier years in the history of the College were followed when by so large a vote the Fellows declared that Sir W. Jenner should form an exception to the rule. Once more they may be trusted to signify their approval of his services to the profession by extending still further his term of office.

MANCHESTER CENTRAL MEDICAL SOCIETY.

THE first annual report of this Society has just been published, and the record of success which it contains seems to prove that such a Society was, as anticipated by its promoters, required by the profession in Manchester and its vicinity. Formerly there was but one medical society in the city, and it was felt that this, for so large a number of professional men, was inadequate; that there must be many valuable experiences lost for want of opportunity to bring them forward; and that there was ample room for a society founded somewhat on the lines of the Clinical Society of London, in which subjects of immediate interest to the medical practitioner might be dealt with, discussions raised on diseases more frequently met with in private practice than in hospitals, and on the use of new drugs. The members number about 120. The library and reading-room have been throughout the year extensively used, and the meetings of the Society well attended. The permanent rooms of the Society are at the Victoria Hotel, Manchester, where many other scientific societies also hold their meetings.

DIPHTHERIA IN YORK TOWN.

THE Sanitary Authority of Frimley are not yet free from anxiety concerning diphtheria in their district. Four more cases of this disease have occurred in York Town, two of which have proved fatal. At a meeting of the board held last week the clerk was instructed to write to the Local Government Board, stating that the authority wanted a report on the recent outbreak, as the district was still threatened with diphtheria. It is, however, no matter for surprise that further cases of diphtheria have occurred in a district in which this disease was freely disseminated a few months ago; the opportunity for its development will likely enough be given by some of the earlier cases. The sanitary authority can hardly expect that the Local Government Board are prepared to issue a report at a short notice on a matter which requires much consideration.

MEDICAL MISSIONARY INSTITUTIONS IN LONDON.

THE March number of *Medical Missions* gives an illustrated paper on the medical missionary dispensaries at present existing in London. The St. Giles's Medical Mission in Endell-street deals annually with some 5000 persons; the Bethnal-green Medical Mission receives upwards of 400 persons in its hospital and treats about 6000 in its dispensary; the Marylebone Medical Mission in Edgware-road relieves about 4000; the Stepney Medical Mission (which is associated with Mr. Barnardo's work) relieves about 2500; the Clapham-road Mission is confined to women and children, and its staff consists of two qualified ladies, who attend about 3000 persons annually; the Mildmay Mission in Cannon-street, Whitechapel, is limited to the Jews, of whom it relieves annually about 5000, or one-tenth of the whole Jewish population of London. These six medical missions, then, relieve some 25,000 persons annually, and thus probably save other hospitals and parochial medical officers a large amount of labour without trenching upon the province of the general practitioner to any appreciable extent, for the patients who are attended either in the Mission dispensaries or at their own homes are almost always miserably poor—often, indeed, in want of the necessaries of life.

THE CLIMATOLOGY OF SPAIN.

IN a paper read before the Academy of Medicine in Madrid on change of climate in the treatment of disease as met with in that city, Dr. Don Iglesias y Díaz, referring to cases of chronic bronchitis with or without tubercle, and various pulmonary affections which, he said, were very intractable in the changeable winter climate of Madrid, mentioned as suitable localities Alicante, Valencia, Murcia, and Cartagena in the east, and Malaga and its surrounding district in the south. While in Madrid the mean annual temperature is about 57° F., and the difference between the maximum and minimum temperatures 95°, the mean temperature in Valencia is 62·6° F., in Alicante 64·4° F., and in Cartagena and Malaga 66·2° F., the variations in all these places being also very much less than in Madrid. The driest localities where there are fewest fogs and least rain are the districts round Cartagena, Alicante, and Elche; then come Murcia, the south of Valencia, and parts of Andalusia; while most of the west and north coasts are damp, and Bilbao and Santiago de Compostella extremely so, the aqueous vapour there having a tension varying from 1000 to 2000 millimetres. For dyspeptics Don Iglesias recommended the southern shore of the Bay of Biscay, where the air is cool and moist.

PROFESSOR POLITZER.

THE old pupils and friends of Professor Adam Politzer have arranged to present him with his portrait as a memento of his great services to aural surgery during the twenty-five years he has been teaching at the University of Vienna. The presentation will take place at the meeting of the Otological Association, in Vienna, at Easter. The subscription (8s.) may be sent to any of the committee: Professor Vittorio Crazzi (Florence), Dr. Antonin Joly (Lyons), Dr. Eugen Morpargo (Trieste), Dr. E. Pius (Vienna), Professor Urban Pritchard (London), Dr. F. Rohrer (Zurich), Dr. A. Rühlman (St. Petersburg).

DIABETIC COMA.

THE latest interpretation of the phenomena of diabetic coma has been to attribute them to poisoning by acids formed within the system, probably from the glucose. It may be remembered that Dr. Ralfe developed this idea at the Pathological Society nearly five years ago, basing his statements upon the similarity in symptoms to those of acute yellow atrophy and poisoning by organic acids, and upon the presence of aceto-acetic acid in the urine. Acetonæmia, then, would be only one link in the chain of processes inducing diabetic coma. But since experimentally neither acetone nor aceto-acetic acid have been found competent to produce phenomena analogous to those of diabetic coma, the way was still open to the discovery of other acid products which should have a toxic effect. This seems to have been supplied by Stadelmann and others in the detection of oxybutyric acid and the determination of greatly decreased alkalinity of the blood. M. Lépine (*Rev. de Méd.*, March, 1887) discusses this ques-

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tion and relates a case in which, in accordance with Stadelmann's views, diabetic coma was treated by intravenous injections of alkaline fluid—viz., bicarbonate of soda 34 grms., chloride of sodium 8 grms., water 1½ litre. Intravenous saline injection has, it may be remarked, been practised before in diabetes on other grounds—notably by the late Dr. Hilton Fagge and by Dr. F. Taylor (see Guy's Hospital Reports, 1881), but with no more benefit than in M. Lépine's case. At the same time, the alkaline treatment of diabetes is justified, according to M. Lépine, not so much because of neutralisation of free acid in the blood, since mere neutralisation will not annul the toxic action of the acid, but on the ground that alkaline injections may assist in breaking up the acids and in favouring their elimination. In the case related he found that oxybutyric acid disappeared from the urine after the injections. Prior to the measure, both the blood and urine yielded this acid in parallel amount. Of course, as he remarks, to prevent the accumulation of the poison in the system is not everything; a way may be found some day to prevent its formation.

THE EMPEROR WILLIAM AND HIS PHYSICIAN.

ON the eightieth birthday of the German Emperor, Dr. von Lauer, his Majesty's medical attendant, received the title of "Excellency" and a gift of 150,000 marks. On the 22nd inst., on the occasion of his illustrious patient's ninetieth birthday he is stated to have received 300,000 marks. The post which Dr. von Lauer occupies is far from being a sinecure, and it is pleasing to note that at a period of national rejoicing his skill and care have neither been unnoticed nor unrewarded.

THE LONDON HOSPITAL.

THE main question of the dispute at the London Hospital to which we alluded last week had its origin, we understand, in a difference of opinion between two bodies of the students—that is to say, between those who have entered the full college course of lectures and hospital and those who have entered as full students of the hospital *only*, the former claiming a precedence in the holding of resident appointments, and the latter asserting equal rights in this respect. The matter has now been referred to a college board, who will decide as regards existing rights as expressed in the wording of the prospectus.

EFFUSION OF BLOOD INTO THE KNEE-JOINT.

DR. BONDESEN, writing of the results of treating effusion of blood into the knee-joint with and without puncture of the joint, as shown by the records of the Copenhagen Communal Hospital for the last twenty years, during which 119 cases of the kind have been admitted, states that the percentage of complete cures was eighty-six in the cases punctured, against sixty-three in those not operated on; and, further, that the average stay in hospital of the former class of cases was twenty-two days, against an average stay of thirty-eight days on the part of the others. He considers the best practice is to puncture in all cases, and, if necessary, to lay open the joint, using of course antiseptic precautions.

DEATHS OF EMINENT FOREIGN MEDICAL AND SCIENTIFIC MEN.

THE deaths of the following foreign medical and scientific men are announced:—Dr. Adrian Segura, Professor of Pathology in the Medical School of Mexico, and Director of the Hospital of San Pablo in that city. Dr. Metardier of Bordeaux, author of various works on Hygiene and of Reports on Epidemics, especially on the Cholera in Spain, which he studied carefully on the spot.

THE JAPANESE PHARMACOPŒIA.

THE new Japanese Pharmacopœia has just appeared, and it is hoped that an end will now be put to the inconveniences which have hitherto existed in Japan of there being no official standard for medicines. The chemists obtain their drugs from America, England, France, and Germany, and as the preparations vary considerably in strength, all kinds of confusion arose. The new Pharmacopœia was undertaken some twelve years ago, and in 1880 a commission was appointed by the Government to carry out the work. This commission has held 155 sittings. It was found advisable to write the text of the Pharmacopœia originally in German, that being the language most generally understood by the members of the committee. The official text is, however, Japanese, and there is also a Latin translation. The number of preparations is 475, which are named first in Japanese and then in Latin. The general character of the work is similar to that of the English and German Pharmacopœias.

THE NEW M.D. DEGREE FOR LONDON MEDICAL STUDENTS.

A CROWDED meeting was held at the Westminster Hospital Medical School on Tuesday last, at which Mr. Macnamara occupied the chair. Mr. F. J. Simson proposed, and Mr. A. S. Gubb seconded, a resolution supporting the scheme of the Conjoint Board. The chairman, Dr. De Havilland Hall, and Mr. Black also spoke in favour of the resolution, which was carried with only three dissentients.

THE NAVAL MEDICAL SERVICE.

THE course of instruction at Haslar Hospital for the surgeons who entered the Navy in February last was opened on the 10th inst. by Sir J. Watt Reid, K.C.B., the Director-General of the Medical Department, in the presence of a distinguished company. The proceedings on the occasion will be noticed more fully in our next issue.

CHOLERA PRECAUTIONS.

IN furtherance of the efforts of the Local Government Board to secure adequate preparations against the entrance into this country of cholera by sea routes, an inquiry was held last week at Bangor to consider the proposition to erect a small hospital on Puffin Island, at the entrance to the Menai Straits. Curiously enough, opposition came from such watering-places as Beaumaris, Penmaenmawr, Llanfairfechan, and Llandudno, the places of all others that should seek to assist in proceedings directed against the importation of sea-borne infection.

FOREIGN UNIVERSITY INTELLIGENCE.

Erlangen.—The names selected for the chair of Midwifery with the post of Director of the Lying-in Institution are Dr. Frommel of Munich, Dr. Pawlik of Vienna, and Dr. Sänger of Leipsig.

Kharkoff. — Dr. M. Lomikovski has been appointed Extraordinary Professor of Medical Diagnosis; Dr. Podres, Extraordinary Professor of Surgery; and Dr. P. Iassinsky, Extraordinary Professor of Midwifery and Gynæcology.

Leipsig.—Professor Zweifel of Erlangen has been appointed to the chair of Midwifery and to the post of Director of the Lying-in Institution.

ON the 18th inst. the Carlisle medical officer of health reported to the sanitary authority that an outbreak of typhoid fever had taken place through infected milk. Every precaution has been used to prevent the spread of the infection.

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THE Port Said Hospital for Seamen has been erected on the new site near the lighthouse, a medical officer and nurses have been selected, and Lady Strangford goes to Egypt to inaugurate it before May. A sufficient sum to commence working has been guaranteed by the members of the committee, and the Princess of Wales has contributed £500 from a fund under her control.

THE Swedish Government has authorised the appointment of a medical officer to all the higher grade schools for the purpose of watching over the health of the pupils and the hygienic condition of the school. His salary is to be from about £6 to £9, with a capitation fee of about 1*s.* 1*d.* on each pupil.

ON the 23rd inst. the Glasgow University Court appointed out of a number of applicants the following gentlemen:—Botany: George Murray, London. Natural History: R. E. C. Leith, M.A., B.Sc., M.B., Edinburgh. Chemistry: J. J. Dobbie, M.D.Sc., Bangor. Materia Medica: Wm. Whitla, M.D., Belfast.

THE Darlington School Board have ordered their schools to be closed for a time with a view to check the prevalence of measles and scarlet fever in the town.

JOHN TYNDALL, LL.D., F.R.S., has resigned his position as Professor of Natural Philosophy at the Royal Institution, which he has held since 1853.

WE are asked to state that the meeting of the Harveian Society announced to take place on April 7th is unavoidably postponed.

THE next meeting of the Clinical Society will be held on April 1st, instead of the 8th, the latter day being Good Friday.

Pharmacology and Therapeutics.

TINCTURE OF STROPHANTHUS.

FEW drugs have sprung more rapidly into favour than the African arrow poison strophanthus. It was introduced to the notice of the profession by the distinguished pharmacologist, Dr. T. R. Fraser, Professor of Materia Medica in the University of Edinburgh, who for fifteen years laboriously investigated its action both on man and the lower animals. It is now recognised as being not only a powerful heart tonic, but a most active diuretic. It is gradually replacing digitalis in popularity, and will in all probability in time entirely supersede it. It is not cumulative, and is especially indicated in all cases of cardiac affection attended with dropsy. It not only quiets the pulse, but by acting on the kidneys relieves the œdema and other attendant symptoms. It has also been found useful in purely functional irregularity. For a long time a difficulty was experienced in obtaining a thoroughly trustworthy preparation, but Messrs. Burroughs, Wellcome, and Co. have recently made a 1 in 20 alcoholic solution which answers every purpose. This new tincture has been submitted to Prof. Fraser, who, after a careful examination and subjecting it to various tests, found that it answered his requirements. The dose is from two to ten minims, and no hesitation need be felt in pushing it in suitable cases. It is made on a very large scale, some hundredweight or more being manipulated at a time, so that absolute uniformity of product can be guaranteed. The seeds alone are used, the husk and other parts being rejected. We have examined a specimen of the crude drug from which it is prepared, and have no hesitation in saying that it is the true species. The price of the tincture has been recently reduced, so that there is every prospect of its commanding a very extensive trial.

HOGG'S COCAINE TABLETS.

Messrs. R. Hogg and Son, Pharmaceutical Chemists, of 1, Southwick-street, W., have sent us specimens of their cocaine tablets containing one-twelfth of a grain in each. They are active, but are somewhat hard and unpalatable. For the treatment of affections of the mouth or throat, they would, we think, be improved by being prepared with a softer basis.

SALOL IN MEDICAL AND SURGICAL PRACTICE.

Salol has recently been extensively used in the Jewish hospital, Berlin, both in the medical and surgical wards. The *Therapeutische Monatsheft* publishes two papers on the subject from the pens of Drs. S. Rosenberg and L. Feilchenfeld. The former gives an account of the effect of the drug in acute rheumatism. He employed it at first in 15-grain doses six or eight times a day. In almost all the cases this had the effect of bringing down the fever and relieving the pain in the joints in from twenty-four to forty-eight hours. The number of doses was then reduced to from five to two per diem. The continuation of the treatment did not, however, appear to prevent the occurrence of complications, as peri- and endo-carditis and pleurisy; sometimes also singing in the ears, sweats, nausea, and vomiting occurred, and carboluria was always present for a time. The digestive organs were never affected for any prolonged period. Dr. Rosenberg thinks salol acts as a kind of "masked salicyl," being insoluble in the gastric juice, and thus having but little effect on the stomach. It does not, he says, decompose into phenol and salicylic acid until the pancreatic juice acts upon it in the duodenum. Notwithstanding its general advantages over salicylic acid, the latter should be used in very severe cases and when there are repeated relapses. Dr. Feilchenfeld employed salol in various surgical cases, both internally and as an external application. In cystitis and pyelitis he gave two or three 15-grain doses per diem with excellent results, and with little in the way of disagreeable symptoms beyond a green colouration of the urine of no particular moment. Externally salol was found very useful in ulcers of various kinds, and notably in a very obstinate case of bubo consequent upon a soft chancre, which had been operated on and treated with the strongest caustics without showing any disposition to heal. Salol, however, rapidly produced a change for the better, and cicatrisation soon occurred.

MYRTOL.

Myrtol is obtained from the distillation of the leaves of the myrtle; it is a liquid possessing the characteristic perfume of the plant. It is of less density than water, evaporates at the ordinary temperature, stains paper, but the stains disappear entirely. It has a warm, slightly acrid taste, soon followed by a sensation of freshness. It is said to be an excellent disinfectant and an energetic antiseptic, to stimulate the digestive functions, and to increase the appetite. In moderate doses myrtol acts as a sedative to the nervous system. It is eliminated by the respiratory and urinary passages. Myrtol appears to have the advantage over the balsams of not upsetting the stomach, thereby enabling it to be employed for a long time without leading to objectionable effects—e.g., dyspepsia. M. Linaris has had globules of myrtol prepared, each containing fifteen centigrammes of the pure liquid. The remedy does not appear to cause the same effects at all periods of diseases of the respiratory passages. In order to obtain the best results it should be employed with a view to combating subacute or chronic catarrhal affections, or it may be given at the termination of an acute attack of bronchitis when the fever has subsided. Another indication for its employment is an abundant opaque muco-purulent secretion. In these cases the secretion is diminished and rendered less purulent. M. Linaris has employed myrtol in chronic fetid bronchitis, catarrhal bronchitis, catarrhal asthma with paroxysmal attacks and palpitations, capillary bronchitis, and dilated bronchi. The average daily dose was six of the globules; they should be taken after meals: two in the morning, two in the daytime, and two at eventide.

SACCHARINE IN DIABETES.

Dr. Arnold Pollatschek of Carlsbad writes in a Hungarian journal on the importance of Fahlberg's saccharine or anhydro-ortho-sulphamide-benzoïc acid, as Stutzer calls it. Dr. Pollatschek quite agrees with Stutzer, Aducco and Mosso of Turin, and Salkowski of Berlin,—all of whose researches on the chemical, physiological, and therapeutical aspects of the

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bject he quotes at some length—that saccharine is perfectly rmless. He finds that it may be given to diabetics for reetening purposes, neutralised as proposed by Prof. Leyden ith carbonate of soda. Dr. Pollatschek made an attempt cover the bitter taste of quinine with saccharine, but did ot succeed.

ROYAL COLLEGE OF PHYSICIANS.

AN extraordinary Comitia of the College was held on the 1st inst., Sir W. Jenner, Bart., President, in the chair.

A letter was read from the secretary to H.R.H. the rince of Wales, conveying his Royal Highness's thanks to ie College for the gift of a copy of Harvey's Prælectiones natomicæ.

A letter was read from the President of the General ledical Council addressed to the President of the College, ontaining the following resolution passed on Feb. 19th: That the Council, being of opinion that it would be ontrary to the interest of the public to have two competing xamining boards sitting in London, and that it is desirable hat the Royal College of Physicians of London, the Royal ollege of Surgeons of England, and the Apothecaries' ociety of London should arrange to hold a qualifying xamination conjointly, strongly recommend to these nedical authorities to reconsider their position with a view o such an arrangement; and meantime defer coming to a ecision on the application from the Apothecaries' Society of London of Feb. 12th." The letter went on to say that the Council felt it their duty to leave no way untried to effect combinations between licensing bodies, which had been done in Scotland, and partially in England and Ireland. By the combination proposed one strong licensing body would be formed in London.

The President pointed out that it was inaccurate to say that the Colleges in any way competed with the Apothecaries' Society.

It was moved by Dr. Dickinson, seconded by Dr. Habershon: "That this College, having already in full comitia in October deliberately considered the advisability of admitting the Apothecaries' Society of London to take part in the formation of an examining board for England, in consequence of a communication received from that Society, and having voted *nemine contradicente* against the inclusion of that body, having again fully considered the question, sees no reason for altering the decision previously arrived at by this College." In the discussion that ensued several Fellows took part, including Sir Dyce Duckworth, Sir Henry Acland, Dr. Handfield Jones, Dr. Wilks, and Dr. N. Moore. Sir H. Acland reviewed the previous steps taken to secure combination of bodies, and claimed that the attitude assumed by the Medical Council upon the question was in strict accordance with the spirit of the Medical Act, which was framed to ensure combinations of licensing bodies. The President strongly supported the motion, which was carried without a dissentient vote. A proposal by Dr. Wilson Fox that a statement of the reasons actuating the College should be appended to the resolution was withdrawn, it being felt that these reasons could be left in the hands of Sir Dyce Duckworth, the representative of the College on the General Medical Council.

Several communications regarding the movement of the two Colleges to obtain powers to grant degrees were read. One was from the secretaries of University College and King's College, to the effect that these Colleges intend to apply for a charter to grant degrees, and requesting a conference with the two Royal Colleges. Another was from the King and Queen's College of Physicians in Ireland, asking what steps the Royal Colleges were taking to obtain this power, and intimating their intention to make a similar application. A third from the Royal College of Surgeons of Ireland was to the same effect. A memorial from the Faculty of Medicine of University College, Bristol, asking that admission to the proposed degree should be extended to students in provincial schools, was referred, with the other communications, to the Committee of Delegates. A communication was read from the Association of General Practitioners enclosing resolutions passed at a recent meeting in Exeter Hall, dealing with the degree question, the conjunction with the Apothecaries' Society, and with the representation of Licentiates and Members on the governing body of the College.

A letter was read from the secretary to the Imperial Institute, inviting contributions from the Fellows of the College. It was resolved, on the motion of the President, to present a memorial to Her Majesty on the occasion of her jubilee; and it was also resolved to erect a statue or bust of Her Majesty, in commemoration of that event, in the new Examination Hall.

A report from the Committee of Management suggesting certain alterations in the examination regulations was adopted.

THE NAVY ESTIMATES.

THE Navy estimates continue to be furnished in a form which, so far at least as regards the medical service, makes it difficult, if not impossible, to give a clear statement of the expense involved. From the scattered details we gather that the *personnel* of the department is estimated to be 1 Director-General, 2 Inspectors-General of Fleets and Hospitals, 10 Deputy Inspectors-General, 65 Fleet Surgeons, 76 Staff Surgeons, and 217 Surgeons. The amount required for their pay and allowances is £136,573. There are on the half-pay list, but eligible for employment, 21 officers, for whom £5759 are taken. On the retired list there are 22 Inspectors-General, 70 Deputy Inspectors-General, 58 Fleet Surgeons, 62 Staff Surgeons, and 38 Surgeons, making a total of 250, whose retired pay amounts to £86,385. Provision is made for 3 head sisters and 15 nursing sisters in the Melville, Haslar, and Plymouth Hospitals, at an expense of £1367 for their pay and £235 for their uniform clothing. It is impossible to say what amount is required for the purchase of medicines and instruments, as under the vote in which these appear a great number of things are included which, though intended for the use of the sick, cannot be classed under either of these heads. We observe that, while the vote for the expense of carrying out the Contagious Diseases Acts disappears from the estimate, a sum of £2100 is to be taken "for contributions in aid of lock wards at Portsmouth and Devonport." For the purpose of carrying out sanitary work a sum of £2000 is to be expended on "sanitary alterations" in the Royal Naval College, Portsmouth; £800 for lavatories &c. to one block of wards in Chatham Hospital, and £620 for heating arrangements for washing-troughs in Plymouth Hospital. The only items under this head for foreign stations are a sum of £520 for "improvements to fever ward" in the hospital at Jamaica, and contributions of £1250 towards the drainage works at Halifax, and of £490 towards those at Malta.

THE IRISH MEDICAL SCHOOLS AND GRADUATES' ASSOCIATION.

THE annual general meeting of this Association took place on St. Patrick's Day, Thursday, March 17th, at 49, Berners-street, London. The following members of Council were present:—Sir Thos. Crawford, K.C.B., Director-General of the Army Medical Department; Dr. Macnaughton Jones; Prof. Yeo, chairman of Council; Prof. Macalister; Dr. Edward Waters, Chester; Dr. Gilbart Smith; Dr. Wm. H. White; Dr. Phillips, Reading; Dr. R. Fegan; Dr. J. H. Gibson; Brigade Surgeon Alexander, hon. treasurer; Dr. Jas. Stewart, hon. sec. for the Provinces; and Dr. P. S. Abraham, hon. sec. for London. Among the other members who attended were Inspector-General Dick, R.N.; Dr. Henry Fitzgibbon, Dublin; and several others. After the outgoing president (Dr. Macnaughton Jones) had relinquished the chair to Sir Thos. Crawford, now president, the annual report of the Council was read. The number of members on the roll had increased within the year from 358 to 459. The Council had to regret the loss by death of six—viz., Drs. Thompson (founder of the Association), Curtin, Eames, Staff Surgeon O'Sullivan, R.N., Dr. Sexton, and Deputy Surgeon-General Wolesley. Among the more important matters which had been and were still under the consideration of the Council, were the disabilities under which graduates laboured who held the higher qualifications of the Dublin Colleges. The hon. treasurer's report was very satisfactory, and showed a substantial balance to the credit of the Association. Professor

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Alexander Macalister, M.D. (Trin. Coll., Dublin), F.R.S., was then nominated as president-elect. Cordial votes of thanks were accorded to Dr. Macnaughton Jones, who had so ably and zealously occupied the chair for two years, and to Dr. Daniell on his resigning the post of hon. metropolitan secretary, which he had filled since the foundation of the Association. In the evening the members dined together at the Holborn Restaurant.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Sutton-Coldfield Urban District.—Dr. Bostock Hill was appointed in May last to act as health officer for this newly incorporated borough. His report deals at length with the statistical returns, which show a birth-rate of 23·06 and a death-rate not exceeding 12·6 per 1000, the zymotic rate also being low—namely, 1·04. Indeed, in a population of 8630 no death occurred from typhoid fever, only 1 from diphtheria, and 2 from diarrhœa. The isolation hospital is maintained in a state of readiness, and by its aid much may be done towards a continuance of freedom from preventable diseases. Sewer extensions are much needed, and we note that some commencement of this work is in hand. At present there are no bye-laws, and in deciding as to their adoption the authority would do well to examine the annotated edition of the model code issued by Messrs. Knight and Co. The question of offensive trades, dairies, cowsheds, and milkshops, bakehouses, and overcrowding are either being dealt with or under immediate consideration. The prevailing meteorological conditions are discussed in the report in connexion with the health of the district.

Blackpool Urban District.—We have elsewhere referred to that portion of Dr. Welch's report which deals with the question of the isolation of infectious fevers. We here note the report generally. During 1886 the general death-rate on nearly 20,000 people was 18·9 per 1000, but deduction being made for forty-six deaths in visitors, the rate is reduced to 16·5. Infant death under one year has, during seven years, decreased from an average of 16·3 to 15·1 per cent. of registered births; but even the latter rate is needlessly high, especially for such a place as Blackpool. In connexion with the association of faulty sanitary circumstances with this death-rate, Dr. Welch explains that in one street five deaths from infantile diarrhœa have occurred during the last few years. They all took place on one side of the street, and the only difference which was noticeable as regards the houses, which were otherwise alike on both sides, was the fact that on the diarrhœa side of the street the back windows overlooked old-fashioned open ashpits, whereas on the other they faced a blank wall. That such structures, together with common privies elsewhere reported, should exist in a town taking its place as a health-giving resort constitutes a reproach which calls for removal. The town water service, otherwise wholesome, needs efficient filtration, and the systematic flushing of the mains is also periodically required. The need for improvement as to open space at the back of houses is likewise maintained. In Blackpool, it is evident that even the small minimum space required under the bye-laws is not always enforced. Should this continue, that undue aggregation of houses on area which has ruined the sanitary reputation of many a town will gradually assert itself. Dr. Page, of the Local Government Board, has recently visited Blackpool, and he has urged on the authority the need for substantial improvement in several respects, to which Dr. Welch also refers.

Shipley Urban District.—In this district the birth- and death-rates for 1886 were 24·8 and 13·3 per 1000 respectively, and whereas the average number of deaths from the seven principal zymotic diseases for the years 1879-85 was 23, the total was only 3 last year. Notification of infectious diseases is pretty general in the district, but, as Mr. Ellis points out, it comes so often at the wrong time. People notify so as to secure the aid of the sanitary officers for the purposes of disinfection at the close of an illness, whereas the primary object of notification requires that the information shall be supplied at the earliest possible date in the history of the case. Isolation was in certain cases of scarlet fever carried out by removal of the sick to the apartments provided for the authority, on a payment of 3*s.* a day, at the Sir Titus Salt Hospital. Mr. Ellis secures the personal attendance of his authority during an inspection of his district; this is a plan admirably calculated to ensure abatement of conditions injurious to health, and it is evident from the steady reduction in the rate of mortality which has been in progress ever since 1875, and this notwithstanding a growing population, that the sanitary interests of Shipley are held to be of importance. The saving of life on 17,000 people which must have followed a reduction from 23·5 per 1000 in 1875 to 13·3 per 1000 in 1886 is very great, and with it has gone a saving of much misery and unhappiness.

Torquay Urban District.—This district is about to be materially improved, since, under the Torquay Harbour and District Act, the harbour, with its still piece of water, is now in the hands of the sanitary authority, and can be kept free from the nuisance which follows on the accumulation of seaweed and of dead fish left by wasteful fishermen. The compulsory notification of infectious diseases has also been secured for the town, together with other sanitary powers, such as relate to obtaining from dairymen lists of their customers, and to the inspection of dairies outside the district. With but few exceptions, Mr. Karkeek has a satisfactory record to give for the year. In one instance grossly defective conditions of house-drains in a dwelling led to fatal typhoid fever almost immediately on the house being entered. Those who had formerly lived there appear to have become habituated to the evils; but, as often happens, a new-comer not accustomed to inhale drain air was smitten down at once. Nothing short of a house-to-house inspection, which lies at the root of efficient sanitary work, or, failing that, the registration of all sublet houses and their control by bye-laws, can deal with such cases. The death-rate on 25,000 was 16·48 per 1000, or, if visitors are excluded, 14·76 per 1000.

Holsworthy Rural District.—Mr. Linnington Ash gives the birth-rate and death-rate for this district as 30·8 and 17·5 per 1000 respectively; the zymotic rate being 1·7. About the end of the second quarter diphtheria made its appearance, and, in spite of every effort to induce parents to apprehend the danger and to take the proper precautions, the disease spread through the medium of school attendance. Although the school was closed, it caused four deaths, and also continued into the fourth quarter of the year. Measles and whooping-cough were also present during the year, and it is shown that the district finds itself hampered in dealing with infectious diseases by reason of the absence of any proper means for the isolation of first cases. In Holsworthy town the need for a proper water-supply is most pressing. For three months last year there was practically a water famine, and though the matter has been under notice again and again, it remains as yet quite undealt with. Indeed, no work for securing permanent sanitary improvements has been carried out during the past year, although in several respects they are much needed.

Exeter Urban District.—The Exeter Sanatorium contained 97 patients during 1886, scarlet fever affording 61, typhoid fever 18, and small-pox 14 cases. The death-rate was only 4·7 per cent. of admissions. As regards small-pox, it is stated that that which appeared at one time to threaten a severe epidemic was brought to an end by means of the isolation afforded. It further appears that although 230 cases of scarlet fever have been under treatment there between November 1st, 1877, and December 31st last, there has been no death from this disease since November, 1877.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5516 births and 3977 deaths were registered during the week ending March 19th. The annual death-rate in these towns, which had been equal to 21·3 and 21·6 per 1000 in the preceding two weeks, further rose last week to 22·4. During the first eleven weeks of the current quarter the death-rate in these towns averaged 21·9 per 1000, and was 2·1 below the mean rate in the corresponding periods of the ten years 1877-86. The lowest rates in these towns last week were 13·9 in Birkenhead, 16·5 in Halifax, 17·2 in Brighton, and 17·8 in Ports-

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mouth. The rates in the other towns ranged upwards to 28·6 in Newcastle-on-Tyne, 29·6 in Oldham, 33·1 in Bristol, and 33·2 in Manchester. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had increased in the preceding five weeks from 340 to 412, further rose last week to 462; they included 213 from measles, 112 from whooping-cough, 45 from scarlet fever, 35 from diarrhœa, 32 from "fever" (principally enteric), 24 from diphtheria, and only 1 from small-pox. No death from any of these principal zymotic diseases was registered last week in Brighton or in Birkenhead; they caused, however, the highest death-rates in Bristol, Huddersfield, Oldham, and Sunderland. The greatest mortality from measles occurred in Leicester, Norwich, Bristol, Salford, Manchester, and Huddersfield; from whooping-cough in Bristol, Huddersfield, and Oldham; and from scarlet fever in Bristol. The 24 deaths from diphtheria in the twenty-eight towns included 13 in London, 2 in Portsmouth, 3 in Liverpool, and 3 in Oldham. Small-pox caused one death in Sunderland, but not one in London, and its outer ring, or in any of the twenty-six other large provincial towns. Only 3 cases of small-pox were under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease. The deaths referred to diseases of the respiratory organs in London, which had been 466, 459, and 433 in the preceding three weeks, rose last week to 474, but were 67 below the corrected average. The causes of 119, or 3 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Derby, and Birkenhead. The largest proportions of uncertified deaths were registered in Halifax, Hull, Salford, Oldham, and Sunderland.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 23·6 and 25·0 per 1000 in the preceding two weeks, further rose to 26·2 in the week ending March 19th; this rate exceeded by 3·8 the mean rate during the same period in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 15·8 in Dundee and 19·5 in Edinburgh, to 30·2 in Glasgow and 41·7 in Aberdeen. The 655 deaths in the eight towns last week showed a further increase of 30 upon the numbers in the preceding two weeks, and included 50 which were referred to measles, 28 to whooping-cough, 11 to diarrhœa, 9 to scarlet fever, 8 to "fever" (typhus, enteric, or simple), 6 to diphtheria, and one to small-pox; in all, 113 deaths resulted from these principal zymotic diseases, against 98 and 101 in the previous two weeks. These 113 deaths were equal to an annual rate of 4·5 per 1000, which exceeded by 1·9 the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of measles, which had been 27 and 43 in the preceding two weeks, further rose last week to 50, of which 35 occurred in Aberdeen and 14 in Glasgow. The 28 deaths from whooping-cough exceeded the number in the previous week by 3; 19 occurred in Glasgow and 4 in Aberdeen. The 9 fatal cases of scarlet fever, on the other hand, showed a further decline from recent weekly numbers; 6 were returned in Glasgow and 2 in Edinburgh. The 11 deaths attributed to diarrhœa corresponded with the number in each of the previous two weeks, and included 4 in Glasgow, 2 in Greenock, and 2 in Paisley. The 8 deaths referred to "fever" exceeded the number in any recent week; 4 occurred in Glasgow and 2 in Aberdeen. Of the 6 deaths from diphtheria, 3 were returned in Glasgow and 2 in Leith. The death classed to small-pox was said to be a fatal case of chicken-pox in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 142 and 135 in the preceding two weeks, rose last week to 152, but were 52 below the number returned in the corresponding week of last year. The causes of 69, or more than 10 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 28·1 and 31·3 per 1000 in the preceding two weeks, declined again to 29·3 in the week ending March 19th. During the first eleven weeks of the current quarter the death-rate in the city averaged 30·9 per 1000, the mean rate during the same period being but 20·7 in London and 21·3 in Edinburgh. The 198 deaths in Dublin last week showed a decline of 14 from the number in the previous week; they included 4 which were referred to "fever" (typhus, enteric, or simple), 2 to scarlet fever, 1 to diarrhœa, and not one either to small-pox, measles, diphtheria, or whooping-cough. Thus the deaths from these principal zymotic diseases, which had been 15 and 10 in the preceding two weeks, further declined last week to 7; they were equal to an annual rate of 1 per 1000, the rates from the same diseases being 2·2 in London and 1 in Edinburgh. The deaths from "fever," which had been 8, 5, and 5 in the previous three weeks, further declined last week to 4. The fatal cases of scarlet fever were 2, against 7 and 1 in the previous two weeks. The deaths of infants showed a marked decline from the numbers in recent weeks, and those of elderly persons were fewer than those in the previous week. Five inquest cases and 6 deaths from violence were registered; and 57, or nearly a third, of the deaths occurred in public institutions. The causes of 36, or more than 18 per cent., of the deaths registered during the week were not certified.

MORTALITY IN LARGE LANCASHIRE TOWNS IN 1886.

The twenty-eight large towns dealt with by the Registrar-General in his weekly return include seven Lancashire towns, which had in the middle of last year an aggregate population of more than a million and a half. Liverpool headed the list with a population of 586,320; while the smallest town was Preston, which had an estimated population of 101,340. The mean death-rate in these seven Lancashire towns during last year was equal to 24·4 per 1000, against 20·0, the mean rate in the whole of the twenty-one other large towns in the list, and against 19·9 in London. Thus in equal numbers living the mortality in the Lancashire towns last year was 120 to 100 in the other large towns, showing an excess of a fifth, or of 20 per cent. Striking as is the excess of the recent mortality in these Lancashire towns measured in this manner, the true excess, if due account be taken of the sex and age constitution of the population of these towns, is still greater. Duly corrected for this disturbing element, on the assumption that the sex and age distribution of the population of each of the towns is the same as that of England and Wales, the death-rates in these seven Lancashire towns last year were 24·0 in Salford, 25·3 in Oldham, 25·4 in Bolton, 26·1 in Liverpool, 27·8 in Blackburn, 29·4 in Manchester, and 31·4 in Preston. The rates in the twenty-one other large towns, corrected in a similar manner for sex and age inequalities, ranged from 17·6 in Brighton and 18·9 in Derby, to 24·5 in Portsmouth and Cardiff and 24·7 in Halifax. The rates, therefore, in six of the Lancashire towns exceeded those recorded in any of the other towns; while the rate in Salford (the lowest in any of these large Lancashire towns) was only exceeded in Portsmouth, Cardiff, and Halifax. The rates in the six Yorkshire towns stand out in favourable contrast with those of the seven Lancashire towns above referred to. It should be stated that recent death-rates in the Lancashire towns bear favourable comparison with the rates in past years, but they do not show a reduction at all commensurate with that which has been so marked in the death-rates of English urban populations generally. That the excess of mortality in the Lancashire towns is the result of defective sanitary condition may undoubtedly be inferred from the fact that the excess is as strongly marked in the rate from the principal zymotic diseases and in the rate of infant mortality as it is in the general rate from all causes. It may be noted, for instance, that the mean rate from "fever" (principally enteric) in the seven Lancashire towns was nearly twice as high as the mean rate in the twenty-one other large towns, while the death-rate from scarlet fever was more than twice as high. Few will now deny that, at any rate, the mortality both of enteric and of scarlet fever is clearly within the control which it is possible for good sanitary organisation to command.

MORTALITY IN AUSTRIAN CITIES.

From a return just issued in Vienna, it appears that Austria contains forty-nine towns, each of which in the middle of last year contained an estimated population exceeding 12,000 persons. Vienna heads the list with a population of 780,066, and four other cities have populations exceeding 100,000: Prague with 182,935, Trieste 155,197, Lemberg 117,902, and Graz 103,670. There are five towns with popu-

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lations varying between 50,000 and 100,000; while the population of the remaining thirty-nine towns range between 12,000 and 50,000. According to this return, the death-rate per 1000 of the population during last year was 28·5 in Vienna, 39·0 in Prague, 39·8 in Trieste, 34·4 in Lemberg, and 30·4 in Graz. In the smaller towns still higher rates prevailed, and it is noteworthy that in only four of the forty-nine towns was the death-rate in 1886 below 25 per 1000; in thirteen it was between 25 and 30; in eighteen between 30 and 35; in eleven between 35 and 40; and in three towns the rate exceeded 40 per 1000. These strikingly high rates of mortality in the Austrian cities present a remarkable contrast with the rates that prevailed last year in English towns. In the twenty-eight large towns of England and Wales, with an average population many times greater than the average population of the Austrian towns, the death-rate last year ranged from 17·1 in Brighton and 18·2 in Derby, to 26·3 in Manchester and 28·9 in Preston. The range of mortality in the Austrian cities above referred to was between 21·4 and 48·1. This marked excess was in great measure due to the mortality of zymotic diseases, to which further reference will shortly be made.

THE SERVICES.

Deputy Surgeon-General Sir J. A. Hanbury, K.C.B., the Principal Medical Officer of the Home District, has been ordered to hold himself in readiness to proceed to the Mediterranean, for the purpose, we presume, of taking up the appointment of Principal Medical Officer at Gibraltar in succession to Surgeon-General Fraser, who will be placed on the retired list under the provisions of the age-clause of the Warrant. *The Times* correspondent at Rangoon states that the commissariat and medical arrangements for the police in Upper Burmah have been very defective, and that Mr. Crosthwaite has selected Surgeon-General Farrell, of the Indian Medical Service, to take charge of the medical arrangements.

WAR OFFICE.—Army Medical Staff: Surgeon-Major Francis Henry Welch to be Brigade Surgeon, vice John Henry Hunt, deceased. Dated Feb. 24th, 1887.

ADMIRALTY.—The following appointments have been made: Surgeon G. H. Meaden, to the *Seaflower;* Surgeon E. A. Spiller, to the *Martin;* Surgeon G. E. Kennedy, to the *Nautilus;* Surgeon J. E. Webb, to the *Pilot;* Surgeon J. F. Bate, to the *Sealark;* Surgeon J. Andrews, to the *Liberty* (all to date from the 25th inst.); and Surgeon R. Hickson, to the *Lion.*

Correspondence.

"Audi alteram partem."

TREATMENT OF PLACENTA PRÆVIA.

To the Editors of THE LANCET.

SIRS,—I have only just read your complimentary remarks of March 5th on my recommendations in treating placenta prævia, and the letter of Dr. Jas. Murphy on your approval of them. There is one remark of yours I should like permission to correct, when you say, "though some facts in the pathology of placenta prævia (such as the arrest of hæmorrhage after turning and before extraction) were unknown to him and his contemporaries." On page 27 of my "Combined External and Internal Version" (1864) I say: "I believe that in nearly every case the bleeding will be found to be controlled by the drawing down the child after version so as to fill up the os uteri. I have never found any bleeding after this point has been gained." Again, page 28: "Should there be reason to fear hæmorrhage was going on internally, then the delivery might be hastened; but I have in all the cases narrowly watched for any externally or internally without having met with it. Such a state is of course possible, but I think it must be rare," &c.

With regard to Dr. Murphy's letter, I may say that it affords me great pleasure to be in happy rivalry with plans that have reduced the former mortalities to so low a point. For my own part, I do not wish anything I have suggested to take a position other than it deserves; the saving of life is too earnest a thing to stand behind personal interest. I may, however, be permitted to point out that the treatment of cases of placenta prævia clinically may be divided into two classes: one where we are suddenly called without previous acquaintance with the case, without any means at command but our hands; the other where, having seen the patient beforehand, we can calmly set our plans to bear on the treatment. In the former, particularly, the plan I have suggested gives us the command of the position such as none other can give. In those cases where we have time the importance of terminating the pregnancy cannot be overrated; it is that which I have for years inculcated in my lectures, and I have no doubt others have in theirs; but in this I make no claim to originality, for it is to Dr. Greenhalgh we are indebted for the first definite laying down of what Dr. Murphy in his letter wishes to enunciate as a ninth great proposition. In 1864, in a paper read before the Obstetrical Society of London, Dr. Greenhalgh said that "in any given case of hæmorrhage due to placenta prævia occurring after seven and a half months of utero-gestation, when the child is viable, it is expedient, both for the safety of the mother and child, to expedite labour—unless the condition of the exhaustion be such as to preclude this step; and if so, then as soon as possible after she has recovered from the shock." This is virtually the same as Dr. Murphy enunciates as his ninth proposition. In the discussion on that paper my plan of turning is compared with that of the older internal mode, to the great advantage of the "combined." In that discussion I said that I "quite agreed with Dr. Greenhalgh as to the necessity of inducing labour in placenta prævia as soon as arrangements could be made, which I believed to be the plan adopted by all who saw much midwifery in that city; it was the practice I had always adopted" (*op. cit.*), and in my paper read in 1863 at the Obstetrical Society, and in the little work "Combined External and Internal Turning," of the same year as Dr. Greenhalgh's paper, I allude to the advantage also given us in dilating the os with Barnes' bags and separating the placenta around the os. "The value of these bags is very great, and they give us the power of operating at a date far earlier than we ever possessed before." But the separation of the placenta by the finger in placenta prævia is not always without severe loss. I have had several cases where on peeling off the placenta the hæmorrhage was so violent that had I not been able to use the bipolar method serious results would almost certainly have occurred. Doubtless, the mortality from placenta prævia has been latterly much lessened by the rule laid down by Dr. Greenhalgh of early termination of the pregnancy, by those who have followed it; but it still needs to be more generally known and practised, and Dr. Murphy's emphatic endorsement will assuredly do much good.

I am, Sirs, yours truly,

George-st., Hanover-sq., March 21st, 1887. J. BRAXTON HICKS.

THE ROYAL UNIVERSITY AND UNION HOSPITALS.

To the Editors of THE LANCET.

SIRS,—I have received a communication from the Privy Council in which marked prominence is given to the fact that the utilisation of union hospitals is still under the consideration of the General Council. One member of that body fell into the strange error of stating that these hospitals lacked material for teaching. The Irish Local Government Report for 1886 will show that 52,000 were admitted in 1885 in sickness from the outside. These were all cases that were of course too sick to be treated in the dispensaries. They were admitted under an Act which opened up these hospitals to the general public, and of whose existence our critics seem to be unaware. That report will further show by its table of the causes of deaths that at least 24,000 sick paupers were likewise entitled to be placed among the *bonâ-fide* clinical material. The further pretence of the Royal University that they could not exercise proper supervision over such hospitals is met by their own action in recognising other hospitals over which they could not exercise it, and in their not exercising it where they could do so. The time is not far distant when self-respecting provincials will be able to defend their own interests.

I am, Sirs, yours truly,

Cashel, March 15th, 1887. THOMAS LAFFAN.

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INEQUALITY OF THE PUPILS IN TUBERCULAR MENINGITIS.

To the Editors of THE LANCET.

SIRS,—My friend Mr. Buxton has rather mistaken the origin and object of my letter on "Inequality of the Pupils in Various Diseases." It was written because I noticed that Dr. Pasternatski, in writing on this subject, and enumerating several diseases where this symptom existed, did not mention tubercular meningitis. Now, as my experience is that it is often present where tubercle of the cerebral membranes exists, I was desirous of knowing if this was an accidental omission, or that Dr. Pasternatski had not observed the symptom in tubercular meningitis. It did seem to me more than a coincidence that my fatal cases had unequal pupils to a very marked degree (I have copious notes of a very interesting case in a boy of nine, where one pupil was widely dilated and the other contracted to a pin's point, both insensible), while in the cases of recovery it did not exist; and it still appears to me reasonable that the pressure on the brain, whether caused directly by tubercle or by fluid the result of tubercle, should produce graver symptoms when that pressure is all on one side, and not shared between the two cerebral hemispheres; and thus unequal pupils may become an important and valuable symptom affecting the prognosis, although of course not necessarily excluding the diagnosis; and Mr. Buxton has not shown that there is not a tendency—and I think there is—for the fluid to gravitate more or less on one side in this disease. I did not examine the fundi; the pupils in every fatal case were insensible.

I am, Sirs, yours truly,

March 22nd, 1887. FREDK. H. ALDERSON, M.D.

ERYSIPELAS AFTER VACCINATION.

To the Editors of THE LANCET.

SIRS,—The article on the above subject in your last issue induces me to draw attention to a factor of importance in the causation of erysipelas—i.e., hereditary predisposition. This was brought forcibly under my notice a few years ago, while holding the post of public vaccinator to a district in Yorkshire. I had a severe case of spreading erysipelas following vaccination in a child nine months old, who eventually recovered after a long illness. There was nothing either in the history of the inserted lymph, or, as far as I could judge, after careful inspection and inquiry, in the sanitary surroundings of the patient, to account for the disease, but there was a decided family history of erysipelas, both parents having suffered from it, the father being peculiarly prone to attacks of the facial variety. All other explanations failing, I attributed the occurrence to the depressing influences of teething and an inherited predisposition to the development of erysipelas, the vaccination wounds merely affording an inlet to the active elements of the disease, which under different circumstances might have been innocuous. The case made a lasting impression on my mind, and is certainly suggestive in view of similar occurrences.

I am, Sirs, yours faithfully,

JAMES TURTON, M.R.C.S.,
Late Public Vaccinator, Dewsbury Union.

Brighton, March 20th, 1887.

"A CASE FOR INQUIRY": A DISCLAIMER.

To the Editors of THE LANCET.

SIRS,—THE LANCET of the 12th ult. has only just come into my hands, and I am very much astonished to find in your annotations a paragraph which, unless the matter is cleared up, may be considered to refer to me. I find on looking at the Medical Directory for 1884 that I am the only T. Young in the whole of the United Kingdom possessing the qualifications mentioned. I have been unable as yet to procure copies of the *Illustrated London News* for the dates to which your paragraph refers; but whatever the matter may be, I most emphatically disavow any knowledge of it, inasmuch as I neither know nor have ever had any communication with Mr. Alabone. I assure you that both advertising and assumption of titles which are not legal have as little of my sympathy as of yours. I feel sure that, with your usual justice and impartiality, you will allow me in your next issue to disclaim any connexion between the "Dr. T. Young" mentioned in your issue of the 12th ult. and myself. I am, Sirs, yours faithfully,

THOMAS BRETT YOUNG, L.R.C.P., L.R.C.S. Edin.

The Laurels, Hales Owen, near Birmingham, March 22nd, 1887.

*** We gladly insert our correspondent's letter.—ED. L.

MANCHESTER.

(*From our own Correspondent.*)

HOSPITALS AND PROVIDENT DISPENSARIES.

IN THE LANCET of the 19th inst. is an article on Co-operation of Hospitals and Provident Dispensaries, pointing out the importance of this subject on the work of the committee which is now considering how best in London to organise medical attendance on the poor and prevent indiscriminate giving of free medical relief. The committee might gain some valuable information by applying to the proper quarter here. For many years the provident dispensary has worked with the Royal Infirmary and other medical charities, with the object of preventing abuse of the latter. Inquiries are made into the circumstances of all patients applying for aid, and after having given what assistance or help may be needed at the first time of coming to hospital, they are referred to the provident dispensaries, if their means are found to be such as to enable them to pay the scale of charges fixed by them. By this means the out-patient departments especially are kept from being overcrowded, and those who are proper objects for the work of the charities receive more attention than if the numbers were swelled to an almost unmanageable extent.

ST. MARY'S HOSPITAL.

At the late annual meeting of St. Mary's Hospital the balance-sheet showed an unsatisfactory condition, the expenditure in the past year having exceeded the income by £348. A most important matter was decisively announced—i.e., the attempt to raise a fund for building a new hospital. Already subscriptions to the amount of £10,000 have been promised, and important help has been promised by Madame Marie Roze, who will give a concert in aid of the movement. Many years ago Jenny Lind, then in the height of her fame, gave a concert on behalf of the Royal Infirmary, the proceeds from which went largely towards building a new wing.

THE SOUTHERN HOSPITAL,

which in a quiet unobtrusive manner does a good work on the south side of the city amongst women and children, is about to extend the sphere of its usefulness by adding a lying-in department to its present operations. Seeing that we are practically without a lying-in hospital, the effort is one worthy of support.

THE ROYAL INFIRMARY

has recently made an attempt to obtain funds from a rather unusual source, by applying to the various Local Boards for a contribution out of the rates, and in several instances the application has met with success. An announcement made at a late meeting of the Infirmary Board that the Fever Hospital was about to be extended, at a cost of £3000, has caused some correspondence in the daily press from some who object to all the infectious disease in Manchester and neighbourhood being taken to one spot, and from others who dispute the right of the Infirmary Board to expend its funds at all on a matter which it is the duty of the health authorities to attend to. The neighbouring borough of Salford has just disposed of its Fever Hospital, to the London and North-Western Railway, for upwards of £20,000, so that the Corporation will have to make fresh arrangements for the isolation of their infectious disease.

FEVER HOSPITAL FOR BRADFORD.

The Town Council of Bradford, in the adjoining county of Yorkshire, have just purchased the Fever Hospital there from the trustees of the hospital for the sum of £10,000. As a result of the action taken by the Sanitary Association, the City Council will for the future publish its Health Committee's report annually, instead of biennially, as hitherto. It has also been successful in obtaining the use of the playgrounds

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of various of the School Boards for the use of children in crowded districts to play in after school hours, and it is now engaged in stirring up the Corporation authorities about their building bye-laws, which have long been in an unsatisfactory condition.

THE VICTORIA UNIVERSITY.

As a result of the important and influential deputation that waited on the Chancellor of the Exchequer, asking for a grant from Imperial funds towards the expenses of the Victoria University, it is announced that £2000 per annum will be granted. The amount asked for was £2500 a year. The number of students presenting themselves for the University Examination shows a satisfactory increase. At the present and approaching examinations upwards of seventy students from Owens College alone have entered for the preliminary scientific and various medical examinations. It has been decided that the testimonial to Sir H. Roscoe, to commemorate his long connexion with the College, shall consist of a portrait, to be presented to himself, and, if enough money is available, the establishment of a scholarship, to be named after him.

The Hospital Sunday and Saturday collections have not, as was hoped, shown any increase on last year's amount. The sum collected amounts to only £7250. A few additional payments yet to come in may possibly raise it to that of last year's collection.

March 22nd.

EDINBURGH.

(From our own Correspondent.)

SCARLATINA AND MILK.

AT the last meeting of the Public Health Committee of the Town Council a report was submitted by Dr. Littlejohn, the medical officer of health for the city, detailing the results of his investigations into the cause of the recent epidemic of scarlatina in the north-west quarter of the town. The inquiry was specially directed towards ascertaining whether there were any causal relation between special sources of the milk-supply and the peculiar localisation of the outbreak. The results conclusively show that such is the case, the affected district being for the most part supplied from a source proved to have been contaminated shortly before the commencement of the epidemic. The farm thus singled out contributes 120 gallons daily to the milk-supply of the city; the milk is at present of good quality and in all other respects quite unobjectionable, but there is little doubt that eight weeks ago it was each day transmitting infective material from the farm, where fever was then present, to the very parts of the city since so alarmingly visited by the disease. These facts curiously emphasise the recommendations contained in an annotation on "The Use of Uncooked Milk" in last week's LANCET. The precaution of boiling for five minutes the whole of the milk supplied to each household has been largely carried out in Edinburgh since Dr. Foulis' letter on the subject appeared in the local papers some weeks ago. It has been questioned in some quarters whether this procedure is an absolutely reliable method of disinfecting milk, regard being had to the peculiar physical constitution of that menstruum in relation to the transmission of heat. The general impression, however, is that this is a most valuable precaution, and as such it has been widely recommended to and adopted by the intelligent classes of the population. Dr. Littlejohn's investigations are in the meantime actively continued, and an extra staff of subordinates is placed at his disposal for the purpose. In the City Fever Hospital there are at present 199 patients suffering from scarlatina.

THE PROPOSED FEVER CONVALESCENT HOME.

A question has been from time to time under the consideration of the Public Health Committee as to the propriety of establishing a convalescent home for patients discharged from the City Fever Hospital. A moot point was the legality of applying public funds to this purpose. This has been submitted for counsel's opinion. The legal adviser of the board regards such an addition as simply an adjunct or necessary appendage of a fever hospital; and, as such, he holds that the local authority have full powers for establishing a convalescent home in connexion with the hospital. They are under no statutory obligation to apply donations from grateful patients of the hospital in reducing the public health rates, hence such funds might be expended in defraying the expenses of the proposed institution.

EDINBURGH UNIVERSITY COURT

The Court met last Monday and approved the arrangements already reported, by which the site for the completion of the New Medical Buildings is to be acquired and the buildings erected. They also confirmed the recommendation of the Senatus Academicus granting leave of absence to Prof. William Rutherford for six months on account of health, approving also the arrangements made by which Prof. Caton of Liverpool will conduct the professional examinations in physiology in April and July of this year. With reference to a letter from Mr. Ashdown, M.B., which was under consideration, the Court were of opinion that his character had been completely vindicated by Prof. Rutherford's apology to him, and that it was unnecessary for the Court to take any steps for that purpose. Mr. Joseph Bell having ceased to lecture on clinical surgery, the removal of his name from the list of recognised lecturers was authorised.

THE CHAIR OF PHYSIOLOGY.

A somewhat premature notice of the appointment of Professor Haycraft, of Birmingham, to the post of substitute-Professor of Physiology in Edinburgh University, during Professor Rutherford's leave of absence, has appeared in one of your contemporaries. As a matter of fact, such an arrangement is reported to have been made privately between Professors Rutherford and Haycraft, and is to be shortly submitted for the approval of the Senatus Academicus.

MEDICO-CHIRURGICAL SOCIETY.

At the last meeting of the Society Professor T. R. Fraser read a valuable paper upon the Dyspnœa of Bronchitis and Bronchial Asthma, and detailed important clinical and experimental results obtained from the administration of nitrites in such cases.

THE ARTIFICIAL CULTURE OF FISH.

Mr. J. T. Cunningham, B.A., Superintendent of the Granton Marine Station, has communicated a paper on the artificial culture of fish to the Association of Science and Art. Of particular interest was his demonstration of the Macdonald jar, a recent invention employed by the American Commission for incubating ova. The dead eggs are removed automatically, and in consequence a much larger percentage come to perfection than when this is not the case. Each jar will accommodate about sixty thousand eggs.

Edinburgh, March 22nd.

PARIS.

(From our own Correspondent.)

THE NEW "SPECIFIC" FOR DIABETES.

DR. MARTINEAU gives full details in the last number of the *Annales Medico-Chirurgicales* of the treatment advised by him in diabetes. It was in consultation with the late Professor Rouget that he learned the formula which he now publishes with so much confidence. The patient in question had been the subject of diabetes for some years, and was suffering at the time from cerebral hæmorrhage. Dr. Rouget proposed that they should not modify his diet in any way beyond restricting in a slight degree the use of farinaceous food, fruits, and sugar, and that he should drink during meals and in the intervals of thirst arsenicated lithia water, prepared as follows: In the upper part of a Briet apparatus of 1 litre for making aerated water were to be introduced 20 centigrammes of carbonate of lithia, and a tablespoonful of the following solution: arseniate of soda, 20 centigrammes; distilled water, 500 grammes. This water to be drunk at meals mixed with wine, and the contents of the recipient to last for three meals. Before commencing the treatment the urine was found to contain 60 grammes per litre of sugar, being 212 grammes for the quantity voided in the twenty-four hours. Three weeks later, on Oct. 12th, 2 litres, instead of 3½, represented the daily secretion of urine, and the quantity of sugar 20 grammes per litre. On Oct. 29th there were 1½ litre of urine, and the amount of sugar 11 grammes

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per litre. On November 14th the proportions had fallen to 1 litre of urine containing 4 grammes of sugar. On December 1st no sugar could be detected, and the daily average of the urine was 1 litre. The patient died four years later of uræmia caused by renal disease, and up to the time of his death no sugar had ever been found in the urine. Dr. Martineau gives two other cases in illustration, in which the treatment has kept the glycosuria in abeyance for six and five years respectively. In a third instance no sugar has been seen for six months. In all the patients with whom the treatment was successful there were, says Dr. Martineau, arthritic symptoms, either in the form of biliary or renal lithiasis, of articular manifestations, or of cutaneous eruptions. In the only three cases of failure there was no arthritism, but herpetic symptoms existed in the form of "nervovism" and skin eruptions. The disappearance of sugar from the urine is attributed by Dr. Martineau to the action of the lithia upon the glycogenic matter, which it helps to transform into glucose, and thence into carbonic acid and water. It is the presence of lithia that also explains the action of those natural mineral waters which are useful in diabetes. Taking for granted that the results are as stated by Dr. Martineau, it is somewhat remarkable that he should fall into therapeutic superstition, when there is a much more adequate physiological explanation. In all his successful cases the quantity of drink was restricted to a quart during three meals, whereas in the unsuccessful case, which is given for the sake of comparison, the patient drank three litres and voided an equal quantity of urine in the twenty-four hours. The late Dr. Hyde Salter found abstinence from liquids at meal-times the most useful of all treatment for asthma, and obstructed respiration is given by Pavy as a cause of diabetes, Brunton allowing that it is produced by deficient oxidation, which comes to the same thing. There is a group of allied affections characterised by the retention of the products of imperfect oxidation, and by functional disturbances of different kinds resulting therefrom, the cause and effect having a reciprocal action. Gout and nervous depression, obesity and imperfect respiration, are familiar examples. In these cases, as in rheumatism and other morbid conditions of the same kind, everything that promotes oxidation and excretion is of capital importance. Abstinence from alcohol and the use of the Turkish bath are valuable means to this end, but total abstinence from alcohol, with a strict limitation of fluids, is the most potent of all. Unfortunately it is extremely difficult, most especially in diabetes, to carry out such restrictions. If, however, lithia as administered by Dr. Martineau does enable diabetics to abstain from liquids, he may be congratulated upon having made a valuable contribution to practical medicine.

THE HEALTH OF PARIS.

The *Bulletin Hebdomadaire de Statistique Municipale* records thirty-seven deaths from typhoid fever, being a slight decrease upon the preceding week. But the admissions into the hospitals are more numerous than ever—ninety-six as against seventy-seven; and there is even reason to anticipate a continuance of the epidemic. The mortality from small-pox has increased from two to ten deaths, and the admissions into the hospitals from thirty to forty-one. This sudden outbreak is attributed to the arrival in Paris of a large number of unvaccinated workmen for the building of the forthcoming Exhibition, and Dr. Du Mesnil has laid before the Board of Health a project of compulsory vaccination. In an article in the *Bulletin Médical* he reminds his readers that the epidemic of 1870-71, which caused a mortality of more than 5000 persons, coincided with the arrival in Paris of the soldiers of the Garde Mobile, a large number being from Brittany, where vaccination is extremely insufficient. The commercial stagnation of the last few years had caused the departure of many of the workmen, and this has been followed by a great diminution in the number of deaths from small-pox. But the number of admissions to the hospitals has lately increased, and the authorities have been obliged to reopen special wards. Professor Proust, in his report on the subject, agrees with Dr. du Mesnil, and urges the authorities to proceed to the compulsory vaccination and revaccination of all workmen coming to Paris for employment upon the Exhibition.

PROVINCIAL EPIDEMICS.

An inquiry has been made into the sanitary condition of the Marine Barracks at Lorient, where typhoid is endemic, and causes annually from forty to fifty deaths amongst the troops. It has been found that the water is regularly contaminated with human excreta whenever there is rain, the conduits in masonry passing under fields and gardens so manured. At Brest an epidemic recently broke out in the training ship *Le Borda*. An analysis of the water showed the presence of the characteristic bacillus. There are also serious epidemics at the present moment in the Marine Barracks at Cherbourg, and amongst the soldiers of the 50th Regiment at Perigueux. The Governesses' Normal School of the Loire-Inférieure has been closed on the same account.

Paris, March 22nd.

NAPLES.

(From a Correspondent.)

ITALIANS complain that theirs is a severely-visited country—not in the sense of its being overrun with foreigners, for to these it owes a fifth of its annual revenue, but in the sense of its continual subjection to visitations atmospheric and telluric. What with floods, earthquakes, and cholera explosions, the last five years in Italy have certainly been prolific of death and disaster beyond the usual portion of humanity. In 1882 the inundations in the Venetian territory and in the Two Sicilies left a fearful tale of ruin and misery. In 1883 the earthquakes at Casamicciola reduced a garden-island of the Mediterranean into a sombre, silent waste. In 1884 the most terrible outbreak of cholera within living memory swept the Italian seaboard from the Riviera to the Messina Straits, alighting with such force on Naples as, in one night, to strike down two thousand of the inhabitants, of whom one thousand died in a few hours. In the following two years the scourge extended to Sicily, while continuing its ravages among the littoral and river-side population of the peninsula; and now another telluric storm has raged along the Riviera Levante e Ponente, overthrowing towns, engulfing their inhabitants, and leaving a moral and material ruin behind it which years will not repair. Well may the *Popolo Romano* say: "If calamities are so many trials to strengthen the character, we Italians bid fair to become the strongest people in the world."

To do her justice, Italy is so far profiting by this probation as to be improving her position in view of a recurrence of such disasters. Floods, so largely due to the destruction of forests by felling, she is preparing to obviate by stringent regulations for replanting the denuded mountain-sides; cholera visitations, invited by insanitary conditions, she will in future keep at bay by vigilant hygienic surveillance; while so far as seismology can forewarn against telluric storms, and suggest opportune precaution or provision, she is to aid experts in that infant science, like the Padre Denza and Michele di Rossi, with enhanced means of research and internuncial communication. As to the sanitary side of her endeavours, here in Naples we have ample evidence of her sincerity and energy, the water-supply being now the finest in the peninsula—inferior, if at all, to that of Rome, and inferior in abundance only. "Out of the nettle Danger to pluck the flower Safety" should be her watchword for half a century to come—far more justly, indeed, than the "si vis pacem, para bellum," which, in practice, is crushing her, like other continental powers, under the weight of "bloated armaments."

The resources of the Spedale della Trinità are severely taxed to accommodate and treat the wounded survivors of the Dogali massacre whom the troopship *San Gottardo* deposited here on Feb. 22nd. Certainly the literature of surgery will be conspicuously enriched by the official report of the Trinità staff when it sees the light; gunshot wounds, incised wounds, and lacero-contusions of every variety, and sometimes all three on one and the same soldier figuring amongst its most prominent details. Meanwhile the courage of the medical officers who died as combatants on that tragic field has evoked from all Italy the proudest eulogy. In Rome a special meeting of the Royal Academy of Medicine was convened to express the feelings of the profession on the subject, and in its president, the Hon. Guido Baccelli, no better spokesman for the occasion could have been found. At the close the following order of the day was carried by acclamation: "The Royal Academy of Medicine at Rome draws the attention of all Italy's scientific bodies to the

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heroic conduct on the battlefield of Dolgali of the army surgeons, Captain Nicola Gasparri and Angelo Ferretti."

Cardiac neuroses due to syphilis are engaging particular attention just now, especially in the clinic of Professor Semmola. The venereal taint is a well-known factor in organic disease of the heart; functional disturbance of that organ, due to the same cause, has been much less carefully worked out. More than fifty such cases have come under Professor Semmola's cognisance. Weak systole, intermittence, di-systole, were common to all; while the respiratory process, though its apparatus was quite sound, became distressed on mounting stairs or in hurried walking. Hitherto physicians have diagnosed such cases as due to nervous exhaustion, and have prescribed the usual remedies—tonics, rest, country or sea air, and so forth. But after weeks or months of such treatment the symptoms remained as before, or were often aggravated. "The use of mercury, however," says Professor Semmola, "in the form of hypodermic injections of corrosive sublimate, and the use of iodide of potassium *viâ* the stomach, produced in all these cases progressive amelioration, and finally a total disappearance of the functional derangement, while the improvement of the whole system was most marked." Dr. Vincenzo Vitoni, in an able contribution to the discussion, says: "Functional derangements of the heart, unaccompanied by the physical signs of endocarditis, aortitis, and so forth, when they occur in patients affected for some time by constitutional syphilis, and in whom hygienic conditions and the cure of symptoms have failed to induce a return to normal cardiac action, justify the physician in first prescribing iodide of potassium in progressive doses, and then, after fifteen or twenty days, in trying mercurials with the caution that characterises good clinical practice. It were idle to theorise on the *modus operandi* of syphilis in causing functional derangements of the heart—due, as they might be, to arteritis of the coronaries, to primary nutritive irritations of the myocardium, to incipient arterio-sclerosis, or to a general undetermined dyscrasic condition of a clinical type. What emerges clearly from the facts is this, that we have to deal with a pathological state of the heart quite amenable to iodide of potassium and to mercury." Professor Semmola does not share the belief, any more than does Dr. Vitoni, that mercury is always contra-indicated in cardiac affections. Caution, after due diagnostic investigation, is all they plead for. The whole subject is well discussed in *La Terapia Moderna*, a monthly organ of the Neapolitan school, which began its career, with good augury, on Jan. 1st.

Naples, March 6th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT an extraordinary meeting of the Council held on Thursday, the 24th inst., the minutes of the last ordinary meeting were read and confirmed. The following resolution was carried *nem. con.*: "That the Council see no cause to alter their decision regarding the admission of the Apothecaries' Society to the Conjoint Scheme." A letter was read from Sir H. Pitman, forwarding a copy of the resolution passed by the Royal College of Physicians on the same subject.

Two memorials, signed by several thousand persons, were submitted to the Council, in opposition to a memorial laid before the Council advocating the endowment of an institution for the promotion of physiological and pathological research.

A letter was read from the Councils of University and King's Colleges, inviting the College to confer with representatives of those Councils and of the Royal College of Physicians of London on the subject of a joint application to the Crown on behalf of the four institutions for powers to grant degrees in Medicine and Surgery. This letter was referred to the Committee of Delegates on the subject of granting degrees in Medicine and Surgery.

The following motion by Mr. Croft was lost, four voting in its favour and twelve against: "That before each election to the Court of Examiners the lists of Fellows who are candidates shall be considered by a small committee, to be appointed annually by the Council, who shall have power to recommend to the Council one or more of the candidates for each vacancy."

MEDICAL NOTES IN PARLIAMENT.

The Pharmacy Acts Amendment Bill.

IN the House of Lords, on the 18th inst., this Bill was passed through Committee, with a few verbal amendments.

On the 22nd inst. the report of amendments was brought up and agreed to, and on Thursday, the 24th, the Bill was read a third time and passed.

Vaccination and Disease.

In the House of Commons on the 18th inst. Mr. Ritchie, in reply to Mr. M'Arthur, stated that revised instructions have been issued to public vaccinators with a view to minimise the risks of vaccination. The order for the careful examination of vaccinifers as to the existence of skin diseases, and particularly of hereditary syphilis, was contained in the old instructions. The Local Government Board has no evidence of syphilis having been communicated by vaccination from a child not itself presenting signs of syphilis.

Anthrax.

On the 21st inst., in reply to Sir J. Swinburne, Mr. W. H. Smith, in the absence of Lord J. Manners, stated that an inquiry in reference to the recent outbreaks of anthrax is now being conducted by the officers of the Agricultural Department. There is no reason, however, to believe that the disease has been more prevalent during the last six months than previously. The Anthrax Order of September last imposes on the owners of animals the obligation to give notice of the disease, and on the inspectors the duty of making returns weekly; hence public attention has been called to outbreaks which otherwise would have escaped notice. None of the outbreaks have been traced to railway trucks in which foreign hides had been previously carried.

On the 22nd inst., in reply to Mr. Tollemache, Mr. W. H. Smith stated that the Government do not propose to treat anthrax in the same manner as pleuro-pneumonia, as they are advised that the two diseases are of a totally different character. Slaughter in anthrax would in most cases be impracticable, as animals are usually found dead without any warning, or die very quickly after the symptoms become apparent. Further, as the disease does not spread by association of diseased with healthy animals, as is the case with pleuro-pneumonia, slaughter and compensation would only be for the benefit of the owner, and not for the community.—In reply to Sir J. Swinburne, Mr. W. H. Smith said that the recent outbreak of anthrax in Cheshire has apparently been confined to one farm, and chiefly affected swine, of which thirty-four are reported to have died, and also three sheep. No cases have been reported since March 19th. Immediately the disease was recognised the local authority took action under the Anthrax Order and prevented the movement of animals from the farm. An inspector of the Privy Council has visited the farm, and from his report it does not appear that there is anything remarkable in the outbreak of anthrax, which disease, it is said, occurs every year on this farm, and is accounted for by the existence of insanitary conditions which are most favourable for the development of the disease.

The Alleged Neglect at Guy's Hospital.

On the 21st inst. in reply to Mr. W. Corbet, Mr. Matthews said that he had been informed by the medical superintendent of Guy's Hospital that the facts of Stack's case are as follows: Stack was brought to the hospital at 7 P.M. on Monday, and was found to be suffering from a simple fracture of the small bone of his leg. He was taken into the accident ward for the night and received immediate attendance, and, as is usual in the case of similar injuries, the limb was temporarily placed in sandbags, and in the course of a few hours, between 11 and 12, the limb was put up permanently in plaster-of-Paris bandages. Stack was discharged on the following day, with a pair of crutches supplied at the expense of the hospital, and without any charge to Stack or his relatives. When Stack came to the hospital every bed in the ward was occupied, but one of the occupants, who was leaving the next morning, was placed on a stretcher, and thus made room for Stack. The hospital authorities seemed to have done all that was proper on this occasion.

The Planting of Cinchona.

In reply to Mr. Henniker Heaton, Sir J. Gorst said that one of the objects, but not the only one, of planting cinchona by the Madras Government was for the purpose of obtaining a febrifuge for the native classes. Government bark is advertised for sale in London, and comes to England for the manufacture of quinine. Government gets quinine for its medical departments at wholesale prices, and makes the "red bark" into an effective febrifuge cheap enough to be within the reach of all classes.

Pleuro-pneumonia.

In reply to Sir J. Swinburne, Mr. A. J. Balfour stated that Clause 6 of the Contagious Diseases (Animals) Amendment Act gives the Privy Council authority to make orders giving large powers to local authorities for the slaughter of animals which may have been in the same shed or field as diseased animals, and that the question as to how far the provisions of this clause can be enforced with the least inconvenience and expense is at present engaging the attention of the Privy Council Veterinary Department.—In reply to Mr. O'Doherty, Mr. A. J. Balfour stated that the regulations for the shipment of cattle are as carefully devised as possible. They are identical in England and Ireland, and are the same for cross Channels steamers as for those carrying cattle to Great Britain from other countries. The shipment of animals is superintended by officers of the Veterinary Department, who do all in their power to prevent any cruelty or infringement of the regulations, and he was afraid that no further action on the part of the department seems practicable.

Court-house Accommodation.

On Thursday, in reply to Sir J. Pearse, who asked if, in view of the unsatisfactory condition of the accommodation afforded to prisoners awaiting trial in many of the Court-houses in England and Wales, the Government would institute an investigation into the matter, Mr. Matthews said he was informed the accommodation was satisfactory, but in order to allay public anxiety on the subject an inquiry would be made.

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Obituary.

ROBERT EDMUND CARRINGTON, M.D. LOND, F.R.C.P.

DR. R. E. CARRINGTON, whose sad death we announced last week at the early age of thirty-three years, was the second son of F. G. Carrington, Esq., for many years editor and one of the proprietors of the *Gloucestershire Chronicle*, and grandson of N. T. Carrington, Esq., a well-known Devonshire poet. He was educated at the King's School, Gloucester, where he took a scholarship, and then became a pupil at the Gloucester Infirmary, where he remained for a year, and entered at Guy's Hospital in 1870, taking a second prize in Arts on entrance. His student career was remarkably brilliant, for he obtained the silver medal in botany at the Apothecaries' Hall in 1872, and at the Preliminary Scientific Examination in the same year he was placed first (with the exhibition) in both chemistry and zoology, and took Honours also in botany. In 1874 he passed the Intermediate M.B. Examination, and was awarded the exhibition and gold medal in chemistry and materia medica, and placed second in physiology. In 1875 he became a member of the Royal College of Surgeons, and in the next year filled the offices of house-surgeon and resident obstetrician at Guy's Hospital. He was then appointed demonstrator of anatomy, and taught well and assiduously in this post for more than five years. He was a most painstaking and methodical teacher, and his accuracy of detail is well shown in a Manual of Dissections which he published, and which is the only text-book showing the student how questions on given dissections should be answered. On this account it became very popular with candidates for the higher anatomical examinations. During his demonstratorship he suffered from a severe attack of typhoid fever, and it is questionable whether he ever really regained his former robust health. In 1878 he passed his M.B. Examination, obtaining the second place and a gold medal in medicine, with Honours in forensic and obstetric medicine. In 1879 he became an M.D. Lond., and a Member of the Royal College of Physicians, obtaining the Fellowship last year. Whilst still a demonstrator of anatomy at Guy's Hospital, he was elected in 1880 a visiting physician to the Seamen's Hospital, and he here showed the excellence of his training at Guy's as a most accurate clinical observer and a good pathologist. He contributed many articles to Guy's Hospital Reports and to the Pathological Society's Transactions, and was a regular attendant and contributor to the latter Society. In 1883, having previously worked as medical registrar and demonstrator of pathology at Guy's, he was appointed assistant-physician; and he also took charge of the skin department. At the time of his death he held the following appointments at Guy's Hospital: Senior Assistant-Physician; Senior Demonstrator of Pathology; Curator of the Museum; being also one of the editors of the Guy's Hospital Reports and Sub-dean of the Medical School. He had thus steadily advanced along the lines of Fagge, Moxon, Wilks, and others, and like them promised fair to be one of the best clinical teachers and pathologists of the day. But perhaps in addition to his scientific as well as medical learning and his teaching capacity, the late Dr. Carrington had endeared himself to his colleagues, contemporaries, and pupils, more especially by his exceeding goodnature and willingness to do any service possible for his friends. The familiar "Bob" Carrington perhaps best expresses the sterling kindness which he was always ready to devote to anyone who required assistance of any kind. He was one of the best examiners at the College of Physicians and at the London University, never losing his temper, even with the most trying candidate. The last important work which he undertook was the editing of Fagge's "Principles and Practice of Medicine," and the amount of patient work and unflagging industry which he gave to his labour of love can scarcely be too highly estimated. Dr. Carrington was a member of the University of London Lodge of Freemasons. For some years past it had been evident to his many friends that he was overworking himself, but the news of his fatal illness came on them with startling suddenness. He got wet on the 11th inst., and had a rigor on the following day; but feeling better on the 13th, he performed a post-mortem examination on a case of acute glanders, but there is no reason to suppose that he contracted infection. In the evening his temperature had risen, and on the next morning Dr. F. Taylor ascertained that he was suffering from double pleuro-pneumonia. He was apparently doing well on the next day, but on Wednesday morning, the 16th, he died rather suddenly and unexpectedly. He was buried at Norwood Cemetery on Saturday last.

To the Editors of THE LANCET.

SIRS,—Though not a Guy's man, allow me to offer a word of tribute to the memory of Dr. Robert E. Carrington, by whose death a career has been closed which gave promise of exceptional brilliancy. Dr. Carrington was well known to many as a loving son to his widowed mother and a devoted brother and friend. Unassuming and self-denying to a fault, ever ready to help in time of need, and a true friend of the poor, his charity was of the noblest type, for of himself he gave. In the conscientious devotion to many duties his mental powers had long outstripped his physical strength. While battling bravely on with but indifferent health, his body became a fertile ground for the ripening of the acute disease which, alas! too soon, has robbed us of a noble life, leaving his loved ones bowed down with sorrow and almost broken-hearted.

I am, Sirs, yours obediently,

London-bridge, S.E., March, 1887. R. DENISON PEDLEY.

ROBERT BRYCE GILLAND, M.D. GLAS., &c.

ON March 8th Dr. Robert Bryce Gilland died at Sevenoaks, at the age of forty-nine. Educated at the University of Glasgow, he obtained his degrees in 1860, became one of the house-surgeons of the Royal Infirmary, and, after finishing his term of office there, was appointed assistant medical superintendent at Gartnavel Lunatic Asylum. From this time he made up his mind to devote himself to the special line of lunacy practice. After two years' residence at Gartnavel, he removed to Essex County Asylum as assistant to the late Dr. Campbell. Thereafter, upon the founding of the Berks County Asylum, he applied for and obtained the onerous and responsible post of medical superintendent of that institution. He was of material assistance to the magistrates in completing the arrangements of this asylum. For seventeen years Dr. Gilland devoted himself to his duties, which he carried out with a precision and earnestness worthy of the highest commendation. It was only necessary to read one of his annual reports to get an idea of his peculiar fitness for the work he had in hand. His method of treating the insane was quite up to the most advanced views of the present day. A marked feature in the routine of the year was his Christmas entertainment, consisting usually of amateur theatricals followed by a ball.

Dr. Gilland was unmarried. Of him it might almost be said that he died in harness. But a short time ago his health broke down. He then, by the advice of his friends, resigned his post, retired to quietude at Sevenoaks, where he peacefully expired on the date above mentioned. Besides holding the degree of Doctor of Medicine, he was a Licentiate of the Glasgow Faculty of Physicians and Surgeons, Member of the Royal College of Surgeons of England, and a Licentiate of the Apothecaries' Company. His remains were removed to Scotland, and interred in the family grave at Kilmarnock.

PRESENTATIONS.—At a public meeting on March 13th at St. Etienne, France, Dr. H. Burroughs was presented with a gold watch in recognition of his services to the McAll French Medical Mission, a branch of which is established in that city. Mr. John Wright Baker, of Derby, who is retiring from practice, was on the 18th inst. entertained at dinner by a large number of his professional brethren of the town and country. In the course of the evening Mr. Baker was presented with an album containing a number of views of Derbyshire and a silver tea-kettle with appropriate inscription.

NORTH LONDON HOSPITAL FOR CONSUMPTION.—At an annual meeting of the Court of Governors of the hospital, Dr. Edwin Howard was unanimously elected a vice-president of that institution.

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Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—Certificates in Hygiene were granted to the following gentlemen, who have passed the required examinatione, on March 21st:

Cantlie, James, M.B. Aberd., Suffolk-street.
Davis, Weston Peel, Gloucester-terrace, Bayswater.
Greenwood, Major, Queen's-road, Dalston.
Gubb, Alfred Samuel, Grove, Hammersmith.
Hitchins, Thomas Johns, Broadfield, Crawley.
James, Charles Alfred, Dispensary, Stoke Newington.
Sanders, John William, M.D. Brussels, Bethnal-green Infirmary.
Webb, Charles Alfred, Brockhurst, Gosport.

COLLEGE OF PHYSICIANS IN IRELAND.—At the March examinations the following obtained licences in Medicine and Midwifery of the College:—

MEDICINE.—Samuel Boake, Arthur Edward Clarke, William Barclay Dick, John Exley, William Isaac Fern, Hu Ruskin Hancock, Frederic William Ord, George Shapland Passmore.
MIDWIFERY.—John Exley, William Isaac Fern, Hu Ruskin Hancock, Vincent Nash, Edward Francis O'Sullivan, Frederic William Ord, George Shapland Passmore.

The undernamed has been admitted a Member:—

Evelyn R. H. Pollard, Staff Surgeon, R.N.

SOCIETY OF APOTHECARIES.—The following gentlemen passed the examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise on March 17th:—

Simson, Francis Taylor, Viceroy-road, South Lambeth.
Tinker, William, Cromwell-road.
Wickham, Onslow Arthur, M.R.C.S., Arundel-square.

IT is officially notified that the Privy Council has sanctioned the bye-laws of the Institute of Chemistry.

DR. JAMES CURTIS, of Cork, has been appointed Inspector of Anatomy for Munster, in the room of the late Dr. Beamish.

MR. THOMAS G. LAW, librarian to the Writers to the Signet Society, has been appointed librarian to the Royal College of Physicians of Edinburgh, in succession to the late Dr. Small.

VACCINATION GRANT. — Mr. John H. Hughes, L.R.C.P. Lond. and M.R.C.S., of the Ombersley district of the Droitwich Union, has received the Government grant for efficient vaccination (sixth time).

HOMES FOR INEBRIATES.—At the annual meeting in connexion with the Homes for Inebriates Association, Dr. Cameron, M.P., was elected president, Canon Duckworth chairman, and Dr. Norman Kerr hon. sec. The three years' work at the Dalrymple Home shows over half the inebriates discharged doing well.

YORK COUNTY HOSPITAL.—At the annual court of the trustees and governors of this institution on the 22nd inst., it was unanimously decided that the York Eye Institution should be amalgamated with the hospital. Satisfactory financial and general reports for the past twelve months were presented and adopted.

ST. JOHN AMBULANCE ASSOCIATION.—The class of Royal Engineer officers held by the St. John Ambulance Association at Chatham, and instructed by Surgeon-Major McNalty, has been examined by the principal medical officer of the district, Deputy Surgeon-General E. Roberts, and out of thirty-four candidates, the whole are reported to have passed an excellent examination in first aid to the injured.

PARKES MUSEUM.—At a meeting held at the Parkes Museum on the 17th inst., Dr. E. F. Willoughby delivered a lecture on George Varrentrapp, sanitarian and philanthropist. A course of twelve lectures by well-known authorities for the special instruction of those desirous of obtaining knowledge of the duties of sanitary inspectors will be delivered in April and May.

THE EPIDEMIC OF MEASLES AND SCARLET FEVER AT GOOLE.—In consequence of the increased number of cases of scarlet fever and measles in the town of Goole, the members of the Goole School Board have decided to close their schools in Alexandra-street and Old Goole for a further fortnight. Alexandra-street Schools have already been closed a fortnight, while those in Old Goole have been kept open.

HYDROPHOBIA IN EGYPT.—An outbreak of rabies and hydrophobia is reported to have occurred at Cairo; a large number of persons have been bitten by rabid dogs and have died of hydrophobia. It is stated that the introduction of the malady is traced to a hound belonging to a European officer, which has bitten several native dogs. Some five or six thousand native dogs have been destroyed, but it is believed that many rabid dogs still remain.

THE RECENT EARTHQUAKES AT MENTONE.—The Rev. Henry Sidebotham, Chaplain of St. John's Church, Mentone, dating from that town, March 18th, writes in the *Standard*:—"I desire to contradict a report which appeared in one of your contemporaries, that 'all the doctors fled' after the earthquake, and to assure your readers that, to my own knowledge, the English doctors, without exception, went their rounds as usual every day, and were ready to attend to all who needed them, although three of them had been rendered homeless by the injury done to their houses."

FOOTBALL.—The final tie for the Inter-Hospital Football Challenge Cup was played on Tuesday last at Richmond, between Middlesex and St. Thomas's. After a well-contested struggle the Middlesex Hospital team was successful, beating their opponents by nearly twenty points. On the same evening the united clubs of Middlesex Hospital held their annual dinner, under the presidency of Mr. A. Hensman, Mr. Henry Morris and Mr. Pearce Gould occupying vice-chairs. The fact that this hospital holds both the Football Challenge Cup and the Rowing Challenge Cup lent additional interest and enthusiasm to the gathering.

THE JUBILEE. — To commemorate the Queen's Jubilee, the Salt family, of Saltaire, have offered to transfer to the public forty-five private almshouses, providing accommodation for sixty people, with extensive grounds and an infirmary, built at a cost of £40,000, as well as £30,000 left under the will of the late Sir Titus Salt for the benefit of the poor people of the district as an endowment fund.—It has been decided to erect a new hospital at Dover, at a cost of from £5000 to £6000, in comemoration of the Jubilee.—At Lewes it has been decided to raise subscriptions for the enlargement and improvement of the local infirmary and dispensary, and to change the name to Victoria Hospital.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ANDERSON, TEMPEST, B.Sc., M.D.Lond., M.R.C.S., has been appointed Ophthalmic Surgeon to the York County Hospital.

BRADBURY, A. F., M.B., B.S., has been appointed District Surgeon to the Salford and Pendleton Royal Hospital.

BULLOCK, B., M.R.C.S., has been appointed House-Surgeon to the Birmingham General Hospital.

CHITTENDEN, H., L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer for the Third District of the Hitchin Union.

CLARK, ROBERT, L.R.C.P.Ed., L.R.C.S. Ed., has been appointed Medical Officer to the Post Office, Lancaster.

COLLISON, F. W., M.B., C.M.Ed., M.R.C.S., has been appointed Senior House-Surgeon to the Preston and County of Lancaster Royal Infirmary, vice Moore, resigned.

COOK, T. DIXON, M.B., C.M.Glas., has been appointed Medical Officer for the Torquay District of the Newton Union.

DUNCAN, B. ARCEDECKNE, M.D., M.R.C.P., has been appointed Consulting-Physician to the National Hospital for Diseases of the Heart and Paralysis.

GRENFELL, HENRY O., L.R.C.P.Lond., M.R.C.S., has been appointed Assistant Medical Officer for the Infirmary of the Wandsworth and Clapham Union.

HACKETT, H. E., L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer for the Sixth District of the Charlton Union.

HARRIS, H. E., L.R.C.P., M.R.C.S., has been appointed Assistant Medical Officer to the Paddington Workhouse Infirmary.

KINGSFORD, PERCIVAL, M.R.C.S., &c., has been appointed Medical Officer to the Welsh High School for Girls, Ashford, vice Edward Kingsford, F.R.C.S., resigned.

PESKETT, ALFRED FREEMAN, M.R.C.S., L.S.A., has been appointed Medical Officer and Public Vaccinator to the Leyton District of the West Ham Union.

SAUL, W. WINGATE, M.D., M.R.C.S., L.S.A., has been appointed Medical Officer to the Post Office, Lancaster.

WARWICK, FRANCIS J., B.A., M.B. Cantab., M.R.C.S., has been appointed Public Vaccinator for the Shepperton District of the Staines Union.

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Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

BRADFORD INFIRMARY AND DISPENSARY.—House-Surgeon. Salary £110 per annum, with board and washing.

BRISTOL HOSPITAL FOR SICK CHILDREN AND WOMEN.—House-Surgeon. Salary £120.

BROMPTON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Resident Clinical Assistant.

BURTON-ON-TRENT FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Resident Surgeon.

CHELTENHAM GENERAL HOSPITAL.—House-Surgeon. Salary £80 per annum, with board and apartments.

FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY, Bartlett's Buildings, Holborn, E.C.—Honorary Physician.

GLOUCESTER COUNTY ASYLUM.—Third Assistant Medical Officer. Salary £105 per annum, with board, lodging, and washing.

HOSPITAL FOR WOMEN, Soho-square, W.—Clinical Assistants. Fee for course of three months, £5 5s.

KENT COUNTY LUNATIC ASYLUM, Barming-heath, near Maidstone.—Third Assistant Medical Officer. Salary £120 per annum, with furnished quarters, attendance, fuel, lighting, milk, garden produce, and washing.

LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W.—Senior House-Surgeon. Salary 50 guineas per annum, with board and residence.

MANCHESTER ROYAL INFIRMARY.—Resident Medical Officer of the Convalescent Home at Cheadle. Salary £150 per annum, with board and residence.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.—Superintendent of the Laboratory for Original Research about to be established. Salary £200 per annum.

ROYAL GENERAL DISPENSARY, Bartholomew close, E.C.—Resident Medical Officer. Salary £130 per annum, with residence.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Assistant to the House-Surgeon. Board, lodging, and washing.

SHEFFIELD FRIENDLY SOCIETIES' MEDICAL INSTITUTION.—Resident Medical Officer. Salary £170 per annum, with residence, coal, gas, water and rates free. Accouchements and vaccinations extra.

UNIVERSITY COLLEGE, London.—Professor of Chemistry.

Births, Marriages, and Deaths.

BIRTHS.

ASHWORTH.—On the 19th inst., at Halstead, Essex, the wife of J. Henry Ashworth, M.R.C.P.Ed., of a son.

COMBE.—On the 9th inst., at Holly House, North Walsham, Norfolk, the wife of F. Orloff Combe, M.B., C.M.Edin., of a son.

DAVY.—On the 20th inst., at Southernhay, Exeter, the wife of Henry Davy, M.D., of a son.

MATTHEWS.—On the 19th inst., at Suffolk-street, Pall-mall, the wife of Valentine Matthews, M.R.C.S., of a son.

NEWMAN.—On the 19th inst., at Ivy House, Audlem, Cheshire, the wife of Horace Townsend Newman, M.D., L.R.C.S.I., of a son (still-born).

TWINING.—On the 18th inst., at Salcombe, South Devon, the wife of Alfred H. Twining, M.R.C.S., of a son.

VACHER.—On the 22nd inst., at 31, Shrewsbury-road, Birkenhead, the wife of Francis Vacher, F.R.C.S., of a son.

MARRIAGES.

GUINNESS—REED.—On the 17th inst., at the Great Assembly Hall, Mile-end-road, Harry Grattan Guinness, M.R.C.S., to Annie, daughter of the late Henry Reed, Esq., of Mount Pleasant, Launceston, Tasmania.

MURRAY—VOSS.—On the 22nd inst., at St. James's, Piccadilly, Hubert Montague Murray, M.D., to Florence, third daughter of the late John Matthew Voss, of Swansea.

DEATHS.

BRODIE.—On the 15th inst., at the Royal Victoria Hospital, Netley, Surgeon John Brodie, M.B., Medical Staff, aged 38.

CARRINGTON.—On the 16th inst., at St. Thomas's-street, Southwark, after two days' illness (of pneumonia), Robert Edmund Carrington, M.D., F.R.C.P.Lond., Senior Assistant Physician, Guy's Hospital, in his 34th year.

HALL.—On the 18th inst., at his residence, Gorse Bank, Werneth, Oldham, William Hall, M.R.C.S., late of Salford, aged 61.

JACKMAN.—On the 21st inst., Edith, wife of William Thos. Jackman, M.R.C.S., of 114, Brixton-hill, and daughter of the late Mrs. Edward Radclyffe, of 61, King Henry's-road, South Hampstead, in her 34th year.

MACGILL.—On the 17th inst., Andrew MacGill, M.D., late of Church House, St. Leonards-road, Poplar.

THORNTON.—On the 20th inst., at Hastings, William Henry Thornton, J.P., M.R.C.S., of Berkeley Lodge, Margate, aged 65.

THURLAND.—On the 23rd inst., at Wilmington-square, W.C., Francis Edward Thurland, M.R.C.S., L.S.A., aged 40.

WOOLHOUSE.—On the 13th inst., at Cadogan Lodge, St. Mary's-crescent, Leamington, George Richard Woolhouse, M.R.C.S., L.S.A., Army Medical Department, retired, formerly in H.M.'s 44th Regiment, aged 65.

WOOLLETT.—On the 19th inst., at his residence, The Mount, Newport, Mon., Robert Francis Woollett, M.R.C.S., L.S.A.—R.I.P.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

Monday, March 28.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.

SOCIETY OF ARTS.—8 P.M. Prof. W. C. Unwin: Machines for Testing Materials, especially Iron and Steel (Cantor Lecture).

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Clinical Evening: Dr. J. Hughlings Jackson: (1) Case of Hemianopsia and of Wasting and Paralysis of One Side of the Tongue in a Syphilitic Patient; (2) A case of Facial Paralysis with Paralysis of the Palate from Cerebral Disease.—Dr. Samuel West: (1) Case of Post Hemiplegic Hemichorea in an Adult; (2) Case of Jacksonian Epilepsy.—Dr. de Havilland Hall: Two cases of Ulceration of the Soft Palate and Pharynx.—Mr. Lennox Browne: Case of Lympho-sarcoma of the Tonsil and Pharynx.

Tuesday, March 29.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 1.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.

ROYAL INSTITUTION.—3 P.M. Prof. Gamgee: Function of Respiration.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Dr. Priestley: Pathology of Intra-uterine Death (Lumleian Lecture).

SOCIETY OF ARTS.—8 P.M. Mr. Richard Bannister: Colonial Wines.

Wednesday, March 30.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M.; Saturday, same hour.

SOCIETY OF ARTS.—8 P.M. Mr. A. Beckenzaun: Electric Locomotion.

Thursday, March 31.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. F. Max Müller: Science of Thought.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Dr. Priestley: Pathology of Intra-uterine Death (Lumleian Lecture).

Friday, April 1.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—8 P.M. Clinical Evening. Cases will be shown by Mr. Keetley, Dr. Scanes Spicer, Dr. Seymour Taylor, Mr. Edwards, Dr. Colcott Fox, Mr. Bland Sutton, and others, Dr. W. G. Stevenson and Mr. Bruce Clarke: A Demonstration upon the Living Subject of the Treatment of Stricture of the Urethra by Electrolysis.—Dr. Alderson: Remarks upon a case of Fracture of the Patella, treated mechanically twenty-five years ago, with specimen. Pathological Specimens:—Mr. H. Percy Dunn: (1) Epithelial Growth of Pharynx; (2) The Skull from a case of Traumatic Meningocele.—Mr. G. A. Webster: Fracture of the Astragalus.—Brigade-Surgeon W. Curran: A Collection of Water-colour Drawings.

CLINICAL SOCIETY OF LONDON.—8.30 P.M. Sir Dyce Duckworth: A case of Psoriasis, with associated Rheumatism, which passed into Pityriasis rubra (*Dermatitis exfoliativa*).—Mr. Bellamy: Case of Symmetrical Gangrene following Varicella.—Mr. Lane: A case of Intussusception produced by a Tumour growing from the Mucous Membrane of the Great Gut.—Mr. Pollard: Three cases illustrating the Difficulties in establishing Natural Respiration after Tracheotomy, and their Treatment by Tracheal Catheterisation.—Dr. Drewitt: A case of Lupus treated partly by Salicylic Acid, partly by Scraping (living specimen).

ROYAL INSTITUTION.—9 P.M. Prof. Dewar: Light as an Analytic Agent.

Saturday, April 2.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. The Rt. Hon. Lord Rayleigh: On Sound.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, March 24th, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Mar. 18	30·21	N.E.	32	...	77	42	29	...	Fine
,, 19	30·31	E.	32	...	64	42	30	...	Fine
,, 20	30·17	N.E.	34	33	67	39	32	...	Fine
,, 21	29·86	W.	33	32	58	47	31	...	Foggy
,, 22	29·41	W.	47	45	82	54	33	·05	Overcast
,, 23	29·04	W.	47	46	95	54	44	·20	Cloudy
,, 24	29·67	W.	45	42	...	...	39	...	Fine

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

THE USE OF UNCOOKED MILK.

A CORRESPONDENT, referring to our recent comments concerning the danger of using uncooked milk, asks, with regard to the prevention of infectious diseases, what our views are as to cream, butter, and cheese. We have always regarded cream as a necessary constituent of milk, and we have again and again recorded outbreaks of infections diseases as associated with the use of cream. The most recent was that which prevailed in connexion with the use of cream from a dairy in Shoreham, the cream being mainly consumed as an adjunct to strawberries. Cream, whether as the result of the mere mechanical process of its formation or otherwise, seems to have a special facility for embodying any injurious properties that may attach to the milk from which it rises. If milk which has not travelled by rail be boiled when delivered, a cream will later on form on its surface, to which no such danger attaches. As to butter, we are not aware that it has constituted a vehicle for the infection of the ordinary specific fevers. Although this subject cannot yet be regarded as having been exhaustively dealt with, yet in several outbreaks butter has, in common with other foods, been carefully inquired into, but without positive results. Whether the process of butter-making has to do with this or not cannot at present be stated. Much the same applies to the question of cheese; but, as we explained in our issue of March 5th, a distinct danger does attach to the use of certain cheeses, and this it probably connected with the quality of milk that is used in the process of manufacture.

Mr. W. Outhwaite.—We shall be pleased to hear "the other side" from our correspondent, but have not space for the verses. We freely admit that there is danger attached to all sports; but football is unfortunately distinguished by the number and severity of accidents and the roughness of the play.

Mr. W. Fraser (Ashburton).—The report has been received.

ERYSIPELAS AND VACCINATION.

To the Editors of THE LANCET.

SIRS,—Your article on the above subject suggests the desirability of treating the vaccine vesicles, when ruptured, with antiseptics. Is this done to any extent at the present time? Or are there any instructions on this point issued by the vaccination authorities?

I am, Sirs, your obedient servant,

March 19th, 1887. INQUIRER.

*** There are no instructions issued which relate especially to broken vesicles. There would obviously be some difficulty in the antiseptic treatment of poor children remaining in their own homes.—ED. L.

PROBABILITY OF LIVING AND OF DYING.

Mr. J. Niven (Oldham).—The communication has been referred to Mr. Noel A. Humphreys, the editor of Dr. Farr's "Vital Statistics," who agrees that the paragraph quoted involves an undoubted oversight, which appears to have arisen in the following way. In the paragraph in question Dr. Farr uses p to represent the "probability of *dying*," whereas this letter is almost invariably used only to represent the "probability of *living*," and in the formula given to express the relation of p and m the p has its usual signification, the "probability of *living*," instead of the unusual meaning attached to it in the preceding paragraph. The true difference between the rate of mortality (m) and the probability of *dying* may be expressed: $m - \frac{2m}{2+m} = \frac{m^2}{2+m}$, and this difference, as is explained in the paragraph, becomes less as m diminishes.

Old Subscriber.—The letters sent scarcely supply material for a judgment on the institution.

Mr. Harcourt (Belfast) should consult a surgeon.

DIPHTHERIA AND CROUP AS ENDEMIC DISEASES.

To the Editors of THE LANCET.

SIRS,—It seems surprising, with all the efficiency of the staff of medical officers of health, that no, or very little, progress has been made in hunting down contagious disease to its seed bed (endemic origin), particularly as so much progress has been made in tracing contagion—e.g., scarlatina, typhoid, diphtheria, &c.,—to milk or water. The Jennerian analysis has doubtlessly been more strictly applied to the latter than to the former. I have for many years held that diphtheria and croup had their "endemicity" in stables or stable manure. To this opinion I was led by the fact that the majority of patients whom I had to treat were either connected with or lived near stables—e.g., stablemen, cowmen, &c., and their families. So strongly did I hold this opinion that when the Princess Alice died I wrote suggesting that all the localities, &c., where the young princess, in whom the disease first declared itself, was likely to have visited should be found out, laying particular stress on any chance visit to stables. It has occurred to me to verify in a certain degree the truth of my opinion. Last year I had a hen set in my stables. She was perfectly isolated from the other chickens, though fed on similar food and water, for a period of about twelve days, when she was brought to me with a "stoppage in the throat." I examined her, and found that the fauces, &c., were covered with the usual white membrane of diphtheria. In detaching the membrane the surface oozed blood—in fact, there was no doubt in my mind as to the nature of the case. I treated it for a few days, mopping out the throat with a saturated solution of common salt (about the best germicide solution I know), and as she did not improve I had her killed. Since then I obtained a book on poultry, and in it I find that diphtheria and croup are diseases from which fowls suffer. Whence can the birds get the disease, except from their own surroundings—farmyards, stables, &c.? It is next to impossible that the disease could be imported amongst them, as they are generally quite isolated. I know nothing of veterinary science, and consequently am very diffident in expressing an opinion which I am inclined to hold—that glanders is diphtheria in the horse. If such be the case, it very much strengthens my contention that the disease is endemic in stables (of course, it may be endemic elsewhere). I am, Sirs, yours faithfully,

Long Ditton, March, 1887. HENRY GODRICH, B.A., 1st B.Sc. Lond.

MEDICAL MISSIONARY WORK IN BEIRUT.

THE physicians of the medical department of the Syrian Protestant College have been appointed by the Order of St. John in Berlin as the medical attendants of the Johanniter Hospital in Beirut. This admirable charity is served, too, by the deaconesses of Kaiserwerth, and has received during the past year 465 in-patients and 7126 patients treated in the polyclinique. Our readers may remember that the College is connected with the American Presbyterian Mission.

M.B., F.R.C.S.—Our correspondent's experience must be peculiar. For many hospital appointments the possession of the higher diploma is indispensable.

M. M.—There is no invariable rule.

H. M.—Yes. The blocks to illustrate the paper should be sent.

WORKMEN'S COLLECTIONS IN AID OF HOSPITALS.

To the Editors of THE LANCET.

SIRS,—The workpeople of our town are showing a desire to establish a "Saturday Collection" in aid of our infirmary. It is thought that information from other towns adopting similar weekly collections will contribute largely to the success of the movement. I am requested to assist in obtaining such details; and as the difficulties are great, I must appeal for assistance to those gentlemen who are attached to hospitals where this plan is in satisfactory operation to forward to me a copy of their report. Personally I shall esteem each report a great favour, and the good likely to result to an infirmary will in itself afford satisfaction.

I am, Sirs, yours obediently,

SAMUEL STRETTON,

March, 1887. Consulting Surgeon, Kidderminster Infirmary.

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THE MOXON MEMORIAL FUND.

PRESIDENT: Sir William Jenner, Bart., K.C.B., M.D., F.R.S. The following contributions have been received since those announced on March 19th. All subscriptions should be forwarded to the Honorary Treasurer, R. Clement Lucas, B.S., F.R.C.S., 18, Finsbury-sq., E.C., by whom they will be acknowledged. Cheques should be crossed, "City Bank."

Fourth List.

Subscriptions announced	£197	4	6	J. Mitchell Bruce, M.D.	£1	1	0
Sir Andrew Clark, Bart.	21	0	0	W. C. Church, M.D. ...	1	1	0
L. C. Wooldridge, M.D.	3	3	0	J. C. Roberts, Esq. ...	1	1	0
R. Elphinstone, Esq. ...	3	3	0	A. E. Mayiard, M.B., B.S.	1	1	0
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Brigade-Surg. J. Wales ..	2	2	0	E. W. Thurston, Esq. ...	0	10	6
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C. F. Pickering, F.R.C.S.	1	1	0	E. Armitage, Esq. ...	0	5	0
G. A. Wright, M.B., F.R.C.S.	1	1	0				

M. A. O.—The only guide to the examinations at the London College of Surgeons is that by Mr. Gant (fifth edition, 4*s.* 6*d.*, Baillière, Tyndall and Cox). Keetley's "Guide to the Medical Profession" would afford the desired information on the other points.

Mr. A. V. Dyer will find his question answered in the letter of our Paris correspondent, (p. 650.)

House-Surgeon will find the report in our present number.

THE INFLUENCE OF ALTITUDE ON PHTHISIS.

To the Editors of THE LANCET.

SIRS,—I notice in your issue of March 19th an article by Dr. Alcock, wherein a novel explanation is sought to be given of the benefit derived from high altitudes in the treatment of phthisis. His idea is ingenious, but his reasoning is fallacious; and, as a matter of fact, his explanation cannot be true. He endeavours to show that the particles of human blood have the same average rate of heat motion at St. Gothard that they would have had at the sea-level at a temperature of 104·8°; it is his arguments in support of this proposition that are unsound. His words are:—"It is already accepted that the only difference between the liquid and gaseous states is one of molecular motion. Consequently, if 199° of heat can make water boil at St. Gothard, it is apparent that this temperature can there produce an amount of molecular motion which not less than 212° could excite at the sea-level." In other words, because steam contains more molecular motion than water, therefore steam raised at all temperatures contains the same amount of molecular motion! Such is Dr. Alcock's argument. He now continues: "Further, as 199° is to 212°, so is 98·4° to 104·8°; therefore, the rate of motion to which a temperature of 98·4° would give rise at St. Gothard could only be attained at the sea-level as the result of a temperature of 104·8°." Here the condition of water at 98·4° and 104·8° is deduced from the condition of steam at 199° and 212°. But in spite of the fact that "the only difference between the liquid and gaseous states is that of molecular motion," Dr. Alcock has no more right to assume that the laws which apply to gases apply also to liquids than he has to assume that Boyle's law applies alike to water and steam. Again, he assumes equal rates of motion for proportional temperatures Fahrenheit. But why Fahrenheit? Why not Centigrade, or Réaumur, or any other scale? If there were any truth whatever in Dr. Alcock's assumptions, would not the use of the absolute temperature be the more likely to give correct results? But, as a matter of fact, neither are his assumptions true, nor, if they were, would his conclusions follow.—I am, Sirs, your obedient servant,

H. OSBORNE FOUNTAIN, B.A. Cant., M.R.C.S., L.R.C.P.

March 22nd, 1887.

THE CROYDON AND SURREY MEDICAL AID ASSOCIATION.

OUR attention has been called to the fact that circulars advertising this Association and its medical officers are distributed from house to house, and that weekly canvassers are employed. There seems, too, no wage limit to the admission of members. Yet we see appended to the circulars the names of many gentlemen who would not willingly be parties to anything undignified or unprofessional.

Mr. Geo. A. Craig, M.B.—The gentleman named died in March last year.

VIPER'S OIL.

To the Editors of THE LANCET.

SIRS,—I was lately consulted by a patient for gradually increasing deafness, for which she had tried various domestic remedies without success. Among others she mentioned, with some surprise at its failure, that she had "rubbed in viper's oil," procured for her by her friends, and that "they had been very particular, catching them themselves." I should be curious to know if any of your correspondents can give an account of the origin of this singular superstition. Does it arise from the passage of the "deaf adder that stoppeth her ears and refuseth to hear the voice of the charmer," on the idea of *similia similibus curantur?* I did not inquire as to the expense of the preparation, but it must be considerable, as the average viper would not, one would suppose, yield much oil under any method of treatment.

I am, Sirs, yours faithfully,

March 10th, 1887. CHATHAMITE.

THE QUEEN'S JUBILEE AND THE HOSPITALS.

ON this subject, *Mr. Ernest Dereuth*, Secretary to the City Orthopædic Hospital, writes:—"At the commencement of the year, I made similar attempts to those so kindly advocated by Dr. Slight, and your own journal, supported by a few well-known philanthropists, but the daily papers, although usually giving me a helping hand for my hospital, declined giving publicity to our letters and announcements till the consent of Her Majesty had been obtained. I shall be very pleased to afford the movement my utmost exertions, and would suggest that a body of gentlemen be formed as soon as possible as a preliminary committee."

Liverpool.—We do not give medical advice.

CASE OF CUT-THROAT.

To the Editors of THE LANCET.

SIRS,—The following report of a case of cut-throat may be worthy of a corner in your journal.

A few days ago I was called to a patient who had laid violent hands on himself. When I got to the house I found a man sitting on a bed bleeding profusely. I at once examined him, and found a wound which stretched across the throat, being placed between the thyroid cartilage and hyoid bone. The thyroid was fractured, due to his tearing it with his fingers. I at once placed a sponge wrung out of cold water over the wound, and sponged the blood. I repeated this as the blood continued to flow, but eventually the bleeding ceased. After half an hour another doctor came; but as the bleeding had abated he did not interfere. Two hours later the bleeding recommenced; so we sponged the part well, and found four small arteries from which blood spouted. These we ligatured with silk, and the bleeding was completely stopped. The next consideration was, should we sew the wound up? We agreed not to do so, being apprehensive of blood accumulating between the skin and opened larynx, and, by passing into the lungs, causing asphyxia or inflammation. The wound was therefore left completely open for two days. Two silver stitches were then placed near the sides of it, leaving an opening over the larynx, so that any discharge from it might have free drainage. I examined the pupils as soon as I arrived, and found them greatly contracted. The wound is now closed by silk stitches. It is sponged twice a day with tepid water, and then a clean piece of linen is placed over it. The patient takes a little tea and milk, and a pint of beef-tea has been administered by the stomach-pump. No bad symptom has as yet been noticed.

I am, Sirs, yours faithfully,

Bridlington Quay, March, 1887. G. NELSON, L.R.C.P., L.R.C.S., &c.

P.S.—Since the above was written the severed pharynx has nearly healed, which is proved by very little fluid coming through the external wound when the patient swallows any fluid. As far as I can make out, the fractured thyroid cartilage is also united, and there is now very little discharge through the external wound, which now only admits one finger. The urine is loaded with urates and a quantity of bile. The bowels cannot be made to act by enema; nevertheless, we shall, I think, effect a good cure.

NIGHTMARE.

To the Editors of THE LANCET.

SIRS,—I am much indebted to the correspondents who so kindly replied to my letter, especially to "R. W. W." for the prescription given. It has not had, I regret to say, the desired effect. The dreams, with irritable heart and weakened nerve force, continue. I may add that there is some history of gout and further signs of deranged nutrition in the urine being sometimes loaded with lithates, slight flatulence and inertia of liver. Heart sounds healthy, and no excesses. Change has not done any good and exercise is limited, as a slight amount excites the heart and causes fatigue. I am, Sirs, yours faithfully,

March 22nd, 1887. M.D.

To the Editors of THE LANCET.

SIRS,—In reply to the letter of your correspondent, "M.D.," in your issue of the 19th ult., I beg to suggest the following hints:—Diet chiefly meat, eggs, milk, cold bacon; no wine or spirits, but good stout; cod-liver oil; vigorous friction of entire chest with embrocation twice a day; strictly early hours; a month's holiday in June in such bracing upland air as that of Strathpeffer. These are to my mind essential points. If the liver be sluggish, short, brisk horse exercise before breakfast is invaluable. As a rule, I believe iron is better avoided.

I am, Sirs, yours truly,

March, 1887. F.

COLONIAL PRACTICE.

To the Editors of THE LANCET.

SIRS,—Will some of your readers kindly advise me? My wife is not strong, and I am told she must not winter in England again. I have no funds to send her to the south of France, &c., so have made up my mind to sell my practice and make a start in the colonies. Which is the best place to go to? I should prefer a good assistantship, and, if possible, one with view to partnership. I would be glad also to learn the name of the most reliable medical agent in Australia or New Zealand, to whom to write. Any information will be most thankfully and gratefully received. I am, Sirs, yours faithfully,

March, 1887. SPES.

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THE M.R.C.S. DIPLOMA.

IN reply to a correspondent, whose letter has been mislaid, we have to state that a holder of the Membership of the Royal College of Surgeons has the right to append "M.R.C.S." to his name, and he only.

Furlough.—We do not think our correspondent sufficiently realises the necessity for individual convenience giving way to the exigencies of the service, nor do we approve of the manner in which he writes of the administrative officers of the department, who are certainly entitled to credit for their labours in investigating questions connected with the prevention and treatment of disease.

G. P.—The matter shall have attention.

Mr. R. W. H. Thomas.—We are unable to refer to any specific authority.

ANOSMIA.

To the Editors of THE LANCET.

SIRS,—I would feel extremely thankful if any of your numerous correspondents would kindly suggest some line of treatment that might assist me in a case I have at present. My patient, a gentleman aged thirty-four, has been for many years deprived completely of the sense of smelling; and is now a great sufferer from headaches (usually frontal), which is brought about without any apparent cause. Excitement of any kind induces it. I can find no history of syphilis, and he enjoys otherwise good health. He is very abstemious, and most careful in dieting himself. I find his breath is most offensive, which he says has been so for years.

I am, Sirs, yours faithfully,

March 23rd, 1887. CONSTANT READER.

GAS-BURNERS FOR THE CONSUMPTION OF SEWER GAS.

To the Editors of THE LANCET.

SIRS,—I observe in THE LANCET of last week a letter from Mr. Godrich, advocating the use of gas-burners for the combustion of sewer-gases. I beg to say that I have already constructed and patented an apparatus for this purpose, from a suggestion of Dr. Lowe, which acts perfectly. I shall be glad to show it in action to any member of the medical profession who may care to see it. I am, Sirs, your obedient servant,

Park-street, March 22nd, 1887. R. W. HELLYER.

BREAD-MAKING.

To the Editors of THE LANCET.

SIRS,—Could any of your readers inform me where I might obtain a pamphlet, written many years ago, on a method of preparing bread with carbonate of soda and muriatic acid very diluted. I know I ate some when in London many years ago, and I thought it healthy. I would be satisfied if I knew the quantities to be used.

I am, Sirs, yours respectfully,

Conway, N.W., March 21st, 1887. ROBERT JONES.

Student should make application to the Secretary of the College.

M.D. has not enclosed his card.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Braxton Hicks, London; Dr. Macewen, Glasgow; Mr. Warrington Haward, London; Dr. O. Sturges, London; Mr. McGill, Leeds; Prof. Senn, Milwaukee; Sir E. Lechmere, London; Mr. Mandagnialidi, Colwyn Bay; Mr. Gant, London; Sir H. C. Perrott, London; Mr. Urban Pritchard, London; Mr. Jas. Turton, Brighton; Mr. A. M. Sheild, London; Mr. T. B. Young, Halesowen; Mr. P. B. Hill, Crickhowell; Dr. F. H. Alderson, London; Mr. Grant, Blantyre; Dr. J. W. Moore Dublin; Mr. Mansfield-Jones, London; Mr. G. Nelson, Bridlington Quay; Mr. R. D. Pedley, London; Mr. J. L. Stretton; Mr. Leighton Kesteven, Brisbane; Mr. A. V. Dyer, Clifton; Messrs. Burroughs and Wellcome, London; Dr. F. M. Pierce, Manchester; Messrs. Macewen and Co., Belfast; Mr. G. A. Craig, Birmingham; Messrs. Mottershead and Co., Manchester; Mr. R. Jones, Conway; Messrs. Whitfield and Co., Birmingham; Mr. J. A. Newbold, Manchester; Messrs. Smith and Son, Manchester; Mr. J. S. Buck, Bromley; Messrs. Keith and Co., Edinburgh; Mr. Gaye, London; Mr. Medwell, Christchurch, New Zealand; Dr. Broadbent, London; Mr. Dalton, London; Mr. Percy Dunn, London; Mons. G. Masson, Paris; Messrs. Oppenheimer and Co., London; Mr. Ashenden, London; Dr. Bason, Lytham; Mr. S. Stretton, Kidderminster; Dr. P. F. Frankland, London; Mr. Bawa Sengh, Punjaub; Mr. M. G. Evans, Cardiff; Messrs. Hopkinson and Co., Notts; Mr. Cardwell, London; Dr. F. Warner, London; Mr. J. Williams, Brentford; Dr. Gardner, Adelaide; Mr. R. W. H. Thomas, London; Dr. H. R. Bigelow, Berlin; Mr. Counsell, Bishearne; Mr. T. Jackson, Holbeach; Rev. G. H. Wright, London; Messrs. Sumner and Co., Liverpool; Mr. Hussey, Oxford; Mr. Moullin, London; Mr. E. W. Wallis, London; Mr. Smeaton, London; Dr. Lewins; Dr. Abraham, London; Dr. Brett, Watford; Mr. Hodgkin, London; Mr. Dereuth, London; Dr. Steeves, Liverpool; Dr. F. E. Adams, Cork; Mr. R. W. Hellyer, London; Dr. Elder, Nottingham; Mr. Easterbrook, London; Mr. V. G. Webb, London; Mr. F. W. Wright, Derby; Mr. Fountain, London; Mr. Blake, Crewkerne; Mr. Knott, Middlesbro'; Mr. Maw, London; Mr. Brown, Westgate-on-Sea; Mr. J. H. Balfe; Mr. Oakwell, Notts; Dr. Craddock, Gloucester; Dr. Macartie, Bombay; Miss Sykes, Hamilton; Dr. Gabb, Cheltenham; Mr. Grattan, Cork; Mr. Ricker, St. Petersburg; Mr. Jennings, London; Mr. Tresise; Mr. Ashworth, Halstead; Mr. Tillet, Dudley; Mrs. Chambers, Everleigh; Mr. Ryan, London; Mr. Kershaw, Luton; Mr. Beckton, London; Mr. W. G. Bunn, London; Mr. Hartzhorne, London; Mr. Mundy, Hampstead; Messrs. Reynolds and Co., Leeds; Mr. Armstrong, Manchester; Mr. Jacob, Basingstoke; Constant Reader; H. M.; M.D. 1886; L.S.A.; F.; Inquirer; M.D.; Furlough; M.B., F.R.C.S.Eng.; Only an M.B.; Resident Physician, Southsea; Surgeon, Birkenhead; Old Practitioner.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Saul, Lancaster; Mr. Lewis, London; Mr. Coltman, Leicester; Mr. Carp, Notts; Mrs. Terrell, Hertford; Dr. Waller, Peterboro'; Mrs. Northrop, London; Mr. Lyle, Dalston; Mr. Townsend, Exeter; Messrs. Beal and Son, Brighton; Mrs. Hitch, St. Leonards-on-Sea; Messrs. Street and Sons, Guildford; Mr. Edmunds, Chesterfield; Mr. Birchall, Liverpool; Dr. Lindsay, Belfast; Mr. Fowler, Wakefield; Mr. Westwood, Stratten; Dr. Brown, Puckeridge; Mr. Webb, Epsom; Mr. Keely, Notts; Mr. Langley, Notts; Mr. Hornibrook, London; Miss Barlow, Colwyn; Dr. Hall, Prescott; Dr. D'Estrée, Paris; Dr. Combe, North Walsham; Dr. Newman, Audlem; Dr. Stack, Spalding; Mr. Kirby, Whitechapel; Mr. Dumville, St. Alban's; Mr. Thomas; Mr. Brymer, Summerton; Mr. Affleck, Manchester; Mr. Boyveau; Mr. Saunders, Camden-town; Dr. McGill, Poplar; Mr. Rideal, London; Dr. Gurney, Finsbury; Mr. Bacher, Birkenhead; Mr. Brooks, Ludlow; Dr. Benthall, Southsea; Mrs. Moore, Coventry; Mr. Grimyer, Bow; Mr. Stevens, Notting-hill; Mr. Thornton, Margate; Mrs. Chambers; Mr. Johnson, Sheffield; Mr. Gimblett, Peckham; Miss Carson, Burton-on-Trent; Commercial, Exeter; S. S.; J. A. M., Wakefield; Bruce; Medicus, Camden-town; H. W.; Hailebury; Medicus, Bristol; T. H.; Lady Superintendent, St. John's-wood; Steward, Plumstead.

Western Mail, South Wales Daily News, Echo, Hospital Gazette, Norwich Mercury, Gloucester Chronicle, Orilla Packet, Eastern Morning News, City Press, &c., have been received.

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Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

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Croonian Lectures
ON
THE PULSE.

Delivered at the Royal College of Physicians of London, March, 1887.

By W. H. BROADBENT, M.D., F.R.C.P.,
PHYSICIAN TO ST. MARY'S HOSPITAL, CONSULTING PHYSICIAN TO THE LONDON FEVER HOSPITAL, AND PRESIDENT OF THE CLINICAL SOCIETY.

LECTURE II.

MR. PRESIDENT AND GENTLEMEN,—My first lecture was occupied by certain general considerations with regard to the pulse, after which I began to describe the more important variations in frequency and abnormalities of rhythm. The next to be considered is the infrequent pulse.

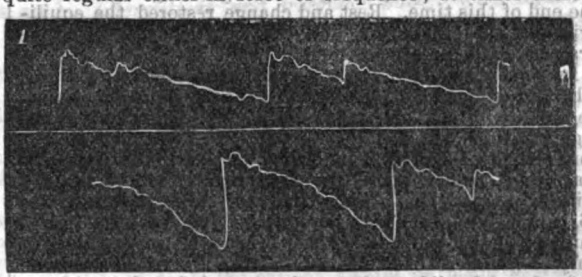
Infrequent pulse.—It has already been remarked that the effect upon the pulse of nearly all departures from a normal state of health is to increase its frequency, and the diseases are extremely few which reduce the pulse rate in any marked degree. High tension in the aorta—induced experimentally in animals or man by pressure upon the abdominal aorta, or upon a number of the larger arteries—slows the pulse, and the high tension of renal disease has some effect in the same direction, but less than might have been anticipated. In jaundice the pulse falls in frequency, and in various affections of the nervous system this effect is observed; but, except under circumstances which will be discussed later, the reduction is not striking. A pulse is really infrequent when the number of beats is below 40 per minute. A pulse of 60 is not uncommon, of less than 60 rare. Persons are met with, however, in the enjoyment of vigorous health with a pulse of less than 40. I have known an athletic young man, tall, well built, and muscular, who distinguished himself at football and other violent games, whose pulse-rate was 36. Some years after I last saw him, I heard of his death while swimming; he was taken with "cramp," so-called, and sank. In this cramp it is the heart which is brought to a standstill by the resistance in the peripheral circulation due to the combined effects of arterio-capillary contraction from contact with the cold water, and of pressure on the surface from immersion, and it is not unlikely that slow action of the heart would predispose to this result. Infrequency of the pulse to the degree under consideration is sometimes met with in fatty degeneration of the heart, and is enumerated among the indications of this disease, but it is far more commonly absent than present, even in an advanced stage of fatty change in the heart.

The infrequent pulse, however, is so closely associated with the bigeminal pulse, and with a peculiar modification of the rhythm of the heart, in which only every other beat reaches the wrist, that it will be well to consider these. In the interesting variety of pulse rhythm called the "pulsus bigeminus," the beats come in couples, a strong beat being followed quickly by a somewhat weaker one, after which there is a pause. The second of the two beats may vary greatly in strength, being sometimes almost as distinct as the first, sometimes scarcely perceptible, and the interval between the first and second may vary somewhat in length. On examining the heart, its action is found to correspond; there are two unequal impulses, the second weaker than the first, and usually felt at a different point; and on auscultation the sounds associated with the second impulse are less loud, and of a lower pitch. If a murmur is present, usually a mitral systolic, it will be louder and higher pitched with the first, and may be inaudible with the second. I have sometimes heard a mitral murmur with one beat and a tricuspid with the other.

Closely allied to this condition is that in which there are two beats of the heart to one of the pulse, one beat being dropped; not that transitions are common, for, in the absence of valvular disease, the pulse may number 40 one minute, the heart beating 80 in couples, and the next may be perfectly regular at 80. In the form of valvular disease, however, mitral stenosis, in which the pulsus bigeminus and the dropped beat are most frequently met with, the former may be a stage in the return towards a regular mode of action from the latter; and although (in the absence of valvular disease) a systematic bigeminal pulse does not succeed the dropping of a beat, yet an occasional bigeminal beat occurs when the weaker systole happens to raise the aortic valves, so that there is a clinical similarity which permits of their being considered together. Both, as has just been said, are met with in mitral stenosis, and especially when under treatment by digitalis. I have had several cases in which the pulsus bigeminus, or dropping of one beat, could be induced at will by administering this drug. Taking the more advanced condition, when there are two beats of the heart to one of the pulse, a careful examination of the heart is most instructive. It is often difficult to resist the impression that the two ventricles are acting alternately. The impulse in the first of the two beats will give the sharp apex tap characteristic of an advanced stage of this form of heart disease; the second will be felt only, or mainly, over the right ventricle. On auscultation, if there is regurgitation as well as stenosis, the systolic murmur and short sharp first sound will be heard at the apex with the first beat, but will be absent at the second; and the same will be the case with the aortic second sound at the base—it will be distinct with the first, absent at the second; while the sounds of the right side of the heart will be heard alone at the second beat with the tricuspid regurgitant murmur, if one is present, and will be comparatively weak with the first and stronger of the two beats; the pulmonary second sound, however, bearing witness that the right ventricle has contracted. When there is no regurgitation, the first beat will have the loud, short, sharp first sound at the apex and both sounds at the base, the second the low-pitched first sound of the right ventricle and a loud pulmonary second sound, but no aortic second sound. Usually the presystolic murmur will have disappeared before the coupled beats under consideration set in.

In the absence of mitral stenosis the double heart beat with only one pulse is considered by Tripier of Lyons to be of very serious import, and to occur only in connexion with epileptiform attacks. To quote his conclusion on this point, he says: "Il semble donc qu'il n'y a pas de pouls lent avec épilepsie sans déviation du rhythme cardiaque, de même qu'il n'y a pas de déviation du rhythme cardiaque avec ralentissement du pouls sans épilepsie, ou sans l'action du digitale, tout au moins d'après les faits dont nous avons connaissance." Such has not been the case in my own experience. But before relating the cases which seem to me to be in opposition to Dr. Tripier's conclusion, I may add one more to the series which he has collected with so much industry and employed with so much ability, illustrating the connexion upon which he insists between epileptiform attacks and the dropped beat and bigeminal pulse.

C. W——, a carman, aged forty-seven, but looking ten years older, was admitted into St. Mary's Hospital under my care, March 2nd, 1877. He had had rheumatic fever eight years before, and had suffered from occasional attacks of bronchitis. For eighteen months he had complained of palpitation after hard work, and he had had "fits," of which no exact description was obtained. After a recent attack of bronchitis, from which he had recovered about three weeks, he had had for a fortnight an increasing sense of palpitation of the heart, with pain which he called "working pains" across the upper part of the abdomen. On admission he had an anxious look and the skin was clammy; the temperature 97°; the urine had a specific gravity of 1010, but contained no albumen; the pulse was 31, large and strong, not quite regular either in force or frequence; at times there

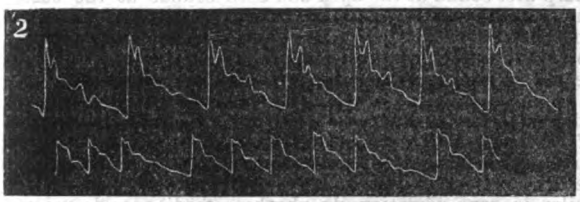


was an echo of the beat (pulsus bigeminus)—see Chart I. The heart was of normal size; the apex beat was distinct, and often followed at a brief interval by a second beat. At the apex a low-pitched systolic murmur beginning with an accent was heard; it was soon lost beyond the

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apex, but within it, was audible over the right ventricle and up to the pulmonary area. The aortic second sound was heard over the entire heart. As a rule the heart beat was single, but from time to time there was a double beat. When he was made to walk rapidly the patient felt faint, but did not stagger, and secondary beats were more numerous. He was in the hospital two months, and improved much in strength, no fits occurring; the pulse, however, remaining at 28. At one time, when suffering more than usual from "working pains" all over the abdomen, the pulse was 59 and quite regular. His subsequent history is unknown.

A well-marked example of infrequent pulse with double heart beat, but without epileptiform attacks or serious effects on the health, came under my notice in November, 1883, in a tall, strong, broad-chested man, aged fifty-two years, who had been engaged in exciting political agitation, and had suffered a severe domestic loss. He was complaining chiefly of continuous dreaming, and of depression and loss of energy, with heaviness and confusion of the head. Having found a pulse of 40, I wished to examine the chest, but he said this was quite unnecessary, since, whatever else might be amiss, the heart and lungs at any rate were all right, and he declared that he would walk up-hill as well as ever, and even run. There was no impulse or apex beat, but on auscultation a normal first and second sound were heard all over the heart; followed rather sooner than usual by a first sound without a second, a weak pulmonary second sound, however, being audible when listened for with care. The first of the two beats only gave a pulse at

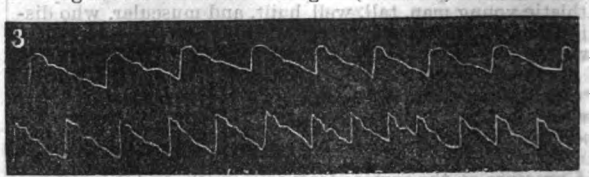


the wrist; the second, indeed, not raising the aortic valves. All the symptoms disappeared, but two years later, after another period of excitement and anxiety, he again consulted me, and with similar complaints he had a return of the peculiar action of the heart. The pulse was 34, quite regular. There was a diffused double cardiac impulse without defined apex beat, one of them strong, giving a pulse, followed quickly by a weaker one, which sent no wave to the wrist. The sounds were much as they have been described before, but the first sound of the second weaker beat was almost inaudible at the apex and distinct over the right ventricle. This patient again recovered, and is still making much noise in the world.

In the same year, 1881, I saw a medical man of about fifty-five, who, when rather overtaxed by work, had run some distance on being called to an urgent case. This was followed by strange faint feelings, and an uneasy sensation about the heart. He was not otherwise out of health. He had discovered that his pulse was 40 instead of 70, and on examination this was found to be due to the heart beating in couples—a strong beat with normal sounds which gave a pulse, followed quickly by a weaker beat with sounds which appeared to belong to the right ventricle only. This had been going on for ten days before I saw him, and continued for ten or fourteen days longer, coming and going towards the end of this time. Rest and change restored the equilibrium of the circulation, and this gentleman is in active practice at the present moment.

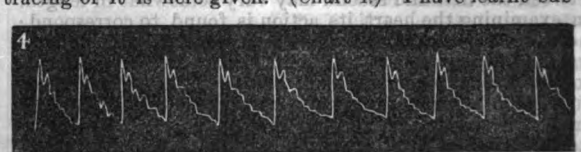
In November, 1883, I saw a gentleman, aged fifty-three, who had enjoyed good health until the previous June, when he had an attack of congestion of the lungs, and mitral regurgitation was found to exist. He looked well, but complained of shortness of breath on exertion. The pulse was large, rather tense, perfectly regular at 72 beats a minute, except that from time to time the rate was 36, which was found to be due to the fact that while this continued the beats of the heart were in couples, one only of which reached the wrist. The apex beat was well defined and forcible, and near the normal situation. A long, smooth, high-pitched, musical murmur was heard at and to the left of the apex and in the back; another murmur of lower pitch was audible along the right edge of the upper part of the sternum up to the sterno-clavicular articulation; the aortic sound was accentuated, the pulmonary masked by over-lapping lung. When the coupled beats were present, no second sound followed the later of the two, so that the sounds ran 1 2 1—1 2 1; both the mitral and the aortic murmur were louder with the first beat than when the heart's action was regular, and absent or scarcely audible with the second; this second beat, however, gave a loud first sound, so that it was not abortive from mere weakness, but the absence of the murmurs and of the second sound was probably due to an imperfect diastole. A week later, after rest in bed, the physical signs were unchanged, except that when a series of coupled beats occurred, which was as frequent as before, the second of the two beats was weaker and more precipitate. This patient, after a Mediterranean trip, again came under my care in February, 1884, and was then observed to have Cheyne-Stokes' respiration, which, however, did not prevent him from going to the City, until thrombosis of the deep tibial veins came on. He died from the effects of thrombosis in the right innominate vein. The peculiar heart rhythm was never heard again; but the case is the more interesting from the occurrence of this peculiarity in the action of the heart, and later of Cheyne-Stokes' respiration, which Tripier considers to belong to the same order of phenomena.

The double heart beat for each beat of the pulse was present again in the case of a lady seen in October, 1885. She had worked very hard in her father's parish, which involved much walking up-hill, from April to June, when she began to look ill, and was breathless—which, however, she did not notice herself. She then suddenly broke down, and had been resting up to the time when she consulted me. She looked well, and all the functions were natural, but she felt as if she could sleep continually. The pulse was infrequent, and two beats of the heart, one like an echo of the other, were felt and heard for every pulsation at the wrist. The aortic, as well as the pulmonary second sound, seemed to be audible in the second weaker beat, although no evidence of this systole having raised the aortic valves is recognisable in the tracing. (Chart 3.) Under the



excitement produced by the application of the sphygmograph the rhythm gradually became normal—not suddenly, as is usual.

Another case has recently come under my notice in a gentleman aged sixty-three, who consulted me on account of faintness and flatulence. He had been nervous about his heart for thirty years or more, and had been afraid of exercise. He had neither overwork nor anxiety; but some months before he consulted me he had had a fall from his horse and had broken his collar-bone, since which he had not ridden. The pulse was at first 108, and regular, but from agitation, or from the effort of taking off his coat, it fell to 54, the number of heart beats being exactly double, a strong and weak beat being coupled together with sounds belonging predominantly to the left and right ventricle respectively. This continued to the end of the interview, and a tracing of it is here given. (Chart 4.) I have learnt sub-



sequently from his regular medical attendant that this rhythm has been observed from time to time for years. In none of these cases had epileptiform or syncopal attacks been known to occur.

Still more recently I have seen with Mr. Stanley Smith an example—the only one I have met with, except, as I have said before, in mitral stenosis, in which the bigeminal pulse had followed the dropped beat. An old lady, aged seventy-seven, had been to Olympia on Feb. 11th. She was ailing on the 12th and 13th, and prostrate on the 14th, complaining of oppression in the chest and respiratory distress. She

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was found to have a pulse of only 35 to 40, instead of 76, and the double heart beat. She improved under stimulant treatment, and when I saw her on the 17th had a pulse of 60 in coupled beats, which were about equal in strength and volume, and followed each other rather quickly, the pause being long enough for two more beats at the same rate. The rhythm was that of common time in music—1, 2, 3, 4; 1 and 2 being beats, and 3 and 4 silent. No cardiac impulse could be felt, but the beats, as followed by means of the sounds, had the same rhythm as the pulse, and there was a systolic mitral murmur with each. A doubtful abortive systole seemed to be audible at times.

A single instance of the pulsus trigeminus may be given. The patient, a needlewoman, aged forty-one, employed in St. Mary's Hospital, had been in better circumstances before taking this situation, and after fifteen months in it was set to do laundry work. Lifting and carrying heavy baskets caused blood to well up into her mouth, but, in spite of this and of feeling weak and languid, she persisted without complaining for a fortnight, when she was sent into the ward on Sept. 14th, 1885. She looked languid, and had from time to time sharp pain in the cardiac region. The pulse was trigeminal, with two distinct and similar beats, and then an intermission, the third beat, however, being very faintly indicated by the sphygmograph. On auscultation of the heart, which was of normal size, a triple rhythm was observed; the first beat gave perfectly normal sounds; the second a good first sound, but a reduplicated second sound at the base; the third beat had no second sound at all, and the first was rather precipitate. A cardiogram taken as well as the sphygmogram by my clerk, Mr. S. A. Tidey, shows the rhythm of the heart. (Chart 5.) As the



patient gained strength the cycle was extended to four and five beats while in bed, but reverted to the trigeminal type when she began to walk about, and it had this character when she returned to her duties as needlewoman. To it seems to me that the cases cited invalidate Tripier's conclusion that the peculiar modification of the cardiac rhythm, in which every other beat is dropped, is always associated with and due to epilepsy, and usually of very serious import; nor can I accept the other conclusion that a slow pulse with epileptiform attacks is always due to dropping of alternate beats. The decision is of importance, since upon it turns the question of whether, as Tripier believes, it is the epilepsy which affects the cardiac rhythm, or whether, as I think, it is the slowing of the circulation which causes the convulsions. Before entering upon any discussion on the subject, however, I may bring evidence to show that there may be a slow pulse with syncopal or epileptiform attacks which is not due to abortive heart beats. I have myself seen a case of fatty degeneration of the heart attended with syncopal attacks, which soon after proved fatal suddenly, in which the pulse was infrequent without any interposed feeble heart beats being detected on careful examination. The patient, however, was seen only once in consultation. The notes of a hospital case, with numerous tracings which I think would have corroborated this, are unfortunately missing.

In THE LANCET for 1885 (p. 288) cases of slow pulse with epileptic seizures are related by Mr. F. St. George Mivart and Dr. A. T. Gibbings. Mr. Mivart's patient was a man aged sixty-one, who had been subject to rapid and violent palpitation of the heart. His first fit was six years before he came under Mr. Mivart's care, and this and most subsequent ones came on while he was stooping. His pulse rate was 24, and there is no record either of interposed weak beats or of abortive systoles. In Dr. Gibbings' case the patient, aged sixty-five, had for some time had an intermittent pulse of about 60. After an attack of bronchitis he suffered from dyspnœa and palpitation, and the pulse was found to be only 44. Still later he became subject to frequent epileptiform attacks, and his pulse had now fallen to 22, but was full and regular, the heart beats corresponding in time. It is noteworthy that the epileptiform attacks would come on when the patient sat up. The pulse continued to fall, and it reached 12 or 13 the attacks being now so frequent that he went out of one into another. The urine also became albuminous. With a subsequent return of the pulse to 31 the albumen disappeared, and he was so much better as to be able to do a little work. While apparently better, he fainted at stool, and died. Nothing abnormal was found either in the heart or in the nervous centres. This patient was seen by Sir Andrew Clark and the late Dr. Moxon, and it is distinctly stated that the heart sounds were normal. We may conclude, therefore, that there were no abortive beats. It is true that it is not expressly stated that they were absent, but in a case of such interest they could not have been overlooked.

The infrequent pulse of fatty heart may fairly be attributed to the structural degeneration of the organ; but an infrequent pulse, when the heart is sound, and especially if it is due to the occurrence of alternate weak beats, can scarcely be explained in any other way than by the interposition of the nervous system. This does not bring us much nearer a true comprehension of the phenomenon, and, as I have already stated, I do not accept the conclusion at which Tripier has arrived, that it is an effect of epilepsy. On the contrary, I look upon convulsive attacks, when they occur in connexion with an infrequent pulse, as a result of cerebral anæmia, produced exactly in the same way as the convulsions after great hæmorrhage. In Mr. Mivart's case the convulsions came on when the patient stooped, in Dr. Gibbings' when he sat up, changes of attitude being sufficient in the extremely feeble state of the circulation to determine such an arrest of the blood-supply to the brain as would give rise to an attack. The late Dr. Moxon, it will be remembered, went so far as to suggest that the initial event in common epilepsy was a stoppage of the heart.

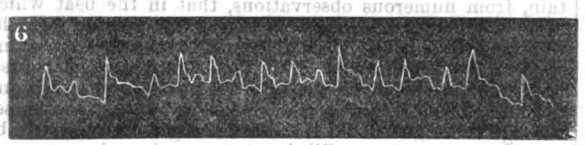
Another question is suggested by some of the cases of dropped heart beat. In almost all, while the aortic second sound of the weaker beat which fails to reach the wrist is absent, the pulmonary sound is audible. In many the impulse and first sound of the right side of the heart are more distinct than those of the left, and occasionally there is such a difference in the situation of the impulse and in the character of the sounds as to suggest that the two sides of the heart are beating alternately; there may even be a mitral murmur with one beat, a tricuspid with the other. The extreme case is met with only in mitral stenosis under digitalis. Now, while it must be taken as demonstrated that there is no such occurrence as an alternating action of the two ventricles, it is certain, from numerous observations, that in the beat which does not raise the aortic valves the systole of the right ventricle is often forcible, and the pulmonary second sound is usually distinct. This last sign means, of course, that blood has been thrown into the pulmonary artery and not into the aorta, and as the amount of blood which passes through the right and left heart in a given time must be equal so long as the equilibrium between the pulmonary and systemic circulation is maintained, the propulsion of blood from the right ventricle only must be supplementary. In mitral stenosis it is easy to understand that such an extra contraction of the right ventricle might be useful in maintaining the pressure in the pulmonary circulation which is necessary in order to force the blood through the constricted orifice; or, regarding it in another aspect, the abortive contraction of the left ventricle is due to its being inadequately filled during one diastole so that a second is needed. No such necessity, however, is apparent when both valves and walls of the heart are normal.

Intermittent and irregular pulse.—With regard to the intermittent and irregular pulse I have nothing to say which will not be familiar to all my hearers. Intermission, occasional or habitual, of the pulse is compatible with health and vigour up to extreme old age, and, in the absence of symptoms, may practically be disregarded. The intermission of the pulse is associated with a hurried and imperfect beat of the heart, of which the first sound is sometimes sharp and following immediately upon the second of the preceding normal beat, at other times it is weak. A weak pulmonary second sound is usually audible. An intermittent pulse may, however, be among the signs of fatty degeneration of the heart, but it will not stand alone. In case of doubt the patient should be made to walk briskly for a minute or two, when the really weak heart will falter, while if the heart is healthy the intermission will usually disappear; it will often disappear also during the administration of chloroform.

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Marked irregularity of pulse is most frequently met with in mitral regurgitations; next in dilatation of one or both ventricles; but it occurs independently of any disease of the heart. The fact that it is so commonly associated with incompetence of the mitral valve, while it is rarely observed in other forms of valvular disease, except when the heart is failing, seems to indicate a mechanical rather than a nervous origin of the disturbed rhythm in mitral regurgitation, and it appears to me to be related with the varying pressure upon the heart in respiration. When the mitral valve is incompetent, and the blood can pass back into the auricle as well as forwards into the aorta, the proportion which is driven in one or other direction will be determined by the comparative degree of resistance. Now the dilated left auricle will be supported by a certain amount of pressure during expiration, which will tend to resist distension by the regurgitant blood; but at the end of expiration the conditions are suddenly reversed, and it will be exposed to the negative pressure or suction action which fills the chest with air, so that the reflux is favoured. The sum total of the resistance to the ventricular systole is thus diminished at this moment, and the systole is consequently very rapid, at the same time that less of the blood goes forward into the aorta. At the end of inspiration opposite forces come into play, and the repetition every two or three beats of these disturbing influences quite accounts for the irregularity of the heart's action. In an early stage the irregularity can be seen to occur coincidentally with the end of inspiration and expiration. It is the incompetence of the mitral valve which exposes the ventricle to the respiratory pressure variations; but when, from any affection of the lungs, such as bronchitis and emphysema, the difference between the pressure on inspiration and expiration is greatly augmented, we find the action of the heart disturbed in like manner, and careful watching will show that the chief irregularities coincide with the reversal of the action of the chest.

Irregularity of pulse of nervous origin is illustrated by the disturbance of the cardiac rhythm in dyspepsia and by tobacco; but it may be present in an extreme degree independently of any recognisable influence, and may be habitual. There need be no affection of the general health or impairment of vigour or endurance. In one of the worst cases I have ever seen, the patient, who was for some time under my observation, was, long after the age of sixty, in the habit of addressing public meetings. The trace exhibited (Chart 6) was taken recently upon a gentleman, now aged



seventy, who consulted me twenty years ago on account of irregular action of the heart, and has had it ever since. I am unable to fix any prognostic value on irregularity of the pulse as such; and when it occurs in connexion with dilatation of the heart, the prognosis is determined by other considerations.

I now proceed to the consideration of variations of tension, and I shall first speak briefly of *low tension*.

Tension in the pulse, as has been already stated in the first lecture, depends primarily on the freedom of the flow through the capillary network; and it is low when the capillaries and arterioles are relaxed, allowing the blood to pass readily. As the capacity of the arterial system increases towards the periphery, the branches at each division being collectively larger than the trunk from which they spring, and as the capillary channels are larger still, it is conceivable that the blood might escape as fast as it could be injected by the heart. The actual realisation of this possibility is incompatible with life, as the functional activity of the nerve centres is dependent upon a continuous flow of blood through them, and under the circumstances supposed it would be intermittent. The resistance, however, in the arterioles and capillaries may be so slight that the blood has still a pulsatile movement when it reaches the veins. Such venous pulsation in the veins of the back of the hand can often be demonstrated in aortic regurgitation, but here it is not so much the diminished resistance in the capillaries as the exaggeration of the pulsatile variations of pressure in the arteries which brings it about. In order to see pulsation in the veins, however, the capillaries must be relaxed by putting the hand in hot water, or there must be pyrexial relaxation of the peripheral vessels, which often renders it very evident. Occasionally venous pulsation is met with when there is no heart disease, or any other cause than abolition of the normal resistance in the capillaries. I witnessed it in a gentleman who was gradually sinking from the effects of alcohol without any of the usual alcoholic disease of the liver and kidneys. He took less and less food, and came to live on alcohol, and finally had slight pyrexia and occasional attacks of hæmoptysis. The arteries were large, thin, and soft; and for some time pulsation in the veins of the dorsum of the hand could be rendered visible at any time by dropping the wrist so as to allow the veins to fill.

The characteristic mark of low tension in the pulse is the complete subsidence of all blood-pressure in the artery between the beats. It therefore allows itself to be flattened under the finger in the intervals of the pulsation, and this causes the impact of the pulsation to appear sudden. Further, as we have seen, it must be short. Variations are observed according to the size of the artery and the action of the heart. The artery must be relaxed. When the artery is large and the heart is acting forcibly, we shall have a large, short, strong pulse—the full and bounding pulse of old writers; and dicrotism will usually be conspicuous. When, with a large relaxed artery, the heart is weak, the pulse will be large, short, and weak, still with dicrotism. We cannot have a contracted artery and powerful heart's action with low tension. A feebly acting heart and small artery—the artery being small simply from want of distending force—will give the small, short, weak pulse described as thready; and the absence of a distinct wave of pressure gives it an undulatory character.

One of the most constant effects of pyrexia is to relax the arterioles, and the pulse characteristic of all forms of fever is one of low tension. The pulses above given are, in effect, if also frequent, the pulse of pyrexia in different forms and stages. On these, consequently, I do not dwell. A low-tension pulse in the absence of pyrexia, unless it is a physiological peculiarity of the individual (and it may be remarked, in passing, that a pulse of a very low tension may run in families) is indicative of debility. It may go so far as to suggest the existence of fatty degeneration of the heart, except that the pulse of cardiac weakness is usually frequent, while that of fatty decay is more commonly under the average rate. The heart sounds also are weak and short. The symptoms associated with a pulse of low tension are extremely varied, and they are for the most part not the result of the weak pulse, but concomitant effects of a common cause. Many of them are equally common when the pulse tension is high, and the question is not what symptoms arise out of low or high pressure in the arteries, but, given certain symptoms, what is the state of arterial tension, since this will be an important guide in the treatment. When the tension is low, purgatives are badly borne, and mercurial aperients give rise to great depression. Sometimes, indeed, the subjects of low arterial tension feel much better when the bowels are constipated, and exhausted after each action. There are no doubt cases in which the chief cause of deficient pressure in the arteries is want of functional vigour in the heart, and it would be of service to be able to distinguish such cases from those in which the primary cause is absence of resistance in the arteries and capillaries, but this is not easy. A low state of arterial tension is not in itself a source of injury to the heart or vessels. It has an important bearing on affections of the nervous system; but questions relating to this are reserved for the third lecture.

High tension.—The cause is obstruction to the free flow of blood through the minute arterioles and capillaries to the veins. There is some difference of opinion whether the exact seat of this obstruction is in the arterioles or capillaries. It is probably not in all cases the same. In high arterial tension of purely nervous origin—as, for example, in hysteria, in cerebral and spinal disease, in rigor and the cold stage of fever—there can scarcely be any question that the cause is tightening up of the minute arterioles; but in tension of blood origin—as in renal disease, gout, and allied conditions—it seems to me that the primary obstruction is in the capillaries, contraction of the arterioles being no doubt associated with this, but secondary to it, either by way of continuity, or as a defensive counteraction against the distending internal pressure set up by the obstacle beyond. I

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may briefly enumerate some of the reasons which have led me to this conclusion. The most important are derived from an examination of the minute arterioles in the brain after death resulting from contracted granular disease of the kidney. When there have been uræmic convulsions, capillary hæmorrhages are almost always present in various parts of the cortex, so much so that our late distinguished colleague, Dr. Mahomed, attributed the convulsion to capillary rupture. If the capillaries were protected by contraction of the arterioles, such rupture could scarcely occur. Again, these arterioles are themselves at certain points dilated into miliary aneurysms, and liable to rupture, not where they are given off from larger branches, but just where they break up into the capillary network, which shows the obstruction to have been beyond, and not in, the arterioles; while not only are the perivascular spaces round them large, as if from distension, but a ring of the surrounding brain substance is pale, as if from pressure. Another reason is that although the medium-sized arteries (such as the radial) and the small arteries (such as the digital) are usually contracted and small in high tension, this is not always the case, and it seems improbable that in vessels anatomically continuous and physiologically correlated there should be contraction in the minute arterioles without a corresponding condition of the arteries leading to them. In further support of this view I may cite the important experiments of Drs. Ringer and Sainsbury on the action of the digitalis group of remedies (Med. Chir. Trans., vol. lxvii.). It is there shown that when all reflex contraction of the arterioles is rendered impossible by destruction of the brain and spinal cord, digitalis and other substances having similar properties give rise to marked diminution of the flow through the arterio-capillary channels. The action is thus proved to be direct upon the contractile structures of the capillaries and arteries, and not indirect through the vaso-motor nerves.

I must, at the risk of tedious repetition, again describe the high-tension pulse. Its distinguishing characteristic is that the artery is full between the beats. So full is it that it can be rolled under the finger as if it were a tendon, and followed like a solid cord some distance up the forearm; and, when the tension is well marked, no pulsation may be felt while this is being done, unless decided pressure is made by the fingers. Above the wrist, when the artery rests upon the muscles of the forearm and not on the radius, it may be difficult to detect pulsation. Not unfrequently, especially when the skin is thin, the artery can be seen to form a distinct projection, but no pulsation is visible in it, unless it is thrown into a curve, when this will be seen to be accentuated at each beat. The artery is usually small from contraction of its muscular coats, unless it has been dilated by protracted distension, when it may have much beyond the average diameter. When pressure is applied in order to bring out the character of the beat, it is found that this does not strike the finger sharply, but rather lifts it powerfully; it persists for an appreciable time, and then gradually subsides with little or no dicrotic echo. It is the long pulse, "pulsus tardus." The size of the vessel will make some difference in respect of all these points; the distinctive features are best marked when it is small; when it is large, both the incidence and the subsidence of the pressure will seem to be more abrupt, especially if the artery is thoroughly flattened by the fingers. With moderate compression the beat feels less sudden, and has the gradual rise, sustained duration, and slow decline which is characteristic of high tension. Another character of the high-tension pulse comes out when its strength or force is tested by attempting to arrest the beat. While the fingers rest lightly on the vessel, little pulsation is felt; but as pressure is employed, the more forcible does it seem to be; and when the artery is greatly contracted, it is really difficult to extinguish the wave.

While the prime cause of high tension in the pulse is obstruction in the peripheral circulation, the actual pressure in the arteries is maintained by the heart. Usually the increased difficulty in driving on the blood is met and counteracted by increase of the contractile energy of the heart; but it is clearly possible that while there is obstruction in the arterioles and capillaries the heart may not rise to the occasion. We shall then have, in feeling the pulse, an artery full between the beats and capable of being rolled under the finger, while at the same time it is compressible. This is, in fact, very common, and we require a term which may be applied to such a condition. I have been in the habit of speaking of it as virtual tension. Now, as the artery allows itself to be flattened, the pulse wave which lifts it into the cylindrical form appears to be sudden, and the pressure, after lasting a certain time, seems to drop suddenly. The artery may be small or large, and the pulse varies accordingly.

We meet with the conditions which give rise to virtual tension at the two extremes of kidney disease. At the outset of acute renal dropsy, while there is obstruction in the arterioles and capillaries, the heart is rendered weak by the pyrexia and low diet, and there is more or less tendency to it throughout the attack. Again, as the heart becomes worn out in the course of chronic granular disease of the kidney, it ceases to be capable of maintaining the high tension which is characteristic of this disease, and virtual tension takes its place. It is at this period that reduplication of the first sound is so well marked. The same course of events is observed after protracted high tension from whatever cause; and as this is the origin of dilated left ventricle, the pulse of virtual tension, in its best marked form, comes to be the characteristic pulse of dilatation of the heart. At the same time that it is expanding the left ventricle, the continued obstruction in the arterioles and capillaries is overcoming the contractile power of the medium-sized arteries, the lumen of which becomes enlarged, while their coats are thickened.

The causes of high tension are now so generally recognised that I shall do little more than enumerate them. They are as follows:—1. Hereditary. This is illustrated not only by the every-day experience that paralysis and heart disease run in families irrespective of the habits and mode of life of different members, which may differ greatly, but by the fact that high pulse tension and functional derangements arising out of it may be present in childhood and all through life in every member and in successive generations of many families. 2. Kidney disease of all kinds, except such as is attended with suppuration; but the most marked tension is met with in the contracted granular kidney. 3. Gout and allied conditions, including almost the entire range of affections attributed by Murchison to functional derangement of the liver. 4. Lead-poisoning, with or without renal disease or gout. 5. Anæmia. It is not easy to understand how anæmia can give rise to high tension in the pulse. One would have expected the watery blood to pass readily through the capillaries and the *vis a tergo* applied by the heart to be deficient, but it is a matter of daily observation that the artery is full between the beats, and that the pulse, if more abrupt than in renal disease, is long. It has been conjectured that the defective oxygen-carrying power of the corpuscles may cause oxidation to be imperfect, and so lead to the formation of substances which are not readily eliminated, and which provoke resistance in the arterioles and capillaries; but the instability of the tension is suggestive of the intervention of nervous influences, and there are other peculiarities which lend support to the hypothesis that the arterial contraction and powerful heart action may be vaso-motor phenomena. However this may be, there are rare and exceptional cases of anæmia with extremely low tension, and it has been an object of attention with me to make out whether any constant difference of another kind attends this difference in the state of the circulation. In particular, it seemed probable that there might be some influence on the production of hæmic murmurs which might throw light on their causation, especially from the point of view of Marey's theory, which refers all cardiac murmurs to low pressure beyond the point at which the vibration is set up. Up to the present, however, I have been unable to recognise any distinction between anæmia with high tension and anæmia with low tension, except the difference in the circulatory conditions. 6. Pregnancy. 7. Constipation. 8. Plethora—an overladen state of the entire vascular system. 9. Chronic bronchitis and emphysema.

The effects of high tension upon the heart are easily understood: the high blood-pressure in the arterial system calls for increased contractile energy on the part of the ventricle, in order that it may overcome the pressure and carry its contents into the aorta. If the resistance with which the heart has to contend is augmented gradually, it will respond by hypertrophy; if, however, the increase in the resistance is sudden, the heart will be unable to complete its systole and expel the whole of its contained blood. Dilatation is then the result, and it will take place all the more readily if the nutrition of the heart is interfered with. Dilatation of the left ventricle may result from high arterial tension at almost any period of life, and is met with under

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a great variety of circumstances. It is very common in anæmic girls, and is frequently attended with mitral regurgitation, which is curable, as has been well shown by Dr. George Balfour. Some contributory exciting cause will be traceable. I have known it to be due in several instances to hunting, in others to lawn-tennis, in others to much walking up-hill. In one case recovery only took place when the family of the patient left a house in an elevated situation which made every walk terminate in a climb. While curable if taken in time, the dilatation of anæmia often establishes permanent heart disease. Acute dilatation, which is of far more frequent occurrence than has been supposed, has for its predisposing cause peripheral resistance in the circulation and high pressure in the arteries. It may take place in the course of acute disease, or as a sequel, if the pyrexia has not neutralised the habitual tension by relaxing the arterioles. It may, again, be produced either by too violent or by too protracted exertion, and this at almost any time of life at which high tension is common. The gradual dilatation which occurs with varying degrees of antecedent hypertrophy in chronic gout or renal disease, or as a result of chronic resistance to the circulation, from whatever cause, need only be mentioned. Valvular changes, mitral and aortic, and the dilatation of the aorta, are also so familiarly referred to high tension that they require no further notice, and the same may be said of cerebral hæmorrhage.

One word may be permitted on the injurious effects of peripheral resistance in aortic or mitral regurgitation. In both these valvular lesions high tension, or rather the tendency to this condition, is disguised by the effects of the regurgitation, and is liable to be overlooked. Actual tension, as manifested by sustained fulness of the artery between the beats, is indeed impossible in aortic regurgitation, since the fulcrum is wanting, and it is not easily recognised in mitral regurgitation. The subjects of such lesions, however, may be gouty or may have renal disease, and the peripheral resistance incident to these affections will not be suspended. The injurious tendency of this resistance will be manifest at once. The greater the force required to drive the blood through the capillaries, the greater will be the force with which it will be driven back through a leak in the mitral valve, and the more powerful the dilating effect on the left ventricle when the protection of the aortic valve is lost. The prognostic bearing of such an influence in the early stages of these valvular diseases makes it important that it should be recognised, especially in the young, when treatment may do much to avert the evil consequences. In aortic insufficiency an idea may be obtained by careful examination of the pulse when the hand is well below the level of the shoulder and of the heart; it should not hang down, as it is then difficult to distinguish between the persistent fulness due to the weight of the column of blood and that due to the obstruction in the capillaries. In mitral regurgitation it will be sufficient to bear the question in mind, and to examine the pulse in different positions of the hand. Information may also be obtained from an examination of the pulse of other members of the family.

In connexion with the subject of renal disease and gout and high pulse tension, I must find an opportunity for calling attention to the fact that cases are met with in which the tension is altogether absent, and this not because the heart is weak or failing, but because there is even less than the normal resistance in the arterioles and capillaries. The prognosis when such is the case is extremely unfavourable. It is in connexion with the chronic, large, white kidney that we most commonly see a weak, soft, low-tension pulse with albuminuria. The amount of albumen is often very great; it varies from day to day, often without traceable cause, but often, again, it is increased by exertion or mental depression, or constipation, and it is usually greater at night than in the morning. Any development of tension in the pulse is attended with diminution of the albumen. The patient may not have the least appearance of kidney disease, and dropsy may be entirely absent. Tension, again, may fail to supervene in acute albuminuria, and when such is the case, a fatal result is, according to my experience, always to be expected. I have come, indeed, to take the development of high arterial tension as one of the chief guides in prognosticating the course and issue of this affection; if it makes its appearance early, and becomes well marked, the prognosis is favourable; there appears to be an increased liability to uræmic convulsions, but the patients bear the treatment required by this and other complications, and usually recover. If the tension is slowly developed, and especially if it is fitful and inconstant, the recovery is slow and uncertain, while, as has been said before, if the pulse remains soft, short, and weak throughout, the prognosis is bad. Dropsy is usually considerable, and there is often an unusual amount of blood in the urine, as well as casts.

In contracted granular disease of the kidney absence of tension is very rare, and I have no record of a well-marked instance in which the diagnosis has been verified post mortem. In the following case I had no doubt as to the nature of the case during life. The patient, aged about fifty-five, was under my observation from time to time from June, 1880, up to his death in September, 1881. He had suffered from gout and eczema, and when I first saw him albumen had just been discovered in his urine, which had a specific gravity of 1011. He had always lived freely, and could not be prevented from taking a considerable amount of whisky. His eczema was removed and his gout relieved, and he usually looked and felt well; the quantity of urine was not far from normal, and the specific gravity usually varied from 1017 to 1021, while a mere trace of albumen was present; and it was only the knowledge that he had albuminuria which induced him to present himself. He was well nourished, had a good colour, and a largish, soft, short pulse; there was no evidence of degeneration in the walls of the vessels, nor any change in the heart. When the shooting began in September, 1881, he went out as usual, but was more easily tired, and took extra whisky to enable him to go on. On the 14th and 15th he said queer things at dinner. On the 15th Mr. Martin, of Crawley, saw him, and found him languid and sleepy. After a jalap powder he was better, but in the night of the 17th he was seized with violent convulsions. I saw him with Mr. Martin at 1 P.M. on the 18th, when he was lying on his left side, the left side of his face boring into the pillow, his eyes directed violently to the left, the left arm bent across the chest, with the hand up at the right shoulder, pulling violently at the night-shirt, which was torn. He was smacking his lips loudly. These movements came on in paroxysms, but with such short intervals as to be almost continuous. The left leg was very little affected. Sensation was very greatly impaired in both arm and leg, and might be said to be lost. He was conscious and intelligent, and in the intervals between the paroxysms could direct his eyes to the right, and could give either hand. The convulsions continued, except when he slept, and in the course of the 19th deglutition failed, the breathing becoming deep and loud, and death by coma supervened. I have entered into these particulars to show that the convulsions were not of the ordinary uræmic character. They were clearly due to cortical irritation, but no post-mortem examination could be obtained. The case is quoted to illustrate the position that absence of arterial tension, where such tension is a part of the disease, is not a favourable sign. The patient had not the look of kidney disease; he was well nourished, and had a good colour; the heart gave no evidence of disease, and the arteries were soft and flexible; the high tension which predisposes to rupture of cerebral arteries was absent; there was nothing, in fact, suggestive of impending danger.

Functional effects.—Without recognisable organic change in the heart or arteries, or where the subsequent history shows that such changes as were present were not of themselves the cause, high tension may give rise to the most severe angina pectoris. High tension, again, may produce effects in the way of breathlessness and sudden powerlessness which simulate the effects of the most advanced heart-disease. Intermittent functional albuminuria, when not traceable to imperfect assimilation of food, is, so far as it has come under my observation, associated with high pulse tension, and is most readily amenable to treatment which reduces arterial pressure; and the cases of this affection, described by Dr. Clement Dukes of Rugby, and shown in his admirable papers on the subject to be common among boys and adolescents, appear to belong to the same class as mine. When this liability to the appearance of albumen in the urine on exertion or slight exposure is met with in children, I have always found a strongly neurotic family history, as well as hereditary high pulse tension. When it does not come on till the approach of adolescence, there may be no family neurosis, but I have never failed to recognise tension, and to trace its effects in other members of the family.

Treatment.—Although high arterial tension is fraught

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with so many evil contingencies, it is not to be looked upon as *hostis humani generis*, and attacked whenever found. I have already stated and exemplified by cases that, supposing renal disease or gout to exist, the prognosis is unfavourable if the pulse tension is not high. This is equivalent to a declaration that under such circumstances the high pressure in the circulation serves some useful end. We do not, therefore, treat tension as such, unless it is actually causing suffering, or doing present or prospective harm. For the most part, indeed, the object of our treatment is to remove the condition on which unduly high tension depends.

Among the measures for the reduction of tension, one of the most potent is bleeding. This is usually practised only in extreme cases, and when it is employed it is as a remedy for the high tension itself, or for some of its more serious and dangerous effects, such as convulsions. When cerebral hæmorrhage has occurred it is too late to bleed; but were high tension in the pulse more closely studied, and were less attention paid to the public prejudice against vene section, it would be anticipated and prevented in hundreds of cases every year. Physiological experiment seems to throw doubt on the production of a rapid diminution of pressure in the arteries by bloodletting, but there can be no question as to the effect in the mind of anyone who has practised venesection in a case of uræmic convulsions. The results are more than can be easily attributed simply to the withdrawal of so much blood. In acute nephritis, when bleeding has been necessary because of convulsions, I have more than once seen unaccountably rapid disappearance of the albumen from the urine, and complete recovery. The statement made by trustworthy observers, when bloodletting was common, that at times patients could not be got under the influence of mercury until they had been bled, and that then salivation was induced at once, is evidence of some profound change in the system; possibly a more rapid absorption resulting from the diminution of intra-vascular pressure may enter into the explanation, and the taking up into the blood of fluid effused into the cerebral meninges or ventricles. The spring and fall bleeding of our forefathers must have been a great relief to many of those upon whom it was practised, and in some I have no doubt it prolonged life. I have had under my care from time to time an old lady, the only clue to whose age is the fact that her father, who was a historical character, died in 1803, who had been bled fifty times, first for puerperal convulsions and for their prevention afterwards. The punctures at the bend of the elbow had been so numerous that there was no room for more, and the later bleeding had been done from a vein in the foot. I do not think the old lady would have been living now but for the bleeding. When I last saw her, about two years since, she was managing the family of a deceased daughter. All her children are dead; the last, a daughter, who was the only one I saw, died from chronic Bright's disease; her grandchildren by another daughter, who died in childbed, are the subjects of high tension.

Apart from bleeding, tension can be lowered by reducing either the force of the heart or the resistance in the periphery. The former method can be called for only in some emergency, such as threatened cerebral apoplexy, and, if employed, will lay the heart open to dilatation, unless the obstruction with which it is contending is also removed. The latter is the chief indication to be followed, and it can be met in two ways: either by drugs, which relax the minute arterioles—such as amyl-nitrite, nitro-glycerine, and the nitrites; or by modifying the blood condition, which provokes the obstruction in the arterio-capillary circulation. The remedies which relax the arterioles are invaluable where either there is active arterial spasm, which is of itself a cause of pain and danger, as in angina pectoris, or when the contraction of the arterioles, without being abnormal in degree, is contributing to overpower the heart. They may thus be of service in high tension of renal origin, and are said to have contributed to the cure of diseases of the kidneys. I have administered nitro-glycerine repeatedly in different forms of renal disease, but without any other effect than temporary relief of some of the symptoms, and improvement in the patient's appearance from the admission of more blood to the pallid surface. I am quite prepared to believe, however, that continued diversion of blood from the diseased organ, which will be one effect of the general relaxation of the arteries, may favour their return to a normal condition.

The blood condition which gives rise to tension I have already stated to be, in my opinion, the presence in it of some form of impurity, and for the most part nitrogenised waste. The treatment demanded, then, is simply elimination. When the cause of this is disease of the kidneys or liver, the primary object of the treatment will be its cure; but side by side with this, and often, indeed, forming a part of it, will be required measures for the removal of the matters which are retained in the blood in consequence of the suspension of the functions of these organs. Any or all of the eliminating organs and surfaces may be made use of. In certain cases free perspiration is useful. While, however, the altered distribution of the blood which is brought about by the means taken to induce perspiration, such as the Turkish bath, and its determination to the surface of the body, is often of service, the cutaneous excretion is chiefly water, and no great amount of organic matter is carried away, except in kidney disease, when an efflorescence of urea may be found on the surface after a copious perspiration. According to my experience, elimination by the skin is rather an accessory than a primary means of keeping down tension. The kidneys are capable of carrying off a much larger amount of nitrogenised waste than the skin, and diuretics may in this way contribute to the relief of tension. But many diuretic remedies give rise to tension, and apparently produce their effects by raising the blood-pressure. The elimination desired for the purpose we are now considering is best obtained by the diuretics, which promote tissue change and oxidation; by copious draughts of pure water night and morning, which will wash out the tissues and carry off any soluble matters; and by potash and lithia, which are solvents of uric acid. It is not altogether a matter of indifference what salts of these alkalies are used; the citrates can be taken in larger doses, and they will render the urine alkaline quite as easily as the carbonates if this is desired; but the carbonates appear to have more metabolic influence, and liquor potassæ has a still greater effect of this kind. The elimination which has the greatest effect on arterial tension is that from the liver and bowels, and of the aperients which are available for the production of purgation the most efficacious for this particular purpose are such as contain mercury. This is a conclusion based entirely on experience and observation. Whether as regards relief of symptoms associated with high tension or as regards the effect on the pulse, a moderate and indeed scarcely recognisable aperient action by a pill containing mercury in some form or other is much more efficacious than free purgation by other means, and pills of this kind can be taken once or twice a week for years in suitable cases with advantage.

The pulse in heart disease has been so thoroughly studied, and is so frequently and fully described, that I shall treat it very briefly, and I only refer to it at all in order to insist on the necessity of taking it into account in both the diagnosis and prognosis of affections of the heart. It is not every systolic murmur at the right second space that indicates obstruction of the aortic orifice, and if we must admit that a systolic apex murmur is proof of some mitral reflux, the murmur tells us absolutely nothing of its amount. The pulse must be brought in to interpret the murmur and fix its significance.

Aortic stenosis.—The effect of narrowing of the aortic orifice is obviously to intercept the pressure of the ventricular systole and retard the current, and, as the blood cannot gain in pressure or speed, the pulse must be gradual and long. But, besides this, the entire arterial system seems to contract down upon the diminished blood stream, and the pulse is also small. One does not see altogether why, with normal resistance in front, the arteries should not be kept at the usual size by the pressure from the heart, because this pressure takes effect more gradually; but the small diameter of the radial and other arteries is a constant phenomenon, and the pulse of aortic stenosis is, when well marked, one of the most peculiar met with: small, full between the beats, and destitute of anything like impact.

Aortic regurgitation.—The pulse of aortic regurgitation is too well known to require any description. I would only call attention to the element of size in the arteries as important, to the necessity of ascertaining carefully whether the column of blood is at all sustained in the radial when the arm is held up, or whether the blood drops out of the vessel immediately the ventricular pressure is withdrawn, and to the extraordinary influence of pyrexia in exaggerating the collapsing character of the pulse. The slightest departure

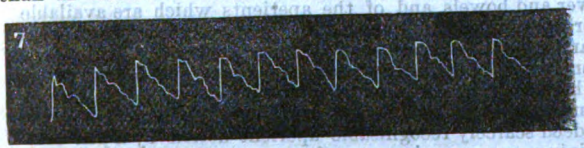
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from regularity in the collapsing pulse is ominous; when this takes place, it is due at first to an occasional faltering beat, and it rarely reaches any considerable degree.

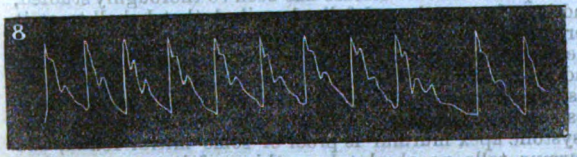
Mitral regurgitation.—The irregular pulse of mitral incompetence has already been alluded to. It is by no means constantly met with when a mitral regurgitant murmur is audible; and while it indicates, when present, decided impairment of the functional efficiency of the valves, with secondary effects arising out of this, I am not prepared to assert that irregularity of pulse is an absolutely necessary consequence of even large regurgitation, nor does it always indicate a dangerous failure of compensation.

Mitral stenosis.—In mitral stenosis the pulse is regular, small, and full between the beats. The contracted state of the arteries is probably due to the arterial system accommodating itself to the restricted output of the ventricle. The regularity of the pulse in this form of valvular affection has been called in question, but, in the absence of associated mitral regurgitation and of considerable secondary regurgitation at the tricuspid, it is maintained up to a very late stage of the disease. When from pulmonary complications or failing adjustment regularity is lost, the first deviation is in strength of pulse, not in rhythm; then beats fail to reach the wrist, and the pulse is irregular, while the heart is acting regularly. Finally, the regularity may defy description, and there is apparently no correspondence between the pulse and the heart, and when both are felt simultaneously, they might belong to a different person.

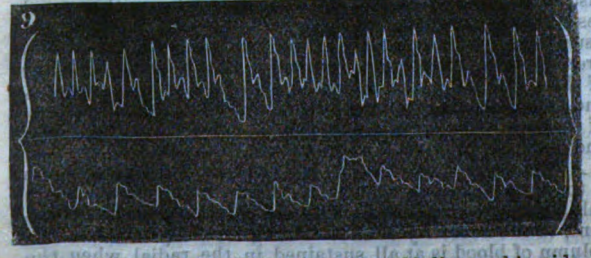
The pulse of hypertrophy of the heart is that of its cause, and no more need be said of it. The pulse of dilatation has already been described under the head of virtual tension. A number of sphygmograms from cases of dilatation of the left ventricle are given, but they convey a very inadequate idea of the characters of the pulse as recognised by the finger. Scarcely even in aortic regurgitation can the state of the heart be foretold from the pulse more definitely than in dilatation. The first trace (Chart 7) is from a



case in which acute dilatation with hæmoptysis had occurred from over-exertion; a mitral systolic murmur remained; the artery was not large. In the case from which the second was taken (Chart 8) there were breathlessness, difficulty of



lying down, and enlargement of the liver, all of which were relieved by treatment. The patient, whose pulse is represented by the third, was liable to stagger and even fall on rising from a semi-recumbent position, with momentary loss of consciousness, and on slight exertion he would suddenly lose all power. The artery was always full between the beats, notwithstanding the appearance of the trace. (Chart 9.) He improved under treatment, could walk



eight miles, was more cheerful, and could lie on his side; the pulse gave the second trace. Later over-exertion aggravated the dilatation, and thrombosis of the left middle cerebral artery occurred, the case ending fatally.

Lectures ON THE SURGICAL TREATMENT OF PULMONARY CAVITIES.

Delivered at the Consumption Hospital, Brompton,

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LECTURE II.

GENTLEMEN,—Before proceeding to the discussion of the next class of cases, and as an introduction to the subject, I wish to offer a few remarks on the anatomy of the bronchi. One of the best, if not quite the best, work upon the subject is that of the late Dr. Aeby of Berne,[1] who deals with the arrangement of these parts with almost more than German exactness. He points out that what is known as the dichotomous branching of the bronchi does not really take place, but that the main bronchus passes through the organ as far as its lowest limit in the contracted part between the diaphragm and the spine (Fig. 3). The arrangement of the arteries and veins to the bronchi is really symmetrical on the two sides—viz., the main branch of the pulmonary artery crosses the principal bronchus at a perfectly definite point on the outer side (Fig. 2, A A) in order to pass downwards behind it, whilst the principal veins keep to the anterior aspect. The

FIG. 1.



Diagram illustrating subdivision of a bronchus, viewed from the back. (After Aeby.) E B, Eparterial bronchus. D and V, Its dorsal and ventral subdivisions. D_1 D_2, Dorsal hyparterial branches, V_1 V_2, Ventral hyparterial branches. *d v*, Accessory branches. P A, Pulmonary artery. P V, Pulmonary vein.

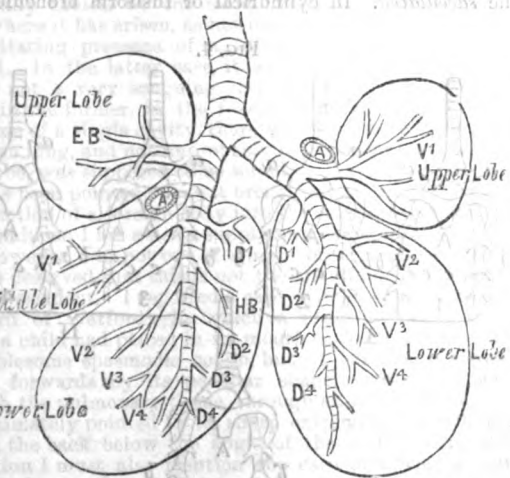
branches of the bronchial tree come off on the dorsal and ventral sides, and are on the whole symmetrical, with these exceptions:—On the right side, one, the first lateral branch, comes off above the point where the artery crosses the main bronchus (Fig. 2, E B), and is hence called *eparterial*, as opposed to the others, which are called *hyparterial*. This eparterial bronchus goes to the upper lobe of the right lung, which thus is the additional element on this side; for the second lateral branch on the right side, which goes to the middle lobe, corresponds to the first lateral branch on the left side, which goes to the upper lobe (Fig. 2, V_1 V_1), and thus the right middle lobe corresponds to the left upper lobe. This unsymmetrical arrangement has also given rise to the common belief that the right bronchus is shorter than the left. Actually the part of the right bronchus which corresponds to the so-called bifurcation of the left is the point of origin of the first hyparterial branch. The hyparterial system is always bilaterally symmetrical, the branches being arranged in two series—ventral and dorsal (Fig. 1). There are four large

[1] Der Bronchialbaum der Saugethiere und des Menschen. Leipzig, 1880.

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ventral bronchi, beyond the lowest of which the main stem ends in small irregular lateral branches. The dorsal branches present no special features, except that they are small and more deeply placed than the ventral. Accessory branches are met with here and there which do not arise only from the lateral aspects of the main stem. The first of these alone is of much interest; it is of large size, and from its position is called by the Germans "Herzbronchus," or heart-bronchus (Fig. 2, H B). In the ourang-outang and the chimpanzee it resembles the corresponding structure in man and in many of the lower animals it supplies a distinct fourth or azygos lobe. In man the lateral bronchi, especially the ventral ones, are so large that the appearance of dichotomous subdivision is closely simulated, the main trunk often losing half of its previous calibre after giving off a lateral branch. The accompanying figure shows diagrammatically the relation of the bronchus to the vessels and also the typical arrangement of the lateral branches. (Fig. 1.) It will be observed that while in the hyparterial region the dorsal and ventral branches come off separately, in the case of the eparterial bronchus they come off as one trunk. This scheme obviously only holds good in man for the right side. Fig. 2

FIG. 2.

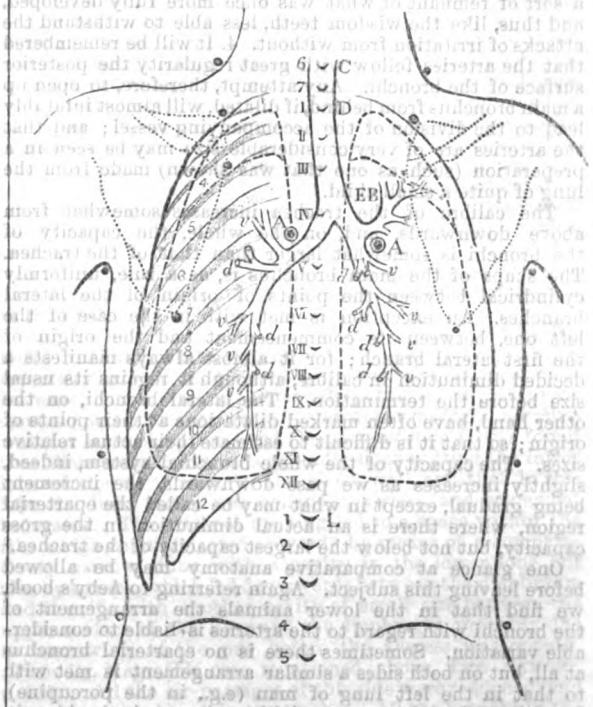


A A, Pulmonary artery. E B, Eparterial bronchus (right side only). V_1 V_2 V_3 V_4, Ventral hyparterial bronchi (right and left). D_1 D_2 D_3 D_4, Dorsal hyparterial bronchi (right and left). H B, Heart bronchus. (Modified from Aeby.)

shows the differences on the two sides, and illustrates the correspondence of the left upper with the right middle lobe. The direction of the main bronchi is not straight, but curved, the convexity corresponding apparently to the outline of the heart. It is a simple **C** shape on the right side, but on the left forms a distinctly **S**-shaped curve, on account of a very marked bend to the left above the origin of the first lateral branch, which indeed causes an actual concavity to the left at the commencement. The amount of the divergence is not by any means constant, varying with the condition of the heart, and being much less in newly born infants than in adults. Generally another curve is also present in the sagittal or antero-posterior direction, the concavity of which is directed backwards. Dr. Aeby made a number of observations to determine the relative divergence of the two bronchi, and (as a fresh illustration of the fact that even the science of anatomy is often led astray by the traditions of antiquity) he demonstrates clearly that the right bronchus follows much more closely the line of the trachea than the left—in some cases, indeed, approaching it very nearly. It is an observation which I have frequently verified. This is an interesting justification, so to speak, of the almost invariable rule that foreign bodies find their way into the right and not into the left bronchus. The error seems to have arisen partly because in the ordinary method of preparation the natural conditions are not maintained, and partly because the higher position of the right lung naturally suggests a similar condition of the corresponding bronchus. I imagine the apparent shortening of the tube by the irregular origin of the eparterial bronchus has also something to do with it.

I have made some dissections, with the help of my friend Mr. Charles Stonham, to show the exact position of the main bronchi as they would be marked on the surface of the body. The trachea has been sometimes injected with plaster-of-Paris, sometimes not, and then, the body being turned on its face on a board, long skewers have been passed in the spots indicated by dots on the diagram (Fig. 3), some round the edges of the subject; two on each side being driven right through the body opposite the angles of the scapulæ, and two others at the vertebral borders of those bones opposite the spines. In this way a tracing of the body was easily made. The soft parts were then turned aside, and the exact outline of the thoracic walls was obtained. The ribs were then partially removed, being cut close to the vertebræ, and also about half-way between the sternum and the spine. The outline of the lungs was then taken, and lastly the bronchi were dissected out *in situ*. The subjects have not been very good, and the results therefore not what one would have wished, but they bring out one or two points of interest. In the first place, the figure shows (and we thought this was perhaps a new point, but find that it is noticed as long ago as the time of Cruveilhier) that the trachea tends slightly to the right, and bifurcates a little to the right of

FIG. 3.



Dissection to show the position of the main bronchi. The vertebræ and the ribs are marked by figures. The black dots indicate the position of the pins introduced to mark the outline of the body &c. E B, Eparterial Bronchus. *v v*, Ventral branches. *d d*, Dorsal branches.

the middle line—a fact which makes the almost vertical right bronchus very nearly an exact continuation of the main stem; in the next place, it shows that the bifurcation is opposite or a little below the fourth dorsal spine—that is, a very little below the position of the inner end of the spine of the scapula; and, lastly, it indicates how very near the middle line the main bronchus is in its descent. The exact distance of the main bronchus from the surface we were unable to measure, but on examining Braune's plates it appears to be at the bifurcation of the trachea rather over three inches and a half; opposite the fifth spine rather under three inches and a half; and opposite the seventh spine rather under three inches. These numbers are likely to be rather below than above the estimate, as the subject from which the plate was drawn was a small one, and had been flattened from lying on the back.

The practical outcome of these anatomical facts is, I think, not inconsiderable. 1. As regards foreign bodies. If they are of any considerable size—such, for instance, as the piece of mutton-bone or the tooth which I now show you—it is probable that they will lodge somewhere in the main

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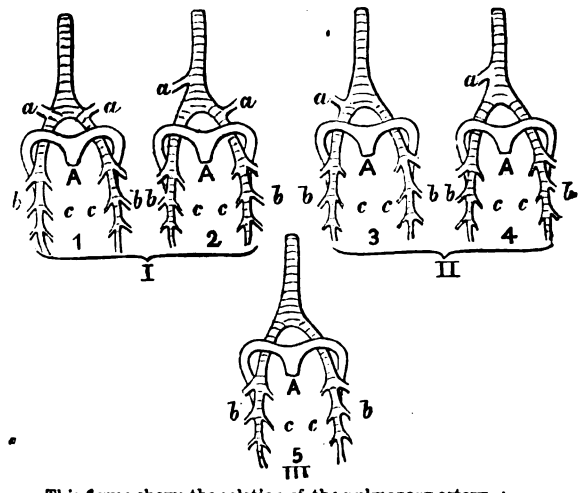
bronchus of the right side—that is, at a distance not greater than three inches from the middle line. This may be a piece of knowledge of great value in directing an instrument, such as a pair of forceps or a loop of silver wire, down the bronchus with the object of fishing up the foreign body, and it is clearly of importance if attempts are to be made to extract it from behind. In a case to be mentioned later on, we were always so far out in our investigations that our chance of finding the foreign body, which was a tooth, was absolutely *nil*. 2. As regards bronchiectases. They have not, perhaps, a very direct bearing, because, though it will be noticed that in the case of dilatation of the bronchi following on the presence of foreign bodies the main trunks are generally involved, still, both in these cases and in others, smaller peripheral bronchi often serve as the starting-points for excavations of considerable size. 3. As to the development of phthisical cavities one can at present only speculate. It is doubtful, to begin with, whether the right apex really suffers more or less than the left. But the suggestion that it does, and the fact that it certainly appears to differ from other parts of the lung in its liability to gangrene, suggest the possibility that its large vertical feeding bronchus may possibly prevent the accumulation of septic secretions in it. Again, the question arises whether the lobe is a sort of remnant of what was once more fully developed, and thus, like the wisdom teeth, less able to withstand the attacks of irritation from without. 4. It will be remembered that the arteries follow with great regularity the posterior surface of the bronchi. Any attempt, therefore, to open up a main bronchus from behind, if dilated, will almost infallibly lead to the division of the accompanying vessel; and that the arteries are of very considerable size may be seen in a preparation (such as one that was shown) made from the lung of quite a small child.

The calibre of the trachea increases somewhat from above downwards, and, on the whole, the capacity of the bronchi is somewhat larger than that of the trachea. The shape of the main bronchus is, as a rule, uniformly cylindrical between the points of origin of the lateral branches. An exception is met with in the case of the left one, between its commencement and the origin of the first lateral branch; for it almost always manifests a decided diminution in calibre, although it regains its usual size before the termination. The lateral bronchi, on the other hand, have often marked dilatations at their points of origin; so that it is difficult to estimate their actual relative sizes. The capacity of the whole bronchial system, indeed, slightly increases as we pass downwards, the increment being gradual, except in what may be called the eparterial region, where there is an actual diminution in the gross capacity, but not below the largest capacity of the trachea.[2]

One glance at comparative anatomy may be allowed before leaving this subject. Again referring to Aeby's book, we find that in the lower animals the arrangement of the bronchi with regard to the arteries is liable to considerable variation. Sometimes there is no eparterial bronchus at all, but on both sides a similar arrangement is met with to that in the left lung of man (e.g., in the porcupine). Sometimes there is an eparterial bronchus on both sides, in which case they may come off symmetrically (e.g., in the horse); or the right eparterial bronchus may come not from the bronchus but from the trachea (e.g., in the dolphin). In another type, on the other hand, which seems to be the commonest, there is an eparterial bronchus only upon the right side, in which case it may be bronchial (e.g., in man) or tracheal (e.g., in the sheep). It is probable that some symmetrical form is the original type; but whether with or without the eparterial bronchus, and whether this was tracheal or bronchial, we have not yet evidence enough to say. It is remarkable, however, that, even if there be a left eparterial bronchus, it has never been observed to be tracheal. The accompanying scheme and table will illustrate what has been said. (Fig. 4.)

We have now to discuss the possibility of any surgical treatment for a totally different kind of pulmonary cavity from those considered in the last lecture—if, indeed, the term pulmonary cavity can be considered in any way applicable. I mean bronchiectasis. It is in my experience a much less satisfactory condition to deal with. It does not devolve upon me to say much about the causation or pathology of bronchiectasis; a few preliminary remarks must, however, be made. Bronchiectasis consists of a dilatation of some part of the bronchial tree, and is at first nothing else, though in some cases the occurrence of ulceration no doubt causes an increase of the size of the cavity at the expense of the surrounding pulmonary tissue. "Two principal forms of bronchial dilatation," says Dr. Theodore Williams,[3] "the cylindrical and the globular, are found in the post-mortem room; in each case the tertiary bronchi are dilated, so as to measure as much as or even more in circumference than the primary. In the cylindrical form the dilatation is more general, the tubes being stretched like the fingers of a glove; the walls are thickened, the submucous and mucous layers are hypertrophied, and stand out in folds. The generally tubular form of the bronchi is owing, according to Hamilton,[4] to the traction on their ends from an adherent pleura. In the globular form the tubes are dilated at or near their ends into pouches or ampullæ of large size, the adjacent dilated tubes often communicating freely with each other, the mucous membrane appearing to form folds or wrinkles in their interior, &c." Dr. Douglas Powell[5] says: "There are two forms of bronchiectasis, the *cylindrical* and the *sacculated*. In cylindrical or fusiform bronchiectasis,

FIG. 4.



This figure shows the relation of the pulmonary artery, A, to the lateral bronchi. (Modified from Aeby.) *a*, Eparterial bronchi. *b*, Ventral hyparterial bronchi. *c*, Dorsal hyparterial bronchi.

I. Eparterial bronchus on both sides.
  1. Both bronchial—e.g., horse.
  2. Right tracheal, left bronchial—e.g., dolphin.
II. Eparterial bronchus on the right side only.
  1. Bronchial—e.g., man.
  2. Tracheal—e.g., sheep.
III. No eparterial bronchus—e.g., porcupine.

the dilatation involves some length of the tubes, varying from a few inches to a system of tubes ramifying through an entire lobe. The enlargement is uniform throughout the length of the tubes affected. In sacculated bronchiectasis a restricted portion of the tube is enlarged to a globular form, from half an inch to an inch in diameter. The whole calibre of the tube is as a rule involved, and the ectasia may be solitary, or there may be many scattered through the lung. As a rule, this form of bronchiectasis is situated at the peripheral portions of the lung corresponding with the smaller bronchi, and small openings lead from the rounded and apparently closed distal side of the sacs to fine tubes, the branchlets of the widened bronchus."

Here, then, in very similar words, are descriptions by two physicians to this hospital of the state of things for which the surgeon is asked to find a remedy; not, be it observed, as in the cases which were before described—a single cavity surrounded perhaps by much diseased lung tissue,—for here the whole of the bronchial system, or a great part of it, is to a greater or less extent involved, so that, even if one

[2] W. Braune and H. Stahel (Archiv. f. Anatomie, Feb., 1886—*vide* International Journal of the Medical Sciences, July, 1886) throw doubt on Aeby's figures, saying that his method of filling the bronchi by pouring in a fusible metal dilates the lower parts of the tubes more than the upper. They say that there is a slight contraction again at the lower part of the trachea.

[3] British Medical Journal, Feb. 26th, 1881.
[4] The Pathology of Bronchitis, p. 85.
[5] On Diseases of the Lungs and Pleura third edition, p. 226.

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cavity considerably exceed the rest in size, it is, after all, only part of a much larger and most tortuous space, and most likely communicates round the corner, as it were, with other dilatations more or less exactly resembling itself. Hence the difficulty, and hence the doubt whether surgery can ever do much for this sad condition of things. It is one, however, involving so much discomfort both to the patient and to all who come into contact with him, and so much danger to life, that we should not be justified in giving up the attempt to cure it. Our main objects, then, in attempting to open a bronchiectatic cavity are: (1) that the secretion from it may be prevented from continuing the mischief in its passage over the bronchi, or as it is drawn down into other parts of the lung; (2) that the cough may be diminished, it being held that the expiratory efforts have something to do with the production of the dilatation; and (3) because it is well known that though patients with this disorder may go on for a number of years without succumbing to it, a very considerable number become comparatively soon affected with some form or other of blood poisoning. With these objects in view, and notwithstanding the experience of the cases to be described, I should feel disposed to recommend an operation if the physician were to express a strong opinion that the cavity was a single one, or at least that the mischief was principally caused by one main cavity, and also in those cases where it has arisen, as not uncommonly happens, from the irritating presence of a foreign body in one of the bronchi. In the latter case, it would be done in the hope, though not a very sanguine one, of removing the foreign body; in the former, in the fear that, notwithstanding the diagnosis of a single cavity, there would be found others in the same lung, and not improbably in the other lung, which, it may be, was supposed to be sound.

It has been pointed out that bronchiectasis may follow the introduction of a foreign body into the air-passages, and of this condition I am able to supply two examples. The first case, however, was not one of simple bronchiectasis, and it may be observed that this is not the invariable sequence of such an accident. I reported a case which occurred to Dr. Rudyard of Watford[6], in which a piece of barley grass which a child had placed in its mouth caused for some time a troublesome spasmodic cough, but at last, being always drawn forwards by its peculiar shape, worked its way through the pulmonary tissue, through an intercostal space, and ultimately pointed by its sharp extremity beneath the skin in the back below the angle of the scapula. In this connexion I must also mention the case of a young man who inadvertently allowed a grain of bearded wheat to enter his larynx, and who afterwards developed an abscess in the neighbourhood of his hyoid bone. The abscess was taken for a strumous affection, and it was even contemplated that he should give up his studies at Oxford, or at all events consider himself a delicate individual. The free opening of the abscess and the scraping out of the cavity with a sharp spoon led to the removal of the foreign body and a complete recovery.

I believe it is always wise not to put on one side a patient's account of the inspiration of a foreign body, if anomalous chest symptoms are present; in my experience one is more likely to be in error by doing so than by accepting the account, and it is possible, though perhaps not very likely, that a careful search may lead to the removal of what is certainly a very serious cause of mischief. In the case to be recounted we paid but little attention to the history, and accordingly did not arrive at a correct diagnosis.

W. H——, aged seventeen, was admitted under Dr. Powell on May 11th, 1885. There was nothing in his family or previous history to account for pulmonary disease, except that he said that "some time previously" he had swallowed a piece of grass, which was followed by the spitting of a little blood. In January, 1885, his present illness began with pain in the right side and a hard dry cough with but little expectoration, which did not prevent his following his occupation. He was an out-patient at the Westminster Hospital for five weeks, after which he became worse, and remained at home until the time of his admission. When he came under notice he had great pain in the right side, a troublesome cough, and some expectoration tinged sometimes with blood. The temperature was 99·4°, the pulse 114, and the respiration 17. The right side was flattened and motionless; dull below the fifth interspace, an inch and a half below the nipple, in front; and dull below the scapula behind. There was no vocal fremitus or resonance over the dull area, and the breathing was weak, while above the dull area there was vesicular breathing with scattered râles. The heart's apex was in the fifth interspace, half an inch outside the nipple. The left lung appeared to be healthy. Between May 11th and June 4th things remained much in the same condition: the temperature varied from 98·6° to 100° in the morning and 100° to 103° in the evening; the expectoration, which was muco-purulent, varied from eight to fourteen and sixteen ounces, while the physical signs did not alter. On June 4th I made an incision in the sixth interspace, and passed the finger into an irregular cavity with loose friable walls, extending upwards and backwards, and containing a considerable quantity of fetid sanguineous pus. The cavity was evidently in the lung tissue, and not in the pleura. The wound was purified, and dressed with oakum. On the 9th it was noted that he had greatly improved since the operation, the temperature remaining normal and the discharge becoming less in quantity and less offensive. His appetite improved, but the expectoration, though much diminished, did not cease, and remained muco-purulent, as was afterwards accounted for by the dilated condition of the bronchi and the presence of the foreign body. Between the 9th and the 15th the temperature again became peaky, and the expectoration increased in quantity, while some redness and tenderness appeared about the wound. On the 16th Dr. Waugh, the resident medical officer, enlarged the sinus and put a needle into the swelling, extracting some sanious pus. There was no change of consequence till July 2nd, when he first complained of headache. The sputa remained the same in quantity (from fourteen to sixteen ounces), and were very offensive. The physical signs continued to be as on admission, but the temperature was normal or subnormal. It was intended to make a further investigation, as we clearly had not reached the bottom of the trouble; but the headache, which varied from day to day, proved to be the precursor of unmistakable cerebral symptoms, and on July 7th the patient died from what proved to be, as we had thought, an abscess of the brain.

It is a remarkable fact, as has been pointed out by Dr. Percy Kidd and others, that cases of pulmonary abscess seem especially liable to be followed by cerebral abscess, to account for which I do not see any obvious hypothesis; at present we can only accept the occurrence as an apparent fact, and must wait for an explanation. At the post-mortem it was found that there were scattered tough adhesions uniting the lower lobe of the right lung to the chest wall, and that in this lobe the lung tissue was collapsed, airless, and somewhat indurated. The external opening led to a space within the ribs which communicated upwards by means of a comparatively narrow sinus with a cavity in the lower lobe, but also by a track which led downwards between the diaphragm and the ribs with another cavity of small size between the upper surface of the liver and the diaphragm, probably due to burrowing of the pus before the abscess was opened. (*Vide* Dr. Magrath's case mentioned above, THE LANCET, p. 511.) All the air-passages of this side were reddened, and there was some blood in the trachea. All the bronchi in the lower lobe were dilated, and contained a thin reddish fluid; in one of them was found a part of an ear of grass, with the stalk upwards, lying loose in the cavity of the tube, which at this point showed no change except a dark reddening of the mucous membrane; a short distance below, however, there was a patch of superficial ulceration, corresponding no doubt to a previous lodgment of the foreign body. In the middle lobe was a thin-walled cavity as large as a small egg, the bronchus leading to which was only slightly dilated. The rest of the lung and the left lung were healthy. The cause of death was a large abscess in the occipital lobe of the brain, which had ruptured into the posterior cornu of the lateral ventricle. There was no disease of ear, and no sign of tubercle in the body.

What strikes one in looking at this lung is that the mischief is limited to the part below that at which the straw lay. The changes, however, are just the same as we shall find in the other cases of bronchiectasis. The lung is hard and fibrous, and the bronchi have much thickening round them, and are dilated into cavities. This must all have been due to the secretion pent up behind the piece of straw. The rest of the lung was practically healthy, and it thus seems likely that if the foreign body had been discovered and removed the patient might have made a good recovery; but

[6] Clinical Society's Transactions, vol. xv., p. 156.

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this discovery of a foreign body in the lung is by no means easy, as the next case will show. The track between the cavity and the external opening had closed very much, and this tendency to close is, I think, common when sinuses pass through lung tissue. I have seen a remarkable example of it in a case of hydatid of the liver rupturing through the lung, in which, at the post-mortem examination, it was hardly possible to find the track by which the contents of the cyst had been discharged.

(To be concluded).

PYREXIA AND HYPERPYREXIA.

BY T. J. MACLAGAN, M.D., M.R.C.P.,
PHYSICIAN IN ORDINARY TO THEIR ROYAL HIGHNESSES PRINCE AND PRINCESS CHRISTIAN OF SCHLESWIG HOLSTEIN.

(Concluded from page 619.)

OF the subjective phenomena of the febrile state none is more prominent than thirst. To allay this there is consumed a much larger than usual quantity of water. So great is the demand for water that each draught has but a transient and temporary effect in allaying the thirst which is consuming the sufferer. Very soon another is called for, and another, and another; and the demand continues so long as the fever lasts. In this way the quantity of water consumed during a week of fever far exceeds the ordinary requirements of the system. While this large quantity of water is being consumed, less than the normal amount is being eliminated, and hence the phenomenon with which we are now dealing is usually referred to as excessive *retention* of water. It is obvious, however, that the enormous quantity of water consumed during a febrile attack cannot be retained as water; it is equally certain that is not eliminated, for all the while the ordinary channels of water elimination are less than usually active; the skin is dry and unperspiring, the bowels are constipated, and the urine scanty. If neither retained in the system as water nor eliminated, it must somehow be used up in it. Parkes suggested that during the metamorphosis of the albuminous tissues there may be formed a gelatinous compound intermediate between them and urea, and possessing in virtue of its gelatinous nature a great attraction for water. It is difficult to see how such an agency could produce such a result, or how any retrograde compound could attract water more powerfully than the tissues, which so urgently require it. But granting that it could, there are still insuperable obstacles in the way of our accepting this explanation. In the first place, why should such a compound be formed in such excessive quantity? In the second place, if the disintegrative changes of the nitrogenous tissues thus stop short of the formation of urea, how comes increased elimination of urea to be a characteristic of the vast majority of the cases in which this excessive retention of water occurs? No; the thirst of fever is an expression of a real want of water in the system; it is a cry for more; and the coincident occurrence of increased consumption and decreased elimination is distinct evidence that the water which is drunk is somehow used up in the system. But the normal ingredients and tissues of the body require no such large supply, and are incapable of utilising it. The only abnormal agency of which we know is the contagium, and this, we know, necessarily consumes a large quantity of water during its growth and reproduction. In this consumption of water by the contagium we have the explanation of the increased demand for water, and of some of the usual symptoms of fever. The thirst, the loss of appetite, the dry skin, and the scanty urine result from the consumption by the contagium of the water, which is requisite to enable the stomach, the skin, the kidneys, and all the other organs to perform their functions aright; and so this phenomenon, the direct and necessary result of the propagation of the contagium, becomes the immediate cause of many of the ordinary minor phenomena of an attack of fever, as well as of some of the leading and essential ones.

Though the consumption by the contagium of the nitrogen and water destined for the nutrition and repair of the tissues is the chief, it is probably not the sole, agency in producing the tissue waste characteristic of fever. A probable adjuvant cause is that "morbid general increase of tissue metabolism" which has been regarded by the advocates of the combustion theory as not only the essence of the febrile state, but as the cause of the wasting of the febrile body. Though that wasting is, as we have just seen, mainly due to other causes, this one is probably not altogether void of share in its production. What we have to do is to consider how it is brought about. The evidence of its existence is not so much increased tissue waste—for that is otherwise accounted for—as increased elimination of urea, which must result from increased tissue disintegration. To this phenomenon we must therefore for a moment direct attention.

Urea is formed in the urea-forming glands from the retrogressive store albumen. If the propagation of the contagium in the system is competent to cause an increased flow of retrogressive store albumen through these glands, it is competent to cause increased formation of urea. Of its competence to do this there can be little doubt. Tissue metabolism consists of two distinct processes—the taking up of new material and the giving off of old. Both actions take place in and around the capillaries, and are so contemporaneous that it is impossible to say either that the old nitrogen of the organ albumen is deposed by the fresh nitrogen of the constructive, or that the constructive steps in to fill up a gap created by the passage backwards into the circulation of the used-up nitrogen of the organ albumen. The two actions are simultaneous—neither actually preceding the other any more than in osmosis the passage of one liquid through a membrane precedes the passage of another which exists on the other side. While this simultaneous double action is going on, the contagium particles step in and convert into their own protoplasm so much as they require of the nitrogen of the constructive albumen. The moment at which they lay hold of it is that at which it is about to be appropriated by the tissues—the moment, that is, at which it is in the transition state which it must assume in passing from the condition of constructive to that of organ albumen. The protoplasm of the tissues and of the contagium is formed at the same time, in the same place, and from the same material; and so close is the struggle between the two for the possession of the nitrogen of the constructive store albumen that the contagium seizes upon it at the very moment at which it is about to be incorporated with the tissues, and consequently not before some of the nitrogen of the used-up organ albumen, which it was on the point of replacing, has passed back into the circulation as retrogressive store albumen. The moment at which the constructive albumen is undergoing the change which normally results in the formation of organ albumen is that at which its nitrogen is taken up by the contagium. The simultaneous action by which the organ albumen is converted into retrogressive is equally far advanced; the contagium steps in to deprive the tissues of much of what they require and *are in the act of appropriating* for the formation of organ albumen. No such agency intervenes to prevent the completion of the contemporaneous action which results in the formation of retrogressive albumen; that action, therefore, continues as usual; and thus is brought about the physiological anomaly that a diminished consumption of nitrogen by the tissues is accompanied by an increased elimination of nitrogen by the kidneys.

Another and essential phenomenon of fever intervenes to aid this result. Tissue metabolism depends, among other things, on the circulation through the tissues on a due supply of blood. The more active the circulation is, the more active also, *ceteris paribus*, will be the tissue changes. In health the heart beats at the rate of about seventy a minute, and at each beat sends onwards about the same quantity of blood, so that in twenty-four hours the heart has sent the fill of its left ventricle through the body 100,800 times. In fever there is increased rapidity of the heart's action and of the circulation through the tissues. Supposing it to beat 120 times per minute, the fill of its left ventricle would be sent through the circulation 172,800 times in twenty-four hours. As there is no diminution, but probably an increase, in the amount of retrogressive albumen in the blood, it is evident that one result of the increased rapidity of its circulation must be the conveyance in a given time to the urea-forming glands of a more than usual quantity of the material from which urea is formed, and consequent increased formation of urea.

Another and necessary result of this increased tissue metabolism is increased production of heat, the phenomenon whose causation we are supposed to be specially investigating

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when considering the theory of fever. This increased body heat is, it will be seen, only one of a group of phenomena, each of which is the direct or indirect result of the propagation of the contagium in the tissues. The direct action of the contagium consists in the consumption by it of the nitrogen and water of the constructive store albumen. The results of this action are: 1. Impoverishment, and consequent wasting of the nitrogenous tissues. 2. Increased demand for water, with its attendant thirst, dry skin, scanty urine, and constipated bowels. 3. Increased tissue metabolism, with its attendant increased rapidity of the circulation, increased formation of urea, and increased production of heat. Thus we find that the phenomena which must result from the propagation of an organism in the tissues are exactly those which are found to characterise the febrile state. Thus is explained the mode of action of the poisons of the specific fevers. Thus, too, is exemplified the combustion theory of fever.

Let me again point out that the two theories of fever which we have been considering are not antagonistic. Each has its own special sphere of application. The chief and most important applications of the neurotic theory have already been indicated. It applies probably to all cases of hyperpyrexia, to all rises of temperature resulting from non-inflammatory lesions of the nervous centres, and probably, too, to most forms of ephemeral fever. By the combustion theory are to be explained the febrile symptoms of the specific fevers, malarial fevers, rheumatic fever, pneumonia, and all febrile diseases, whose poisons may reasonably be regarded as minute organisms whose morbific action is dependent on their organic development. It is probable, too, that the fever of all inflammations is also thus produced. Not that all inflammations are produced by foreign organisms (though many probably are), but because excessive activity in the minute cellular elements of the tissues will have the same result on their metabolism as the propagation in them of foreign organisms.

Cadogan-place, S.W.

ON THE ACTION AND PROPERTIES OF THE WHITE BLOOD-CELLS.

DO THE INTRA-VASCULAR WHITE BLOOD-CELLS POSSESS THE PROPERTY OF AMŒBOID CHANGE OF SHAPE AND POSITION? IS THE ASSEVERATED MIGRATION OF WHITE BLOOD-CELLS AN OBSERVABLE PHENOMENON OF INFLAMMATION?

BY WM. A. HAMAN, M.D.

IN the American reprint of THE LANCET for the month of March, 1885, Mr. Wharton Jones has an interesting paper addressed to professors of physiology and pathology, advising them not to teach that white cells migrate from the veins and capillaries during inflammation until they have verified the fact by observations of their own. In this paper Mr. Jones makes two unqualified assertions which negatively answer the questions which constitute the caption of this communication. Prior to the appearance of Mr. Jones's paper I had unreservedly accepted the doctrine of migration as beyond dispute, but after reading the convictions of one of the pioneers in the microscopical study of the circulation and inflammation, I thought I would repeat some of these experiments for my own satisfaction. I accordingly made twenty prolonged observations on the transparent membranal web, mesentery, and tongue of toads and frogs, using Schäfer's work on "Practical Histology" as a guide to the systematic display of these parts.

Concerning the first question, I would remark that, although Dr. Henry Green says "amœboid movements have never been seen in the white corpuscles whilst within the vessels,"[1] agreeing in this respect with Mr. Jones, while a firm believer in Cohnheim's views regarding migration, I am convinced that both are in error. I have demonstrated the contrary to my own satisfaction at least. During last September, I had a small vein in the mesentery of a frog under a ¼-inch objective (using a cover-glass); there were white globules hugging the vessel wall, while the axis of the contents of the vessel oscillated gently to and fro; the walls of the vessel were sharply outlined, the surrounding tissue being nearly free from stray globules, and the colourless corpuscles were well defined. I carefully and closely watched one white globule in the centre of the tube; it was motionless, but gradually changed its shape by throwing out processes, and finally by imperceptible activity reached one side of the vessel, and there changed from the circular shape to that of a somewhat irregular square. I thought I was now going to witness migration; but in a short time it left the side of the vessel, resumed its circular shape, and returned to the centre of the vessel, where it let go its hold on the vessel wall and oscillated to and fro with the current in company with the other red and white globules—thus showing it to be still within the vessel. I believe, notwithstanding the assertions of Mr. Jones and Dr. Green to the contrary, that it was a *bonâ-fide* instance of amœboid change of shape and position of a white corpuscle while still within a vessel. Using the same objective, I afterwards observed the same phenomenon in the case of other colourless cells. On account of the inconveniently short working distance of the ⅛-inch objective, the ¼-inch is generally used, which, possessing a less power of amplification, may account for the failure to witness this change of shape and position; by having the membrane perfectly horizontal, and using very short pins to confine the membrane to the frog-plate, I experienced no great difficulty; a ¼-inch glass used in conjunction with an achromatic amplifier would give the same amplification as a ⅛-inch objective without the inconvenience of a short working distance.

In reference to the second question, I would say that if I was at all prejudiced it was in favour of the migration theory; for, if correct, it very much simplifies the pathology of inflammation. I used the web but once, as on account of its comparative thickness and the numerous pigment cells contained in it its examination was not so satisfactory as the clear transparent mesentery. In some instances I relied on atmospheric air to light up the inflammatory process; while in others I applied acetic acid, crystals of silver nitrate and copper sulphate, and an iron heated short of red heat and in boiling water. With the exception of the web, I invariably noticed, at the first glance at the exposed membranes, that there were free cells on their surfaces. These are the white cells not only coming, as Mr. Jones observes, from the peritoneal secretion, but also from the vessels, as red cells are also to be found. Many of these cells, without doubt, come from the vessels divided in opening the abdomen, and from the pricks of the pins made in confining the mesentery; small vessels must also be severed in properly displaying the tongue. No matter how much care is taken in the preparation of these membranes, free cells will always be found on their surfaces, and no doubt are mistaken by some to be migrated globules; but a very little care in observing them will readily dispel such an illusion. Furthermore, I always noticed that the great majority of them can be removed by means of a camel-hair brush; those which do not come away are no doubt on the under surface of the membrane, where manipulation with the brush is difficult and awkward, or else, being bodies of microscopic size, escape being entangled in the hair of the brush. My plan was to select a few small veins with a clear unobstructed piece of membrane on each side of the vessels, and then watch until the current became slow and finally stagnant, with complete coagulation of their contents. I never saw, no matter how long the vessels were under observation, any white cells appear in the surrounding clear tissue which could not be accounted for on another more plausible theory than that of migration. Vessels were occasionally seen the tissues bordering which were not free from leucocytes, and which could not be brushed away. I do not believe they were migrated globules, for they did not change their position, and if the membrane was occasionally brushed they did not increase in number. I believe they were free peritoneal and vascular cells fixed to the membrane by their viscidity and desiccation prior to inflammatory effusion. I several times saw a small vein, sharply defined and with clear tissue surrounding it, in which a colourless cell was to be seen that presented the appearance as though a small portion of it were partly through the vessel wall; but after long waiting, during which time it presented no change of any kind, it was suddenly whisked along with the blood-current. I repeatedly proved, to my own satisfaction, by *transitional* focusing, that many of the cells that occupied positions which rendered them liable to be mistaken for migrating leucocytes were on a plane different from that occupied by the vessel. The most deceptive

[1] Green's Pathology and Morbid Anatomy, sixth edition, p. 246.

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simulation of migration I witnessed was observed while watching two leucocytes which looked for all the world like globules that had partly escaped from the vessel. As they were the only ones, and the surrounding tissue was quite clear and free from other globules, I was less liable to make a mistake than would otherwise have been the case. They appeared to be attached to the wall of the vessel by a narrow pedicle, which gave them a pear-shape. In about an hour they were quite free from the vessel, and had moved a short distance away from it; but in a comparatively short time they returned to the vessel wall again, and appeared to almost bury themselves in it, when they reappeared, still apparently attached to the vessel wall. This peculiar behaviour made me doubt their being emigrant globules, but I was finally convinced, by their suddenly rapidly oscillating, in no fixed direction, to and fro in overlying serum on the peritoneal (the vessel was in the mesentery) surface, so occasioned by the beating of a neighbouring large artery. This proved their presence on the surface of the mesentery, wandering over its surface, and thus occasioning the similarity in appearance to migration. This required an hour and a half of continuous observation; so a hasty conclusion in favour of migration would no doubt have been arrived at by many.

On reading descriptions of the migratory process by different writers one is struck with two facts: (1) That exceedingly few quote their own observations in favour of migration, but quote either Cohnheim's or those of Burdon Sanderson; (2) the great discrepancy in the ease with which they (different writers) say migration can be observed. Burdon Sanderson avers, "From the description given above it might be inferred that the experiment is one of great simplicity, whereas in actual practice it is attended with very considerable difficulty; so much so, indeed, that most persons who have tried it have found failure more frequent than success. The principal sources of difficulty are: (1) That the time occupied in the first stage of the process, during which the circulation is going on with unabated velocity, is extremely variable; (2) that if from weariness or inadvertence the attention of the observer is diverted from the selected vein at the commencement of the process of migration, he is very unlikely to succeed in seeing what he desires to see afterwards; for inasmuch as leucocytes are escaping simultaneously in various parts of the mesentery, they soon accumulate in such numbers that their mode of exit can no longer be distinguished. Yet, notwithstanding these difficulties, no one who has time and patience enough need fail; great care in manipulation is required, but no extraordinary dexterity."[2] (A camel-hair brush, as before stated, occasionally applied to the surface of the membrane will prevent and will remove the obstruction to the clearness of view occasioned by these "accumulated migrated" corpuscles which gradually ooze from the cut vessels). I now turn to Schäfer, who, speaking of the exposed lymphatic surface of the tongue, says: "Moreover, the mere exposure of the lymphatic surface soon causes inflammatory changes, and after the preparation has been made a few minutes only, the first commencement of these is seen in the sticking of the pale corpuscles to the walls of the vessels, speedily followed by their migration from the veins into the surrounding tissue. Nowhere can the fact be more clearly established, and the details of the process more accurately followed than here."[3] If migration is an observable fact, one of these gentlemen is in error, and I am sure it is Mr. Schäfer, who, I have not the least doubt, mistakes the free leucocytes on the surface for migrated corpuscles in the parenchyma of the tissues. My observations have been too few to warrant me in coming to a definite conclusion; yet the result of my efforts to arrive at the truth in conjunction with the differences in the statements of actual observers who accept the doctrine of migration give some support to the assertion of Mr. Wharton Jones. I intend pursuing the subject still further, and if after as many careful observations I do not witness migration, I think I shall be justified in doubting, if not migration, at least observable migration.

Reading, Pennsylvania.

[2] Holmes' System of Surgery, vol. i., p. 48.
[3] Practical Histology, p. 161.

THE epidemic of measles has rapidly spread in Warrington during the past two or three weeks, and the day-schools in the town have been closed with a view to prevent the spread of infection.

HYSTERECTOMY FOR FIBRO-MYOMA UTERI IN A PATIENT FIFTY-SIX YEARS OF AGE.

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THE following case seems to me sufficiently rare to merit separate publication.

On Nov. 3rd, 1886, I saw in consultation with Dr. Braxton Hicks and Mr. Rand of Dulwich a single lady, aged fifty-six, with a very large, solid abdominal tumour. After examination, I agreed with the previous diagnosis—namely, that it was uterine. The cervix was obliterated, and the os could only just be reached as a small opening at the top of an elongated funnel-shaped vagina. Menstruation had been regular and scanty up to 1880, and then became rather more profuse. In July, 1881, the patient discovered a small lump in her right side, and about the same time menstruation became irregular, and she had some severe floodings. This state of things continued more or less till the early part of 1885, the tumour meantime slowly increasing in size. She then stopped menstruating for a whole year, had one period, and did not menstruate again for another six months—i.e., till I first saw her. During this last six months increase in size had been much more rapid and decline of general health so marked that Dr. Hicks advised that I should be consulted as to the possibility of operation. I came to the conclusion that hysterectomy was possible and justifiable, but thought it right to tell both the patient and her friends that the great size of the tumour, together with its very broad base, made the operation unusually formidable and dangerous. I have twice performed hysterectomy upon single women at the age of fifty-five, in the one case removing an enormous fibro-myoma, which had become cystic with rapid increase of size, and in the other a small fibro-myoma for excessive hæmorrhage, which rather increased than diminished after the usual period for the menopause; and in another case I operated on a woman of fifty-eight, in consequence of profuse suppuration in the tumour, the pus escaping through the uterus in such quantity as to seriously undermine her health. These three patients are now all in the enjoyment of good health.

The special interest in the present case does not therefore lie in the age of the patient, but in the fact that the tumour appeared first about the usual time of change of life, and grew steadily during this period, and after it was practically complete increased so rapidly in size as to threaten the patient's life. Her family history is a remarkable one. She was the eighth of a family of sixteen. Her mother died of some uterine disease at sixty-four, one sister died in infancy, one of phthisis at nineteen, another of epilepsy, and another of scarlet fever. The eldest sister had a tumour removed from her groin ten years ago, another sister had a mammary tumour removed four years ago, and the youngest sister has been twice operated upon for thyroid tumour; all three are living.

On Nov. 8th, 1886, Mr. Stormont Murray administering chloroform, Mr. Malcolm assisting, and Dr. Braxton Hicks and Mr. Rand being present, I removed the tumour with the uterus down to the internal os and both ovaries and tubes. The latter were ligatured off, and the wire of Koeberlé's serre-nœud was passed through the broad ligament on each side just below the cut angle made by removing the appendages. It was necessary not only to secure the broad ligaments on each side as in ovariotomy, but also to secure separately on each side a large mass of vessels lying deeper on the surface of the tumour, and also to enucleate the lower part from the pelvis, peeling back the bladder, and enucleating the mass from the whole floor of the pelvis from the rectum and sigmoid flexure and left ureter on one side, and from the cæcum and right ureter on the other, and well above the sacral promontory posteriorly, so that the raw surface, apart from the ovarian pedicles and uterine base secured in the serre-nœud, was larger than that made in amputating at the hip-joint. Many large vessels were secured over this surface, and its edges were laced over with fine silk. Some venous oozing deep in the pelvis I failed altogether to stop, and I therefore placed a glass tube above the pedicle and at the bottom of the large cavity left by enucleation. The whole operation was performed antiseptically, the stump dressed with solid perchloride of iron, and the tube covered

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with the sponge dressing. For some days after the operation a considerable quantity of dark blood was discharged from the tube every twelve hours, sometimes several ounces; and the glass tube was not finally removed for more than a month, and was then replaced by a red rubber tube, which was gradually shortened and finally removed in eight weeks, when the patient got up. The convalescence was very steady considering the formidable nature of the operation, the only troubles being the persistent oozing of blood, which was apt to occur and increase on any extra movement, and a sharp rise of temperature and pulse on the evening of the fifth and morning of the sixth day, requiring the use of ice to control it. From the time the ice was removed from the head almost to the time the patient left my care there was marked polyuria, the secretion more than once being over seventy-two ounces in the twenty-four hours. I have before noticed the same thing in cases after a rather prolonged use of ice to the head, but it does not seem to do the patient any harm, and, so far as I have been able to discover, is not associated with albuminuria or any other change in the urine. The tumour, after much blood had drained from it, was weighed at 25½ lb., but I have no doubt was really much heavier. I found the people only had weights up to 25½ lb. The great size of the pedicle made the serre-nœud long in separating, and I did not finally remove it till the twenty-fourth day. I usually remove it, if it does not separate spontaneously, about the fourteenth day.

I was assisted in the after-care of the case by Dr. Hicks, Mr. Rand, and Mr. Malcolm, and the patient was most excellently nursed by one of the nurses from the St. Helena Home. She was herself bright and cheerful throughout, in spite of the slow convalescence, and the change in her appearance was so marked that friends who visited her said that she appeared at least ten years younger. The only point in the operation to which I would call attention is the separation and ligature of a second layer of large vessels after securing the broad ligaments for the removal of the ovaries. I find that in these very large tumours this second layer can always be recognised and lifted from the sides of the uterus, and after they are secured, as well as the ovarian vessels, very extensive enucleation may be rapidly performed without fear of dangerous hæmorrhage, in cases in which, upon first opening the abdomen, it seems quite impossible that the mass can be removed with any reasonable prospect of preserving the life of the patient.

Portman-street, W.

SURVIVANCE AFTER GUNSHOT WOUNDS OR OTHER INJURIES OF THE HEART.

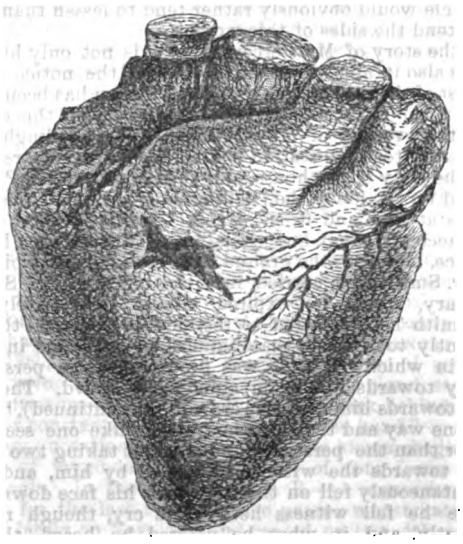
BY BRIGADE-SURGEON W. CURRAN,
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HAVING discussed this question from the standpoint of the lower animals in another journal, and having accummulated some materials about it in its relations to our own species, I am anxious to summarise these in this place, and so complete the record of the matter so far as I am acquainted with it. I am, of course, aware that the subject has been exhaustively dealt with by other and abler hands than mine; nor do I pretend to be able to shed any new light on so well-worn a topic. All I undertake to do is to introduce a few of the more classic or historical illustrations of this kind that I have met with in the course of my reading, or that have escaped the notice of the ordinary collectors, and then relate a case that came under my own cognisance at Peshawur, which, if not unique of its kind or *per se*, is, I should fancy, nearly so. Anyhow, I never saw or heard of anything like it, and the uncertainty or complexity of the symptoms by which this lesion is characterised during life must be my excuse as well as my justification for ignoring, or at least for not dwelling on them at all in this place.

The materials here referred to would, I think, justify me in extending the scope of this paper, and this too was at one time my own intention. But, alas for the vanity of human wishes! just as I had sketched out a programme of this kind for my own guidance, I bethought me of its medico-legal bearings, and on looking into the great works of Chevers and Taylor—to go no farther afield—lo and behold! there was the whole question thoroughly threshed out. To add to my perplexity or humiliation, I further found that, *quoad* its surgical bearings, one Fischer, a German, had been before me, and so it became clear to me that, if I would not poach on their preserves or carry coals to Newcastle, I had better be content with what I had gleaned in this bared field myself, and shine as a compiler, if I could not sing or shine in any higher key. This, then, is my standpoint—as it will, I trust, be my shield and defence against the too-exacting requirements of a carping criticism; and the interest or the superstition with which wounds of this kind have ever been regarded will, I am assured, relieve, in some measure at least, the barrenness and monotony of the tale I have to tell about them.

That all these cases exhibit a larger measure of tolerance on the part of this central organ than is popularly assigned to it is undeniable, and equally certain is it that such a tolerance has been specially provided for by nature. So complex, indeed, is the distribution of its muscular fibres that their minute arrangement may be almost said to be still *sub judice*; and as to the mechanism of the fact or force whereby it ministers to the wants of our economy, that is yet quite as much a *crux* as was at one time the circulation itself, or as is still the use of the appendix vermiformis cæci. We know, on the other hand, that it has frequently undergone rupture even in a healthy subject, as the result of a squeeze or of a blow that has left no trace behind it. It has also been displaced without undergoing any rupture by such external violence as has seriously compressed its cavities or broken

FIG. 1.



several of the ribs by which it was surrounded; and as to other minor instances of its endurance, freakishness, or "deviation from the perpendicular," they are so numerous as not to need any more detailed reference or indication here.

Thus—to mention only a few of the more striking ones—one (de Torres) is quoted by Chelius as describing a case in which the base of this structure was as low as the umbilicus; another (Ramel) mentions the case of a girl of ten, in whom the heart was placed below the diaphragm; and, stranger still, Deschamps is said to have found it, in one instance at least, in the region of the left kidney. I have myself quoted, but without attaching much importance to such narratives, several other curiosities of this kind in a paper headed "On Malposition or Displacement of the Heart" which I contributed in 1861 to the "Indian Annals of Medical Science," and having thus cleared the way for the histories promised above, I will now proceed to the statement of them.

The interest associated with the accompanying illustration (Fig. 1), for the block of which I am indebted to the courtesy of Mr. F. Le Gros Clark, is enhanced by the fact that the heart it portrays was taken from a soldier who fought at Corunna in 1809, and who was struck by the bullet to the left of the sternum between the second and third ribs. He thought he might have been insensible for half an hour; his loss of blood was not copious. He was carried on board a fighting ship, which was crowded with wounded soldiers,

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and received no surgical attention beyond the application of a piece of plaster during the voyage. The external wound was suppurating healthily on his arrival, and a probe that was introduced penetrated for nearly its whole length without meeting with any resistance. His countenance was pale; respiration frequent and laboured; pulse 120; the temperature was nearly natural. He was also very restless, and he could get no sleep, while he craved for opium. He complained occasionally of an obtuse pain in the chest, which he could not, however, define or isolate, and he was, besides much troubled with diarrhœa. His restlessness and depression increased, and, expiring on the third day after landing, and fourteen days after the receipt of the wound, this organ exhibited on section the appearance indicated in the sketch. On further examination the left pleura was found to contain two quarts of a sero-sanguineous fluid, and the lung itself, which was shrunk to a small solid mass, adhered to the spine. The thickened and distended pericardium contained half a pint of the same sort of fluid, and the surface of the heart itself was covered with a thin layer of adhering lymph. The right ventricle presented a transverse opening, about an inch in length, which penetrated its anterior surface near the origin of the pulmonary artery. On removing the heart by cutting through its large vessels, the ball was found lying loose in the pericardium, into which it had fallen during this operation, and by tracing its course within this structure, it became evident that it must have remained in the right auricle all along. The tricuspid valve had a circular lacerated opening in it, which admitted of some regurgitation, and the contraction of the walls of the ventricle would obviously rather tend to lessen than expose or distend the sides of this wound.

As the story of Mr. Perceval's case is not only historical, but as also it appears to have escaped the notice of some at least of those collectors to whom allusion has been already made, I subjoin a note of it here. It runs to this effect:—"On the evening of May 11th, 1812, he [Bellingham, the murderer] took his station behind the folding doors leading into the body of the house, and at 5 o'clock, as Mr. P—— advanced up the lobby, he [Bellingham] presented one of his pistols at him and fired. Mr. P—— reeled a short distance (the account says), and, exclaiming 'Murder' in a low tone of voice, he fell to the ground. He was instantly picked up by Mr. Smith and carried into the office of the Speaker's secretary, where he expired almost immediately." The Mr. Smith here referred to testified at the trial that subsequently took place that "almost in the same instant as that in which the shot was fired he saw a person rush hastily towards him from among the crowd. The person came towards him from the crowd" (he continued), "looking first one way and then another, rather like one seeking for shelter than the person wounded. But taking two or three steps towards the witness, he reeled by him, and almost instantaneously fell on the floor with his face downwards." Before he fell witness heard him cry, though not very distinctly, and in what he uttered he heard the word 'Murder,' or something very like it. When taken into the Speaker's office his face was perfectly pale. The blood was oozing in small quantities from each corner of his mouth, and probably in two or three minutes from the firing of the pistol all signs of life had ceased."

There was at one time, as there is still, I believe, in some quarters, an impression or belief that persons who are wounded after the manner here described invariably spring or jump into the air ere they die, and an officer who was present, in 1848, at the taking of Frankfort-on-the-Maine by the Austrians and Prussians, assured me that he witnessed and verified on the spot at least one case of this kind on that occasion. I have inquired more thoroughly into this matter, and find that, though such occurrences do sometimes take place, they are very far from frequent, and that when they do take place this spring or jump is not exclusively confined to wounds of this organ. The curious reader will find some account of this matter in a paper I contributed on the point to the *Indian Medical Gazette* of May 1st, 1876.

As regards the deaths that have been produced by stabs from knives or sword-thrusts through this organ, &c., a few historical illustrations must suffice for this occasion; and nothing need be here said about the fatalities that result from the fish-bones or other articles of that kind that reach it through the œsophagus. They are so rare as to be almost unregardable in this connexion, and so we may safely say of them *de minimis non curat chirurgia*. Not so, however, with the other stabs or thrusts of this kind that history commemorates, and we know as matters of fact that the assassination in this wise of the Duke of Guise at the siege of Orleans in 1563, as well as of Henry IV.[1] some half a century later, affected the very existence of the religious organisations or of the political factions with which they were respectively connected. But these phases of the question are also somewhat beyond the purview of our inquiry, and we find that the behaviour of this organ—which is the point that chiefly concerns us here—is in either case regulated by the amount of injury it sustains itself at the time, or by the amount of hæmorrhage and shock that are then or subsequently induced. This being so, we need not go into the details of the situation; and now for a few illustrations in point.

Describing the murder of the Duke of Buckingham by Felton, Mr. Hepworth Dixon says that "the Duke was following close, when in a narrow passage darker than the hall he stopped and reeled. Lord Cleveland, who was near him, heard a thud, and then a voice cry 'God have mercy on thy soul.' The Duke bent backward, uttered a faint scream of 'Villain,' tore from his breast a knife, and, staggering, swooned and fell. Red blood was oozing from his mouth, his eyes were filming over, and.....the Duke was dead." The other accounts of this occurrence I have read are either so exaggerated or so conflicting as to lead, nay almost oblige, me to sympathise with Walpole when he sneered at all history as a lie, or with Plunket when he compared it—though this is denied—to an old almanack. However that may be, and imperfect though these accounts are, they yet serve to show that life may survive even the most determined thrust, and the following case is still more strikingly illustrative of this point.

Dwelling on this, Mr. Sutherland Edwards says that, "after 'Le Carnaval de Venise,' &c., had been performed, the Duchess de Berri rose to leave the theatre. Her husband accompanied her to the carriage, and was taking leave of her to return to the theatre, when a man placed his left arm on the Duke's left side, pulled him violently towards him, and as he held him in his grasp thrust a dagger through his body. The dagger entered the Duke's right side, and the pressure of the assassin's arm and the force with which the blow was given were so great that the weapon went through the lungs and pierced the heart, a blade of six inches inflicting a wound nine inches long. ..... After begging that his murderer might be forgiven, and entreating the Duchess not to give way to despair, the Duke breathed his last at half-past 6 in the morning"; and the Royalist writer, Dr. Veron, who describes the attack and its consequences in greater detail, says that the wound was inflicted about 11 P.M. on the night of the 13th of February, 1820. "Il était onze heures moins quelques minutes" are his words, and "le prince allait se réveiller parmi les anges au moment où, parmi les hommes, il avait accoutumé de sortir des sommeils." In other words, he survived this terrible stroke some six hours, during which his nausea or vomiting was so continuous that the Archbishop of Paris was obliged to refuse him the sacrament, and "lorsque l'on fit l'ouverture du corps, on reconnut que le cœur même avait été blessé. Le prince aurait dû mourir sous le coup," is the opinion of our author, and, looking to the hæmorrhage that such a wound must have caused, his so-long survival is at least suggestive.

(To be concluded.)

[1] History repeats itself in this as in other matters, medical and otherwise. Thus, describing the death of the King of Demaa at the hands of one of his pages, the old Portuguese traveller, Mendez Pinto, says (Voyages and Travels, &c., Lond., 1663, p. 264) that "he [the page] stabbed the king with a little knife into the midst of the left pap, and so, because the blow was mortal, the king cried, 'I am dead.' The page," instead of being reserved for torture, as his successors Ravaillac and Gerard the slayer of William the Silent were, "was then impaled alive, with a good big stake, which was thrust in at his fundament, and came out at the nape of his neck." Short and sweet!

BRITISH OPHTHALMIC HOSPITAL AT JERUSALEM.—At a numerously attended meeting on the 30th ult. in support of this institution, it was stated that during last year 121 in-patients and 3238 out-patients had been treated at the hospital, and the number of consultations at the dispensary had been 13,462. The four beds at disposal are quite inadequate, and some of the patients have had to be placed on the floor. Resolutions recommending the hospital for increased support from the charitable public were unanimously agreed to.

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CASES OF HÆMORRHAGIC TENDENCY IN MYXŒDEMA.

BY OSCAR B. SHELSWELL, M.R.C.S., L.R.C.P.

Is there any special tendency to hæmorrhage in myxœdema?

On November 15th, A. M——, aged fifty-three, suffering from extremely well marked myxœdema, wished to have a very loose upper molar tooth, which was troubling her, removed. The gum around was very spongy-looking. The extraction was attended with more trouble than at first seemed possible, the cause being the firm adherence of a portion of gum to the tooth, and which was still adherent on extraction. Rather more than the usual amount of hæmorrhage followed, which, however, stopped easily. Eight hours afterwards it recurred to an alarming extent, and was only arrested after firm pressure with dry lint for about a quarter of an hour continuously. The blood (mixed with some saliva) lost amounted probably to about fourteen ounces. The hæmorrhage recurred to a slight extent during the night of the 22nd. She had never had a tooth extracted before. There was no history of hæmophilia in herself or her family. She had never had epistaxis, hæmorrhoids, or menorrhagia.

M. A. R——, aged forty-two, also the subject of myxœdema, complained of a very loose lower molar tooth, which was surrounded by spongy gum, as in the former case. The lower incisors, also loose, were surrounded by spongy gum, which was inclined to bleed a little. The extraction of the molar on Nov. 24th was impeded, as in the former case, by the adherence of gum to the tooth. The portion adherent was very firm, and resembled strong aponeurosis rather than gum, a considerable amount of force failing to remove it. Immediately after the extraction severe hæmorrhage came on, and although pressure with dry lint caused it to stop for a time, it continued, more or less, for two hours. Eventually firm and almost continuous pressure for more than half an hour was successful. It recurred on the evening of Nov. 28th, after straining at defecation, to the extent of about three ounces. There was no hæmorrhage after this till 8.30 next morning, when, after straining at defecation, it came on, and continued on and off all day, with intervals of freedom for an hour or so occasionally. It was only arrested after much patient pressure; about twelve ounces were probably lost. On Nov. 30th, about 5 P.M., it again came on whilst lying quietly in bed. It was again stopped with dry lint and pressure. She lost about two ounces in an hour. This patient was, previously to the extraction, carefully questioned as to hæmophilia existing either personally or in her family, but she was positive that no symptom of that disease had occurred. She had a tooth extracted twenty years ago, but no unusual hæmorrhage followed. A sphygmographic tracing recently taken shows increase of tension, such not existing in a tracing taken nearly three years ago. No satisfactory tracing could be taken in the first case on account of the swelling.

Here, then, are two cases of severe hæmorrhage in this disease from so slight an injury as tooth-drawing. I have not heard of any similar case, but this may possibly be due to the fact that there seems a tendency to a loosening and subsequent falling out of the teeth, so that extraction would not often be required. Dr. James Anderson brought a case before the Clinical Society in 1884—a woman aged forty with myxœdema, who ascribed her illness to the extraction of two teeth seventeen years previously, "the bleeding from which lasted twenty-four hours, and was very copious." This case, however, would not be an instance of the subject now under consideration unless possibly myxœdema at the time of extraction had advanced sufficiently to produce certain changes, but had not developed symptoms perceptible to the patient.

Was the excessive hæmorrhage in the first two cases simply due to the spongy gums produced by a low form of inflammation caused by loose and bad teeth, or was it due to myxœdema? Have we any evidence of hæmorrhages in this disease? I will refer to several cases reported in the Clinical Society's Transactions bearing on this point. In 1881 Dr. Ralfe writes of a woman aged thirty-seven: "The patient states that her skin readily becomes bruised, and that wounds heal exceedingly slowly and are accompanied with much swelling." Dr. Felix Semon writes of a woman aged fifty-three: "The gums are often inflamed and bleed, and the swelling extends to the neighbouring parts, notably those situated underneath the chin; nails generally, and hands often, purple-coloured." Dr. Lloyd, writing of a post-mortem examination of a woman aged sixty-five, who had myxœdema, cardiac disease, and ascites, states: "There were purpuric patches on the dorsum of the forearms; the peritoneal cavity contained 240 ounces of clear brownish-yellow fluid, and there were ecchymoses everywhere." In 1882 Mr. Lunn writes of a woman aged forty-five that the "catamenia stopped in the summer of 1880," but lately "she had a severe attack of hæmorrhage from the uterus, which confined her to her bed. No apparent disease—i.e., climacteric." Dr. Cavafy writes of a woman aged fifty-nine: "Skin of backs of hands of dull purplish-red tint, which extended for some distance up the forearms." Dr. Mahomed says a woman aged thirty, who had had seven children, "had lost much blood during labour on each occasion." In 1884 Dr. Dawtrey Drewitt writes of a woman aged forty-five: "The patient was seized with severe menorrhagia whilst taking two drachms of tincture of jaborandi, losing large quantities of blood." In 1885 Dr. James Anderson's case is reported. He states: "She believes that when she pricks or cuts herself she loses more blood than others. Her gums are extremely vascular and hypertrophied; they bleed freely, and she sometimes awakes in the morning with her mouth full of blood." Menstruation commenced at fourteen, and was always copious, leaving her very exhausted. "She has never suffered from epistaxis or hæmorrhoids, has had no swellings of her joints, or dark-coloured urine." This year she was under treatment for severe menorrhagia. In the discussion on this case at the Clinical Society, Sir Andrew Clark said "that in not one of the cases which he had seen was menorrhagia absent." In one of Mr. Hopkins' cases, too, profuse menstruation had existed. In 1886 Dr. Savill writes of a woman aged forty-six: "Gums spongy, and bleed readily; has had two or three 'bilious attacks,' to which she is liable; the vomit on these occasions has contained blood from the gums." In reports from other sources we find the following:—In a case reported in THE LANCET of 1881, Dr. Lediard states: "Extensive area of ecchymosis near pin prick in vein." And again: "It was noted that a pin scratch on her chin had produced some subcutaneous ecchymosis in its track of unusual character." A girl aged twenty reported by Dr. Whipham at the Medical Society in 1885 "had had profuse menorrhagia." In THE LANCET of July 10th, 1886, Dr. Gordon, in describing a case of myxœdema following upon removal of the thyroid gland, says: "The least pressure on the skin left a vivid mark behind, so that she was constantly ecchymosed about the hand."

From these quotations it appears that the hæmorrhage in these cases of myxœdema assumed one of four forms:—1. Menorrhagia. In the case of M. A. R—— menorrhagia has existed for the last two or three years; menstruation commenced lately on Nov. 29th and ceased on Dec. 4th, and was as excessive as usual, notwithstanding the previous hæmorrhage from the gum. The menopause simply might, perhaps, account for some of these cases, but not for all. 2. Ecchymoses, caused easily. M. A. R—— says she bruises very easily, and, in fact, a bruise now exists caused by the pressure of the thumb against the jaw whilst the forefinger was pressing lint on the gum. 3. Bleeding from the gums. M. A. R—— is an example of this also. 4. Purpuric patches on the skin. A. M—— had this symptom at one time very pronounced, her arms and hands and legs, but especially her arms and hands, having very large purple patches present, which have now cleared off to a great extent.

It would appear as if there are conditions in this disease suitable for the production of excessive hæmorrhage. For instance, Dr. Ord writes in Quain's Dictionary of Medicine, referring to the amplification of connective tissue combined with mucous infiltration: "It is most developed of all perhaps in the outer coats of arteries." In his report before the Clinical Society of a post-mortem examination of a case, he says there existed "a massive thickening of the coats, particularly of the adventitia, a great increase of nuclei, and a diminution of the calibre, often approaching obliteration." This condition would necessarily interfere with the muscular contraction of the arteries, to which contraction, physiology teaches us, we owe our freedom "from danger, through even very slight wounds." I might mention that about six ounces of blood &c. from the gum of the second patient was kept for some time, but only a very imperfect clot formed on the surface; this, however, probably goes for

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little when one considers the quantity of saliva necessarily mixed with the blood in this case, and which, if excessive, would doubtless prevent coagulation occurring to a great extent. Then, again, the sympathetic, through the vaso-motor system being at fault (as is perhaps shown in the patches of redness usually seen on the cheeks), might perhaps be held responsible to a certain extent for the hæmorrhagic tendency, if such exist, in myxœdema.

It is interesting to observe that a tendency to hæmorrhage has been noticed in that disease where, as in myxœdema, there is an abnormality of the thyroid gland—I refer to goitre. Dr. Bruce Low, writing from a goitre district to the *British Medical Journal*, of 1878, states that he took notes of 183 cases of goitre. Of these there were 90 women who had borne children, and out of these 31 were habitual flooders; and besides these a considerable number of others showed a hæmorrhagic tendency, especially at their menstrual periods.

I have not read of any surgical operation of any magnitude being performed on a patient with myxœdema; should such be necessary the result would be highly interesting. However, I think we have sufficient facts to lend interest to the two cases recorded above, and to lead us to be on the alert for hæmorrhage in any surgical operation, no matter how slight, in this disease; but much more evidence is required to raise what may be little more than a coincidence into a symptom.

Holborn Union Infirmary, Archway-road, N.

ACUTE EPIGASTRIC PAIN IN PUERPERAL ALBUMINURIA.

BY JOHN PHILLIPS, B.A., M.B. (CANTAB.), M.R.C.P.,
PHYSICIAN TO THE BRITISH LYING-IN HOSPITAL.

THE object of this brief notice is to draw attention to an important but apparently neglected premonitory symptom, sometimes occurring in cases of albuminuria in pregnancy. Cephalalgia and derangements of vision are usually given in every text-book as precursors of puerperal eclampsia; in a few cases, however, either in addition to, or without these two, we find albuminuric pregnant women suddenly attacked with acute epigastric pain. A case of this kind has recently been under my care. The patient, aged thirty-eight years, with six children, was in the seventh month of her seventh pregnancy. For three weeks she had had swelling of the hands and feet, with puffiness of the lower eyelids. There was occasional supra-orbital headache, but at no time was there difficulty of vision. When I first saw her I found œdema of the lower extremities extending to half-way up the thighs, the hands were swollen, the face puffy, and the skin harsh and dry. There was no pulmonary œdema, and the heart-sounds were quite normal. The urine was acid, of sp. gr. 1028, and contained one-tenth albumen with a few hyaline casts. Under treatment she improved very much, but at the end of fourteen days the œdema began to return, and she was seized with acute pain in the epigastrium passing through to the back. It was paroxysmal in character, the intervals of relief varying from ten minutes to an hour in duration. Subcutaneous injections of morphia were given, and with some success. The pain continued for two days, and, as it seemed rather to increase than otherwise, I induced labour with a catheter in the usual manner. A perfectly easy labour followed, and without any convulsive phenomena. She assured me that the labour pains were nothing in comparison to those in the epigastrium. A few hours after the termination of the labour the acute pain gradually ceased, and ten days later all albumen had disappeared from the urine.

The literature on the subject appears to be very scanty. Among our modern text-books Leishmann[1] is the only writer who describes it. He quotes Chaussier to the effect that the epigastric pain is of much less frequent occurrence than cephalalgia and visual derangements. "The suffering is described as being extremely severe, lasting often for hours; and when it is of unusual severity it is said to be an almost certain precursor of a convulsive attack." Quite recently Gross[2] described a typical case of this kind. In his patient there was slight œdema of the feet, but no headache or dimness of vision; she suffered intensely from epigastric pain for five hours, morphia giving her some relief. Without any warning she was seized with a convulsion, and died comatose in an hour's time; the child was delivered by artificial means, labour not having manifested itself. In the discussion[3] which followed the reading of this case, Dr. Doe gave the particulars of a case which had occurred in his practice. The patient was delivered of twins, and before, during, and immediately after the labour there were no symptoms of renal trouble. Eleven hours later she began to complain of severe epigastric pain, which steadily increased, and in four hours a series of convulsions seized her, and she died comatose in a few hours. Dr. Abbot related the case of a lady in whom these acute symptoms had appeared in two successive labours. In the first, after five days of intense agony, and in consequence of increasing dyspnœa, premature labour was induced; an easy labour followed, and there were no convulsions. The gastralgia disappeared as the labour progressed, and the urine became normal shortly after the birth of the child. In the second labour, three years and a half later, the pain was worse than before. Confinement took place spontaneously at the seventh month. Recovery here was much slower, the gastralgia requiring treatment for fourteen days afterwards. In addition, she was nearly blind, sight only being restored after some weeks. She ultimately made a good recovery. The above cases, five only in number, are all I have been able to meet with; and although few conclusions can be drawn from them, they indicate the reality of such a symptom occasionally existing and the necessity for prompt treatment. The pain passes from the epigastrium to the back of the lower chest; it may be variable in degree, but is usually agonising in character. Pressure and vomiting appear to relieve it somewhat. It is paroxysmal, and, although usually occurring ante partum, may, as in one case detailed, arise afterwards. Convulsions may or may not follow its advent. The pain appears to arise from some perversion of nutrition of the solar plexus; probably the circulation of vitiated blood in its substance may be the primary factor. Another point in favour of its nervous origin is that three out of the five patients suffered severely from neuralgia in other parts of the body.

[1] System of Midwifery, 2nd ed., p. 705, 1876.

[2] Boston Medical and Surgical Journal, 1886, vol. cxi., p.

[3] Ibid., pp.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, Hb. iv. Proœmium.

WESTMINSTER HOSPITAL.

A CASE OF ADDISON'S DISEASE; NECROPSY; REMARKS.

(Under the care of Dr. STURGES.)

THE account of the following case of Addison's disease will be read with interest, especially in conjunction with the remarks which are appended to it. The notes of the case are by Dr. Courteen, senior house-physician.

Thomas B——, aged sixteen, employed travelling about the country, hawking, was admitted into the King William Ward on December 14th, 1886. The previous history of the patient, as gathered from the mother, is as follows:—His skin has always been dark, but during the last six months or so has become much darker. He has had a good deal of exposure, frequently sleeping out in the "open" at night, and often getting wet through. When four years old he was knocked down by a cart and his left arm injured; some dead bone came away from the arm, and the wound did not heal up for four years. From the time of childhood till the commencement of his present illness the patient has enjoyed good health. About nine months ago he first began to feel ill and to lose flesh, and his mother, thinking he was in a consumption," took him to an infirmary, where he remained six weeks. He had a slight cough at this time, which [illegible]

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worse lately. He has also complained of his head "feeling queer," and that he has been unable to see at times. He has gradually lost flesh, and has become very weak, having fainted two or three times. His appetite has been good until the last two or three weeks, since which time he has taken but very little. His mother states positively that twelve months ago he was stout and well. He has never had any other illness, exhibits no trace of syphilis, and is of temperate and steady habits. His father died of phthisis. His mother is forty-eight years of age, "not very strong." She has had eleven children; four have died, one apparently from some cerebral or meningeal mischief, being eight years old; three younger children from "teething and bronchitis." There are seven other children alive and healthy; they all have dark complexions.

On admission the patient was in an extremely weak and prostrate condition, being unable to stand without support. His skin was cold, of a livid dusky hue; the fingers, lips, ears, and nose were blue; there was no pulse perceptible at the wrist, and the heart's impulse could not be felt or its sounds heard. He was immediately put to bed, hot water bottles applied, and stimulants given. In twelve hours or so the blueness passed off, and the pulse at the wrist could be felt, though it was still very feeble. The patient was thin, but not emaciated. The skin was of a dark-brown colour throughout, with here and there patches of deeper pigmentation, especially upon the abdomen and back. The penis and scrotum were especially dark, as also were the axillæ. Patches of lighter pigmentation occupied the knees. At the angles of the mouth and on the mucous membrane of the lips and cheek there were two or three purple-coloured patches. The tongue was coated with white fur; the bowels were confined. There were a few moist crepitations heard at the base of both lungs, mostly over the left. The heart's impulse and sounds were very feeble and indistinct, otherwise normal. There was nothing abnormal about the abdomen except some slight tenderness in the epigastrium. Urine acid; specific gravity 1012; no albumen. Temperature normal, tending to subnormal.

Shortly after admission the patient commenced to vomit, and though tried with various kinds of fluid nutriment, he eventually retained nothing. He was throughout remarkably dull and listless, never taking the least notice of what was going on around him; yet he answered readily when spoken to, and until the last had neither delusion nor delirium. Latterly he passed urine in bed, and his extremities became blue and cold. The pulse was again imperceptible at the wrist, and he gradually weakened, dying a week after admission on Dec. 20th. Two days before death the temperature rose to 102°.

A post-mortem examination was made by Mr. Arthur, surgical registrar, at 3 P.M. on Dec. 21st. Rigor mortis persistent; face and trunk deeply pigmented, also scrotum, penis, and inside of mouth. Left humerus shorter than right; pigmented scar below acromion. Some pulmonary œdema; no sign of tubercle in either lung; firm pleural adhesions at left base. Liver 48 oz. in weight; normal. Weight of heart, 6 oz.; normal. The right kidney weighed 5¼ oz., and was normal. The left kidney weighed 7½ oz.; also normal. Right supra-renal, much enlarged, weighed 1 oz., and consisted of a soft pale-yellow, cream-cheese-like substance. Left supra-renal, still larger, weighed 1¼ oz., and was of the some consistency as the right. Weight of spleen 10 oz.; of a pulpy gramous consistency. Testes normal. No disease of vertebræ.

Remarks by Dr. STURGES.—The case is deserving of record as a striking example of Addison's disease pure and simple occurring at an earlier age than is usual. By an unfortunate accident no microscopic examination was made, but the naked eye appearance, exhibiting yellowish caseous material softening down in places to creamy consistence, so as to hollow out the central part of the organs into semifluid masses, was sufficiently characteristic to remove all possible doubt as to the nature of the affection. So dark was the pigmentation about the face that at the first glance it suggested the seat of the malady. But the skin bronzing was hardly more striking than the asthenia. Weakening gradually day by day, there was absolutely no symptom save inability to retain food—neither fever nor sweating, nor diarrhœa. Strength went out of him, and so he died; that is the sole history, except, indeed that some hours before death he was delirious, and the temperature, hitherto about normal, rose to 102°. Both in colour and manner this boy recalled to my mind a patient of Sir H. Pitman's, a woman of forty, also a sort of gipsy, whose case, with others, I recorded in THE LANCET when medical registrar at St. George's Hospital many years ago.[1] This was also a pure example of Addison's disease, and the general condition would apply word for word to the present case: "Mere prostration; listlessness and indifference; frequent vomiting." It has often been observed that this rare disease is met with chiefly among poor out-door labourers much exposed to rough weather. The remark is strikingly confirmed by the fact that two typical examples can be quoted from among the gipsies in the experience of one observer. Furthermore, if any of us can claim equality with this tribe in the matter of exposure, it is, I suppose, the costermonger; and it will be found on reference to my paper that a fellow-sufferer with the woman just quoted—again a pure specimen of Addison's disease—was of that calling. Our late patient was but sixteen, exceptionally young. Dr. Greenhow's typical cases (forming Group I. in the appendix of his well-known work), collected from all sources, British and foreign, number 103. But of these only 14 are sixteen years and under; the youngest known examples being a boy and a girl each eleven years old. It is said, and truly, that the exposed parts of the body are the most liable to pigmentation, so that mistakes are made between the disease of Addison and sunburn. But it must be added that the parts least exposed to the sun, if exposed at all, are sometimes the most pigmented; not only the armpits and inside of the mouth, but the scrotum and penis, as with this boy and with the costermonger, or the anterior aspect of the thighs, as with the gipsy woman. For the rest, both the family and personal history of our late patient are chiefly negative. There was no associated disease, and the injury in childhood, from which he had completely recovered seven or eight years at least before illness began, can hardly be charged with any direct concern in the disease of which he died. Nearest to this obscure disease, as regards the silent fading of life without active symptoms, comes, I suppose, pernicious anæmia—no less obscure. And it is curious to reflect that the two affections brought together by this casual likeness are strongly contrasted in sex and habits. Anæmia prefers women and in-doors, and has small respect for social position. Addison's disease prefers men who lead rough lives out of doors, and are mostly poor and friendless. It spares the luxurious and the well-to-do. If it were a disease of the rich, like gout, it would probably be treated by more various methods, and more often receive kindly notice at the hands of quack advertisers, professional and other. Being as it is a disease confined to the destitute and to our general hospitals, and one which, but for hospitals and hospital schools, would probably have remained to this day unrecognised, there is a general consent, even amongst the most ingenious, that it is so obviously hopeless, that no word of profit can be said upon the subject of prevention, or treatment, or the means of discovering it at the pre-bronzing stage. Whether the unhappy subjects of the disease are yet greater sufferers on that account this is not the place to inquire.

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET.

DISEASE OF KNEE-JOINT; DIPHTHERIA FOLLOWED BY EXTENSIVE PARALYSIS; RECOVERY.

(Under the care of Mr. EDMUND OWEN.)

The notes of the following case were taken by the late registrar, Dr. Chaffey.

H. S——, a boy aged six years and nine months, was admitted on April 14th, 1885. When eighteen months old his left knee-joint swelled without assignable cause. A year later he first underwent treatment, and during the next twelve months was twice under the influence of chloroform, and then some steel apparatus was applied to the limb, but without immediate improvement.

On admission the left knee-joint was stiff and flexed at a right angle, with some rotation of the tibia outwards. The limb was much wasted.

Three weeks after admission the child became the subject of diphtheria, characterised by false membrane on both tonsils, which were so swollen as to meet each other in the

[1] THE LANCET, 1864, vol. ii., p. 569. The supra-renal bodies in this case were described by Dr. Dickinson in the Pathological Transactions, vol. xvi., p. 243.

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middle line, and by puffiness of the face and neck, and enlargement of the lymphatic glands of both sides of the neck. On the same day that the membrane on the tonsils was first detected, there was a trace of albumen in the urine. A week later the membrane on the tonsils and the puffiness of the face had disappeared, but the albumen in the urine had greatly increased, so that it amounted to as much as two-thirds. The child was never very prostrate, and after a week's illness he began to convalesce.

Sixteen days after the onset of the illness all signs of the diphtheria had apparently disappeared, except that there still remained a trace of albumen in the urine (this continued for six weeks longer); but on this day it was noticed that there was some difficulty in reading small print, the letters becoming confused. No other evidence of post-diphtheritic palsy, however, was then manifested. The next symptom was the loss of knee-jerk on the twenty-fourth day after the onset of the illness. This symptom persisted most markedly for two months and a half, and was still to be detected even three months later. On the thirtieth day the voice assumed a nasal twang, and the movement of the soft palate was found impaired; and some of his fluid food occasionally came back through the nose. On the forty-fourth day after the onset of the angina the voice was reduced to a whisper, no fluids could be swallowed, and the soft palate was absolutely immovable. All food (which was now administered entirely in the solid form) was vomited, and for twenty-four hours nutrient enemata had to be resorted to. Going back to the thirty-seventh day, the diaphragm was found to be contracting feebly, and on the forty-fourth day it had entirely ceased to act. The child's condition was now critical—with shallow irregular respirations, with an occasional ineffectual cough and very slight entry of air into the bases of the lungs; the heart's action was feeble, though regular. He was ordered one minim of liq. atropiæ every four hours. From the forty-fourth to the forty-sixth day the condition was extremely grave; although sensible, he was drowsy and prostrate, and bluish because of partial impairment of the intercostal muscles, in addition to complete paralysis of the diaphragm. From the forty-sixth day, however, he began to improve; the action of the diaphragm and intercostals returned, he was able to take food (at first solid, but soon thickened liquid food) by the mouth without vomiting and without regurgitation, and his voice became stronger and less nasal, and his power of coughing more effectual. Three days later the pupils were dilated, the skin of the face and chest flushed, and the child complained of thirst; he had been taking drop-doses of liq. atropiæ for five days. From this date he rapidly improved, and on the twenty-fifth day after the onset his voice had resumed its normal tone and strength, and there was no trace of albumen in the urine. The knee-jerks, however, still remained absent.

Throughout the child's illness there was no alteration of cutaneous sensibility, and the intensity of the palsy fell upon the muscles of deglutition and respiration. It was only on the forty-fourth day that weakness was found in any other muscles—namely, the external rectus of the left eyeball, and in certain facial muscles of expression. During the illness the left knee became nearly straight, and three months after his admission he was discharged with his leg in a Thomas splint, and getting about with a pair of crutches and a high boot. He returned to show himself two months later, when the limb was straight, though still wasted, and there were fairly free painless movements at the joint. At this time the knee-jerk was still feeble, otherwise no trace remained.

Remarks by Mr. OWEN.—It is hardly conceivable that a child could be more severely affected with diphtheritic paralysis than was this boy, and then recover. He had paralysis of muscles of vocalisation and deglutition; the stomach was so irritable that it could, for a while, hold no food; the diaphragm was completely paralysed, and the intercostal muscles, and even the heart itself, seemed to threaten cessation of action. If cardiac paralysis can be so often the cause of sudden death, even in children who are apparently convalescent from diphtheria, one had almost to expect its supervention in such a case as that just narrated. The occurrence of œdema of the lungs and pneumonia was also feared, not only because of the feebleness with which respiration was carried on, but also because of the risk of the passage of fluids through the paralysed glottis. The fact of the nerves of the pharynx, larynx, heart, and stomach all being affected betokens grave and extensive implication of the pneumogastric nerve; and the question is, of course, whether this implication was central or peripheral. Had opportunity for microscopic examination of the medulla unhappily occurred, it is possible that hæmorrhagic or disintegrating patches might there have been discovered, and so one might have been inclined to regard the paralysis as of central origin. But the temptation, on the other hand, is strong to accept Senator's theory of peripheral neuritis. Thus, the primary affection was of the palate, tonsils, and pharynx; nerves of these areas come from the pneumogastrics, glosso-pharyngeal, and sympathetic. The "neuritis migrans," as affecting the vagus, has already been referred to. The implication of the cervical sympathetic, extending through the carotid canal, reaches the ciliary ganglion (as shown by the loss of power of accommodation) and the abducens; whilst the partial paralysis of the facial nerves—a rare complication—would be explained through the association of the branches of the portio dura with the soft palate through the Vidian.

Medical Societies.

CLINICAL SOCIETY OF LONDON.

Contraction of the Metatarso-Phalangeal Joint of the Great Toe.—Acute and Chronic Internal Suppuration without Fever.—Glandular Swelling curable by Arsenic.

AN ordinary meeting of this Society was held on the 25th ult., Sir Dyce Duckworth, F.R.C.P., Vice-President, in the chair.

Mr. DAVIES-COLLEY desired to call the attention of the Society to the condition of Contraction of the Metatarso-Phalangeal Joint of the Great Toe, of which he had been unable to find any description in surgical writings. He had had five cases under his care during the last nine years. The disease consisted simply of flexion of the first phalanx of the great toe through 30° to 60°, with extension of the second phalanx, and some swelling and stiffness of the metatarso-phalangeal joint. All the cases were in young men. It seemed probable that later in life the deformity tended to change to hallux valgus. There was no paralysis of the extensor proprius hallucis, and, as far as he could judge, the flexors of the first phalanx and the plantar fascia were not primarily affected. The two causes to which he would attribute the condition were—(1) an injury to the joint, followed by contraction similar to that which is observed in the knee-joint; and (2) the pressure of short rigid boots upon an abnormally long great toe. The condition is very painful, and the patients walk with difficulty, resting their weight upon the outer border of the foot. In those cases he had subcutaneously divided the inner band of the plantar fascia and the short muscles of the sole about three-quarters of an inch behind their insertion into the sesamoid bones and first phalanx. All these cases were for the time cured, but one returned in two years in a still worse condition as regards flexion, with some outward displacement in addition—in fact, in an incipient state of hallux valgus. In this case a good result had followed resection of the metatarso-phalangeal joint. In two other cases he had excised the proximal half of the first phalanx, leaving the head of the metatarsal bone, with the sesamoid bones, and interfering as little as possible with the attachments of the muscles. Primary union had followed, and the patients were soon able to walk upon the flat sole. In one of them, twenty-two months after the operation, there was no appearance of deformity, and the patient had walked twenty miles without any difficulty on the day preceding. Mr. Davies-Colley would suggest that the deformity should be called hallux flexus, and that if the cases were too bad for treatment with rest and a splint, resort should be had to subcutaneous section of the muscles and fascia, or, in more severe cases, to the removal of the proximal half of the first phalanx.—Sir DYCE DUCKWORTH said that the subject of deflections of joints was interesting to him rather from the point of view of such constitutional causes as gout, rheumatism, and the like, than from such local causes as tight boots, whose influence in the causation was doubtful.—Dr. HERRINGHAM mentioned a case of the kind in a young girl aged fourteen. His colleague, Dr. Weiss, had also met with a similar case

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He did not know whether the joints in all cases of deflection exhibited internal changes.—Mr. CHARTERS SYMONDS said that he had had many cases of derangement of this joint. The symptoms are pain, swelling of the joint and of the articular ends of the bones. It occurred in young boys, especially those with flat feet. Some of the boys had a long great toe. As to anatomy, there was no evidence of vascularisation of the cartilage; the changes were like those met with in the early stages of rheumatic arthritis. He thought that overwork of the joint was a cause.—Mr. CLUTTON inquired whether Mr. Davies-Colley considered that the deflection was due to muscular contraction. The ligaments seem to be the efficient causes of the deformity in "hammer toe," and he suspected that the change described by Mr. Davies-Colley was allied in its pathology, and was the outcome of subinflammatory changes, chiefly in the ligaments.—Mr. H. CAYLEY said that bare-footed races had the toes in a perfectly straight direction, although flat-foot was very common amongst the natives of India.—Dr. B. O'CONNOR thought that the extensor tendons had some share in the causation of the hallux valgus.—Mr. R. J. GODLEE said that in examination of three contracted fingers he had found the cartilage vascular and eroded where it had been in contact with the capsule. He had seen mild cases of this kind; the cause was unknown.—Mr. A. E. BARKER had removed a wedge-shaped piece from the inner aspect of the head of the metatarsal bone for hallux valgus. This would probably be a better operation than removal of a portion of phalanx, by which the joint would be opened.—Mr. DAVIES-COLLEY, in reply, said that at first he divided all the soft parts; the next time he performed complete excision of the joint; and lastly he decided on removal of the proximal half of the first phalanx. The cartilage of the joints frequently lost its pearly lustre and was fibrous-looking; the ligamentous tissue was thickened. The muscular contraction and the ligamentous condition were secondary to the joint derangement. None of the cases had flat foot.

Dr. SAMUEL WEST read some cases of Internal Suppuration, Acute and Chronic, without Fever. Case 1: Female, aged twenty-one, admitted with a swelling on the lower part of the abdomen and pelvis, with but little pain or tenderness. There was no history of acute inflammation. The swelling slowly increased, but the temperature was never raised; there were no rigors and no sweatings. The swelling was opened behind the peritoneum, and several ounces of fetid pus evacuated, after which recovery was rapid and complete. Case 2: Male, aged sixteen. Case of suppurative pericarditis (described in the Medico-Chirurgical Transactions for 1883), in which the pericardium was twice tapped and then laid open. The boy recovered completely. The temperature was never raised, either before or after the operation. Case 3: Female, aged ten. Case of suppurating peritonitis (described in the Clinical Society's Transactions for 1885). The case was very acute. The abdomen was opened, and fetid pus evacuated. The patient did not rally after the operation. The post-mortem showed the case was one of primary peritonitis. The temperature throughout was not raised. Case 4: Female, aged forty-eight. Abscess between liver and diaphragm and abdominal walls connected with the rupture of a duodenal ulcer. The temperature was not raised. Case 5: Male, aged thirteen. Case of empyema. Twice tapped, with removal of twenty-four and ten ounces of pus. Chest laid freely open. Recovery complete. The temperature was normal throughout. Cases 2 and 3 were very acute. In Cases 4 and 5 the development of pus was very rapid. Collapse was absent in all. Though the explanation is not forthcoming, the fact must be borne in mind, for forgetfulness of it may lead to error in diagnosis.—Dr. RYLE asked whether there was scope for the pus to move about in the cases in question; the tension of the pus in the abscess might influence the occurrence of pyrexia.—Dr. ANGEL MONEY suggested that an alkaloid, like antipyrin, might counteract the influence of the pyrogenic agent when acute suppuration did not cause fever.—Dr. CHARLEWOOD TURNER thought it was not the pus, but something, probably micro-organisms, in the pus, which were effective in the causation of the fever.—Mr. BARKER thought that information was needed concerning the causation of subnormal temperatures, occurring at times when usually a high temperature was registered. In a case of abscess of the brain a very low temperature was registered at that period in the evening when, with suppuration, it was most common to find high fever.—Mr. F. S. EVE agreed with the suggestion of Dr. A. Money, and thought that alterations in the state of the wall of the abscess might alter the conditions under which absorption took place. In some cases the stomata would become blocked, and the pyrogenic substance therefore less easily absorbed. The evidence available went to prove that no pus existed without the presence of micro-organisms. In suppuration without fever in serous membranes, the inflammation may be at first plastic, so that a layer of lymph is formed first on the serous membrane, and this may prevent absorption.

Mr. FREDERICK TREVES read a paper on a Form of Glandular Swelling which is cured by Arsenic. He drew attention to the obscurity that attends both the pathology and the clinical history of certain chronic glandular affections. These affections are covered by such terms as the following: hypertrophy of glands symptoms, malignant lymphoma, lymphadenoma, Hodgkin's disease, and lympho-sarcoma. These glandular swellings are considered to be uninflammatory, have no relation to scrofula or syphilis, and are clearly separated from the gland disorders that attend leukæmia. They possess the common characters of a slow origin without apparent cause, a slow but progressive growth, and an absence of all inflammatory phenomena. Histologically there would appear to be no means of distinguishing one of these affections from another. Apart from this, objection may well be raised to the terms hypertrophy and lymphoma. Without limiting himself to any special term, Mr. Treves desired to draw attention to the clinical aspects of a certain form of non-leukæmic gland enlargement that could be cured by arsenic. The patients are usually past middle age; they present no peculiar constitutional defect; there is no suggestion of gout, rheumatism, or scrofula. There is no leukæmia. The neck is usually involved. The gland tumours appear on both sides without disturbances in the periphery. The masses vary in size from a hazel-nut to a duck's egg. They are soft, elastic, homogeneous, movable, painless, and free from tenderness. They show a disposition to spread without limit. The temperature is normal, and suppuration does not take place. Mr. Treves gave instances of the cure of such cases by the use of arsenic. The drug is given in the form of liq. arsenicalis, commencing with a dose of five minims and increasing to twenty minims three times a day. The treatment has to be kept up for some months—one to six. The glands waste, some few suppurate, and in such instances the resulting sinuses heal without further treatment. In cases where the whole neck has been filled with great glandular masses the tumours have wholly disappeared after a treatment of from four to six months. Some of these cases, at least, would probably be covered by the term Hodgkin's disease. Mr. Treves concluded by an allusion to Dr. Köbel's paper on the treatment of malignant growth by arsenic administered by the mouth, and also hypodermically.—Sir DYCE DUCKWORTH was well acquainted with the disease. A process of disintegration rather than of suppuration was very liable to occur in the glands. Arsenic was very useful in some cases, but by no means in all. Injections of Fowler's solution were sometimes valuable, sometimes useless. Dr. Warburton Begbie had praised chloride of calcium in these affections. He did not agree that there was a paucity of literature, and mentioned the works of Trousseau, Gowers, and Southey.—Dr. STEPHEN MACKENZIE considered that the surgeon had usurped the province of the physician. In some cases arsenic was extremely useful, but in other cases of Hodgkin's disease it was useless, and the distinction between the classes could only be drawn by a trial of the arsenic.—Dr. PAYNE considered that these cases of multiple swelling of the glands, so well known to every physician and designated as Hodgkin's disease, could not be the same disease in all cases. Cases so diagnosed have been found post mortem to be caseous degenerations. A distinct poison or cause must have been at work, in many cases doubtless the tubercular virus. A giant-celled structure was often to be detected in the glands. Reference was made to a paper in the Transactions of the Pathological Society by Murchison.—Mr. ARTHUR DAVIES had had considerable success with the chloride of calcium, which, as Dr. W. Begbie had written, must be employed for a long period and in large and gradually increasing doses. Used in any other way the drug could not be said to have had a fair chance.—Mr. C. SYMONDS said that he had cured cases of the kind occurring amongst children and others by the employment of arsenic, but he knew of no characters by which to distinguish the remediable from the irremediable classes.—Mr. TREVES, in reply,

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said that he alluded only to a certain class of cases occurring in persons of either sex past middle life, and in which there was no suspicion of inflammation about the enlarged glands. The suppurations mentioned only developed after the administration of arsenic had been begun.

MEDICAL SOCIETY OF LONDON.

Hereditary Tremors. — Random Symptoms from Cerebral Syphilis.—Facial Monoplegia.—Post-hemiplegic Chorea. —Jacksonian Epilepsy.—Ulceration of Palate.—Sarcoma of Tonsil.

A CLINICAL meeting of this Society was held on Monday last, Dr. Hughlings Jackson, F.R.S., President, in the chair.

Dr. SAMUEL WEST showed a case of Hereditary Tremors in a man aged thirty, in whom the fine movements of the hand were first noticed at the age of eight years. The father was "shaky," and died at the age of fifty-eight of paralysis. The tongue and ocular muscles were not affected. The tremors had the character of those seen in delirium tremens. The case was one of the same group shown by Dr. West last year.—Dr. EWART asked what Dr. West's views were as to the pathology of the tremor.—Dr. HADDEN said that the handwriting was a fair copy, and did not show signs of tremor.—Dr. HERRINGHAM alluded to the tremors that occurred in the hand after carrying heavy weights, and thought there was a resemblance to those seen in the man.—Mr. HILL said that the tremors were akin to those seen at the onset of the hypnotic state when artificially induced.—Dr. HUGHLINGS JACKSON thought the cases Dr. Samuel West described formed a group of family nervous diseases, other groups being Friedreich's disease, pseudo-hypertrophic paralysis, &c. He believed that the inheritance of a tendency to diseases was not that of a tendency to any pathological changes, but the transmission of small organs, of organs having too few functional elements. Insanity was often a family disease, and he believed that those who inherited a proclivity to it inherited a brain of which the functional elements of the highest cerebral centres were few. He could apply the same principle to the other family diseases alluded to, believing that some parts of the lower divisions of the nervous systems of those succumbing had fewer cells or fibres, or that in certain muscular regions there were fewer muscular elements. He thought that tremor always implied—that is, always coexisted with—paralysis. In the artificially induced tremor Dr. Herringham had mentioned, that from carrying something heavy, there was, he held, paralysis in the sense of loss of some movements of the hand and over-development of other movements of the same muscles—that is, tremor.

Dr. HUGHLINGS JACKSON showed a patient who had a random association of Nervous Symptoms from Syphilis. A man, thirty-four. Primary syphilis five years ago, followed by sore-throat; palate perforated three years ago. Fit of some sort five years ago. Present condition: No sense of smell; taste good; hemianopia; left fields blind [chart by Dr. James Anderson exhibited]; optic discs normal; slight distortion of the face to the left, with twitching in region of right zygomatici, and narrowing of the right palpebral aperture (relics of old Bell's facial paralysis?); paralysis and wasting of the right half of the tongue, with turning of its tip to the right on protrusion, and to the left when on the floor of the mouth; deafness of the left ear. The palate was fixed to the back of the throat, the communication of the mouth with the nose being by a hole. The random association of nervous symptoms would, Dr. Hughlings Jackson said, were there no direct and obvious evidence of syphilis, point to intracranial syphilis. With paralysis and wasting of one half of the tongue there was nearly always paralysis of the palate and vocal cord on the same side. In this case, for physical reasons, palatal paralysis was not demonstrable. Dr. Semon at the meeting examined the larynx and found no paralysis.—Dr. F. SEMON said that a cortical lesion involving the "phonation centre" could not cause unilateral laryngeal palsy. Stimulation of one centre in the cortex always caused adduction of both cords.

Dr. HUGHLINGS JACKSON also showed a patient recovering from facial Monoplegia of cortical or subcortical origin. A [illegible] who denied venereal disease, who had [illegible] disease, had an attack of numbness [illegible] for about five minutes one week before the attack on Feb. 8th, in which, with right hemiplegia, he was aphasic. One peculiarity of the case was the rapid disappearance of the paralysis of the limbs (two hours), and of the aphasia (about two days); the patient first regained "yes" and "no." When admitted (Feb. 11th) he had right facial paralysis and paralysis of the right side of the palate. He did not feel very light touches on the right hand, but did the prick of a pin. There was no paralysis of the vocal cord (Dr. Semon). The patient's speech (except that he was occasionally at a loss for a word), reading, and writing were good; his articulation was considerably defective. He had lost smell on the left side one month. The facial paralysis was more marked than Dr. Hughlings Jackson had ever before seen it from any destructive cerebral lesion. He exhibited photographs of the face taken by Mr. Stedman, showing among other things the great difference in the facial attitude between a "constructed" smile and a real smile when amused (a very important thing pointed out by Dr. Gowers). Dr. Hughlings Jackson had not seen such palatal paralysis as existed in this patient in any other case of cerebral facial paralysis, nor indeed in any sort of facial paralysis; it was as marked as the one-sided palatal paralysis occurring in (its usual association) cases of paralysis of the tongue and vocal cord. The uninstructed might have mistaken the case for one of Bell's facial paralysis with paralysis of the palate, a combination of symptoms he (Dr. Jackson) had not yet met with. The electrical reactions were normal. Dr. Hughlings Jackson did not hold the current doctrine of abrupt localisation, and considered that the transitory paralysis of the right limbs in this case showed that the part of the brain damaged represented movements of those limbs, although to a trivial extent. No doubt, too, the vocal cords are represented in the region diseased, but their escape is (Horsley and Semon) accounted for by their being also fully represented in the other half of the brain. That the vocal cords might act well when (Horsley and Semon) one of the two phonation centres was destroyed showed that there might be loss of (one half of) the *movements* of a region without disability in the *muscles* of that region.

Dr. SAMUEL WEST showed a case of Post-Hemiplegic Chorea, and described the character of the movements, their violence, the shortening of the leg, and the long interval between the hemiplegia and the hemichorea. The movements had somewhat the characters of athetosis. As the result of a fright by a dog the movements involved the face, and increased in violence.—Dr. HERRINGHAM said the movements had the character of "struggling."—Dr. EWART mentioned a case in a girl aged nine, which was congenital.—Dr. SIMMS said that sunstroke was very rare in the East Indies, and doubted whether this was the cause of the cerebral disease.

Dr. S. WEST also showed a case of Jacksonian Epilepsy in a woman. The fits began in May, 1885. She had had "pins and needles" in the left side. The fits had increased in frequency. The fit commenced with movements in the thumb and fingers, then the arm, then the leg, and the whole side twitched in the order mentioned. Some paralysis ensued on the fits. She had pain in the right side of the parietal region. There was double optic neuritis. The deep reflexes increased in degree. There was permanent left hemiplegia, involving the arm and leg. Did the lesion spread widely, or was it more deeply situate, and involving the fibres proceeding from the cortex?—Dr. HUGHLINGS JACKSON thought that there could be no doubt of the correctness of the diagnosis Dr. Samuel West had made. Optic neuritis, the best evidence of gross organic disease within the cranium, was not decisive of such disease. The kind of epileptiform attack the patient had did not necessarily depend on cerebral tumour; but the two things taken together, double optic neuritis and the epileptiform seizure, would make him feel as sure as he could be of anything medical that there was a cortical or subcortical tumour in Dr. West's patient. He urged that, since optic neuritis might exist with good sight, the ophthalmoscope should be used by routine in cases of nervous disease.

Dr. DE HAVILLAND HALL read two cases of Ulceration of the Palate and Pharynx occurring in young men aged nineteen and twenty-three. They were of syphilitic origin, and possibly of the hereditary variety.—Mr. LENNOX BROWNE referred to a case of ulcerated gumma of the pharynx, in which there was choroiditis and notched teeth.—Mr. MARMADUKE SHEILD referred to cases of disease in which the evidence of syphilis was slight, though it was certain that the disease was syphilitic. He suggested the possibility

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of the dependence of the sloughing in some cases on a blood-poisoning not syphilitic.

Mr. LENNOX BROWNE showed a patient the subject of Lympho-sarcoma, which commenced in the left tonsil, extended down the pharynx, and invaded the larynx. The patient, who was under the care of his colleague, Dr. Dundas Grant, at the Central London Throat and Ear Hospital, had suffered from soreness and discomfort since the harvest of last year, and attributed his trouble to the irritation of the ears of barley. Deglutition was somewhat interfered with, but there was no distress in breathing, nor was the voice affected, though his articulation was somewhat thick. A large portion had been removed by the écraseur, Hartmann's forceps, Loewenberg's curette, and raspatory. Galvano-cautery had been afterwards applied. There was already slight recurrence, and a more radical attempt at removal was contemplated. Mr. Browne added that these cases were by no means so rare as generally supposed. Butlin could only collect nine in 1882, two of them being patients shown by Mr. Browne at the Pathological Society. The present was the third case which had presented itself within the last six months at the hospital, and the fifth case of malignant disease which he had seen in the past twelve months, one of the others being epithelioma. It was somewhat rare to see sarcoma of the tonsils extending so far down the larynx. It was a question whether the lymphatics ought not to be removed in any attempt at radical removal of the growth.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

Urethral Calculus.

AT a meeting of this Society on March 4th, Mr. Benham read a paper on a case of Impacted Urethral Calculus, followed by Urinary Abscess; Perineal Section; complete recovery. W. W——, aged thirty-six, was just convalescing from a severe attack of double pneumonia when he drew Mr. Benham's attention on Sept. 26th last to the fact that his penis was much swollen, and that he was unable to micturate. He had a slight attack of gonorrhœa some eighteen years since, which lasted only for about seven days. He suddenly noticed a few months ago that the stream during micturition was smaller, and that the act was accompanied by a tickling sensation, almost culminating in pain at the root of the penis. The urine was normal. The author found the prepuce swollen, the upper portion being extremely œdematous and entirely obliterating the orifice of the urethra. The glans penis was much swollen, more especially towards the left side. After many unsuccessful attempts to pass a soft catheter, about three ounces of urine dribbled away, which gave relief; but on the following day, finding that the swelling had increased, including the scrotum, which was now about twice its normal size, that the retention was complete, and that the bladder was considerably distended, and as the author did not consider that there would be any advantage in aspirating the bladder, and as he believed that the operation of perineal section was necessary, he called Mr. Keetley in consultation. After Mr. Keetley had been unsuccessful in passing any instrument, it was resolved to lose no more time, and perineal section was forthwith performed. The median operation was chosen. There was considerable difficulty experienced in passing Syme's staff, which gave, when *in situ*, the sensation that it was in contact with some metallic substance along the side of the urethra, and on withdrawing it after the incision was made it was found that its lower or diminished portion had been literally bent from the straight line. A soft rubber tube was introduced through the perineal wound into the bladder and secured there, and linseed poultices kept constantly applied to the part. On the third day from the operation the œdema of the scrotum had somewhat subsided, but the swelling along the left side of the penis had considerably gained ground, giving a sensation to the touch of distinct fluctuation. An incision was accordingly made over the most prominent part, and about eight drachms of fetid pus evacuated. On passing a probe into the incision, it was found to go downwards into the œdematous substance of the scrotum, and upwards it communicated with the urethra. Poultices were kept constantly applied, and the cavities were frequently syringed with a weak solution of carbolic lotion, while the bladder was washed out twice daily with boracic acid lotion. Two days later, as the swelling had diminished, a metal instrument was passed from the perineal wound backwards along the urethra till it projected through the meatus as no instrument could be passed in the usual way. Then, by attaching the rubber catheter to the projecting metal one and withdrawing the latter, the soft catheter was pulled along the urethra, and so out of the perineal wound and then into the bladder. The rubber tube was subsequently replaced by a No. 9 gum catheter, as the former was constantly slipping out. This remained *in situ* a week, and then a No. 10 metal instrument was passed along the urethra from the meatus into the bladder; and in doing so, there again appeared a sensation of its coming in contact with some hard substance, but nothing definite was made out as to the cause. A week later, when all the swelling had disappeared, a thickening was found by the author around the urethra, just at the junction with the anterior margin of the scrotum. On passing a probe, it came in contact with a hard substance, which was broken into pieces and extracted with a director. By the beginning of November, both the wounds had healed, and the patient was himself able to pass readily a full-sized catheter.—Mr. KEETLEY said that the abscess was on the left side of the penis; no bougie or catheter touched the calculus. It was an open question whether the calculus was an impacted one, or whether it was a concretion lodged in a large lacuna.—Mr. PICK remarked that the case seemed to him one of gonorrhœa, followed by stricture and dilatation of the urethra behind the stricture, into which a calculus had passed. Had any symptoms of renal colic been noticed? He congratulated Messrs. Keetley and Benham on their case.—Mr. BENHAM replied.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

AT the meeting on February 17th, Dr. Cleaver, President, in the chair, the following papers were read:—

Thoracic Aneurysm.—Mr. COOMBE showed the specimens of a Thoracic Aneurysm taken from a patient, aged forty-six, under the care of Mr. Jackson in the infirmary. The aneurysm sprang from the anterior wall of the ascending and transverse portions of the arch of the aorta, and penetrated the chest wall to the left of the sternum by completely eating through one of the ribs. The patient was a scissors-forger, and had noticed the tumour forming for about twelve months, but had felt little or no pain or inconvenience from it. His family and previous histories were very good, and he had never had syphilis. The tumour ruptured by ulcerating through at a small spot externally, and the patient died about three hours afterwards, the bleeding being somewhat controlled by a gutta-percha cap, which was used as a support to the tumour. The diameter of the tumour was about four inches.

Aortic Disease.—Dr. DYSON showed specimens from two cases: 1. A brewer's drayman, aged forty-seven. During life a well-marked high-pitched musical murmur (aortic diastolic) was heard, and a thrill felt all over the front of the chest. At the post-mortem the aorta was very extensively atheromatous and the valves much thickened, but no cause was found to account satisfactorily for the musical tone of the murmur. 2. A woman, aged fifty-one, who had had rheumatic fever. The valves were much deformed, one being split down the middle, the segments being free to flap in the blood stream. The murmur in this case was a typical aortic diastolic one, with no musical quality. Both cases had Bright's disease, and died of uræmia.

Supra-pubic Suppuration.—Mr. ATKIN read notes of the case of a woman, aged twenty-seven, who had suffered from nearly constant vomiting for two months. She was very emaciated, and complained of great pain in the womb. Pulse 120: temperature 100°. She stated that the illness began with griping pains, followed by a discharge of blood from the vagina. Ether was administered, and the os found firmly closed, but soft, and the uterus not enlarged. Having emptied the bladder, an exploratory incision was made above the pubes, and a couple of ounces of fetid pus evacuated. The cavity proceeded backwards, lying over and roofing in the bladder. It was carefully drained, and the woman gradually recovered. Mr. Atkin drew attention to the anatomy of the so-called cavum Retzii described by Hyrtl, and commented on the existence of a space in the sub-peritoneal tissues. The doubtful origin of the suppuration, the lowness of the temperature, and the constancy of the vomiting were alluded to.

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Plumbism.—Dr. PORTER, in introducing a discussion upon the subject of the prevalence of plumbism from the action of the Sheffield water upon leaden pipes and cisterns, alluded to Dr. White's exhaustive report to the Health Committee last year, directing attention to the danger at present existing, and spoke of his own experience in reference to its effects. He showed that out of a total of 1068 out-patients who had come under his own care at the Public Hospital and Dispensary during the past year, 14 had suffered from plumbism attributable to drinking contaminated water; while 13 more had presented a more or less defined "blue line," though treated for other complaints. Of these 27 cases, 3 had come from the country, away from the Sheffield water-supply; but of the remaining 24 no less than 16 patients lived in a district of the town, where the drinking-water had been shown by Dr. White to contain more lead than was the case with samples of water from other neighbourhoods. Dr. Porter also alluded to the prevalence of cases in the summer and autumn months, 17 occurring at that period of the year. In conclusion, he said that, in his opinion, the gravity of the danger had been underrated rather than exaggerated.—Remarks were made by Dr. Martin, Mr. Pye Smith, Mr. Garrard, Dr. Keeling, Dr. White, Dr. Dyson, Dr. Morton, Messrs. Reckless, and J. Williams.

Notices of Books.

The Croonian Lectures on some Points in the Pathology of Rheumatism, Gout, and Diabetes. Delivered at the Royal College of Physicians, London. By P. W. LATHAM, M.A., M.D., F.R.C.P. Pp. 123. Cambridge: Deighton, Bell, and Co. 1887.—The first part of this little work positively bristles with chemical formulæ, many of them highly complex and requiring the knowledge of an expert to understand their relationship to each other, and the significance of their presence in the body. It takes some time to pronounce such words as dimethyl-ketone-cyan alcohol, amido-diethyl acetic acid, and para-oxyphenyl-amido-propionic acid, and certainly an equal time to make sure that we are not thinking of some closely allied but not exactly identical body. The second lecture is occupied with the *materies morbi* in rheumatism. Starting with the lactic acid theory, Dr. Latham found that it was unsatisfactory, and was led to what he now considers to be the true cause of the disease by the perusal of Mitchell's work on the effects of injuries of nerves. He had noticed condition and circumstances which seemed to show that the central nervous system played a part in the phenomena of gout and rheumatism, and evidence gradually accumulated that the symptoms of these diseases were mainly owing to the presence and action of uric acid in the blood. He takes great pains to show how this acid may be developed by impaired digestion, and how, when circulating in the body as ammonium urate, it meets with sodium salts and forms sodium urate—the form in which it is deposited about gouty joints. His view is shortly expressed in these words: As in diabetes the essential fault lies in the inability of the system either in the liver or elsewhere to effect the metabolism of glucose, which then passes into the circulation and is discharged by the kidneys, so in gout or gravel the imperfect metabolism of glycocine is the primary and essential defect. Unchanged, it passes from the alimentary canal or elsewhere into the liver; then, under the action of the gland, it is conjugated with urea, resulting from the metabolism of the other amido bodies, leucine, &c., and is converted into hydantoin. It then passes on to the kidneys to be combined with other molecules of urea or biuret, forming ammonium urate, a portion of which overflows into the circulation, and is converted into sodium urate. He goes on to point out that the presence of uric acid in excess affects the vaso-motor centres, which, losing their tone or activity, cease to exert their proper influence over the vessels of certain tissues and regions of the body, and the symptoms of gout and rheumatism result. The practical application made by Dr. Latham of his theory is, that in the treatment of these diseases the formation of the urates is to be prevented as far as possible. The glycocine should be eliminated from the system as swiftly as can be effected, and he points out that this may be in part accomplished by the administration of benzoic acid, which seizes upon the glycocine or its antecedent, and passes out of the system as hippuric acid, in part also by the administration of salicylic acid, which he administers in doses of twenty grains till some physiological effects are produced. He places the patient on light farinaceous diet, keeps him cool, and prescribes some purgative medicine.

Diseases of Bones and Joints. By C. N. MACNAMARA, F.R.C.S. Eng., Surgeon and Lecturer on Surgery at the Westminster Hospital; Examiner in Surgery, University of Cambridge, &c. Third Edition. London: J. and A. Churchill. 1887.—This book first appeared in modest form as a series of actually delivered lectures; then it was somewhat enlarged; and now it comes to us as a big book, a systematic treatise on an important branch of surgery. Mr. Macnamara has read widely and worked hard for this edition; he has rewritten much, and added more, and has enriched his text with numerous excellent clinical records. The book is eminently readable, and is full of valuable information. Mr. Macnamara has long devoted special study to diseases of bones, and although we cannot endorse all his views, we are glad to welcome such a worthy expression of them. The engravings and woodcuts are good, and some excellent chromo-lithographs are a new feature in this edition.

The Treatment of Placenta Prævia. By JAMES MURPHY, B.A., M.D., Surgeon to the Sunderland Infirmary, Lecturer and Examiner in the University of Durham, Newcastle-on-Tyne. Printed at the *Sunderland Daily Journal* Office, Clayton-street.—Dr. Murphy has very properly published separately his paper on Placenta Prævia and its Treatment, read before the Northumberland and Durham Medical Society. We commend it to the careful study of all our readers, and especially of those who are engaged deeply in obstetric practice. Dr. Murphy is one of the most ardent advocates of early delivery by the induction of premature labour, "as soon as we know that we are dealing with a case in which the placenta presents, after the seventh month, and even before then, should the bleedings be serious, frequent, or continuous." His success may be estimated by a record of thirty cases, without one death. His views and methods are fully described in this paper.

The Journal of Physiology. Edited by MICHAEL FOSTER, F.R.S. Vol. VIII., No. 1. Cambridge Scientific Instruments Company, Cambridge.—This part contains four papers: 1. Jones Lloyd, on the Variation in the Specific Gravity of the Blood in Health. He measures it by drawing up with a syringe or by capillary attraction a little of the blood obtained from pricking the finger and discharging it into a mixture of glycerine and water of known specific gravity, and noticing whether it rises or falls. The effects of period of day, exercise, food and drink, &c., are given. 2. Sydney Ringer and Dudley Buxton, on the Action of Calcium, Potassium, and Sodium Salts upon the Heart of the Eel, and upon the Skeletal Muscles of the Frog. 3. Sydney Ringer, on the Action of Lime, Potassium, and Sodium Salts on Skeletal Muscle. 4. Pye-Smith: Observations upon the Persistent Effects of Division of the Sympathetic in the Cervical Region.

Burdett's Official Intelligence. Vol. V.—This book, which now enters upon its sixth year of publication, is too well known to stand in need of any description, or, so far as the

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investing public is concerned, any recommendation. The mass of information which it presents is so vast, and the standard of accuracy attained is so high, that in its own department it enjoys an unquestioned pre-eminence. How large this department is may be gathered from an interesting summary inserted among the prolegomena, which gives the total amount, divided into various classes, of the securities quoted on the Stock Exchange. The aggregate comes out at the overwhelming figure of £3,098,182,369, or within a trifle of four billions sterling. All these are not only summarised in the volume before us, but every issue is separately scheduled, and minute particulars are given on all the points to which an intending investor looks. Mr. Burdett's book is, however, by no means only a vast schedule crammed with statistics. What we have above termed its prolegomena comprise a series of articles on fiscal subjects of general interest, which will prove not only a valuable repertory for the publicist, but also a most useful source of suggestion and information for the general reader. With this object the editor has made choice of such subjects as the progress of legislation or the course of public events has brought to the fore, and it seems to us that his selection has been justified by the happiest results. The present volume contains, among others, dissertations on such subjects of immediate interest as legislation as to railway rates and fares, gas prices and profits, tramway enterprise in the United Kingdom, and a review of the legislation of 1886. These and other kindred subjects are all treated with a fulness of information which will give to the articles a permanent value, while at the same time they are marked by a terseness and literary style which take them altogether out of the category of mere monographs.

Dictionary of National Biography. Edited by LESLIE STEPHEN. Vol. X. London: Smith, Elder, and Co.—The tenth volume of this Dictionary has just been issued, and extends from Chamber to Clarkson. Its contents, with regard to literary style and, so far as we have been able to judge, accuracy, are fully equal to those of the preceding nine volumes, upon each one of which at the time of its publication we have felt justified in bestowing high praise.

Ellis's Irish Education Directory and Scholastic Guide for 1887. Dublin: E. PONSONBY.—This Directory, now in its sixth year of issue, contains full information as to the Irish universities and professional schools, and the institutions in Ireland for promoting Intermediate, Technical, and Primary Education, with complete alphabetical lists of Irish colleges and schools and copious alphabetical and classified indices. By all interested in Irish educational work this book will be found useful.

Analytical Records.

KOLA PASTE.

(THOS. CHRISTY & Co., FENCHURCH-STREET.)

THE kola nut which comes from the West Coast of Africa contains in addition to starch, sugar, gums, colouring matter, &c., a considerable quantity of caffeine, and, it is said, some theobromine. Messrs. Christy and Co. prepare from it a cake resembling chocolate in appearance and to some extent in taste. It is made up with cocoa fat, is unsweetened, and by no means disagreeable. We have not as yet been able to submit the preparation to thorough chemical examination, but it is strongly recommended in heart affections and nervous depression, as well as in dysentery. Its introduction is interesting, and it certainly merits trial.

MALTINE WITH CASCARA SAGRADA; MALTO-VIBURNIN; MALTO-CARRAGEEN.

(THE MALTINE MANUFACTURING CO., BLOOMSBURY.)

The ever-active Maltine Company send us three more new combinations of maltine. Cascara sagrada, obtained from the bark of the Californian *Rhamnus purshianus*, is a valuable purgative and tonic. Dr. Garrod recommends it for chronic constipation, especially with hæmorrhoids. Each fluid ounce of the maltine contains one and a half fluid drachms of the fluid extracts. The usual dose is from a half to two fluid drachms. Viburnin is the greenish-yellow bitter resin of the *Viburnum prunifolium*. The peculiar constituents of malto-carrageen are yerbine, the active principle of the Mexican yerba santa (*Anemopsis californica*) and carrageen, or Irish moss. The mixture is emollient and expectorant.

EXTRACTUM PANCREATIS (Fairchild); PANCREATIC TABLETS (three grains); PEPTONISING POWDERS IN GLASS TUBES (five grains).

(BURROUGHS, WELLCOME, & Co., SNOW-HILL.)

BOTH the tablets and the tubes supply convenient means for the application of this well-known and valuable digestive agent. Each tube contains the quantity of powder required to peptonise sufficiently a pint of milk. We have tried this, following minutely the directions given, and in three-quarters of an hour the milk had in the faintest possible degree the peptonic taste. It was apparently but little changed, and we are convinced that infants would take it easily. When the milk stood for some hours complete peptonisation took place, and acetic acid no longer yielded a precipitate, but this is rarely necessary, and the bitter taste is a great objection. The tablets contain a convenient dose for use in intestinal indigestion; one or two may be taken an hour after meals. There can be no doubt as to the value of these preparations, or the trustworthiness of Fairchild's extractum pancreatis.

TARASP.

(RICHARD DAVIES, MADDOX-STREET, LONDON.)

Tarasp is a natural aperient mineral water. It contains, according to our analysis, 1166 grains per gallon of solid matter, which consists chiefly of chlorides, sulphates, and carbonates of magnesium and sodium. We also found calcium, potassium, and lithium, and a notable quantity of bromine. It is a very powerful aperient, and a complete analysis of it would be interesting.

DEODORINE.

(W. T. SMITH & Co.)

We have examined this preparation with great care, and have been unable to discover any advantage that it possesses. It is a neutral and very weak solution, containing only 0·337 per cent. of solid matter. Added in rather large quantities to a dilute solution of sulphuretted hydrogen, the smell was not destroyed.

DRY SPARKLING COCA WINE.

(CORBYN, STACEY & Co., LONDON.)

But that the coca taste is just perceptible, this might be taken for ordinary dry champagne. It is an excellent stimulant, and is well adapted for those who suffer from nervous exhaustion. It is evidently made from good champagne, with a small infusion of coca extract.

BRAGG'S PURE FLOUR OF EGYPTIAN LENTILS; BRAGG'S PREPARED BAKED FLOUR FOR INFANTS AND INVALIDS.

(J. L. BRAGG, WIGMORE-STREET.)

The microscope shows no trace of adulteration in these samples. They are exactly what they are described to be. The alteration in the wheat starch granules effected by heat is easily observed.

CONDY'S POWDER.

(CONDY & MITCHELL, LIMITED, TURNMILL-STREET.)

This is a powder containing a small proportion of alkaline permanganate. It has no smell, and possesses of course the advantages and disadvantages of the well-known Condy's fluid.

DE JONG'S PURE AND SOLUBLE COCOA.

(DE ERVÉ H. DE JONG, WORMERVEER, HOLLAND.)

This is an excellent cocoa, quite soluble in cold water, and free from starch and excess of fat. It is a very concentrated preparation.

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THE LANCET.

LONDON: SATURDAY, APRIL 2, 1887.

THE Special Committee of the Senate which has been deliberating on the various proposals for reconstituting the University of London, that have been suggested by the Association for promoting a Teaching University for London, and by the Special Committees appointed by Convocation, has at length presented its report to the Senate for consideration and approval. The scheme laid down in this report will probably be adopted in all its important particulars, as it is recommended by a large and most representative committee including Sir E. FRY, Professor HUXLEY, and Sir JOHN LUBBOCK. It will therefore become the most important business at the ordinary meeting in May, unless a special meeting of Convocation be summoned for its consideration; but as an extraordinary meeting at an early date is already contemplated for the discussion of a communication from the Prince of WALES on the Imperial Institute, and for taking steps for the celebration of the jubilee of the University, the summoning of another special meeting is most unlikely and inconvenient. The new scheme differs from that drawn up by Sir E. FRY's Committee of Graduates, which would have materially increased the representation of the teaching element, and also from Sir P. MAGNUS's modified scheme, which was passed by the Graduates in Convocation, and may be looked upon as a *tertium quid*, and will probably satisfy neither the teachers nor Convocation. Its production is, however, a distinct proof that the present constitution of the University does not satisfy the most active and influential members of the Senate, and that the optimistic adulations of its work and mission which have already appeared, and which will be repeated *ad nauseam* in this its Jubilee year, are not looked on as quite justifiable even by the Senate itself. So far, the agitation for a local University in London has borne good fruit, and has justified its existence. The nature of the changes contemplated by the new scheme will be shown by a comparison of its proposed objects and those of the University as it now exists.

The original Charter of the University merely empowered "certain persons eminent in literature and science" to act as a board of examiners, and to confer degrees in all branches of learning, except Divinity, on students in University and King's Colleges and some other affiliated institutions named in the Charter; but in 1858 this restriction of studentship to certain colleges and schools was abolished, save in the case of candidates for medical degrees, and the University became an Imperial Examining Board open to all comers, collegiate or non-collegiate. In the scheme now proposed the purposes of the University are to be so defined as to include, "in addition to the existing purposes, the promotion of regular and liberal education throughout Her Majesty's dominions, and especially in the metropolis and its neighbourhood." Thus it aspires to do the duties of both an Imperial Examining Board and a local University. We cannot conceive of the possibility of its combining these functions. A local University promoting regular and liberal education in the metropolis and its neighbourhood must control and regulate studentship and curricula of study in the institutions within this area, whilst the present University can never return to its early mission and demand regular certificates of study from its candidates. Either these certificates must be a *sine qud non* before the degree can be conferred, as is the case in every university to which the name is properly applied, or they must be altogether dispensed with, as at present in the University of London. If teachers control the University definite courses of study will be imperatively laid down, and attendance thereon for a suitable period will be insisted on; whereas if "certain persons eminent in literature and science" continue to guide the fortunes of the University on the lines laid down by Lord BROUGHAM, and according to the views now predominant in Convocation, it must remain an Examining Board open to all the world. We fear these changes, not altering the character of the University, but merely, and to a small extent, its ruling body, by allowing certain restricted powers to representatives of associated Colleges, will only serve as an excuse to delay the formation of a real Teaching University in London. The details of these changes must be left for further discussion in our next issue.

WHAT is fever? This—which is the commonest and most constant indication of departure from health, which has in all time pressed itself upon the attention of the clinical observer—remains at the present day almost as mysterious as in the dawn of medicine. This ignorance certainly does not arise from lack of observation or experiment; and it cannot be said that hypotheses have ever been wanting. It must be conceded, however, that hitherto no sufficiently satisfactory explanation, which shall embrace the whole series of phenomena special to the febrile state, has been afforded. Nay, even as regards the cause of the one most striking phenomenon—the rise in the temperature of the body—there is no common agreement. It is not so long since the late Dr. MOXON, whose love of paradox was great, pointed out how little certain knowledge we possessed upon the nature of fever, in a lecture published in this journal (THE LANCET, Dec. 2nd and 9th, 1882). We felt bound to remonstrate with the line of argument he adopted, although there was some justification for it, since few subjects have been more at the mercy of theorists or made more the sport of ingenious minds. It must, therefore, be deemed a fortunate circumstance that we are enabled to review side by side the most recent teachings on the subject as developed in Dr. MACALISTER's Gulstonian Lectures and Dr. MACLAGAN's essay on Pyrexia and Hyperpyrexia, which have just appeared in our pages. The standpoint of the two is different, and their conclusions are not in entire accord; but they represent the outcome of physiological teaching upon animal heat, and each suggest, according to their respective views, hypotheses more or less satisfactory to explain the nature of fever. Of the two, Dr. MACLAGAN takes a somewhat wider view; whereas Dr. MACALISTER presents us with the conditions of the problem expressed in the terms of scientific analogy, and has, happily, availed

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himself of the principles of evolution as expounded by HERBERT SPENCER and applied to pathology by HUGHLINGS JACKSON. There is, however, a more striking difference between their modes of dealing with the subject than this, and it is one which strikes at the root of the matter. To make it clear it will simply be necessary to briefly indicate the main lines of the respective theses.

Dr. MACLAGAN starts with the proposition that in fever the normal balance between tissue formation and tissue disintegration is disturbed. As results of the latter, he includes heat among the eliminated products like urea and carbonic acid, which are got rid of at the same time. But the balance between the production of heat and its elimination is maintained in health, and the temperature of the body is stable. He rejects TRAUBE's theory that fever is due to heat retention, showing that, except in the initial stage, such a condition would be inconsistent with the ordinary thermometric course of pyrexia, and that, as a matter of fact, there is increased elimination of heat, due, as he expresses it, to heat acting as a stimulant to heat elimination, on the same principle as carbonic acid excites respiration and urea excites the renal secretion. The hypothesis advanced by Dr. ORD, that in fever there is a liberation of heat which has been rendered latent in the process of tissue formation, is held by Dr. MACLAGAN to be inadequate to account for the excessive heat production that occurs. Again—and this is apparently the leading point of Dr. MACLAGAN'S essay—he contends that the phenomenon of hyperpyrexia is distinct in its origin from that of pyrexia; the "combustion theory" will not account for it; the nervous symptoms which characterise it are not due to the hyperpyrexia, but are indicative of the nerve disorder that produces it. Hyperpyrexia demands the intervention of the nervous system for its explanation; whereas, apparently, this is not necessary for the explanation of simple pyrexia. The thermic centre, which by the experiments of WOOD has been localised in the upper part of the medulla, exerts an inhibitory effect upon heat production; and if it be damaged or paralysed no limit is placed upon the extent to which the temperature, no longer regulated, may rise. This paralysis may be the result of undue stimulation, as suggested in heat apoplexy and in rheumatic hyperpyrexia, where Dr. MACLAGAN favours the view that there is increased muscular metabolism, and therefore increased heat formation, with the liability to over-stimulation of the thermic centre. Yet he does not see the necessity for adopting any such intervention of the nervous system in the case of other pyrexiæ. For their explanation, the neurotic theory is, according to him, superfluous. All may be explained, in the terms of metabolism, on the combustion theory. Thus in the specific fevers he will not admit that there is any toxic action on the heat-controlling centre to account for the disorder that is induced, but that the contagium consuming the store albumen intended for the repair of the tissues, and the water needed for tissue metabolism, is the indirect cause of the increased elimination of excretory products, including heat—the tissues feeding, as it were, upon their own substance, for lack of replenishment from the albumen normally destined for them.

We now turn to the doctrines enunciated by Dr. MACALISTER, we are enabled to see to what extent he has really succeeded in making a new departure, and in giving a new direction to our thoughts upon this subject. He starts from the same premises as Dr. MACLAGAN—viz., that in health heat production balances heat loss, and hence the stability of temperature; and that fever is essentially a disorder of body heat. But from the first he lays far greater stress upon the nervous mechanism, which of necessity must govern and regulate both heat production and heat loss. He does not, then, relegate to hyperpyrexia alone the disorder of this "thermotaxic" mechanism; it is the highest and most essential of the whole of the factors concerned in the maintenance of the body heat, it is the easiest to be deranged, and it is the uniting link of all pyrexiæ. This is a fundamental difference from such views as those expressed by Dr. MACLAGAN; but although the Gulstonian lecturer lays due stress upon it, he by no means limits his view to it, for the greater part of his lectures was occupied with the subject of thermogenesis or heat production. It may be noted that he rejects, like Dr. MACLAGAN, the retention theory of TRAUBE; and on the same grounds—viz., that in fever there is an abnormal discharge of heat, as shown by calorimetrical observation; although from the varying state of contraction of the cutaneous vessels the surface temperature is constantly varying. The nervous mechanism concerned in heat loss (thermolysis) is that of the vaso-motor and respiratory systems—each possessed of double functions, motor and inhibitory. Thermogenesis takes place very largely in the muscles, and is not dependent upon, although it may be increased by, their contraction; a fact which was demonstrated by experiment. But perhaps the most remarkable statements were those which sought to establish, with regard to thermogenesis, a nervous mechanism similar to that presiding over thermolysis. It is assumed, and to a certain extent borne out by facts, as it is supported by analogy, that this nervous influence is twofold: the one exciting to thermogenesis, and accompanied by destructive metabolism; the other inhibiting thermogenesis, and subserving constructive metabolism. In terms of metabolism, the former is catabolic, the latter anabolic; in terms of vaso-motor action, the former is motor, the latter inhibitory; in terms of muscular action, the former excites to contraction, the latter to relaxation of tissue. The grounds of this doctrine are fully set forth in the second lecture, and need not here be repeated. The evidence for the existence of special thermal nerves is but scanty. The thermogenic or catabolic nerves may be the same as the motor, but the statement by WOOD that the thermal centre was represented in the cortical motor area is based on inconclusive data; and the phenomenon of rise of temperature produced by ARCHINSON and SACHS on stimulation of the inner side of the corpus striatum seems to point to a tract distinct from that of motor impulses. It is on this tripod of thermotaxy, thermolysis, and thermogenesis, that Dr. MACALISTER bases his doctrine of the nature of fever, and explains the various forms of pyrexia by reference to the greater or less predominance of each of these processes. On this basis it is easy to agree with him that high temperature is not necessarily fever, and that fever is not necessarily accompanied by high temperature. "For if

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"fever" we mean excessive thermogenesis, that may be more than compensated by excessive thermolysis; or, with a normal thermogenesis there may be diminished thermolysis; or the two processes may not act in harmony, and disordered temperature result from ataxy of the thermic centre, without any increased metabolism. By means of this doctrine—in which the neurotic theory that Dr. MACLAGAN reserves to hyperpyrexia is expanded so as to cover all variations in pyrexia—we seem to see more hope of harmony in our conceptions of the febrile state than we have hitherto conceived possible. For it embraces in one view the cases of paradoxical temperatures without accompanying fever, of which we have been familiar of late years; the cases of ordinary fever, where there is increased combustion of tissue and heightened body heat; and the cases where the whole mechanism is so deranged that compensation is no longer possible, and fatal hyperpyrexia is the result. Lastly, Dr. MACALISTER shows how, in accordance with the teachings of HUGHLINGS JACKSON, the lowest order of nervous mechanism—the thermolytic—is the most organised and most localised—viz., in the vasomotor, respiratory, and sudorific apparatus; the next—the thermogenic—is in a fair way to become more defined in its localisation; whilst the highest, but least organised and most easily deranged—the thermotaxic mechanism—is also the least localised. This may be taken, then, as the last, but by no means the final, word of physiological science upon the question; and we venture to think that it will give considerable impetus to a further study of a subject which, always full of interest, has such important clinical bearings. One word more in conclusion. Dr. MACALISTER took credit to himself for abstaining from reference to the bacterial pathology which dominates all teaching at the present day; still this is a question that must be reckoned with, and Dr. MACLAGAN did not hesitate to apply it to his views upon the nature of fever. Doubtless, however, Dr. MACALISTER thinks, and we are disposed to agree with him, that it will be better for us to attain to a clear notion of what fever is before seeking to explain the action of poisons or microbes in producing it. We are often too prone to seek for the causes of phenomena before we have determined the precise nature of the phenomena themselves.

PERHAPS the last meeting of the Ophthalmological Society, the full report of which we published on March 19th, was the most instructive, as it certainly was the most generally interesting, meeting of the whole session. It speaks well for the secretarial management of the Society that so much material relating to such closely allied subjects was thus happily collated; for the chief interest appeared to us to centre around the neurological papers and cases. Dr. BREVOR'S case of ophthalmoplegia externa was remarkable for the absence of other symptoms of nerve disease. What relation the nerve lesion might have to the "rheumatic fever" from which the patient is said to have suffered must necessarily remain obscure, and the obscurity is only increased when we reflect that "rheumatic fever" as a historical antecedent is often of a dubious nature. Mr. MARCUS GUNN'S case of a boy was chiefly interesting from the fact that when the eyes were turned to the left both pupils contracted, whilst in the lateral deviation to the right this unusual action of the pupils was not observed. Mr. J. G. MACKINLAY exhibited a girl aged sixteen with paralysis of the external rectus of each eye of congenital date, and associated with some errors of refraction and deafness on both sides. Not the least interesting was Dr. SIDNEY PHILLIPS'S cases of associated movement of the upper lid with movement of the eyeball. When the eyeballs were directed to one side the upper eyelids both drooped, though the drooping was less apparent on the side towards which the vision of the patient was directed; for the patient voluntarily hitched up the occipito-frontalis muscle on this side. As Dr. PHILLIPS suggested, it is exceedingly probable that in this case there was an unusual phenomenon of inhibition at work, the action of the nucleus that presides over the conjugate movement to one side suspending the normal tonic action of that portion of the nucleus of the third nerve which innervates the levatores palpebræ superiorum. Mr. JESSOP'S case was noteworthy in many points, but the phenomenon of hippus, or alternate contraction and dilatation of the pupil, irregular in time and degree, not related in time to the respiration, pulse, or nystagmus, was hardly less interesting than the circumstance that the movement of the images of objects seen by the patient was in the *same* direction as the ocular movements (lateral nystagmus). There seems to be a difference of opinion concerning this last point. It is maintained by some authorities that the apparent movement of the images of objects seen by the nystagmic eye should suffer displacement in a direction the very opposite of the ocular displacement. Dr. HUGHLINGS JACKSON'S case, reported some years ago in *Brain*, first drew prominent attention to this phenomenon, and he confessed himself at a loss to explain the reason why the movement of objects should, as the patient averred, go in the same direction as the eye itself turned. Dr. PRIESTLEY SMITH repeated the suggestion that the sudden jerk of the eye was of shorter duration than the slower return movement, and thought it possible that the image was properly perceived only during the return movement of the eye. But Dr. GOWERS certainly threw some light on the question in associating the phenomenon with the symptom of vertigo. In vertigo the sense of movement in the affected individual usually agreed, so far as the direction of the sense of movement was concerned, with the sense of movement which the patient experienced in regarding external objects within his visual field. The explanation of the agreement is to be found in the motor character of vertigo, and in the fact that any resulting movement of the patient is secondary and always falls short of the actual motor sensation experienced by the patient. As Dr. GOWERS argued: If a person turns round, and an object remains opposite to his eye, he infers that the object moves in the same direction as he does, and a sensation of movement leads to the same inference; actual movement would only prevent the inference that the object is moving in the same direction if it were equal to the tendency to movement, and there would only be a sensation of movement in the opposite direction if the actual movement were in excess of the tendency. Undoubtedly the most valuable paper of the evening was the one on conjugate palsy of the lateral movements of the eyes caused by disease of one side of the pons. Starting from the well-attested observation that

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there is a nucleus or centre in each lateral half of the pons or its neighbourhood which presides over the conjugate movement of the eyes to one side—the left for the left, and the right for the right,—Dr. GOWERS classified three kinds of palsy from disease of the region in which this centre is situated. The centre was possibly the superior olivary body, which, as BECHTEREW has shown, is connected with the sixth nucleus, the auditory nucleus, the cerebellum, and the spinal cord. In the first class of cases there is palsy of the sixth nerve simply, from damage or disease of the fibres of the nerve as they traverse the pons; this leads to absolute inaction of the external rectus, and the eye deviates inwards. The second class is composed of cases of disease of the actual nucleus of the sixth nerve. As a result of it the associated action of the opposite internal rectus is lost, so that the eye could not be moved inwards were the patient told to look towards the side on which the lesion in the pons is situate. The third class of cases consists of those in which the lesion is above, say, the level of the left sixth nucleus. Then the lateral conjugate movement of the eyes towards the left is lost, but the left external rectus is not totally paralysed, for the eye does not turn inwards, as in the first two classes, but the nucleus of the sixth, being intact, appears to innervate the left external rectus sufficiently to keep up its normal tonic action. For a further exposition of the many ideas contained in this paper the reader should consult the abstract itself on page 578, where he may also find a full report of Dr. HUGHLINGS JACKSON'S philosophical remarks on the nature of nystagmus—a phenomenon which we think he rightly regards as indicating partial paralysis rather than "hypertrophy" of function, and thus the ocular shaking is drawn into the same circle as the tremor of the limbs in disseminated sclerosis, with which nystagmus is very commonly associated.

THE Royal Colleges exist primarily to supply the public with competent practitioners. When they are pressed with the argument that their refusal to combine with the Apothecaries will tend to the establishment of a competing body granting an inferior diploma on a less severe examination, they assent and say that that is just what is wanted. This is a very startling proposition, which requires close examination. The Royal Colleges, under the Medical Acts, are charged by Parliament with the duty, as we have said, of ascertaining that the entrants of the profession are capable of practising medicine, surgery, and midwifery with efficiency. They have higher functions, no doubt: they have the power of electing or examining persons who are to constitute a higher grade of the profession. But this is far inferior in public importance to their duty as examiners of the bulk of the profession. Take the College of Surgeons of England, for example. From last year's Calendar we gather that in the preceding year 51 candidates presented themselves for the Fellowship, while 1048 presented themselves for the diploma of Membership. The duty of the corporations to the public clearly has reference mainly to the hundreds rather than the dozens which they admit—to the Members, the holders of the minimum qualification, rather than to the holders of the honorary and higher grades. Now what is the simple duty which the corporations—acting conjointly, as they are required to do under the Act of 1886—owe to the public, and therefore to the candidates, for their ordinary diplomas? It is this—to examine them according to a standard which will "guarantee the possession of the knowledge and skill requisite *for the efficient* practice of *Medicine, Surgery, and Midwifery.*" This is the simple duty of the Examining Bodies. They have no authority in law to erect higher standards of examination than such as are necessary to supply the public with efficient medical practitioners for ordinary purposes. This will be equally the duty of any single corporation that may come to the Medical Council to ask for the appointment of "any number of examiners" that may be necessary for granting diplomas, conferring on the holders the right of registration under the Medical Acts. The Apothecaries will have no other, and certainly no lower, duty than that imposed on the Royal Colleges. What becomes, then, of the argument of the advisers of the Royal Colleges, that a lower grade of practitioners is wanted, and a lower body wanted to diplomatise them? Where is the Act of Parliament that empowers the Royal Colleges to attach to their common diplomas the condition of higher knowledge than that which is sufficient for practice? Where is the Act of Parliament that recognises the right of the Royal Colleges to depute their work to a lower body, or practically to risk the creation of a lower standard than that which guarantees competency? The Royal College of Physicians has once before in history made this great mistake. For half a century it was estranged from the bulk of the profession in England. It seems strange that it should be again unpractical and above its business. But it is said that the poor cannot pay for a properly qualified physician and surgeon; they must have something less. This is a dangerous doctrine. What should we have thought if it had been embodied in the Medical Act?—if, after Clause 3 had defined the duty of the medical authorities to hold examinations on standards which should guarantee competency in those intended to practise among well-to-do people, there followed a Clause 4 to provide diplomas not guaranteeing competency for a class of persons to practise among the poor? This is of course a *reductio ad absurdum.* But it is precisely what many prominent members of the Royal Colleges are thinking, and even saying. The doctrine cannot be maintained seriously. The diseases of the poor are not different from those of the rich. An error of diagnosis or of treatment is as disastrous in them as in the rich, and even more so. They have plenty of cheap physic from quacks of all sorts. The law recognises no distinction in the qualifications of the medical advisers of the rich and the poor. If the Royal Colleges promote such distinctions, they will do their best to violate the law and to degrade the profession.

ON Monday last a Scottish deputation waited upon the Marquis of Lothian and the Lord Advocate to urge that in any Bill proposed by the Government for the management of lunatics in Scotland, care should be taken that the districts be small, and that the governing bodies be elected by the ratepayers. The Marquis expressed entire sympathy with the views of the deputation with regard to the importance of the districts being of small size.

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Annotations.

"Ne quid nimis."

THE ERASMUS WILSON BEQUEST.

THE profession has been informed by the daily papers that on the day preceding the last meeting of the Council of the Royal College of Surgeons the President received at the College a deputation of anti-vivisectors, who handed in two memorials got up in opposition to that recently presented to the Council by the teachers of surgery in London. The fact has excited a good deal of comment, and ought not to be allowed to pass without notice. It is important to know whether the Council of the College endorses and approves the action of the President. It is the general opinion that a deputation of this kind, and on such an errand, should only be received officially. Did Mr. Savory speak on this occasion as the President of the College or did he not? Surely this point ought to be cleared up. As to the general question of the method of the appropriation of the bequest, we repeat if the Council refuses to listen to the urgent request of the teachers of surgery, and spends on bricks and mortar, casts and drawings, money which could be used in facilitating scientific research, it will show itself singularly out of touch with the profession. It must be remembered that the laboratory asked for is not for vivisection only or mainly, but for the encouragement and conduct of all means of investigation and experiment which have for their aim the advance of surgery and the prevention and cure of disease.

RELATIVE RANK IN THE ARMY.

LAST week a deputation from a committee of the British Medical Association waited upon the Secretary of State for War, to bring under his consideration the subject of relative rank in the case of medical officers of the army. It was introduced by Sir Guyer Hunter, but the case was stated fully by Surgeon-General W. C. Maclean, Emeritus Professor of Military Medicine at Netley. He explained that a strong feeling had arisen in the Department that the abolition of the term "relative rank" had deprived the medical officer of any status he had in the army, and that unless this were removed the effect upon the supply and the quality of candidates for the service would be most disastrous. He concluded by saying that "the authorities having now declared, in the most positive manner, that relative rank was a mere term, having no value at all, it would never satisfy the Army Medical Service to have relative rank restored to its former position. The medical officers of the army rendered great services to the State, and he thought it was only fair that they should respectfully ask to be placed on the same footing as the Pay and Commissariat departments." He was supported in his views of the effects of the change, as regards the candidates, by Dr. A. Carpenter and Mr. Macnamara. Dr. Clarke, M.P., thought that "if any change were made at all, it should be to give the medical officer actual instead of relative rank. Unless one or the other were given, it would seriously injure the supply of medical men to the army." The Secretary of State in his reply assured the deputation that the War Office, in issuing the warrant, with which he had not been personally concerned, had not the least intention to alter the position and precedence of medical officers. He owned himself very much puzzled now to know what the medical officer has lost, but admitted that "there is a sentiment at the bottom of it all, and sentiments are things to be reckoned with very much in these days." He promised carefully to reconsider the terms of the warrant, and take care so to word them that "it shall be made pretty clear that you have not lost anything whatever by the change which has been introduced into the warrant." Accepting the assurances of the Secretary of State and of the Director-General, we have always held the opinion that there was no real cause for this scare. As, however, the declarations referred to have not had the effect of reassuring the medical officers, and some step is to be taken to make it clear that their rank in the army is not to be interfered with, the question is, How can this be done in a manner which will prevent discontent? Dr. Maclean has suggested that honorary rank should be given, as in the Pay and Commissariat branches of the service, while Dr. Clarke is of opinion that actual rank should be conferred on them, that in fact they should sink their professional title in their military. We feel sure that the latter course would not prove acceptable to the best class of medical officers, who, as a rule, take a legitimate pride in their standing as members of a scientific profession. There is yet another course which might be taken by the War Minister—the issue of a Royal Warrant declaring the various grades in the medical service to be in all respects equivalent to, and carrying with them all the privileges and advantages of, the corresponding military grades with which they were classed under the preceding warrant. This would give a defined military status to each grade of medical officers, which it would be impossible to call in question or in any way to set aside. The medical officers form an integral part of the army, and it seems absurd that their position in the military machine cannot be defined without dubbing them colonels, majors, and captains.

A SLEEP OF SIX DAYS.

THERE is no more mystery about the case in Soho, that has attracted so much attention, than there is about many another interesting and imperfectly understood medical phenomenon. Through the courtesy of Dr. Keser we were enabled to examine the patient. The following is an abbreviated account of the patient's present state. The man is about the age of thirty-five, a good-looking Frenchman, who was lying on his back with his eyes closed, his countenance slightly flushed, and, at a casual glance, apparently in quiet sleep. Examination proves beyond doubt that the sleep is profound—that, in fact, there is a total abeyance, abolition, or loss of consciousness, or of the highest functions of the cerebral cortex. This sleep has not been broken since it began, now seven days ago. During the whole of the time the patient has not given the least sign of intelligence. If one eyelid be raised and light from a mirror thrown in, the other eye opens, the pupils contract, and the patient seems to be attending to the light, his eye apparently fixing something. If the light be withdrawn the eyes remain open for some thirty seconds, but closure of one is rapidly followed by shutting of the other, and the patient returns to his usual state. The pupil sometimes shows the phenomenon of hippus, alternately contracting and dilating whilst the light is thrown on the open eye. The orbicular muscles are slightly contracted (normal tone). The mouth is tightly shut, and the teeth clenched by the tonic contraction of the muscles supplied by the fifth nerve. Occasionally slight spasms seize the individual facial muscles. A tap on any muscle usually leads to tonic contraction of it. If the arm or leg be placed in ever so awkward a posture, it remains there for several minutes before a tremor commences in it. The limb when placed in a certain posture is rigidly fixed by tonic spasm. Shampooing a rigid limb has no effect on it. A sudden blow, as a rule, does not disturb the rigidity, nor does a very gentle stroking of the skin relax the spasm. But a smart "glissade" movement with the palm of the hand is usually followed by fall of the limb and cessation of the spasm. This is most effectual when applied to the

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flexor surface of the arm and the corresponding surface of the leg. The knee jerks are somewhat exaggerated. At times an ankle clonus can be obtained. The superficial reflexes appear everywhere to be diminished. Scratching the skin is soon followed by the appearance in the scratched area of well marked "goose skin," and later a red tache cérébrale appears. At times this cannot be obtained. At other times a white streak marks the area irritated. The skin is moist and warm everywhere. There is no local sweating. The temperature varies from 97·6° to 98·5°. There do not appear to be any areas of elevated temperature. The bowels have not acted since the hypnotic state began. But little urine has been secreted; this has had to be drawn off by the catheter. There is no evidence of emaciation. The patient has to be fed by his attendants, but the food poured into the throat is usually neatly swallowed, and does not cause choking. The breathing (18) and pulse (72) are regular. There is no œdema or vomiting, and the veins and arteries are natural and soft. The daily discharge of urea has not been estimated at present. The urine is acid, and contains a trace of albumen, but no sugar. Little is known of the previous history, but it is certain that he has suffered from somewhat similar seizures, for he has been a patient of M. Charcot at the Salpêtrière. The condition of the patient cannot be explained on the assumption of any form of toxæmia, or coarse organic brain disease.

THE JUBILEE ODE.

THIS Ode consists of eleven stanzas, and is not unworthy of the occasion. We gladly welcome the Laureate's recognition of fifty years' marvellous progress in Medicine in the second line of the following three:—

> "Fifty years of ever-broadening Commerce!
> Fifty years of ever-brightening Science!
> Fifty years of ever-widening Empire!"

We like, too, the following summons in Stanza vi. to all who are capable of making the Jubilee real and happy, and are especially glad to number Lord Tennyson among those who would send gold in heavy quantities to the hospitals:—

> "You that wanton in affluence
> Spare not now to be bountiful.
> Call your poor to regale with you;
> Make their neighbourhood healthfuller.
> GIVE YOUR GOLD TO THE HOSPITALS;
> Let the weary be comforted;
> Let the needy be banqueted;
> Let the maimed in his heart rejoice
> At this year of her Jubilee!"

THE TREATMENT OF LEPRA MACULOSA.

DR. EGEA, one of the physicians of the Hospital Juarez in Mexico, writes in the *Gaceta Médica de México* that a second year's student named Rodiguez, having suggested from previous experience a trial of a decoction of a mallow common enough in Mexican gardens, and called *bola de fuego* (fire-ball), in a very bad case of spotted leprosy, Dr. Velasco, under whose care the patient was, consented to use it, with the result that the ulcers healed within a month, the diarrhœa ceased, and the patient recovered. Dr. Egea then tried the same remedy on a patient of his own, who was suffering so severely from the same form of leprosy that he could scarcely move in bed for the terrible pain which motion caused, the surface of his body from head to foot being simply one great ulcer, the foul odour from which no amount of carbolic lotion or ointment was able to destroy. When he had taken the mallow for a fortnight the legs had healed, and in a month's time no ulcerated surface remained on the whole body. The patient's whole condition, too, had improved so much that he was able to walk about. The decoction was made by boiling a handful of the leaf in a pint of water, which quantity was given daily at first, being gradually increased until two pints were given daily. The antiseptic local treatment employed did not appear to have any effect. Dr. Egea says that the spotted form of leprosy (Lepra maculosa) was first described in 1851 by a Mexican physician, Dr. Lucio, and afterwards in a somewhat meagre manner by Hebra, but that by far the most complete account of it is due to the labours of Drs. Lucio and Alvarado. It is mentioned by Fagge and shortly described in Littré's "Dictionnaire de Médecine."

OVERCROWDING OF WORKHOUSE INFIRMARIES.

THE inclement weather experienced during the greater part of March has filled our hospitals and infirmaries to overflowing. Already Dr. Steele has written to explain how it came about that they were unable to retain a man with a fractured leg for more than one night at Guy's Hospital, passing him on, owing to their overcrowded state, to the Workhouse Infirmary. It was reported at the last meeting of the Lambeth Board of Guardians that there were eighty-seven men and forty women in excess of the certified number, and that some of these were actually lying on the floor and others on tables. It is matter of regret to find year by year the accommodation afforded to the sick poor becoming proportionately less and less, as the hospitals, owing to their diminished resources, are compelled to close more and more wards. The fact that the present generation has not been able to keep pace with the charitable requirements of the day is a deep reproach to those who are spiritual instructors and teachers of morality. The falling off in the funds of charitable institutions is not owing solely to diminished subscriptions, which might be accounted for by the existing depression of trade, but to the noble legacies which in time past were such a distinguishing feature of English charity. It is sad to read week after week of enormous fortunes left, and so little devoted to charitable uses. An evening contemporary has brought this forward in a striking manner recently, by tabulating weekly the wills proved, and noting the amounts therein devised for charitable purposes; and on looking over these tables, it is astonishing as well as depressing, in spite of noble exceptions, to see how little the very wealthy members of society seem to think on their death-beds of the claims of the suffering poor. This neglect of the primary duty of promptly relieving the sick and needy is a great mistake, even from the purely practical point of view. Every artisan or able-bodied labourer who becomes a chronic invalid, owing to neglect in the first stages of his disease, becomes a burden on the rates; whilst every family driven to take shelter within the walls of the workhouse swells that great army of paupers which is progressively and surely sapping the vitals of national prosperity.

PANICS IN THEATRES.

MR. WILSON BARRETT and Miss Eastlake, by a little presence of mind—neither more nor less than the amount requisite to extinguish the flame of a candle which accidentally fell from its socket on the stage, "away from any inflammable material," and to resist the impulse to be scared by the yells of an idiot who raised a cry of fire in the auditorium—succeeded, on a recent occasion, in averting a panic. Mr. Wilson Barrett afterwards lectured the audience on their folly. Perhaps it was hardly worth while to do this, seeing that people will always be terrified by cries of fire, and no amount of argument is likely to prevent their behaving like maniacs when under the influence of fear. Meanwhile, it is a fact beyond question that, with very rare exceptions, the catastrophes in which panics culminate are wholly causeless and wanton. We are not of those who think much good will be accomplished by dissertations on the subject of timidity. In spite of all that may be

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written or urged against impulse, and in praise of self-possession, the majority of persons in any place of assembly, especially if it be crowded, will try the chances of escape, either for themselves or those dear to them, and probably struggle and "rush" in an ugly fashion to accomplish their immediate purposes. It is vain to try to dissuade individuals from adopting this policy, unless it can be made certain that a patient and wise man will not find the places of exit choked and impassable when at length he thinks it prudent to decamp. Of course *if* only everybody would be calm and make a dignified retreat, there would be no difficulty. Few buildings—except some of the older theatres and those which have been recently spoiled by the interference of the Board of Works—could be destroyed before their audiences retired if the exit were orderly, but it must be avowed that as the human brain and nerves are constituted those who depart are little likely to stand upon the order of their going, and will be solely concerned to go quickly. Practically, therefore, it amounts to this, the safety of the public must be secured by measures over which they have no control, and it is really no good rating them for the terrorful impulsiveness. The one, and only, preventive against panic is the avoidance of such stupid "accidents" as the falling of candles from their sockets. It seems to us rather hard on an audience to be scolded for showing signs of impending panic after being frightened by the falling of a candle, which must have been carelessly or indifferently stage-managed, and then scared by the shouts of an idiot.

LONDON DUST.

IT is now many years since dust contractors were willing to pay for the privilege of removing house dust. The days of the golden dustman are past, and London vestries are compelled to pay large sums annually to contractors, who, after removal of the refuse, have been only able to turn it to account by the manufacture of bricks and the manuring of land. But even these businesses are not carried on at all periods of the year, and hence the contractor has at times, when he has no opportunity for its use, often neglected to rid his district of accumulations prejudicial both to health and comfort. In some instances vestries have determined to organise their own arrangements, and to deprive the contractor of a duty which at the best of times was ill-performed. Under these circumstances new methods of dust disposal were sought, and attention was naturally directed to the north of England, where successful efforts had been made to destroy house refuse by fire, and to use the resulting material for the manufacture of mortar. In 1880 the vestry of St. Pancras, moved by a report of their medical officer of health, determined to send a deputation to the northern counties to see for themselves the methods which had been pointed out to them; and as a result a strong recommendation was made to the vestry to relieve themselves, by the erection of a destructor in an outlying part of the parish, of the difficulties in which they were constantly placed. From circumstances incidental to parochial government no further progress was made, but shortly afterwards a similar recommendation was brought before the Commissioners of Sewers by the medical officer of health of the City of London. More recently the Whitechapel Local Board have succeeded in the erection of one of these furnaces, and the Kensington vestry were some two years ago desirous of adopting the same course. They progressed so far as to order a Bill to be laid before Parliament, authorising them to acquire land compulsorily for this purpose; but the proposal has not met with continued favour, and, as the result of the support they accorded to it, so many of the vestry-men have lost their seats that there is now a majority on the vestry against the original scheme. Nevertheless, we believe the time has come when the new system must be adopted; the old has certainly failed, and refuse removal must be made independent of trade requirements. It is therefore with much satisfaction we learn that the Kensington Vestry Bill has been read a third time, and we hope that this body will not hesitate to utilise their powers, and at once provide the necessary apparatus. This is to consist of a "Fryer's destructor," having twenty fire-places or cells, with inclined hearths and reverberatory arches. The dust will be carried in carts up an inclined roadway to the top of the furnace, where it will be precipitated through trap-doors on to the fires below. A flue from each cell will join a common flue, where the products of combustion will be burnt, and will eventually escape through a chimney-shaft 180 ft. high. The slag will be used for mortar and for road foundations, and the heat for working machinery for washing and screening road sweepings, the grit of which will also be used upon the roads. It is calculated that at a cost of eightpence each cubic yard of road sweepings will produce material worth five shillings per yard, while the furnaces would further be capable of working machinery which would illuminate the whole parish with electric light. Objection was taken in the House of Commons to a method which it was urged by the opponents of the scheme would give rise to nuisance; we believe this fear is illusory, and we should gladly see success attend an effort to deal with one of the most difficult problems that London has yet to solve.

INFECTING WHITLOW.

DR. ESTÉBAN BORRERO ECHEVARRIA, writing in the Havana medical journal *La Enciclopedia*, mentions the case of a young woman of twenty-three, badly nourished and ill developed, appearing like a girl of sixteen, who had a whitlow commencing in the middle joint of the middle finger of the left hand, which, being neglected, went on to produce caries of both the distal phalanges, with serious deformity of the finger. In about two months after the commencement of this whitlow another formed in the second and third joints of the ring finger of the right hand. She then presented herself for treatment. Dr. Echevarria promptly opened the whitlow down to the bone, and this healed satisfactorily; however, in about a fortnight a third whitlow formed in the ring finger of the left hand. This was also opened. These three whitlows were all quite idiopathic. The writer does not attempt to explain the succession of these inflammations, but suggests that they may be considered as all due to a general vice affecting the whole system, or to infection through unnoticed abrasions of the skin by pus. Some, he says, may consider the case as one of infectious osteomyelitis, but at all events he gives the facts as showing the existence of osseous panaris (*panadizo óseo.*)

ILLNESS AND SCHOOL ATTENDANCE.

WE would be foremost in asserting the vital necessity of education, and we are well aware that the most resolute efforts directed towards this end can effect but little without regularity of attendance. Happily, under the present compulsory system, assisted as it often is by pecuniary aid for the payment of fees in really necessitous cases, absence from school can hardly be excused on any pretext but that of illness. This cause alone, however, must almost everywhere much impair that continuity of teaching which is so desirable. Not only does it act by affecting the health of scholars themselves, but hardly less when it touches other inmates of their homes. A child may be well himself and yet be inadmissible in school if he come from a house where infectious disease prevails. Such con-

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siderations, without reference to others less connected with the province of medicine, obviously render a perfect annual attendance in any school a practical impossibility. We are accordingly astonished to find that in one case—that of the Manchester Free School—the absences of children from every cause during four years have not on an average exceeded so low a ratio as 1 in 80 of those enrolled. Nothing could be more satisfactory than these statistics, were it not that the Free School in several respects occupies a unique position. Regularity of attendance appears to be its most cherished principle. Whatever interferes with this is by every possible means to be removed. Among other causes for the withdrawal of children the school reports mention "personal or domestic sickness." Does this mean that children who are absent for a certain number of days on account of illness are *ipso facto* expelled from school? If so, it would be easy on the same system to secure great regularity without a corresponding gain to education. It is difficult to see how by any other process the diseases of children can be made to affect so little the continuity of their school training. We have no wish to over-state the case on the medical side, but we are strongly of opinion that it is the duty of educational authorities in general, and of each schoolmaster in particular, while sufficiently critical as to the reality of excuses on the score of health, to see that due allowance is made for unavoidable illness, however this may affect the roll of school attendance.

CATARACT INDUCED BY THE VIBRATIONS OF TUNING-FORKS.

DR. S. TH. STEIN, in order to examine the functions of the cochlea, acted on the eyes of very young porpoises, both in the unmutilated state and after the ears had been destroyed, by means of the vibrations of tuning-forks of different pitches. Cataract was produced in both classes of experiments. In the entire animals continuous subjection to the action of a high-pitched tuning-fork induced cataract in from eighteen to twenty-four hours, while a tuning-fork vibrating 100 to the minute produced the same effect in twelve hours. In animals whose ears were destroyed the cataract was much more quickly induced by the tuning-fork, some two or three hours being then sufficient. Dr. Stein's theory is that the condition of the lens is affected by the giving off of heat from the body, and that this is altered by the vibrations, the perception of sound again tending to retard the development of cataract. The members of the Moscow Medical Congress, before whom Dr. Stein related his experiments, did not appear inclined to accept his theories; and Professor Khodin remarked that it was not an uncommon thing for young porpoises to be born with cataract. To this, however, Dr. Stein replied that the cataract produced by his tuning-forks passed off after a time, and could then be re-induced by the same method.

QUARANTINE AT MARSEILLES.

THE reappearance of cholera in Southern Italy will give a good deal of employment to the Marseilles port sanitary authorities. This town, though itself one of the most unhealthy ports in Europe, is ever taking extraordinary precautions against the importation of disease. It possesses a magnificent quarantine station, which we recently visited. Two islands joined together by a breakwater form a harbour where the largest ships may be detained during the worst weather. On one side of the bay or harbour is a huge shed for the disinfection of rags. Close at hand are other sheds for the disinfection of mails, personal luggage, and furniture brought by passengers. On the other side of the bay a great number of houses can shelter many hundred travellers. Of course the drainage in these houses is not in a satisfactory condition, though during 1886 considerable improvements were made, and quarantine was imposed on ships coming from Italy, Austria, and the Brazils. The greater number were only detained for twenty-four hours. Indeed, it was a medical examination rather than a quarantine. Other ships had to remain at the station three days, and a few as long as five. Some idea of the service, to say nothing of the inconvenience, involved will be gathered from the fact that the number of passengers and sailors detained amounted in all to 28,000. Many of these persons belonged to the poorest class of Italian labourers; and if during their stay at the quarantine station they could be made to take baths and have all their clothes baked some good might have been achieved, to counterbalance in some measure the undoubted evils entailed by the system of quarantine. It is, however, more urgent to look after the dwellings these people inhabit when they reach Marseilles than to detain them for a day or two at the islands of Frioule. Unfortunately the condition of the poorer quarters of Marseilles remains the same now as before and during the recent cholera epidemics. It seems especially absurd to hear of 28,000 persons being put in quarantine before they enter Marseilles. If any quarantine were justifiable at all, it is far more necessary to take this precaution with those who leave than with those who are about to enter a town where almost every form of epidemic disease is rife.

THE PRINCESS OF WALES AT THE BROMPTON HOSPITAL.

THE Princess of Wales, ever ready to do a gracious act, at any personal trouble, for the relief of suffering or the pleasure and comfort of the distressed, gave a concert to the inmates of the Brompton Hospital on Friday week, at which Her Royal Highness and her daughters assisted. The performance was followed by visits to the wards, during which the patients who were unable to assemble in the concert-room were spoken to and received gifts of flowers. Such actions as these are not only of great service in themselves, but they endear the Princess to the people, and strengthen that loyalty which, in spite of all, wells up in the heart of all *English* people to the Throne.

TESTS FOR VISION AMONGST RAILWAY SERVANTS.

THE question of the tests that are and should be employed to test the vision of railway servants has been the subject of discussion at a recent meeting of the engine-drivers and firemen of the Gateshead section of the North-Eastern Railway. It was acknowledged by the chairman, an engine-driver, that it was essential that railway men should have good sight, but he thought (and several of the speakers agreed with him) that the tests they were put through at present were too severe, and altogether foreign to a railway man's duties. The principal objection seemed to be raised against the use of the dots, and it appears that at a recent examination, out of 1000 men twelve or more were stopped; and, although they had not been turned adrift, they had been placed on wages which had been reduced to the extent of from five to twenty-five shillings per week. One of the speakers, whose wages had been thus reduced, had only one eye perfect, the other being defective. The whole case lies in a nutshell. The lives of the passengers must not, on any consideration, be exposed to unnecessary risk, and undoubtedly to place a train under the care of a one-eyed man is an unnecessary risk. Suppose a spark, or even a fragment of coal-dust lodged on the eye: pain, spasm, and free lacrymation would at once deprive him of all useful vision. The company are therefore perfectly right in replacing a one-eyed man, or a man with defective vision, by one

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who has two good eyes, especially in an express train, when quickness as well as keenness of sight are required. But the men have, we think, just grounds of complaint that they should have been placed in positions of trust, and advanced from one post to another, and then, when they have done all the drudgery and have secured a good salary, they should be abruptly told that they are unfit for their work. It is the duty of the company and of its officers to see that no man with defective vision is entered upon its staff, but, once admitted, if his sight is found to fail, he should be pensioned, or supplied with work in which the failure of vision is of relatively small importance. He should not be allowed to be a loser for a piece of carelessness on the part of his employers.

RECRUITING FOR THE ARMY IN 1886.

FROM the annual report of the Inspector-General of Recruiting for the year 1886, we learn that the number of recruits who joined the service was 39,409, of whom 14,288 were furnished by the Militia, and that only 1688 enlisted for long service. The returns showing the numbers who offered themselves but were rejected on medical examination have not yet been completed. The reports by general officers commanding at home and abroad as to the general appearance and condition of the recruits who joined are very favourable. "In several cases the men are stated to be young, but it is rarely found that any complaint is made of the size and physique of the old soldiers of any regiment, from which it may be inferred that recruits develop in a short time into well-grown men." No information is given in the report as to the ages of the men enlisted. From a table in the appendix we find that in an average effective strength of 195,905 men serving in the army during the year there were 2721 deaths and 2789 discharges by invaliding, being in the ratio of 13·89 and 14·24 per 1000. The latter is considerably below the usual average. Of the invalided, 327 were in the first year of their service, the proportion to the number of recruits who joined amounting to 8·34 per 1000. There were 39,330 recruits raised for the Militia during the year, of whom 29,617 were for the English, 3775 for the Scotch, and 5938 for the Irish Militia; as in the case of the army, no information is given as to the numbers rejected on medical grounds, or as to the ages of the men enlisted. In a strength of 108,196 there were 447 deaths reported, or in the ratio of 4·14 per 1000. This is nearly 1 per 1000 lower than among troops of the line serving in the United Kingdom, but possibly the difference may be due to some of the deaths of Militia men not being reported. We observe that the Inspector-General compares the death-rate of the Militia with that of the army generally, instead of the troops serving at home, which is obviously a mistake.

LEPROSY IN TRINIDAD.

IN his report for the year 1885, Dr. Beaven Rake, the medical superintendent of the Leper Asylum, gives evidence of the valuable work with which we have already been made acquainted by former reports and by his communications on leprosy at Brighton in 1886. In discussing the prevalence of the phases of the disease, Dr. Rake states that in Norway the percentage of tuberculated cases is roughly double, and the percentage of anæsthetic cases is about half that in Demerara, whilst Trinidad occupies an intermediate position. In India the tuberculated form seems to sink to a minimum, and the anæsthetic form to rise to a corresponding maximum. The percentage of the mixed form would appear to undergo little change in any climate. The pathological part of the report has already been made known, but we may draw attention to the statement that seventeen observations on material taken from vaccine vesicles and pustules in lepers failed to show bacilli in any part of them. In his inoculation experiments he used dogs, cats, kittens, guinea-pigs, mice, bats, fowls, and a small insessorial bird, and his methods were by scarification of the skin and application of material scraped from leprous ulcers, by the introduction of portions of leprous tubercles beneath the skin, by the vaccination with lymph taken from lepers, and by feeding animals on tubercles, enlarged glands and viscera obtained post mortem. All the experiments were equally ineffectual, and not even a localised growth was observed. Dr. Rake speaks favourably of the healing capacity of leper tissues in surgical operations, and illustrates by photographs the local palliative treatment by excision of tubercle.

CONSULTING FEES FOR GENERAL PRACTITIONERS.

THAT plentiful individual "A Sufferer" has been again airing his grievances, and complains that medical men—general practitioners—charge a special fee when they meet a consultant or a specialist in consultation; also that they do not, like other people, send in particulars of accounts. As to the latter point, medical men are always ready to produce particulars when asked for. They probably suffer, rather than otherwise, from not giving particulars; for the most reasonable patients soon forget the particulars of medical service, and would be rather surprised at the end of the year to see how many visits and how much care they had received from their medical adviser. "A Sufferer's" complaint that his doctor, when a party, and a very important party, to a consultation, should charge an extra fee, is as ungenerous as it is unreasonable. The fee is only claimed as a rule in the case of patients who can pay it; but in itself it is most reasonable. The general practitioner's time is taken up, often to his great inconvenience and that of his other patients. His knowledge of the patient and of the case is most valuable, as every good consultant will admit. The consultation is essentially a joint business, and both parties to it should be paid—not necessarily equally, of course. We cannot think that "A Sufferer's" complaints will be very extensively shared by patients, who know how "special" is the knowledge of the general practitioner who may have watched their case over a number of years in all its relations, and whose time is often as precious as that of the consultant who is called in.

THE REGULATION OF THEATRES.

THE Bill which has been brought into the House of Commons by Mr. Dixon Hartland proposes to place all metropolitan theatres and music halls under the control of the Home Secretary, who will be empowered to grant a licence after he has been satisfied by inspectors, appointed for the purpose, as to the stability of the building, the security against fire, and the sufficiency of means of egress, &c. The Home Secretary is also to have power to frame from time to time such regulations as he may deem necessary for the establishment of decency and order. We do not gather from the Bill to what extent the authority of the Home Secretary is to supersede that of the other authorities which hitherto have controlled our places of public amusement. It will be impossible to supersede entirely the power of the Metropolitan Board of Works, which must continue to exercise some degree of control over the structure—at least, in its external relations. Again, we conclude that the Lord Chamberlain will still be able to exercise his veto on the plays to be performed in theatres, and the magistrates to exercise their power of giving or withholding licences for music and refreshments, according to the caprice of the hour. The first thing necessary in the interests of the public is that the caterers for public amusement should not be unduly harassed; and if this Bill is to

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ecome law, we trust that the Home Secretary may become the ole authority for the control of theatres and music-halls, with ower to grant licences of every kind. A very important omis- ion in the Bill is the want of regulations for the provision f sufficient cubic space and ventilation. This is, from our oint of view, a very grave omission, and we trust that the Bill will not be allowed to become law unless this omission s rectified. If the Home Secretary is to protect the public gainst fire, why should he not equally protect them against uffocation? There ought to be in every theatre and music- all an observance of due proportion between the accom- nodation provided and the amount of area and cubic space. The area of the inlets and outlets for air ought also to be egulated, and the admission of a greater number of spec- ators than that for which the building is licensed should e a punishable offence. The amount of slow poisoning hat goes on in over-crowded places of entertainment is enormous, and if the State is going to step in for the pro- tection of the public, it ought to afford them at least as much protection as it affords to prisoners. We are not very strong advocates of grandmotherly legislation, but if we are to have it, by all means let it be far-reaching and effec- tual. Put the theatres under the control of one responsible Minister, but let this Minister be in turn responsible to the public for their comfort in every respect.

TYPHUS AND OVERCROWDING.

DR. RUSSELL, the medical officer of health of Glasgow, has presented to his authority a report giving an interesting account of the behaviour of typhus in an overcrowded house. This house consists of three rooms, and is situated at the end of a new street close to open fields. The stair is well lighted and airy, and the inmates cleanly and apparently respectable Scotch people. Altogether sixteen people lived there, but two of these being children, they may, for the purpose of estimating cubic space, be regarded as equal to one adult. On this assumption there were for each of the fifteen adults an average of only 199 cubic feet of air space: in the kitchen, for each of three adults, there were 188 cubic feet; in the parlour, for each of seven adults, 180 cubic feet; and in the third room, for each of five adults, 116 cubic feet. Typhus fever attacked two in the kitchen, three in the parlour, and four in the third room. How the disease was introduced is un- known, but, as Dr. Russell said, "a household living under these physical circumstances is like a barrel of gunpowder: only a spark is required—a chance contact with any wander- ing source of infection." The story is instructive, for it shows very definitely the relation between overcrowding and typhus fever, and that nothing but the watchfulness of local authorities and their officers will prevent the develop- ment of a fatal disease. In the present case the sick were removed to hospital and the rest of the household to the House of Reception, thus limiting a further spread of the malady.

VEGETARIAN v. MIXED DIET.

IT is more than doubtful whether the principle of vegetarianism will ever constitute the prevailing rule of diet. A variety of arguments have certainly been urged in its support, and the names of some who advocate its adoption are by no means undistinguished. While, how- ever, we are quite willing to acknowledge whatever merit can justly be claimed for this system, we cannot see that it has any claim to recognition as a practice well suited to the various requirements of mankind in regard to food. That subsistence and a fair degree of nutrition are compatible with the exclusive use of vegetables we do not deny. Nay, we regard it as indisputable that some constitutional con- ditions agree better with a sparing use of animal food, or even with a diet from which it is quite excluded, than if they were treated to an ordinary mixed diet. To this class we may allot the great majority of young children, though for such we should rather advise a very limited allowance of meat than its total substitution by vegetables. After all has been said that can be said, however, in favour of vegetarianism, we have no hesitation in expressing our own conviction that the great mass of adult and adolescent men and women do, and can, best nourish themselves by choosing much of the proteid and fatty ingredients of their food from the animal world.

PICTURES OF HORRORS.

THE painter must be strangely in want of average resource in the imaginative part of his intellect, or have execrable taste, who reproduces the scene of the operating theatre or the clinical lecture-room on his canvas for the public gratification. Rather let us regret that artists are beginning to pander to a depraved appetite for horrors, than assume that they are unable to provide more rational food for the eye and mind than some of the subjects said to be chosen for exhibition at the Paris Salon. It is a strange thing that anyone can endure to gloat over the scenes which the members of our profession are compelled, though most unwillingly, to witness in the performance of their duties. It is with the sole aim of relieving pain and curing disease we encounter misery. No man with a heart in his breast would see and hear what is forced upon us if he could avoid it. If at times it may seem that familiarity with suffering has rendered us callous to it, that is only a sur- face and deceptive appearance. Not unfrequently the effort to overcome the feeling of loathing excited is overdone, and medical men, especially young students, assume an air of indifference which ill bespeaks the real feelings with which they regard the scene around them. To make pictures of such scenes is unmanly, and if it do not evince a debased passion, it must be expressive of an insensate mind.

EFFECTS OF THE SUSPENSION OF THE CONTAGIOUS DISEASES ACTS.

SEVERAL of the Woolwich clergy and other influential persons are fully alive to the evils of the repeal of the Contagious Diseases Acts regulations, and the matter has again been discussed by the Board of Guardians, at a late meeting, at which the Rev. J. Jordan moved, "That this Board is of opinion that the suspension of the Contagious Diseases Act has a most injurious moral effect on the town of Woolwich. The number of soldiers in hospital suffering from contagious diseases is increased, prostitution is now more shameless than ever, and a larger number of young girls are now found on the streets." He said he came to Woolwich some years ago believing the Acts were undesir- able; he now, as the clergyman of one of the worst districts in the metropolis, was prepared to give evidence on oath if required, before any commission, that not only was prosti- tution more flagrant than while the Acts were in force, but that the number of juvenile prostitutes and bad houses had greatly increased. The rev. gentleman then detailed two cases of aggravated disease that had been brought under his notice, and which were now in their infirmary. On the motion being seconded, some discussion followed in which various views were expressed. The Rev. J. Jordan remarked that the suspension was in a great measure brought about by ladies who, though prompted by the highest and holiest motives, acted in entire ignorance of facts which happily did not, and should not, come under their notice. The motion was ultimately carried by eight to three, though it is right to say that little more than half the members were present.

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TRAINING.

THE victory of Cambridge this year in the boat race has given rise to many comments as to the mode of training best adapted to get crews into condition. It has been stated that Mr. Bristowe, the President of the Cambridge University Boat Race, allowed fish, entrées, puddings, and dessert for dinner through the whole course of training, and did not insist upon the monotonous and excessive flesh diet usually enforced. For some years past there has been a growing tendency to adopt a more rational plan of feeding, and to permit a greater range of carbohydrates and hydrocarbons in the diet. Indeed, the more varied the food the better the health of the individual, and as training was defined by Professor Parkes as a method of obtaining the highest degrees of vitality, a scientific mixture of the various principles of diet is called for. With hard muscular work at a quick pace more animal food is necessary than for ordinary work, but this should never be given in excess, and beyond what the digestive secretions are able to dispose of; one pound and a half is certainly as much as is required. In giving carbohydrates, care should be taken that they are well cooked and are of a digestible character. Rice, sago, and tapioca puddings are excellent; but potatoes should not be indulged in, in any quantity, as they are apt to cause flatulence—that bugbear of the trainer known as "inwardful." The hydrocarbons should be supplied by a liberal allowance of butter; the men should be encouraged to eat the natural fat on the chops and steaks, and not cut it off, as they have been directed to do; whilst meat with plenty of fat on it is usually more tender than lean. Fresh fruits should also form part of the daily dietary, since these supply the alkaline salts so useful in keeping the blood in a healthy state. The chief article to be avoided in training is sugar, especially sugar with pastry; it tends to cause acidity and promotes "biliousness." The question among trainers is the amount of fluid permitted. Under the old system great cruelty was often practised by keeping men, especially during hot weather, on a strict allowance; this was a mistake. On the other hand, men should not be allowed too much freedom in this respect for fear of diluting the digestive fluids; it is well, therefore, to keep this within physiological limits. A man of 12 st., under ordinary circumstances, eliminates about three pints and a half from the body daily by the skin, lungs, and kidneys; with strong and quick work, he probably gets rid of one pint and a half more. Five pints of fluid would therefore be sufficient for most men. As training advanced and the elimination became less, the quantity might gradually be reduced. At the beginning of training slight excess of the physiological requirements might be permitted, as it would help tissue metabolism and carry off the waste products formed in consequence of increased muscular activity.

THE BAHAMA ISLANDS AS A HEALTH-RESORT.

Mr. L. D. POWLES, Circuit Justice at Nassau, New Providence, the capital of the Bahama Islands, draws our attention to the climatic advantages of that city, which has long been a favourite winter resort of American and Canadian visitors, and is as well known on the other side of the Atlantic as the Riviera is in England. In New Providence frost is unknown, but from November to May the heat can never be said to be excessive; bathing in the sea may be enjoyed all the year round; the vegetation of the island is luxurious, roses and other familiar flowers blooming throughout the year, and English vegetables being always on sale; and Mr. Powles concludes by expressing the opinion that to the wealthy invalid or pleasure-seeker a winter visit to Nassau must needs prove very pleasurable. As the recent calamity in the Riviera may turn the thoughts of many towards other resorts where the inclemency of an English winter can be avoided, the moment seems opportune to draw attention to a corner of Her Majesty's dominions which is as yet but little known in England, and we have consequently with pleasure given publicity to the substance of Mr. Powles' communication.

LIFE ASSURANCE IN 1886.

THE volume of Life Assurance Companies' accounts which is annually published by the Board of Trade, has made its appearance earlier this year than is usual, and contains some highly interesting figures. Thus the "ordinary" British companies, numbering ninety-three, reported between them an aggregate income of £19,679,657. The Industrial Companies, which transact a smaller class of business, received £3,706,660; so that altogether we thriftless English folk imposed upon ourselves a voluntary tax of over twenty-three million pounds in connexion with this one branch of thrift. This sum exceeds the ordinary army estimates by an amount equal to the total cost of one of our little wars. The parallel is perhaps a little fanciful—at least it is striking, and a curious circumstance that in the ordinary course of affairs we expend equal sums of money in arming ourselves against external foes and in providing against the ravages committed by that subtle adversary to whom every man must some day succumb. A comparison which the return comprises shows that 1886 was in life assurance circles a year of considerable development and growth. The total premiums collected exceeded by a full half-million sterling those of 1885; while the aggregate of invested funds was augmented by upwards of three million pounds. All this is highly satisfactory, as also is the circumstance that variations in the value of investments are shown to have yielded a net revenue to the companies of nearly £130,000. This last figure is of interest rather as indicating general prosperity than as having any special significance where it stands. As a component part of the twenty-three millions, it is a "mere drop in the bucket," but as indicating the spontaneous enhancement of value in a body of carefully selected securities it is a "straw" showing, as we hope, "which way the wind is blowing."

OXALIC ACID POISONING.

AN inquest was held by Dr. Danford Thomas at Providence Hall, Edgware-road, on the 16th ult., touching the death of Caroline Beale, aged forty-five years. Deceased had been despondent of late, and precautions had been taken to protect her life. She had suffered from hemiplegia, which rapidly improved under iodide of potassium. On March 12th she was seen to be in her usual health at 3 P.M., and at 4.30 P.M. she was found attacked with profuse diarrhœa and vomiting, death occurring shortly afterwards. At the post-mortem examination a gumma of the dura mater, as large as a hazel-nut, was found pressing on the middle of the left ascending parietal convolution. The inner table of the skull at the corresponding part was elevated in the form of a node. The brain was exceedingly congested, and there was a large amount of fluid in the ventricles and beneath the arachnoid. The back of the tongue, soft palate, and pharynx had a wash-leather-like appearance. The mucous membrane of the gullet was shrivelled, of a dirty yellowish-white colour, and corrugated both longitudinally and transversely, especially in the lower half. It could be detached with ease from the muscular coat. The stomach contained about half a pint of greenish-black tenacious material—a mixture of mucus, bile, and altered blood. The lining membrane of the stomach was generally of an injected colour, which threw into bold relief numberless spots and splashes of black, the result of hæmorrhage into and beneath

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ıe mucous layer. For two inches at the pyloric end there 'as marked corrosion, the surface looking deep grey and oughy. The whole of the small and large intestine was ıflamed, and contained viscid mucus. The appearance of ıe mucous membrane was as if the latter had been washed ver with calamine lotion. The valvulæ conniventes were wollen and roughened. The contents of the stomach and he vomit were intensely acid, whilst they, together with ome liquid found in a cup, yielded a large quantity of xalic acid. From the above facts it is clear that the dose aken must have been very large, probably not less than an unce of the acid. It was not ascertained where deceased ob-ained the poison. The fatal period could not be determined, ut it could not have been much more than an hour and a half. 'he jury returned a verdict of "Suicide whilst of unsound nind." Suicidal poisoning by oxalic acid is not uncommon. 'he majority of cases are fatal, and the almost certainty of his, together with the ease with which the acid or its otash salt can be purchased, accounts for the would-be uicide resorting to such painful means of self-effacement.

THE SANITARY SERVICE.

We learn with much satisfaction that the Hendon Rural Sanitary Authority have reappointed for life Dr. C. E. Saunders, medical officer of health for that district. Dr. Saunders has faithfully performed the duties of his office in his district for fourteen years, and the authority have shown a proper appreciation of the value of his services by the course they have adopted. A member of the board, who supported the resolution, pointed out that it was unfair to leave the medical officer in such a position that it would be open to the caprice of any member to snatch a resolution which would terminate his connexion with them at any moment, and the chief opponent of the proposal acknowledged the valuable services Dr. Saunders had rendered, and admitted that the board would never regret the step they had taken. We trust that the Local Government Board will not hesitate to confirm this decision; a refusal would undoubtedly place the public health service in an unfavourable light before the profession.

CHOLERA IN AUSTRIA-HUNGARY.

We have all along feared that cholera might make its reappearance this year in Austria-Hungary, and, as we have already announced, the disease manifested itself a short time since at Esseg, in Southern Hungary. The latest news is still more disquieting, for we learn that three cases, certified to be genuine Asiatic cholera, occurred between the 25th and 29th of March at Buda-Pesth. It is not clear on which side of the river this occurrence took place; but in Pesth, on the eastern bank, where the disease was so prevalent last autumn, the conditions are specially favourable to a recurrence of the outbreak.

INDUSTRIAL DWELLINGS.

On Wednesday the Duke of Westminster opened the first of nine blocks of artisans' dwellings to be erected by the Improved Industrial Dwellings Company on that part of his estate near Grosvenor-square. This block is situated in Lumley-street, and contains accommodation for forty-six families; each holding has two, three, or four rooms, with or without a scullery; the rooms are well-proportioned and open on to well-ventilated staircases freely exposed to the external air. There is also in connexion with each holding a watercloset, and ample accommodation is provided for the storage of food and fuel. The block is substantially built, and is designed so as to enable all parts to be exposed to a free current of air; and it does not, therefore, share the objections which can be made to many so-called model lodging-houses in London. It will doubtless be a great boon to the working population in the west-end of London.

HOSPITALS AND THE JUBILEE.

Mr. Henry C. Burdett writes a long letter to *The Times* supporting the claims of the metropolitan hospitals on the Jubilee year. He thinks £500,000 might be so raised, provided the Queen and the Royal Family were identified with the movement. There is no doubt that this is the most favoured notion of the shape which the Jubilee fund should take. But there is no time to be lost. Every week which elapses without form and impulse being given to the movement is a week lost.

DORCHESTER TOWN COUNCIL AND THE SMALL-POX EPIDEMIC.

It is alleged that the Dorchester Town Council have refused to pay medical men who have sent cases to the Small-pox Hospital and treated them there, after being assured by the medical officer of health that they would be remunerated for so doing. It is said that the services of the medical men in stamping out the epidemic were very valuable. We cannot believe that the Town Council will disavow its obligation for such services, especially when bespoken by their own medical officer of health.

THE ANILINE TREATMENT OF PHTHISIS.

Dr. Kremianski's idea of curing tuberculosis by converting the blood into a dilute solution of aniline (see The Lancet, March 5th) has been tried by Dr. Nesteroff on a patient who was about to be sent to the south, with the result that he became rapidly worse and died in a fortnight. The Moscow Medical Society, before whom the matter was brought, were nearly unanimous in the opinion that the aniline treatment would be not merely useless, but positively dangerous.

THE MARGARET-STREET INFIRMARY.

We have been requested to publish the following resolution, passed unanimously by the Council of the Metropolitan Counties Branch of the British Medical Association, at a meeting held on March 25th: "This Council fully approves the conjoint action taken by Dr. Thomas Hawkesley, Dr. W. Cholmeley, Mr. Carr Beard, Dr. Featherstone Phibbs, Dr. Julian Willis, Dr. Robert Walford, and Dr. Scudamore Powell, in resigning their appointments at the Margaret-street Infirmary; and trusts that their action will strongly recommend itself to the approval of members of the profession generally."

DEATHS OF EMINENT FOREIGN MEDICAL AND SCIENTIFIC MEN.

The deaths of the following foreign medical and scientific men are announced:—Dr. Don Cayetano Pichardo y Estrada, of Puerto Principe in Cuba, Military Surgeon and Professor of Mathematics in the Institute of Puerto Principe. Dr. Don M. Orozco, of Irepueto, Mexico.

THE CHARGES AGAINST MERCER'S HOSPITAL.

It will be remembered that some short time ago a charge of brutal treatment of a patient was made against Mr. Kennedy, the resident medical officer at Mercer's Hospital, Dublin. The matter was thoroughly sifted by a committee, and subsequently the charge of assaulting the patient was brought before a jury. By both of these tribunals Mr. Kennedy was acquitted, the evidence in his favour being ample to

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impress any impartial person with the injustice of the charge. It has now been decided to present him with an address expressive of sympathy with him in the ordeal through which he has been compelled to pass, and a testimonial to enable him to meet the heavy legal expenses to which he has been put. The hon. treasurer, to whom subscriptions for this object may be sent, is Dr. M'Veagh, 1, Rutland-square East, Dublin.

MULTIPLICATION OF SPECIAL HOSPITALS.

WE hear of the establishment of "The London Hospital for Diseases of the Throat, Nose, and Ear," which sounds very like the title of other similar institutions. We regret the multiplication of special hospitals, and advise the public to favour the great general hospitals, which have special departments.

FOREIGN UNIVERSITY INTELLIGENCE.

Erlangen.—Dr. Frommel of Munich has been elected to the Professorship of Midwifery.

Groningen.—Dr. Korteweg, chief of the Jewish Hospital, has been appointed Professor of Surgery, vice Professor Ranke, deceased.

Leipsic.—Dr. Wiedemann has been appointed Professor of Physics and Director of the Physical Institute.

Prague.—Professor Soyka has obtained accommodation for a Hygienic Institute, which he hopes to be able to open at the commencement of the summer session.

SURGEON-GENERAL WILLIAM RUTHERFORD, C.B., hon. physician to the Queen, whose death recently occurred at the age of seventy-one, entered the army as assistant-surgeon in 1841, became surgeon in 1852, deputy surgeon-general in 1861, and surgeon-general in 1874. Dr. Rutherford served in the Sutlej campaign of 1845-56 and in the Eastern campaign of 1854-55, including the siege of Sebastopol, and for his services received the medal with clasp and the Turkish medal. In 1857 he proceeded to China on the staff of the Lieutenant-General commanding the expeditionary force, and in 1859 was appointed sanitary officer to the army serving in China. In 1860 he served during the campaign in the North, for which he received the medal and two clasps. In recognition of his distinguished services, he was made a Companion of the Order of the Bath in 1867, and retired from the service in 1876. He was appointed an honorary physician to the Queen in 1880.

A MEETING of the delegates of the two Royal Colleges was held on Tuesday last to consider the terms of the Charter about to be submitted to the Crown, and it was determined to recommend the Colleges to apply for a purely medical degree, and not to combine with King's and University Colleges as constituent parts of a complete teaching University.

AMONGST the elections made in connexion with the forthcoming International Medical Congress are the following:—Dr. Robert Barnes as a vice-president of the Gynæcological Section; Dr. Edis as a vice-president of the Section of Obstetrics; Professor Hirschberg as a vice-president of the Ophthalmological Section.

THE American State of Maine has, during the past month, reverted to its former system of punishing murderers with life imprisonment instead of the gallows.

SIR W. B. FOSTER has been elected Member of Parliament for the Mid or Eastern Division of Derbyshire.

THE Right Hon. Arthur James Balfour, M.P., by a Warrant under Her Majesty's Royal Sign Manual, dated Feb. 3rd, has been appointed to fill the vacancy on the Senate of the University of London occasioned by the death of George Busk, Esq.

AT a recent meeting of the Council of the Lancashire and Cheshire branch of the British Medical Association it was resolved that a testimonial be raised to Dr. Edward Waters in recognition of his earnest devotion, through many years of self-sacrifice, to the cause of medical reform.

EIGHT directors of the Perth Infirmary have resigned in consequence of the strained relations between the Board of Directors and the medical officers of the institution, especially with regard to their failing to re-elect Dr. Bramwell to the position of senior visiting medical officer.

ON the 24th ult. the death occurred, on board the steamship *Lusitania*, in the Mediterranean, of Viscountess Strangford, who was on her way to Port Said for the purpose of organising and opening the new Hospital for British Seamen which is being erected there by subscription.

A SCHEME has been prepared with the object of founding a National Pension Fund for hospital officials and trained nurses. A register for the names of those desirous of joining the fund has been opened at the offices of the Hospitals Association, Norfolk-street, Strand, W.C.

DR. ALFRED MEADOWS has been elected an Honorary Member of the Obstetrical Society of Philadelphia.

THE ROYAL NAVAL HOSPITAL, HASLAR.

As we announced last week, the course of instruction at the Royal Naval Hospital, Haslar, for the eighteen surgeons who entered the Navy in February last, was opened on March 10th by Sir John Watt Reid, K.C.B., the Director-General of the Medical Department of the Navy, in the presence of the Commander-in-Chief and staff, and other officers.

In a brief speech, the Director-General welcomed the young officers to the Service and the hospital. He warmly congratulated them on the exceptionally high marks which had been obtained by them in the competition at Burlington House, and exhorted them to strive to maintain throughout their service career the high figure of merit with which they commenced it.

The introductory address was then delivered by Fleet Surgeon Walter Reid. He alluded to the presence of the Commander-in-Chief and other officers as a testimony to the fact that the executive or governing branch of the service is always ready to extend the hand of welcome to capable medical gentlemen who have elected to join the Royal Navy. The officers were again congratulated upon the excellent positions they had taken in the competitive examinations, and satisfaction was expressed that the service was becoming more popular in the medical schools, and that its solid advantages, together with its other attractions, were better known and more highly appreciated as a means of livelihood and a field of labour for medical men than they were some years ago. The officers were then advised to make themselves acquainted with the nature and character of the service which they had entered, to know its purposes and its duties to the State, and thus to arrive at a right conception of the responsibilities they had accepted by enlisting in its ranks. After explaining the course of study which lay before them, Dr. Reid concluded his lecture with some words of advice to the young officers. He enjoined them to cultivate a proper sense of duty, and to look to it for a rule of conduct and a

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guide in all they had to do in the service of the Navy. It was their duty to be loyal to the Sovereign who was the head of the Navy, and in whose name all their services were performed. They were to obey their superior officers, and to extend to them the marks of respect to which their rank and position entitled them. It was their duty, by regular study and attention to opportunities for instruction and experience, to try to perfect themselves in the science and art of their profession, so that whensoever or whereseever required they might be prepared to bring its blessings to the side of their fellow-men. They were warned against unfitting themselves for the proper exercise of that profession by habits of selfish or vicious indulgence. They were enjoined to remember that they now represented two great professions, than which none could well be nobler or more worthy to be held in honour. They were naval officers as well as medical gentlemen. It was their duty, by all means in their power, to endeavour to represent both these positions worthily. By doing so they would follow the course which was best for the public good and also for their own, and one which would give them every right and every reason to expect a happy and a prosperous future as medical officers of the Royal Navy.

WILLS OF MEDICAL MEN.

THE Scotch Confirmation under seal of office of the Commissariot of the county of Edinburgh, of the trust disposition and settlement and holograph codicil of Dr. James Dunsmure, of 53, Queen-street, Edinburgh, who died on October 16th last, granted to Dr. James Dunsmure, the son, the accepting executor nominate, was resealed in London on the 3rd ult., the value of the personal estate in England and Scotland amounting to upwards of £49,000.

The will of James Surrage, M.D., late of 2, Saville-place, Clifton, Bristol, who died on November 19th last, was proved on the 17th ult., by the Rev. Thomas Stevens and Mr. Noblett Surrage Ruddock, the nephew, the executors, the value of the personal estate amounting to over £39,000. The testator bequeaths legacies to his sisters, brothers, brother-in-law, and executors. The residue of his real and personal estate he leaves upon trust for his wife for life, and then for his children or issue as she shall appoint.

The will of William Bell, M.D., formerly of 16, Hertford-street, Mayfair, and late of Merlin, Eastbourne, who died on December 14th last, was proved on the 3rd ult. by Mr. Richard Ebenezer Shackleton, the nephew, the sole executor, the value of the personal estate amounting to over £19,000. The testator, after stating that his wife Mrs. Margaret Bell is already fully provided for, bequeaths to her his wines, jewellery, and horses; three pictures to his son William Abraham; his furniture, plate, and the remainder of his effects to his wife for life; and his property, Longstone Hall, Longstone-road, Eastbourne, to his daughters Esther and Susan. The residue of his property he leaves upon trust for his said daughters; and on the death of the survivor of them for his said son for life and then for his children.

The will of Mr. George Leigh, M.R.C.S., late of Arnold, Notts, who died on July 26th last, has been proved at the Nottingham District Registry by the Rev. Hugh Bryan, the sole executor, the value of the personal estate exceeding £3000. Subject to bequests to Sarah Henrietta Badnall, the testator leaves all his property upon trust for the children of the said Hugh Bryan and his (testator's) daughter Mary Emilie Leigh Bryan.

The will of Duncan Matheson, M.D., late of 4, Granville-place, Portman-square, who died on February 5th last, was proved on the 9th inst. by Mrs. Agnes Matheson, the widow, one of the executors, the value of the personal estate exceeding £3400. The testator gives the whole of his property, real and personal, to his wife for her absolute use and benefit, subject to her maintaining and educating his children during their minority.

The will of Alfred Wiltshire, M.D., late of 57, Wimpole-street, Cavendish-square, and of Torridon, Somers-road, Reigate, who died on December 4th last, at Virginia Water, was proved on the 16th inst. by Mrs. Kate Wiltshire, the widow and sole executrix. The testator gives all his property, both real and personal, to his wife absolutely.

The following legacies have recently been left to hospitals and other medical institutions:—Mr. George William Pierrepoint Bentinck, J.P., late of Terrington, Norfolk, £1000 each to King's College Hospital, St. Mary's Hospital, Paddington, Charing-cross Hospital, St. George's Hospital, Hyde-park corner, the Great Northern Hospital, University College Hospital, the Hospital for Sick Children, Great Ormond-street, the London Hospital at the East-end, and the London Homœopathic Hospital, Great Ormond-street.—Mrs. Susannah Beloe, late of Queen-street, Gravesend, £250 each to the National Hospital for the Paralysed and Epileptic, Queen-square, Bloomsbury, the Gravesend Hospital, the Hospital for Consumption and Diseases of the Chest, Fulham-road, and the Cancer Hospital, Fulham-road.—Mrs. Charlotte Elizabeth Thomasina Holmes, late of 7, Holland-villas-road, Kensington, £1000 each to the North London or University College Hospital, the Great Northern Hospital, Caledonian-road, Islington, the London Hospital, Whitechapel-road, King's College Hospital, Portugal-street, Lincoln's-inn-fields; £500 each to the Hospital for Consumption and Diseases of the Chest, Brompton, the Royal Hospital for Incurables, West-hill, Putney-heath, and West London Hospital.—Mr. George Hawkins, late of 28, City-road, £500 to the London Hospital, Whitechapel; £100 each to the Royal Hospital for Incurables, Putney-heath, Victoria-park Hospital for Diseases of the Chest; and £50 each to the London Dispensary, Spitalfields, the City of London Truss Society, and the Royal London Ophthalmic Hospital.—Mrs. Elizabeth Salisbury Heywood, late of Summerfield, Bawdon, Cheshire, £200 to St. Mary's Hospital and Dispensary, Quay-street, Manchester.—Mr. Alfred Bishop, late of Severn Villa, Highbury New Park, £500 to the London Hospital, Whitechapel-road; £100 each to the London Dispensary, Church-street, Spitalfields, and the Poplar Hospital.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Stroud Urban District.—On a population of 9473, the birth and death rates were 29·9 and 16·8 per 1000 respectively; the rate under one year being 133 per cent. of registered births. Eleven cases of small-pox came under Mr. Partridge's notice, and owing to the absence of means of disinfection, some comparatively valuable articles of clothing &c. were destroyed, compensation being given in one case. Apparently also there is no infectious hospital, for we read that as a precaution a cordon was drawn round the houses. This is a risky expedient, for English law only allows of the isolation of the sick and not the healthy, and all but the actual sick can at any time decline to submit to cordons and quarantine detentions. The only confluent attacks were in the unvaccinated. The town has a good water service; the bakehouses, slaughter-houses, and common lodging-houses are duly inspected, and a substantial amount of current work is carried on.

King's Norton Rural District.—During 1886 the birth-rate was 26·69, the death-rate 13·61, and the zymotic rate 1·31 per 1000. These may be regarded as satisfactory, but the deaths of children under one year of age should not reach 18·8 per cent. of registered births. Mr. Hollinshead believes this child mortality to be materially added to by improper feeding and clothing, and to undue exposure at too early an age. No death took place from either small-pox or scarlet fever, but 40 cases of the latter came under notice. Diphtheria caused 6 deaths, and it is pointed out that the disease was associated with such local sanitary defects as offensive ash-pits, impure surface-wells, and the escape of drain air into dwellings. Speaking generally, improvement is in progress in such matters as extension of drainage works; but King's Norton is still in need of a proper system. The privies and ash-pits constitute the great nuisance in the district, and wherever nuisance is caused steps should be taken to ensure a permanent remedy. Bye-laws alone can deal with new structures. Out of 40 cases of scarlet fever adverted to, 38 were removed to the infectious hospital, which is credited with having saved the district from a severe attack. The hospital is serving an excellent purpose, but two neighbouring districts having arranged for its use, further provision for the classification of the different

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diseases is needed. So far, 100 cases have been admitted, and only one fatal case has resulted.

Withington Urban District.—Dr. Railton gives the general death-rate of this district, with 21,000 inhabitants, as only 12 per 1000, the deaths under one year being as low as 9 per cent. of registered births. The zymotic rate was slightly higher than that for the past three years, but it did not exceed 1·5 per 1000. Measles was prevalent in the early part of the year, and led to school closing as a precaution. There was also some scarlet fever, 14 cases being isolated in hospital. A notification system was organised during the latter half of 1886, which is said to have led to satisfactory results, including the disinfection of 70 houses, the destruction of, with consequent compensation for, 34 beds; and the stoving, at the expense of the authority, of 35 beds. The drainage of Withington still pollutes streams, but steps are in progress for its interception. The systematic inspection of houses still progresses, and of all the notices issued in consequence in 1885, only one stood over at the end of last year. The total result of this inspection is set forth, and the plan is worthy of imitation elsewhere.

Hastings Urban District.—This borough is now estimated to contain a population of 51,224, and on this the corrected death-rate is 14·0 per 1000 living, being the lowest rate on record for ten years. Nine cases of small-pox, a residuum of the 1885 outbreak, were removed to the Sanatorium, to which a number of scarlatina cases were also taken. The borough now possesses two separate hospitals for infectious diseases, and although they may not be of the best, yet they are an invaluable safeguard. In his account of the current proceedings, Mr. Knox Shaw shows that a good deal of steady work is being carried on, which aims at the prevention of infectious disease and the improvement of the district. A sunshine recorder shows that bright sunshine is maintained on an average for more than 1720 hours in the year; and in this connexion we note that smoke consumption is looked after in the health department.

Bisley Urban District.—As in Stroud, we read here again of quarantine being observed, although there were no positive symptoms of disease. If voluntarily submitted to, well and good; but it should be remembered that such detentions are not sanctioned by law, which provides for the isolation of the sick, and the protection of the healthy by vaccination. The general work of the health department is set forth in Mr. Partridge's report, but there was nothing of especial interest during the year.

Hereford Combined District.—In Hereford city some two thousand inhabitants still draw their water from local wells, and this although a wholesome public service is available. Much is being done to improve the drainage arrangements by enforcing proper flushing cisterns to house closets and ventilation of soil-pipes. The ventilation of the public sewers by rain-pipes is properly condemned by Dr. Sandford, and, in so far as these exist, he recommends alteration in this respect. With a public abattoir the faulty slaughter-houses may, it is hoped, be got rid of. The city also needs an infectious hospital. The death-rate was 21·1 per 1000. In the Hereford rural area the rate was 14·4 per 1000, and the district is said to be maintained under constant supervision. In the Ledbury rural district the rate was 16·0, and it is stated that, apart from the need for flushing, the new sewers in Ledbury work well. Ample statistics and details as to current work are given for these and the other districts, but the area is, in one respect, fortunate in having no striking sanitary history to record for the year. Improvements are steadily going on, and no severe epidemic has prevailed.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5758 births and 4155 deaths were registered during the week ending March 26th. The annual rate of mortality in these towns, which had increased in the preceding six weeks from 19·5 to 22·4, further rose last week to 23·5. During the first twelve weeks of the current quarter the death-rate in these towns averaged 22·1 per 1000, and was 2·1 below the mean rate in the corresponding periods of the ten years 1877-86. The lowest rates in these towns last week were 16·1 in Derby, 16·3 in Brighton, 20·4 in Halifax, and 20·5 in Birmingham. The rates in the other towns ranged upwards to 30·1 in Huddersfield, 33·0 in Sunderland, 34·6 in Oldham, and 35·4 in Manchester. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had increased in the preceding six weeks from 340 to 462, further rose last week to 465; they included 223 from measles, 97 from whooping-cough, 46 from scarlet fever, 35 from diarrhœa, 32 from "fever" (principally enteric), 26 from diphtheria, and 6 from small-pox. These zymotic diseases caused the lowest death-rates last week in Brighton, Birkenhead, and Bolton; and the highest rates in Huddersfield, Oldham, and Sunderland. The greatest mortality from measles occurred in Manchester, Hull, Leicester, Liverpool, Norwich, Oldham, Huddersfield, and Sunderland; from whooping-cough in Nottingham, Oldham, and Blackburn; from scarlet fever in Salford and Oldham, and from "fever" in Leicester. Of the 26 deaths from diphtheria in the twenty-eight towns, 15 occurred in London, 3 in Birmingham, and 2 in Leicester. Small-pox caused 2 deaths in Greater London, 2 in Cardiff, 1 in Portsmouth, 1 in Manchester, and 1 in Blackburn, but not one in any of the twenty-three other large provincial towns. Only 2 cases of small-pox were under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease. The deaths referred to diseases of the respiratory organs in London, which had been 433 and 474 in the preceding two weeks, further rose last week to 509, but were 35 below the corrected average. The causes of 126, or 3·0 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Bolton, Norwich, Wolverhampton, Preston, and Halifax. The largest proportions of uncertified deaths were registered in Salford, Sheffield, Sunderland, Hull, and Cardiff.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 23·6, 25·0, and 26·2 per 1000 in the preceding three weeks, declined again to 25·9 in the week ending March 26th; this rate exceeded by 2·4 the mean rate in the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 10·8 in Leith and 21·4 in Dundee, to 28·4 in Glasgow and 36·8 in Aberdeen. The 646 deaths in the eight towns last week showed a decline of 9 from the number in the previous week, and included 55 which were referred to measles, 31 to whooping-cough, 18 to scarlet fever, 14 to diarrhœa, 6 to diphtheria, 3 to "fever" (typhus, enteric, or simple), and not one to small-pox; in all, 127 deaths resulted from these principal zymotic diseases, against 98, 101, and 113 in the previous three weeks. These 127 deaths were equal to an annual rate of 5·1 per 1000, which exceeded by 2·1 the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of measles, which had been 27, 43, and 50 in the preceding three weeks, further rose last week to 55, of which 23 occurred in Glasgow and 32 in Aberdeen. The 31 fatal cases of whooping-cough also exceeded the numbers in recent weeks, and included 14 in Glasgow, 7 in Edinburgh, and 4 in Aberdeen. The deaths from scarlet fever, which had been 19, 14, and 9 in the preceding three weeks, rose again last week to 18, of which 12 occurred in Edinburgh, 3 in Glasgow, and 2 in Dundee. The 14 deaths attributed to diarrhœa showed an increase upon the number in the previous week and in the corresponding week of last year; 5 were returned in Edinburgh and 4 in Glasgow. Four of the 6 deaths from diphtheria occurred in Glasgow; and the 3 deaths referred to "fever" showed a decline of 5 from the number in the previous week. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 135 and 152 in the preceding two weeks, declined again last week to 146, and were 2 below the number in the corresponding week of last year. The causes of 84, or 13 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 28·1, 31·3, and 29·3 per 1000 in the preceding three weeks, rose again to 31·3 in the week ending March 26th. During the first twelve weeks of the current quarter the death-rate in the city averaged 30·9 per 1000, the mean rate during the same period being but 20·8 in London and 21·6 in Edinburgh. The 212 deaths in Dublin last week showed an increase of 14

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pon the number in the previous week; they included 7 hich were referred to scarlet fever, 4 to measles, 4 to fever" (typhus, enteric, or simple), 3 to whooping-cough, nd not one either to small-pox, diphtheria, or diarrhœa. hus the deaths from these principal zymotic diseases, hich had been 15, 10, and 7 in the preceding three weeks, ose again last week to 18; they were equal to an annual ate of 2·7 per 1000, the rates from the same diseases being ·1 in London and 4·8 in Edinburgh. The 7 deaths from carlet fever showed a considerable increase upon the numers in the previous two weeks, and the 4 from measles xceeded the number in any previous week of this year. he 4 deaths referred to "fever" corresponded with the umber in the previous week. The deaths of infants were within one of the number in the previous week; those of lderly persons showed a marked increase upon recent weekly numbers. Two inquest cases and 2 deaths from violence were registered; and 65, or nearly a third, of the deaths occurred in public institutions. The causes of 35, or nearly 17 per cent., of the deaths registered during the week were not certified.

HEALTH STATISTICS OF CAPE TOWN.

Dr. Fisk, the sanitary officer for Cape Town, has just presented to the Town Council his report for 1886. The number of known deaths during last year in Cape Town was 1163. This, in a population of 45,000—an estimate allowing for an increase of 11,000 since the census was taken, twelve years ago—is at the rate of 25·8 per 1000 per annum. This high rate, in the absence of any severe epidemic, is 5·6 less than in the previous year, when it was 31·4. The comparatively low death-rate among the Malay population is somewhat surprising, only 265 out of the 1163 deaths which took place during the year being Malays. The Malay death-rate was 17·6 per 1000, thus raising the death-rate of the non-Malay population to about 30 per 1000, the Malay population of Cape Town being estimated at 15,000, or one-third of the total population. Against the 1163 deaths there are to be placed 1143 births. In the previous year the births were 169 fewer, and the death-rate was much higher. The mortality amongst very young children is excessive, 558 children, of whom 274 were coloured, dying in 1886. Poverty, bad hygiene, and insanitary surroundings, are of course the main causes of this infantile mortality. Dr. Fisk in his report asks for increased powers to deal with certain defects in the sanitary state of the town—powers which we trust the Town Council will confer upon him, considering that Cape Town is the place where most visitors to the colony land, and where, whether in search of health or fortune, they almost invariably remain for some time.

THE SERVICES.

Deputy Surgeon-General T. N. Hoysted has arrived in India, and been appointed to the Royal Presidency for duty. Deputy Surgeon-General J. Tulloch, M.D., has taken over the duties of Principal Medical Officer of the Woolwich District. Deputy Surgeon-General J. B. C. Reade, C.B., has been appointed Principal Medical Officer of the Home District, in succession to Sir J. A. Hanbury, K.C.B., ordered to the Mediterranean.

INDIA OFFICE.—The Queen has approved of the retirement from the Service of the undermentioned Officers:—Brigade Surgeon James Keess, M.D., of the Madras Medical Establishment (dated Jan. 4th, 1887); and Surgeon-Major Olliver Thomas Duke, of the Bengal Medical Establishment (dated Feb. 22nd, 1887). The undermentioned Officer has been granted a step of honorary rank on retirement:—Brigade Surgeon James Keess, M.D., of the Madras Medical Establishment, to be Deputy Surgeon-General (dated Jan. 4th, 1887).

ARTILLERY VOLUNTEERS.—1st Northumberland and Sunderland: Acting Surgeon W. H. Besant resigns his appointment (dated March 26th, 1887).—4th Lancashire: Acting Surgeon Edwin Hyla Greves, M.D., resigns his appointment (dated March 26th, 1887).

RIFLE VOLUNTEERS.—10th Lanarkshire (Glasgow Highland), Surgeon Thomas Buchanan is granted the honorary rank of Surgeon-Major (dated March 26th, 1887).—1st Lancashire: Surgeon J. W. Cavanagh resigns his commission; also is granted the honorary rank of Surgeon-Major, and is permitted to continue to wear the uniform of the corps on his retirement (dated March 26th, 1887).—2nd Midlothian (Midlothian and Peeblesshire): John Cameron, M.D., to be Acting Surgeon (dated March 26th, 1887).—2nd Shropshire: Acting Surgeon R. de la Poer Beresford, M.D., to be Surgeon (dated March 26th, 1887).

THE VOLUNTEER MEDICAL STAFF CORPS.—The London Division: Surgeon Eustace Agustus Burnside resigns his commission (dated Feb. 5th, 1887).

Correspondence.

"Audi alteram partem."

THE COLLEGE OF PHYSICIANS, THE COLLEGE OF SURGEONS, AND THE SOCIETY OF APOTHECARIES.

To the Editors of THE LANCET.

SIRS,—The refusal of the Colleges of Physicians and Surgeons to admit the Society of Apothecaries to a seat on the Examining Board for England has, for various reasons, been represented to the medical profession as unreasonable and likely to injure the prosperity of the profession. But when the case for the two Colleges is fairly put, it will be obvious that the demand for a combination has been urged with very slight reference to the facts and considerations which have swayed the colleges in framing their answer. The proposal for combination of the three licensing corporations in London is no new one. It has been discussed over and over again, but various difficulties have prevented its consummation, and now the altered conditions of medical education render the combination undesirable. The first proposal, made many years ago, that the two Colleges and the Society of Apothecaries should join in giving their licence was, after much discussion, set aside by a second scheme which was to include the then four English Universities with the Colleges and the Apothecaries' Society, that one portal for admission to the profession might be constructed. This scheme was discussed by a select committee of these several bodies, which met about seventy times, and settled much useful detail, but arrived at no common agreement. Then arose agitation in Parliament for legislation in medical matters, which resulted in the sitting of a Committee of the House of Commons, and later in the issue of a Royal Commission. Both took evidence, and published their reports in 1881-82. Perusal of the minutes of evidence thus obtained teaches how strongly at that time medical opinion was disposed to deprive the Society of Apothecaries altogether of their licensing power. Dr. Glover, now an elected member of the Medical Council, told a Committee of the House of Commons in 1879 that the Apothecaries' Society, though it had done good work in the past, was no longer wanted. The Royal Commissioners state also in their report that "there is a notable concurrence of opinion among the witnesses that the examinations of the Society of Apothecaries have not been satisfactory." In 1883 Mr. Gladstone's Government carried through the House of Lords the Medical Acts Amendment Bill, which, through stress of political business, failed to pass the House of Commons. On the third reading of this Bill Lord Salisbury, with the assistance of Lord Carlingford, the Lord President, and of Lord Camperdown, who had been President of the Medical Acts Commission, moved the expurgation from the Bill of the proviso that the Apothecaries' Society should continue to send a representative to the Medical Council; a deprivation which, as Lord Carlingford pointed out, would destroy the Society's power of granting licences. It was admitted by those who joined in the debate, that the claims of the Society of Apothecaries were of the slightest, and accordingly the Bill passed the Lords with the omission of the Apothecaries from representation on the Medical Council. In consequence of the various delays in the Legislature, the College of Physicians and the College of Surgeons entered into fresh negotiations for a union for examining purposes. These negotiations have established the Conjoint Examining Board for England, and its curriculum and standards of requirements in medical subjects are now familiar to teachers and students. This improvement in medical education being firmly established, there is good reason to expect that if the harmonious action

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of the two Colleges be maintained others may be added, notably one pressing for immediate solution—the attainment of power to grant medical degrees to candidates who have studied in London and qualified under the conjoint scheme. This improvement would be greatly delayed, if not prevented altogether, by admission of a new body with different views and aims, like the Society of Apothecaries, to the conjoint board. Moreover, during the negotiations which took place between the two Colleges, when arranging their compact, it was never contemplated by either body to invite the Society of Apothecaries to join in the scheme, nor did that corporation, while the negotiations were in progress, ask to be allied with the Colleges. Now that the scheme is a success, the Apothecaries want a share in it. But this application, be it remarked, was also not made until the passing of the Medical Act of 1886 compelled the Society to alter its examination under penalty of losing the power of giving a registrable qualification. Now, though the application is made, there is no suggestion as into what part of the examination, under the conjoint scheme, the Society believes its intervention would be valuable. Nor does it allege that there are subjects which have been omitted from the requirements of the conjoint scheme which ought to be included. On the contrary, that scheme is complete, and the Society would not enlarge the comprehensiveness of the examination, nor raise the standard of knowledge higher than the conjoint board hold it already. The Medical Act of 1886 has provided the Apothecaries with means for giving a registrable qualification independently of any other licensing corporation, by allowing them to obtain from the Medical Council assistant examiners in Surgery; a subject which their examinations hitherto have not touched. They have made this application, and the Medical Council in February postponed complying with it until the Colleges had been again invited to consider the practicability of admitting the Society to a share of their conjoint examination. So little expectation (possibly so little desire) had the Society that the Colleges would alter their opinions, that the Society's representative on the Medical Council voted against this appeal to the Colleges. It would seem that he desired that the Society of Apothecaries should at once acquire the power to act independently. While the Medical Act of 1886 was going through Parliament the College of Surgeons refrained from any expression of opinion respecting the propriety of preserving to the Apothecaries the power to give a registrable qualification, believing that it would be unfair to deprive the Society of this power after they had exercised it for many years. Further, to have done this would have been combating the declared object of the Act—its central idea—viz., to secure that every registered qualification should depend on a complete examination in medicine, surgery, and midwifery. The Act nowhere urges the establishment of a single portal, as it is now contended in some quarters is the object of the Medical Act of 1886. On the contrary, it provides for a failure or inability to combine which was foreseen. It is clear, then, that the Colleges are not to blame for the disappointment of those who desire unification of examining and licensing powers. The Legislature, guided by the evidence taken before it and before the Royal Commission, decided to maintain the independent action of the licensing bodies. Collegiate action had no part in this decision. Then, looking at the question from the point of public advantage, the maintenance of the Apothecaries in their power to grant their licence as a registrable qualification cannot be called a scandal without throwing a slur upon the present L. S. A.'s, which they by no means deserve. Still less when it is recollected that the future holders of this licence will be qualified in surgery as well as in medicine and midwifery, which the present holders are not. In this the public would be gainers. Further, if the Apothecaries are compelled to compete with the Colleges of Physicians and Surgeons, it must be by raising their standard of education and examination; by this change the public will again be gainers. There is no reason to expect that the two Colleges will be induced to lower their standard in order to draw candidates away from the Society of Apothecaries. In spite of competition, the College of Surgeons for many years before it combined with the College of Physicians, and in conjunction with that body, has given [redacted] requirements for the diploma; [redacted] consequence of this [redacted] diplomas of the [redacted] the medical profession in England. Still more, it must not be forgotten that there is a large number of respectable medical practitioners whose powers or opportunities for study have been insufficient to enable them to pass the examinations of the two Colleges. Such men have been compelled to go to Glasgow, Edinburgh, or Dublin, where they have been able to qualify after repeated rejections in London. For such persons (by no means merely idle, careless students) the licence of the Apothecaries' Society will in future afford a means for entering the roll of practitioners and occupying a worthy position thereon. A further argument put forward by the Apothecaries for their admission to the Conjoint Examining Board is that the existence of the Society will thereby be assured, and with its assured existence the Society's power to prosecute irregular practitioners will be secured. Now, it may be remarked that this argument is put forward by those very advocates who contend that the Apothecaries would still contrive to exist even if left to act independently in granting licences, and that the two Colleges might suffer harm through its independent and competitive action. But it is very doubtful if this resolution of the two Colleges will shorten the life of the Apothecaries' Society, or that the continued career of the Apothecaries' Society will be injurious to the two Colleges. Even if the Society should become extinct as a power in medical politics, the authority to prosecute irregular practitioners could be conferred on some other body—the Medical Council, for example; it would not be allowed to drop.

I am, Sirs, yours truly,

BERKELEY HILL.

THE THEORY AND TREATMENT OF PLACENTA PRÆVIA.

To the Editors of THE LANCET.

SIRS,—I hope it will not be considered superfluous on my part if I offer a few observations upon this grave complication of pregnancy in addition to the very interesting letters of Dr. James Murphy (THE LANCET, March 12th) and Dr. Braxton Hicks (THE LANCET, March 26th). Both letters bear testimony to the command achieved by modern science over a complication long marked by disaster to mother and child. So long as the false and appalling doctrine of "*unavoidable hæmorrhage*" approved by Levret, Rigby, Denman, Cazeaux, and Gardien prevailed, which assumed that there could be no arrest of hæmorrhage until labour was completed, brutal logic compelled instant resort to the *accouchement forcé*. Thus, all opportunity of observing the ways of nature and arriving at the true theory of placenta prævia was barred. The theory of "unavoidable hæmorrhage" translated into practice meant violent delivery, by forcing the hand through the cervical canal, dilated or not dilated, seizing the child and dragging it away. The happy discovery of Dr. Braxton Hicks of the bimanual—or, as I prefer to call it, the bipolar—method of turning has rendered the violent method of delivery unnecessary and unjustifiable. As I have said ("Obstetric Medicine and Surgery"), "Braxton Hicks' bimanual operation here finds one of its most useful applications." But it is only an application. It cannot be raised to the rank of *the treatment* of placenta prævia. This practical question is not so simple. Rational treatment must be based upon true theory and correct clinical observation. Clinical observation led Puzos, Wigand, d'Outrepont, Robert Lee, Mercier, myself, and others to recognise cases in which continuous hæmorrhage did not occur, and in which nature could be trusted. Still, it was not until 1847, when I first enunciated the new theory of placenta prævia in THE LANCET, that the more intelligent and successful principles of practice fairly made way. In 1844–45 Sir James Simpson, adopting the view of Kinder Wood, Radford, and Hamilton, that the source of the bleeding was the placenta, logically concluded that the right treatment was to wholly detach the placenta. The theory was wrong, and the practice worse than the old *accouchement forcé*. Since the total detachment of the placenta could hardly be accomplished without forcing the whole hand into the uterus. Fraught with peril to the mother, it was almost certainly fatal to the child. I mention this because it has been said in your issue of Feb. 26th that "Barnes' treatment—partial detachment"—is a modification of Simpson's. My theory and practice differ *toto cœlo* from Simpson's. I have taken special pains to show that the source of the

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hæmorrhage is the same as that in post-partum hæmorrhage—namely, the uterus. Having cleared the ground of this misapprehension, let me state as briefly as it is possible the theory and practice now generally accepted. The uterus is divided into three zones—the fundal, the equatorial, and the lower. It is only placenta attached within the lower zone that makes placenta prævia. There is no necessary detachment of placenta attached to the two upper zones. The limits of the lower zone, that of dangerous placental attachment, are the os internum below and a circle closely defined by the equator of the child's head above. I must refer to my systematic works for the evidence of this. It is enough here to state that this boundary line was revealed to me by repeated clinical observation and deduction; and that this physiological discovery has since been confirmed by the anatomical researches of Bandl. In fact, Bandl's ring is identical with my boundary line between the lower and equatorial zones.

Treatment, then, flows from the fact that hæmorrhage often ceases when all placenta, or sometimes only a great part of it, growing within the lower zone, has been detached, active or passive uterine contraction taking place. Action is conducted on the following lines. Provoke uterine contraction. To do this we have first the old plan. (1) Puncture the membranes. (2) Apply a firm binder over the uterus. (3) If the cervix is small and rigid, pass a laminaria tent to dilate, watching carefully. (4) Pass in one or two fingers and detach all placenta *within reach of the fingers*. The sweep of the fingers very closely takes the lower zone. (5) Insert a Barnes' bag. This acts in three ways: it dilates the cervix; it provokes uterine action; it acts as a plug, compressing the mouths of the bleeding vessels. Now things are prepared for delivery. If the head presents, (6) apply forceps, or turn by the bipolar method. This plan gives the greatest security to the mother, and the best chance to the child.

In a typical case, coming under care from the beginning, all these expedients may come into use in succession. In those cases where we are called when flooding is furious, it may be necessary to introduce the hydrostatic dilator at once, or if the cervix is dilated enough—and very moderate dilatation is enough—it is advisable to turn. I will not trouble you with statistics. These have been sufficiently quoted by Dr. Murphy and Dr. Braxton Hicks. I believe that a wider adoption of the principles enunciated above will produce figures more satisfactory still.

I am, Sirs, yours faithfully,

Harley-street, March, 1887. ROBERT BARNES.

THE SOCIETY OF APOTHECARIES AND THE CONJOINT BOARD FOR ENGLAND.

To the Editors of THE LANCET.

SIRS,—May I be allowed to express my opinion on the question of admitting the Apothecaries' Society into the Conjoint Examining Board, as one of the licentiates of that Society. In 1860, after examination, being permitted to practise medicine within ten miles of London (an antiquated restriction), I was duly impressed with the high opinion entertained by boards of guardians of the L.S.A. qualification—an estimate to which I do not at present attach a high value. But now this handmaid of a wholesale and retail drug-shop is struggling to mix up surgery in the concern, and to force herself into society where she is not welcome. These futile efforts are, perhaps, allied to the erratic movements which frequently precede dissolution. In my opinion, the Apothecaries' Hall should ally herself with the Pharmaceutical Society, and should no longer perpetuate (by her association with our profession) one of the most vulgar prejudices that I have had and yet have to fight against—viz., the persistent idea that drugs occupy the first place in our treatment of disease. While rendering to the Society of Apothecaries full credit for her early improvements in education, I submit that, in the highest and best interests of our profession, *now* is a fitting time for a divorce; the Hall has her own proper course to hold, but on matters of high training, example, and social prestige, she may now write on her walls "Obsoleta per orbem dicor."

I am, Sirs, your obedient servant,

RICHARD DAVY,
Surgeon to the Westminster Hospital.

Welbeck-street, W., March 25th, 1887.

THE QUESTION OF RELATIVE RANK.

To the Editors of THE LANCET.

SIRS,—Touching the question of relative rank in the army, and the desire, apparently on the part of some medical officers to have their titles compounded of a medical and distinctive military one, I would like to ask, Is it not an undignified and false position for members of the medical profession to lead the public to believe that they cannot, as such, stand alone, but need the support of the reflected advantages of purely military titles, indicative of and appertaining to a profession to which they do not rightfully belong? What can the public think of such a proceeding? And, as a matter of policy or expediency, why should a Doctor of Medicine or a Fellow of the Royal College of Surgeons seek to obtain such titles?

I am, Sirs, yours faithfully,

March, 1887. F. R. C. P.

To the Editors of THE LANCET.

SIRS,—The abolition of "relative rank" in the army has not, as pointed out by you in a late number of THE LANCET, altered in any way practically the "status" of officers of the medical staff, but their position in the army remains as heretofore unsatisfactory and undefined, for "relative" rank is but a meaningless term, and carries with it no military rank. Now, why should the officers of the medical department be the only officers in the army who have no military standing, honorary or otherwise? Apart from their purely professional duties they have distinct military duties to perform—when doing duty with the Medical Staff Corps at headquarters, or in command of "detachments" of that corps, or on active service when attached to "bearer companies." Why, therefore, if called upon to perform purely military duties, are they not granted military rank? The quartermasters, warrant, and non-commissioned officers, &c., of the Medical Staff Corps have a defined military "status," but the officers who command them have no military rank. Surely this is an anomaly. Is the medical department not a necessary and integral part of the army organisation, and are the officers of that department any less entitled to a proper *locus standi* in the service than officers of other departments? Again, is the medical department a military or a purely civil department. If the latter, why should the medical officers be called upon to wear military uniform and to exercise military command over their corps? In desiring "honorary" rank, as giving them a defined military "status" in the army, the officers of the medical staff have no wish whatsoever to represent themselves otherwise than as medical men. They are proud of the noble profession of which they have the honour of being members, and would be sorry to lose the "title" of "surgeon," which distinguishes them from the regimental officer holding "substantive" rank. I would venture to suggest that "honorary" rank be granted to medical officers, the terms "surgeon-captain," "surgeon-major," up to "surgeon-general" being retained, the first part of the title showing that the officer was a medical officer, and the second part the honorary rank which such officer held in the army. In conclusion, I would add that the assertion which has been made that medical officers are desirous of obtaining purely military titles is erroneous and absurd, for they have nothing to gain and much to lose by obscuring the fact that they are medical men.

I am, Sirs, yours obediently,

March, 1887. MEDICAL STAFF.

EDINBURGH.

(From our own Correspondent.)

THE SCARLET FEVER EPIDEMIC.

IN connexion with the statement in my last week's note upon this subject, some doubt has been thrown upon the results of the investigation then detailed. It was reported that the source of the outbreak had been detected, and that the disease had been clearly traced to a dairy-farm in the country, from which a large part of the Edinburgh milk-supply is derived. The proprietor of this farm now writes

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to the local papers, and with great show of reason on his side combats the opinion arrived at, and publicly expressed by Dr. Littlejohn and Bailie Russell. He points out that on Jan. 27th, when fever appeared at his farm, there were already ninety cases of scarlet fever in the city hospital, and that, as there were in all probability at least twice that number of cases in the city, not inmates of the hospital, the fever was already present in an epidemic form. This is a point of importance, and one that he can judge of as well as qualified medical experts, and if this contention on his part is found to be consonant with the facts of the case, he must without doubt be exonerated from the charge of having caused the whole of the recent epidemic and its accompanying mortality. His opinion of the precautions taken at his farm to prevent infection cannot of course have any weight against the skilled opinion that in some cases infection had been conclusively traced to milk supplied by him; nor can his strictures upon the supposed insanitary state of a western district of Edinburgh be taken as of any value; but if his first point is chronologically correct, our sanitary authority has still the task before it of tracing the course and origin of the initial epidemic, which appears to have been sufficiently alarming before the exacerbation due to the contaminated milk-supply had occurred. It is to be hoped that these aspects of the disease may be as thoroughly studied from the sanitary side as it is stated that its etiological aspects are now being studied from the experimental side in one of the university laboratories, and that in both respects the epidemic may be turned to account in the advancement of scientific knowledge.

END OF THE WINTER SESSION.

The lectures of the winter session came to an end on March 25th, when the results of the class and bursary competitions were announced and the work of the session formally wound up. In the class of physiology, Professor Rutherford said farewell to his students for a period of six months, for which time he has obtained leave of absence, indicating the arrangements that he hopes to carry out next winter, when he anticipates being again in his place. The roll of class honours in the various classes shows a high degree of excellence in the work done, a much larger proportion of students than in previous years having secured Honours certificates in the competitive examinations.

HOSPITAL ACCOMMODATION IN THE COUNTY OF MIDLOTHIAN.

The great lack of a fever hospital, which has long been felt in some parts of the county of Edinburgh, is shortly to be supplied. The site and plans for a combination hospital for a district comprising nine parishes and a population of 20,000 people were recently approved by a meeting of the committee of local boards appointed to further the matter. The new hospital is to be situated about six miles from Edinburgh, near enough for an Edinburgh physician to be placed on its honorary staff; it is to be erected on a healthy site, and is well isolated. It is to be a one-storeyed building, containing eighteen beds, and it will cost about £1600.

THE NEW PUBLIC BATHS.

The new public baths for the city are rapidly approaching completion, and will shortly be thrown open to the public. The Town Council have wisely decided that applicants for the post of superintendent must not only be good swimmers, but must be able to give instruction in the art.

Edinburgh, March 30th.

DUBLIN.

(From our own Correspondent.)

RICHMOND DISTRICT LUNATIC ASYLUM: ANNUAL REPORT.

At the close of last year the number of male patients exceeded the limits of nominal accommodation by twenty-three, and the institution contained twenty-two more than at the close of the previous year. The admissions during 1886 numbered 433, and an unusual number exhibited suicidal propensities. A severe form of dysentery occurred during September, and lasted several months. Nine deaths took place from it, and thirteen deaths from diarrhœa, which was very prevalent, ninety-five cases having been treated. Dr. Conolly Norman, the resident medical superintendent, speaks very unfavourably as to the sanitary condition of the asylum. The soil pipes, he states, are unventilated, owing to the absence of a counter opening, while no attempt has been made to ventilate the waste-pipes from baths, sinks, &c. There is no proper trapping, and there are no fresh-air breaks. Further, the house drains are usually brought under the buildings, and the pipes are not jointed with cement. As the asylum stands very high, and as the River Bradog, after leaving the asylum grounds, runs through a densely-inhabited portion of the city, the area of sewers thus ventilated into the various apartments must be very extensive. As Dr. Norman well remarks, with such conditions it can only be wondered that more sickness does not exist, and that the death-rate is not higher than at present. The baths also are insufficient in number, the kitchen small and ill-provided with cooking apparatus, the laundry small and ill-fitted; while in the decoration, furniture, &c., of the wards, this asylum is below the standard of most similar institutions at the present day. From these details, which could be supplemented by numerous others, it will be seen that the sanitary arrangements of this large and important institution require, in the interests of the inmates, a thorough overhauling, and various improvements carried out before its condition can be regarded as satisfactory.

DUBLIN HOSPITALS COMMISSION.

The report of this Commission, which held its meetings about twelve months since, has not yet been issued, but, as Mr. Balfour stated last Monday that it would be submitted to the Lord-Lieutenant this week, it probably will not much longer be delayed. It is believed that the Commissioners had great difficulty in coming to any agreement on the subject of their report.

THE QUEEN'S JUBILEE.

Sir George Porter, D.L., Surgeon-in-Ordinary to Her Majesty in Ireland, and high sheriff for the co. Wexford, has given in honour of Her Majesty's Jubilee twenty guineas to the County Wexford Infirmary, a similar amount to the Wexford Branch of the Royal Lifeboat Institution, and twenty guineas to the poor of Wexford. It is to be hoped that such an example of generosity may be widely followed.

SAD ACCIDENT TO A MEDICAL MAN.

On Tuesday morning Dr. Arthur Switzer, of Dublin, fell from his bedroom window, some 40 ft. in height, on to the pavement, and received such injuries that he died shortly after his removal to hospital. It is supposed that while looking out of the window he overbalanced himself and thus caused the accident. The deceased was only in his twenty-fifth year, and was a graduate in Arts, Medicine, and Surgery of the University of Dublin, and obtained various distictions during his university career. Only a few days before his death he had received an appointment in the country. Much sympathy is felt with his family in their sad bereavement.

Dr. L. A. Byrne has been presented with some surgical and midwifery instruments and a microscope by the officers of the Dublin Corporation on his resigning the position he had held in connexion with the executive of the Public Health Department.

The final tie for the Dublin Hospital Challenge Cup was decided on Monday last, the gate money being given in aid of the funds of the Royal Medical Benevolent Fund Society of Ireland.

BELFAST.

(From our own Correspondent.)

QUEEN'S COLLEGE, BELFAST.

Two schemes are already before the public in connexion with the Queen's jubilee: one is to build a consumption hospital, and the other a convalescent home, as an addition to the Children's Hospital; and now the President of Queen's College in a public letter suggests a third scheme on behalf of the College. After pointing out the great progress the College has made since its foundation in 1849, as shown by the large number of students who have passed through its class-rooms, and the fact that its great educational work has been done without any aid from local or private funds, the President states that a difficulty pressing heavily on the College at present is the unexpected refusal of Her

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Majesty's Government to enlarge the buildings and provide laboratories. Recently, after applying again to the Government, the President received a decided answer to this effect: "The College was built, endowed, and enlarged by the State. The people of Belfast have derived great advantage from it; they have hitherto given nothing to it; and now upon them must rest the duty and responsibility of making such additions and improvements as are required by the increased number of students, and by an enlarged, and gradually enlarging sphere of usefulness." The President states that what is wanting is larger buildings, new laboratories, modern appliances, especially in the practical departments of chemistry, natural philosophy, engineering, and physiology; and he states £8000, judiciously expended, would enable the work to be carried out; and he thinks it would be a graceful act for the loyal people of Belfast and Ulster, on the Jubilee of the Queen, to place the College in a position to carry out fully the great object for which it was formed. In concluding his letter, the President appeals for assistance to those who received their early education in Queen's College, and who now occupy places of high distinction and emolument in various parts of the world.

BELFAST OPHTHALMIC HOSPITAL.

The annual meeting of the supporters of this hospital was held on March 22nd, when the Mayor of Belfast presided. Dr. Walton Browne presented the surgical report, from which it appears that 1000 eye cases, 253 ear cases, and 80 throat-cases have been treated, and 90 patients have been admitted to the wards of the hospital, making a total of 1423 persons treated during the year. The average attendance of out-patients has been 500 per month. Cocaine has been used in nearly all the operations, doing away with the necessity for the administration of chloroform or ether. As in former years, a large class of students are attending the hospital. Application has been made to the Royal University to have the certificates of that institution recognised, so that the students attending the classes would have the advantage of such recognition. Owing to the death of Dr. Thomas Henry Purdon, a vacancy now exists on the consulting staff. Reference was made to the loss the charity had sustained in the deaths of Sir Wm. G. Johnston, D.L., Rev. W. C. M'Cullagh, and Dr. Purdon.

Belfast, March 29th.

PARIS.

(*From our own Correspondent.*)

INDUCED SOMNAMBULISM IN ITS MEDICO-LEGAL ASPECTS.

M. MESNET related the history of a patient under his care at a recent meeting of the Academy of Medicine. A young man, nineteen years old, whose mother was the subject of hysteria, had had fits of somnambulism from the age of fourteen. These became so frequent by day as well as by night that he was discharged by his employers. Besides the fits of sleep he has general anæsthesia and analgesia, together with complete loss of taste and smell. At the end of last year he was admitted to the hospital. As a matter of course, he was at once utilised for experiment in hypnotism, and was found to be easily induced into the state of "hypnotic fascination" by the magnetic stare, and as easily awakened by being blown upon the face. It was interesting, says M. Mesnet, to ascertain whether this young man was accessible to post-hypnotic suggestion. Having been sent to sleep as usual, he was imperiously ordered to take the watch of one of the students on the following day, and then to endeavour to make his escape. At the appointed time, which was at the usual visiting hour, he was seen to look contemplatively at the student's chain; he soon became fascinated by the shining links, and, after several struggles against the suggestion, he could resist no longer, and, detaching the chain, made an attempt to escape. When awakened, and the watch taken from his pocket, he was unable to account for its possession, but protested his innocence and burst into tears. This shows, says M. Mesnet, that a thief or assassin who cannot explain his acts, and declares he has no recollection of them, may be an unconscious agent. Although a magistrate will not believe his negation, he may have no knowledge of what he has done. Prossic persons may hesitate to accept M. Mesnet's conclusions, but the fascinative action of watch chains is now placed beyond doubt; and those who are affected with this variety of hypnotism in its chronic form will appreciate his soundness of observation.

HYPODERMIC INJECTIONS IN SYPHILIS.

The treatment of syphilis by hypodermic injections of mercury continues to gain ground, but the selection of the best preparation has given rise to discussion. At the Société Médicale des Hôpitaux, M. Balzer read a paper on the hypodermic injection of calomel in oil of vaseline. Calomel, first injected hypodermically by Scarenzio, is said to change slowly under these circumstances into mercuric chloride. Four injections of two grains each, at intervals of three weeks, suffice to cure the secondary symptoms. The only drawback is the occasional formation of abscesses, which occur in 14 per cent. of the cases. M. du Castel said that the hypodermic method was excellent, but that it was a great improvement to substitute the yellow oxide for the subchloride. With this preparation there is little pain, and in his last series there was no abscess. At the Société de Thérapeutique, M. Martineau brought forward some massive statistics concerning the ammoniacal peptonate of mercury which had been incriminated by M. Hallopeau. He had, he said, treated 6000 patients, and made at least 180,000 injections. Every kind of symptom, including ulcerative syphilides and cerebral syphilomata, could be dissipated by it, and, thanks to these injections, there is no longer anything to fear; syphilis can be mastered with certainty. M. Martineau had never once seen an abscess when the injection was made in the cellular tissue.

BRIGHT'S DISEASE AND ALBUMINURIA.

The *Semaine Médicale* publishes an interesting lecture by Professor Dieulafoy, chiefly dealing with the diagnosis of Bright's disease. He points out that in a great many people albuminuria may exist without nephritis. Leube found this to be the case five times in 119 soldiers, and nineteen times in the same number of men after a long march. Albumen is often found in the urine during an acute disease, such as pneumonia or pleurisy, and disappears upon convalescence without any evil result. A number of theories have been suggested to explain this occurrence. Of these may be mentioned the opinion of Professor Jaccoud, who thinks that the albuminous material is not true albumen, or serine, but a variety of it called globuline, derived from the blood-cells, and distinguished from the first by its coagulability with concentrated solutions of sulphate of magnesia. In these cases the toxicity of the urine is normal. Bright's disease may last, on the other hand, not only during the pre-albuminuric stage of Mahomed, but even during the whole of its course, without its being possible to detect any trace of albumen in the urine. If general symptoms point in this direction, and the probability of arterio-sclerous nephritis is enhanced by the discovery of a *bruit de galop*, or of the *doigt mort*, a pathognomonic sign pointed out by M. Dieulafoy, the test of Feltz and Ritter, as simplified by Professor Bouchard, will settle the question. The urine of a healthy person when introduced into the circulation of the rabbit by injection into the veins of the ear kills the animal in the proportion of fifty grammes per kilogramme of weight. But that of albuminuric subjects can be tolerated in much larger doses, and in one case mentioned by M. Dieulafoy a rabbit of two kilogrammes, for which a toxic dose of healthy urine would be 100 grammes, exhibited no discomfort until 260 had been injected, and even then recovered.

Paris, March 28th.

Obituary.

W. H. THORNTON, J.P., M.R.C.S.

MR. W. H. THORNTON, of Berkeley Lodge, Margate, died at Hastings, on Sunday, March 20th, of congestion of the lungs. He was the son of the late Mr. W. Thornton, was born at Uxbridge in 1822, and was educated at Charing-cross Hospital. Mr. Thornton went to Margate in 1845, and had been in active practice in that town for forty-two years. For twenty years he was one of the visiting surgeons to the Royal Sea-bathing Infirmary, and for the same period surgeon to the Deaf and Dumb Asylum. Mr. Thornton was an honour to his profession, upheld its dignity, and

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was loyal in his dealings with his brother practitioners. As a surgeon he was conservative, and preferred gentle to more heroic measures. He took the keenest interest in his work, and would at all times sacrifice his own comfort to promote the welfare of his patients. What, however, will chiefly dwell in the memory of his friends was his kindness and goodness of heart. He was full of charity, and was one of those who thinketh no evil. He had the happy gift of seeing the best and brightest side of everything and everybody, and his cheery and sympathising manner helped his patients not a little. Rich and poor alike feel his loss, and his funeral was attended by most of the inhabitants. He is mourned by all, but by none more than his medical brethren.

Medical News.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a meeting of the Court of Examiners held on March 21st and following days, the undermentioned gentlemen passed the first half of the examination for the Letters Testimonial of the College:—

Edward C. Clanchy. | Edmond F. Hayes.
Andrew G. T. Hanks. | Thomas Hickey.
John Lundie.

SOCIETY OF APOTHECARIES.—The following gentlemen passed the examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise on March 24th:—

Carter, Robert James, The Grove, Camberwell.
Jecks, Cyril William, Hilldrop-road, Camden-road.

THE annual Hospital Sunday collections were held in Warrington on the 27th ult.

THE Earl of Dunraven has consented to preside at a festival dinner to be held in aid of the funds of St. Mary's Hospital.

MR. FRANCIS POWELL has on the *tapis* a Bill to regulate and control the employment of children in hawking articles in the street.

THE annual meeting of the supporters of the Worcester Dispensary was held on the 29th ult., when satisfactory reports were presented and adopted.

ON the 24th ult. a Local Government Board inquiry was held at Porth relative to the pollution of the River Rhondda by refuse from certain collieries adjacent to it.

AN epidemic of diphtheria has broken out in one of the suburbs of Canterbury, and there have been several fatal cases. A similar outbreak occurred in the same suburb last year. The cause is unknown.

ON the 26th ult. the sixty-third annual meeting of the Royal National Lifeboat Institution was held, when it was stated that the committee had decided to submit their boats to more severe tests than heretofore as regards self-righting properties.

INFECTIOUS DISEASE AT DARLINGTON.—The Sunday Schools at Darlington have been closed, as all but one or two of the elementary schools have been for some time, because of the great prevalence of scarlet fever and measles in the town. The public library has also for the same reason been closed for three weeks.

AT a special meeting of the governors of the Bradford Fever Hospital on the 25th ult. it was decided, subject to certain conditions, to sell the hospital to the corporation for £10,000. Part of this sum is to be devoted to the provision of a hospital or hospitals for the reception of persons suffering from infectious diseases in the townships or districts outside the borough, the sanction of Parliament being asked for such appropriation.

THE PASTEUR INSTITUTE.—The members of the committee of the Pasteur Institute have decided to refuse the site offered by the municipality, and to purchase a site for 430,000 francs. They have also agreed on plans for the erection of four buildings, to cost 60,000 francs. A yearly revenue of 65,000 francs has been secured, leaving 35,000 still to be obtained, and the subscription lists are to be kept open until the desired sum is collected.

AT a meeting in support of the fund now being raised on behalf of Guy's Hospital, held on the 30th ult. at the Surrey Masonic Hall, Camberwell, the sum of £62 was subscribed.

HOSPITAL SATURDAY FUND.—At a meeting of the delegates of this fund on the 26th ult., the secretary reported that as the result of the first year's work of the Surgical Appliance Committee 540 patients had been supplied with surgical instruments, at an average cost of 10s., the attendances recorded being 695. A grant of 4 per cent. for the purchase of appliances for the requirements of the present year was agreed upon.

THE SANITARY INSTITUTE.—A petition has been presented to Her Majesty in Council by the Duke of Cambridge, the Duke of Northumberland, the Duke of Westminster, and others, on behalf of the Parkes Museum of Hygiene and the Sanitary Institute of Great Britain, praying for the grant of a charter of incorporation, under the name of the Sanitary Institute. The petition will be considered by a Committee of the Privy Council on May 6th.

PRESENTATIONS.—On the 22nd ult. Mr. Blackburn was presented with a silver goblet by the members of the Monk Bretton Colliery St. John Ambulance Classes in recognition of his services as instructor.—Mr. A. W. Hughes has been presented with an address and several cases of surgical instruments by the students of anatomy, Surgeons' Hall, Edinburgh, on the occasion of his resigning the post of Senior Demonstrator of Anatomy in the Edinburgh Royal College of Surgeons.

ACCOMMODATION FOR UNTRIED PRISONERS AT THE CENTRAL CRIMINAL COURT.—At a meeting of the Court of Common Council at Guildhall on the 24th ult., a letter was read from the Home Office asking for information as to what steps the Corporation intend to take to bring the accommodation for untried prisoners at the Central Criminal Court up to the standard indicated by the Committee which recently inquired into the subject. The letter was referred to the Law and City Courts' Committee.

LOCAL GOVERNMENT IN THE CITY.—The report on the work executed by the Commissioners of Sewers of the City of London for the year 1886 has just been issued by Colonel Haywood, the engineer to that body. The report gives a comprehensive statement of the sewers, house drainage, dangerous structures, improvements, electric lighting, water-supply, scavenging, cemetery arrangements, artisans' dwellings, and other matters which have occupied the attention of the commissioners during the past twelve months.

THE MELBOURNE HOSPITAL.—From the annual report of this institution it appears that during last year the income for the purposes of maintenance, inclusive of £14,000 from the Parliamentary vote and £2806 from the committee of the Hospital Sunday Fund, amounted to £23,362. The expenditure was £24,861. The benefits of the hospital were extended to 19,398 cases, of which number 15,687 were out- and 3791 in-patients. The report records several alterations in the buildings, which have been undertaken to improve the sanitary condition of the institution, an object which has, it is stated, been fully achieved. The erection of a hospital for the reception and treatment of persons suffering from consumption, and the removal of the institution to another site, could a suitable one be obtained, is advocated by the committee.

MEDICAL NOTES IN PARLIAMENT.

Anthrax.

IN the House of Commons on the 25th ult., in reply to Dr. Cameron, Lord John Manners stated that the Anthrax Order of 1886 provides for the destruction of carcasses of animals dead of anthrax by exposure to a high temperature or by chemical agents, and some local authorities in districts where the necessary appliances exist, have been authorised to adopt such modes of destruction instead of burial. In reference to burial, which in many parts of the country is the only available method of disposing of carcasses, local authorities have been warned that the carcasses should be buried entire and be well covered with lime. Mr. Ritchie also stated, in reply to Dr. Cameron, that the danger of anthrax being communicated to human beings is one almost exclusively incurred by those who have to deal with the hides or opened bodies of infected animals, and obedience to the Order of the Privy Council of Sept. 16th, 1886, as to dealing with such animals and their carcasses, will practically

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get rid of that danger. No other measure is regarded as called for. He added that the report of the medical officer of the Board for 1882 contains a memorandum which was prepared in order to give the means of recognising anthrax as it affects people dealing with hides, and this memorandum might be useful as guarding against error in diagnosis in districts where actual anthrax has appeared.

On the 29th ult., in reply to Mr. Gardner, Lord J. Manners said that experiments in inoculation with the virus of anthrax and other diseases are being carried on, but up to the present the results are not so satisfactory as to justify any recommendation as to its general adoption in this country.

Surgeon-Major Moore.

On the 28th ult. Dr. Robertson asked the Secretary of State for War whether it was the case that Surgeon-Major Sandford Moore, who originated and introduced into the Army the present ambulance system for the removal of the wounded from the field of battle, had been obliged to retire on the lowest rate of pension, in consequence of total and permanent blindness, induced, in the opinion of a medical board, by his extra literary duties; and whether, under those circumstances, he would take into consideration the justice of granting to that officer some additional pension to meet the increased expenses necessitated by his disability.—Mr. H. Stanhope replied that the case of Surgeon-Major Moore was a very sad one, and that there was every disposition to approach it with the utmost possible indulgence. But he regretted to say that he found himself unable after very careful consideration to grant an additional pension to an officer whose ill-health takes the form of loss of eyesight.

Purification of the Thames.

On the 29th ult., in reply to Colonel Dawnay, Mr. Ritchie stated that he had been in communication with the Conservators of the River Thames on the subject of their proposed bye-law prohibiting the casting or suffering to fall or flow into the river any sewage or other offensive matter, and the effect of that bye law with regard to house-boats and steam launches. The Conservators had forwarded to him a copy of a letter which, as soon as the bye-law referred to has been approved, they propose to address to the owners of house-boats and steam launches, requesting that they will, without delay, make the necessary arrangements in the fittings of their vessels, in order to comply with the bye-law referred to. They state that any closet communicating with the river would obviously be an infraction of the bye-law, and cannot therefore be permitted.

Scotch Universities Bill.

In answer to Mr. Bryce, the Lord Advocate said that the promised Bill dealing with the question of the Scotch Universities would probably have been introduced by this time had it not been for the delay caused by the change of office of the late Secretary for Scotland. It was hoped, however, to introduce it shortly.

When the Civil Service Estimates are again before the House of Commons, Mr. A. O'Connor will propose, on the vote for the Local Government Board, to move to leave out the item of £16,500 on account of public vaccinators.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ADDERLEY, JOHN, M.D., M.Ch.Q.U.I., has been appointed Medical Officer for the Glengariffe Dispensary District, co. Cork, vice Levis, resigned.

BRADSHAW, THOMAS R., B.A., M.D.Univ.Dub., M.R.C.S., has been appointed Honorary Physician to the Stanley Hospital, Liverpool, vice Barr, resigned.

CHAMBERS, ANTONY B., M.D., M.Ch.Roy.Univ. Irel., has been appointed Resident Medical Officer of Health for Long Eaton, vice Butler, resigned.

COLLYER, JAMES, L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer to the Chase Farm Schools of the Edmonton Union.

DAVIES, JOSEPH, L.R.C.P.Ed., F.R.C.S.Ed., has been appointed Medical Officer for the Second District of the Swansea Union.

DOYLE, HENRY MARTIN, M.R.C.S., L.S.A., has been appointed Receiving Room Officer to the London Hospital.

EVANS, EDWARD B., L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Fifth District of the Swansea Union.

GIBSON, THOMAS B., M.A., M.B., C.M.Aber., has been appointed Medical Officer by the Oldmachar Parochial Board, Aberdeen, vice Fraser, deceased.

HARRIS, H. E., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Officer for the Infirmary of the Parish of Paddington.

LUFF, ARTHUR PEARSON, B. Sc. Lond., M.R.C.S., L.S.A., has been appointed to the Chair of Medical Jurisprudence and Toxicology in St. Mary's Hospital Medical School, vice Randall, M.D., resigned.

LYON, THOMAS GLOVER, M.A., M.D.Cantab., M.R.C.P.Lond., has been appointed Assistant Physician to the North-West London Hospital.

MACKINTOSH, ANGUS, M.D., L.F.P.S. Glas., has been reappointed Medical Officer of Health for the Clay Lane Urban District of the Chesterfield Union.

PECK, EDWARD GEORGE, M.A., M.R.C.S., has been appointed Resident Medical Officer to the Chelsea Hospital for Women, Fulham-road, S.W., vice Sunderland, whose term of office has expired.

POCKETT, LEWIS W., M.R.C.S., L.S.A., has been appointed Medical Officer for the Hogathorpe District of the Spilsby Union.

POTTER, E. FURNISS, M.R.C.S., L.R.C.P. Lond., has been appointed Visiting-Surgeon for the North Myton District of the Hull and Sculcoates Dispensary.

POWER, D'ARCY, M.A., M.B.Oxon., F.R.C.S.Eng., has been appointed Surgeon to the Metropolitan Dispensary, Fore-street, E.C., vice Alban Doran, F.R.C.S.Eng., resigned.

STEDMAN, ARTHUR, M.R.C.S., L.S.A., has been reappointed Medical Officer for the Effingham District of the Dorking Union.

STORRAR, WILLIAM MORRISON, L.R.C.S., L.R.C.P. Ed., has been appointed Medical Officer for the Eastham District of the Wirral Union.

WILLIAMS, ROGER D. D., L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Fourth District of the Swansea Union.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

BRADFORD INFIRMARY AND DISPENSARY.—House-Surgeon. Salary £110 per annum, with board and washing.

BRITISH MEDICAL ASSOCIATION.—Research Scholar. £150 per annum.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.—Physician.

DENTAL HOSPITAL OF LONDON, Leicester-square.—Dental Surgeon.

GLOUCESTER COUNTY ASYLUM.—Third Assistant Medical Officer. Salary £105 per annum, with board, lodging, and washing.

NEW HOSPITAL FOR WOMEN, Marylebone-road.—Clinical Assistant.

PADDINGTON-GREEN CHILDREN'S HOSPITAL.—House-Surgeon. Salary £80 per annum, and rooms.

POPLAR UNION.—Medical Officer for the East District. Salary £130 per annum, to include all extra fees, the guardians supplying drugs.

QUEEN'S HOSPITAL, Birmingham.—Obstetric and Ophthalmic House-Surgeon. The appointment carries with it board, lodging, &c.

SCARBOROUGH FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Resident Medical Officer. Salary £200 for the first year, £220 for the second (if satisfactory), with fees extra, and residence, free of rates and taxes, with an allowance for coals and gas.

UNIVERSITY OF CAMBRIDGE.—John Lucas Walker Student. £250 per annum.

Births, Marriages, and Deaths.

BIRTHS.

BARRY.—On the 26th ult., at Linton Court, Settle, the wife of F. W. Barry, M.D., of a daughter.

HOWELL.—On the 24th ult., at East-hill, Wandsworth, S.W., the wife of James Bromley Howell, M.R.C.S., of a son.

MACLEOD.—On the 28th ult., at the East Riding Asylum, Beverley, the wife of M. D. Macleod, M.B., of a daughter.

MASTERS.—On the 26th ult., at Westall House, Brook-green, W., the wife of John Alfred Masters, L.R.C.P. Lond., M.R.C.S., of a daughter.

MULLIN.—On the 18th ult., at Ruthin-gardens, Cardiff, the wife of James Mullin, M.A., M.D., of a son.

WALLACE.—On the 24th ult., at Guernsey, the wife of A. C. Wallace, M.R.C.S., of a daughter.

MARRIAGES.

PIERCE—BRANDON.—On the 22nd ult., at St. Bede's Church, Liverpool, Evan Pierce, M.D., F.R.C.S., J.P., Coroner for West Denbighshire, to Alathea Eliza, youngest daughter of the late Thos. Brandon, of Brondesbury-park, N.W.

PRIESTLEY—JACQUES.—On the 12th ult., at the Parish Church, Streatham, S.W., Joseph Priestley, B.A., M.D., to Edith Blanche, youngest daughter of Edwin Jacques, M.D., of Brixton, S.W.

DEATHS.

ALLEN.—On the 21st ult., Thomas Allen, M.D., M.R.C.S., aged 61, late Medical Superintendent and Director of the Government Lunatic Asylum, Kingston, Jamaica.

BRADY.—On the 27th ult., at Loddington House, Rugby, John Brady, M.R.C.P.Lond., F.R.C.S.I., for twenty-seven years M.P. for county Leitrim, aged 74.

COLLIE.—About Oct. 15th, last, lost by the wreck of the ship *Norbudda*, David Collie, M.D., of Edinburgh.

HUTTON.—On the 27th ult., at Lowndes-street, S.W., Charles Hutton, M.D., aged 69.

MATHEW.—On the 22nd ult., at Bruges, Theobald Mark Mathew, late Deputy Surgeon-General, H.M.'s Indian Army, in his 54th year.

RUTHERFORD.—On the 24th ult., at Vauxhall-bridge-road, S.W., Surgeon-General Wm. Rutherford, M.D., C.B., Honorary Physician to the Queen, aged 71.

SWEETING.—On the 25th ult., at Great Smeaton, Yorkshire, George Bacon Sweeting, M.R.C.S.Eng., L.R.C.P.Lond., Consulting Surgeon to the West Norfolk and Lynn Hospital, of King's Lynn, aged 63.

THURLAND.—On the 23rd ult., at Wilmington-square, W.C., Francis Edward Thurland, M.R.C.S., aged 40.

YEO.—On the 27th ult., at Alverstoke, Hants, Gerald A. Yeo, F.R.C.S., retired Fleet Surgeon, R.N.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

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Medical Diary for the ensuing Week.

Monday, April 4.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M; Thursday, 2.30.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.

ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—8 P.M. Casual communications by Messrs. J. Ackery, F. Henri Weiss, Boyd-Wallis, C. V. Cotterell, S. J. Hutchinson, W. Harrison, and J. Penfold.—Mr. Newland Pedley: On the Pathology of Pyorrhœa Alveolaris.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Sir Dyce Duckworth: A case of Ulcerative Endocarditis.—Mr. R. W. Parker: On the Alleged Dangers of Starch-containing Foods during the period of Infancy.—Dr. Whipham: A case of Exfoliating Eruption of the Tongue.

Tuesday, April 5.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 1.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.

SOCIETY FOR THE STUDY AND CURE OF INEBRIETY.—4 P.M. Annual Address by the President (Dr. Norman Kerr): The Pathology of Inebriety.—Dr. T. D. Crothers: The Cause and Cure of Inebriety.

PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Hutchinson, jun.: Alveolar Ulceration in a Child, General Tuberculosis.—Dr. Joseph Coats: (1) Hypertrophic Goitre with Secondary Tumours in Bones of Skull; (2) Tumour of Pineal Gland.—Mr. Lawson Tait and Mr. Doran: Specimens illustrative of Chronic Inflammatory Disease of the Uterine Appendages.—Mr. Bowlby: Congenital Dislocation of Hip.—Mr. Lunn: Disease of the Humerus.—Dr. Hale White: Meningeal Hæmorrhage with Secondary Degeneration of Spinal Cord.—Dr. Pitt: Carcinoma of Spine and Liver. Card Specimens:—Dr. Hale White: (1) Peripheral Neuritis; (2) Dilatation of Ureter and Hydronephrosis of One Side secondary to Urethral Stricture.—Mr. Shattock: Two Specimens of Osteomalacia, showing Metaplasia of the Osseous Substance into Fibrous Tissue.—Mr. Lockwood: Fœtus showing Absence of Margin of Acetabulum and other Abnormalities.—Dr. Turner: Congenital Stricture of Jejunum.—Mr. D'Arcy Power: Sequel to a case of Endosteal Sarcoma.—Dr. Thin (for Dr. B. Rake): Drawings of Leprosy Bacillus.—Mr. F. W. Clark: Acute Pericarditis.

Wednesday, April 6.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M.; Saturday, same hour.

PARKES MUSEUM OF HYGIENE.—5 P.M. Mr. J. Bailey-Denton: Metropolitan Sewage Disposal.

OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Dr. M. Handfield-Jones and others. Dr. Champneys: The Third Stage of Labour (the separation and expulsion of the placenta).—Dr. Matthews Duncan: Hæmorrhagic Parametritis.

Thursday, April 7.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

Friday, April 8.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, April 9.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments)

THE LANCET Office, March 31st, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Mar. 25	29·63	W.	46	43	73	52	39	·13	Cloudy
,, 26	30·10	N.W.	46	43	80	55	42	·11	Fine
,, 27	30·05	N.W.	50	48	91	57	44	·15	Cloudy
,, 28	30·13	N.	47	43	89	55	41	...	Cloudy
,, 29	30·34	N.E.	42	42	76	54	41	...	Overcast
,, 30	30·32	N.E.	47	45	72	53	43	...	Overcast
,, 31	30·19	W.	45	43	76	53	37	...	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

REGISTRATION OF AMERICAN GRADUATES.

Yankee.—The Medical Council has not yet come to any decision as to American degrees. The curriculum of two years common in American schools is not likely to be approved by the Council; but nothing is settled.

Dr. Hermet (Paris).—We regret we cannot aid our correspondent, as we are not in possession of the publication mentioned.

Poseidon.—The office of the Crown Agents for the Colonies, Downing-street, S.W.

Sir Jas. Sawyer.—The notice will appear next week.

VACCINATION AND REVACCINATION.

To the Editors of THE LANCET.

SIRS,—In your issue of March 19th, Dr. W. Sinclair Thomson states that "he has advised vaccination and revaccination on the thigh in preference to the arm or any other part." This position no doubt in infancy has its advantages; but later on in life it might possibly prove rather inconvenient. I fully agree with Dr. Thomson, though for a different reason, that it is especially for women that the question of site is of so much importance. For example, suppose a grown-up female who had been vaccinated in her thigh during infancy presents herself for the purpose of being medically examined for, say, life insurance, now, in answering the question whether she had been properly vaccinated, as most insurance offices require one to do, would it not be awkward in this case, if not indelicate, to be obliged to ascertain the fact by ocular demonstration?

I am, Sirs, yours faithfully,

March, 1887. J. H. BALFE, L.R.C.P.Ed. &c.

SNAKE-POISON.

To the Editors of THE LANCET.

SIRS,—Allow me to remark upon your recent article on snake-poisons that the researches of Dr. Wolfenden (Journal of Physiology, vol. vii., pp. 327-364) tend to show that these poisons are *not* of a chemical nature. This would seem to confirm the deduction made—viz., "that they do not fall into the class of alkaloids which result from organised vital activity."

I am, Sirs, your obedient servant,

March 28th, 1887. WILLIAM SQUIRE, M.D.

*** We are obliged to our correspondent for the reference to Dr. Wolfenden's researches, which would seem to support the conclusions arrived at by Drs. Weir Mitchell and Reichert. Gautier alone claims to have found a ptomaine in cobra venom.—ED. L.

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DRINKING IN THE UNITED STATES.

THE *Pall Mall Gazette* remarks on the fact of the amount spent on drink in the United States. New York alone consumes annually 6,000,000 barrels of beer. The United States spend on intoxicants annually £170,000,000, or more than £400,000 a day all the year round. The folly of such an expenditure is monstrous, though we are not in a position to throw stones at our "cousins."

Mr. F. C. Cory.—The fee of one guinea is monstrously inadequate for time, services, and travelling expenses in the case of our correspondent. Even if he made no agreement beforehand, he is entitled to claim fair remuneration, and could enforce the claim by action at law. The Treasury have no more right than a private individual to engage a practitioner at their own estimate as to fee. By saying that he was "summoned," we presume our correspondent means that he was *requested* to attend at Whitehall. We would advise him to explain to the solicitor all the incidental expenses, direct and indirect, and to appeal to his sense of fairness.

Mr. C. J. Ribton Turner.—We have, unfortunately, no recollection of the case.

Dr. D. Donald.—The letter will be forwarded.

THE SELFISH PRINCIPLE AND MEDICAL ETIQUETTE.

To the Editors of THE LANCET.

SIRS,—I was once a great believer in medical etiquette. I am not so full of faith now; still, however, it is a beauteous thing when it is occasionally seen. But circumstances have forced themselves upon me, in, I believe, not an unusual way, which have produced a strong feeling that the gentlemen who write so frequently to the medical papers about this phase of professional conduct are generally men of this sort of stamp—men who want other men to do their work without paying them, men who impose on their brethren. I happen to know personally a medical man in the provinces who some years ago led a pretty controversy on this matter in the pages of a medical journal; and I can testify that he was of a most cantankerous spirit, fully alive to his own rights, and very, very unmindful of the rights of others. It will be instructive to mention two or three facts which have occurred to myself in the course of a long professional life. A medical brother met me in the street, and said: "Will you have the kindness to do my night-work for a fortnight, and one or two cases in the day—Dr. —— will take the rest,—as I am going for two weeks' holiday?" I assented. I had never requested this gentleman to do anything for me—in fact, I had never visited his house. I had a great deal to do, and some expensive medicines to supply from my own surgery. When he came home he wrote a note (in answer to mine detailing all that had been done), thanking me; but I found no cheque in the letter, nor has he ever done anything in return for me. I suppose this is medical etiquette! Not long after this another professional brother began, when he was out or engaged in pleasure or professionally, to send his midwifery cases to me, till I had in self-defence to refuse to do so any more, and send his patients away in a forcible manner. I suppose I was guilty in thus acting of want of etiquette! I can only say that had I acted differently I should well have deserved the name of "Thomas Greenhorn" or "John Simple." I will relate only one more out of many that have occurred to me. A brother practitioner whom I knew for many years, and during which time I attended for, or consulted with, or made post-mortem examinations of an important medico-legal character with, for about altogether sixty times, was asked once, and once only, to attend a case for me. He did so; and when I next saw him he, in a very hesitating, peculiar manner, told me he "thought I had a substitute." I need not say that I did not help my friend again. I suppose I was here guilty of want of medical etiquette! Many times have I lost rest at night in seeing cases for my medical brethren and receiving nothing in return; for when I have sought assistance myself I have invariably found that those most exacting in asking for help were the least anxious to return it, or anything else.

Now, I have never written on this so-called medical etiquette at all before, nor am I aware that anyone has ever accused me of the want of it. On the contrary, I feel that my professional brethren and myself are in perfect harmony; still, a long series of similar instances has convinced me that, as in most other conditions of life, there are two distinct parties in the profession—the foolish ones, who are always trying to benefit their brethren and who get imposed upon, and the knavish ones, who are always trying to exact and secure for themselves at others' expense gratuitous service. And these latter in our profession are the ones who generally fill our medical papers with long letters on the decline of medical etiquette. I know full well from much converse with my medical brethren that medical etiquette as it used to be considered is dead. It is a one-sided business altogether; and they who talk most about it and in its favour are those who are obeying their own selfish, sordid instincts by trying to make unpaid assistants of all such of their medical brethren as are foolish enough to become entangled in the cleverly contrived webs which these crafty ones are so gifted in spinning—and they name these webs "medical etiquette."

I am, Sirs, your obedient servant,

March, 1887. M.D.

*** We do not take the desponding view of medical etiquette which our correspondent does; but think it right to allow him to state his experience.—ED. L.

ADVERTISEMENT AND CHEAP MEDICINES BY A FELLOW OF A COLLEGE.

A CIRCULAR is before us, issued by a gentleman holding a F.R.C.S. and L.A.C., offering advice and medicines at very low rates, to all and sundry. Surely, a Fellow of a College should set his fellow practitioners a better example, and convey to the public a higher idea of the nature and value of the medical calling.

Cynic.—The best course for other practitioners to take in the first instance would be to make a respectful, but strong and unanimous, representation to the medical officer of health to the effect that such a line of practice on his part was disappointing and undignified. It would not be right to withhold information from him in his sanitary capacity.

M.B., C.M. (Aberdeen) need not hurry to register, as he will be able to do so at any convenient time.

J. B. should consult his medical adviser.

MR. H. A. ALLBUTT AND THE ROYAL COLLEGE OF PHYSICIANS, EDINBURGH.

To the Editors of THE LANCET.

SIRS,—As you are aware, the Fellows of the Royal College of Physicians of Edinburgh have threatened to deprive me of the membership and licence of the College for "having published and exposed for sale [so this indictment is worded] an indecent book, titled, 'The Wife's Handbook.'" The case comes on for hearing in May. As this action against me is causing much comment both for and against me in medical circles, I would ask you in all fairness to allow me to state that I have a full answer to every charge, both legal and moral. As, however, it is not for me to divulge my line of defence before action, I simply remark that I feel confident of a triumphant issue out of the ordeal. I enclose the Petition of the Council of the Malthusian League of London, forwarded to every Fellow and Member on the College roll, and I would ask you to publish it at the end of my letter. I feel sure a liberal journal like THE LANCET will give fair play to a member of the profession placed in such a position as myself.—I am, Sirs, yours truly,

HENRY ARTHUR ALLBUTT, M.R.C.P.E., L.S.A. Lond.

Leeds, March 26th, 1887.

*** We insert the above letter, but at the same time we feel bound to express our opinion that the book mentioned is one that should not be open to indiscriminate circulation.—ED. L.

Somerset.—Our correspondent has no claim against the widow if he attended the husband as a pauper under a parochial order from a relieving officer.

Mr. Laraton (Paris).—We cannot exchange.

WILL *Spes*, who wrote to us last week, kindly forward his address.

MEDICAL EDUCATION.

To the Editors of THE LANCET.

SIRS,—I have read in your report of the last meeting of the Medical Council that the subject of medical education has been referred to a committee, and I therefore hope that at last the authorities are beginning to see that a practitioner whose whole time of study has been spent at a medical school is not fitted for the immediate discharge of the responsible duties of general practice. I began my professional education as a pupil of a general practitioner who was also surgeon to a large provincial hospital, and thus, besides hospital practice, saw cases of small-pox, scarlet and typhoid fevers, measles, &c.; thoroughly learnt dispensing and medical bookkeeping, and the hundred and one things appertaining to general practice, which it is impossible to do at a medical school. Not long after being in practice I was asked to see "an interesting case of skin disease," which I had no difficulty in recognising as a case of "variola," but which had been unrecognised by the medical man in attendance, who was a "schoolman," and had never seen a case of small-pox. By the present regulations of the English Colleges all the valuable practice and teaching of country hospitals, &c., are lost to the present generation of students, and the question remains how long will the Medical Council allow the registration of imperfectly educated medical men to continue, or will they have the courage to require that students shall have at least spent one year as pupil of a practitioner holding appointments which afford the required amount of practical knowledge.

I am, Sirs, yours faithfully,

March 27th, 1887. M.R.C.S. ENG.

PARCEL-POST BOXES FOR MEDICINES.

To the Editors of THE LANCET.

SIRS,—I should be glad to know what has been the experience of others of your readers with regard to sending medicines by post in those boxes which are advertised in the medical newspapers and sold by the wholesale chemists as safe and suitable for the purpose. Those I use are made of stout cardboard, with fluted paper covering for the bottle; but several of those which I have sent away have been returned, with the bottle completely smashed and the contents of course lost. The stamps are placed on a side tag put there for the purpose.

I am, Sirs, yours faithfully,

March 23rd, 1887. F.R.C.S.E.

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BREAD-MAKING.

To the Editors of THE LANCET.

SIRS,—In answer to the letter of Mr. Robert Jones in your last issue I may state that I have frequently made bread by the method named. I am not aware, however, of any pamphlet on the subject, and fancy your correspondent must refer to one published by the Aerated Bread Company, who, I believe, still sell the bread in London. But this is prepared in a different way—viz., by forcing in the carbonic acid gas by machinery during the mixing of the dough. I believe the method required is to be found in the earlier editions of Pereira's Materia Medica, whence I copied it, as follows: "Unfermented bread.—Flour, 1 lb.; bicarbonate of soda, gr. xl.; cold water, half a pint, or as much as may be sufficient; muriatic acid, fifty drops; powdered white sugar, one teaspoonful. Intimately mix the soda and the sugar with the flour in a large basin by means of a wooden spoon. Then gradually add the water with which the acid has been previously mixed, constantly stirring, so as to form an intimate mixture very speedily. Divide into two loaves, and immediately put them into a quick oven."

I remain, Sirs, yours truly,

Plymouth, March 26th, 1887. H.

To the Editors of THE LANCET.

SIRS,—In reply to Mr. Robert Jones, allow me to say that unfermented bread is best made by taking 120 grains of bicarbonate of soda for every pound of flour, 120 minims of pure muriatic acid, and a little less than a pint of water. Let the water and acid be intimately mixed, and the soda be sifted into it and well mixed with the flour or meal; then gradually add the acidified water to the consistency of light dough, bake in a brisk oven for about an hour. I am, Sirs, yours faithfully,

Sandy, Beds, March 26th, 1887. H. C. STROVER.

L. E. A. is always liable to the consequences of having made a false declaration. His best course is candidly to state the facts to the body aggrieved, and throw himself on its kindness.

Mr. J. C. Gibson.—The Charities Register and Digest, published by Longmans, or our own advertising columns, will afford the information desired.

X. Y. Z.—The Riddell fund was closed on Jan. 19th of the present year. The sum raised altogether was, we believe, a little over £60.

Mr. J. A. Jones (Tir Caradoc).—The cases had, perhaps, better go together.

NIGHTMARE.

To the Editors of THE LANCET.

SIRS,—Allow me to suggest that "M.D." should take half a grain of the red iodide of mercury in pill night and morning for six or seven days. He should take a very light supper, avoid all stimulants, and take such measures as will prevent him lying on his back whilst asleep. The cause of nightmare I believe to be congestion of the coördinating centre, the cerebellum. In your correspondent's case possibly this is secondary to his liver's inaction.

I am, Sirs, your obedient servant,

March, 1887. MEDICUS.

Dr. Steven.—No copy of the Japanese Pharmacopœia has reached us, and we have no information at present beyond what appeared in the paragraph alluded to.

Sanitarian will find a *résumé* of the course of the cholera epidemic in 1886 in our issue of Jan. 15th last.

Mr. E. Colson.—The report appeared in THE LANCET of March 26th.

Resident Physician to a Kursaal has not enclosed his card.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Fenwick, London; Sir J. Sawyer, Birmingham; Mr. Godlee, London; Mr. E. Owen, London; Dr. Savage, London; Dr. Norman Kerr, London; Dr. J. Wilson, Haverfordwest; Mr. V. Richards, Goalundo; Mr. E. Colson, Aden; Mr. B. Gordon, Bombay; Dr. F. C. Cory, Buckhurst Hill; Mr. Mosely, Leeds; Mr. Pasakh, Bombay; Messrs. Burroughs and Wellcome, London; Mr. W. Whitehead, Manchester; Mr. H. A. Allbutt, Leeds; Mr. J. Oliver, London; Dr. Park, Glasgow; Mr. C. Williams, Norwich; Mr. Lewtas, Newshera; Messrs. Woollams and Co., London; Mr. J. Moore, London; Herr Uhlworn, Cassel; Mr. D. Christie, Houlden; Mr. Maythorn, Biggleswade; Messrs. Harris and Co., Birmingham; Mr. L. D. Powles, Nassau, N.P.; Mr. Leighton, Cheltenham; Mr. Jessitt, London; Dr. Ambrosi, Italy; Mr. Earp, Notts; Mr. Bland, Colchester; Mr. Burdett, London; Dr. Thomson Edinburgh; Dr. Hughes, Cowbridge; Dr. R. Barnes, London; Dr. W. Squire, London; Dr. H. Barnes, Carlisle; Dr. Glascott Mr. A. Ager, London; Dr. Alford, Taunton; Mr. J. E. Edwards; Messrs. Shelley and Co., London; Mr. W. K. Treves, Margate; Messrs. Wright and Co., Bristol; Mr. H. J. Collins, London; Mr. Enson; Messrs. Christy and Co., London; Dr. Mattison, Brooklyn; Mr. Blandford, Stockton-on-Tees; Dr. Hermet, Paris; Mr. J. B. Young, Halesowen; Mr. W. Tallack, London; Mr. W. S. Manning, London; Messrs. Whitfield and Co., Birmingham; Mr. J. B. James, London; Dr. Adams, West Malling; Dr. Leachman, Petersfield; Mr. F. Peek, London; Mr. R. Davy, London; Dr. A. W. Edis, London; Mr. Spencer; Dr. Lavers, Wandsworth; Mr. Knowles, London; Mr. Lancaster, London; Mr. R. Mosse, London; Dr. Thomas, Glasgow; Mr. H. Godrich; Mr. Knowsley Thornton, London; Dr. Tunman, Nottingham; Messrs. Macmillan and Co., London; Mr. F. W. Willmore, Walsall; Messrs. Hewlett and Co., London; Mr. Rayner, Rugby; Mr. A. S. Morton; Mr. Joslem, Workington; Mr. Rindle, Windsor; Mr. Browne, London; Mr. H. S. Gabbett, Eastbourne; Professor Roy, Cambridge; Mr. Husband, Leeds; Mr. Brust, Edinburgh; Dr. Anderson, Glasgow; Mr. Tunmer, Harrogate; Dr. Stirling, Grays; Mr. Wilson, London; Mr. Groves; M.R.C.S.; Med. Staff; Aisha; F.R.C.S.E.; Somerset; Medical Staff; M. D. B.; Secretary, Manchester; Mercury; Alpha; Surgeon Leeds; Hygiene.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Kerr, St. John's-wood; Mr. Mellor, Wakefield; Surgeon-General Gordon, Bournemouth; Rev. Dr. Kendal, Southsea; Mr. Amos, Newcastle-on-Tyne; Mr. Kershaw, Luton; Mr. Hopewell, Notts; Dr. Anderson, Royton; Mr. Cumming, London; Dr. Lyons; Messrs. Reynolds and Co., Leeds; Mr. Roberts, London; Mr. Rideal, London; Dr. Brooks, Ludlow; Dr. Dolan, Halifax; Mr. Weaver, London; Mr. Armstrong, Manchester; Mr. Gray, Dalton-in-Furness; Mr. Plowright, King's Lynn; Mr. Watson, Scarboro'; Dr. Cochrane, Bradford; Mr. Hulme, Birmingham; Miss De Lüttichau, Holloway; Mr. Patchett, Great Harwood; Mr. Gravett, Horsham; Mrs. Griffiths; Mr. Williams, Port Isaac; Mr. Affleck, Manchester; D., Sirhowy; Spa; Neurotic, West Brompton; Alpha, Bourne; L. M.; Medicus, Nantwich; Medicus, Newcastle-on-Tyne; W., Bath; Medicus, Stratford; H. C. A.; A. B., Clapham; J. P., Accrington; Veritas.

Eastern Daily Press, Barnsley Chronicle, Oldham Daily Standard, Thames Valley Times, &c., have been received.

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Croonian Lectures
ON
THE PULSE.

Delivered at the Royal College of Physicians of London, March, 1887.

BY W. H. BROADBENT, M.D., F.R.C.P.,
PHYSICIAN TO ST. MARY'S HOSPITAL, CONSULTING PHYSICIAN TO THE LONDON FEVER HOSPITAL, AND PRESIDENT OF THE CLINICAL SOCIETY.

LECTURE III.

MR. PRESIDENT AND GENTLEMEN,—Examples of the effect upon the pulse of diseases of the nervous system might be multiplied indefinitely, but I propose to ask your attention to the converse of this—namely, to effects produced on the brain by abnormal conditions of the circulation.

The nutrition of the brain, as of all parts of the body, is dependent upon the supply of an adequate amount of healthy blood, but the functional activity and efficiency of the brain is even more dependent upon the blood-supply than its nutrition, and is influenced by it to an extraordinary degree, so that blood which would maintain the structural integrity of the brain might be altogether unfit to minister to its functions. The presence of alcohol in the blood, for example, does not interfere with the nutrition of the nerve centres, but it deranges their action, and poisons generated in the system or retained excretory matters may have a similar effect. The liberation of nerve force has been represented as an explosive action, and this implies the presence in the nerve cells of a substance ready, on the application of the proper stimulus, to combine instantly with the oxygen brought by the blood. The formation of such material, its maintenance at a given state of chemical tension, so to speak, which differs in the different centres, in the cortex, in the central ganglia, and in the medulla and cord, is not paralleled by any other nutritive operation. There is, moreover, the further requirement of a due supply of oxygen.

An illustration of the relation between cerebral functions and the circulation is seen in the anæmia of the cortex of the hemispheres during sleep. This bloodlessness is essential to sleep, and, if it can be induced, sleep follows. It is not clear, however, whether it is primarily the shutting off of the blood which determines and compels sleep, or the exhaustion of the nerve cells and the periodic cessation of activity organised in the experience of the nervous system by the succession of day and night, which disposes to sleep, and provides for it by causing the cortical arterioles to contract so as to produce the anæmia. Sleeplessness is extremely common, and may be due to a great variety of causes—to excitement during the day or in the evening, to grief or anxiety, to exhaustion or overwork, especially work of an intellectual kind carried on far into the night, to late meals, errors in diet, indigestion and flatulence, or other functional derangements, and to tea or coffee. On the recognition and removal or avoidance of any such disturbing influences the sleeplessness will disappear. We are frequently called upon, however, to relieve habitual sleeplessness which cannot be referred to any of the above causes, and in many instances it is associated with abnormal conditions of the circulation. Not to speak of heart disease, all forms of which are prone to disturb or interfere with sleep, or of palpitation, which is apt to come on at night, there are two distinct conditions of the circulation to which sleeplessness is very often due. One is the state of high tension, absolute or virtual. There may be little beyond the sleeplessness of which the patient complains, or the loss of sleep may merely be one of a long train of symptoms—depression, apprehension, loss of memory, want of energy, and the like. The artery at the wrist may be large or small, but it is full between the beats, and can be rolled under the finger; the pulse may be long and gradual, or somewhat abrupt in its beat, and ending suddenly, according to the condition of the heart. It appears to me probable that the cause of the sleeplessness in the class of cases under consideration is the inability of the arterioles of the cerebral cortex to overcome the excessive blood-pressure within them, and shut off the blood so as to induce the anæmia requisite for sleep. In common with the peripheral arteries generally, their muscular walls are all day putting forth an abnormal amount of contractile force, and at night are unequal to the further task of exercising sufficient additional contraction to narrow the channels to sleeping point. In such cases sleep is often at once procured by reducing the general arterial tension, and a mild mercurial aperient is the most efficient hypnotic. The cases are numbered by scores in which I have found this line of treatment efficacious in habitual sleeplessness, many patients having been rendered independent of sedative draughts to which they had been driven. At first it is not unusual for the patient to suppose that a new and powerful opiate has been given, and the good effects do not wear out by repetition. It is not by unloading the bowel that the aperient acts; it has often to be given to induce sleep when the bowels are acting regularly and freely; and it is to be remarked that it is within an hour or two of the pill having been taken, and many hours before an evacuation results, that the patient sleeps. The general intra-vascular pressure being lowered, the cortical arterioles are no longer resisted by the pressure within them, and they can respond to the call for exclusion of the blood from the hemispheres. The desired effect may often be attained by other means—by a hot bath, by the sitz bath and wet bandages employed in hydropathic establishments, by standing in cold water and then rubbing the feet well with a rough towel, and by a variety of other measures, which either relax the cutaneous vessels generally, and so lower the arterial tension, or set up a local hyperæmia which diverts the blood from the head. A method of courting sleep, which I have known to be adopted by subjects of high arterial tension, is to lie with the back of the neck on a hot-water bottle. Sometimes, however, the object is defeated by some collateral effect—for example, as when a hot bath sets the heart beating violently, and, when successful, such measures often having the defect of dealing with the effect and not removing the cause.

An opposite state of the circulation, extremely low tension, may be the cause of sleeplessness. It is more common after middle life and in men of sedentary occupation, and may be traceable to overwork or anxiety, or simply to close attention to business and neglect of holiday. It is not often that there is excess in eating or drinking; more frequently the patient is distinctly abstemious. Without apparent cause he begins to lose his sleep at night. In the day-time, however, he is disposed to sleep, and, not unfrequently, unless engaged in actual work, he drops asleep at any moment; not only after dinner, when sleep in such cases is irresistible, but when reading his newspaper in the morning after breakfast. Not unnaturally, it is supposed that the after-dinner nap spoils the night's rest, or that the bad night causes the drowsiness during the day, but attempts to rectify this state of things by preventing sleep after dinner and similar measures fail. The sufferer may try to secure a good night by going to bed soon after dinner, but at this time, as at the usual hour for retiring, as soon as he lies down he is wide awake, and so remains. After a time it will be discovered that it is position which induces or prevents sleep. In the sitting posture sleep is almost irresistible, in the recumbent position almost impossible. The patient will sometimes get out of bed in the night and sleep in his chair, as we see sufferers from advanced heart disease. Under such circumstances I have found the circulation unstable; the pulse, during the same interview, at one time short and weak, and at another presenting the characters of virtual tension—that is, full between the beats, but compressible, sudden and not sustained; and the power of the heart low. There is a want of tone in the muscular tissues of the arterioles and a want of driving power in the heart, and the distribution of the blood thus becomes unduly influenced by gravity. In the sitting position, when the heart is not stimulated by exercise, nor afflux of blood to the convolutions determined by mental work, the blood is not lifted to the height of the brain with sufficient energy, the contractile tendency of the cortical arteries is not opposed by intra-vascular pressure, and sleep-producing anæmia of the hemispheres results. On the other hand, this same want of tone in the arterioles allows them to be distended by the increased pressure of the blood within them which attends the horizontal position. In such cases change of air will often put an end to the sleeplessness at once, and

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the appropriate remedies are vascular tonics—iron, acids, strychnine, and digitalis.

Convulsions and the pulse.—Conditions of the circulation indicated by the pulse are unquestionably among the causes of convulsions. The brain responds by convulsions to a great variety of disturbing influences: to direct irritation of the cortex, as has been demonstrated by experiment, and is illustrated by spiculæ of bone, tumours, meningeal hæmorrhage, &c.; to irritation of lower centres and tracts, such as the cerebellum and its superior peduncles, or in the interpeduncular space, and to reflex irritation of the most varied kind; to poisons of different kinds, but especially to the poisons of specific fevers, such as small-pox, scarlatina, or measles.

With regard to such causes of convulsions as concern us from their relation with the pulse, experiment has shown that convulsions may attend exactly opposite states of the circulation. The final phenomena of death from rapid hæmorrhage when the cerebral vessels are empty and the pressure (presumably at a minimum are convulsions, and convulsions occur in death by asphyxia when the blood-pressure is high. These extremes probably meet in the production of stasis of the cerebral circulation, and it seems to me that we have clinical illustrations of convulsions produced by unduly high arterial tension on the one hand and by excessively low arterial pressure on the other.

The cranium being a closed cavity, the total volume of its contents, brain-structures, blood, and cerebro-spinal fluid, must be a constant quantity. The effusion of liquid into the ventricles or meninges often found after death shows that some sort of compression and shrinkage of the brain substance is possible, but whether this is at the expense of the blood in its capillaries, or of fluid in the perivascular spaces, or of interstitial fluid, cannot be stated definitely; since, however, there may be greater appearance of vascularity in the sulci and white matter at the same time, it cannot be by exclusion of blood that the intra-ventricular or sub-arachnoid fluid makes room for itself. But whatever may be the way in which the brain-substance accommodates itself to effused fluid, it is not to be supposed that it is compressed into smaller compass at each pulsation of its vessels. This being so, either the blood must escape by the veins exactly in the same amount and at the same time as it enters by the arteries, and therefore more or less in a pulsatile manner, or there must be some shifting to and fro of cerebro-spinal fluid between the cranial and spinal cavities—that is, the expulsion of a certain amount of fluid from the cranium into the spinal canal with each arterial pulsation, and a gradual reflux in the interval. But the spinal canal is also a closed cavity, and, although its walls, being only ligamentous between the vertebræ, are not so rigid as the bones of the skull, there is no provision for variations in its capacity, while the arteries of the cord and its meninges will be distended at the same moment as those of the brain, which would tend to resist the passage of fluid from the cranial to the spinal cavity. The to-and-fro movement of cerebro-spinal fluid, then, which has been postulated as an easy explanation of some of the difficulties with regard to the cerebral circulation, cannot be admitted, and it must be the case that, exactly as the blood enters the cranium by the carotids and vertebral arteries, it leaves it by the internal jugular veins. The movement of blood in the internal jugulars has, in fact, been found to be pulsatile. I have pointed out in my first lecture that neither the expansion of the arteries nor the onward movement of the blood is as great as is usually supposed, and there is a provision both in the carotids and vertebrals for moderating the current (which is present in a still more marked degree in animals which feed on the ground); but, with all this, the intra-cranial circulation is carried on under peculiar difficulties, and any interference with the general circulation may tell with special influence upon it.

In the eye the circulation is under much the same conditions as in the brain in so far as the effects of high intra-vascular pressure are concerned—the sclerotic being [illegible]; and the changes which are known to take [illegible] in renal disease have more than a mere [illegible] or clinical interest. They throw light on changes [illegible] and study and investigation in this [illegible] much needed. We have retinal as we have [illegible] all is possible, again, that there are [illegible] like in kind to those of the choked [illegible], if different in degree, and which may be changes in the [illegible] substance [illegible] spots in the [illegible]. All these [illegible] to pressure effects rather than to blood deterioration. Glaucoma, which in my small experience has always been associated with high pulse tension, and which I believe to be an effect of intra-vascular pressure, may also have its analogue in the cranium.

Be this as it may, there cannot be any doubt that the intra-cranial pressure varies with each heart beat and with all variations of the blood-pressure in the arteries or veins. The brain would pulsate if it could, and does pulsate whenever a part of the cranial vault is absent or yielding. The fontanelle of an infant beats with the pulse, rises and falls with the respiratory movements, is tense and prominent when the child cries, hollow when it is asleep, is full and firm when the child is well, depressed when it is weakened, say by diarrhœa; and the same fluctuations can be seen at a trephine opening in the adult skull. The same pressure fluctuations which give rise to the pulsation and varying tension of the fontanelle will, in a greater or less degree, tend to compress the cortex of the hemispheres against the vault of the cranium; and it is conceivable that the compression might be such as to interfere with the free passage of blood through the pia mater of the convolutions, or to flatten more or less the veins which run on the surface of the hemispheres to the longitudinal sinus—it might, indeed, arrest momentarily the cortical circulation. Blood stasis in this situation, from pressure against the cranial vault, must occur when the convolutions are flattened by effusion into the ventricles in tubercular meningitis, and it is not unreasonable to suppose that the convulsions and loss of consciousness which mark the final stage of this disease coincide with this event. But there are not wanting evidences of the production of momentary arrest of the cerebral circulation by comparatively slight temporary causes. Some years since I met, at a scientific congress, a distinguished French surgeon who at the age of fifty-five or sixty was suffering from whooping-cough, and at every paroxysm dropped down unconscious; and I have met with a case in which for many years the patient, who was the subject of chronic bronchitis, fell down with momentary loss of consciousness and slight convulsion whenever he coughed, and this too quickly for the production of cyanosis. In these cases the obstruction would take effect by backward pressure through the jugulars. Short of any such result as loss of consciousness, it is not uncommon for the respiratory concussion attending the act of coughing to be felt as severe pain in the head.

A gradual encroachment on the capacity of the cranial cavity would exert a very similar influence on the cortical circulation by pressure from without to that which I am assuming might be the result of pressure from within, and the effects of such an occurrence are exemplified in the following case seen with Mr. Brend of Kensington. The patient, a lady aged about thirty-six, had enjoyed good health all her life, and had had children, when she began to be subject to fits. She was seen by various physicians, and different opinions were given as to the character of the attacks; for the most part they were considered to be hysterical. She was subject to headache and confusion of thought, but not more so than is common; there was no vomiting. When I was consulted she looked well, was stout, and had a good colour, and was discharging all her family and social duties, though with effort. Just as she had taken off her dress to facilitate an examination of the chest, an attack came on which we were so fortunate as to witness. She turned pale and lost consciousness, there was a slight quiver of the muscles of the face and movements of the arms, but the most striking fact was a complete arrest of the heart for a sufficient time to cause us serious anxiety. This prevented us from adopting the opinion previously given, that the fits were of no importance, and our prognosis was soon afterwards verified by the patient's death in one of the attacks. The only morbid appearance found was an extraordinary thickening of the frontal bone, which was as dense as ivory, and more than half an inch thick at the lower part, gradually thinning towards the coronal suture. The inner surface was smooth, and the dura mater little changed.

The following are examples of convulsions associated with high pulse tension.

A medical friend called on me one morning [illegible] at the bidding of his wife, as he told me laughingly. He said he had had some sort of fainting attack, but that he was perfectly well. His forehead, however, was covered with minute ecchymoses, and it was obvious [illegible] had

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had severe convulsions. He was forty-two years of age, had lived freely and carelessly, but was not intemperate; there was a doubtful history of syphilis, and twelve months previously he had had a severe fall on his head. He had very high tension of the pulse. I was summoned to him early next morning, and found that he had gone from one convulsion into another for the greater part of the night, of so severe a character that artificial respiration was required at the end of each attack. I had no hesitation in attributing the convulsions, the first and last he had ever had, to the state of the circulation, and the patient was bled to about thirty ounces. He had the last convulsion as the blood was flowing, made a rapid and complete recovery, and has had no attack since.

In another very similar case, also that of a medical man, aged about fifty, seen three years since, I did not see the convulsions, which had been very violent, but the assurance I felt justified in giving, from the history and from the state of the pulse, that no recurrence need be apprehended if the tension were reduced by appropriate diet and treatment, has been verified up to the present time, and the patient has improved greatly in general health.

A third case, that of a lady, aged at that time forty-nine, came under my observation in May, 1878. She was stout, over-fed, and had marked tension of the pulse, which appeared to be taking effect on the left ventricle. She was said to have albuminuria, but I found no albumen in the urine, and the specific gravity was normal. I was consulted on account of severe and repeated convulsive attacks of an epileptic character, which came on two or three times a week, sometimes in series of six or seven. The convulsions speedily ceased under treatment by saline aperients, which lowered the vascular tension, and she remained free from them until 1885, when she had cerebral hæmorrhage and hemiplegia, and she died late in 1886 from another attack, attended with convulsions.

In December, 1885, a gentleman aged sixty-five, working hard as a teacher of music, consulted me on account of convulsions, which had occurred in the previous July before breakfast, and on December 1st after dinner. On the latter occasion there had been sudden loss of consciousness, and a fall, in which a cut on the head had been sustained. He looked and felt well, had a fresh colour, the appetite was good and the bowels regular, and he slept well. The urine was copious, had a specific gravity of 1015, and contained neither albumen nor sugar. The pulse was tense, but short; the first sound of the heart short, the aortic second accentuated. The condition of the circulation was that of virtual tension. A mild blue and colocynth pill was ordered to be taken once a week, and arsenic and nux vomica prescribed as a tonic. In March, while stooping after a heavy meal, he fell forwards and was unconscious for a few seconds, and this is the only attack he has had.

Other illustrations might be given, but I will only refer to one more which I related in my address as president of the medical section of the Brighton meeting of the British Medical Association. The patient, aged thirty-seven, came under my observation in November and December, 1885, suffering from headache and oppression, and was found to have an unusual degree of arterial tension; and shortly afterwards I was called to him in consultation with Dr. Wilbe, when he was almost unconscious, overwhelmed apparently by a sense of pressure in the head and exhibiting violent synchronous contractions of the pectoral and abdominal muscles. The pressure in the arteries was extreme, and the incompressibility of the pulse surpassed anything in my experience. The patient was bled with good effect, but repeated free calomel purging was needed to bring down the tension and complete the recovery. There was an early stage of contracting kidney in this case, but no such change as to give rise to uræmia.

The convulsions which sometimes occur months or years after an attack of hemiplegia have, in my experience, always been associated with high tension, and have often been prevented from recurring by treatment directed against this. In a brain damaged by hæmorrhage, which has left a cicatrix, the circulation is more easily deranged to a point attended with symptoms than before. It may be considered as proved that, in some way, such a modification of the cerebral circulation may be produced by high arterial tension as is capable of giving rise to convulsions; and, as I have already said, it is, in my opinion, through the intervention of high arterial tension that uræmic convulsions are brought about. There may be extreme uræmic intoxication, ending fatally by coma, without convulsions; urea, the ammoniacal products of its decomposition and the forms of nitrogenised waste, which may be supposed to accumulate in the blood in renal disease, do not excite convulsions when injected into the blood. These facts seem to show that it is not simply and directly by the presence of renal impurities in the blood that the convulsions are excited. On the other hand, there are the facts that uræmic convulsions are most common in that form of kidney disease in which high arterial tension is most marked—the contracted granular form,—and that they do not occur in the absence of, at any rate, a certain degree of tension. But the consideration which carries perhaps the greatest weight is the remarkable effect of bloodletting in uræmic convulsions. The status epilepticus is cut short, the coma abbreviated, and associated symptoms relieved. These effects, which are remarkably constant, cannot be from elimination of toxic matter; the blood left in the vessels will be both more watery and more impure from resorption of liquid from the tissues. They can scarcely have any other cause than diminution of the volume of blood and lowered pressure in the vessels.

In acute renal dropsy with convulsions a venesection may not only arrest the convulsion, but may exercise a favourable influence on the disease, and in chronic Bright's disease, nearing a fatal termination, bleeding may prolong life and change altogether the mode of dying from convulsions and coma to a quiet asthenia. Illustrations of the association of convulsions with low arterial tension are less common, but I have seen in a child of twelve, belonging to a family in which the pulse tension is low, and who has the family pulse, a momentary convulsion during vaccination. There was no nervousness or fear, but, on the contrary, the operation was regarded with interest. The child, however, dropped as if shot, with a slight general convulsion, and then immediately got up again, looking very much astonished, but not otherwise affected. In another low-tension individual, a young man of remarkable courage, the application of a few leeches to the ankle, which had been injured rather severely, was followed by syncope, emergence from which was attended with brief but sharp general convulsions.

In the following case, seen first with Dr. Godson, Mr. White, and Dr. Kane, and later with the latter gentleman, the association of convulsions with an extremely low pulse tension and their dependence upon a feeble circulation seemed to be very clear. The patient, a lady aged about twenty-six, florid and healthy, was confined on Aug. 3rd, 1886. Second confinement; previous one normal. Three weeks before labour she had phlebitis of the right saphena vein, with great pain, some pyrexia, but little œdema; it terminated favourably in about fourteen days, leaving a hardened vein. Labour natural. Some membranes were retained, but gave no signs of their presence till the seventh day, when the discharge became offensive. There was pain over the abdomen and slight rise of temperature. The uterus was washed out with Condy's fluid, and the next morning the pain had disappeared. A rigor followed the injection of the uterus, and the temperature rose to 105° F. The discharge continuing fetid, injections were repeated, and the retained membranes came away. An offensive discharge persisted for a day or two, after which the lochia became sweet and normal. The milk stopped fourteen days after labour. From the first rigor dates the commencement of the high temperature. Daily it rose to 104°, 105°, and even 106°: but, at the same time, it invariably fell to normal sometime in every twenty-four hours. There was no regularity in the periods of high and low temperature; some days it would rise rapidly to the maximum, and after an hour would fall as rapidly; on other days it would remain about normal most of the day. The pulse, always weak, was most rapid and irregular, sometimes quite uncountable. Terrible rigors occurred almost daily, generally commencing when the temperature was low, and invariably followed by rapid rise of temperature. The patient suffered comparatively little from the high temperature, had no delirium, and seemed to be more comfortable than when the temperature was normal, though the weather at the time was extremely hot. On the seventeenth day after labour, phlebitis occurred in the right saphena. This phlebitis continued to give trouble, on and off, for another ten days, and there was considerable swelling of the ankle. The rigor and temperature continuing unchanged, in spite of all remedies, it was decided, on Sept. 15th, forty-three days after labour, to remove her to another house.

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There was the more pressing reason for this, as an expert had decided that sewer gas entered the house. She bore the move well, and for a time seemed to improve. She had some slight shiverings, but no more rigors. For several days the temperature never rose above 102°. She had numerous small boils. On the sixth day after the move (Sept. 21st) her temperature rose suddenly to 106°, fell again to normal, and in the evening rose again to 104°. She did not seem worse in any other way. About 10 P.M. I was suddenly summoned, the messenger saying she was dying. I found her sitting up in bed, with very flushed face and widely dilated pupils; she appeared quite unconscious, with gasping respiration, and very rapid and tumultuous action of the heart. I diagnosed cardiac embolism. Soon after my arrival she fell back and passed into a terrible convulsion, face turned to the left, arm drawn up, and legs extended and rigid. This lasted some minutes, and was followed in half an hour by a second, and again, before morning, by a third. After the convulsions, the left arm seemed paralysed, but this passed off before morning. She was very prostrate, and moaned a great deal, and if moved screamed out and applied her hand to the right side of her head. No inequality of pupils; passed urine and motions in the bed. Mental condition very excited: at first aphasic and unintelligible; afterwards noisy—singing, crying, and praying. After this she sank into a very depressed condition, with constant tendency to failure of the heart. The slightest attempt to sit up caused giddiness and slight convulsion. She had to be constantly watched, and at times even artificial respiration had to be resorted to. Face sunk, and whole aspect of impending death. Temperature 104°; pulse utterly uncountable. Such was her state on Sept. 26th, fifty-four days after labour. The case was considered hopeless, but it was determined to persevere steadily with large doses of tincture of muriate of iron and digitalis in gradually increasing doses. The result was highly satisfactory. The patient rallied and steadily progressed from this date. Quantities of small boils appeared, and gave her much pain. Delirium continued for some days, and she had some delusions. The slightest attempt to sit up brought on a slight convulsion. The temperature never again rose above 102°, and in a very few days fell to normal, and remained at that. Ten days after the first convulsion she had another severe one, followed by a return of the mental disturbance. She was free from attacks, except slight ones, for about a fortnight, when she had another severe attack, then an interval of three weeks, and a series of terribly severe ones lasting six hours. It being thought that the convulsions might be due to an attempt to restore the catamenia, attention was turned in that direction, and after some time the menstrual flow was established, ushered in by several slight convulsions. All this time her progress to health had been continuous, with the exception of a slight pneumonic attack, with some fever and cough, which disappeared after she had coughed up a patch of deep rusty mucus. She had numerous slight convulsive attacks, generally on waking up from sleep; but they left no after-effects, and she steadily improved until Jan. 26th, six months from the commencement of her illness, when she was well enough to be moved to Hastings, and underwent the journey without any fatigue or after bad result. She is now in capital health; but her pulse has a tendency to become irregular, and she has occasional attacks of threatened convulsions. The above account has been supplied to me by Dr. Kane. I first saw the case on October 9th, when the pyrexia had been overcome and the convulsions had set in, and had no hesitation in referring them to the exhausted state of the heart, which could not be felt, and could scarcely be heard, while the pulse was all but imperceptible. The fact that the patient could scarcely be raised in bed without bringing on an attack of convulsions was of decisive significance.

I have at present under observation a gentleman, aged fifty-two, who consulted me on account of shortness of breath on going upstairs, and especially on going up the steps from the railway station. He had become so nervous on the subject that his heart began to palpitate and his breath to go before he came to the foot of the stairs. He had palpitation also occasionally at night. He looks the picture of health and younger than his years; is stout and of rather high colour; eats and sleeps well; and has a regular action of the bowels. He rides a tricycle, and has much fresh air and exercise. The pulse is frequent, 90 to 108, small, short, and extremely compressible. The heart is partially covered by lung, does not appear to be enlarged, and gives no impulse or apex beat; the sounds are short and approximated, the second following the first too quickly. The first sound is audible, not only at the apex and right second space, but also in the neck, where both sounds are remarkably distinct. He spoke of having had a fainting attack, and when this was inquired into it was described as having occurred as follows. It was in August, and he had had a tricycle ride, had washed and changed, when he thought he would like a glass of beer, which he had not tasted for years. Shortly afterwards he felt a peculiar tingling in his feet and had just time to lie down when he lost consciousness, and did not come to himself for forty minutes or more. This could not have been a syncopal attack, and, whether convulsions occurred or not, was epileptoid. It was further learnt on inquiry that he had had several similar attacks within the last few years, always beginning with the tingling sensation in the feet, and attended with complete loss of consciousness, lasting on an average twenty minutes. He had had no fits of any kind as a boy, or until the occurrence of those referred to.

I am not without hope that a careful study of the pulse, and of conditions of the circulation made known through it, may be of service in furnishing indications for the treatment of epilepsy. It is certainly attended with interest, and I think it throws light on different forms of epilepsy, and serves as a guide in prognosis. Epilepsy is apparently the result of instability in the highest nerve centres, the cells of the cerebral cortex permitting of an indiscriminate general or partial discharge upon lower centres of nerve force, which normally ought to be set free, only in definite degree and in well-defined direction, in response to given stimuli. Such instability is obviously a nutritional defect, which may be due to the inherent want of constructive energy in the nerve cells themselves, or may be the result of blood which cannot furnish the proper pabulum, or of an inadequate supply of blood. Even in the case first supposed, a regular and ample supply of blood, under sufficient pressure to cause a due exudation of nutrient material and of proper composition, will be important, while in the other conditions supposed they will be remedial. But, given more or less of instability, this does not of itself start the convulsive explosion; some exciting cause must be applied. At one time this was supposed to be arterial spasm in certain convolutional areas; but this hypothesis, which never seemed to me to be tenable, has gone out of fashion. There are, however, facts which seem to show that circulatory conditions have much influence in determining the occurrence of attack: for example, the great frequency with which fits come on in the night, sometimes on first going off to sleep, when the horizontal position and the anæmia of the cortex attending sleep produce great changes in the intracranial circulation; or more frequently towards morning, when the general circulation has slackened down, as it does during sleep. Another favourite time for attacks is soon after rising in the morning, when the general circulation has slackened, and circulatory changes of a reverse kind take place.

It is not my intention to discuss the questions which might be raised on the subject here alluded to, but I desire to call attention to a provisional conclusion to which I have been led by my own limited observation. This is, that in essential epilepsy—the epilepsy which comes on during adolescence, the epilepsy met with in neurotic families, and in which the nerve cells may fairly be assumed to be inherently unstable—the arterial tension is low and variable or fluctuating. I am unable to affirm that when the attacks are suspended, as they may be for months, the pulse tension is improved, but it is worthy of remark that pregnancy is not unfrequently attended with immunity from fits, and, as is well known, one effect of this condition is high tension in the pulse. On the other hand, when the pulse tension is decidedly and constantly above the average, it has seemed to me that the epilepsy has been amenable to treatment. Senile epilepsy is, according to my experience, associated with high tension, and scarcely ever fails to yield to a regulated diet with a restricted amount of animal food and little stimulant, aperients and other eliminants being given, according to the requirements of the particular case. Epilepsy with high arterial tension often comes on at a later period than the epilepsy, which has its source in a radical weakness of the nervous system, and, in most of the cases I have met with, the first fit has occurred after the age of twenty, and not uncommonly there have

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been peculiarities, such as a number of attacks close together, with long but irregular intervals, or some well-marked exciting cause. The fits may, however, date from the usual age at which epilepsy sets in. Many years since, a surgeon-major in the army brought his son to me on account of epileptic attacks, which had compelled him to leave the navy. He was a fine, strong, healthy-looking lad, and had a large pulse not easily compressed. Under treatment the fits, which had been so frequent, ceased to come on. He studied for and got into Sandhurst, obtained a commission in an infantry regiment, and has since served through the Afghan campaign. So far as I know, he has only had two attacks since he entered the army: one in Afghanistan, when, together with trying work, he had bad food and water; and another in Ireland, after great fatigue and a bout of dissipation.

I have several times seen violent maniacal delirium associated in such a way with convulsions as to suggest that a minor degree of the disturbing influence which caused convulsions had given rise to the maniacal excitement—after bleeding, for example, for uræmic convulsions, before and after, or apparently instead of uræmic convulsions—in syphilitic disease of the brain. In the following case the connexion between the state of tension of the pulse and ungovernable excitement was recognised by several observers over a long period. The patient was under the care of Dr. Ranking at Tunbridge Wells, and Dr. Marcus Allen at Brighton, and in town under Dr. Seton and Dr. Coates, with whom I saw her weekly from March to July, 1884, and again in March, 1885. Dr. Ranking, who has kindly supplied me with the particulars, was called to her in May, 1882, when she was convalescing from a third attack of slight (left) hemiplegia. She was very nervous and apprehensive, and had dilatation of the heart, with an unstable pulse of virtual tension. During the summer she had several anginoid attacks, which were relieved at once by nitro-glycerine, and in the winter attacks of congestion of the lungs, with partial suppression of urine and albuminuria. One day in July, 1883, she became suddenly excited, with delusions, which lasted some time, but went off after one-hundredth grain of nitro-glycerine, and she slept. Later in the summer she got into an excited, unsettled, suspicious, and violent state, which persisted, together with high tension of the pulse. Once she was comatose for twenty-four hours, but recovered after nitro-glycerine, and at once became maniacal. In the winter of 1883-84 she was under the care of Dr. Marcus Allen at Brighton. It was found by observation that her mental condition was always worst when the pulse tension was high, and that the only way of keeping it down was to cut off all meat and feed the patient chiefly on milk. This was confirmed by our experience when she was brought to town. When the tension was high she was suspicious, abusive, violent, and unmanageable. When it was normal she was cheerful and tractable. Mercurial aperients were constantly needed in order to keep down the tension and regulate the bowels. Ultimately she died, in March, 1885, with symptoms of meningeal hæmorrhage.

With advancing years there comes a liability to many forms of cerebral affection. Some are examples of structural change which are clearly traceable to interference with the normal blood-supply. Such changes are local or general softening from thrombosis of individual arteries, or general obstruction to the blood-supply from atheroma, affecting all the cerebral arteries. The local arterial change is not the sole factor in the production of the lesions. A state of blood which renders it prone to coagulate or deposit fibrin will predispose to the formation of a thrombus at any point where the walls of the artery are diseased, and want of propulsive power in the heart, or other cause of languid movement in the blood, may antedate the occurrence of degenerative changes attributable to widely distributed disease in the vessels. But an impeded cerebral circulation may, in course of time, so far modify the nutrition of the brain as to give rise to functional affections without structural lesions; and this, in my opinion, is the mode of causation of some forms of insanity which come on late in life—such, for example, as senile melancholia. The term senile may have two meanings—it may designate an age, or be descriptive of a kind of change. The term senile is unobjectionable if it is meant to apply simply to the period of life at which this affection is met with, but it is often understood to mean a certain character of change, and its frequent employment to designate degeneration has led to the common idea that senile and degenerative are convertible terms. This does harm in two ways. Senile changes, if degenerative, are irreversible, and if this view is taken of dementia or melancholia, there will be no object in careful investigation of associated conditions, no other cause than senile decay will be looked for, and no individual treatment will be adopted based upon the peculiarities of different cases. Furthermore, the reproach of insanity or of neurotic tendencies may be attached to families when the derangement of the cerebral functions may be as much a result of vascular disease as cerebral hæmorrhage. A family liability to melancholia may consist in hereditary high tension of the pulse, just as a liability to apoplexy may be due to family gout. Now the complete recovery witnessed in many cases of melancholia is proof that there cannot have been any structural degeneration, and an example like the following may be worth relating.

Some two years since I was asked to see, periodically, a gentleman, aged about sixty, who had for four or five years been under the Commissioners in Lunacy on account of melancholia. He had had delusions as to conspiracies against his life, but such delusions as remained related chiefly to wilful and malicious injury inflicted upon him, and attempts to destroy him in an asylum. He spent nearly all his time in bed, scarcely ever left his room, and never went out of doors. He was well nourished, and, except that he was etiolated by his long confinement to the house, looked well; but the pulse was extremely small, soft, and short, and the action of the heart extremely weak. He had eczema, and suffered from constipation and want of appetite, and treatment was prescribed for the relief of these symptoms. His general health improved, but his mental condition remained much the same, and, in particular, the death of a son made little impression on him. In June, 1886, he suddenly shook off all his delusions, and became perfectly sane and cheerful. With this the pulse improved, but never reached an average volume or tension, and in October he remained well, and, after examination by Dr. Maudsley, was discharged from his lunacy. Unfortunately, on Feb. 24th of this year he became aphasic from thrombosis of the vessels supplying the cortical speech centre.

Pulse and melancholia.—The connexion between melancholia and its allied mental states and conditions of the circulation is more direct and decided than can be traced in epilepsy. An unbroken series of gradations can be traced from the irritability and depression of spirits, attending functional disorder of the liver, up to complete melancholia with delusions. In a case of temporary hepatic derangement, the state of the temper and spirits might be attributable to the retention in the blood of the impurities which tinge the eyes and complexion, this acting as a poison; or to some reflex influence, inhibiting cerebral functions, or deranging the cerebral circulation by setting up contraction of some of the arteries. When, however, the mental depression is more pronounced and persistent, these explanations are found not to apply; there may be, in the first instance, constipation, a furred tongue, sallow complexion, large liver, &c. But when these evidences of deranged function are removed the mental condition does not clear up. If the symptoms, therefore, are due to any somatic cause and are not the outcome of a primary cerebral affection, this cause is something more persistent than the functional derangement or reflex disturbance mentioned. This has appeared to me to be protracted arterial tension, or, if it is not itself the cause, it is at least the index of the condition of the state of system on which the mental condition depends.

The method by which high arterial tension may influence the cerebral functions may be conceived to be as follows. The resistance in the peripheral vessels calls for increased contractile force on the part of the left ventricle, and there is a response by a certain degree of hypertrophy. In the course of years, however, the resistance increases, degeneration of the capillaries and thickening of the arterioles being superadded to the original loss of due relation between blood and tissues, while the heart no longer gains in strength. With, then, the same or somewhat diminished driving power and the resistance increased, there will be a slower onward movement of the blood. The pulse may be equally strong, may even seem to be more incompressible, but the capillary circulation will be sluggish. This will be the case throughout the system, but it will not give rise to appreciable effects in most of the structures and organs; in the brain, however, as has already been said, functional activity and efficiency are absolutely dependent upon a due supply, not only of nutrient material, but also of oxygen,

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and this fails when the flow through the capillaries is sluggish.

In a very large proportion of the cases of melancholia coming on late in life the evidence of persistent high tension of the pulse has been most marked, and when this has been the case it has seemed to me that persevering endeavours to diminish the peripheral resistance, and at the same time to strengthen the action of the heart, have been more successful than any other line of treatment. The object is so to relieve the heart that it may no longer be mastered by the obstruction in the general capillary circulation; there will then be a general acceleration of the flow of blood through the tissues, and by the increased supply of blood to the brain its nutrition and functional efficiency may gradually be restored. The possibility of this result and the time required for its attainment will depend on various conditions. There must be a capability on the part of the heart to resume its control over the circulation; it must not be degenerate or worn out. The state of the cerebral arteries, again, will have an important influence; if they are extensively diseased, the access of blood to the convolutions may be barred even when the circulation elsewhere is good. Further, the change in the nervous elements must not have gone too far; the longer they have been subjected to the deteriorating influence of imperfect blood-supply, the longer will be the time required for the reversal of the effects. Of these three sets of conditions we can only estimate the first by examination; with regard to the others, the basis of our judgment must be the history. Speaking generally, the more acute the attack and the shorter its duration, the better will be the chances of recovery.

Cases of this kind, many of which have come under my notice, do not lend themselves to narration, especially when seen in consultation only once or twice, and I shall not attempt to bring instances before you. I may, however, relate an occurrence with regard to one such—a most distressing case of religious melancholia in a lady of about sixty, with extreme high tension in the pulse. I had explained my views to Dr. Baines, with whom I saw the patient, and had recommended, among other measures, a series of mild calomel purges, when the sister of the patient joined us, in order to learn our opinion. Before hearing this, however, she said there was one more fact which she ought to have told us—namely, that their mother, at very nearly the same age, had suffered exactly in the same way. It seemed as if my hypothesis of the relation of the melancholia to the state of the circulation was at once overthrown, and with it my favourable prognosis. "But," she continued, "in those days they gave calomel for everything; and it was prescribed for her, and she got quite well." Our patient also recovered—only, however, to relapse some time later. Melancholia associated with extremely low pulse tension has, in my experience, usually proved incurable, and has in several instances gone steadily from bad to worse to a fatal termination. The case related a few minutes ago is the only instance of recovery I have met with.

I announced that this lecture would be devoted to the pulse and cerebral affections, but I may be permitted to refer to an affection of the lower end of the spinal cord, especially as it furnishes a sort of parallel to the production of melancholia by derangement of the circulation. Our late colleague, Dr. Moxon, whose loss those who knew him well will never cease to deplore, pointed out in his brilliant and original Croonian lectures, six years since, that common paraplegia, as he called it, was explained by anatomical facts. The spinal cord receives its blood-supply by means of the arteries which reach it along the nerve roots. These, in consequence of the downward elongation of the spinal canal beyond the cord, get the more oblique and longer from above downwards, and at the cauda equina are many inches in length, so that the arteries of the lumbar enlargement, which occupies the lower part of the dorsal division of the spine, have to travel upwards for this distance from the foramina in the lumbar and sacral regions. When, then, the circulation becomes languid, the mechanical difficulties of this arrangement make themselves felt. The symptoms attending the early stage of paraplegia due to failing circulation in the lumbar enlargement of the cord are very interesting. As the nutrition of the lower end of the cord begins to suffer, there is at first muscular weakness and loss of control over the legs only after a night's rest. The patient has some difficulty in standing and walking steadily when he first gets out of bed, but after he has moved about a little the legs regain power and he can walk perfectly. A similar state of things is observed with regard to the bladder. He cannot pass urine on rising, but when he has had a little walking he empties the bladder easily. Whenever he sits down for any length of time during the day, there is more or less impairment of mobility and strength in the lower extremities, which quickly passes off with movement. Sensation is not affected at first, but there may be feelings of numbness. The coming on of the weakness during the night is due to the slackening down of the circulation, which takes place during sleep, and is paralleled by the morning depression in melancholia and debility. I have met with this train of symptoms at the two extremities of high and low pressure. When there is high pressure, it is that the general resistance in the periphery has overtaxed the powers of the heart, so that the whole circulation is sluggish, and the languid flow is most easily brought to a standstill where the difficulties are greatest. Usually the symptoms come on very gradually, but I have known their onset to be determined by the occurrence of acute dilatation of the heart. When the tension is low and the heart weak, no explanation of the impeded circulation is needed.

I end these lectures with a feeling that I have done but scanty justice to the subject, but with feelings also of gratitude for the patience and indulgence with which my poor attempt has been received.

Lectures
ON THE
SURGICAL TREATMENT OF PULMONARY CAVITIES.

Delivered at the Consumption Hospital, Brompton,

By RICKMAN J. GODLEE, M.S., F.R.C.S.,
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LECTURE II.

(Concluded from page 670.)

THE next case is that of an unfortunate man, aged forty-seven, admitted under the care of Dr. Symes Thompson in February, 1882, who went to a dentist three months previously to have the third left lower molar removed. The elevator slipped, and the tooth dropped into his mouth and by a sudden gasp was drawn into the trachea. He noticed nothing for ten minutes; then there was sudden dyspnœa, lasting for a few minutes, and pain above the right nipple—that is, not far from the level of the angle of the scapula or the seventh dorsal spine. This passed away, leaving a paroxysmal cough, which never afterwards ceased. He began to expectorate thin, frothy mucus with flocculent masses, in amount about half a pint in the day, and continued to do so from that time. He gradually lost flesh, and occasionally suffered from night sweats and flushes; his appetite failed, and he became weaker and weaker. About a fortnight after the accident he felt a tearing pain during a fit of coughing near the right nipple, and for a short time the sputa were tinged with blood; but henceforward he had nothing to indicate the position of the tooth. He was, on admission, emaciated and weak, with rigid arteries and marked arcus senilis, a pulse of 120, respiration 30, and dyspnœa on the slightest exertion; profuse expectoration, especially in the morning; and a troublesome cough, aggravated by any exertion. There was no hæmoptysis. The physical signs were those of emphysema in the left lung and in the upper part of the right. But on the right side, below a line drawn at the level of the angle of the scapula, there was comparative dulness, both in front and behind, with diminished vocal fremitus and resonance. The breathing was weak in front and in the axilla, but behind there was cavernous breathing, with metallic tinkling and pectoriloquy and bronchophony. Pleuritic friction was heard in several places. The heart's apex was not displaced. On March 2nd Mr. Marshall introduced a trocar and canula into the lung at a point two inches from the spine in the eighth interspace, and on this obtaining easy access to cavity that some hard substance was touched, but nothing [illegible]

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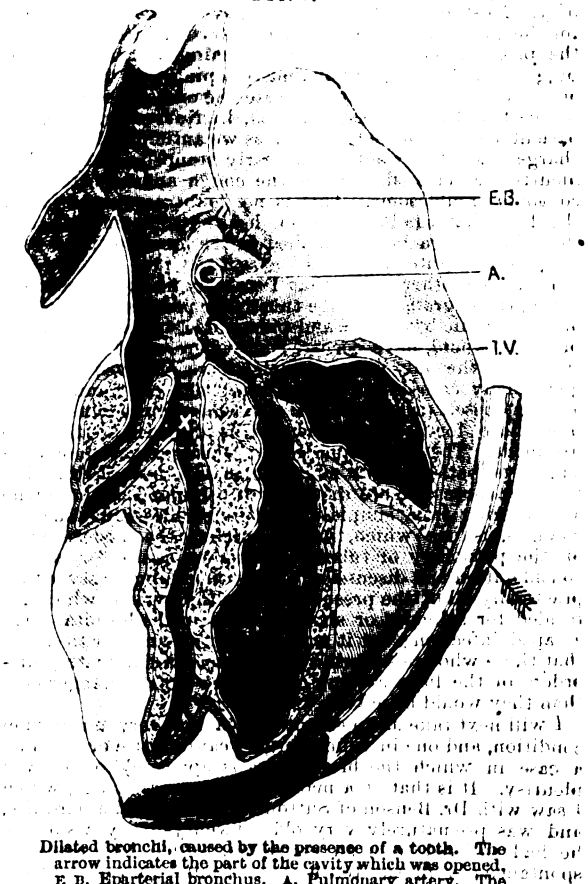
through the cannula. The intercostal space was then opened and the lung incised, causing considerable hæmorrhage and some hæmoptysis. A space was thus reached through which a probe passed an indefinite distance, no doubt having entered a large bronchus. The opening was still further dilated, but nothing came of it, and the wound was first plugged with carbolic acid gauze and then dressed antiseptically. The effect of this operation was to diminish the expectoration to a certain limited extent, while a considerable quantity of pus escaped from the wound and air was forcibly expelled from it when the patient coughed in the way which is characteristic of a freely opened bronchus. A further examination, causing considerable hæmoptysis, was made on May 29th, but without success, and the patient was sent to Eastbourne. By November 14th the wound was completely closed, the drainage-tube having been gradually shortened since the month of August. The physical signs had scarcely if at all altered since the last note. On Dec. 11th he expectorated eight ounces of blood, and this was followed by several similar attacks. It must be remembered, as we shall see in other cases, that patients with bronchiectasis are liable to copious hæmoptysis—a fact that must be taken into account in judging of the effects of surgical interference. In February, 1885, he was readmitted with the following changes in the physical signs:—Loud harsh rhonchi were heard all over both lungs, and there was increased resistence on the left side. This no doubt indicated an extension of the bronchial dilatation, and probably the commencement of the tubercular changes which were found post mortem. During the preceding three months he had become much worse; the wound had reopened and there was a copious discharge of pus, although the expectoration still continued in large quantities (from seven to eight ounces); for several days in December he had suffered from profuse hæmoptysis (half a pint at a time). On Feb. 18th, Mr. Marshall being present, I excised a portion of the ninth rib, so as to make a thorough examination. We found a long cavity with remarkably smooth walls, from which little or no hæmorrhage took place, even after prolonged manipulation. At one part of the cavity a small opening was found, through which a probe could easily be passed a long distance into the bronchus. It impinged against some very large vessel when introduced to its furthest limit. No foreign body was discovered. The expectoration diminished for a few days, and then increased again to its usual quantity. On April 2nd I made several punctures into the lung with the object of finding a second cavity, but without success, accurate diagnosis being out of the question owing to the presence of universal loud rhonchi. The patient gradually became worse, and died on April 16th.

At the post-mortem examination somewhat advanced tubercular changes were found in both lungs, and there was a tubercular cavity at the right apex. The bronchi in the lower parts of both lungs were dilated, but this was especially the case on the right side. Here, then, was a complicated system of dilated bronchi, internal to and below the cavity which communicated with the external wound. Just below the point of bifurcation of the bronchus (Fig. 5, 1 v.) going to this system of cavities the tooth was impacted, riding on the bronchial spur with the fangs downwards. There was no ulceration of the bronchial mucous membrane at the spot, or indeed anywhere; and, as far as could be judged, this was the only spot at which the tooth had lodged. There was slight tubercular ulceration of the cæcum.

This case illustrates very well the nature of the changes which are produced by a foreign body in a bronchus, and appears to show that the changes are brought about by the retention of the irritating, because putrid, secretion; for similar changes have occurred in the lower part of the opposite lung, no doubt because some of the pus found its way into the opposite bronchus. Whether this result is produced wholly or chiefly by the direct action of the secretion upon the bronchi, and whether the contraction of the chronically inflamed lung which surrounds them has much or little to do with the process, it is not easy to say; but it is interesting to notice how close is the resemblance between the condition of this lung in which the mischief is artificially produced, and other specimens in which it has occurred spontaneously. In the earlier stages of a case of this kind there are so few physical signs, and in the later ones there are so many—that is, the loud metallic rales and more or less cavernous breathing are so universal—that it is a matter of very great difficulty to diagnose the position of the foreign body. I do not say that an attempt should not be made to find it. In this particular instance an incision a little further inwards would most likely have led to its discovery; but I do think it is a question, when the history is pretty clear, whether methodical inversion of the patient should not be practised first, and whether, if this be not successful, tracheotomy should not be performed in order that a search may be made with a loop of silver wire suitably bent, or a pair of very delicate curved forceps. With such an instrument I have, without much difficulty, removed a vulcanite tracheotomy tube which had separated from its shield, on the third day I think, after it had become impacted in the right bronchus, and after definite physical signs rendered its presence there indubitable.

From what I have pointed out about the position of the bronchi and their mode of subdivision, it is most likely that the foreign body, if it be as large as a tooth, will be found somewhere in the course of the main right bronchus, and

FIG. 5.



Dilated bronchi, caused by the presence of a tooth. The arrow indicates the part of the cavity which was opened. E. B. Eparterial bronchus. A. Pulmonary artery. The tooth lodged just below the first ventral branch (1 v), in the main bronchus, at a spot marked x.

it is highly likely that the loop of silver wire would bring it up. Any search such as we made in this case must be very problematical unless a gangrenous abscess has formed, and I think we should not wait for such an occurrence. If, as happened in this case, the wrong bronchus is opened, the search from below is of course hopeless; from above, on the other hand, the wire might, by giving it a somewhat different curve, be made to enter many of the lateral bronchi in succession, and at last reach the right one. This plan should be adopted, even after some time, as Dr. Coupland's case shows that recovery may take place after considerable changes have occurred in the lung.

We much hope that such a result will be obtained in the case of H. G——, a woman fifty years of age, now in the hospital under the care of Dr. Williams. She has been the subject of winter cough for years; but has had a severe accession to it since she "swallowed" a piece of mutton-bone about May 19th, 1885. She developed a most troublesome cough after this, with copious fetid expectoration, and at

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last, after pleurisy on the right side, a collection of pus was diagnosed on the right side and opened by me on Aug. 14th beneath the eighth rib near the angle of the scapula. The abscess only reached the surface at a very limited area, and the finger passed into a sort of sinus, which just held it, about four inches long. For weeks this patient was very little relieved by the operation; the discharge was copious, and expelled with the characteristic whiffing sound referred to before; but the expectoration was scarcely diminished in amount, or at least the diminution was taking place very gradually, and the cough was always very trying. Latterly she has developed a left pleurisy. If it had not been for this I should have undertaken a new exploration. We had not till lately paid proper attention to the history, or had perhaps thought that we had sufficiently often been deceived to warrant us in neglecting "the cry of wolf"; but I was beginning to think whether it might not be right to suggest tracheotomy and search from above, or at least inversion of the patient—a not very simple matter, by the way, in the case of a woman of fifty. Most fortunately, however, whilst we were waiting for the pleurisy to subside, she succeeded in coughing up the piece of bone, and we are watching with interest the progress of the case, and anxiously hoping that the mischief on the other side does not indicate the onset of septicæmia. [Since this lecture was delivered, in November, 1886, the patient has not made the progress we anticipated; the discharge from the wound has nearly stopped, and the left pleurisy has cleared up; but the cough and expectoration continue troublesome. This is no doubt accounted for by the fact that the lung was not healthy to begin with, and that the foreign body remained in the bronchus for a very long time—eighteen months.]

There is another point that I scarcely like to touch upon—viz., the engrafting of the tubercular processes on the top of the chronic bronchitis and pneumonia. This might, and probably would, have occurred anywhere, and I should add that it is the only instance that I have observed out of a good many cases of bronchiectasis; but one cannot help asking oneself whether an institution such as ours is the best place for a patient with this disorder to take up his abode. The whole question of the aggregation of consumptive patients, but more especially that of bringing together those who are distinctly tubercular and those who are suffering from simple—i.e., non-specific—inflammatory changes, is one which, in my opinion, the modern view of the pathology of tubercle opens up again for mature consideration and discussion. It is one thing to show that practically all of the presumably healthy persons who have resided for a longer or shorter period in the hospital have escaped infection; but it would be quite another to assert that those who are suffering from chronic inflammatory disorders of the lung are not exposed to greater danger here than they would be outside.

I will next take as an example of a not very uncommon condition, and one in which surgery can do little or nothing, a case in which the bronchiectasis appeared to follow a pleurisy. It is that of a man fifty-five years of age, whom I saw with Dr. Benson of Sutton. He had lived a hard life, and was prematurely very old. Twenty-five years before he had suffered from an empyema, which had ruptured spontaneously in the tenth space behind (a very unusual position for such an occurrence), and, after discharging for four weeks or so, had healed. Since this time he had always been liable to cough, especially during the winter, which during the last few years had been much worse, causing a gradual decline of the patient's health. There was at the time very copious purulent expectoration, as if from a cavity, and there were also much emaciation and marked clubbing of the fingers, but there was no albuminuria. The left side of the chest was contracted, resonant in front, with harsh breathing and creaking and sonorous râles, but almost dull in patches over an area corresponding to the lower lobe in the back and axilla; there was no absolute dulness, however, and none in front of the mid-axillary line. Over this area of defective resonance there was amphoric breathing with metallic râles, and pretty well marked ægophony and pectoriloquy were heard in places. The right side was resonant throughout, with harsh breathing and sibilant and sonorous râles. The heart was drawn a little outwards, and there was no murmur, though previously one had been heard which was thought to be tricuspid. An incision had been made a few days before in the tenth space, and a little doubtful pus had been seen; if so, the knife had no doubt reached one of the dilated bronchi, for it must be remembered that in these cases, even if cavities do exist and are the source of the greater part of the expectoration, the bronchi contain a precisely similar material. The diagnosis was extensive bronchiectasis throughout the lower lobe of this lung, but probably no distinct cavity. The case seemed a most unpromising one for operation, not only on account of the supposed state of the lung, but also from the patient's general condition. A trocar was, however, introduced at the spot where the amphoric breathing was most marked—viz., in the eighth interspace behind. It was passed in for two inches and entered condensed lung, but did not reach any cavity, and no hæmoptysis followed. The patient lived three days longer, and Dr. Benson sent me the notes of the necropsy. They show that the right lung and the anterior part of the left lung were partly emphysematous, partly marked by old cicatricial contractions, and that there were in these regions old scattered firm adhesions; but the lower two-thirds of the left lung were bound down by universal and very strong old adhesions three-sixteenths of an inch or more in thickness, and this part was "firm and consolidated, tough and cartilaginous on section. The section was studded with the open lumina of the bronchial branches; the bronchial walls were everywhere very much thickened and at places very much dilated, their mucous membrane being thickened and injected; the bronchi contained blood-stained muco-pus. No actual cavities were found." The liver was nutmeg, and the heart somewhat fatty.

One cannot doubt that the old pleurisy, with perhaps some pneumonia, was in this case the cause of the commencement of the process. It is remarkable to me that it was so much confined to the lower lobe of this lung; but, notwithstanding its local nature, it is not apparent in what way surgery could at any time have been of use. In exploring the lung in cases like this, when contraction may be presumed to have occurred, it is important not to go beyond the natural limit of the lung downwards; and, indeed, it is wiser to stop short of this. This part of the lung behind is very thin, and an incautious use of the trocar might readily lead to the puncture of the peritoneal cavity, or perhaps of some abdominal viscus.

I will now pass to a few cases which are instructive as illustrating the difficulties and some of the dangers which attend the attempts at dealing with more or less diffused cases of bronchiectasis. I will take, in the first place, one in which nothing was done except an exploratory puncture, but in which the mere administration of the anæsthetic led to a fatal result; it is highly instructive as illustrating the fact that the amount of the physical signs is no criterion of the amount of mischief present. In this case, for example, they showed little or no mischief on the right side, though the man's general condition led us to suspect that this lung was not sound. We found, indeed, that the mischief was almost, if not quite, as advanced as on the other.

R. N——, aged thirty-five, a man of fair general health, who had all his life been the subject of a slight cough, was admitted under the care of Dr. Powell. He had suffered from syphilis ten years before, had been a hard drinker, but had not been troubled much with his chest until about a year previously, when he had an attack of hæmoptysis following apparently on severe exertion, since which time the expectoration, which had been more copious, gradually became offensive. Shortness of breath for three months had distressed him very much. The man was in a very feeble condition, with clubbed fingers and some general blueness, and obvious dyspnœa; a peaky temperature, varying from normal to 102°, and a pulse of about 130. Briefly to sum up his physical signs, they appeared to point to a considerable coalescence of bronchiectatic cavities over the lower part of the left scapular region and at the apex behind, but did not indicate much amiss with the right side. Neither Dr. Powell nor I anticipated much benefit from surgical interference, but it was thought right to make an exploration with the view of determining whether or not there was a cavity large enough to deal with. Accordingly, on Sept. 4th, 1885, chloroform was administered. He took it badly; he was in a highly nervous condition and coughed considerably, emptying his dilated bronchi—which, as it turned out, were very numerous—into the larger air tubes. The result was that he became exceedingly blue and perspired freely. Not much chloroform was administered. Two punctures were made without effect, and then we found that all our attention was needed in order to

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attempt to clear the bronchi. Our efforts, however, were not successful. It was not exactly a case of death from chloroform, for his state was at first not so very alarming; the act of respiration was performed freely enough, even forcibly, but there were loud tracheal râles, which gradually increased. He lived in this state for half an hour, and then, notwithstanding all our attempts to aid him to cough, he became completely choked by the pus which he had partly coughed and partly vomited up. Post mortem, the cavities which had been diagnosed were discovered in the position indicated by Dr. Powell; the whole of both lobes of the left lung being dense and tough, with markedly fibrous interlobular septa. But the right lung also, though spongy, was throughout the subject of bronchial dilatation, not indeed so marked as on the opposite side, but still, when it is said that one cavity was as large as a hen's egg, it will be recognised that the disease was considerable.

From the surgical point of view, one is struck with the fact that this patient was supposed to have but little the matter with the right lung, whereas it contained several cavities of considerable size; and also with the fact that, although the cavity to which the surgeon's attention was specially directed was undoubtedly the largest, still there were others at some distance from it in the same lung not much inferior to it in size. These cavities all present the glistening, smooth-walled appearance which seems to be typical of these excavations; they have strands and bars of fibrous material crossing them, which apparently contain vessels, resembling the columnæ carneæ of the heart. They seem often to be continuations of the main bronchi, but are not always so, for one in the left lung is separated by at least an inch from the main bronchus, and communicates with it by quite a small tube.

I cannot leave this case without making an observation on the subject of the anæsthetic. Ether would in many of the cases we are dealing with be the natural drug to give, because the heart is often acting so feebly, were it not for the impairment of the respiration which is frequently caused by it, owing to the copious secretion of mucus. Besides which, it is more apt than chloroform to induce cough, and coughing increases not only the surgeon's difficulties by emptying the cavity, but also the patient's danger, as in this case, by blocking up the healthier bronchi. A little while ago we were giving ether to a man the right side of whose chest was distended with pus. His heart's action was already much interfered with, and he struggled and coughed violently during the early part of the administration; the result was that he passed into a state of imminent danger. He became cyanotic, the right side of the heart was engorged, the pulse was beginning to fail and the pupils to dilate, though he had taken but little of the anæsthetic. If the pleura had not been immediately opened, I do not think that this patient would have recovered from the condition set up by this really very small dose of ether. There are many cases, however—small empyemata, with comparatively healthy lungs,—where it may quite safely be employed. Chloroform does not usually make the patient cough so much, though it is necessary in many cases to give the anæsthetic very slowly in order to obtain this result; but, on the other hand, it weakens the heart action. Hence it will be understood that occasionally cases may be met with in which it is not safe to give any anæsthetic at all. An empyema may easily be opened without causing any great pain if the cellular tissue of the part has been injected with cocaine; but in a case of pulmonary abscess the anæsthesia produced by this drug would be too limited and too transient. On the whole, therefore, in the greater number of cases, chloroform, given slowly and with great caution, seems to be the safest anæsthetic at our disposal.

Of course, in all cases of puncture of or incision into the lung, it will be remembered, as I stated in the first lecture, that the same danger may at any moment arise from the escape of blood into the bronchi; hence it is well never to have the patient so deeply anæsthetised that the natural relief of coughing for such a catastrophe cannot be obtained. A typical example of this class of cases formed the subject of a paper by Dr. Williams and myself at the Medico-Chirurgical Society last session,[1] and will therefore be only briefly referred to here.

Mary [illegible], aged twenty-one, a domestic servant, was admitted into the Brompton Hospital in May, 1885, with chronic bronchitis and emphysema of both lungs, followed [illegible]

[1] Medico-Chirurgical Transactions, vol. lxix.

by pleurisy and fibrosis of the lower lobe of the left lung, and consequent dilatation of the bronchi of that side." Such was Dr. Williams's diagnosis, and he considered that several bronchiectases existed, but that there were three of larger size than the rest, the situations of which he indicated at the posterior part of the left base. On two occasions I endeavoured to open one of these cavities after ascertaining that the pleura was obliterated by adhesions, on the second occasion after excising a portion of rib. At the first operation a small amount of muco-pus had been drawn out by the aspirator; but owing to the slipping of the cannula, which was being used as a guide during a paroxysm of coughing, even this, probably very minute, cavity was not reached, and at the second attempt no cavity of any kind was met with, although the lung was very freely incised, causing considerable hæmoptysis and some hæmorrhage. A drainage-tube was inserted and worn for some time in the hope that the abscess might rupture into the track that had been made. There was at no time, however, any material escape of pus through the wound, and ultimately the tube was withdrawn and healing was allowed to go on. It was complete in about a month after the second operation. The difficulty mentioned above, which is caused by extreme softness of the pleural adhesions, was very marked in this case, and rendered the incision into the lung an uncertain and unsatisfactory procedure. This patient is, and has been for some time, in danger of the septic troubles of which mention was made before, and also of that which may arise from hæmoptysis; and although she herself thinks she has improved since she has been under treatment, I must, to speak honestly, seriously doubt whether much, or any, of this improvement depends upon what has been done surgically. She had a severe attack of hæmoptysis whilst she was wearing the tube, but this of course might have happened independently, for she had similar attacks before. She certainly was exposed to some risk by the mere fact of opening up the cellular tissue for the passage of the putrid pus contained in the bronchi, and a possible risk from the doubt which existed as to the presence of pleural adhesions. In her case the pleura was, in part at least, obliterated, so that the danger hinted at did not arise, but that it is a real one is exemplified by the following very similar case, in which the same course was adopted.

H. C——, a married woman aged twenty-nine, had been the subject of a cough all her life, which was worse during the winter. She was said to have had "bronchitis and pleurisy" in February, 1885, after which time the expectoration had been much more copious, and during the two months before admission (in December, 1885) it had been offensive, and dyspnœa had developed itself. She had had an attack of hæmoptysis. As in the last case, the signs of bronchiectasis were marked in one region, the left base, but not very obvious elsewhere. The disease was advancing and the general condition bad, and it was therefore decided to make an attempt to open and drain the cavity in the left base. An exploratory puncture on Dec. 30th resulted in the extraction of a small quantity of reddish fluid, which evidently came from the pleura, so any further operation was deferred till Feb. 4th, 1886, when a puncture was made in the ninth interspace, which revealed practically nothing, but caused a little hæmoptysis; and afterwards an incision was made over the tenth rib, below the angle of the scapula, and two inches of it were removed. The pleura was not adherent immediately beneath the opening, but a small cavity was entered surrounded by feeble adhesions. A linear incision in the lung opened a small bronchiectatic cavity near the surface of the lung, through which a probe passed readily into a bronchus for a long distance, causing troublesome coughing. The opening was dilated with dressing forceps, and then the finger and afterwards a drainage-tube about two inches long were introduced; but this led to the separation of the lung from the chest walls and the opening up of the anterior part of the pleural cavity, where there were no adhesions. This made it very difficult to dilate the opening in the lung. Very little bleeding occurred, and very little pus escaped, though the patient coughed up a considerable quantity and vomited a good deal which she had swallowed. Here the operation was so far successful that one part of the labyrinthine cavity was reached and drained; but although afterwards a considerable amount of pus escaped through the opening, it made but little difference to the amount of daily expectoration, and for a time her condition gave us very great anxiety; for the opening up of the pleura not only rendered the lung of this side practically

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useless and vastly increased the dyspnœa, but also gave rise to a septic pleurisy causing grave constitutional disturbance and serious risk to life. She left the hospital in a very weak condition, and is supposed to have died since, but we have not been able to ascertain when or how this happened.

I might multiply the account of such cases, but as this would be tedious, I will only mention in any detail one other, in which no operation was attempted, though, as was shown by the necropsy, it was the only one in the series at present in which any great good was likely to be gained.

J. W——, aged thirty-two, a patient of Dr. Powell's, a plasterer by trade, had inflammation of the lungs seven years before, from which he apparently completely recovered, with the exception that he suffered from a dry hacking cough for a year. Twelve months before admission he had an acute illness, accompanied by a severe cough, with shiverings and dyspnœa, after which he began to expectorate between one and two pints daily, the expectoration being odourless at first, but gradually becoming highly offensive. He is said to have had a left pleurisy six months before admission, which made matters much worse. On admission, in October, 1885, he exhibited very puzzling physical signs: the right side seemed fairly healthy, but on the left side there were at times all the signs of a large cavity in the neighbourhood of the angle of the scapula, while at others these signs were altogether absent. His temperature varied, being sometimes almost normal, sometimes varying between 99° and 103°. It was found that by inverting him a copious flow of expectoration could be obtained, generally accompanied by some marked alteration in the physical signs in the back. So doubtful, however, did the indication appear to be, that the point of recommending surgical interference was never actually reached, and about Nov. 12th his temperature rose, he became rapidly worse, and died on Nov. 16th. At the post-mortem it was found that there were considerable adhesions on both sides, more on the left than the right, and a small localised purulent collection on the right side. The left lung showed remarkably little fibroid thickening, but was studded with bronchiectatic cavities, the largest of which was in the posterior axillary line, the next largest being near the angle of the scapula—in fact, in the position diagnosed. Dr. Kidd, before making the post-mortem, inserted a knife at the point indicated by him during life, and it entered the cavity directly. There was slight but not excessive bronchial dilatation on the right side.

The noticeable point about this case is the very large size of the main cavities. One at least could clearly have been reached by an incision, but it is certain that even this would only have afforded the patient very partial relief, as there were many others in this lung, and a similar condition was starting upon the opposite side, and even the cavity which could be reached was much branched, and probably would not have been very efficiently drained even if it had been fully incised. The condition of the apex of the right lung is very remarkable; there seems to be an interstitial change, not starting from anything caused by retained bronchial secretion.

To sum up the state of opinion at the present time with regard to the whole subject, it may be said—1. Gangrenous cavities should always be sought, and, if possible, opened; and the prognosis, if the operation be successful, is not bad. 2. The same may be said in regard to abscesses caused by the rupture of purulent collections from other parts into the lung, at least as regards the pulmonary complication. 3. Abscesses connected with foreign bodies must be opened, and if the body be not found, it must be remembered that, if of any considerable size, it probably lies pretty near the middle line. If possible, these cases should be treated early by tracheotomy and incision. 4. Bronchiectatic cavities, when single (a very rare condition), will be cured by operation. When multiple (a very common condition), they offer but small chance of relief by our present surgical methods. Still, for the reasons stated, an attempt may be made to open the main one if such is to be found, but only if the pleura has been ascertained to be adherent. 5. Tubercular cavities should only be opened in cases where the cough is harassing and the cavity single. Injections may be used to relieve symptoms, but cannot be expected to be curative.

THE treasurer of the Queen's Hospital, Birmingham, has received from Her Majesty a cheque for £100 in aid of the funds of the institution.

NOTE ON PUNCTURE OF THE ABDOMEN FOR EXTREME FLATULENT DISTENSION IN PUERPERAL CASES.

BY W. O. PRIESTLEY, M.D., LL.D.

I HAVE received from Surgeon-Major Franklin (at present on duty with the Lieut.-Governor of the Punjab) notes of a puerperal case which he attended while at Simla in April last year, and which raises the interesting question as to the propriety and utility of puncturing the colon in cases of extreme abdominal distension after delivery. Surgeon-Major Franklin's patient, whom I had known as a girl, went out to be married in India two or three years ago, and her first labour began on April 8th, 1886. The presentation was natural, but after a long and tedious labour, resulting from inefficient pains, the case had to be terminated by forceps under an anæsthetic, and the perineum was ruptured. Sutures were put in the perineum, and all went well until two days later, when the patient became hysterical, and began to suffer from nausea and vomiting; at the same time the abdomen became much distended. Hypodermic injections of morphia, with the application of turpentine to the abdomen, checked the sickness, and allowed milk and lime-water to be taken for a time. Next day the abdominal distension had enormously increased, there was constant vomiting, some dyspnœa, occasional rigors, and signs of exhaustion.

My correspondent says, the obstetric authorities, Playfair, Barnes, and Ramsbotham, gave him no help as to the way he was to relieve the extreme abdominal distension which was threatening the life of his patient. He had tried all the usual remedies without effect, and so was obliged to act for himself. After consultation with a colleague, Dr. Harris, he punctured the ascending colon with a small trocar. The gas escaped with considerable force, making a whistling noise as it passed through the small cannula. With the aid of pressure the greater part of it was expelled and a binder adjusted. Immediate relief was afforded, vomiting ceased, and only slight nausea remained. She had a good night, and next morning the temperature was normal. This first puncture was made about seventy-two hours after the birth of the child. Forty-eight hours later it was necessary to puncture the colon again, and this was followed, as after the first operation, by immediate relief to all the distressing symptoms. The second operation was followed by the giving of calomel, in doses of one-twelfth of a grain, every half-hour, and continued for about sixty hours, until the bowels acted freely. The temperature rose to 102° after the second puncture, and for ten days the case continued to cause some anxiety, owing to nausea and want of sleep. After this the improvement was steady, and the patient eventually got quite well. There is no record of the temperature during the access of the illness, and nothing is said of pain or subsequent inconvenience from the abdominal punctures.

The practice of tapping the abdomen for dangerous retention of flatus is a well-known remedy in some of the ailments of domestic animals, and more particularly the operation is said to be often practised on sheep when they have "blown themselves," as it is called, by having eaten too largely of a very succulent pasture, or of some herbage which is improper for them. The operation is described in some detail in a recent work of fiction depicting country life, and a farmer is spoken of as skilled in the employment of a perforating tube, the proper use of which is alone capable of saving a whole flock of sheep "blown up" after straying into wrong pasture. There are various records of cases where the intestine has been punctured in the human subject for extreme distension in connexion with obstruction of the bowels or hernia. For example, Wagstaffe mentions a case in the *British Medical Journal* for 1877, and Broadbent another in the same journal for 1879. Further references are to be found in "Neale's Digest"; and Mr. Bryant, in the *Medical Times and Gazette* for 1872, details a case of hernia, with intestinal distension, where punctures were made in the bowel without bad result; there was no escape of the bowel contents, and only a drop of blood. That the proceeding is ordinarily innocuous enough is proved by the fact communicated to me by Dr. Broadbent, that in one patient the bowel was tapped for flatus some-

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where about twenty-eight times, without bad result. Prof. Foussagrives, in the *Gazette Hebdomadaire* for 1877, says that he has seen intestinal puncture practised by Nélaton, Blache, and Velpeau, and that "it is a sovereign operation in some cases, and not dangerous even where there are multiple punctures." Surgeon-Major Franklin says, in one of his letters to me, that he had some recollection of a suggestion made by Dr. Braxton Hicks concerning tapping a flatulent abdomen in puerperal cases, and Dr. Hicks tells me that, though he had suggested it as applicable under certain circumstances, he has not himself employed it. I may remark that in some forms of illness after delivery there is no doubt grave danger arising from extreme abdominal tympanites. It is even probable that with the decline of other untoward symptoms the mere continued pressure of the distended intestines may so keep up irritation of the stomach and depress the heart's action as to become itself a source of peril. In these cases puncturing the intestine where it is most distended may afford notable relief, and experience seems to teach that it may be practised with impunity.

Hertford-street, Mayfair, W.

THE PLACE OF HEALTH IN EVOLUTION.[1]

BY W. R. MACDERMOTT, M.B. DUB.

SOMEONE once, on asking a little negro girl in Kentucky who made her, got for answer, "Nobody made me; I growed." If I asked how we came by our health, a like answer might be given. It might be said that nobody made our health; that we did not make it ourselves; that it came as a gift of nature. If ill-health afflicts us, it would be said that it, too, comes as part of our natural lot. Health and nature here are terms of loose meaning. Health may be taken as a state of being, as a relation of condition, as a formative process. We will take it here as a state of being, made in the sense that it is the outcome of antecedent condition. We take it as expressing a state of being continuous with prior states of the same kind, and shall consider whether variation from current normal condition stands in relation to variation from prior condition.

An idea of fitness comes as an introduction to our subject it is more, however—it is the beginning, middle, and end of it. We usually think of fitness as something qualifying a man beforehand for health, but it is, in fact, a synonym for health. It is not a mere rhetorical phrase, but a term expressing physical truth. Fitness means health in the physical sense; the strong man who wants fitness for health has, in reality, want of health. Health, in truth, means the fitness of states of being to the conditions of life. It is, therefore, as these conditions are unstable, a thing not fixed, but changeable. In the world, as it exists, we find life fitted to many different conditions. Man himself we find fitted to many climates, to lofty mountains and tropical swamps. But as his fitness to one set of conditions so usually is his unfitness to the opposite set. The fitness of the negro to tropic heat means unfitness to a cold climate. The fitness of the European to temperate conditions means unfitness to the extremes experienced elsewhere. We have thus many different states of being, each of which is health only as corresponding to certain conditions. In the end fitness comes to be expressed as structure, and particular modes of structure-growth. The outcome of the fitness of the negro to heat is a mode of structure; his body becomes physically moulded to the condition. On the other hand, the condition is necessary to maintain the fitness. In the northern States of America the negroes are very sickly, one out of every six born in these States being deaf, dumb, blind, idiot, insane, pauper, or in prison. Europeans in hot countries show a like inability to conform easily to the condition of climate. We thus find that a mode of structure once formed subsists for a long time in a race, becoming under unfitting condition a source of ill-health. The fitness to condition means perhaps, in proportion to its completeness, a want of power of accommodation to change of condition. The very fitness of the negro to heat makes it the harder for him to fit himself to cold. When, therefore, we have a people of mixed descent, such descent will bring into it many states, varying from fitness to unfitness, in reference to its conditions of existence. Is this composite state represented in the actual health of the people? In the first place, all modern societies of any importance are extremely composite by descent. They contain elements representing every different condition to which man has fitted himself from time to time. We are so accustomed to the idea of our descent from one man that we do not easily heed the more immediate fact of our descent from mankind *en masse*. Each man has a father and mother, probably brothers and sisters. He will have four grandparents, eight great-grandparents, and so on going backwards. At the tenth generation backwards he may have theoretically 1024 direct ancestors; at the twentieth only 1,048,576, and a corresponding number of collateral relatives. He will not, of course, have so many, but still he must have a vast number. When we remember that twenty, or even a hundred generations cover but a short period in our race history, and that such history records incessant movements of population, we can easily believe that each one of us has built into his constitution part of the negro's state of fitness to heat, part of the Laplander's to cold, part of every state to which man's body has been moulded; it may be said, blended into a sweet and reasonable mean. Yes, but not indissolubly, not perfectly. In Europeans we constantly find characters of skull and feature—of structure belonging to remote and perhaps extinct races. We find the negro Tartar and Malay structural type showing often amongst us more or less distinctly. In idiots and the insane I have seen structural character which I could assign to no race I knew, but which I felt sure belonged to facts of race structure, most likely of remote antique nature. Now, these types are exhibited in a peculiar way. They show in single members of a family as a manifestation of something underlying in latent or dormant form the whole connexion. I have seen the Tartar type in single individuals standing in the relation of third or fourth cousins, the rest of the connexion being Caucasian in appearance. I have seen the negro type assert itself in just the same way. We have here two significant facts—the fact of latency and the fact of exceptional manifestation of structural character; both we must admit, though we fail as a rule to find adequate explanation for them. We know them as unexplained facts of inheritance. They mean that variations of structure corresponding to man's experiences of condition subsist potentially in him and exhibit themselves exceptionally under circumstances for the most part unknown to us.

Let us now ask ourselves what is the sum of the variations of structure thus represented in inheritance. We can see easily enough that we may find in ourselves all, or nearly all, the states which man experiences locally or has experienced historically as man. We can see, too, that many of these states, coming back out of place, out of time, as characters of race structure do, would appear in him as states of unfitness, of ill-health. When, however, the history of the bodily man has to be taken as going back continuously into pre-human experiences, the question arises whether abnormal variations of structure and mode of structure-growth do not also express those experiences. Taking structure generally in relation to both antecedent and current circumstance, we find that change is always not to something new, but to something which exists in some other place or has existed at some other time. When an organ or part of the body exhibits an unfitting pattern, such pattern exists normally somewhere else in the body, or did exist in it at some other time. So far this explains something usually seen in states of ill-health. But the normal pattern itself, which we suppose to change, is a thing determined in inheritance; it is but one of a series of patterns occurring therein. The items in the series, again, are continuous; they not only pass continuously from one into another, but they inhere in a general programme. Thus the great fact of the mammalian pattern in man is determined in inheritance, and is a result in a programme or pattern, not of structure, but of change of structure containing pre-mammalian patterns as items. But this fact conditions the actual pattern; it cannot be taken apart from its determined mode of formation, which always remains represented in it. The pattern is an elaboration out of pre-existing details which always remain in it as potential elements expressing its process of making. It is this process, this programme of living, that brings out the details; to it they belong. But the very nature of such a programme involves variability, which, in reality, means

[1] Abstract of a lecture delivered at a Young Men's Association, Dromantine, Newry, Nov. 15th, 1886.

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indetermination. At one stage in it nothing exists determining the element of structure-growth in reference to one future stage more than another; the element is determined by current circumstance, only under a condition of general conformity to the programme. Thus, in the infant the pattern of a structure—say of the brain—may be determined in a way unimportant as regards current state of being, but, being once determined, becomes deeply significant in subsequent states of being. In the child's brain a non-human detail existing in the programme of life can be introduced with impunity; there is nothing in the conditions of life at that stage, within certain limits, absolutely determining to the human rather than some other pattern. The determination of the pattern lies, to some extent at least, within the general limits of the programme. It would not be right to say that this is indetermination absolutely; it is only indetermination in respect of future detail. The programme potentially contains many patterns, the choice between which is determined under immediate conditions, allowing divergence in the initiation of detail, which obtains weight only subsequently. At a period in existence, therefore, what determines detail of specific pattern is wanting, or of small potency, and the characters of other patterns included in the programme are not rigidly excluded. Now, we know as a fact that abnormal elements of structure do actually enter the human pattern with impunity at an early stage, to become in after-life sources of ill-health; and in many instances a strong resemblance between these elements and elements of structure in lower animals is very apparent. The value of such observations is to be estimated, firstly, by the actual significant and determined nature of the resemblance and its generality; and, secondly, by the resemblance coming into the body of facts, which make a larger induction—say that of evolution. In the actual outcome, as each state of ill-health in the initial step is perhaps invariably a matter of local detail, the true nature of the state becomes of increasingly difficult recognition. When a part grows after a wrong or obsolete pattern, it has to reckon with the parts and processes which do not misbehave, with the result that the actual form of the pattern is disturbed or obscured. It is only in certain cases that an unfitting pattern can be maintained, its unconformity to the specific pattern leading usually to profound disturbance. In some cases, however, the human system is more or less tolerant of abnormal patterns of structure, and when this happens they are found generally to correspond to patterns normal in other animals. No two human bodies are quite alike, and the difference in each case from an assumed specific type is at bottom, as a rule, due to change to a non-human pattern. This is the general form of variation. Sometimes it can be seen even in disease—that is, when unconformity induces disturbance, when the pattern is maintained with difficulty. In gout we have a mode of digestion in essential particulars, normal in birds and reptiles, manifesting itself complicated with unconformity in man. But in proportion as the unconformity becomes more decided, facts of similarity are liable to be taken as accidental and non-significant. A superficial likeness is observable between certain diseases of the human skin and skin structure in fishes. The fact should not be ignored. It may be, indeed it is probable, that reversion to fish-like types of structure occurs in man disguised by extreme unconformity to the human type. This in all probability would be found in skin and nerve disease.

Possibly it may be thought that I have not said how our health is made. In the present state of knowledge I could not do so. All that can be done is to state the problem in various tentative ways; to approach it, to realise it. If the doctrine of evolution be taken, we must expect the facts of health and ill-health to find a place in it. All I could do was to indicate that place in a general, and I fear unskilful, way. The doctrine in its present state does not prove the views I have explained, nor do these views add much to the induction; but at the same time no other working hypothesis exists to give our observations of states of health coherent or intelligible connexion.

Poyntzpass, Newry.

The annual meeting of the Governors of the Leicester Dispensary was held on the 31st ult., when satisfactory financial and general reports were presented and adopted.

RESULTS OF

MAJOR AMPUTATIONS TREATED ANTISEPTICALLY IN THE NEWCASTLE-ON-TYNE INFIRMARY,

FROM APRIL 1ST, 1878, TO DEC. 31ST, 1886.

BY FREDERICK PAGE,

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IN the year 1884 I published in THE LANCET a table (No. I. below) giving the results of major amputations performed antiseptically in the Newcastle-on-Tyne Infirmary during a period of four years and nine months—from April 1st, 1878, to Dec. 31st, 1882,—and contrasted the mortality with that of a similar period, an account of which appeared in THE LANCET, I think in the year 1873.

TABLE I.

	For Injury.			For Disease.			Total.
	No.	Recov.	Died.	No.	Recov.	Died.	
Hip-joint	0	0	0	2	0	2	2
Thigh	16	11	5	37	34	3	53
Knee-joint	3	2	1	4	4	0	7
Leg	20	16	4	24	24	0	44
Ankle-joint	4	4	0	16	16	0	20
Shoulder-joint	3	3	0	2	2	0	5
Arm	11	9	2	6	6	0	17
Forearm	8	8	0	4	4	0	12
Wrist	0	0	0	0	0	0	0
Total	65	53	12	95	90	5	160

I am sorry that I am not in a position to give the precise cause of the seventeen deaths, but the mortality was 10·6 per cent. and showed a marked decrease from that of the previous report. From injury the mortality was 18·4 per cent., from disease 5·2 per cent.

Table II. gives the results of major amputations performed antiseptically in the infirmary from Jan. 1st, 1883, to Dec. 31st, 1886, a period of four years, with the precise

TABLE II.

	For Injury.			For Disease.			Total.
	No.	Recov.	Died.	No.	Recov.	Died.	
Hip-joint	0	0	0	9	6	3	9
Thigh	10	9	1	54	51	3	64
Knee-joint	4	4	0	1	1	0	5
Leg	21	21	0	26	24	2	47
Ankle-joint	12	12	0	30	29	1	42
Shoulder-joint	2	2	0	3	3	0	5
Arm	14	14	0	6	5	1	20
Forearm	13	12	1	10	10	0	23
Wrist	7	7	0	0	0	0	7
Total	83	81	2	139	129	10	229

cause of death in each of the twelve fatal cases. The mortality is 5·4 per cent., for injury 2·4 per cent., for disease 7·1 per cent. Now let us examine the precise cause of the twelve deaths in this table.

Injury.

1. Thigh. The only death after a primary amputation. A man. Died in a few hours from shock and loss of blood.

2. A man, admitted with tetanus from a crushed hand. Forearm amputated. Died in twenty-four hours from tetanus.

Disease.

3. Amputation at hip. A woman aged twenty-one years, whose hip had been excised a year before. Had albumen in her urine. Died in eight hours.

4. Amputation at hip. Man, aged fifty years, much run down by long-continued suppuration. Died in a few days from exhaustion. No sign of blood poisoning.

5. Amputation at hip. Man, aged thirty years. The same remarks apply to this as to the preceding case.

6. Thigh. Man, aged forty-six years, suffering from phthisis and suppuration of knee-joint. Died in seven weeks from phthisis.

7. Thigh. Man, aged fifty-three years. Amputation

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through middle third for spontaneous gangrene of foot and leg. Died in forty-eight days from recurrence of gangrene.

8. Thigh. Man, aged sixty-two years. Limb amputated close to hip for long-standing necrosis of femur. Died in a few days from exhaustion.

9. Leg. Man, aged sixty-two years. Amputated just below the knee for ulcers on both legs of twelve years' standing. Died of pyæmia. Infection probably arose from ulcer on other leg.

10. Leg. Man, aged fifty-five years. Amputated just below the knee for spontaneous gangrene of foot. Died from recurrence of gangrene of the stump.

11. Ankle. Old man, just recovered from typhus. Spontaneous gangrene of both feet. One removed at ankle-joint. No attempt at repair. Death in a few days from inanition.

12. Arm. Woman, aged seventy-seven. Admitted from a workhouse with suppuration of the elbow and bed-sores. No attempt at repair. Death in a few days from inanition.

If we compare the above tables we are struck by two circumstances. 1. The mortality from amputation has fallen from 10·6 per cent. during the first period to 5·4 per cent. during the second. This I consider most satisfactory. 2. The usual relative mortality of amputation for injury observed in the first table is reversed in the second. In the first, 18·4 per cent. of the amputations for injury and 5·2 per cent. for disease were fatal, but in the second 2·4 per cent. from injury and 7·1 per cent. from disease died. This is an unusual and remarkable experience. I believe both results to be due to the almost entire absence of pyæmia. Blood poisoning was the great cause of death after amputation. It has almost ceased to operate with us. Consequently the mortality from amputation generally has fallen, with the result that in cases of disease amputation is now resorted to where formerly it would have been refused. A glance at the causes of death I have just given in detail will, I think, support this view. Amputation at the hip in the adult is a very fatal procedure; so is amputation for spontaneous gangrene. Six of the twelve deaths recorded followed such operations, and I question whether some years ago any of them would have been performed. I have been much struck by the following quotation and table from the last edition of Mr. Erichsen's work on surgery:—

"In the following table may be seen the results of 307 consecutive cases of amputation performed at University College up to May, 1871. Of these, 79 died, yielding as nearly as possible a mortality of 25 per cent.

Seat.	Injury.			Disease.		
	Cases.	Deaths.	Per cent.	Cases.	Deaths.	Per cent.
Thigh	39	23	59·0	86	18	20·9
Leg and foot ...	44	14	31·8	74	10	13·5
Shoulder and arm	12	5	41·6	24	8	33·3
Forearm	8	0	0·0	20	1	5·0
	103	42	40·7	204	37	18·1

Our experience in Newcastle at the present day is very different; for, as will be seen from Table III., we have had 382 consecutive operations with 29 deaths (7·5 per cent.)

TABLE III.—*Major Amputations treated Antiseptically in the Newcastle-on-Tyne Infirmary from April 1st, 1878, to December 31st, 1886.*

—	For Injury.			For Disease.			Total.
	No.	Recov.	Died.	No.	Recov.	Died.	
Hip-joint	0	0	0	11	6	5	11
Thigh	26	20	6	91	85	6	117
Knee	7	6	1	5	5	0	12
Leg	41	37	4	50	48	2	91
Ankle-joint	16	16	0	46	45	1	62
Shoulder-joint	5	5	0	5	5	0	10
Arm	25	23	2	12	11	1	37
Forearm	21	20	1	14	14	0	35
Wrist	7	7	0	0	0	0	7
Total	148	134	14	234	219	15	382

Mortality 7·5 per cent.

I would further point out that Mr. Erichsen's table contains no amputation at the hip or at the wrist, while the Newcastle table has 11 amputations at the hip with 5 deaths, and 7 at the wrist with no death. If these cases were excluded from the Newcastle table, the number of amputations would be 364 with 24 deaths—a mortality of 6·5 per cent. Mr. Marcus Beck tells me there has been no death from pyæmia after an amputation in University College Hospital since 1880, so that I entertain no doubt the mortality there since May, 1871, will be found to be very considerably less than 25 per cent.,—possibly even lower than with us.

CASES OF

GUNSHOT INJURIES, WHICH OCCURRED AT SHWEBO, UPPER BURMAH.

BY JOHN LUCAS, M.D., F.R.C.S., &c.

(Compiled from notes taken at the time by Mr. B. MURPHY.)

CASE 1.—Private W. D——, Royal Welsh Fusiliers, was wounded in action on Dec. 27th, 1885, at Zeedaw (three miles from Shwebo), the distance at which the injury was inflicted being about twenty yards. The bullet (a large, irregularly-rounded piece of lead), entered below the outer third of the left clavicle, and made its exit at the lower part of the posterior margin of the deltoid muscle, passing through the humerus, about two inches below its neck, causing a compound comminuted fracture. The large vessels and nerves escaped injury, as also the shoulder-joint, with the exception of a continuation of a splinter into it. Chloroform was administered, and an exploratory incision made, and the wound of exit was enlarged to permit of the removal of some loose spiculæ of bone. The wounds were then dressed antiseptically, and the arm placed on a splint. The patient, who was a strong and healthy young man, suffered very little from shock, and there was but little loss of blood from the time of the injury to the completion of the exploratory operation.—Dec. 28th: The patient had a fair night's rest after a hypodermic injection of morphia (half a grain). The wounds were re-dressed. Evening temperature 100°.—29th: Wounds re-dressed. Had a fair night. Wounds looking well, discharge being slight and sanious. Morning temperature 99·4°; evening 100·4°.—31st: On removing the dressings the discharge was found to be free and purulent, and had a slight odour. There was a considerable amount of swelling of the arm and tissues covering the joint. Some small sloughs were found in the anterior wound and removed. The patient was restless during the night and wandered slightly. Morning temperature 101·4°; evening 102°. The wounds were syringed out with strong carbolic lotion, a drainage-tube inserted, and dressed.—Jan. 1st, 1886: The patient had a very good night after a hypodermic injection of half a grain of morphia; felt no pain; discharge free and without smell. Morning temperature 98°; evening 99·2°.—7th: Quantity of discharge very great, but without any offensive odour. The patient was much pulled down, though he took nourishment well. A mixture of iron and quinine to be taken thrice daily, and six ounces of port wine ordered.—20th: Patient continued to do fairly well. It was subsequently reported that the wounds had quite healed, and that there were prospects of a fairly useful limb.

CASE 2.—Private C. C——, aged thirty-two, Royal Welsh Fusiliers, was also wounded at Zeedaw on Dec. 27th, 1885. The bullet passed into the right thigh, about four inches below Poupart's ligament and about two inches external to the course of the femoral artery. On examination the femur was found to be fractured near the surgical neck; the bullet could not be found, but was supposed to be lodged in the bone or in the soft tissues immediately behind it. There was a good deal of hæmorrhage at the time of injury, which was controlled by pressure, and the patient suffered considerably from shock. The patient was a spare, sickly man, and had suffered much from fever when in India. Stimulants were given to rally him from the shock, and the wound lightly dressed. The wound was about the size of a four-anna piece, and would barely admit the first joint of the little finger.—Dec. 28th: The patient had a fair night after the administration of a hypodermic injection of morphia. Pulse still feeble; morning temperature 97·6°. Takes nourishment well. The dressings were changed. There was little discharge, but the whole thigh was immensely swollen.

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Evening temperature 99·2°.—29th: The patient looked brighter this morning; had a fair night; pain not severe. Morning temperature 99°; evening 101·2°.—30th: The patient was very restless during the night; complained of severe pain in the hip-joint. Discharge from wound free and purulent. Bowels moved once after an enema of warm water. Morning temperature 101°; evening 101·4°.—Jan. 1st, 1886: During the night severe spasms came on in the injured limb, clonic in nature, and recurring every few minutes. During the spasm the muscles on the outer side of the thigh were drawn up, and caused great agony. The swelling had much increased, and the discharge was very profuse, being jerked through the wound with each spasm. The patient's body was bathed in a cold clammy sweat; pulse feeble and wiry, and very quick; the face had an anxious, scared look. The muscles of the jaw and other parts of the body were quite free from spasm or stiffness. Dressings changed. A hypodermic injection of half a grain of morphia to be given every three hours; stimulants and nourishment to be kept up.—2nd: The spasms continued, were more frequent, and were aggravated by the slightest movement of the patient himself or anyone near him. The effort to drink would bring on a severe spasm. The patient continued thus to suffer great agony till 8 P.M., when he expired from pain and exhaustion. The tetanic spasms were confined to the injured limb up to the last. No post-mortem could be held, nor in any of the following cases.

CASE 3.—Private S. G——, aged twenty-four, was wounded at Yatha on January 12th, 1886, the bullet entering at the left shoulder about half an inch below the centre of the spine of the scapula; and, judging from the man's position when hit, which was lying and facing the enemy, the missile passed downwards, forwards, and somewhat inwards, and lodged in the left lung (the exact site of which could not be traced). The hæmorrhage from the wound was slight, but pain was complained of and referred to the posterior surface of the heart; and there was a good deal of anxiety manifested by the patient, with the subjective feeling that the heart itself had been injured. A hypodermic injection of half a grain of morphia was given, but without much effect. A broad roller bandage was applied round the chest, and the wound lightly covered with carbolised lint. He had to be carried in a dooly two long marches to Shwebo, which he bore fairly well. He spat up some blood, and showed symptoms of acute pneumonia on the third day of the injury. On physical examination, a considerable amount of emphysema was observed on the fourth day in the muscles of the left side of the back, indicating the escape of air from the injured lung. A clear tympanitic note on percussion over the left lateral part of the thorax pointed to the occurrence of pneumothorax, and there was collapse of the left lung, as shown by dyspnœa, restlessness, rapid respiration, &c. The decubitus was that of orthopnœa. The above was the condition during the first four days of the receipt of the injury.—Jan. 17th: Patient scarcely slept during the night, though he had an opiate; respiration difficult; pain in the chest very great; pulse hard and wiry; skin hot.—18th: The man was very restless; respiration more difficult; he could not articulate on account of the severity of the dyspnœa; pain in the chest severe and constant; pulse feeble and quick, and body bathed in cold sweats. Opiates were continued, but without much effect.—19th: The patient was getting exhausted from pain and sleeplessness, and gradually sank.

CASE 4.—Private C. D——, aged thirty-two, was wounded at Zeedaw on Dec. 27th, 1885, by two bullets, the first entering the left groin immediately over the centre of Poupart's ligament. The man feeling himself wounded, called out to a comrade for assistance, and as he was turning to the left he received a second bullet in the abdomen, about two inches below and to the right of the umbilicus. The hæmorrhage from the first wound was very severe, and was controlled with difficulty by a pad and pressure. The wound in the abdomen was a small one, of the size of a four-anna piece. The little finger could be passed into it up to the first joint. There was no protrusion of gut or omentum, though these could be seen. The destination of the bullet in both wounds could not be discovered. The patient suffered severely from shock; he could not pass urine, and only a few ounces of it, which was clear, were drawn off with a catheter. Pulse feeble and thready. Stimulants were given freely, but the patient never rallied, and died ten hours after the infliction of the injury.

CASE 5.—Corporal J. C——, aged twenty-nine, was killed at Zeedaw on Dec. 27th, 1885. The bullet entered the chest immediately below the inner third of the left clavicle, grazing its lower border, wounding the subclavian artery, and lodging in the muscles at the root of the neck. Before assistance could be rendered the man died of hæmorrhage. The distance at which the injury was inflicted was very close (about fifteen yards).

CASE 6.—Private D. R——, aged twenty-seven, was wounded at Zeedaw on Dec. 27th, 1885. The bullet passed deeply through the calf of the leg, entering at the inner side close to the edge of the tibia, and about two inches below the tuberosity, and making its exit about four inches below the lower angle of the popliteal space, a little external to the middle line of the calf, passing in a direction outwards, downwards and backwards. There was a considerable amount of swelling about the leg and foot, and the pulsation of the posterior tibial or dorsalis pedis arteries could not be felt; there was also some swelling of the tissues over the knee-joint, but the joint itself did not seem affected. There was considerable hæmorrhage at the line of injury—easily controlled, however, by pressure.—Dec. 28th: Dressings changed. Parts much the same. Had a fair night after the administration of a hypodermic injection of morphia.—29th: A quantity of sanguineous serum exuded from the wound on the removal of the dressing. Complained of inability to pass urine; a No. 8 catheter was passed, and a few ounces drawn off.—30th: Swelling much diminished; discharge from wound slight and purulent; appetite fair; bowels moved after an enema. Morning temperature 102°; evening 102·4°.—31st: Patient slept well after a hypodermic injection of morphia. Condition of leg the same; discharge free. Morning temperature 100°; evening 100·8°.—Jan. 4th, 1886: Patient doing well. Suffered from a little diarrhœa yesterday, treated with an astringent. Wounds doing well and discharge healthy.—7th: The discharge has become putrid, and, some sloughs having separated, a large cavity was disclosed in which the posterior border and surface of the tibia were seen denuded (over a large area) of periosteum. From the position in which the patient *would* keep the limb, which was with the knee bent, whilst lying on his back, the pus descended along the muscular intervals and along the interosseous membrane, and a deep and large abscess was formed. The limb was bandaged tightly from below upwards, which proceeding caused a large quantity of putrid pus to exude through the wound; the cavity was then syringed out with carbolic lotion, the bandage, which had been removed to syringe the cavity, replaced, and the limb placed on a straight splint.—12th: The discharge from the wound was now much less offensive, and its quantity less. The swelling in the calf of the leg had almost disappeared. The patient was rather anæmic, and had lost much flesh. Quinine and iron were ordered to be administered.—15th: The patient was now on a fair road to recovery; his appetite was good, he slept well, and, though an ugly-looking cavity still remained, hopes existed that it would soon fill up. The man left Shwebo in this condition, and no reports have been received concerning him since his departure.

CASE 7.—Private W. T——, was wounded at Zeedaw on Dec. 27th, 1885. The bullet entered the left arm an inch and a half below and internal to the olecranon, and passed in a direction upwards, forwards, and outwards, passing through the elbow-joint; it lodged immediately under the integument about three inches above the external condyle of the humerus, where a small longitudinal incision was made and the bullet extracted. The pulsation on the radial artery was distinct, and there was little bleeding from the wound. A drainage-tube was inserted into the lower wound, and the arm placed on an angular splint. On probing the wound rough bone could be felt, but no separate fragment, nor could the probe follow the course of the bullet for more than two inches.—28th: Swelling about the elbow-joint considerable, discharge consisting of a little pus and synovial fluid. Pain severe during the night. Morning temperature 100°; evening 101·4°. The wounds were re-dressed, and the whole arm and forearm wrapped in spongio-piline wrung out in hot water.—29th: Swelling of joint much diminished; discharge free and purulent. The patient slept well after a hypodermic injection of morphia, and the pain was less severe. Morning temperature 100°; evening 100·8°.—Jan. 7th, 1886: Patient continues to do fairly well. Appetite fair. The temperature is now normal. The swelling about the joint has quite disappeared,

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and the wounds are discharging healthy pus. The patient is much pulled down, and looks very anæmic. Quinine and iron were administered.—15th: The patient's condition is much the same; wounds still discharge a quantity of pus, which now has a slight odour and looks less healthy; no fever; appetite fair; takes a little exercise in the open air. Shortly afterwards the patient left the station, with fair prospects of ultimate recovery, though the joint would probably be stiff and useless for a long time to come.

CASE 8.—Private G. D——, aged twenty-four years, was wounded at Zeedaw on Dec. 27th, 1885. The bullet entered the right forearm over the insertion of the tendon of the biceps muscle, and passed upwards, backwards, and outwards through the elbow-joint. One piece of the bullet was extracted from the wound, along with some débris of bone; another piece was found a few days after about half an inch above the external condyle of the humerus, embedded in the triceps muscle, near its insertion. The biceps tendon and vessels in the angle of the elbow escaped injury. There was not much bleeding at the time of injury. The limb was placed on an angular splint, and the wounds dressed antiseptically.—Dec. 28th: The arm was very painful, and much swollen; a hypodermic injection of morphia had not much effect in producing sleep. The arm and forearm were wrapped in a large piece of spongio-piline wrung out in hot water.—Jan. 1st, 1886: Swelling rather less. Arm still very painful; discharge consisted of pus and some synovial fluid. Morning temperature 100°; evening 100·8°.—3rd: On this day a second piece of lead was discovered and removed. Patient much the same. Evening temperature 101·2°.—4th: Swelling somewhat less than yesterday; some débris of bone daily removed; discharge not offensive at this time. Pain considerable, and he could not sleep well, though hypodermic injections were given nightly. Morning temperature 100°; evening 100·4°.—12th: Discharge looking healthier; swelling slightly less. The patient was looking anæmic, and had lost much flesh since the injury occurred. He left this station shortly afterwards in the condition above described.

CASE 9.—Lieut.-Colonel R. S—— was wounded at Yatha on Jan. 12th, 1886. The bullet entered at the right cheek, just below the outer border of the malar bone. It caused a wound about the size of an eight-anna piece, from which there hung a shred of the facial nerve, which had been divided, causing facial paralysis. The facial artery was also divided, which gave rise to severe hæmorrhage on the field. It was controlled by digital pressure on the proximal portion of the artery as it crosses the lower border of the maxillary bone. The hæmorrhage caused considerable prostration, and rendered any attempt at searching for the bullet futile. The wound was dressed lightly with carbolised lint, and a hypodermic injection of a quarter of a grain of morphia given. This, not having much effect, was followed by a grain of opium three hours later.—Jan. 13th: A slight undefined swelling was discovered in the neck, a little behind and below the right mastoid process. It was thought that this was the bullet, so an incision was made over the swelling and a thorough search made, but no bullet could be discovered. It was then thought probable that the bullet must have lodged behind the right zygomatic process, where it was resolved to leave it for the present or until some sure sign pointed to its exact site. There was no injury to any bone apparent, and on examining the part through the mouth no trace or sign of a bullet could be detected.—20th: The patient recovered from the prostration caused by the hæmorrhage and could move about. The disfigurement caused by the facial nerve being divided was much less marked. The wound was open and discharged daily a small quantity of healthy pus. In this condition the patient left the station for England. No account of him has since been received.

CASE 10.—Lieutenant G—— was wounded at Yatha on Jan. 12th, 1886. The bullet passed through the fleshy part of the thigh about three inches above the patella, in a direction backwards and inwards to the inner side of the femur, the vastus internus muscle being pierced. There was no constitutional disturbance in this case, and very little hæmorrhage, though for a few days there was slight swelling, and a little heat was felt about the injured part. The wounds were dressed antiseptically, and the limb placed on a splint. The case progressed well, the wounds being nearly healed when the patient left the station on the 21st.

CASE 11.—Lieutenant L. C—— was wounded at Yatha on Jan. 12th, 1886. The bullet passed through the skin and subcutaneous tissue of the popliteal space of the right leg, making a wound of entrance and one of exit, and leaving a narrow isthmus of skin and subcutaneous tissue between them. The tendons in the popliteal space were uninjured, though one of them was exposed. There were no untoward symptoms, and the wounds quickly healed, leaving only a temporary stiffness of the part. It is noteworthy that in this case and in the former cases where a bullet had made its exit, the wounds of exit were in no case larger than the wounds of entrance; on the contrary, they were in many cases smaller.

SURVIVANCE AFTER GUNSHOT WOUNDS OR OTHER INJURIES OF THE HEART.

BY BRIGADE-SURGEON W. CURRAN,
(ARMY MEDICAL DEPARTMENT (RETIRED).

(*Concluded from page 674.*)

OF even greater interest than either of the foregoing cases is one recorded in the Army Medical Department Reports for 1875, p. 286, which I am induced to summarise here, as I am enabled, by the courtesy of the War Office authorities, to submit at the same time an illustration of it. The particulars of it stand briefly thus: A naval officer, who had been wounded at Taranaki, New Zealand, on March 28th, 1860, was brought on board the hospital ship *Victor Emanuel* at the Gambia (?) from the front, on the evening of Jan. 24th, 1873-4, in a state of great prostration from remittent fever. His illness commenced with a violent diarrhœa, and the symptoms on admission were great prostration, feeble husky voice, irritable stomach, and cold, clammy skin. The pulse, which stood at 120 when he was first seen, ran up to 128 a few days subsequently, and he became delirious soon afterwards.....He expired on the morning of the 27th, and on section four hours afterwards a small hard heavy circular body, about half an inch in diameter (which, on examination proved to be a leaden bullet), was found encysted outside the pericardium, above the right ventricle, and between the origin of the pulmonary artery in front, and the arch of the aorta behind. This position corresponded so closely with the cicatrix of the wound referred to above as to leave no doubt as to their relationship, and on a closer inspection this bullet was found to be of the usual New Zealand pattern. It had, as we might expect, undergone some alteration, and it was firmly fixed in its place by fibrous bands, that enclosed it in the interspace between the aorta and the pulmonary artery.

Fig. 2 is a drawing of the preparation, showing the bullet *in situ*, resting on the pericardium, and between the aorta and the pulmonary artery.

As to my own connexion with this matter, it is necessarily very limited. Limited, however, though it be, it includes the case to which I have already adverted, and which—if we may accept the descriptions of it that were sworn to in a court of justice—may be fairly regarded as one of the rarest of its kind in the literature of our art. This description will be more fully set forth hereafter; and meantime I may be here permitted to give a brief note of a case of this kind that was given me *viva voce* many years ago at Shajehanpore by that very shaky subject, the then Rajah of Puwaine, near Moradabad. This man had behaved so badly to Mr. and Mrs. Probyn, Mr. Edwards, and others, in the early crisis of that outbreak which threatened the stability of our supremacy in India, that he only escaped the halter by the skin of his teeth; and being at this time on his best behaviour, he condescended so far as to pay court even to me. This was how the interview between us was brought about, and this was the medium through which I obtained these particulars. One Beeka, a syce (groom), was, while in the service of this petty chieftain, in putting his master's long single-barrelled pistol into his left holster, done to death in this wise. The edge of this holster—a coarse native one—having caught the cock of the pistol while the latter was descending into it, forced it back and so "set" it. Seeing this just as he had mounted, the Rajah endeavoured to replace it in its proper position and thus caused the pistol to explode. The syce, who was at this critical moment standing by his horse's head, or rather who was adjusting the stirrup to his master's shoe, was just in the position to receive the contents of this weapon. Accordingly, after grazing the back

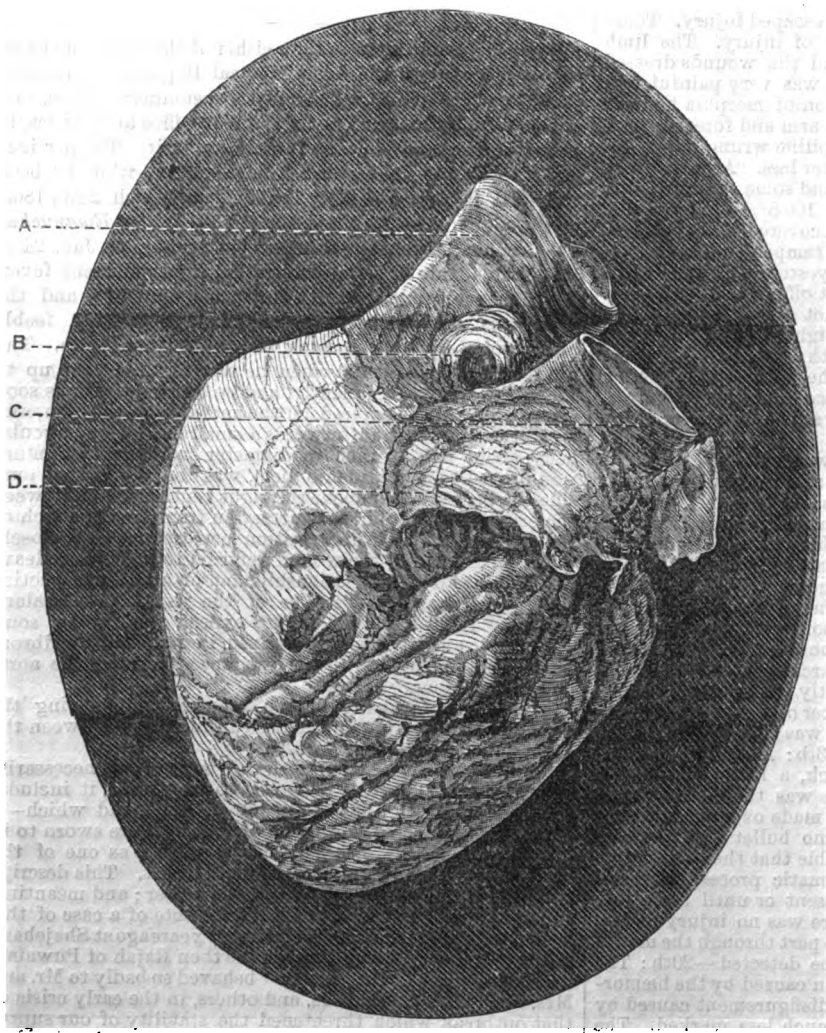
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of his right hand and passing through the metacarpal bone of the thumb and index finger of the left hand, it emerged through the soft part of the palm of this member without further injury to any of its tissues. It then entered the chest between the fifth and sixth ribs on the left side, two inches and a half to the right of and one inch below the left nipple, and then finally made its escape lower down between the eleventh and twelfth ribs of the opposite side posteriorly. Beeka survived this injury for nearly fifty-two hours, and then died quietly of internal hæmorrhage and exhaustion.

A necropsy, that was instituted by, I presume, a native doctor three hours afterwards, disclosed the following appearances, and I may here add that I have notes of a very similar case that occurred at an election in Ireland several years ago. In this instance a Captain King, who was accidentally shot by his nephew in a crowd, appears to have been at the time in a kneeling or crouching posture, for the medical man who examined the remains found that the bullet, which entered the chest on a level with the nipple of the right breast, "extended inwardly in an angle of thirty-five degrees down to the heart," and it was afterwards shown that though the two chambers of the heart had been pierced, yet that Captain King "did live and walk after he had received this wound."

On removing the integuments of the chest, it was found that after this bullet had entered the chest as above, it [illegible]

FIG. 2.



A, The aorta. B, The bullet. C, The pulmonary artery. D, Part of the pericardium.

inch of the wall of the left ventricle. Passing thence through the diaphragm to the left of its crus, it grazed the stomach, and finally escaped from the body in the interspace already indicated.

Passing now for a moment to that valley[1] which has been the scene of so much change and contention, so much anarchy and bloodshed in the past, and which has also witnessed the curious case I have already adverted to, I must premise, by way of introduction to this, that blood feuds, the heritage of ages and the scourge of families, have ever been rife in it. So envenomed has this custom become that every village in it had once its watch-tower, whence an armed band guarded the growing crops, and whence also the armed herd or ploughman went forth to tend his flock or turn up the soil. So inveterate was it at one time, or may be still, that, as Dr. Bellew observed, the very cattle of opposing tribes or factions are afraid of one another, while the children crawl cautiously by the walls of their houses, rather than pursue their frolics in the open field. The atmosphere of the place savours, in short, of distrust and suspicion; every office or relation of life is imbued or embittered with them; and it was in one of these village feuds that the case occurred which I have more than once already indicated, and with which I will now close this series.

A man named Meera Khan was tried in the Court of Sessions at Peshawur on September 16th, 1873, before Mr. Elmslie, for murder, under the following circumstances. Blood feuds, handed down from generation to generation, are, I may observe, not uncommon in this locality. A native named Kadir, having been shot while lying on his cot on the night of June 2nd, 1873, made a dying statement before witnesses to the effect that Meera Khan had shot him while Muddut, Meera Khan's brother, was standing by. The motives for the perpetration of this crime were revenge and jealousy, and the police-sergeant who arrested the prisoner "found him lying on a bed in his house. He had his payjamas (drawers) drawn up for an inch or two. . . . I at once put my hand on his heart," continues the sergeant; "it was beating perceptibly. I said, 'Why is your heart beating?' He replied that he had come in from work tired, and had therefore lain down with his trousers slightly tucked up, and he added that his heart was beating because I had arrested him. I then told him that he was charged with murder." The sub-assistant surgeon who examined the body deposed to the presence of two bullet wounds in the heart, and Mr. Elmslie, in summing up, said, "*Primâ facie*, there is sufficient evidence before the Court to show that the wounded man did denounce his assassins just before he died . . . . but, judging from the evidence of the sub-assistant surgeon, it seems extremely doubtful whether the accused could have spoken after his heart and left lung had been perforated in four places."

The following is a *verbatim et literatim* copy of the certificate of death that was given in the case by the subordinate here referred to: "I, Chetun Shah, sub-assistant surgeon of Peshawur, on the 2nd of June, saw Kadir (or examined). He bore the mark of a bullet in the right arm, and [illegible]

[1] For additional information about this valley, its geography, &c., see my paper on Peshawur Fever [illegible] Indian Annals of Medical Science for July, 1878.

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of the hand was black. Two bullet wounds were apparent on the left side, on the side of the heart, which organ they had penetrated. The heart was, in fact, wounded in four places, from which he died immediately. His shirt was burned, and these bullets must have been fired from very near. There must have been two shots, no more, from either a double barrel or a single barrel."

While putting the evidence before the assessors, Mr. Elmslie said that Chetun Shan "wrote on the 2nd of June, just after inspecting the body, that death must have been instantaneous." Mr. Shah, however, slightly modified this opinion subsequently, and said that "death must have occurred very shortly after the infliction of the wound"; and a medical man who was referred to in the matter said that "the phraseology describing the nature of the wounds is so vague, that it is impossible to base an opinion thereupon as to the power of the deceased to have recognised his assailants, and to have spoken after the infliction of the wounds." The point then turned on the possibility of the deceased's "living for some minutes and speaking intelligently or recognising his assailant." The certificate (covering letter 3) given by the sub-assistant surgeon on the 2nd of June runs as follows: "—— begs to report that the cause of death in this case was a bullet wound passing through the right hand front wall of the chest, heart, the left lung, and the chest wall on the other side. Four bullets that have been found embedded under the skin of the chest wall are herewith forwarded. Death must have been instantaneous."

This functionary added, in another examination that was held before the magistrate, that the heart itself was perforated in two places: "I do not mean by two bullets, but by four, as the marks of entrance and exit were visible in four places. Two bullets had entered the right auricle and two had entered the right ventricle. The bullets went direct through

FIG. 3.



These slugs or bullets weigh between them 11 drachms and 48 grains. The largest of them weighs 3 drachms and 56 grains.

the heart, and not in a slanting direction through the fibres. The edges of all the bullet wounds were ragged to some extent, not quite sufficient to close the openings. The pericardium was full of blood, and the cavity of the chest on the left side was also full of blood. The left lung was perforated, but this would not affect the power of speech immediately." There appears to have been some confusion, if not contradiction, in these statements, but for this I am in no wise responsible. I give the particulars of the case as they were given to me. (See Fig. 3.)

Paraphrasing Mr. Shah's evidence, the magistrate continues to say that "it does not seem impossible that he (the deceased) could have spoken after he was shot, but it is not probable. There are instances of men having lived for some hours after having been shot through the heart, and the lacerated edges of the wounds in this case may, to some extent, have impeded the escape of blood from the heart, and so prolonged life to some extent. It is quite impossible that deceased could have carried on a lengthened conversation, but it is quite possible that he may have said a few words. The wounds would not affect his power of speaking intelligibly, supposing that he was able to speak at all. I have no doubt that he was able to open his eyes after he was shot, but whether he was able to recognise his assailants or not would depend entirely upon the amount of light. With regard to the word 'instantaneous' used in my docket, I merely meant that death must have occurred speedily."

The acting civil surgeon, Dr. Andrew Skeen,[2] endorsed this opinion in the main, and otherwise delivered himself in the matter as follows:—"I have heard the statement of sub-assistant surgeon Chetun Shah, and concur with him. In the case of a wound of the heart in cases where the shock is not the immediate cause, death usually occurs from the escape of blood into the pericardium, thereby impeding the heart's action; but in this case, from the evidence of the sub-assistant surgeon, it would appear that the flow of blood was to some extent retarded by the jagged edges of the wounds. The bullets moreover—which are before me—are small. I think it possible that the man may have given intelligent answers for a short time after he was shot—a very short time. Several cases are on record where severe wounds of the heart have not been followed by death for some hours, both gunshot wounds and stabs. Dr. Taylor quotes cases in which men shot through the heart have lived for some hours."

The assessors, Ram Dos and Mahrdil Khan, were of opinion that, according to the evidence, both the accused are guilty. They think that the deceased was able to take the names of his assassins, and that he probably saw them. The judge, Mr. Elmslie, after reviewing the evidence, which he considered conclusive against the accused, held: 1. That the deceased immediately on being wounded denounced both of the accused, and said that he had seen them. Also, that there is no reason to suppose that he spoke falsely. 2. That one of the witnesses, Sheemo, saw the accused retreating from the bedside of deceased immediately after the shot had been fired. 3. That Muddut came up shortly afterwards. 4. That the state of his clothes (Meera Khan's), and the beating of his heart, are strong grounds for supposing that he had been running shortly before. He then sentenced Meera Khan and Muddut to be hanged, and ordered that their property of every description be confiscated under the provisions of Section 6, Indian Penal Code.

An appeal having been lodged against this decision by the friends of the accused, the case came before the judges of the High Court at Lahore, who reversed the sentence mentioned above. Mr. Lindsay, who re-tried the case, acquitted both prisoners on the merits; and, after giving his reasons for this judgment, wound up the statement he made respecting it by saying that "the deceased's death was very sudden from the very nature of the wound inflicted, and it is open to doubt whether he spoke at all after being shot. He may have uttered a cry." And there the matter ended so far as the legal authorities of that province—the Punjaub—were concerned. I will only here add, that the first judgment was, in my humble opinion, the juster of the two, and it accords with my own personal experience and reading, that wounds of this kind are by no means so speedily or necessarily fatal as is generally supposed.

Bibliography.—To save time and space, and enable any reader who may desire to pursue this inquiry further to do so, I subjoin below a list in alphabetical order of the books or papers on which this essay is based, or to which more or less reference has been made in the course of it:—Army Medical Department Reports for 1873, vol. xv., p. 286. Art. "Heart," in Todd's Cyclopædia of Anatomy and Physiology. Barrington (Sir Jonah): Personal Sketches of his Own Times, vol. i., pp. 303-4. Bellew (H. W.): Journal of a Political Mission to Afghanistan in 1857, &c. The Book of Remarkable Trials and Notorious Characters, p. 363. Clark (F. Le Gros): Lectures on the Principles of Surgical Diagnosis, p. 247, &c. Chelius, translated by South, vol. ii., p. 96, &c. Chevers: A Manual of Medical Jurisprudence for India, and also his Commentary on the Diseases of India, p. 487. Dixon (Hepworth): Her Majesty's Tower, vol. iii., pp. 226-7. Holmes: A Treatise on Surgery, p. 195 (this contains a good account of the symptoms that are produced by wounds of this description). Edwards (Sutherland): The History of the Opera, vol. ii., pp. 190-3. Egan (Pierce); Anecdotes of Persons in every Walk of Life, p. 130: he quotes with surprise from the *Edinburgh Medical Journal* of the day the "Singular circumstance of a ball that was lodged (for a long period without injuring the animal) in the heart of a buck." Elphinstone: Cabool. Haller: Elementa Physiologiæ. Howell: Familiar Letters. Hume: History of England, vol. v., p 78, and vol. vi., pp. 200-1. The *Indian Annals of Medical Science* for October 1853, pp. 289-296; in this instance the ball probably entered the heart through one of the pulmonary veins; Dr. Chevers and Burton Browne could in no other way account for this phenomenon. *The Journal of Anatomy and Physiology*, vol. xx. James, Major, H.R.C.B.: Report on the Settlement of the Peshawur Valley (the best of its time), p. 5, &c. Philip (A. P. W. Wilson): An Inquiry into the Nature of Sleep and Death, pp. 68-9. Porter: The Surgeon's Pocket-book. Taylor (Swaine), M.D.: Medical Jurisprudence.

[illegible] kindly gentleman and very promising officer died, I regret to say, since I left India; and as regards further examples of this lesion, Dr. Bolleau kindly informed me, in 1879, that "there are only three other (than the above) cases of heart wound at Netley: A 146, no history; A 147, wound of ventricle; and A 148, surface wound."

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Transactions of the Pathological Society of London. Transactions of the Provincial Medical and Surgical Association, vol. ii., p. 357; in this very singular case a lad in whose right ventricle a piece of stick (the breech of a toy gun) was found lived upwards of five weeks. Veron: Les Mémoires d'un Bourgeois de Paris, vol. ii., pp. 147-166. Woodman and Tidy: A Handy-book of Forensic Medicine, p. 1143, who give several cases of this kind from Bell, Sanson, Ollivier, and others.

DR. R. KOCH'S BACTERIOLOGICAL WATER TEST.

BY G. BISCHOF, F.C.S., F.I.C.

No. II.

IN THE LANCET of August 29th, 1885, I communicated a description of Dr. Koch's test after a visit to his laboratory. Since then some not inconsiderable material has been collected, partially the result of practical experience with the method by various experimentalists, partially of inquiries into its reliability; and it now appears appropriate to review the present position of the test.

As a matter of course, only such organisms can be indicated by it as will grow under any conditions whatever in gelatine peptone; secondly, only such as are not crowded out during culture by other microphytes; thirdly, such as will develop, generally speaking, within three days before the liquefying colonies have had time to overgrow the plate; and, fourthly, such as will grow at the temperature of culture. With regard to the first of these propositions, Dr. E. Klein stated in the discussion of a paper read by me last April on the subject before the Society of Medical Officers of Health that, for instance, a micrococcus which commonly occurs in our saliva absolutely refuses to grow in gelatine, and that in one case, where another yielded 150,000 colonies per cubic centimetre, the gelatine-peptone test only indicated some 5000, or about 3 per cent. of the former figure. He graphically explained the crowding out during culture of gelatine-peptone plates by stating that it was impossible, in mixed cultivations, nine times out of ten, to recover any pathogenic microphyte, however familiar. The organism of foot-and-mouth disease would only grow in this medium when no other forms were present; and even Dr. Koch's comma bacillus was soon crowded out by Finkler's, by the bacillus of anthrax, or by that which caused the conversion of urea into ammonia. The meaning of this is, that if in a bacterial mixture there exist some microphytes that grow fast and others that grow more or less slowly, the former will in a short time have, so to speak, taken possession of the available ground before the latter had time to take a footing. We have evidence that at least some pathogenic microphytes are likely to be amongst those crowded out, and will thus escape detection. Even after colonies of different microphytes have established themselves on the same plate, they are apt to engage in a fight for supremacy or existence like the most highly organised beings. I may add, from my experience, that Dr. Koch's comma bacillus, after keeping for five months at 18° C. in plugged test-tubes in gelatine peptone, had entirely disappeared from its pure cultures.

Dr. Koch has not, as far as I recollect, laid down a very definite rule as to the temperature at which samples should be cultivated, but in view of the fact that these cultures were made in his laboratory during my visit in the summer of 1885 in a basement room, without artificial heat, I adopted 18° C. The mixture recommended by Dr. Koch just commences to soften at this temperature, whilst even at 20° it is rather too liquid, and apt to give trouble. I am informed that a 10 per cent. gelatine-peptone meat extract (not infusion) may be prepared, which remains solid at 20° or 21° C., but that also this temperature is insufficient for the cultivation of a variety of microphytes must amongst others be concluded from M. Nocard's communication to the Central Veterinary Society of Paris, that the bacillus tuberculosis of birds requires as many as 38° C. for its culture. Such a temperature is obviously out of the question when employing gelatine peptone. Lastly, as regards the time of culture, it is unfortunate that the liquefying colonies generally render distinction of colonies impossible after two or three days' culture. We are thus left in ignorance on microphytes which take longer to develop, as for instance, according to M. Nocard, the bacillus tuberculosis of birds, the culture of which does not commence until the fifteenth day, and requires five or six weeks for full development. The organism of the disease which prevailed at Hendon in the winter of 1884-85, Dr. Klein has informed us, could be cultivated in gelatine but very slowly, and that of foot-and-mouth disease took many days to grow. The more weight should be attached to these considerations as the gelatine test is now mostly restricted to a statement of the number of total colonies. Why are those other subsidiary but important tests neglected which, as described in my first article, were originally recommended by Dr. Koch? Is this because the number of total colonies has in itself proved a sufficient indication in testing potable water, or because those methods failed to answer their purpose?

The question next arises, even if we obtain a more or less reliable figure of the numbers of colonies cultivated from a sample of water, what are we to do with it, how are we to interpret its teaching? In the paper read before the Society of Medical Officers of Health I arrived at the conclusion that the test affords no means of distinguishing between harmless and pathogenic microphytes, and that the number of colonies ordinarily found in water has neither a necessary or invariable connexion with wholesomeness, nor even with pollution. A sample may contain as many colonies as any potable water is likely to contain, and yet I think I proved in the paper referred to that on this account it need not in any way be injurious to health. Dr. Koch is of the same opinion, for he asks in one of his papers (1883): "Shall we declare air, water, or soil, *per se*, injurious to health if they contain a large number of microphytes? This, in my opinion, should not be attempted. We have not as yet succeeded in discovering amongst the many bacteria, which abound in the air, soil, and water, any pathogenic species." After this I confess it is not quite intelligible to me that we should be asked by him in the same paper to style a sample of water "very good," *because* it contained about one hundred colonies per cubic centimetre. In this difficulty the plea is set forth that, although the test may not yield absolutely reliable results by the indication of the number of microphytes present, the comparison of the number of total colonies cultivated in samples of unfiltered and filtered water affords a correct standard of the sanitary improvement effected by the filtration, because a reduction of a certain percentage in the total would similarly reduce the risk of introducing into our system any pathogenic microphytes which may have gained access to the source of water-supply. This seems equivalent to the admission that the test is incapable of giving information on any single sample, but that its scope is restricted to an indication of the relative improvement which may take place in a sample consequent to its purification in some way. Without any absolute standard, even this does not appear an easy task, for with a like number of colonies in two filtered samples, the improvement may in one case be judged very satisfactory and in another less so, the difference, however, being solely due to the worse condition of the unfiltered sample in the former case.

Let us follow this up by a practical case. Both Dr. P. Frankland and I independently arrived at the conclusion on the showing of the test that a variety of filtering media, given a suitable grain, depth of material, and rate of filtration, are capable of producing a remarkable reduction in the colonies, but that the action of spongy iron alone is lasting. This seemed so well to confirm the results previously obtained in a different way by Dr. de Chaumont, Professor E. Heyman, Mr. Frank Hatton, and myself, as almost to amount to a corroboration of the reliability of the test. I am afraid we can only accept this as a chance. Again, Dr. Frankland and I published for many months independent monthly reports on the effect of sand filtration on the metropolitan water-supply, and our figures once more agreed very satisfactorily. I thought right to discontinue my publications when the faith which I had at first in the teaching of these figures began to be shaken; Dr. Frankland still continues his in the water examiner's monthly reports.

How are we to explain a purifying action of sand? I am not aware of any evidence to show that this can essentially consist in anything but a mechanical separation of microphytes. Not one of the known means of destroying them can be supposed to exist in sand filters. Crowding out will take place within them, but its result will only be the annihilation, more or less, of some kinds, those

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remaining flourishing so much the more. This, therefore, does not account for the destruction of practically the whole of the microphytes present, which is frequently indicated by the test here in London. Supposing we were to keep such water as is in this case ordinarily passed through the sand filters, in a sterilised glass vessel, protected against aerial contamination, its progeny would in all probability in a few days amount, on the showing of the test, to millions of colonies per cubic centimetre. Can we then understand the teaching of the test that, when we pass the same water month after month through a sand filter, it should continue to come out almost devoid of organisms? Even if we store the filtered water with the few organisms apparently left in it under like conditions as before, the test reveals in a few days thousands and thousands of colonies by self-multiplication, but such water may pervade a sand filter month after month without apparently any increase of life. Again, we know that microphytes grow in a comparatively short time, even through the fine pores of M. Pasteur's filter tubes; that they then frequently render the filtered water biologically more impure than the unfiltered. How is it that they should not grow through the much coarser pores of sand filters, and that those disseminated through them should not similarly multiply? Here we have a conflict of phenomena, which should somehow be explained before the teaching of the test can be accepted without very considerable caution. I am afraid of attempting any such explanation; but it is a biological fact that spores pass through filtering media which are capable of retaining the fully grown organisms. Supposing the latter were retained in sand filters and the former did not develop in gelatine peptone under the conditions of the test, the discrepancy would to some extent disappear; but the numbers of colonies indicated lose all meaning, as a sufficiency of spores might be in a sample to produce serious pathogenic complications even when the test indicated sterility.

I would further ask whether it is safe to argue that because a certain proportion of harmless microphytes, such as ordinarily occur in water, are mechanically separated, a similar proportion of pathogenic organisms would be removed? Let us not forget that we know very little indeed as yet about those pathogenic microphytes, which spread zymotic disease by the medium of potable water. The fact, for instance, that M. Pasteur has not succeeded in detecting the bacillus of hydrophobia, notwithstanding that there seems to be reason to assume its presence in certain liquids, leaves it an open question whether this is not due to a deficiency in the power of our microscopes, or to the diminutive size of the bacilli. I have no proof for this suggestion in the strict sense of the word, but, taking Dr. Koch's statement, "these bacteria, which I have called comma bacilli on account of their peculiar shape, are smaller than the tubercle bacilli," my suggestion is more likely to be correct than the reverse—viz., that pathogenic organisms could neither in size, form, nor habits be distinguished from non-pathogenic. If similar differences in shape as above do occur amongst pathogenic microphytes in water, some may pass through a sand filter which retains ordinary bacilli, similarly, as Professor Helmholtz observed, that the action of yeast did not extend through a membrane, whilst putrefactive bacteria penetrated it.

No doubt great progress has been made during late years in the filtration through sand, but it is curious to contrast the showing of the gelatine test with certain experiments made in 1870. In the thirteenth report of the Medical Officer of the Privy Council, Dr. Burdon Sanderson gives a table from which we calculate the average "zymotic property" of the supply of the London companies before filtration = 7·8, that after filtration (mean of samples from pump well and from main) being = 8·1. Dr. Sanderson naturally draws the conclusion that filtration exercises no perceptible influence on the zymotic power of water. Even practical experience seems opposed to the contrary teaching of the gelatine test; for how can we reconcile this with the experience at Lausen, where there was a more perfect natural filtration than is attainable by artificial means, and yet the morbific principle passed through, causing an epidemic? Nevertheless, the test should on no account be laid aside. If we bear in mind the crude state in which it was first introduced in this country not many years ago by the late Dr. R. A. Smith, and the remarkable improvements since effected by Dr. Koch, there is every reason to hope that, with perhaps slight modifications, it may yet yield all the important hygienic results which all interested in sanitary science must ardently desire.

The following conclusions may be drawn from the preceding observations. 1. The total colonies found by culture in gelatine peptone do not represent the total actually present in a sample of water, but an indefinite aliquot part thereof. 2. The number of total colonies found does not, within a very wide range, justify the rejection of a sample; no more can a sample be relied on as safe if very few colonies only be indicated. 3. The test does not, as a rule, allow of distinction between pathogenic and harmless microphytes. 4. Pathogenic microphytes present in a sample of water are apt to escape detection by being crowded-out by the organisms ordinarily occurring in water. 5. The relative biological purification indicated by the test in samples of water after filtration through sand is at variance with other well-known facts, and should be accepted with caution.

Bayswater, W.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

CHARING-CROSS HOSPITAL.

A CASE OF SARCOMA OF THE LUNG FOLLOWING AMPUTATION OF THE RIGHT THIGH SIXTEEN MONTHS PREVIOUSLY; REMARKS.

(Under the care of Dr. POLLOCK.)

FROM the characters of the new growth in the lung in the following case, it is assumed that it was secondary to a primary growth elsewhere. The account which is given of the disease for which the limb was amputated does not mention the presence of anything of the kind as present then, but possibly the growth was very small in amount, and thus its existence was overlooked. It would be interesting to have a full account of the parts removed, with a history of the disease before amputation.

A. C——, aged seventeen, a timid, excitable, delicate-looking girl, was admitted on Oct. 25th, 1886. Her family history was faultless, and her own health up to fifteen years of age uniformly good. In June, 1885, after an illness of some months, she had her right thigh amputated at St. Mary's Hospital for suppurative arthritis following necrosis of the femur, due to periostitis. Her recovery was complete, and her health remained unimpaired until July, 1886, when she began to complain of pain in the left shoulder and left side of the chest. Frequent night sweats and gradual wasting followed. By the end of September she had become too weak to get about, and took to her bed. A week later cough developed, and soon after expectoration of a "dirty-looking phlegm" was noticed.

On admission the patient had a marked hectic flush. She was perfectly conscious, and of average intelligence. She complained of the pain before mentioned, and said that it was now constant, and increased by deep breathing or by any active movement. Her cough was sufficient to disturb her at night, and there was a little dark blood-stained sputum. The upper half of the left side of the chest was enlarged, and distended veins traversed its surface. The movements were diminished over the whole left side, and the prominent region just mentioned was practically motionless, nor could any vocal fremitus be obtained over it. The front part of the chest, from the apex of the lung to the heart, was absolutely dull; and the back, from the supra-spinous fossa to the middle of the scapula, gave a similar percussion note. Immediately below this the resonance was defective, down to the angle of the scapula; below this it was normal. The breath sounds over the greater part of the dull areas were almost inaudible, but here and there distinct bronchial breathing could be recognised. Lower down the breath sounds were weak, and at the extreme base normal. The voice sounds were diminished, but not high-pitched. The right lung was apparently healthy, its normal limits main-

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tained. Nothing unusual could be detected in her voice, but on inquiry she said she had been unable to sing for two or three weeks. The left vocal cord was found to be stationary in the cadaveric position. The heart's action was fluttering, and the apex could not be accurately localised, but seemed to be displaced a little inwards. The sounds were clear. The pulse was weak, regular, and bilaterally symmetrical. The digestive tract and the physical signs of the abdomen were quite healthy. The pupils were equal, and reacted normally. The fundus of each eye was healthy. The pain was principally localised at the back of the shoulder and at the elbow. Distinct soreness and tenderness could be made out along the course of the brachial vessels and of the ulnar nerve. The urine was normal. An exploratory needle was passed into the swelling, but blood only was obtained.

The pain gradually increased in severity. On Nov. 3rd a difference was noted between the radial pulses, and on the 5th the left pupil was found to be slightly smaller than the right. On the 15th the left forearm and hand became œdematous. The other symptoms gradually increased, and during the next two months the patient became continuously weaker. The pain grew more intense, the enlargement increased, hard glands were felt above the clavicle, and the whole region became very tender; the inequality of the pupils was also more marked. On Dec. 30th numerous swellings scattered over the hairy scalp were noticed for the first time. They were circular and regular in outline, and varied in size from a hemp-seed to that of a small walnut. The swellings were tender, painful, rather elastic, and moved with the scalp. The patient thought they had been coming for several weeks. They were certainly not present on admission. On Jan. 14th she became restless and talked incoherently. Unconsciousness supervened at 2 A.M. on the 15th, and death occurred three hours later. Her temperature during the first month was uniformly maintained between 100° and 101°, but occasionally oscillated from 98° to 104°. During the last six weeks the range was from 99° to 100·4°. The physical signs remained unaltered in character, but gradually increased in extent.

Necropsy.—The upper lobe of the left lung extended across to the right side of the sternum, and consisted of a solid mass of new growth. Below this the heart was exposed as much as usual. The lower lobe of the lung was the healthiest part. The right lung contained many new growths, and there was half a pint of bloody serum in the pleura. The left lung was removed with much difficulty; the new growth in the upper lobe infiltrated the chest wall largely, and extended up into the neck between the scalene muscles, so as to press upon the brachial plexus and surround the subclavian artery. The arch of the aorta was also embedded in the mass, and several of the ribs were eroded. On section the upper lobe of the left lung was found to consist almost entirely of the mass of new growth above mentioned, which was degenerating in every part, and exhibited numerous cysts. One part at the anterior border was much harder than the rest, and was ossified or calcified to a slight extent. In the lower lobe there was one nodule the size of a Tangerine orange, soft and undergoing degeneration. The lower lobe of the right lung consisted in great part of new growth, which broke down on removal. Several smaller patches were scattered throughout the lung, most of them being soft, but one near the anterior border of the upper lobe was hard, and appeared to be ossified in about half its extent. The left leg had been amputated at the middle of the thigh. The stump was quite healed, and appeared to be some months old. Its end was swollen on the posterior aspect, and the swelling was very elastic and fluctuating. It was found to be a blood cyst. The bone was nicely rounded off at the end, and covered posteriorly by a thin layer of sarcomatous tissue. In the skin over the scalp were some half-dozen nodules of new growth, two of which had reached the scalp and penetrated it; one of them, close to the longitudinal sinus, had penetrated the bone to the dura mater, near which it was adherent. The brain was quite normal.

Dr. POLLOCK.—The nature of the growth in [illegible] was diagnosed very early. It was [illegible] was secondary, but it was difficult [illegible] of mischief. Had the leg been [illegible] this would have been plain. [illegible] effect could be obtained. [illegible] growth

commenced in the stump subsequently. Nothing beyond palliative treatment was available, and the poor girl was kept fairly free from pain by the use of morphia hypodermically.

LEICESTER INFIRMARY.

ABDOMINAL SECTION FOR INTERNAL STRANGULATION; FORMATION OF ARTIFICIAL ANUS; FAILURE OF PLASTIC OPERATION; ENTERECTOMY; CURE; REMARKS.

(Under the care of Mr. C. J. BOND.)

A. H——, aged twenty-two, was admitted on Jan. 7th with a history of intestinal obstruction lasting five days, coming on suddenly with pain in the hypogastrium and vomiting. The abdomen on admission was considerably distended, and peristaltic waves could be detected at times in the distended coils, though no localised swelling or tumour could be felt. The vomiting was feculent, and the patient's general condition very critical. Abdominal section was performed the same afternoon, by an incision large enough to admit the hand in the linea alba. After some search and the drawing out of a long length of contracted bowel, a fibrous band was found passing across between two contiguous surfaces of mesentery, and forming a ring, through which a coil of intestine had passed and become strangled; this band was divided between two ligatures, thus partially relieving the strangulation; the distended bowel, however, was very firmly adherent to, and dragged strongly down by, this band, at one point, and in gently separating the two the gut gave way,

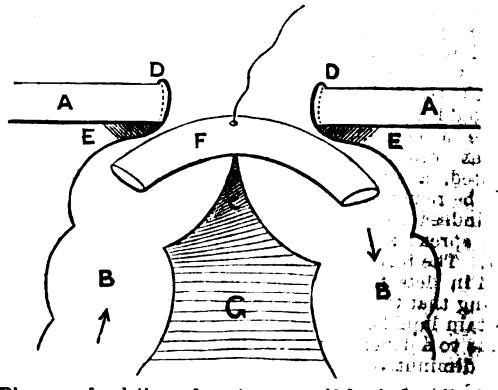


Diagram of relation of parts. A A, Abdominal walls. B B, Intestine. C, Spur. D D, Line of incision for plastic operation. E, Adhesions. F, Indiarubber tube. G, Mesentery.

some feculent fluid escaping into the peritoneum. As the gut seemed very distended and paralysed, and the opening difficult to close, the intestine, thoroughly freed, was drawn up to the upper angle of the abdominal incision; the opening in the bowel was then enlarged transversely across the gut, and a large quantity of feculent fluid and gas allowed to escape. The intestinal coils and peritoneum were then carefully sponged with warm boracic lotion, and the abdominal wound closed, except at the upper angle, where the mucous membrane was stitched round to the skin and a false anus formed.

The patient rapidly improved after the operation; there were no signs of peritonitis, and the abdominal distension soon subsided. It was soon found, however, as was suspected at the operation, that the opening was high up in the jejunum, and bile and semi-digested fluid food constantly poured from the opening over the abdominal wall and incision, excoriating the skin; yet it was remarkable that, with the exception of some ulceration round the stitches, the wound healed fairly well. The general wasting, however, was so rapid that on Jan. 15th, eight days after the operation, treatment by indiarubber tubes was commenced. A [illegible] rubber tube (see F in figure), with a string attached to its centre, was pushed into the intestine either up or down, until it could be slipped entirely within the gut, and then allowed to remain in position; tubes of various [illegible] were tried, but the best result was obtained [illegible] firm tube of four inches in length and [illegible] one inch, folded longitudinally while [illegible] opening and then allowed to expand; in [illegible]

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and food were more or less passed onwards, though at times the tubes became blocked or displaced. As it was evident, however, that the opening under this treatment would not close, and the patient suffered from loss of nourishment and excoriation, an attempt was made to close it by a sort of plastic operation on Feb. 5th. An incision was carried all round the opening at the junction of the skin and mucous membrane, and carried down between the intestinal and abdominal walls, as seen in the dotted lines (D D); the freed edges of bowels were then inverted and their opposing outer surfaces carefully sutured by numerous interrupted catgut stitches, and the opening in the intestine thus closed by a more or less linear row of sutures; the abdominal walls were then slightly freed, and slid together and closed over the intestine. As the adhesions (E E) between the intestine and peritoneum were not divided, the peritoneal cavity was not opened. The patient was fed by injections, and for two days the parts looked well, but on the second day a little bile oozed through, the stitches soon gave way, and in a few days the opening was as large as ever. The indiarubber tubes were again introduced for a fortnight in order to allow the opening to get into a healthy condition, and the patient, who had become very emaciated, to gain strength.

On February 16th, having previously ascertained by the finger, introduced through the opening, the direction of the two portions of intestine and the extent of the spur (which was found to have been considerably reduced by the pressure of the tubes), the abdomen was again opened in the mid line, just above the artificial anus, and the finger introduced. In this way the extent of the adhesions of intestine to the parietal peritoneum was ascertained and found to be considerable, involving from an inch and a half to two inches of the intestine around the opening; the bowel was then carefully detached from the abdominal wall all round at the junction of the skin and mucous membrane, and the whole coil of intestine, some eight inches, freed and drawn out of the wound, the opening in the bowel being carefully closed between the fingers. The intestinal wall was seen to be much thickened and rough on the surface from divided adhesions. The opening extended transversely across the gut for three-fourths of its circumference, but did not involve the mesenteric border; it was large enough to admit three fingers. The contiguous lengths of bowel, passing to and from the opening (B B), were adherent and more or less parallel in direction; these were freed as much as possible, so as to bring the intestinal channel into a line. The old margin of the opening was now cut away with scissors, and the suturing commenced. The muscular coat being retracted by the finger-nail, the mucous membrane only was first united by a continuous silk suture in its whole extent; the muscular and serous coats were then inverted and their opposing peritoneal surfaces united by interrupted fine silk ligatures passed on each side through the two outer coats and then drawn together, an ordinary straight round sewing-needle being found most convenient. In addition some sutures were passed beyond the limits of the actual opening in the gut, which was thus firmly closed by about twenty or thirty closely placed stitches. The peritoneum was then carefully sponged, the coil of intestines returned free into the cavity, and the abdominal incision closed except at the upper part, where a drainage-tube was left in over the bowel, so that if escape occurred the fluid might find its way out of the peritoneal cavity. This afterwards proved important.

The operation lasted two hours and three-quarters. The patient was allowed nothing but water and opium for five days. Nutrient enemata were then commenced, and peptonised beef-tea was given by the mouth on the tenth day after operation. A discharge of pus occurred through the track of the drainage-tube on the second day after the operation, and on the fourth a little bile appeared. This occurred at intervals until the tenth day, when one of the silk intestinal stitches came away. The discharge now rapidly ceased, and the abdominal wound closed a few days later. The patient now began to take food, and rapidly increased in weight. No sickness occurred, and the bowels were moved by injection on the twelfth day. The temperature was generally subnormal throughout.

Remarks by Mr. BOND.—There are not, I think, many recorded cases of artificial anus in the jejunum formed by the surgeon in the middle line, and then treated by abdominal section and suture of the bowel. Most of the published cases have been secondary to strangulated hernia and situated in the groin, and the majority are examples of faecal fistula rather than artificial anus, in which the mucous membrane is continuous with the skin. No attempt was made in this case to close the opening in the bowel at the first operation, as it was thought that a free opening into the distended intestine would give the best chance of life. If called upon to treat a similar case, I should enlarge the opening in the intestine in the direction of the axis of the gut, and not across it, as, theoretically, that course, by keeping the intestine more in a line, should reduce the formation of the spur. The introduction of large-sized indiarubber tubes (suggested, I believe, by Mr. Banks) in cases such as this is a point of some importance. They appear to act in two ways: by their tendency to straighten after introduction they tend to prevent the excessive doubling of the intestine on itself opposite the opening, and by elastic pressure they reduce the projection of the inevitable spur; also by allowing the passage of bile and food into the intestine below they help to keep that in a normal condition and also sustain the patient. They seem to be especially applicable to cases of opening high up in the bowel, where the faecal matter is very fluid and the bile flow excessive, and should, I think, be introduced and worn if possible for some time before any operation for closure of the opening is undertaken. The plastic operation, which was really a turning in of the intestinal coats without freeing them from their adhesions to the abdominal wall, and was somewhat like that reported by Dr. Duncan in THE LANCET of July 5th, 1873, failed because there was too much tension on the intestinal walls. The last operation was undertaken with some anxiety, as the mortality according to Mr. Treves is nearly 40 per cent., but the patient unless relieved must have eventually died a miserable death from starvation. A great deal here depends no doubt on the way in which the sutures are applied, and it seems especially important to stitch the gut beyond the mere limit of the opening in order to firmly close in the puckers or gutters which are left at the angles. Doubtless, too, the fact that it was not necessary to divide the mesentery and so interfere with the blood-supply tended to a favourable result. It is also important to get the bowel into as direct a line as possible, thus reducing the angle or bend in the continuity of the tube. I think the slight escape of bile after the operation, with the throwing off of the intestinal stitch, must have been due to the fact that at one point the intestinal coat was very thin, having been injured in detaching the strong adhesions binding it to the abdominal wall; one more stitch worked its way out without any escape of fluid some three weeks after the operation. I should feel greatly obliged if any reader of this case would direct my attention to any list or statistics of cases of a like kind.

Medical Societies.

CLINICAL SOCIETY OF LONDON.

Inherited Congenital Deformity of Hands and Feet.—Psoriasis, Pityriasis, and Rheumatism.—Symmetrical Gangrene following Varicella.—Intussusception produced by a Tumour.

AN ordinary meeting of this Society was held on the 1st inst., Dr. W. H. Broadbent, President, in the chair.

Mr. R. W. PARKER and Dr. H. B. ROBINSON read notes of a case of Inherited Congenital Deformity of the Hands and Feet, in which a plastic operation had been done on the feet, the patient being a child aged three years and a half. The two inner toes were coalesced into a single great toe, and the three outer toes were similarly united into a little toe; the coalescence extended in part into the metatarsal bones, and there was a wide and deep cleft between. The operation consisted in removing the skin from the contiguous parts of the cleft, and then uniting the edges after the toes had been pressed together. A more shapely and sightly foot was thus obtained. The child was one of several who suffered from a similar deformity, and her mother, herself affected, feeling the inconvenience of such a foot, had taken her to the hospital to see whether something could be done to remedy the defect. The authors showed a family tree, from which it could be seen that the deformity affected three generations. The first to suffer was the child's grandmother, and of thirty-six lineal descendants sixteen were malformed; the malformation was perpetuated through the

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female branches of the family. It was singularly uniform in its manifestations, and was attributed originally to a fright. The patient and several members of her family were exhibited.

Sir DYCE DUCKWORTH read a case of Psoriasis associated with Rheumatism, which passed into Pityriasis Rubra (Dermatitis Exfoliativa). F. A——, aged twenty-four, married seventeen months, mother of a child which she suckled for four months, was admitted into St. Bartholomew's Hospital on Nov. 14th, 1885. She was suffering from well-marked and ordinary psoriasis, which had lasted five months, and from rheumatic pains in most of the joints. Ten and five years previously she had had attacks of psoriasis, lasting four or five months, each accompanied with rheumatic symptoms, as at present. She lived at Stratford, on the ground floor of a damp house. The joint pains preceded the outbreak of psoriasis. When a child she had rheumatic fever. There was no known family history of rheumatic fever. She was a fairly well-nourished woman of slender build, complexion pallid, hair light-brown. The heart's apex was displaced outwards, and a systolic apex murmur was audible. Nothing was found amiss with any other viscera. Urine contained a trace of albumen. The whole body was covered irregularly with patches of scaly eruption, the erythematous areas around them being very wide. There was less of the rash on the face and neck, most on the abdomen. There was pyrexia, temperature varying from 100° to 103·8° during her stay in hospital, with nightly rises. The digestive system was not much disturbed. Urine acid; sp. gr. 1023; it contained very often a trace of albumen, and sometimes abundant urates. Catamenia regular since the birth of her child. At the time of admission to hospital the psoriasis was beginning to pass into a general desquamative dermatitis, and rheumatic symptoms were increasing in severity. Milk diet was ordered. To have an alkaline bath on alternate nights, and olive oil to be rubbed in all over the body. Fowler's solution in four-minim doses in an alkaline tonic mixture was given thrice daily. The appetite increased under this treatment. The pain grew worse, and the temperature kept up. Effusion occurred in some joints. Sodium salicylate was next given to the extent of a drachm daily. Soap-and-spirit lotion was used to remove the hard scales from the scalp, and linimentum calcis to the body generally. No improvement followed from the salicylate treatment, and the temperature was unaffected by it. The skin was now universally affected, and cast off handfuls of scales. The rheumatism was severe, and the patient became very ill. She begged for meat and for better diet than was thought fit for her. The salicylate was increased to eighty grains each day, and sitz baths given instead of alkaline ones. Joints of legs and arms very painful. Hypnotics required at night. In the third week after admission, the plans of treatment hitherto having been unavailing, a change was made, the quino-alkaline draught being given, and oleate of zinc ointment applied. Mashed potato and custard pudding added to diet. The skin improved somewhat after this, but still desquamated freely. Temperature still pyrexial. Joints improved. No fresh cardiac troubles came on, but "hæmic" basic murmurs developed. Within ten days the morning temperature began to reach normal, but the evening rise was nearly 102° on several occasions. On Dec. 11th arseniate of sodium in fifteen-minim doses was begun, and full meat diet was given. In a few days there was very decided improvement in respect of the skin and joints, but the temperature continued high, reaching its highest point, 103·8°, three nights after beginning this treatment. Antipyrin was given in full doses without any effect on this. The pulse was 138. Appetite very good. The arsenic was increased gradually up to ten minims at each dose. At the end of December patient's skin was getting clear, joints improving, and she got out of bed daily. Starch and zinc paste was found useful for the skin at this time. In January the joints were painless, but ached when fully stretched. The wrists and fingers were deformed, joints knotty, and fingers turned out to ulnar side of arm. When the patient left the hospital on Feb. 12th the skin was perfectly smooth and natural. The joints of the wrists and hands were crippled and deformed. The case illustrated the transformation of psoriasis into diffuse exfoliative dermatitis, an occurrence which has been previously noted. The relation of the rheumatic disease, if it was rheumatic, was of interest. Psoriasis is not uncommon in persons rheumatically disposed, especially in subjects of rheumatoid arthritis. The powerlessness for good of the salicylate treatment was noteworthy. The same has been noted of this drug in chronic rheumatic arthritis and so-called gonorrhœal rheumatism. The benefit of full arsenical medication was most marked, and no relief was afforded by treatment which commonly proves useful in ordinary rheumatism. The author had not found dermatitis exfoliativa rebellious to treatment by alkaline tonics, baths, and oily inunctions.—Dr. RADCLIFFE CROCKER said that his experience also testified to the possible connexion of rheumatism with a previous dermatitis. He thought that any form of dermatitis might be the antecedent—e.g., excessive inunction of chrysarobin had been recorded as preceding pityriasis. A case was narrated of nine attacks of psoriasis. The ninth attack was followed by pityriasis; each subsequent attack was also followed by pityriasis, and the patient died after the fourth attack. There was a mitral murmur, but no definite history of rheumatism. A case of a woman suffering from lichen ruber was also related. In this there was also rheumatism with mitral disease. Hypodermic injections of arsenic were followed by improvement. The rheumatism became worse; pericarditis and iritis developed. The lichen ruber element shelled off in large plaques, and pityriasis developed. Salicylate of soda and a low regimen effected no good, but the administration of quinine and good food was followed by improvement. Nothing but calamine liniment was used for the skin. The heart murmurs alone remained. The lichen ruber returned in very slight degree. Psoriasis was the most common antecedent of pityriasis rubra when this did not occur as the only disease.—Dr. T. BARLOW had also observed the triple association of psoriasis, pityriasis, and rheumatism. The case of a gentleman was related. A mitral murmur with hypertrophy of the left ventricle existed. During the last two years the type of the skin affection had altered. The patient developed an acute attack twice a year. At the beginning of one of these Dr. Barlow first saw him. There was some brawny induration of the true skin as well as the psoriasic condition. The attack lasted one month, and was attended with fever and much general illness. Anorexia was a marked symptom. The skin symptom changed, and a bright-red, swollen skin developed, with lymphatic glandular enlargements. After complete exfoliation of the cuticle the skin was left soft and supple, like that of a new-born child. He had watched five or six attacks in the same gentleman. He agreed that when once the skin lesion had taken on this type it would continue. During the attack certain conditions about the joints might have been regarded as rheumatic, but there was no true effusion into the synovial cavities.

Mr. EDWARD BELLAMY read a case of Symmetrical Gangrene (Raynaud's Disease) following Varicella in a child aged four, causing death on the fourth day. The patient was admitted under his care on Jan. 19th, 1887. On admission, she had spots of varicelli over her body and face, which were first noticed on the 16th. On the evening of the 19th, at 7 o'clock, the child complained of her right leg being sore, and a small circular black patch about as large as half a crown was seen below the inner side of the knee; by 10 o'clock this patch had extended down the leg to the foot, when she was brought at once to the hospital. On arrival, a similar patch had made its appearance just above the left ankle, which rapidly extended up to the knee. The patient was unable to stand, and complained of great pain in both legs, which increased on pressure. The second, third, and fourth toes of the right leg were exempt from discolouration, and the fifth but slightly mottled. Shortly after admission, an oblong patch about 2 in. by 2 in. appeared on the outside of the left thigh. On the 21st a small patch appeared on the outer side of the right forearm, and slight discolouration on either side of the spine, on a level with the crest of the ilium, and in the afternoon of the same day in either cheek and conchæ of both ears. The complexion was very white, face sallow, expression dull and heavy; tongue dry and brown, but reddish at tip. Pulse 150, weak; temperature 100°. Heart sounds normal; breathing normal; both legs cold and insensitive; pulsation in left femoral fairly distinct, but could not be felt in right. Urine: sp. gr. 1023; clear and pale; no trace of albumen and no hæmoglobin could be detected. In the evening of the 21st she was suddenly seized with stertor and died. A full account of the post-mortem accompanied the paper. Perhaps the most interesting points are as follows:—There was an enormous opening in the foramen ovale, bounded below by a valve a quarter of an inch deep, having a free crescentic margin. Dissection of the right

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leg: The fat and skin and gangrenous parts were dark-purple from hæmorrhagic infiltration, this appearance fading away at the apex of Scarpa's space. The obvious gangrene ceased just above the inner condyle, the skin above being apparently normal. The leg, which appeared quite gangrenous, was of a uniformly purple colour. There were some petechiæ or small hæmorrhages in the intermuscular plane, the muscles themselves being very strongly contracted in rigor mortis, and appearing almost healthy. Here and there they showed small hæmorrhages; this was especially the case in the deeper fibres of the soleus. The femoral glands were a good deal enlarged, and either hæmorrhagic or containing a quantity of blood pigment. The saphena vein contained only post-mortem clot.—Mr. J. H. MORGAN said that the most remarkable point was the circumstance that the gangrenous condition extended higher on the inner side than on the outer. The gangrene did not spread much whilst the child was in the hospital. The great toes remained perfectly normal. At the necropsy the rigor mortis was well marked. The hæmorrhages were apparently confined to the cutaneous structures. The vessels were found to be healthy.—Mr. COODE ADAMS suggested that the case might have been one of hæmorrhagic small-pox; he inquired as to the condition of the body temperature.—Dr. LONGHURST considered that the case was due to blood poisoning, and he thought that it might have been small-pox.—Dr. HERRINGHAM regarded the case as most likely one of varicella gangrenosa, a condition which was not so very uncommon.—Dr. BENHAM asked whether the child had been exposed to cold, for the appearances were something like those of frost-bite.—Dr. RADCLIFFE CROCKER asked how the gangrenous area developed, whether in connexion with the varicellar vesicles or separately. He said that the condition was not allied to ordinary cases of varicella gangrenosa. Were the patches on the cheeks or arms pure hæmorrhages or gangrenes?—Dr. T. BARLOW said that all the cases of varicella gangrenosa he had seen began in the varicellar bullæ; it was a multiple gangrene quite different from the case now described. Again, there was no resemblance to symmetrical gangrene or Raynaud's disease. He classed Mr. Bellamy's case along with those of symmetrical gangrene following the acute specific fevers. He had recently seen one case, not so extensive, of symmetrical gangrene after measles. In these cases a dissolutio sanguinis appeared first to occur and to be associated with hæmorrhages as the initial phenomenon of the gangrene. In Mr. Bellamy's case, besides the hæmorrhages in the skin, there were extravasations in the pleuræ and muscles. In other cases, also, he had seen the diffuse hæmorrhages occurring in various organs. The tips of the ears was a favourite site. He could not but think, in opposition to Mr. Morgan, that the heart condition—for the foramen ovale was large enough to admit the thumb—may have had some share in the causation of the hæmorrhages. In one case huge hæmorrhages developed around the measles papules in a child who was the subject of congenital heart disease.—Sir DYCE DUCKWORTH believed that congenital heart disease was a serious complication of the exanthemata. He would not have thought of varicella gangrenosa in connexion with the case narrated.—Dr. BROADBENT agreed with the views of Dr. Barlow. In a case recently seen of typhoid fever, both ears became gangrenous, but he could not say whether preceded by a hæmorrhage; one or two fingers of each hand were also affected. He said it had no kind of resemblance to hæmorrhagic small-pox, of which he had seen some thirty cases.—Mr. BELLAMY briefly replied.

Mr. ARBUTHNOT LANE described a case of Intussusception produced by the presence of a Tumour growing from the Mucous Membrane of the Transverse Colon. After an attack of diarrhœa, in a chronic case of hip-joint disease in a child aged eight, a tumour as large as a walnut was found projecting from the anus. It was much congested; blood oozed from its surface. The nurse in attendance supposed it to be a prolapse of the mucous membrane of the rectum, and attempted to return it within the anus, but was unsuccessful. On examination, the tumour appeared to have a very long pedicle, which gradually increased in thickness, extending beyond the reach of the finger. As there were no symptoms of strangulation, and as the length of the pedicle was doubtful, he returned the tumour within the rectum. It soon passed out of reach. On the following day the tumour could be felt in the middle line, between the umbilicus and symphysis, between the finger in the rectum and the hand on the surface of the abdomen. Some days after, during another attack of diarrhœa, the tumour was again extruded from the anus. On this occasion it was found that the tumour was sessile, and that it was attached to the very congested mucous membrane by a constricted neck, the prolapse of gut being abundant and lax, so that on the first occasion the whole of the thin apparent pedicle must have been formed by mucous membrane and the intestine itself. On the removal of the tumour, the prolapsed gut was readily replaced above the pelvic brim by the finger, and subsequent examination revealed no signs of an intussusception. No tumour could be felt in the abdomen on either occasion in which the growth projected from the anus.—Mr. F. TREVES said that the mildest cases of intussusception were often those associated with large polypi in the colon. Polypi were present in 5 per cent. of the cases of intussusception. The first symptom of such intussusception was often the appearance of the tumour at the anus. He also drew attention to the causational influence of a mass of epithelioma in the wall of the bowel as leading to the formation of an intussusception.—Mr. A. E. BARKER said that the number of cases in which epithelioma had been the cause of intussusception was not great. He briefly related a case of epithelioma of the sigmoid flexure, in which the new growth extended two-thirds round the circumference of the bowel, and led to intussusception. The pedicle of the tumour was formed of the coats of the bowel itself.—Mr. BRYANT thought that intussusceptions caused by tumours were not very rare, though in the adult they were not recognised sufficiently. He believed a fair proportion of the cases in adults were due to tumours. He had recently operated on a lady aged eighty-four for intussusception. There was a tympanitic abdomen, and a long history of bowel trouble, followed by acute obstruction. Examination per rectum detected a growth in the bowel, which occupied the centre of the canal itself. The growth was as large as an egg, and of coarse villous nature. Its removal was easily effected, and the bowel then soon ascended above the brim of the pelvis, giving the palpating hand a curious sensation. The lady soon became well, and walked about in perfect health. The fact that the growth could be felt was the interesting point in Mr. Lane's case.

The following living specimens were exhibited:—Dr. Drewitt: A Case of Lupus, treated partly by Salicylic Paste, partly by Scraping. Mr. Parker and Dr. Robinson: Inherited Congenital Deformity of the Hands and Feet; Plastic Operation on the Feet.—Mr. Walsh showed for Mr. E. W. Parker an Abdominal Tumour (? renal sarcoma) in an infant aged two years.

MEDICAL SOCIETY OF LONDON.

Ulcerative Endocarditis.—Alleged Dangers of Starch-containing Foods during the period of Infancy.

AN ordinary meeting of this Society was held on Monday last, Dr. J. Hughlings Jackson, F.R.S., President, in the chair.

Sir DYCE DUCKWORTH read a case of Ulcerative Endocarditis that simulated typhoid fever and acute tuberculosis. It occurred in a girl aged twenty, in whom there was no history of rheumatic fever, but some of the joints had been slightly swollen. A systolic murmur was detected in the mitral area after the patient had been admitted into hospital. Cough, with bronchitis, wasting, and loss of power, with other symptoms of the typhoid state, were present, but there were no spots or diarrhœa and no enlargement of the spleen below the ribs. The necropsy revealed no tubercles or splenic infarctions, but the mitral valves were much diseased and fungating.—Dr. SANSOM inquired whether it was possible for the pneumonia to have preceded the malignant endocarditis. Dr. Osler, and a pupil of M. Cornil's, had drawn attention to the relationship between pneumonia and ulcerative endocarditis. He referred to the case recorded in the Medical Society's Transactions. Variability of murmurs was an important sign of this form of severe endocarditis. The case improved immensely under the use of half-drachm doses of sulpho-carbolate of sodium. She subsequently died, and the necropsy seemed to show that a fresh eruptive process had supervened whilst the original disease had subsided. The progress of the temperature afforded no aid in diagnosis.—Dr. HUGHLINGS JACKSON said that this form of endocarditis was met with in some cases of epidemic meningitis. Absence of knee-jerks would point to meningitis in a case of doubt between meningitis

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and typhoid fever.—DR. HENRY WHITE dwelt on the difficulty of diagnosis.—Sir DYCE DUCKWORTH said that the antiseptic treatment had proved valueless in his hands. He had seen the knee-jerks disappear at the close of cases of typhoid fever.

MR. E. W. PARKER read a paper on the alleged Dangers of Starch-containing Foods during the period of Infancy. As the result of many years' observation at the East London Hospital for Children and in private practice, he stated his belief that the dangers of starch foods were greatly exaggerated. He was quite aware of the mortality among artificially-fed children, but he attributed this, as well as the marasmic condition of many that did not actually die, to congenital debility, the result of debilitating influences of various kinds acting on the parents before the birth of the children. An analysis of cases had convinced him that, in a large proportion of cases, artificial food was only commenced because the children were weak and puny, and not thriving on the breast milk. Mr. Parker did not advocate artificial feeding, nevertheless, but the contrary. He rather implied a belief that artificial feeding was on the increase, and that it had the consent of the medical profession: many mothers left off suckling, he argued, without sufficiently good grounds, so widespread was the doctrine that if all the starch had been converted into dextrose, and so rendered digestible, artificial feeding might safely be commenced. This was quite an error, and, moreover, it was desirable that mothers should nurse their children, as nursing mothers were less liable to conceive, and thus there was a longer interval between the children. Too rapid child-bearing was one result of not suckling; it was very debilitating, and one of the most potent sources of the marasmus and weakliness so largely present among the children of the poorer classes. Besides this, a child that was deprived of the mother's milk was probably deprived of the mother's care, not less important than the milk for a weakly child. Thus, Mr. Parker argued, there were many factors to be taken into consideration in estimating the causes of marasmus and its consequences. He thought that too much stress had hitherto been laid on the effects of artificial feeding, and more especially on the starch constituents of this food, and that too little stress was laid on the congenital debility of children born under adverse circumstances.—DR. GIBBONS did not agree with the conclusions of Mr. Parker on the innocuous influence of starch in infancy. Imitation of the mother's milk was the object to be aimed at in artificial feeding.—DR. ALLCHIN admitted that defective hygiene was a most important consideration, but he did not agree that starch was not injurious.—DR. DE HAVILLAND HALL said that puppies had developed rickets as the result of being fed on biscuits.—MR. R. W. PARKER, in reply, said that the experimental observations on animals were valueless *quâ* the point under discussion, because of the bad hygienic circumstances under which the animals were kept.

DR. WHIPHAM read a paper and showed some drawings of cases of so-called Glossitis Migrans, Wandering Rash, Lichenoid Eruption. A case in a domestic servant suffering from mitral disease was narrated. The second case occurred in a young man who suffered from typhoid fever. The sinuous margin was composed of vast accumulations of epithelial cells, taking the shape of a Chinese pagoda. The tissue of the mucosa showed evidence of inflammatory growth. Dark opaque masses overlaid the epithelium in places, and were probably composed of colonies of micrococci. He supported Lemonnier's view, that the lesion was a superficial inflammation—a glossitis superficialis migrans.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

AT a meeting held at 11, Chandos-street, Cavendish-square, on Wednesday, March 9th, Inspector-General Lawson in the chair,

DR. STEPHEN MACKENZIE read for Dr. Wykeham Myers a paper entitled "Further Observations on Filaria Sanguinis Hominis in South Formosa," of which the following is an abstract. The author stated that further and extensive careful examination had failed to discover in South Formosa a mosquito like the Amoy filaria-nurturing variety, either in species or capacity for nursing the blood embryo. He then proceeded to describe the varieties of mosquitos he had been able to discover in South Formosa, appending sketches and careful measurements of the tiger, brown, and ejecting mosquitos, with sketches and measurements of the Amoy filaria-nurturing mosquito, and reiterated his opinion that the absence of filarial diseases in South Formosa is due to the absence of the species of mosquito which is capable of acting as the intermediate host to this parasite. He next discussed the ultimate destination of the filaria embryos found in the blood, and the following are the conclusions at which he arrived:—1. Accepting that parturition in the parent worm is continuous and exceedingly prolific, then removal of those filariæ which have had their chance of mosquito withdrawal, but have escaped detection is necessary, in view of the swarm which will inevitably enter the blood from the lymphatic system at the next period of its suitability for their reception. 2. The marked difference between the condition of that fluid when favourable for filarial development and its state when hostile to their existence seems due either to the *presence* of an excessive amount of carbonic acid, *or* the *absence* of a sufficient quantity of free oxygen. Inasmuch as the former necessarily involves the latter, and experiments seem to show (*a*) that direct contact of carbonic acid in presence of excess of oxygen is not, immediately at least, injurious, but that (*b*) exclusion of oxygen, either by surrounding the blood with carbonic acid or placing it in a condition opposed to access of the former gas, brings about the destruction of the parasites, and that (*c*) the behaviour of the filarial embryo, both in the human blood and when contained in the mosquito, seems strongly to indicate a desire for this gas, it may be assumed that probably its presence is essential to further development, and its withdrawal or diminution in quantity conducive to death. The author therefore suggested the following as the course pursued by the embryo from birth until its absorption by the mosquito. For a period of not less than twelve hours, and probably in no case exceeding twenty-four, the filariæ remain in the lymphatic system; at some time during this period, urged by the favourable conditions in the hæmic circulation, it exhibits for the first time a selective ability, and enters the latter. It will be observed that, supposing twelve hours to be the least time apportioned for intra-lymphatic existence, and that the filariæ disappear from the blood at 7 A.M., appearing again at 7 P.M., all those born between these hours will be ready for entrance into the blood at various times during the following night, but those born during the night itself would only be fitted for intra-vascular existence at some time during the day. This infers a longer or shorter delay, according to the hour of birth, and may account for the fact of embryos being occasionally seen in the blood during daylight, as was the case with all Manson's early finds, got as they were during that period. It is possibly, however, more or less the result of accident, due either to what we may call impulsive injudiciousness on the part of a few, or untoward subjection to the irresistible forces present at or near the termination of the thoracic duct, within the scope of which they have been tempted to approach too closely. As to the facility for postponing their advent shown by those embryos born during the night, we have actual proof of such capability on the part of the parasite, in those geographical results previously described. The term "postponement" is only used in a figurative sense. Although, as before pointed out, the embryos are wanting in locomotory power at this stage, still there can be no doubt of their ability to resist moderate onward pressure, either by actual adhesion or by the opposition of forces resultant from the contraction and extensions in the body; converging as these do towards a central point, they are able to control within limits the duration of their stay in the sluggish lymph current. When the proper time arrives, however, they yield to the pressure, and their passage to the now attractive blood is brought about. In the mosquito, where migration has to be effected in a stagnant medium, inherent locomotory powers are required, so at or about the end of another twenty-four hours the embryo temporarily becomes possessed of this ability, moving about freely. Arriving at the thorax, and beginning at a stage where quiescence is more comfortable to its necessities, the parasite seems again to enter on a sort of chrysalis state, or, in other words, to become passive. The last section of the paper dealt with the pathology and treatment of elephantiasis or lymph discharges. The author discussed in great detail the different views put forward by various writers. Agreeing with Manson as to the filarial origin of these diseases in the majority of instances, he differed from him as to the mechanism by which the filariæ operated. He rejected abortion of the parent worm, and

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was inclined to attribute the overgrowth of tissues, discharges of lymph or chyle, and febrile manifestations to overgrowth of cells due to increased plasmic flow (as distinguished from obstruction), due in the first instance to the presence of filaria sanguinis hominis (or in non-filarial cases to an ulcer, eruption, &c.), or some other excitation, and which, when once set up, might persist after the original exciting cause had ceased to operate. With regard to treatment, he advocated, when practicable, removal from a filarially infected region, but where this could not be accomplished filtering and boiling all water drunk, and for local treatment pressure both on the affected part by indiarubber bandages and over the arteries supplying the region, in preference to deligation of arteries. In connexion with the paper, Dr. Stephen Mackenzie exhibited a patient suffering from chyluria contracted in India, and demonstrated the living filariæ in the blood.—In the discussion which followed, Inspector-General Lawson, Drs. Thorne, Mortimer Granville, and Willoughby, and Mr. Smyth took part.

ACADEMY OF MEDICINE IN IRELAND.

The Marsupial Heart.—Absence of the Internal Iliac Artery.

A MEETING of the Sub-section of Anatomy and Physiology was held on Feb. 10th.

Dr. CUNNINGHAM exhibited the Heart of a Kangaroo which he had recently successfully injected. He stated that Owen was of opinion that the marsupial heart was distinguished by (1) the absence of the fossa ovalis, (2) the presence of a cleft in the auricular appendix of the right side, and (3) the absence of a separate orifice in the right auricle for the coronary vein. The absence of the fossa ovalis was also associated with a total absence of the ductus arteriosus, the Eustachian valve, and other vestigial remains of embryonic life, such as the urachus, hypogastric arteries, round ligament of the liver, &c., and was accounted for by the short period which the embryo spent within the uterus. The bifurcation of the auricular appendix was well seen in the specimen exhibited, and it was present in a marked form in the phalangers, but was absent in the thylacine and dasyure. With regard to the third point of distinction mentioned by Owen, Dr. Cunningham stated that he had been able to make out in the *Challenger* marsupials a separate opening of the great cardiac vein in the right auricle, but this was situated at the upper part of the cavity close to the opening of the superior vena cava.

Dr. LEDWICH read notes of the dissection of a male subject, in which the Internal Iliac Artery was absent on the left side. On the right side the structures were normal. The abdominal aorta bifurcated at the lower border of the third lumbar vertebra to form the two common iliac arteries; the right divided normally into the internal and external iliacs, but the left, instead of dividing, continued as a single vessel in its whole course to the femoral artery. This single iliac artery passed obliquely downwards and outwards over the psoas muscle for a distance of three inches, and then, turning somewhat sharply inwards and then downwards over the ilio-pectineal line, entered the pelvic cavity. This intra-pelvic portion of the vessel formed a long loop reaching to a point about half an inch below the highest part of the great sciatic notch. The artery then, ascending, recrossed the ilio-pectineal line, and, turning downwards over the horizontal ramus of the pubes, terminated in the femoral artery. This vessel may therefore be considered as divided into three portions—1, the oblique portion; 2, the looped portion, which may be subdivided into (*a*) the descending limb, (*b*) the transverse part, and (*c*) the ascending limb; 3, the horizontal or pubic portion. The diameter of the vessel was greatest at the transverse part of its loop, where it measured seven-sixteenths of an inch; and least at the termination of its pubic portion, where it measured five-sixteenths of an inch. Its total length was nine inches. The first sacral nerve passed through the loop of the artery from without inwards, and tightly held down the vessel; the nerve then, winding round the inner side of the ascending limb of the loop, joined with the lumbo-sacral cord. The branches which arose from each portion of the artery were as follows:—From the oblique portion: (1) A posterior ilio-lumbar artery of some size, which resembled in its course and mode of termination the lumbar branch of a normal ilio-lumbar artery. (2) Two or three small branches to the psoas muscle, peritoneum, &c. From the descending limb of loop: (1) The internal pudic artery arose opposite the first sacral foramen. Its intra-pelvic portion was exceedingly long, measuring from its origin to the great sciatic notch fully five inches, and in diameter it measured slightly over an eighth of an inch. From its origin the pudic artery curved inwards and downwards to the middle of the anterior surface of the bodies of the third and fourth bones of the sacrum, where it gave off the middle sacral artery. It then curved outwards and downwards, between the second and third sacral nerves, and in front of the pyriformis muscle, to the great sciatic notch, through which it passed below the muscle, and followed thenceforth the route and termination of a normal pudic vessel. The middle sacral artery was very small, and arose from the internal pudic over the fourth bone of the sacrum. It passed downwards in the middle line for a distance of an inch and a half, and terminated normally on the coccyx. The internal pudic also gave off, just outside the sciatic notch, a large muscular branch to the gluteal muscles. From the transverse part of loop: (1) The lateral sacral artery arose just above the second sacral foramen. It was a short small vessel, and sent branches into the second and third sacral foramina. (2) The gluteal artery was a short thick trunk, which arose from the junction of the transverse and ascending portion of the loop. It passed almost directly outwards through the great sciatic notch above the pyriformis muscle and terminated in the usual manner. From the ascending limb of loop: (1) The sciatic artery arose three-quarters of an inch above the transverse portion, and, passing downwards internal to the first sacral and the lumbo-sacral nerves, left the pelvis through the great sciatic notch below the pyriformis muscle, and terminated in the usual way; (2) an anterior ilio-lumbar artery (much smaller than the posterior), which terminated like the iliac branch of a normal ilio-lumbar artery. No other branches could be discovered arising from this abnormal iliac artery. The obturator and deep epigastric arteries arose by a common trunk from the femoral, about one inch below Poupart's ligament.

Dr. BROOKS communicated the result of his investigations into varieties in the Innervation of the Umbricals of the Hand and Foot, with some observations on the perforating flexors.

Dr. CUNNINGHAM exhibited (1) four Chinese Plates of Human Anatomy which had been presented to him by Dr. Irwin of Tientsin; and (2) casts of Deformed Feet of Chinese Women which had been presented to him by Professor Welcker of Halle. He explained from the casts that the foot was bent into an exaggerated arch so that the os calcis was brought to lie immediately below the astragalus; but, though they distorted the foot, the Chinese seemed to have an appreciation of the importance of the great toe, which was preserved for locomotion.—Dr. FRAZER said he had a book with a series of plates published two hundred years ago, illustrating the Chinese system of anatomy, which had been followed for upwards of a thousand years.—Mr. THOMSON remarked that they had advanced in surgery of late years. They had had "Erichsen's Surgery" translated into Chinese.—Dr. FRAZER: And also a Dublin book—"Churchill's Midwifery."

CAMBRIDGE MEDICAL SOCIETY.

A MEETING of this Society was held on Feb. 4th, when the President (Dr. Bradbury) gave an address on resigning the chair, to which Mr. Cleaver was afterwards elected. The chair was taken by the Vice-President, Mr. Stear, M.R.C.S., and the following communications were made:—

Quinsy.—Dr. EASBY (Peterborough) read a paper on quinsy and its treatment. After speaking of the old method of antimonials, free purgation, complicated gargles, leeches and blisters, Dr. Easby advised the use of aconite given after Dr. Ringer's method, or from ten to fifteen grains of salicylic acid or salicylate of soda given every two hours, which had invariably afforded speedy relief. Gargles were strongly condemned as both useless and cruel to the patient. As a local application, a powder consisting of equal parts of tannin and iodoform puffed on to the swollen tonsils he had found give great relief to the pain.—Dr. LATHAM agreed that gargles were useless, and advised the use of the spray, chlorine water

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or some antiseptic. It was especially useful for children. He strongly endorsed Dr. Easby's remarks on giving salicylic acid and salicylate of soda in the early stage, more especially if there was any association of rheumatic symptoms.

Note on Stellwag's Symptom.—Mr. WHERRY showed a patient, a married woman, aged thirty-two, who came to Addenbrooke's Hospital with marked retraction of the left upper eyelid (Stellwag's sign). There was no proptosis or goitre, but some throbbing of the carotids and palpitations; no cardiac bruit. She blushed and perspired very easily, and suffered a good deal from indigestion and sleeplessness. The retraction of the lid was extremely well seen when the eyes looked downwards. There was no want of consensual downward movement of the eyelid (Graefe's sign). The pupils were equal and active, V=$\frac{6}{6}$ in both; fundus normal; no pulsation in the retinal vessels; complete power of closing the eyelid; cornea and conjunctiva sensitive. The patient has been married thirteen years; had no miscarriage; has one child, now six years old; has had no illness of late; menstruation quite regular, rather scanty; occasional leucorrhœa. Although there was no exophthalmos or goitre, Mr. Wherry thought this was probably a case of Graves' disease. This patient had first noticed something wrong with her eye about a year ago. She had been under observation for the last six months, and had improved under treatment by bromide draughts at night and small doses of belladonna twice daily. There was little change, however, in the eyelid symptom, which came on rather suddenly and continued to the present. Mr. Wherry wished to draw attention to this symptom without suggesting any theory as to the pathology of Graves' disease, because the opinion has been expressed by Graefe that cases are not rare in which the only symptoms of this affection in women are rapid action of the heart without hypertrophy or valvular disease and defective mobility of the lid; the latter is, at any rate, an extremely important symptom to take note of—important in the diagnosis, treatment, and pathology of Graves' disease.

Intra-uterine Amputation of Forearm.—Mr. STREET said that A. B——, aged twenty-two, a healthy young woman, was first seen by him when suffering from inflammation of the left olecranon bursa. From an inch below the elbow the limb is wanting, and the stump presents all the appearances of an intra-uterine amputation. On inquiry he found that she was born with this deformity; the stump was quite healed at birth, and no evidence of any remains was to be found. The cicatrix is very small, being only three-quarters of an inch long, and the skin is very little puckered around it; it is not adherent to the deeper parts. The bones of the forearm can both be distinctly felt, and the olecranon seems almost equal in size to the right one. The humerus and muscles of the left arm are no smaller than can be accounted for by not being so much used as the right arm. There is no history of syphilis in the mother nor was any accident remembered during gestation.

Immature (Senile) Cataract.—Mr. DEIGHTON read a short paper in which he discussed the conditions which rendered it advisable to operate in cases of immature (senile) cataract; he also read notes of a case in which he had operated, the patient obtaining V=$\frac{6}{6}$ and 1 Jaeger.

Reviews and Notices of Books.

A Text-book of Pathological Anatomy and Pathogenesis. By ERNST ZIEGLER. Translated and Edited by DONALD MACALISTER, M.A., M.D. Part II.: Special Pathological Anatomy. Sections IX. to XII. London: Macmillan and Co. 1886.

WITH this, the third, instalment of by far the best appreciated pathological text-book of our day, Dr. MacAlister has completed the task to which he applied himself. Of the remaining sections of the original work, some are not from Professor Ziegler's pen, and Dr. MacAlister has decided not to translate them. These sections, it may be said, comprise the diseases of the organs of special sense, of the osseous and muscular systems, and of the organs of generation. Some at least of these subjects would have been welcomed by the English reader, who may regret the decision to exclude them. Our literature is not so rich in detailed exposition of the pathology of these organs and tissues but that we could gladly receive them, and we may express a hope that the translator, whose duty has been so admirably performed in the portions he has published, may yet reconsider his resolve, and add a fourth volume, which will complete the work.

The volume before us deals with the important subjects of diseases of the urinary, respiratory, and nervous systems. They have been carefully edited, for the bibliographical references, which form so useful and notable a feature, are thoroughly up to date, rendering the work one of great value to the pathological investigator. The text is remarkable for the lucidity and scientific treatment of subjects which have been more or less obscured by different writers, who have dealt with them from too narrow a standpoint. Take for example the subject of renal disease, which since the time of Bright has been a field of so much contention. A sharp distinction is drawn between the simple "contracted" kidney and "renal cirrhosis." The former is demonstrated to depend upon arterial changes, a condition of atrophy due to arterio-sclerosis. It is the form which occurs in chronic lead poisoning, and it is allied to senile atrophy. We have here a recognition of the views promulgated by Sir W. Gull and Dr. Sutton, but, as Professor Ziegler points out, this is not the sole form of granular kidney known. Contraction of the organ may be an ultimate stage of chronic parenchymatous nephritis, or it may be the outcome of a true cirrhosis or a "chronic indurative nephritis," in which fibrous over-growth is the predominant feature. This teaching seems to harmonise the divergent doctrines on the nature of chronic Bright's disease in a more satisfactory manner than the attempt to create a unity in nature and origin between diverse forms of disease, which have nothing in common but the feature of wasting of secreting structure. The various types of nephritis — hæmatogenous nephritis is the term here employed—are differentiated into three groups: 1st, acute; 2nd, chronic parenchymatous; and 3rd, chronic indurative. Under the first head are included: 1, acute glomerular nephritis, such as is characteristic of scarlatina; 2, acute diffuse nephritis or acute inflammatory œdema; 3, acute disseminated interstitial nephritis, which is regarded as the commonest form of acute renal inflammation; and, 4, disseminated suppurative nephritis, which in this country we know best under the unfortunate name of "surgical kidney," but which includes also all metastatic and embolic abscesses. Of chronic parenchymatous inflammation, characterised by intertubular exudation as well as alteration in the epithelia, Professor Ziegler distinguishes according to their stage the following: 1, inflamed fatty kidney; 2, large mottled kidney; 3, large white kidney; 4, chronic hæmorrhagic nephritis; 5, chronic glomerular nephritis—a subdivision which is justified on anatomical if not on clinical grounds. Of the chronic indurative form, or renal cirrhosis, we have spoken above. There may be a tendency here to undue refinement, but it cannot be denied that the more the histology of kidney disease is studied, the stronger will be the conviction that there do exist varying types of disease, essentially distinct, included under the somewhat lax and unscientific heads of Bright's disease—acute and chronic. We may trace the same grasp of details and power of analysis which are so characteristic of Professor Ziegler in his chapter on diseases of the lungs, and especially in that on tubercular disease; but it would not be possible to do full justice to his treatment of this important subject without free quotation and extended notice. Suffice it to say that the pages devoted to this subject will well repay careful study; whilst one cannot fail to note the importance assigned to aspiration of tuberculous matter in the extension of the disease, which also spreads by peripheral extension, by tuberculous lymphangitis, and by intravenous tubercle. The section on the nervous system opens with a chapter upon the structure of the

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brain—more detailed than usual in a pathological text-book, yet of considerable importance for the interpretation of morbid lesions. The chapters on softening, and on sclerosis—which is regarded in the main as degenerative and atrophic rather than inflammatory,—and the further chapters on inflammatory disorders of the brain and cord and their membranes, are fully abreast of present knowledge; whilst the final chapter on the disorders of the peripheral nerves will be read with interest, as embodying the views of the pathologist upon degenerative and neuritic lesions, which are daily receiving fresh attention at the hands of clinical observers.

We have said that this work is highly appreciated. In Germany it enjoys a remarkable popularity, having already gone through four editions. We venture to think it will be equally popular in this country, for it is a work which appeals both to student and to teacher. The former will gain from it a clear insight into morbid processes, and will be enabled to compare the results of his observation in the post-mortem room with the interpretations of the scientific pathologist. He will be greatly aided in this by the large number of highly executed engravings which illustrate the descriptions of histological appearances. The latter cannot fail to be quickened in his teaching and assisted in his exposition by a work which traverses the whole field of pathology in a systematic and orderly way. The book has a twofold merit: the text is not overladen with detail, and is therefore valuable as a text-book; and its ample bibliographical records render it equally valuable as a work of reference. Dr. MacAlister deserves the best thanks of pathologists for his labour and skill as translator and editor; and the publishers also may be congratulated upon the excellent manner in which they have fulfilled their part in its production.

Practical Medicine and Medical Diagnosis. By BYROM BRAMWELL, M.D. Edinburgh: Young J. Pentland. 1887.

THIS is evidently the first instalment of what promises to be a work of great merit; for it deals only with matters more or less introductory to the wide subject of medical diagnosis—such matters, namely, as methods of diagnosis, case-taking and case-recording, and medical thermometry. The work is based on the instruction which the author gives to his class at the Extra-mural School in Edinburgh; and, judging by its quality, we may fairly congratulate the students upon having so efficient and able a teacher. Dr. Bramwell speaks with all the authority of one who has himself fully mastered his subject, and we have nothing but commendation for the clearness and method with which he endows his subject. The chapter on case-taking is a model of what real instruction should be—guiding the student to orderly methods in his search after clinical facts, and the adoption of a strict line of inquiry into the antecedents of the case he is investigating. In the chapter on thermometry there are introduced short disquisitions upon the theory of fever and upon differential diagnosis, whilst the various types of pyrexia are fully illustrated. In the appendix will be found some pertinent remarks upon out-patient practice; and we are inclined to agree with Dr. Bramwell that senior students rather than junior should be occupied in this department. The rudiments of diagnosis are better learnt at the bedside than in the crowded out-patient room. We shall anticipate with pleasure the publication of further chapters of this undertaking, for which its author is so thoroughly well qualified.

La Goutte, sa Nature et son Traitement. Par Dr. W. EBSTEIN. Traduction du Dr. E. CHAMBARD. Revisée et augmentée par l'Auteur. Paris: J. Rothschild. 1887.

THIS is a veritable *édition de luxe* of Prof. Ebstein's well-known work; and it is prefaced by a brief and complimentary introduction to this French edition by Prof. Charcot, who trusts that in the next edition the author will take cognisance of Professor Bouchard's lectures on retarded nutrition. Ebstein's views are now fairly widely known, the main thesis being to support the doctrine of Garrod as to gout being due to a retention of uric acid in the system. This is demonstrated from the pathological side by the proofs that no gouty deposits occur in any tissue or organ except in places where the tissue has undergone necrosis, the notion being that such a retrogressive metamorphosis is induced by the action of uric acid upon the tissue. Experimental proof of this action is afforded in the results of ligature of the ureters in fowls, when, owing to retention of the excretion, highly charged as it is with uric acid, necrotic foci and deposit of crystalline urates are produced, similar changes being brought about in the kidneys when the secreting structure is damaged by the previous injection of chlorate of potash subcutaneously. Similarly, direct injection of uric acid or its compounds into the blood will produce like effects. The clinical part of the work deals with primary articular gout and primary renal gout—a distinction not perhaps generally appreciated, but fairly justified by facts. The therapeutical section is not marked by any considerable novelties, save perhaps in the rather liberal prescription of albuminoid and fatty foods, as compared with restriction in carbohydrates. An English translation (by Dr. Scott) of this work was published two years ago, but it did not, as this French edition does, contain the chromo-lithographs which represent the histology of gouty lesions in tendon, cartilage, kidney, &c., in a striking (perhaps a too vivid) manner.

Contributions to Practical Medicine. By JAMES SAWYER, Knt. Birmingham: Cornish Brothers. 1886.

SIR JAMES SAWYER has collected some of his scattered writings and subjected them to revision before reproducing them in the elegant form presented by this volume. The lectures and essays embrace such subjects as Insomnia, Intestinal Obstruction, Floating Kidney, and Phthisical Laryngitis; and they are treated in a thoroughly practical manner. That on the causes and cure of insomnia and that on constipation and intestinal obstruction strike us as being the most suggestive, and best illustrating the practical bent of the author. The essay on "floating kidney" is interesting, but in being revised it should have made mention of the great benefit derived by the surgical method of "nephrorrhaphy." The author has the faculty of expressing his thoughts clearly, and he is careful to avoid the too common mistake of writers—viz., the statement of facts outside their own experience. The book bears the impress of personal conviction, and is therefore likely to be appreciated by its readers.

ARMY MEDICAL SCHOOL.

THE summer session of the Army Medical School was opened at Netley on Friday, April 1st. Twenty-five surgeons on probation of the British Medical Service and twenty-eight of the Indian Medical Service were in attendance. The introductory address was delivered by Professor Aitken, F.R.S., in presence of the military and medical staffs of the Royal Victoria Hospital and School and a few visitors. The lecturer took for the subject of his discourse, "Recent Pathological Researches on the Production of Disease by Infective Processes generated within the Body." In the course of his preliminary remarks he referred to the illness of his colleague Professor de Chaumont, and to the probability of his being unable to take part in the teaching of hygiene during the present session of the school, and mentioned that it had been arranged for his duties to be taken by Deputy Surgeon-General Dr. Marston, head of the sanitary branch at the War Office, who possessed very extensive experience in the subject of hygiene both at home and abroad, and who would be aided by Surgeon-Major O'Reilly, as well as by the Assistant Professor of Hygiene, Dr. Davies.

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THE LANCET.

LONDON: SATURDAY, APRIL 9, 1887.

THE Medical Council is summoned to meet on Tuesday, the 10th day of May—of course in consequence of the chaos into which the examining system is thrown, especially in England, by the determination of the Royal Colleges to exclude the Apothecaries' Society from their Conjoint Scheme. The refusal of the Colleges places the Council in a very delicate position. Those who were so enamoured of the Act of 1886 may now see how much reason we had for dissatisfaction with it. The wish of the Medical Council is thus set at nought by the Royal Colleges, and we are threatened with the perpetuation of a race of practitioners not good enough, according to the standards of the Colleges—though they have no mandate to exact higher tests than those of efficiency in medicine, surgery, and midwifery. The Royal Colleges are in a state of prosperity and hilarity just now. Their funds abound, and their diplomas are in demand; but it can only be regretted that they have not used their great wealth and prosperity to cement the profession, to abolish its divisions, and to assist in the creation for England of one grand portal for her general practitioners. They have chosen to do otherwise, and to refuse the request of a majority of the Medical Council preferred by its respected President. It is not for us to anticipate the consequences of this step. But it places the Apothecaries' Society in a position in which we are sorry to see it placed. It would have been more magnanimous in the Royal Colleges to have sought the disestablishment of the Society by direct legislation than by refusing to recognise its claim to co-operate with the other authorities under the legislation of 1886. It would be idle to ignore the painful position in which this decision of the Colleges places the Medical Council. Only one thing is certain, that the Council can never acquiesce in the creation of an inferior Examining Board, to authorise something less than efficient practitioners for people who are too poor to recompense, or too unimportant to require, an efficient medical man. Such seems as we showed last week, to be the dream of some Members of the Royal Colleges who are so lightly treating a request of the Medical Council. The Medical Council has no authority to recognise a lower standard at Blackfriars than on the Thames Embankment, and the creation of an inferior class of practitioners would be as disastrous to the profession as it would be unfaithful to the Medical Act. If the Medical Council determine to grant additional examiners to the Hall, it will not be likely to take any low estimate of the additions that will be necessary. For twenty years medical reformers have hoped for legislation that would have equalised what ought to be equivalent examinations, so that medical men who have obtained their qualifications from one body could hold their heads up before those who have received their qualifications from a similar body in another division of the kingdom. But only last week Mr. BERKELEY HILL commented on the convenience of Edinburgh, Glasgow, and Dublin as places of refuge for those who have been repeatedly rejected in London. We leave the representatives of Edinburgh, Glasgow, and Dublin to make their own acknowledgment of this compliment from one of the Council of the College of Surgeons of England. Our present purpose is rather to direct the attention of the Medical Council to Mr. HILL'S view of its duty at the coming meeting—viz., to give sanction and status to a body that will pass men whom the Royal Colleges of England will not think worthy of being passed. This raises a view of the duty of the Council which cannot be too seriously considered before it meets. It will be curious if the Medical Council should become, as it were, partners in a third-rate Examining Body meant for the accommodation of those plucked by the Colleges chiefly charged with testing the efficiency in candidates.

The retirement of Sir HENRY ACLAND at the approaching meeting will throw upon the Council one of the most difficult and important duties which it has to perform. Hitherto it has been free to take its President from outside the Council. Now, under the Act of 1886, it must choose one of its own members. There has never been a time when it was of so much moment as it is now that the President should be a man of strength, of impartiality, and of public spirit. We have given one specimen of the questions about to engage the attention of the Council. There are half a dozen more; and if the Council considers its own future reputation it will select a President with such qualifications as we have named.

THANKS to the many labourers in the field of neurology, we are by no means in total darkness concerning the nature of hypnotism, catalepsy, trance, and allied conditions. Doubtless we see through a glass darkly, but this may be said of all knowledge, including medicine. We shall first give an exposition of the facts met with in the states under consideration, and then bring this knowledge to a focus, and endeavour as far as possible to see what anatomical and physiological interpretations may be put upon the facts. It would take up far more space than we have at our present disposal to discuss the strictly psychological and other mental aspects of these diseases, but we believe that at the present juncture a physiological explanation or attempt at an explanation may prove acceptable in the face of the case of M. CHAUFFAT, now attracting so much public attention.

In catalepsy, hypnotism, and the like states, the conspicuous feature is the loss of the ordinary consciousness of the individual, the subject of the abnormal state. This loss varies in degree. It may be profound and deep, so as not to be recovered by any artificial means, or it may be recoverable by external stimulation of greater or less intensity. Again, it may vary in itself, probably as the result of internal conditions of the cerebral cortex, and this variation may be so great that, on the one hand, consciousness is almost normal, or, on the other, fully in abeyance. It is most necessary to recognise this irregularity and variability in order fully to understand, so far as is possible, all the facts that have hitherto been observed. There are, besides the loss of consciousness, other phenomena of which mention must be made. And the same variableness may be met with in these. An individual in

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the hypnotic state may perform certain actions, often of a complicated nature, under the influence of what our Paris *confrères* call "suggestion." This fact implies the persistence of function of certain tracts of brain tissue almost certainly situated above the level of the lowest sensori-motor areas, spino-bulbar centres, and probably in the cortex of the cerebrum and cerebellum. In catalepsy, as a rule, rigidity of the voluntary muscles also exists, and likewise a condition known as wax-like plasticity—flexibilitas cerea—a state which is detected after overcoming the primary muscular rigidity, and which allows of the limbs or other parts of the body being placed in the most awkward, constrained, and inconvenient postures. Indeed, the tissues appear to be as plastic as wax of a certain temperature, and can be moulded almost to the same extent. Once moulded, the tissues take on a rigidity that casts the muscles as though they had suddenly solidified, and from pliable wax had become solid bronze. But this is not all. Certain kinds of stimulation—as, for example, gentle but rapid stroking of the skin, or pressure on some nerves—have the property of relaxing the rigidity and of causing the limb or part to return to its customary condition. Of the accuracy of the facts which we have just described there can now be no kind of doubt. The phenomena may be ascertained without the slightest difficulty. Take, for example, the fixation of the leg of such a patient as CHAUFFAT. Let anyone in full health, strength, and consciousness try conclusions with this patient. He will find that attempts at maintaining his own lower extremity in the posture he may already have placed CHAUFFAT's will not be long successful. Most recumbent individuals could not maintain one leg raised at an angle of 60° for more than fifty or sixty seconds, without considerable pain and tremulousness developing, and leading to a strong desire to desist from the continuance of a task involving so much distress. With CHAUFFAT, or another cataleptic, several minutes would elapse ere tremor developed, and the leg would not fall until complete exhaustion had set in—an exhaustion that takes a much longer time to appear than in a conscious healthy subject. It is hardly possible for anyone to simulate the condition of flexibilitas cerea, and it does not seem within the bounds of reason to suppose that a conscious individual would permit the various painful excitations of his senses without evincing some signs of his having experienced them.

The explanation, anatomical and physiological, that we have to offer may be fairly stated in the following manner. Consciousness is only possible physiologically when the bulk of the cortical perceptive centres are in a state of normal functional activity. Loss of consciousness varying in depth is concurrent with loss of function of the cortical perceptive centres, also varying in degree. We know as well as it is possible to know that removal or damage of the whole of the cerebral cortex behind the "motor region" would destroy perception of all sensory impressions. We are also perfectly certain that a still more limited lesion of the centripetal paths could produce a similar effect. An individual in whom the "sensory crossway" or posterior third of the posterior limb of the internal capsule on each side had been completely severed would be totally anæsthetic to impressions on his tactile, auditory, visual, olfactory, gustatory, and probably visceral organs. If we imagine that in catalepsy there is a total loss of the functions of the cortical perceptive centres—a loss that may be caused by essential molecular changes, or due to blood poisoning or coarser disease—for it must be remembered that meningitis, tumours, softening, and malaria may be the efficient causes of catalepsy,—an explanation, imperfect and incomplete we grant, would be forthcoming of the symptoms and signs met with in catalepsy and hypnotism. It is highly improbable that an individual in possession of the proper use of the "motor" and prefrontal regions of his brain would be in a state of ordinary consciousness. In these regions are locked up innumerable motor mechanisms, and these may be unlocked and set agoing through the centripetal channels not concerned in the causation of consciousness. Indeed, it is a fact that all the movements which a cataleptic individual can be made to perform come within the category of automatic movements. It is clear that in the absence of consciousness new movements cannot be acquired, and we may take it for granted that mechanisms exist, preformed in the brain, for all the actions ordinarily performed by us. As an illustration, we need but mention the circumstance that most individuals go through such processes as undressing in a purely automatic fashion, the mind being occupied all the while by a train of thought. The placing of CHAUFFAT's hand in the fighting posture leads to the development of a menacing expression of the countenance. Consciousness need not be involved in such an association, for it is certain that mechanisms of a sensori-motor kind exist near together in the motor region of the brain—a region which there are good grounds for believing may be the seat of "muscular sense" as well as of certainly efferent motor impulses. Plasticity and rigidity of muscle can hardly be explained on the assumption that the bulbo-spinal centres are alone in action. It would obviously not explain the former phenomenon, and certainly not the rigidity; for this implies over-action, of which there is no other evidence than the mere rigidity, for the reflexes as a rule are not increased, and may even be diminished, in catalepsy.

IN whatever shape the proposals of those anxious for the reform of the University of London may be adopted, the existing constitution of the University is doomed. In Sir E. FRY's original scheme, in that of Sir P. MAGNUS, and in the one now before the Senate, associated Colleges and their representatives are introduced between the Senate and the members of Convocation, and duties of more or less importance are to be delegated to them. The Senate and the graduates in Convocation will be supplemented by Faculties and Boards of Studies, either as such, as in the new scheme, or as a Council of Education, as suggested by Sir P. MAGNUS, and on these the representatives of the Colleges will form the chief or sole element. It is by this infusion of teachers that the business of a local university is mainly to be carried on; but we question much whether the graduates in Convocation will not successfully attempt to weaken these clauses and substitute for them those in Sir P. MAGNUS's scheme. If such a course be adopted, the teaching element will be small in proportion, and so liable to be outvoted in the Boards of Studies and the

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Council of Education by representatives of Convocation, who may have no knowledge of the requirements of a suitable curriculum, so that the value of the other proposals will be reduced to a minimum. But even if the provisions of the new scheme be passed, they are too cumbrous and too ill-defined to give any reasonable hope of their being made capable of forming a basis for a real Teaching University, which is the great want in London. Bodies of insufficient weight and standing must be admitted if these clauses stand, and the larger educational Colleges will practically have no increased representation, influence, or power. This seems to us a fatal objection to the scheme. It is better to wait for a real Teaching University in London than to adopt a feeble substitute, which will weaken the absolute rule of the present Senate and impair the efficiency of the Examining Board for the empire, and not satisfy the aspirations of the teachers in the London Colleges which can fairly claim to be of university rank and standing. These defects will be clearly shown in an analysis of the proposed changes.

The University is to consist of (1) Senate, (2) Convocation, (3) Associated Colleges, (4) Faculties, (5) Boards of Studies, with the Queen as visitor, instead of merely Senate and Convocation as at present. The thirty-seven Fellows composing the Senate are to be divided into sixteen Crown nominees, the chairman of Convocation, twelve representatives of Convocation voting as graduates in Arts, Laws, Science, and Medicine separately; and eight direct representatives of the Faculties, also voting separately. The representatives of University and King's Colleges, the Colleges of Physicians and Surgeons, and of the Legal Councils, which were expressly named in the former schemes, have disappeared altogether, and their places are practically given to the representatives of the Faculties, so that the exceptional position of University and King's Colleges, and the advantages of association with the medical and legal corporations on which formerly so much stress was laid, are now put aside; but by a majority of one the Senate has determined that this question shall be reconsidered by the Special Committee. Life Senatorship is to be abolished in favour of a tenure of eight years; but Convocation has already favoured the still shorter period of four years, and this seems to us preferable, especially as retiring members are eligible for re-election. Except for an increase from nine to twelve representatives on the Senate, the powers of Convocation will remain unchanged, whereas, in Sir P. MAGNUS'S scheme, which Convocation adopted on June 29th, 1886, members of Convocation, as well as the Colleges and the examiners, were to form the Council of Education or intermediate body between the Senate and the graduates. This difference is a vital one, and we fear it will endanger the passing of the scheme through Convocation, whilst, if the alternative be adopted, the whole scheme will in the eyes of the teachers be worthless. The Faculties are now to be constituted solely by the representatives of associated Colleges, divided under Arts, Laws, Science, and Medicine, and each Faculty will elect members, who, with an examiner in each subject in the Faculty, will constitute the Board of Studies in each Faculty. These Boards of Studies will elect a chairman every year; consider and report to the Senate upon any matter referred to it by the Senate; express opinions on any matter connected with degrees, examinations, and teaching; and deliberate, if so requested, with the Senate, or report to the respective Faculties. They will thus form either distinct or conjoint permanent consultative bodies, whilst the Senate remains the sole executive. The associated Colleges are to be selected from Colleges and teaching institutions in any part of the United Kingdom, and may be named in a schedule prior to any application for a Charter, or be afterwards admitted by a Committee of Selection. This will be considered a weak alternative by those interested in promoting a Teaching University in London, and cannot but be opposed by that Association. The Medical Schools and Colleges from which the University receives certificates for degrees in Medicine will retain their right of giving such certificates, whether they be or be not associated Colleges. The present method of granting degrees is to be maintained, except that the Senate will ask for power to grant honorary degrees, which Convocation has always steadily declined to sanction. The last clause is so peculiar that we reproduce it *verbatim*: "Power to hold real property, and to accept grants, gifts, devises, and legacies for the purposes of the University, including the establishment of professorships and scholarships, and the furtherance of regular and liberal education and of original research. Provided that no professorship or lectureship be established in the University of a kind likely to compete with any teaching given in University College, London, or to injuriously affect the reasonable prospects of that College." Negotiations with that College will be held before applying for a Charter. The opposition of University College is to be bought off by this clause, and every other College and Medical School must take care of itself. A more palpable bribe to the section of the professors in University College which opposes the movement for a Teaching University, or a more unfair proposal, was never introduced into a University scheme than this proviso. Other institutions are concerned in the higher medical and general education as well as University College. As some questions are referred back to the Special Committee, which is requested to confer with the Committee of Convocation, and then report to the Senate, it is obvious that the scheme will not be sufficiently complete to lay before Convocation at the May meeting, and that a special meeting will have to be summoned for its consideration at a later date.

PROFESSOR MAX MÜLLER has inaugurated a good work, which may be described as the repair of philosophical breakages. There can be no question that philosophy and science are suffering from that merciless reduction of their subject-matter to very small pieces which has resulted from abuse of the analytical method, both in inquiry and in criticism. The aim of every student of art and nature has been to discover differences between things, and to formulate what have been termed *specific* characteristics with a view to classification. It has been so in the natural sciences, and it has been so in what may be termed the unnatural sciences, or those which deal with abnormalities, including pathologies. The gain would be enormous if this plague of disintegration could be stayed. Professor MAX MÜLLER thinks DARWIN would have added greatly to the already high value of his services to philosophy and science if he had abandoned the term *species* when he placed the facts

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of differentiation in a new light by his discovery. Accepting, as we must, the doctrine that words are not merely the instruments, but in a sense the integers of thought, it is manifest that any misuse of terms must be of more serious moment than any mere clumsiness in the naming of facts. MAX MÜLLER would improve our intellectual work and clear our brains by purifying our language, and with a view to the simplification of the task he would have us cut adrift as much as possible of the lumber that encumbers and strains both philosophy and science. This is the lesson we read in his lecture on Thought, and it is one that may well be learned by all who have the real and far-reaching interests of truth and knowledge at heart. To think simply and well is the first condition of good and useful labour in the province of mind; and simple, clear, and effective thinking is not possible unless "thinks," or *things*, are understood in their simplicity. The practical difficulty of simplification lies in the fact that everything is many-sided, and that, in order to obtain a sufficient notion of an object or a subject, we must, so to say, walk round it and observe each of its faces, and in doing this we cannot possibly avoid making such abstractions as are essential to the recognition of differences. There is food for earnest reflection in Professor MAX MÜLLER's discourse on this most interesting subject, and we can only regret that it does not form part of his programme to point out precisely how the fragments of knowledge grouped under the head of the medical sciences might be pieced together in such fashion as to make the views of those who need to be especially single-eyed and clear-sighted less obscure and more complete.

Annotations.

"Ne quid nimis."

DEGREES FOR LONDON MEDICAL STUDENTS.

THE decision arrived at by the Committee of Delegates of the Royal Colleges of Physicians and Surgeons to recommend their respective Colleges not to confer at present with University and King's Colleges, but to proceed conjointly and independently of other bodies, in their endeavour to obtain the right to confer degrees in Medicine and Surgery, will be received with much regret by all who are anxious to secure an academic degree for medical students in London, and will in no way diminish the opposition to a mere professional title, but tend to increase it. The provincial schools will insist on their claim to equal rights and privileges with the London medical schools, in any action taken by the two Royal Colleges, of which they claim to be constituent factors, and they will be strengthened by the professors and councils of University and King's Colleges, who will protest against a degree being conferred, in one Faculty only, by two professional corporations without university rank or academic status. The entire weight of the University interest in London and the country will now be thrown against the scheme, whereas by conjunction with University and King's Colleges the antagonism of the University of London would have been the only opposition to be apprehended on the academic side, and we have no doubt on which side the argument for "least resistance" really lies. With the University of London applying for a new charter, which will be opposed by many of its own graduates in Convocation and by those who are promoting the movement in favour of a Teaching University in London; with University and King's Colleges also applying for a charter to grant non-medical degrees, which will be opposed by the existing University, which dares not let its largest colleges secede without a struggle; with the Royal Colleges, again, endeavouring to obtain a charter to grant medical degrees—a movement that will be opposed by the provincial schools if a residential qualification be inserted and only half-heartedly supported by London teachers if this be omitted; by University and King's Colleges, who know that now or never they must become real constituents of a University; by all interested in founding a Teaching University in London, who will not willingly see the chief Faculty of such a University slip from the combination; by the Irish and Scotch corporations, which will seek similar powers out of jealousy and self-interest; and by the Apothecaries' Society, which has been contemptuously thrust aside,—the outlook is not a hopeful one. We are quite sure that it would have been more to the advantage of students if the question had been considered on a wider basis, and that less opposition to the degree would thereby have been aroused. Indeed, we still hope that the Crown will insist on the different bodies waiving their personal prejudices and jealousies, and compel them to unite to form a real University, such as exists in every metropolis and educational centre in the world except London.

RECENT CHANGES IN EXAMINATION REGULATIONS.

Two regulations of some importance to students were recently passed by the Colleges of Physicians and Surgeons upon the recommendation of the Committee of Management. The one refers to the period at which a candidate may again present himself after rejection at the final examination. Hitherto this period has been fixed at six months—rather a long time in the case of those who nearly attain the requisite standard, and entailing some hardship at the close of their curriculum. We think that the Committee have done wisely to allow such candidates as obtain fourteen out of the fifteen marks required to pass such examination to be admitted to re-examination after a period of three instead of six months' study. The other change adopted is in the regulations for the primary and elementary examination in anatomy and physiology. It allows a candidate to be admitted to this examination on the completion of his first six months' attendance at a recognised medical school (exclusive of the months of April, August, and September), instead of the stipulation that he should not be allowed to compete until the close of his first winter session. This change ought to be productive of a larger May entry in the schools, and a large number of candidates at the January examination, which will greatly relieve the plethora now experienced in April. With reference to this question, it may be useful to point out certain other directions in which these examinations may be improved. The principle recognised in the foregoing regulation of the first examination might well be applied to the second examination also; and in that case there would be no need to hold more than three such examinations yearly. The October examinations in anatomy and physiology are of little advantage, since the schools are closed during the greater part of the interval between that examination and the preceding. It is only for the final examination that the opportunities for study—i.e., clinical work—are available during this time. Again, the option allowed to candidates of entering for one subject only should not obtain for the second examination, anatomy and physiology being so closely connected with one another. A more liberal system of marking might also with advantage be introduced, for a maximum of fifteen marks for a whole examination is an absurdly small number, and must be diffi-

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cult for the examiners to work with satisfactorily. Lastly, a candidate who has been rejected in all the subjects of the first examination is required to pay a higher fee than that originally charged, for a rejection in each of the four subjects entails an additional fee of £3 3s., so that on his second appearance he pays £12 12s. instead of £10 10s.! This is clearly anomalous, and has probably been overlooked by the Committee of Management, who might profitably take the whole subject of fees into consideration.

THE ELECTION OF PRESIDENT OF THE ROYAL COLLEGE OF PHYSICIANS.

WE are glad to chronicle the fact that, at the meeting of the College of Physicians on the 4th inst., Sir William Jenner was for the seventh time elected to fill the office of President. The somewhat antiquated mode of election, without previous nomination, required (as it often has done) a second ballot, for unless on the first voting the Fellow whose name stands first has obtained the suffrages of two-thirds of those present at the meeting, the Fellows are called upon again to decide between him and the Fellow whose name stands next on the list of the first ballot. It is clear, therefore, that the first ballot does not indicate the full wishes of the College, many names often being returned with the view of showing who are eligible for the high office. It may be interesting to note that Sir William received 73 votes out of 120, the Fellows amongst whom the remaining 47 votes were distributed being Sir William Gull, Dr. Quain, Sir A. Clark, Dr. Wilks, Dr. Johnson, Sir H. Pitman, Dr. Andrew, and Dr. Ogle. Sir W. Gull's name on this occasion stood second, and the second ballot resulted in the return of Sir W. Jenner by an overwhelming majority—99 to 13. Sir William accepted this result as the practically unanimous wish of the College that he should continue as President for a seventh term, and he suitably expressed his sense of the high honour thus conferred.

PHYSIOLOGICAL ACTION OF NITROUS OXIDE GAS.

DR. DUDLEY BUXTON has communicated two valuable papers upon the above subject to the Odontological Society, based upon numerous clinical observations and experiments. The effects of nitrous oxide inhalation upon the mammalian organism are, he says, broadly speaking—(1) a condition of anæsthesia; (2) an emotional state, provoking a sensation of exhilaration—in fact, it plays the *rôle* of a stimulant; (3) it gives rise to modifications of the respiratory and (4) circulatory systems; and (5) provokes marked muscular movements, which may be classed as (*a*) rigidity and (*b*) jactitations. The anæsthesia produced by nitrous oxide is not dependent upon analgesia or loss of sensation of painful impressions of the sensory end-organs, such as that produced by cocaine &c., or upon failure of the conducting sensory nerves, for sensation is retained until the perceptive powers themselves cease to receive; moreover, there is immediately anterior to the loss of consciousness a hyperæsthetic stage, therefore it may be concluded that the nerve centres are acted upon. The ways by which nitrous oxide may enter the system, and is enabled to produce its special effects are—either that it gives rise to other bodies by changes in its chemical form, or by acting as an irrespirable gas and causing asphyxia, or by exercising a specific action, just as strychnine does. Dr. Frankland came to the conclusion that nitrous oxide was not decomposed during its sojourn in the body, basing his opinion upon analyses made of the air expired by rabbits when confined in an atmosphere of mixed air and nitrous oxide. In the first stage of asphyxia, that of dyspnœa, there is an increase in the respiratory movements, both inspiratory and expiratory; in the second, a dominance of the expiratory efforts, culminating in general convulsions; in the last, exhaustion, with long-drawn inspirations, gradually dying out. The blood-pressure during the first and second stages rapidly rises. Dr. Dudley Buxton has never observed an increase in the expiratory movements when HO_2 has been administered, which are merely increased in number and depth, or expiratory convulsions, notwithstanding the gas has been pushed to its utmost limit, and from a large number of sphygmographic tracings the tension in the arteries has been lower than normal. In experiments upon dogs, Dr. Buxton found that where a trephine-hole was made through the skull, during the inhalation of the gas the brain pulsations became more forcible and somewhat hurried; then the brain substance was seen to swell up, until at last it actually protruded through the aperture; whereas in a similar experiment, with the trachea occluded, the brain receded, sinking away from the opening. Other experiments showed that the heart's action was but little interfered with by nitrous oxide, even where the inhalations were pushed until respiration was interrupted; during asphyxia, on the other hand, a rapid and continuous increase in blood-pressure invariably occurred. The dose of nitrous oxide required to produce insensibility varies very considerably in different persons—a fact which supports the view that nitrous oxide exerts a specific action on the nerve centres. Dr. Buxton also discusses many other interesting points in the action of the gas, such as the occurrence of hallucinations.

THE CASE OF TRANCE.

NORMAL consciousness has not yet returned to M. Chauffat, who is now in the thirteenth day of his "sleep." But there are signs indicating the possible near approach of restoration to the natural state of life. The loss of consciousness is less profound. It is possible to awake Chauffat with but little external stimulation. Moreover, during the past three days evidence of a wider awakening of intellect has been shown; acts are performed indicating the revival of considerable powers of memory. The anatomical substratum of mind can be aroused to such a state of activity that apparently correct answers relating to questions involving a ready remembrance of past scenes and acts may be obtained from the patient. These replies cannot be communicated by word of mouth, but Chauffat makes himself understood by the aid of fair penmanship. To the lay mind, doubtless such facts appear extraordinary, but medical men are familiar with cases of brain disease in which similar phenomena obtain. As happened after Chauffat's previous attacks of hysterical catalepsy, paralysis of the left leg and dumbness persist some time after the recovery of power over the other movements of the body. It is difficult to explain in Chauffat's case why the cerebral centres controlling the speech movements—ordinarily subserved by the *left* side of the brain in right-handed individuals—and those presumably in the right side of the brain presiding over the movements of the left leg should remain so much longer in the "sleeping" state than the large remainder of the cerebral cortex. The ultimate recovery of these centres, however, proves that they are not the seat of gross changes. Employing an analogy from electricity, we may imagine that the speech and left leg centres take a longer time to recharge with the vis nervosa. It may be remembered that Chauffat has uttered a few words, such as "thief," "scoundrel," and a number which is believed to be that of the cab in which he was last driven. Such ejaculations also show that the speech centres can be thrown into action, but probably only as the result of powerful excitation. This is in accord with all previous observations. It may be asked why the above-mentioned words, and not others, were spoken. The reply to this question is that it is very pro-

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bable that the words were some of the last used or about to be used by Chauffat before he became unconscious. Highly probable is it that the molecular changes, the accompaniments of these words, in the speech centres leave more than usually permanent traces, the physical bases of memory, which render the words more liable to be uttered, under the influence of incitations, than words which have left less indelible markings. The other functions of the patient have undergone a satisfactory improvement, but their condition presents little that is of special interest. We may refer for further comments on the trance condition to an article on page 736.

THE CROONIAN TRUST.

AFTER some delay and much discussion, the Royal College of Physicians have agreed to a scheme whereby the large funds that now accrue from the Croonian Trust may be utilised. It may be remembered that last year it was decided that there should be one or more lecturers appointed "to deliver lectures on one or more subjects in Anatomy, Physiology, and Pathology, with a view to the prevention, control, and cure of diseases," and that the funds should be administered in payment of such lecturer or lecturers, and in promoting scientific investigations on the subjects of the lectures. The regulations adopted at the last meeting of the College—which will be found on another page—are in accordance with these resolutions. It will be seen that provision is made for the reappointment of the lecturer, whose duty it will be to deliver a course of not less than four lectures annually. In this way the lecturer will be free to take up subjects which may entail prolonged investigation. At the same time, it might have been well to have placed some limit upon his term of office, the only objection to that being that he might feel bound in every case to hold it for the full number of years assigned. The devotion of the surplus of the fund to defray expenses of original investigation by a past or present Croonian lecturer strikes us as somewhat limiting the benefits to be derived from the fund; and we should prefer to have seen the proposal to nominate, from time to time, a junior Fellow to a Croonian Fellowship. But the committee, who doubtless considered this point, may have felt their hands tied by the original terms of the trust. It now remains for the choice of the President and Censors to be made with circumspection; and we may hope that the cause of scientific medicine will be promoted in the selection of lecturers who will be enabled to devote their time to original investigations. Lastly, it may be noted that the time fixed for the delivery of the lectures is in the month of June, instead of in March as at present, and that the first course will be given in 1888. It must therefore soon devolve upon the President and Censors to make their selection.

ALLEGED ILL EFFECTS OF VACCINATION.

AN inquest was held by Dr. Danford Thomas on the 29th ult. touching the death of Ellen Jane Herring, aged four months. The deceased child was vaccinated by the public vaccinator a month prior to its decease. A few days before death another medical man was consulted as the child grew ill. Coma supervened and proved fatal. A certificate was given that death was due primarily to meningitis, and secondarily to "the effects of vaccination." The vaccinia had progressed in a normal manner in every particular. There was very little constitutional disturbance, and unusually little inflammation about the vaccination points. Several other children were vaccinated from the arm of deceased. There were no signs or symptoms of blood poisoning. The manner in which the death certificate was written was most unfortunate, for at the inquest the doctor who signed it deposed that he intended to convey no more than that vaccinia, being a specific fever, had somewhat lowered the vital powers of the child, and so to a certain extent had acted as an accelerating cause of death. So far this was true, but both the popular and professional interpretation of the certificate would be something far graver. In short, the certificate was calculated to credit vaccination with the death, and discredit a valuable life-saving procedure. Very properly a post-mortem examination was ordered to be made. At the necropsy it was found that there was typical tubercular meningitis with hæmorrhage beneath the arachnoid. The inflammation was purely basal. Both lungs were thickly studded with quite recent miliary granulations. The mesenteric glands were tubercular, some containing caseous matter, and others suppurating. There were no metastatic infarcts or abscesses; in fact, there was complete absence of anything that could be assigned to pyæmic infection. The vaccination scars were normal, and there was no infiltration of inflammatory matter around them or in the associated lymphatic glands. Mr. Pepper stated that, in his opinion, the vaccination had been satisfactorily performed and that the vaccinia had run a natural course; and, further, that the vaccination had little or no effect on the development and progress of the tuberculosis, which had commenced previously to it, and which would inevitably have proved fatal within a short period had vaccination not been performed. The jury unanimously accepted these opinions, and recorded the same in their verdict.

THE CARMARTHEN INQUEST CASE.

ON March 25th last an inquest was held at Carmarthen before Mr. John Hughes, F.R.C.S., coroner, concerning the death of George James, aged forty-seven, head constable. From the evidence reported we gather that deceased had suffered for some time from nervousness and want of sleep, but that otherwise he was not known to be in ill-health. Soporifics had been administered by Mr. J. E. Edwards, M.R.C.S., and on the day of his death deceased applied for more medicine. Mr. Edwards made up a draught containing half a drachm of chloral hydrate and half a drachm of bromide of potassium, and gave both written and oral instructions that half the contents of the bottle were to be taken at once and the other moiety three hours later if required. Deceased wilfully disobeyed the doctor's orders and took the whole quantity in one dose, and almost immediately died. If the medicine was dispensed as described we cannot doubt that the death was due to other causes, and even if the dose had been large enough to be probably a fatal one, we should not expect death to occur so suddenly as it did. The medical man who made the post-mortem examination deposed that "there were no symptoms of chloral poisoning, and no signs of disease in the internal organs, and he could offer no opinion as to what was the cause of death." The jury returned the verdict, "Death by the visitation of God." On theological grounds such verdict might be found in every case of death; but from a medical and scientific standpoint it is merely a record of ignorance of the facts underlying the event under consideration. It must not be concluded that because no chemical tests for chloral give affirmative evidence of its presence in the body after death, therefore it may not have been taken even in a lethal dose, for experience teaches the contrary. In our opinion, Mr. Edwards must be acquitted of all blame in the unfortunate matter of the death of Mr. James. He had a perfect right to prescribe chloral, if, in his judgment, he thought fit; and certainly he cannot be accused of carelessness in the matter of giving directions as to how the medicine was to be taken. We fully endorse the protest be made at the inquest, that he was not informed of the time and place of the post-mortem examination. To some

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extent his professional conduct had been impugned by the friends of deceased, and, moreover, the coroner, in the exercise of his judicial function, cautioned Mr. Edwards as to the evidence he was about to tender, thus properly, but unfortunately, giving some colour to the loose accusation of blame that had been laid at his door. It is true there is no legal responsibility compelling the coroner, or the medical man commissioned to make the examination, to give notice to individuals concerned in the issue of the inquiry, but it is none the less desirable that such practice should always obtain. The coroner for Central Middlesex is very strict on this matter of procedure. With the order for making a post-mortem examination he encloses notices for any other medical men concerned, leaving the time of the examination to be filled in by the gentleman who is to officiate at the necropsy. We commend this discretionary action to all coroners, medical or otherwise. Mr. Edwards has our sympathy in the somewhat painful position in which he has been placed.

CONGENITAL OCCLUSION OF THE PHARYNX.

A SPANISH practitioner, Don M. D. Illera, gives in *El Siglo Médico* an account of a case in which a newly born child could not be taught to suck, and whose mouth on the introduction of the finger grasped it like a ring. On inspection the middle third and edges of the tongue were found to be connected to the superior alveoli by firm adhesions, which entirely prevented the organ from being depressed. In addition to these adhesions, two little tumours were seen on the palate near the arch of the fauces, which almost occluded the passage into the pharynx, thus rendering swallowing of liquids almost impossible. It was evident, therefore, that unless operative measures were resorted to the child must necessarily succumb very shortly from sheer inanition. The parents, however, though the state of the case was laid before them, refused to permit of an operation till the fourth or fifth day, when they decided to allow it. Don Illera seized the tumours with forceps and cut them off at the base, touching the bleeding surfaces immediately with the actual cautery. The adhesions were then divided, and after the application of a sponge with cold water for a few hours, repeated very frequently, the child was able to swallow some milk quite easily, and ultimately attained complete use of the tongue. Don Illera was induced to publish this case, as he once saw a similar case in which the practitioner in attendance had considered the risk of operation too great to be attempted.

MORAL DISCIPLINE OF LUNATICS.

GRANTED that very much of the wrong-doing of eccentric persons is the outcome of mental derangement, the question arises whether or not, in the interests of the individual as well as of society, it ought to be regarded as crime or insanity. We are of opinion that this question can never be answered as directly and simply as many respectable authorities desire that it should be. We incline to the belief that no hard-and-fast line can ever be drawn between crime and madness. There are undoubtedly, we think, cases in which, as Dr. Edgar Sheppard pointed out years ago, there is an admixture of wickedness and disease in which the proportion of the two constitutional elements may vary almost indefinitely. If that be so, then it is manifest that each individual case must be studied and treated on its particular merits. Accordingly, we are not disposed either to blame all judges and justices of the peace who sentence lunatics to terms of imprisonment, or to maintain the plea of insanity on behalf of all transgressors. Moral discipline of the sort which consists in the punishment of offences, whether these offences be wholly malevolent or partially insane, is by no means inadmissible in the treatment of mental disorder or disease. It is not for the advantage of the weak-minded that they should be allowed to think that the hypothesis of irresponsibility will cover any multitude of sins. Better far let these half-mad folk understand once for all that if they outrage public decency or assault their neighbours they will have to suffer for the offence. These are general remarks, and we do not wish to apply them specifically; but the principle of moral discipline is, we are convinced, a sound one, and neither the lunatic population nor the community as a whole will suffer by reason of its being enforced.

THE CORONER'S CENSURE ON A MEDICAL STUDENT.

LATE on Saturday night, the 26th ult., a man aged twenty-four, was taken to St. Thomas's Hospital by the police; he was said to have been "run over" by a tramcar about an hour previously. A medical man, who had seen him earlier, thought that he was suffering from internal injuries. The dresser who saw the man on his arrival at the hospital made a very careful examination, but failed to discover anything beyond a small scalp wound, two abrasions on the back, and another on one of the legs. The patient was quarrelsome, could not answer questions coherently, presented no signs of shock, and was in a condition of semi-intoxication. Without referring to the house-surgeon, the dresser, a Japanese gentleman, told the police to take him away. He was taken to the police-station and seen several times during the night, as he was very noisy and vomited frequently; he also went to the watercloset once. No complaint was made during the night, nor did he ask to see a doctor. In the morning he dressed himself, and then complained for the first time of pain in the epigastrium, but left the station by himself, having given bail. He was soon after found by a policeman, not far from the station, leaning against a wall and complaining of great pain in the abdomen. The man was taken to the Wandsworth Infirmary, where he died the same evening from peritonitis, which at the post-mortem examination was found to have been caused by a small rupture of the duodenum; there was also a slight rupture of the liver. At the inquest on the case, the coroner censured the dresser for not having called the house-surgeon to see the man, saying that if it had not been for the careful manner in which he had examined the patient a verdict of manslaughter against the dresser might have been returned. We think in such a case no person in a subordinate position should take upon himself to pronounce an opinion or assume responsibility unnecessarily. Although the house-surgeon might not have recognised the injuries which were shown at the necropsy to exist, and the symptoms of which were so long delayed, still he would probably have admitted such a case and watched for their development.

THE DIMINISHING USE OF ALCOHOL.

WE share the satisfaction of all our contemporaries in reflecting on the significance of a less expenditure on alcohol. The expenditure on drink in 1886 was £122,905,785, as compared with £123,258,906 in 1885, or £363,121 less. Ten years before, in 1876, the highest expenditure was reached—viz., £146,288,759, or £4 9*s.* per head, as against £3 7*s.* 8*d.* in 1886. It is deeply to be regretted, however, that the diminution in one year is not more than £363,121, in spite of all the teaching of medical science and personal experience. Not only is the diminished amount drunk still enormous, but it is drunk by an ever-diminishing number of persons. For there is an ever-increasing number of persons who either totally abstain or drink exceedingly little. It is drunk, too, in a wrong way. All casual drink-

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ing, drinking on an empty stomach, is bad, and makes directly for disease. We must be thankful for any improvement, however slight. But the disease implied in the consumption of nearly 123 millions of money's worth of alcohol is enormous. A recent return to Parliament shows a steady and large decrease of alcohol consumption in workhouses. In the year ending Michaelmas, 1871, the total cost of intoxicants used in workhouses in England and Wales was £82,554. The cost for 1885 was £44,820. In some workhouses with a large number of inmates, as Wandsworth, Lambeth, and Bethnal-green, no intoxicants at all were used. Similarly with several provincial workhouses. It cannot be too much impressed on guardians that there should be no interference with the medical officers in regard to the prescription of alcohol for the sick, nor upon the medical officers that theirs is the responsibility of prescribing it with care. The Parliamentary returns show that in workhouse practice, as in private, the profession is alive to its responsibilities.

THE HOXTON MURDER CASE.

We imagine there are few persons who will demur to the finding of the jury in this case at the Central Criminal Court, for, guided by the light of the existing law of this country, there was abundance of evidence to show that Currell was guilty of the crime of wilful murder. It is true there was no direct or personal evidence against him, but the indirect or circumstantial was so complete and consistent that no doubt can be left in the inquiring mind that the verdict was fully warranted by the testimony. The convict on the day of the murder borrowed a key of the house where his sweetheart, the deceased woman, then lived. Shortly afterwards, when accosted by an acquaintance with the fact of the death, he replied, in answer to the observation "This is a serious matter for you," "Yes, it is." At the same time he showed no concern to learn the circumstances surrounding the death of Lydia Green. His purloining deceased's wages from her fellow-workpeople, together with his subsequent flight, can only be explained on the theory of his guilt. But, putting on one side the bearings of the legal technicalities of the case, we find ample grounds to warrant us in affirming that the crime was not wilful murder as understood by the medical jurist. That Currell knew the nature and consequences of the act he was about to commit we do not attempt to dispute, but that he was of sound mind and understanding we feel justified in denying. There is scarcely a murder trial of the kind under review in which the presiding judge does not brush against the tangled thicket of law and alienism, and in the recent gaol delivery at the Old Bailey Mr. Justice Grantham, although impartial in his summing up, managed, we assert, with all respect, to run counter to the laws that govern mental science. His lordship remarked in his charge to the jury: "The absence of motive of anger, or of passion, or of any wrong to be revenged only increases the enormity of your crime." This sentence would meet with our approval were it justifiable to assume that all the facts underlying the crime were known (and who can doubt that many were hidden in the minds of the murderer and his victim?), and still more that Currell was at the time free from impulses ungovernable by an impotent will. As regards motive, we are entirely at one with the learned judge, for in few instances can the act of murder find a commensurate excuse, and, as a rule, it is idle and futile to endeavour to fathom the causes of capital crime where the evidence is only circumstantial. We trust the Home Secretary will order a medical commission to inquire into Currell's antecedents and his present condition. The justification for such a procedure may be found in Mr. Justice Grantham's weighty remark: "*It may be that you committed this murder in some unaccountable and irrational state of mind.*" We are no advocates for allowing crime to go unpunished, but it is our bounden duty to plead that life shall not be taken except in cases in which there is the clearest and fullest proof that it has, in the most unqualified sense of the term, been wilfully sacrificed by the accused. It must be proved beyond all reasonable doubt that Currell's "*peculiar temperament*" cannot be translated as his uncontrollable impulse, before the sheriff and the hangman have carried out the last scene in the drama of the convict's miserable existence. Both Mr. Davies, who was called to see the deceased woman shortly after the murder, and Dr. Burchell, who conducted the post-mortem examination, were censured by the judge: the former for neglecting to investigate the case more fully, and for hastily assuming that the wounds might have been occasioned by a fall; and the latter for having trusted to his memory for facts observed at the necropsy. In extenuation of Mr. Davies's mistake, we believe it may be urged that he was called from a case of labour that demanded his presence. Dr. Burchell's error was venial; nevertheless, it may be pointed out that no circumstances connected with an alleged murder are too trivial to be recorded at the time of observation. It is too much, however, to expect from a man engaged in busy general practice what may appropriately be demanded from an expert pathologist and professed medical jurist.

MUMPS AND PERIPHERAL NEURITIS.

Many diseases not strictly speaking of nervous nature have now been found to be associated with peripheral neuritis. Phthisis, typhoid fever, diphtheria, and other febrile diseases are the best known of these. Mumps may be added to the list on the authority of M. Joffroy. The paralysis that occurred in Joffroy's case affected all four limbs. The legs, as usual, were first affected. Lancinating pains preceded the paralysis. The deep reflex actions were abolished. The muscles gave the reaction of degeneration when tested with the faradaic and voltaic currents. The muscles appeared to be increased in sensitiveness, for slight pressure caused pain. The paralysis was observed first three weeks after the onset of the mumps. Is it necessary to ask whether the case was one of true mumps? Mumps is certainly complicated and sometimes followed by cerebral paralysis. In M. Joffroy's case the paralysis endured for four months. Iodide of potassium was the medicament administered.

THE HYGIENE OF OCCUPATIONS.

The hygiene of occupations has been attracting the attention of the State Board of Health of New Jersey, who have, as a preliminary to the study, set forth the general considerations involved in a paper by Dr. E. M. Hunt. He is followed by Dr. J. W. Stickler, who, after having dealt in detail with the various processes included in hat-making, finds that from the beginning, when the different furs are dealt with in the mixing and blowing room, to the end, when the finishers take up the manufacture, certain diseases, and especially affections of the respiratory organs, are liable to be induced. In fact, out of a total number of 722 hatters, the cause of whose death could be accurately determined, no less than 51·8 per cent. died of pulmonary phthisis, and 63·5 per cent. of some form of lung lesion. The next subject of work is that of silk, flax, and jute, which is taken up by Dr. W. K. Newton. As regards silk, he would strongly discourage weaving in dwelling-houses, where the loom or reel is often set up in an already overcrowded kitchen or living room; but he holds that if factories could be built and maintained so as to afford proper lighting, heating, and ventilation, the silk manufacture ought to be a healthful one. In the case of flax and jute, the hackling process, for which no satisfactory machine has been invented,

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fills the air with dust made up of dirt and minute fibres, leading to paroxysms of coughing and often to early death. The spinning process charges the air in much the same way, the hair and clothing of the operatives being covered with the dust. Hemp and flax dressers inhale a dust that is peculiarly irritating, and the processes generally tend to destruction of the lung tissue in some form or other, and lead to a high mortality amongst the workers. Fans are stated but rarely to effect a proper change in the state of the air, and hence some form of air-filter over the mouth is recommended. In wet-spinning, the air, instead of containing dust, is loaded with moisture, which drops like a fine mist on the operatives, who are practically subjected to a vapour bath—an arrangement provocative of bronchial and other catarrhal affections, as also of rheumatism. The diseases occurring in the manufacture of rubber boots and shoes are considered by Dr. J. P. Davis. After a description of the processes of this trade, it is pointed out that the greatest danger attends the compounding process, in which a large quantity of white lead, litharge, &c., is mixed with the rubber or gum, lead-poisoning being especially frequent during moist hot seasons in summer, when the factory windows have to be kept carefully closed. The heat and want of ventilation are also very injurious. The other conditions leading to mischief are the introduction of naphtha into the cauldron of liquid; the machinery, with resulting accidents; and the fixing of the rubber when completed on to the heels and soles of the boots and shoes, the last being pressed against the pit of the stomach. It is to be hoped that the series commenced in this report will be extended to other trades.

GLASGOW UNIVERSITY CLUB, LONDON.

WE understand that the Marquis of Lothian, Secretary of State for Scotland, and Lord Watson, who was formerly the representative of Glasgow University in the House of Commons, will be the guests of this Club at their approaching dinner on April 29th (Graduation Day), when the chair will be taken by Professor Gairdner of Glasgow. The Club now consists of upwards of 100 members, and as it is constituted entirely with a view to such social meetings, and to maintaining in London the *esprit de corps* and associations connected with their *alma mater*, it seems probable that there may be many men in various walks of life who would desire to become members, but whose names have escaped the notice of the council. The inaugural dinner of the Club, at which Professor Sir W. Thomson presided, took place in October last, at the Holborn Restaurant. The honorary secretaries are Dr. Heron, 57, Harley-street, W., and Mr. McIlraith, 3, Furnival's-inn, W.C.

THE SANITARY STATE OF AVONMOUTH.

THERE is a stage in the history of towns and communities when their future prosperity is either made or marred, and in no respect is this more true than as regards their healthiness. For commercial and other reasons people begin to aggregate on sites which would not otherwise be selected as suited for the growth of towns; and where such sites have from the first been a primary care of the local sanitary authority, being at once supplied with adequate means of sewerage, water-supply, and other sanitary requisites, prosperous places and healthy communities have in the end resulted. Where the first beginnings of towns have been neglected, or, to a large extent, looked on with indifference, the reverse has been the case, and in the end such localities have either attained an unenviable notoriety for their unhealthiness, or it has taken many thousands of pounds to secure mere comparative healthiness in places where a few hundreds at the onset would have been far more successful. Avonmouth, not far from Bristol, is one of these growing towns; its docks are already attracting the favour of ocean steamers, a new dry dock is in contemplation, and about a thousand people are already established there. It has not been altogether neglected. Indeed, a system of sewerage has been established, and it would appear that modern building bye-laws are in operation there. But a system of sewers in a low-lying spot which does not take away the contents of large "rhines" of stagnant water, and which is so contrived that the lowest floors of houses cannot be adequately drained into it, is not such a system as is needed for a growing community. If there be one thing above another that is requisite in sewerage systems, it is that there should be a proper fall from the lowest floor of all dwellings to the sewer, and that the sewer should pass at a proper fall to its outlet. Neither of these essential requisites exists at Avonmouth, and hence, instead of this locality, which has grown up during a period of unexampled sanitary opportunities, being typical of that which is called for by modern health requirements, it is, in the words of Dr. Crossman, the local medical officer of health, the weakest point in his district. We have referred to the existence of building bye-laws in Avonmouth, but it is well known to those who are concerned in sanitary administration that such bye-laws lose their main power for good unless a surveyor is appointed to see to their enforcement; and no such appointment has been made for Avonmouth. There are doubtless other points in which the health requirements of this growing place call for attention, but we have only noted the great need for a proper system of sewerage and outfall, and for proper control over building operations, as types of that class of work which in all such places can ensure future healthiness if they are properly carried out at an early stage, whereas sickness and disease are sure to ensue sooner or later if they are neglected. There is no time like the present for initiating measures which are to influence the sanitary history of growing communities.

THE PRIVY COUNCIL AND THE MEDICAL ACT OF 1886.

THE *London Gazette* of April 1st contains an order of the Queen in Council declaring that on and after the first day of June, 1887, the second part of the Medical Act shall be deemed to apply to New Zealand.

THE ANATOMICAL SOCIETY.

As we announced some time since, steps are being taken towards the foundation of an Anatomical Society. It is proposed that the scope of the new Society shall be "Human and Comparative Anatomy, Embryology and Histology, so far as they bear upon Human Anatomy." The project is receiving influential support from authorities in England, Scotland, and Ireland. An inaugural meeting, at which Professor Humphry has consented to take the chair, will be held towards the end of the present month, at a place and time to be announced in due course. Mr. C. B. Lockwood, of 19, Upper Berkeley-street, W., is acting as hon. sec. *pro tem.*, and will be glad to give information to anyone who is interested in the movement.

REGISTRATION UNDER OLD DIPLOMAS.

THE uncertainty of the exact bearing of the Act of 1886 on the conditions of registration after the appointed day in June, and the opinion of the solicitor to the General Medical Council (see p. 747) thereanent, induce us to advise all persons entitled to registration on old qualifications to register without delay. One of the most probable consequences of the new Act will be to raise legal questions more likely to benefit the sister profession than our own.

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THE HEALTH OF THE SPEAKER.

WE are glad to be able to announce that the health of the Right Honourable the Speaker of the House of Commons is progressing favourably. We learn that on Saturday, the 26th ult., after the repeated long sittings of the House, he was much exhausted, and on the following day he experienced a severe attack of cramp of the right leg, which was followed by swelling and tenderness in its middle and lower thirds, indicating some lymphatic disturbance. There is little doubt that the harass and anxiety inseparable from his official position have been much augmented by the recent disturbed condition of political affairs, and have been too great a strain upon his usual good health. The right hon. gentleman has been attended by Mr. G. W. Mackenzie, of William-street, Lowndes-square, and on Wednesday morning was sufficiently recovered to leave London for Sandy, his country residence in Bedfordshire. He has leave of absence until the middle of next week, when he is fully expected to be able to resume his Parliamentary duties.

TORTURING TURTLES.

IF it were not cruel—which it is, and hideously so—to bring over turtles in a dying state, it would be wantonly wasteful. We wonder that the aldermanic conscience—which is popularly believed to be located within the area of the gastric organ—has not long ago rebelled on behalf of the poor turtles thus tortured. Of course the animals ought to be either killed and packed in ice, or preserved in tanks. The turtle is not so common a stock-in-trade as to be necessarily "bulked" in carriage. The waste is large, and the quality of the meat is wofully deteriorated by the way it is tumbled about and mauled *en route*. If to these drawbacks we add that the sufferings inflicted on the creatures are terrible, it might be thought that the case for prudence and humanity was made out—but is it?

ABUSE OF MEDICAL CHARITY IN SCOTLAND.

A MEETING of medical practitioners was lately held in the Faculty Hall, Glasgow, Dr. James Morton, President of the Faculty, occupying the chair. He and various speakers descanted on the abuse of medical charities, both infirmaries and dispensaries. Dr. Macleod was especially emphatic in complaining that even well-to-do people came to the infirmary, and even as in-patients. "He had," he said, "some farmers in his wards, who farmed six or seven hundred acres of land. They would come up with lines from doctors recommending them. The medical profession was immensely at fault in this. They suffered greatly by these letters from doctors." We feel bound to reproduce these words, and hope to have some refutation of them from Scottish practitioners. Practitioners are well within their rights in representing to their consulting brethren the means of their patients, with the view of getting for them that consideration which the best consultants are ever ready to give. But infirmary beds are not meant for those who farm six or seven hundred acres. The Scotch boast, and properly, of their independence, but in all the literature of abused charity there is nothing worse than the accounts of abused medical charity in Scotland. Dr. John Brown in "Our Gideon Grays" quotes from the Appendix to the Report of the Board of Supervision the results of the inquiries of a voluntary association of medical men formed in Edinburgh, with the public-spirited Dr. Alison as chairman. The inquiry had reference to the remuneration of doctors among the paupers. One man attended 400 paupers for eight years and never received one farthing for his skill, time, or drugs. Another has the same story to tell of 350, some of them thirty miles off. He moderately calculates his direct loss from these calls on his time and purse at £70 a year. Verily, ours is a benevolent profession. But our benevolence, like that of Dr. Alison himself, has been overdone, and is bad for the public and the poor. A committee was appointed to consider and report on the best means of preventing abuse and overlapping of medical charity.

PERTH INFIRMARY.

IN the issue of THE LANCET for April 2nd it was stated that eight directors of the Perth Infirmary had resigned in consequence of the strained relations between the board of directors and the medical officers of the institution. It seems that the only strained relations existing were between Dr. Bramwell and the directors. The latter had deemed it wise to promote Dr. Bramwell to the consulting staff after nineteen years of service as a visiting surgeon. Dr. Bramwell did not wish to resign his position on the visiting staff, and at a meeting of subscribers his supporters passed a vote of censure, in consequence of which eight directors resigned. Another meeting of subscribers has since been held, at which the directors who had resigned were re-elected unconditionally by an overwhelming majority. The relations between Messrs. Christie, Stirling, Graham, Calder, and Hunt, the medical officers of the Perth Infirmary, and the directors have, we understand, always been of a most friendly nature.

"BRAIN."

ARRANGEMENTS have been made between the Council of the Neurological Society of London and the editorial committee and publishers of *Brain*, in virtue of which the journal has become the organ of the Society. The publishers, Messrs. Macmillan and Co., have undertaken the whole financial responsibility of the journal, which will henceforth be regularly sent free of charge to every member of the Society. The editor is Dr. de Watteville, who has fulfilled the post of acting editor for many years past. The next number of *Brain* forms the first part of the new tenth volume, and will contain Dr. Bastian's important paper on the Muscular Sense, with the discussion thereon.

DEATHS OF EMINENT FOREIGN MEDICAL AND SCIENTIFIC MEN.

THE deaths of the following foreign medical and scientific men are announced:—Don Manuel Rioz Pediaja, Professor of Chemical Analysis as applied to Medicine in the University of Madrid, who had held the offices of Dean of the College of Pharmacists and of Rector of the University. Dr. Gustav Kempner, *privat-docent* of Berlin. Dr. Julius Wolff, one of the medical officers of the Policlinic in Breslau. Dr. Jean Kickx, Professor of Botany and Director of the Botanic Gardens in Ghent.

VACCINATION AND DISTEMPER.

M. DUPUIS of Brussels has made a number of observations for the purpose of ascertaining the effect of vaccination on puppies, with special reference to its power of protecting them from the distemper. He found that it was quite possible to inoculate them with vaccine, but that it had no protective influence against distemper.

THE TREATMENT OF PHTHISIS BY ANILINE.

THE commission which was appointed by the second congress of Russian medical men at Moscow to examine the treatment of phthisis by aniline, as proposed by Professor Kremianski, has, after experimenting on a number of animals who were fatally affected by even small doses of aniline, and after some little trial in the wards, come to the

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conclusion that aniline is not harmless to animal life, but on the contrary, very poisonous indeed, and that it also exerts no beneficial effect at all on phthisis.

FOREIGN UNIVERSITY INTELLIGENCE.

Basle.—Dr. Fehling, Director of the Stuttgart School for Midwives, has been appointed Professor of Midwifery.

Berlin.—Professor Karl Möbius of Kiel will take up the duties of the chair of Zoology after Easter.

Bordeaux.—M. Blarez (*agrégé*) has been appointed Professor of Chemistry.

Cracow.—Professor Hofmokl of Vienna has refused the invitation to Cracow on account of the wretched condition of the surgical clinic. The names of Drs. Rydygier and Obalinski are now mentioned in connexion with the vacant surgical chair.

Giessen.—Dr. Spangel, Director of the Town Museum of Natural History, has been appointed Professor of Zoology.

Helsingfors.—Dr. Holsti has been appointed Extraordinary Professor of Internal Pathology, and Dr. E. Sundvik Extraordinary Professor of Physiological Chemistry and Pharmacology.

Innsbruck.—Dr. Borysiekewicz of Vienna has been appointed Professor of Ophthalmology.

Lyons.—M. Laroyenne, who takes one of the gynæcological courses, has been appointed Professor-adjoint. M. Perroud, who takes one of the courses on children's diseases, has also been appointed Professor-adjoint.

Munich.—Dr. Karl Schloesser, Assistant in the Ophthalmic Clinic, has become *privat docent*.

Nancy.—M. Hergott (*agrégé*) has been appointed Professor of Midwifery. M. Spilmann (*agrégé*) has been appointed Professor of Clinical Medicine.

Rouen.—Professor Duménil has been appointed Director of the Preparatory School of Medicine.

Tomsk.—The Medical and Physico-Mathematical Faculties of this the new Siberian University are to be opened this year.

Toulouse.—M. Charpy has been appointed Professor of Anatomy, in succession to M. Bonamy, deceased.

Vienna.—Professor Max Gruber of Graz has been appointed Extraordinary Professor of Hygiene. It has been decided that the vacation courses are only to be open to foreign medical men in cases where the full number of the classes is not made up by Austrians. This may prove rather a serious matter for some of the English and Americans who frequent the Vienna Hospital for the short courses, for which it is famous.

Würzburg.—Dr. Matterstock has been selected by the Senate as successor to Professor Geigel, the recently deceased Professor of Medicine.

AT the Belgian Royal Academy of Medicine there has been a warm discussion for some time past on the subject of the State regulation of prostitution. M. Moeller, in support of his objections to the principle of regulation, attempted at a recent sitting to show by reference to English statistics that such regulation was not only useless, but actually hurtful. M. Crocq, however, from the very same statistics, proved that the cases of contagion in the British army were less numerous by one-half in the localities where the Contagious Diseases Acts were in force than in other garrison towns.

THE lectures at Gresham College, Basinghall-street, will be delivered by Dr. Symes Thompson on the 19th and three following days of the present month. The subject will be "The Blood." It is hoped that the course will be continued on Oct. 4th, 5th, 6th, and 7th.

ON the 4th inst. Mr. Ritchie received a deputation at the Local Government Board from eleven unions and boards of guardians, representing all the great military and naval centres, who urged that the law should be amended so as to enable them to detain in their infirmaries patients suffering from disease until cured. Mr. Ritchie, in reply to the representations of the deputation, said that he did not know whether Lord Devon's Act, which enabled the guardians to detain persons suffering from "contagious disease," could be applied to these cases; but he would obtain the opinion of the law officers of the Crown upon the point, and would communicate their opinion to the various boards of guardians.

THE captain of the ship *Belpore* of Liverpool, which arrived in the Tay from Calcutta on the 31st ult., reported to the Customs officers who boarded the vessel the deaths of two of the crew from cholera during the homeward passage. The vessel was moored at the quarantine station, and a thorough disinfection by the sanitary authorities was ordered previously to her coming into port.

THE Norwegian Government has taken another step towards discovering the origin and nature of leprosy, which is so common on the west coast of Norway, by despatching Dr. G. A. Hansen, director of the Leprosy Hospital at Bergen, to North America, for the purpose of inquiring into the heredity of the disease among Scandinavian emigrants to the United States.

DR. SINCLAIR COGHILL of Ventnor has been elected Vice-President of the International Medical Congress to be held at Washington on Sept. 5th proximo.

AT Braintree, in consequence of the extensive prevalence of measles in the town and neighbourhood, several of the schools have been closed.

THE trustees of St. Bartholomew's Hospital, Rochester, have declined to reopen the lock ward of that institution.

ROYAL COLLEGE OF PHYSICIANS.

A COMITIA of the Royal College of Physicians was held on Monday last, the 4th inst., the President, Sir W. Jenner, Bart., in the chair. There was a large attendance of Fellows.

A communication was read from the Colonial Office requesting information upon the contagiousness of leprosy. The subject was referred to a special committee consisting of Sir Risdon Bennett, Sir J. Fayrer, Dr. R. Liveing, and Dr. Stone.

It was resolved to erect a statue of the Queen in the new Examination Hall, in conjunction with the Royal College of Surgeons.

The adoption of the report of the Croonian Committee was moved by Dr. Quain, seconded by Sir E. Sieveking, and carried. The report, which was based on resolutions of the College passed on June 29th, 1886, recommended the following regulations:—"1. That the Croonian lecturer be appointed annually by the President and Censors for the purpose of delivering a course of not less than four lectures on subjects embraced in No. 1 of the above resolutions. 2. That the lecturer be paid 100 guineas for the lectures, and that the remainder of the Croonian Trust fund be employed for original investigation by a past or present Croonian lecturer. 3. That the lecturer, who must be a Fellow in accordance with the original trust, shall be eligible for reappointment. 4. That the subjects of the lectures and investigations be selected with the approval of the President and Censors. 5. That the lectures be delivered in the month of June, and that the first course of lectures be given in 1888."

The President then addressed the meeting upon the

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affairs of the College during the past year, and gave an account of the career of the six Fellows who had died since the last annual meeting—viz., Drs. Wiltshire, Nairne, Farre, Chadwick, Moxon, and Carrington.

The election of President was then proceeded with, and the choice again fell upon Sir W. Jenner, who was formally inducted into the office by the Senior Censor.

MEDICAL REGISTRATION AND THE NEW ACT.

IN view of the possibility of some (perhaps many) who possess registrable qualifications not being aware of the full bearings on registration of the Medical Act (1886), a letter, of which the following is a copy, has been forwarded to all the medical licensing bodies in the United Kingdom:—

"Sir,—I am directed by the President of the Medical Council to forward to you, for the information of ——— ———, the following statement, which has been prepared for him by the solicitor to the Council:—

"'After the 1st of June, 1887, no person can be put on the Medical Register by virtue of a single qualification, such as a diploma in surgery or a diploma or licence in medicine. Up to the 1st of June next any person can be put on the Register by virtue of such single qualification, and being once on, he may obtain additional qualifications by subsequent examinations, and such additional qualifications may be added to or substituted for those already on the Register. But after the 1st of June next no one can be put on the Register who has not passed the qualifying examination required by the Act of 1886—that is, an examination in medicine, surgery, and midwifery, and these three subjects must be taken up together; hence anyone who has now a single qualification, and intends to obtain further qualifications after the 1st June next, should take care to be on the Register before that day, for if he is not on it, his single qualification will not afterwards entitle him to registration.'

"As the subject is of importance to many persons who have not yet completed their medical education, you will doubtless think it desirable to give the statement such publicity as you may see fit, for the information of candidates for your examinations. "Yours faithfully,

"W. J. C. MILLER, Registrar.

"General Medical Council Office, 299, Oxford-street, London, W."

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Caxton and St. Neots Combination.—Mr. Poyntz Wright acts for two rural areas and one urban district. So far as he has had opportunity of judging the water-supply, he is of opinion that the wells are frequently contaminated with organic and sewage matter by reason of the dangerous proximity of privies and cesspools fouling the subsoil, and he points out the risks which such a system involves. He also advises the abolition of cesspool privies and their replacement by earth-closets or pail-closets. He also advocates in certain places cesspool drainage in safe positions, with an overflow into a water-course. This, we fear, is unsafe advice, involving as it does fresh pollution of streams, and absolute breach of Section 47 of the Public Health Act, in so far as the urban district is concerned which is named at the head of the chapter, if indeed this district was intended to be included. The St. Neots rural authority have, on Mr. Wright's suggestion, adopted a voluntary system of notification of disease, but the urban authority objected to carry out such a system, on the ground that the medical attendant on such cases rendered unnecessary, by his action, any interference on the part of the health officer. Such reasoning would, if carried to its proper extent, lead to the abolition of the clauses of the Public Health Act as to the prevention of infection in all cases where a doctor was called in; but this was certainly not the intention of the Legislature. Dealing in other chapters separately with each district, it appears that in St. Neots much well-water is dangerously circumstanced, and weekly scavenging is called for, together with improvement in closets and in dealing with slop-waters. In the Caxton rural district good water will soon be available for several places from water-works to be erected at Bourne. In the St. Neots rural district improvements have been made at Grafham as to water-supply, and at Eaton Socon the sewage irrigation answers well; but at Kimbolton a similar system would appear to have resulted in failure, owing to the land receiving more sewage than it can possibly take up.

Helmsley Rural District.—In the Helmsley division of this union the population is 3961, and it had in 1886 a death-rate of 12·1 per 1000. There was no scarlet fever or measles during the year, and only 3 cases of enteric fever came under notice. The history given as to these by Dr. Bruce Low shows how carefully each such occurrence is investigated with a view to preventive action. It is somewhat curious that 61 cases of diarrhœa occurred at Pockley in this district; the details were sent to Dr. Ballard in connexion with his official inquiry into diarrhœa prevalences. The general immunity of this district from dangerous infection may perhaps induce the authority to postpone providing the means of isolation and disinfection which Dr. Low advocates, but it is precisely during the absence of emergencies that these matters should be dealt with. It is satisfactory to record a marked diminution in illegitimate births and in deaths amongst such children, especial attention having been devoted to this subject in the district, and wide publicity having been given to the evils and cruelties heretofore attendant on illegitimacy. Questions of overcrowding, water-supply, and other matters are dealt with as they rise.

Clitheroe Urban District.—The birth-rate for this district in 1886 was 28·8 per 1000, the death-rate 17, and the zymotic rate 1·5. The current work of the year included the gradual removal of open midden-privies, 170 having been abolished in favour of the tub system. Action is also being taken towards securing the slaughtering of animals in wholesome places, and in certain instances any further slaughtering in existing places was prohibited. It is also stated that as the present time there are but few instances in which there is any direct communication between houses and drains in the Clitheroe district. In the Low Moor district matters are by no means so satisfactory; and whereas in Clitheroe reduction of mortality is shown, no such diminution is observable in the Low Moor. In the former, for example, the infantile death-rate is distinctly less than in the latter. Mr. J. J. Fraser also shows that where sanitary improvements have been effected infectious diseases have diminished.

St. Asaph Rural District.—With a death-rate of 18·0 per 1000, Dr. Lloyd-Roberts is of opinion that deaths are not excessive; but whilst there may not be much to complain of, there is, in our opinion, still room for improvement in this respect in such a district. Diphtheria has often been a perplexing disease in this portion of North Wales, and it was last year scattered through six parishes in this rural district. In St. Asaph itself infection is conveyed from the upper to the lower parts of the city by the river Elwy, which acts as a source of water-supply for the latter area. But we read, as regards the district generally, that no new public works for sewering or water-supply have been undertaken. At Prestatyn such works are imperatively called for, the district being one which bids fair to become a growing watering-place.

Pwllheli Urban District.—In this district the death-rate for 1886 was 18·13 per 1000. Early in the year small-pox called for energetic action, and, owing largely to the available hospital accommodation, the disease was checked. Out of 21 cases 3 were unvaccinated, and of these 2 died; whereas no case occurred in a revaccinated person. Mr. Lawton reports that he has maintained systematic inspection of the district, and he shows how such matters as scavenging and water-supply have been supervised, and how slaughter-houses, common lodging-houses, and bakeries, &c., are controlled.

VACCINATION is, it is stated, to be enforced among all the workmen employed on the coming Paris Exhibition. Each man will be vaccinated as soon as engaged, and the Government will not only pay for the necessary medical treatment, but will continue the man's wages should his arm become bad and prevent him from working.

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VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 6022 births and 3831 deaths were registered during the week ending April 2nd. The annual rate of mortality in these towns, which had increased in the preceding seven weeks from 19·5 to 23·5 per 1000, declined again last week to 21·6. During the thirteen weeks of the first quarter of this year the death-rate in these towns averaged 20·0 per 1000, and was 2·2 below the mean rate in the corresponding periods of the ten years 1877-86. The lowest rates in these towns last week were 14·6 in Brighton, 17·2 in Bradford, 18·8 in Birmingham, and 19·3 in Portsmouth. The rates in the other towns ranged upwards to 28·7 in Manchester, 30·7 in Huddersfield, 32·5 in Plymouth, and 33·1 in Blackburn. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had increased in the preceding seven weeks from 340 to 465, further rose last week to 471; they included 239 from measles, 105 from whooping-cough, 37 from scarlet fever, 32 from diphtheria, 32 from diarrhœa, 25 from "fever" (principally enteric), and only 1 from small-pox. These zymotic diseases caused the lowest death-rates last week in Birkenhead and Bolton; and the highest rates in Oldham, Sunderland, and Huddersfield. The greatest mortality from measles occurred in Sheffield, Cardiff, Liverpool, Newcastle-upon-Tyne, Bristol, Oldham, Manchester, Huddersfield, and Sunderland; and from whooping-cough in Bristol, Huddersfield, and Blackburn. Of the 32 deaths from diphtheria in the twenty-eight towns, 14 occurred in London, 4 in Liverpool, 3 in Bristol, 3 in Oldham, 2 in Plymouth, 2 in Birmingham, and 2 in Manchester. Small-pox caused one death in Portsmouth, but not one either in Greater London or in any of the twenty-six other large provincial towns. Only 2 cases of small-pox were under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease. The deaths referred to diseases of the respiratory organs in London, which had been 433, 474, and 509 in the preceding three weeks, declined again last week to 417, and were 127 below the corrected average. The causes of 107, or 2·8 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Wolverhampton, and Huddersfield. The largest proportions of uncertified deaths were registered in Oldham, Salford, Sheffield, and Halifax.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 26·2 and 25·9 per 1000 in the preceding two weeks, further declined to 23·5 in the week ending April 2nd; this rate exceeded, however, by 1·9 the mean rate in the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 11·5 and 18·5 in Leith and Greenock to 28·2 in Paisley and 31·5 in Aberdeen. The 588 deaths in the eight towns last week showed a further decline of 58 from the numbers in the previous week, and included 43 which were referred to measles, 31 to whooping-cough, 18 to diarrhœa, 8 to diphtheria, 6 to scarlet fever, 5 to "fever" (typhus, enteric, or simple), and not one to small-pox; in all, 111 deaths resulted from these principal zymotic diseases, against numbers increasing from 98 to 127 in the previous four weeks. These 111 deaths were equal to an annual rate of 4·4 per 1000, which exceeded by 1·7 the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of measles, which had increased in the preceding four weeks from 27 to 55, declined last week to 43, of which 34 occurred in Aberdeen and 8 in Glasgow. The 31 deaths from whooping-cough corresponded with the number in the previous week, and included 12 in Glasgow, 11 in Edinburgh, and 5 in Dundee. The 18 deaths attributed to diarrhœa showed a further increase upon recent weekly numbers; 10 were returned in Glasgow and 4 in Dundee. The 8 deaths from diphtheria included 3 in Glasgow, 3 in Edinburgh, and 2 in Paisley. The 6 fatal cases of scarlet fever, of which 3 occurred in Glasgow and 2 in Edinburgh, showed a decline of 12 from the number in the previous week. The 5 deaths [illegible] fever," an increase of 2 upon the low [illegible] week, [illegible] deaths from the eight towns, which had been 152 and 146 in the preceding two weeks, further declined last week to 132, and were 2 below the number in the corresponding week of last year. The causes of 67, or 11 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 29·3 and 31·3 per 1000 in the preceding two weeks, was again 31·3 in the week ending April 2nd. During the thirteen weeks ending last Saturday the death-rate in the city averaged 30·9 per 1000, the mean rate during the same period being but 20·7 in London and 21·6 in Edinburgh. The 212 deaths in Dublin last week corresponded with the number in the previous week; they included 6 which were referred to "fever" (typhus, enteric, or simple), 4 to measles, 4 to scarlet fever, 3 to whooping-cough, 1 to diarrhœa, and not one either to small-pox or diphtheria. Thus the deaths from these principal zymotic diseases, which had been 10, 7, and 18 in the preceding three weeks, were again 18 last week; they were equal to an annual rate of 2·7 per 1000, the rates from the same diseases being 2·0 in London and 3·8 in Edinburgh. The deaths referred to "fever" exceeded the number in any recent week, while those from scarlet fever showed a decline of 3 from the number in the previous week; the fatal cases of measles and whooping-cough corresponded with the number in the previous week. The deaths of infants exceeded the number in either of the previous two weeks; while those of elderly persons showed a decline. Four inquest cases and 5 deaths from violence were registered; and 69, or nearly a third, of the deaths occurred in public institutions. The causes of 29, or nearly 14 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

MEDICAL REGULATIONS.

ALTERATIONS in and additions to the Regulations for the Army Medical Department have been approved, and will be issued to those concerned.

A Greenwich Hospital Pension of £50 a year for Fleet and Staff Surgeons has fallen vacant by the death of Retired Fleet Surgeon Gerald Yeo, F.R.L.S., who had been a recipient of the same since May 21st, 1881.

WAR OFFICE.—Army Medical Staff: Brigade Surgeon Wm. Alex. Gardiner is granted retired pay, with the honorary rank of Deputy Surgeon-General (dated April 2nd, 1887).

ADMIRALTY.—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Inspector-General of Hospitals and Fleets Dugald McEwan, M.D., has been placed on the Retired List.

In accordance with the provisions of Her Majesty's Order in Council of March 25th, 1887, Deputy Inspector-General of Hospitals and Fleets William Henry Sloggett has been granted the honorary rank of Inspector-General of Hospitals and Fleets, in recognition of his services as Inspector of Certified Hospitals (dated March 25th, 1887).

The undermentioned Surgeons have been promoted to the rank of Staff Surgeon in Her Majesty's Fleet:—Herbert Elliott Marsh; Henry George Travers Strickland, M.B.; Alfred Patterson; Michael Ronan, B.A.; John Anderson McAdam; John Dudley, M.B.; and David Brownrigg Bookey.

The following appointments have been made:—Staff Surgeon J. A. McAdam, to the *Penguin* (reappointed on promotion); and Surgeon William George Jack, to the *Forward* when recommissioned, and until then additional.

ARTILLERY VOLUNTEERS.—2nd Durham (Seaham): Surgeon T. C. Beatty, jun., resigns his commission (dated April 2nd, 1887).—Luke Gerald Dillon, M.D., to be Acting Surgeon (dated April 22nd, 1887).

ENGINEER VOLUNTEERS.—2nd Cheshire: Jas. Atkinson, Gent., to be Surgeon (dated April 1st, 1887).

RIFLE VOLUNTEERS.—4th Lancashire: Surgeon and Honorary Surgeon-Major E. H. Roe resigns his commission; also is permitted to retain his rank and to continue to wear the uniform of the corps on his retirement (dated April 2nd, 1887).—1st Linlithgowshire: John Anderson, M.B., to be Acting Surgeon (dated April 2nd, 1887).—1st London (City of London Rifle Volunteer Brigade): Surgeon J. J. Gawith resigns his commission (dated April 2nd, 1887); Acting

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Surgeon H. F. Stokes to be appointed Surgeon (dated April 2nd, 1887).—22nd Middlesex (Central London Rangers): Surgeon J. R. Kemp resigns his commission (dated April 2nd, 1887).

Correspondence.

"Audi alteram partem."

THE TREATMENT OF PLACENTA PRÆVIA.

To the Editors of THE LANCET.

SIRS,—I suppose, strictly speaking, that no particular method of managing placenta prævia can claim being *the treatment*, because the conditions which present themselves when we are called to these cases vary very much, and to each variety there is a more appropriate treatment. Besides the two positions of the surroundings I mentioned in my last letter—namely, where we are called without previous knowledge, and secondly, where we have already ascertained the existence of placenta prævia,—there are three main classes:—

1. If the os uteri be well dilated, the placenta extending but a little over the os, and consequently the membranes plainly felt, the rupture of the membranes is the first thing to be done. If turning has been determined upon, then this will be performed at the same time; otherwise we might wait for the natural forces. Should these hesitate, or hæmorrhage continue, ergot, forceps, or version should be employed, according to circumstances. There will be no reason to detach the lower portion of the placenta.

2. Should the placenta, however, be attached nearly or entirely athwart the os uteri, then the detachment of the placenta as far as the fingers can easily reach will have a twofold effect: it will relieve the os from the restriction the adhesion of the placenta caused, and permit consequently its expansion; and it will also for a certain period generally check the bleeding, but not always; sometimes there is a very sharp loss; then the quickest and surest plan is to turn at once and plug the os by the leg or breech; the bleeding then stops, and pains generally arrive in a short period. If, after this separation of the lower portion of the placenta, no bleeding arise, and if we can remain about the patient, the natural forces might be trusted to deliver the patient; should, however, these hesitate, we might elect two plans—either to dilate the os with Barnes' bags, and when the os is large enough to apply the forceps to the head to bring this into the os, or turn and bring the breech into the same position. In either case labour pains usually soon come on. We should keep on the forceps, however, to assist, if needful, till the head is clear. But if, on the contrary, we have neither bags nor forceps at hand, then version by my method gives the patient security.

3. But supposing the os uteri is small, the bleeding severe, and, called on suddenly, we are unable to obtain either dilating bags nor forceps, also unable to leave the patient till delivered: then it is (now that the tampon is for ever, I hope, discarded), even though the os would admit only one or two fingers, that my plan of turning becomes the security of the patient, and being the only treatment possible, and of the most secure kind, it does practically become *the* treatment.

In the second class of cases, when the employment of version becomes necessary from the continuance of hæmorrhage, and both dilators and forceps are absent, and the os being not dilated sufficiently to admit the hand, then my plan of turning becomes *the* treatment, and the patient's security, and, except the *accouchement forcée*, the only security; and these cases, coupled with the third class, form by far the largest number in every-day practice. But the full recognition of the rule for as early a delivery as possible in cases of placenta prævia brings out the advantage which the capability of early version given us by the combined or bipolar method, advancing treatment a considerable stage earlier; and when other methods are not to hand, as I pointed out in 1863-4 in my remarks on Dr. Greenhalgh's paper, and in my work on Combined Turning, there is one advantage in this form of version, that soon after the leg is brought through the os uteri labour pains generally occur, giving time enough for the patient to rally and an early release of the medical attendant. Dr. Lomer points out the ease with which his assistants learnt it, and he thinks they represent very well the average in the profession, the cases reported having been done principally by them. Still, without classifying the employment of version as a routine, practice gives results at present of the most favourable kind. In the conclusion of an unavoidably egotistical letter, I would again urge those engaged in midwifery, while employing all the modern methods of help suitable to each case, to remember the rule, "Deliver as early as possible after the recognition that the placenta is about or athwart the mouth of the womb"; and to this I would add, "Don't leave the patient till she is delivered." As the result of my experience, I have often remarked I would rather handle a case of placenta prævia than one of post-partum hæmorrhage.

I am, Sirs, yours truly,

J. BRAXTON HICKS.

George-street, Hanover-square, April 3rd, 1887.

PASTEUR'S "METHODS."

To the Editors of THE LANCET.

SIRS,—Your issue of Feb. 5th contains a letter by Dr. John H. Clarke, in which he says, "At any rate, the facts should be made known without delay, in order, on the one hand, to remove suspicion from M. Pasteur's treatment, or, on the other hand, to warn possible applicants against the risk it involves." This warning does not come a moment too soon. I have been rather surprised that, in the face of von Frisch's experiments and M. Peter's experiences, THE LANCET has not thought it advisable to warn the profession of the possible dangers of the latest phase of M. Pasteur's treatment—the intensive method. Certain of M. Pasteur's French supporters—especially M. Grancher—are still triumphantly appealing to the formidable list of "cases of cure." But not only is the treatment in those cases founded on a fallacious basis, but it has been abandoned, and, so far as we have particulars, it has been distinctly confuted by crucial experimental test. M. Pasteur has at last been driven to admit the force of an objection, which he should have recognised before committing himself to the treatment of human beings after they were supposed to have been inoculated with rabic virus. This is what he says: "The objection can be brought against the usual protective inoculation of man after a bite, which is based upon the inoculation of dogs before the bite, that the immunity of animals after infection with rabies poison has not been certainly established. To confute this charge it is necessary to make dogs immune after trephining and the intra-cranial inoculation of street rabies. ..... My first experiments on this point took place in August, 1885. The result was a partial success. In the course of the last month I took up these experiments as soon as my duties allowed me time. *The condition of success is this: that the inoculation should begin soon after the infection—i.e., the same day;* that one must proceed with such extraordinary rapidity that the series of *medullæ oblongatæ* made use of may be employed in twenty-four or less hours, and that this treatment must be repeated once or twice every two hours. That Dr. v. Frisch was not successful in similar experiments is to be ascribed to the slow inoculation he employed." I will not now stop to consider whether M. Pasteur does not stand condemned out of his own mouth. As von Frisch has repeated the experiments by the new method, and declares that the procedure is not only *not* successful but possibly dangerous, and as, moreover, M. Pasteur has declared otherwise and admits the transcendent importance of the test, let that point be authoritatively and finally settled. Any appeal to the "cases" in view of M. Pasteur's utterance, to the effect that the condition of success is that the inoculations should be commenced the same day as infection, and with such extraordinary rapidity, is simply idle, as in none of them was that condition observed. Let varying quantities of saliva—diluted if necessary—taken from a rabid dog be injected into healthy ones, and let M. Pasteur operate in half the cases, the other half being reserved as controls; and let this experiment be repeated as often as necessary. M. Pasteur must stand or fall by this test. What, may I ask, would have been the fate of M. Pasteur's method had one of the fatal cases been his first instead of Joseph Meister? Should we have heard any more of it? I imagine not. Unfortunately, the twelve inoculations (six of which were done with subsequently

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proved innocuous material) accomplished then what thirty-six do not succeed in doing now, and the reputation of the method was established! But, *mirabile dictu*, that very perfect, ever-successful, though unstable method has now been abandoned for a new one. "The three little inoculations" at any time before the occurrence of hydrophobia became twelve within thirty-five days of the bite, reduced suddenly to fifteen days; though the non-fatal cases were all the time vauntingly held up as examples of the success of the treatment. Now we have the latest shift, which affects not only the number of inoculations, but the very intensity of the material itself, and which, according to M. Pasteur's experimental "conditions of success," actually reduces the time to *the day of infection*. Bearing in mind the manner in which the method has undergone so many modifications with a never-failing claim to success, we are brought face to face with the fact that we must accept one or other of the following two conclusions:—(1) That there are degrees of infection, that each method operated efficiently in preventing rabies, and that there was a marvellous adaptability between the degree of infection and the method adopted in each case; or (2) that in the rare cases in which infection occurred the inutility of the particular method had recourse to was demonstrated, and a change of method was accordingly adopted. Which, may I ask, is the more reasonable conclusion? It is pitiable to see the intolerance with which M. Peter's efforts to lay bear the truth are met by M. Pasteur's partisans; but the time will surely come when he will make himself heard not only within the walls of the Académie de Médecine, but in every corner of the earth where M. Pasteur's fame has reached.

I am, Sirs, yours faithfully,

Goalundo, March 1st, 1887. VINCENT RICHARDS.

THE CASE OF LENNARD *v.* BROWN AND ALLATT.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of the 5th ult. there was a leading article dealing sympathetically with the case of Lennard *v.* Brown and Allatt, in which an attempt was made to prove adultery against a medical co-respondent. This attempt broke down entirely, and Mr. Brown was absolutely exonerated alike by the summing-up of the judge and by the verdict of the jury. The petitioner has no means of paying the costs which Mr. Brown has incurred in defending himself, and these amount to the sum of £160 18*s.* 11*d.* We think the case is one in which other practitioners may be fairly asked to assist Mr. Brown in bearing the expenses which have thus been forced upon him. But he felt it to be a duty to resist the attempt, to which any other member of the profession might be exposed, and in thus deciding he was fighting the battle of the profession as much as his own. We trust that you will render us your valuable assistance in bringing forward this aspect of the case, and that you will be induced to take charge of any fund which may be raised for the purpose indicated.

We are, Sirs, yours truly,

ROBERT BARNES,
SYDNEY JONES,
W. H. BROADBENT.

April, 1887.

*** We understand that Dr. Murray, of Meadowside, Upper Richmond-road, Putney, has expressed his willingness to receive subscriptions towards a fund for the purpose intimated in the above letter.—ED. L.

"A VICTIM OF THE LAW."

To the Editors of THE LANCET.

SIRS,—The letter which appeared in THE LANCET of March 19th with the above signature discloses a case which seems to me to call for some practical sympathy from members of our profession. The writer tells us that, in compliance with a magistrate's order (which, I presume, he was bound to obey), he examined and certified to the insanity of a patient who, in consequence of his certificate, was consigned to a lunatic asylum. On regaining her liberty, she brought an action against the medical man who signed the certificate; and though the verdict was given in his favour, he is now called upon to pay costs to the sum of £240, the plaintiff professing herself a pauper. [illegible] ill-paid profession few can, without serious inconvenience, if not actual hardship, bear such a strain on their resources; and if you, Sirs, would open a subscription list for the unfortunate "victim," whose name is, I presume, known to you, I feel sure that many of his professional brethren who have happily escaped such vexatious actions themselves will show their thankfulness by helping to indemnify him for his pecuniary loss. In "mind and body" he has doubtless suffered much; it should be the care of his brother practitioners that he does not suffer in "estate" also.

I am, Sirs, yours truly,

Petersfield, March 28th, 1887. A. W. LEACHMAN, M.B.

*** At the moment of going to press, we learn that the Metropolitan Counties Branch of the British Medical Association have opened a subscription list for the object mentioned above, and that donations towards the fund may be forwarded to Mr. George Eastes, M.B., 69, Connaught-street, Hyde Park. The amount given or promised has already reached nearly £40. We need scarcely say that the movement has our hearty sympathy.—ED. L.

THE DRAINAGE OF THE MONTE CARLO CASINO.

(From our Special Correspondent.)

IN a previous letter the condition of the sewers of Monaco was described and criticised, but tourists are more interested in the drainage of the Casino than of this antique town. Most visitors live in the district of Monte Carlo or of the Condamine. There is only one very small and modest hotel available at Monaco. Tourists go up to Monaco to see the Palace, the small museum, the quaint streets of the old town, and the very beautiful garden at the extremity of the rock. To the naturalist this garden is interesting as a contrast to the Casino gardens, situated on the opposite hill of Monte Carlo, for they contain no foreign plants, but a luxurious collection of indigenous flowers and shrubs. Nevertheless, all this may be seen in a couple of hours. The case is very different with regard to the Casino. Even those who do not play spend every day many hours within the walls of this magnificent building. The admission is absolutely free, and there are concerts twice a day, given by one of the best orchestras in Europe. The theatre, built by Garnier, the architect of the Paris Grand Opera, is in itself a sight which would attract thousands of people, even without the concerts and theatrical representations. Then there is a reading-room, with more than a hundred periodicals in all languages; and the Atrium, a magnificent hall, where people walk up and down for hours together, talking to their friends; the Atrium is, in fact, the universal rendezvous, where half the gossiping of Monte Carlo takes place.

These explanations are necessary to show that the sanitary condition of the Casino must have an important influence on the health of those persons who spend any time in the Principality. It so happens, however, that though money has been lavished on this superb building and no pains have been spared to render it attractive, the usual continental ignorance with regard to sanitary matters has very considerably marred the general result. The organisation of the drainage has been left to mere hazard, and the same may be said with respect to ventilation. There are eight closets for the use of the public in the basement of the Atrium, placed back to back and separated by a narrow passage. Formerly a small metallic pail or *tinette* was placed under each closet, which only retained the solid materials; and, incredible as it may seem, the liquid contents were actually allowed to overflow on the floor of the passage. The floor being slightly concave, the sewage, of a very offensive and concentrated description, slowly trickled to the centre, thus converting the passage into an open drain gravitating towards a little sewer. Of course, the smell from this passage occasionally invaded the whole building. This is now, however, altered. The *tinette* system is abolished. English closets, draining into hardware pipes, are employed in their stead. The flush is insufficient and badly delivered, but still the closets are free from odour, and the passage is no longer a standing nuisance. Here the improvements end. Immediately outside and almost touching the wall of the Casino

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an immense cesspool has been constructed. As the law of the Principality forbids the draining of closets into the sewers, it may be thought that the building of a cesspool was unavoidable; but a special enactment was obtained from the Government exempting the Casino from this rule. Unfortunately the only use made of this advantage has caused more harm than good; for not only has the obnoxious cesspool system been maintained, but, availing themselves of their special privilege, the Casino authorities have allowed an overflow pipe to be added. Thus, after the accumulation of several cubic yards of sewage—that is to say, when the sewage has had plenty of time to ferment and to attain its foulest and most dangerous condition—it reaches the level of the overflow pipe and escapes into the sewers. Of course the smallest quantity of sewage in such a state gives rise to great nuisance, particularly as the sewers at Monte Carlo are not systematically flushed or ventilated. It is extraordinary that in the nineteenth century such obvious errors should be committed. The Casino is so close to the sea and the sewer outfall that, though the sewers are not properly constructed, no great harm would have arisen if the building drained direct into them, particularly, as with the new English closets, a considerable volume of water is now employed. But to allow the sewage to accumulate, to ferment, and then permit its slow but continuous flow into the sewers, is simply to poison the whole neighbourhood. Far from the Casino, and on higher ground, the sewer mouths have given off odours which have surprised persons not acquainted with these details. Evidently the cesspool must be abolished altogether, or else the overflow must be carefully closed and the cesspool periodically emptied, like all the other contrivances of this description within the Principality.

Apart from this, during the present season and for many weeks the most appalling odours have prevailed throughout the Casino, especially in the reading-room and in the theatre. One waterspout running outside a wall was discovered and pulled down. It communicated with the sewer, and, being in a leaky condition, enabled foul gases to travel upwards into the wall. A new pipe has been substituted, which is made to empty over an open gully, and thus the connexion with the sewer is effectively severed. This is one of the very rare instances of an improvement accomplished which is scientifically correct. But there are other defects that have not been discovered, and the constant escape of sewer-air within the Casino is all the more dangerous as the building itself is completely devoid of any system of ventilation. The air depends for its renewal on the hazard of opening doors or windows. There are a great number of "lanterns" on the roofs of the gaming-rooms, but these are so low that when opened a violent down-draught ensues. Consequently they are nearly always shut, and intolerable heat and closeness result. Undoubtedly the excitement of gambling is most injurious to the health; but when combined with the respiration of foul air, contaminated by the breath of thousands of people, by the emanations from badly-constructed drains, and the burning of hundreds of lights, the result is even more disastrous. As Monte Carlo is not only of itself one of the best health-resorts on the Riviera, but is easily and constantly visited by invalids from Cannes, Mentone, Nice, &c., these considerations are of great importance. The public have at least the right to expect that the wealthy owners of the Casino will try to provide pure air for the three or four hundred thousand visitors who each year are tempted to try their fortunes at the *roulette* or *trente et quarante* tables. In this case it is not so much a matter of expense as of knowledge. The directors of the Casino do not know what to do. They are not men of science, and the persons in their employ are men of art and men of business who have never had any opportunity of learning anything about sanitation. Thus more money has been spent in building what has proved to be the cause of nuisance and of danger to health than it would have cost to construct drains correctly laid, ventilated, trapped, and intercepted. But this excuse does not deprive the public of the right to protest; and, as yearly the climatic advantage of Monte Carlo as a health-resort is better appreciated, both by physicians and by patients, it becomes a duty to point out these defects. Moreover, there is every reason to feel the utmost confidence that the directors of the Casino would make considerable alterations if they were certain that the desired improvements could be secured. It would be difficult to find in all Europe a building where, during the course of the year, so great a number of people congregate and remain for so many hours within its walls. But this season many persons have been positively driven away by the bad smells; and, if for no higher motive, self-interest points to the necessity of better ventilation and better drainage. Enough has been done for outward show and outward attractions; care must now be taken that, in contemplating the fine paintings, decorations, and architectural beauties of the Casino, or in listening to its unrivalled orchestra, the visitor shall no longer be inconvenienced by impure air and insufficient ventilation. Indispensable improvements of this description, there is little reason to doubt, will be attempted at no distant date. The directors have discussed these matters on several occasions. Many projects have been submitted to them, and it is to be hoped that they will soon have succeeded in selecting a good working plan. In that event it will be a pleasure to notice favourably that which, at present, and in the public interest, it is necessary to criticise somewhat severely.

LIVERPOOL.

(*From our own Correspondent.*)

THE NORTHERN HOSPITAL AMBULANCE.

SOME idea of the great value of a well-organised ambulance service in such a city as this is shown in the account given of one day's work done by the ambulance of the Northern Hospital. On the 28th ult. there were removed to the hospital the following cases:—1. A sailor, suffering from scalp wounds, concussion of the brain, and compound fracture of the leg. 2. A carter, who had sustained a scalp wound and concussion of the brain. 3. A man, seventy-two years of age, with a fracture of the thigh. 4. A stableman, who had been thrown from a trap, and had sustained a scalp wound with concussion of the brain. A well-appointed horse ambulance must soon become a necessary adjunct to every large general hospital in town or country.

RECENT LOCAL HOSPITAL CHANGES.

Dr. Bradshaw has been elected Physician to the Stanley Hospital. Dr. Ellis, Hon. Assistant Physician to the Hospital for Women, has been elected Honorary Medical Officer for In-patients; and Drs. Bernstein and Crozier have been elected Honorary District Medical Officers to Districts 4 and 9 of the Ladies' Charity and Lying-in Hospital.

OVERCROWDING IN THE LIVERPOOL WORKHOUSE.

For some time past the Liverpool Workhouse, though of considerable dimensions, and probably one of the largest institutions of the kind in the kingdom, has been found to be inadequate to meet all the demands made upon it. When it is borne in mind that the greater part of the buildings were erected many years ago, this will not appear surprising. Steps are being taken to remedy the overcrowding which exists, but nothing can be done till after the report of the Local Government Board inspector.

PREVALENCE OF MEASLES.

At the meeting of the Health Committee on the 31st ult., the medical officer of health reported that there had been during the week 9 cases of fever, 31 of scarlatina, and 171 of measles. He regretted to say that the latter was on the increase; there had been 33 deaths from it since the previous week, representing 10 per cent. of the total deaths, while it was the largest number of deaths from measles in a single week that he had known for a great number of years. In one school in Toxteth Park there were no fewer than fifty children absent on account of it. The committee had no power to close the schools except with the consent of the managers, and there was no hospital accommodation whatever.

LIVERPOOL FOUNDLING HOSPITAL.

The first report of the Liverpool Foundling Hospital has recently been published. Its object is the double one of affording to women who have fallen *once only* an opportunity of regaining respectability, and of providing a home for the children of such women. Besides receiving infant children, the hospital contains wards for the confinement of unmarried women, *eligible under the rule of previous good behaviour*, who are thus enabled to return to a respectable life, leaving the child in the hospital. The institution has been at work for about nine months. Eight infants have been admitted; and two, whose mothers have since gone back into domestic service, have been born in the hospital.

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DUBLIN.

(*From our own Correspondent.*)

THE QUEEN'S JUBILEE.

At a recent meeting of the Executive Committee of the City and County of Dublin Jubilee Committee, it was resolved unanimously that a hospital for consumption and diseases of the chest would be a memorial most likely to receive support from the public, the hospital to be in the county of Dublin. Various other suggestions had been started, but the foundation of a hospital for chest affections was considered the most desirable project in celebration of Her Majesty's Jubilee. Accordingly a meeting of the Celebration Committee was held last week, under the presidency of the High Sheriff of the county, and after some discussion the resolution above referred to was adopted by 23 to 14. It has been stated that Dublin is over-hospitalled, and that it would be better to utilise the money collected by establishing Jubilee wards in the present existing hospitals. There are, however, in my opinion, many and valid objections to this proposal, while, on the other hand, the erection of a special institution for chest affections at Killiney, a sheltered and salubrious locality on the coast about ten miles distant from the city, is one which may be expected to meet with much greater approval. General hospitals are not the places for consumptive patients, and in advanced stages of the malady not only are those institutions unsuitable to the patients, but they are a constant source of annoyance to the other inmates of the wards. It must also be remembered that these patients occupy beds which might with greater advantage be tenanted by sufferers from more curable maladies. This view of the matter has been adopted for some years by the authorities of the Belfast Royal Hospital; and, as a result, for some time before the foundation of the Hospital for Consumption,[1] patients in the advanced stages of the disease were refused admission into the wards of the only general hospital in that large and populous town. I do not intend to discuss the cost of the proposed institution, but shall merely refer now to the absolute necessity of such a hospital as is now proposed to be established. The Registrar-General for Ireland has pointed out that one-tenth of all the deaths in Ireland are caused by consumption, and one-sixth by diseases of the respiratory organs other than phthisis; while in Dublin the mortality is relatively higher. It is sincerely to be hoped that a substantial sum may be obtained for the erection and endowment of a hospital of the kind, which would be the most fitting Jubilee gift that could be offered by Her Majesty's loyal subjects in this country.

RICHMOND DISTRICT LUNATIC ASYLUM.

In last week's issue I referred to the insanitary condition of this asylum, and in consequence of the report of the resident medical superintendent the governors held a meeting last week, when it was determined to hold an inquiry into the defects to which attention had been directed. I am informed that Sir Charles Cameron, medical officer of health and city analyst for Dublin, and Mr. Wilkinson have been engaged to investigate the matter, and any suggestions made will at once be carried out.

NATIONAL EYE AND EAR INFIRMARY, DUBLIN.

In the Dispensary for Diseases of the Throat, which was established about three years since as an adjunct to the ear department, 124 new cases were treated during the past year, and of these a large proportion consisted of aural patients who were found to have throat complications. The hospital is certainly carried on with due regard to economy, for the sum paid in salaries during the year, including that of the house-surgeon, only amounted to something over £100.

THE MEATH HOSPITAL.

At the annual meeting held on Monday the committee acknowledged the very handsome bequest from the late Mr. John Barber, amounting to £4500, which it is intended to expend in erecting a memorial ward, to be called the "Barber Ward." Mr. O'Reilly Dease, D.L., has also given a sum of £200 for the necessary expense in tesselating the entrance hall and accident corridor, as the first part of a memorial to his father and grandfather, both gentlemen having been distinguished surgeons of the hospital.

I understand that, at last, the report of the Dublin Hospitals Commission has been placed in the hands of his Excellency the Lord-Lieutenant.

The death is reported at Gorey, from blood-poisoning, of Dr. George Weldon, in his sixty-first year.

Dublin, April 5th.

[1] Erected by the benevolence of a citizen, Mr. Forster Green.

Obituary.

JOHN BRADY, F.R.C.S.I.

ON the 27th ult., at Rugby, a gentleman remarkable in his generation passed from our midst. Born in the year 1813 in the county of Cavan, Ireland, Mr. Brady at an early age repaired to London to study medicine, and in due course, becoming qualified, he started in practice in the Borough, in partnership with his brother Charles, who enjoyed the reputation of being a very skilful and accomplished surgeon. Quickly they established a large and lucrative practice, which doubtless would have become even more extensive, but for the fact of the partnership being terminated in consequence of the subject of this notice retiring from practice shortly after his marriage, in 1847, with a wealthy heiress, Miss Pritchard, of Ely, by whom he had two daughters, who survive him. Mrs. Brady died in 1860, and Mr. Brady never married again. Possessed of a singularly active and cultivated mind, he could not content himself with a life of idleness, so, turning his attention to politics, he entered Parliament as member for Leitrim in the year 1852, which constituency he represented uninterruptedly for twenty-seven years, his connexion with it being closed in consequence of failing health. As characteristic of the man, it may be mentioned that on the occasion of his first contesting Leitrim he was strenuously opposed, in consequence of his liberal opinions (opinions which nowadays would be looked upon as being conservative), by the leading Conservatives of the county, but subsequent acquaintance with his integrity of purpose and independence of character converted many of them into his staunchest political adherents. Firmly impressed with Roman Catholic doctrines, he was to a very remarkable degree tolerant of the religious belief of those who differed from him; generous to a degree, charitable, hospitable, and warm-hearted, to know him was to love him. In the year 1869 he introduced into Parliament the measure with which his name should always be gratefully associated, and on August 2nd, in that year, the "Medical Officers Superannuation (Ireland) Bill" became law. The writer of this notice was in the House on the Wednesday upon which he moved the second reading of the Bill, and well recollects the impression which his judicious and able statement made upon a most attentive audience. In recognition of this and other professional services, the Royal College of Surgeons in Ireland, on August 5th, 1869, conferred upon him their Honorary Fellowship. Mr. Brady was, moreover, a highly educated man and a ripe Shakespearian scholar, to which circumstance possibly may be attributed the fact of his intimacy with all the leading actors of the day, by whom he was looked up to as an authority. In addition to his professional distinctions, Mr. Brady was a J.P. and D.L. for Cambridgeshire in England and for the county of Leitrim in Ireland.

THE MARGATE ROYAL SEA-BATHING INFIRMARY.—At the annual meeting of the governors of and subscribers to this institution on the 31st ult., it was reported that during the past year 636 patients had been treated in the infirmary, of which number 495 had been discharged, seven had died, and 137 remained in the hospital. The out-patients during the year had numbered 36. The pecuniary support afforded is lamentably insufficient, and the committee have had great difficulty in carrying on the work of the charity during the past year. Increased and additional subscriptions are earnestly appealed for by the directors.

THE annual general meeting in connexion with the Victoria Hospital for Sick Children, Hull, was held on the 4th inst., when satisfactory reports were presented and adopted.

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Medical News.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a meeting of the Court of Examiners held on March 28th and following days, the under-named, having passed their final examinations for the Letters Testimonial, were admitted Licentiates of the College:—

Joseph Daly, Richard H. Dickson, John W. Haughton, Joseph Lavertine, Reginald Rygate.

SOCIETY OF APOTHECARIES.—The following gentlemen passed the examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise on March 31st:—

Hebblethwaite, Harold, Grove-terrace, Bradford.
Lingwood, Edgar Henry, Corrance-road, Brixton.

A NEW hospital is shortly to be erected in Hull, to be called the Hull Orthopædic Hospital.

HOSPITAL SUNDAY collections were held at Hartlepool on the 3rd inst.

THE Duke of Northumberland has signified his intention to give a site, consisting of 3000 square yards, for the proposed new infirmary for the borough of Tynemouth. The ground is valued at £1200.

BEQUESTS.—The treasurers of the Oldham Infirmary, the Southport Infirmary, and the Southport Convalescent Home have each received cheques for £2700 from the executor of the late Mr. George Redford, of Southport.

THE BRITISH OPHTHALMIC HOSPITAL, JERUSALEM.—A meeting of the friends of the above institution was held at the Jerusalem Chambers, Westminster Abbey, on the 30th ult. Sir Charles Warren was in the chair.

AT the Loughborough Petty Sessions on the 30th ult., a butcher was fined £10 and costs, or, in default, one month's imprisonment, for exposing for sale sixty-seven pieces of unwholesome meat.

MEDICAL MAGISTRATE.—Joseph Todd, M.R.C.S. Eng., and L.S.A., of Selby, qualified on Monday, the 4th inst., at the Quarter Sessions, as a Magistrate for the West Riding of Yorkshire, having been placed on the Commission of the Peace in January last.

ON the 30th ult. a new underground reservoir, recently constructed by the Water-works Company, to contain half a million gallons of water, was inaugurated at Tonbridge by Lady Goldsmid. The town has now a good supply of excellent water.

WORCESTER INFIRMARY.—At the recent annual meeting of the governors of this institution it was reported that the income during the past year had amounted to £3647, and the expenditure to £4391. The number of in-patients amounted to 1288, and of out-patients to 5214.

PRESENTATION.—On the 31st ult., Dr. Murdoch Cameron was presented by the students attending the midwifery classes of the University of Glasgow with an address signed by all the members of the class, in acknowledgment of his services as their teacher during the absence of the professor, Dr. Leishman.

ROYAL COLLEGE OF SURGEONS IN IRELAND MEDICAL SCHOOL.—The following have been awarded prizes in Anatomy for the past session:—Descriptive Anatomy: Senior prizeman, Mr. McIlwaine, £3 3*s.*; junior medalist, Mr. Wright. Practical Anatomy: Senior prizeman, Mr. Warren, £3 3*s.*; junior prizeman, Mr. Wright.

BIRMINGHAM MEDICAL INSTITUTE.—The annual meeting in connexion with this institute was held on the 31st ult., Mr. J. V. Solomon, President, in the chair. From the report, which was presented and adopted, it appeared the number of members has been increased by 173 during the past five years, the number of books taken out by members had increased by 1176, and during the past year the number of borrowers was 138, as compared with 73 in 1881. Dr. James Johnson was elected president for the ensuing year; Messrs. Gilbert Barling and Wood White were re-elected honorary secretaries, and Dr. Saundby and Mr. Bennett May librarians.

AT a recent inquest held at Portsmouth, the jury returned a verdict that the deceased had died from blood-poisoning caused by eating tinned salmon which was unfit for food.

AT the usual monthly meeting of the members of the Association of Public Sanitary Inspectors on the 2nd inst., Dr. Alfred Carpenter delivered an address on "Theory and Practice as to Disinfection." A discussion, in which several of those present took part, followed the reading of the paper.

SANITATION IN JAPAN.—Mr. W. K. Burton, senior engineer to the London Sanitary Protection Association, has been appointed Professor of Sanitary Engineering to the Imperial Institute, Tokio, by the Government of Japan. This institution is, we believe, the only college in the world as yet where such a professorship exists.

VOLUNTEER MEDICAL STAFF CORPS.—The Secretary of State for War has approved of the formation of a Volunteer Bearer Company at Manchester. The total strength of the company will be 100. It is to be an independent unit, subordinate to the military and medical authorities of the district. The company's formation will date from April 1st, 1887.

NORTH-WEST LONDON HOSPITAL.—On the 1st inst. the general court of governors of this institution was held for the purpose of receiving the eighth annual report. It was stated that during 1886 602 in-patients had been admitted, and 33,687 cases treated as out-patients, 10,673 of these being new cases. The receipts for the year amounted to £3477, the annual subscriptions producing £536 of this sum.

VACCINATION GRANTS.—The following gentlemen have received the Government grant for successful vaccination in their respective districts:—Mr. Edward Jay, St. George's, Hanover-square; Dr. G. Hales Parry, Docking Workhouse and District, Norfolk (third time); Mr. Thomas Brett Young, of the Romsley District of the Bromsgrove Union; Mr. F. W. Lewis, of Llandovery Union (second time in succession).

AT the monthly meeting of the Manchester Royal Infirmary Board, held on the 28th ult., Mr. Alderman King presiding, it was reported that an arrangement had been made for the reception of cases of infectious disease from Salford at the Monsall Hospital, in consequence of the infectious hospital at Cross Lane, Salford, having been purchased by the London and North-Western Railway Company for the purposes of railway extension.

ST. JOHN AMBULANCE ASSOCIATION.—A course of lectures on "First Aid to the Injured" has been recently delivered to some of the senior boys of King Edward VI.'s Grammar School, Berkhampstead, by R. L. Batterbury, M.D. Lond., one of the medical officers of the school. The examination was conducted by Surgeon-Major Casson, and, out of twenty-five candidates, twenty-three are reported to have passed, and will obtain the certificate of the Association.

UNIVERSITY COLLEGE HOSPITAL.—The annual meeting of the supporters of this institution was held on the 31st ult., when it was reported that 2638 patients had been admitted during the year, of which number 1260 were cured and 868 relieved. The out-patients numbered for the year a total of 35,765, besides which a large number had been seen on the recommendation of local and other medical men, making the total of in- and out-patients upwards of 40,000. The number of beds during 1886 was 209. A hope was expressed that this Jubilee year would see the debt of about £14,000 cleared off.

THE JUBILEE.—The amount contributed to the Jubilee Fund for the extension of the Aberdeen Infirmary now stands at £16,264. The sum required is £30,000. It has been decided to erect a Jubilee cottage hospital at Castle Cary.—About £420 has been promised to the building fund in connexion with the Dartmouth cottage hospital scheme, and £86 annual subscriptions; the total amount required, however, being about £2000.—On the 31st ult. a new infirmary and dispensary was opened in Bideford. The institution, which has cost about £2000, has been, in celebration of the Jubilee, opened free of debt.

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FOSTER AND WHEELHOUSE ELECTION EXPENSES FUND.

TREASURER'S ACCOUNT, FROM OCTOBER 5TH, 1886, TO MARCH 31ST, 1887.

DR.	*Receipts.*				
To subscriptions (as per counterfoil receipt-book)				£88	10 0
,, Sir B. W. Foster, M.P.	£126	11	7		
,, C. G. Wheelhouse, Esq.	123	10	7		
				250	2 2
				£338	12 2

CR.	*Payments.*		
By printing, postages, and stationery	£272	10	4
,, advertising	49	8	6
,, secretarial expenses	14	17	4
,, treasurer's expenses	0	15	0
,, audit fee	1	1	0
	£338	12	2

ROBERT SAUNDBY, M.D., Hon. Treasurer.

Examined and found correct. CARTER & CARTER, Chartered Accountants, Birmingham.

MEDICAL NOTES IN PARLIAMENT.

Dublin Hospital Commission.

IN the House of Commons, on the 4th inst., Dr. Kenny asked the Chief Secretary to the Lord-Lieutenant of Ireland whether the report and minutes of evidence of the Dublin Hospital Commission were yet ready; if not, when members might expect them to be laid upon the table.—Mr. A. J. Balfour, in reply, said that it is understood that the report will shortly be submitted to the Lord-Lieutenant. On its receipt the Irish Government will be in a position to consider whether it, as also the minutes of evidence, should be laid upon the table.—Dr. Tanner asked an explanation of the delay.—Mr. A. J. Balfour presumed the delay had occurred in the writing of the report, but he reminded the hon. member that it by no means followed because a report was presented that it should therefore be laid on the table of the House. That was a matter within the discretion of the Lord-Lieutenant.

Indian Medical Staff.

On the 5th inst., in answer to Dr. Tanner, who asked as to the rank and allowances of officers belonging to the medical staff of India under six years' service, Sir J. Gorst stated that the rank of these officers is that of surgeon. Their allowances are more than those of subalterns, but less than those of captains. After six years they are more than those of captains. They do receive the allowances of their rank. There are no claims appertaining to relative rank and no less is suffered.

The Pharmacy Acts Amendment Bill.

On Tuesday morning, Dr. Farquharson moved the second reading of this Bill, briefly narrating the circumstances which led to its introduction, and urging that its enactment would be in the public interest.—Dr. Clark regretted that he felt it his duty to oppose the second reading. The object of the measure was to give additional powers to the Pharmaceutical Society, and powers which it ought not to possess. Up to 1868 anyone could carry on the business of a chemist and druggist, but in that year a Register of chemists and druggists was drawn up, and those who practised the trade were called upon to pass a qualifying examination. But now the Society wished to go still further, and to be allowed to create a curriculum, and to compel students to pass in chemistry, botany, and materia medica. The only result of the passing of the Bill would be to make the trade a close corporation, to make it easy for students to pass in large towns, but to make it almost impossible for those to qualify who lived in small towns and poor neighbourhoods. By allowing the Bill to pass the House would depart from the principle of free trade, by limiting the sale of drugs to a very small class, and he could only say that if this power was to be conferred on any body, it should be given to a public body, and not to a private society of traders, who could make bye-laws which should have all the effects of an Act of Parliament. If the Bill were pressed and carried to a second reading, he should feel it his duty in committee to endeavour to amend it and make the Pharmaceutical Society more representative of the 12,000 members of the trade. In his opinion there was no necessity for the proposed change, and he should therefore move that the Bill be read that day six months.—Mr. H. J. Wilson seconded this amendment.—Mr. Chance supported the Bill on the ground that it would assimilate English and Scotch law to that prevailing in Ireland, which had worked so satisfactorily.—Dr. Tanner thought there was considerable fear that the rights of many chemists and druggists were not properly respected. He urged that the second reading should be deferred a few days to allow some necessary amendments to be drafted. On a division the Bill was read a second time by 76 votes to 22.

The Committee stage of this measure came on for consideration on Wednesday morning at 2 A.M. On the motion that the Deputy Speaker do now leave the chair, Colonel Hodge moved the adjournment of the debate. The Bill had passed through the second reading with only a slight run of opposition, and he hoped the House would agree to an adjournment.—Dr. Farquharson said he had himself intended to move the adjournment of the debate, and subsequently to move to report progress. Many members were deeply interested in the Bill and desired to put amendments on the paper, and to have longer time for its consideration.—Mr. Chance and Mr. Lowther supported the motion for the adjournment.—Dr. Tanner said there were several points in the Bill which demanded investigation. It was alleged at first that the Bill was the same as the law which applies to chemists in Ireland. Accordingly from what he knew of the measure, he was not at all satisfied about it, and he should certainly support the adjournment.—Dr. Clark said he thought his hon. friend the member for Aberdeenshire might accept the motion. The Bill was brought forward between two and three o'clock on the previous evening and advanced a stage. It was an important measure, affecting thousands of people whose livelihood would be taken away.—Mr. Biggar also supported the motion for the adjournment, which was carried by 95 votes against 29. The debate was accordingly adjourned till Tuesday, April 19th.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ABBOTT, C. E., M.R.C.S., L.K.Q.C.P.I., has been reappointed Medical Officer of Health for the Braintree Rural Sanitary District.

BERNSTEIN, MEYER J., M.B., C.M.Ed., has been appointed Honorary Medical Officer for the Fourth District of the Liverpool Ladies' Charity and Lying-in Hospital.

CAPE, JOSEPH THOMAS, M.R.C.S., L.S.A., has been re-elected Medical Officer of Health by the Rural Sanitary Authority of the Totnes Union.

CHICK-LUCAS, J. R. G., M.R.C.S., L.S.A., has been appointed Honorary Medical Officer to the Ryde Dispensary, Isle of Wight.

CROZIER, WILLIAM, M.K.Q.C.P.I., L.R.C.S.I., has been appointed Honorary Medical Officer for the Ninth District of the Liverpool Ladies' Charity and Lying-in Hospital.

DOWDING, ALEX. W. WOODMAN, M.D.Durh., M.R.C.S., has been appointed Medical Officer for the Haughley District of the Stow Union, vice Stephens.

DURWARD, JAMES STEWART, L.D.S. R.C.S.Ed., has been elected to the Senior Staff of the Edinburgh Dental Hospital.

EDIS, JOHN BUTLER, M.R.C.S., L.R.C.P.Ed., has been appointed Hon. Surgeon to the Hospital for Women, Shaw-street, Liverpool.

EUSTACE, MARCUS, B.A., M.B., B.Ch.Dub., has been appointed Medical Officer for the Second District of the Alresford Union.

FALKINER, NINIAN MCINTIRE, A.B., M.B., B.Ch.Dub., has been appointed Visiting Physician to the Convalescent Home, Stillorgan, Dublin.

FLETCHER, RORY, M.R.C.S., L.S.A., has been appointed Resident Medical Officer to the Male Lock Hospital, Dean-street, Soho, W., vice G. W. H. French, F.R.C.S.

GOODALL, JOHN KENAT, L.R.C.S., L.R.C.P.Ed., has been reappointed Medical Officer for the Bolsover District of the Chesterfield Union.

HAGYARD, ROBERT, M.R.C.S., L.S.A., has been appointed Honorary Surgeon to the Hull Orthopædic Hospital.

HALL, ANDREW JOHNSTON, M.A., M.D., C.M.Glas., has been appointed Medical Officer for the Parish of Rothesay, vice Maddever, deceased.

HASWELL, J. F., M.B., C.M.Edin., has been appointed Junior House-Surgeon to the Northern Hospital, Liverpool, vice C. C. Charlton, resigned.

HUNTER, CHARLES BUCHANAN, M.B., C.M., has been appointed Surgeon to H. H. the Nizam's Railway, Hyderabad, India.

HUTCHESON, JAMES, M.B., C.M.Ed., M.R.C.S., L.R.C.P.Lond., has been appointed Surgeon to the Edinburgh Royal Maternity and Simpson Memorial Hospital.

JOHNSTONE, WM., has been appointed Public Analyst to the Boroughs of Dartmouth and Dunstable.

MACKENZIE, THOMAS, M.A.Glas., M.B., C.M.Ed., has been appointed House-Surgeon to the Edinburgh Royal Maternity and Simpson Memorial Hospital.

MARTIN, MATTHEW, M.B., C.M.Glas., has been appointed Medical and Surgical Officer to the Parkhead Steel and Rolling Mills, Glasgow.

OWEN, RICHARD JEFFERYS, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Second District of the Llandovery Union.

PACKER, W. HERBERT, M.D., L.R.C.P., has been appointed Medical Visitor to the Shropshire Private Lunatic Asylums, vice Edwyn Andrew, M.D., deceased.

ROBERTS, JAMES B., M.B., C.M.Ed., has been appointed Medical Officer for the Fourth District of the Nottingham Union.

SEMPLE, HENRY F., M.R.C.S., L.R.C.P., has been appointed House-Surgeon to the Bristol Hospital for Sick Children and Women, vice E. Leonard Lees, M.B., C.M., M.R.C.S.

STADDON, WALTER JOSEPH, M.R.C.S., L.R.C.P. Lond., has been appointed Assistant Medical Officer for the Workhouse of the Leeds Union.

WARE, GEORGE STEPHEN, M.R.C.S., L.R.C.P., L.S.A., late House-Physician and Obstetric House-Physician, has been appointed House-Surgeon to the Middlesex Hospital.

WILSON, JAMES, M.B., C.M.Glas., has been appointed Surgeon to the Bethlehem Lodge of Ancient Shepherds, vice A. Muir Smith, resigned.

WILSON, WILLIAM, M.B., C.M.Ed., L.R.C.S., L.D.S., has been elected to the Junior Staff of the Edinburgh Dental Hospital.

YEATMAN, J. W., M.R.C.S., has been appointed Government Medical Officer for the Upper Wakefield and Saddleworth Districts, South Australia, vice H. F. Harvey, M.R.C.S., resigned.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

BRADFORD INFIRMARY AND DISPENSARY.—Dispensary Surgeon. Salary £100 per annum, with board, residence, and washing.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—Resident Clinical Assistant. A gratuity of £20 is usually awarded at the close of the term of office (six months).

GREAT NORTHERN CENTRAL HOSPITAL, Caledonian-road, N.—Aural Surgeon.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, Bloomsbury, W.C.—Clinical Assistants in the Out-patient Department.

QUEEN'S HOSPITAL, Birmingham.—Obstetric and Ophthalmic House-Surgeon. The appointment carries with it board, lodging, &c.

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ROYAL NATIONAL HOSPITAL FOR CONSUMPTION, Ventnor.—Assistant Resident Medical Officer. Small honorarium.

SCARBOROUGH FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Resident Medical Officer. Salary £300 for the first year, £220 for the second (if satisfactory), with fees extra, and residence, free of rates and taxes, with an allowance for coals and gas.

SMEDLEY'S HYDROPATHIC ESTABLISHMENT, Matlock-bridge, Derbyshire.—Junior Resident Physician. Salary £150 per annum for the first year, with accommodation in the establishment.

ST. PANCRAS INFIRMARY, Dartmouth-park-hill, Highgate, N.W.—Dispenser. Salary £100 per annum, with dinner daily, and, subject to the approval of the Local Government Board, rising by £10 annually, to £120.

Births, Marriages, and Deaths.

BIRTHS.

BLOXAM.—On the 31st ult., at George-street, Hanover-square, W., the wife of J. Astley Bloxam, F.R.C.S., of a son.

BOWES.—On the 2nd inst., the wife of John Ireland Bowes, Medical Superintendent of the Wilts County Asylum, Devizes, of a daughter.

EAST.—On the 30th ult., at Upper Berkeley-street, Portman-square, W., the wife of Edward East, M.R.C.S., of a son.

MORRIS.—On the 29th ult., at Windhill, Bishops Stortford, Herts, the wife of John Edward Morris, M.D., of a son.

O'CONNELL.—On the 29th ult., at North-villas, Havelock-park, Southsea, the wife of Surgeon-Major R. O'Connell, of a daughter.

RUSHBROOK.—On the 3rd inst., at Upper Phillimore-place, Kensington, Janet Monteath Rushbrook, L.K.Q.C.P.I., L.M., wife of Henry George Rushbrook, of a daughter.

SHAW.—On the 17th ult. (St. Patrick's day), at Mildenhall, Soham, Suffolk, the wife of H. C. Costello Shaw, L.R.C.P.Lond., M.R.C.S., of a daughter.

TROTT.—On the 13th ult., at Waterloo, Hamilton, Bermuda, the wife of Dudley C. Trott, M.B., B.C., F.R.C.S., of a daughter.

MARRIAGES.

CRANE—CRANE.—On the 2nd inst., at the Parish Church of St. Marylebone, Leonard Crane, M.D., Surgeon-General, Trinidad, to Lillie, fourth daughter of the late Wm. Crane, Speaker of the House of Assembly, New Brunswick.

JONES—JONES.—On the 30th ult., at St. George's Parish Church, Beckenham, Kent, John Hills Jones, M.B., C.M., to Catherine (Kate), youngest daughter of the late Robert Jones, of The Mount, Llanfair, Montgomeryshire.

THOMSON—MACPHAIL.—On the 30th ult., at Free Church Manse, Kilmuir, Skye, N.B., John Thomson, M.B., C.M.Edin., to Isabel Finlayson, fourth daughter of the Rev. John S. Macphail, of Kilmuir.

DEATHS.

COATES.—On the 26th ult., at 1, Westbourne-street, Eaton-square, S.W., Frederick Thomas Coates, M.R.C.S.E., second son of the late George Coates, Surgeon, of Bloomsbury, aged 43. Deeply lamented.

HENSLEY.—On the 4th inst., at Coleherne-road, S.W., Frederick John Hensley, M.D., M.R.C.S., L.S.A., in his 65th year.

KEDDLE.—On the 29th ult., at The Elms, Beaminster, after a long and trying illness, Samuel Shering Keddle, M.D., J.P. for co. Dorset, within two months of completing his 90th year.

SHAW.—On the 31st ult., at Bishopsgate-street Without, after a lingering illness, Henry Shaw, M.R.C.S., in his 74th year.

STIRLING.—On the 30th ult., at Marine-parade, Brighton, Wm. Boughton Stirling, M.D., and of Nottingham-place, W.

VACHER.—On the 30th ult., at 31, Shrewsbury-road, Birkenhead, John, infant son of Francis Vacher, F.R.C.S.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

BOOKS ETC. RECEIVED.

ALLEN, E. W., Ave Maria-lane, London.
Electricity in the Treatment of Disease. By J. R. Tunmer, M.R.C.S. pp. 108.

BAILLIÈRE, J. B., ET FILS, Paris.
Tumeurs de l'Ombilic. Par le Dr. Francis Villar. pp. 156, avec 7 photogravures.

BAILLIÈRE, TINDALL, & COX, King William-street, Strand, London.
Griffiths' Materia Medica and Pharmacy. Third Edition. Edited and in part written by Alfred S. Gubb, L.R.C.P., M.R.C.S. pp. 464.
On Overwork and Premature Mental Decay; its Treatment. By C. H. F. Routh, M.D., M.R.C.P. Fourth Edition. pp. 149.
The Lettsomian Lectures on Bronchial Asthma. By J. C. Thorowgood, M.D. Third Edition, with a Chapter on Asthma in relation to Gout. pp. 98.

CHURCHILL, J. & A., New Burlington-street, London.
Electrical and Anatomical Demonstrations. By Herbert Tibbits. M.D. pp. 94.

FISCHER G., Jena.
Die Allgemeine Pathologie oder die von den Ursachen und dem Wesen der Krankheitsprocesse. Von Dr. Edwin Klebs. Erster Theil. S. 514, mit 66 Theilweise Farbigen und 3 Farbentafeln.

GRIFFIN, C., & Co., Exeter-street, Strand, London.
A Treatise on Diseases of the Skin. By T. McCall Anderson, M.D. pp. 639, with Plates and numerous other Illustrations.

HIRSCHWALD, A., Berlin.
Handbuch der Allgemeinen und speciellen Arzneiverordnungslehre. Bearbeitet von Dr. C. A. Ewald. Elfte Auflage. S. 849.

HOULSTON & SONS, Paternoster-square, London
Enquire Within upon Everything. Seventy-fifth Edition, revised. pp. 415.

KEGAN PAUL, TRENCH, & Co., Paternoster-square, London.
The Sisters of St. Mary at the Cross. By the Rev. H. D. Nihill. pp. 301.

KELLOGG, W. A., New York.
The Therapeutical Drinking of Hot Water, its Origin and Use. By H. Cutter, M.D. pp. 34.

LEWIS, H. K., Gower-street, London.
The Middlesex Hospital Reports for 1885. pp. 400.
Ligaments, their Nature and Morphology. By John Bland Sutton, F.R.C.S. pp. 107.
On the Diagnosis of Diseases of the Brain, Spinal Cord, and Nerves. By C. W. Suckling, M.D. Lond., M.R.C.P. pp. 297, with Illustrations.

LIPPINCOTT, J. B., & Co., Philadelphia.
Nervous Diseases and their Diagnosis. By H. C. Wood, M.D., LL.D. pp. 501.
Wear and Tear; or Hints for the Overworked. By S. Weir Mitchell, M.D., LL.D.Harv. Fifth Edition, thoroughly revised. pp. 76.

LONGMANS, GREEN, & Co., Paternoster-row, London.
Through the Fields with Linnæus: a Chapter in Swedish History. By Mrs. Florence Caddy. In 2 vols. pp. 347—376. Illustrated. 16s.
The Essentials of Histology, Descriptive and Practical. By E. A. Schäfer, F.R.S. Second Edition, Revised. pp. 252. Illustrated.

MACMILLAN & Co., London and New York.
The Practitioner's Handbook of Treatment, or the Principles of Therapeutics. By J. Milner Fothergill, M.D. Third Edition, enlarged. pp. 667.
The Treatment and Utilisation of Sewage. By W. H. Corfield, M.A., M.D.Oxon. Third Edition, revised and enlarged. pp. 510.

MASSON, G., Paris.
L'Amputation du Membre Supérieur dans la Contiguité du Tronc. Par Prof. Paul Berger. pp. 372, avec 2 figures et 2 planches en Chromolithographie.

MEDICO-LEGAL SOCIETY, New York.
Papers read before the Medico-legal Society of New York. Third Series. Revised Edition. pp. 550.

OBSTETRICAL SOCIETY OF LONDON.
Transactions of the Obstetrical Society of London. Vol. xxviii.

SMITH, ELDER & Co., Waterloo-place, London.
Dictionary of National Biography. Edited by Leslie Stephen. Vol. X.: Chamber—Clarkson. pp. 456.

SWAN SONNENSCHEIN, LOWREY, & Co., Paternoster-square, London.
School Hygiene. By Arthur Newsholme, M.D. pp. 148.

WHITTAKER & Co., White Hart-street, London.
Parliamentary Companion. 1887. Fifty-first year. pp. 358. 4s. 6d.

WOOD, WM., & Co., New York.
A Reference Handbook of the Medical Sciences. By various Writers. Edited by A. H. Buck, M.D. Vol. IV. pp. 816, Illustrated by Chromolithographs and Wood Engravings.

Oxygen as a Remedial Agent; by C. J. Smith.—On a Peyerian Ulcer-lesion of Small Intestines, apparently new; by H. Vandyke Carter, M.D.—Von Dr. P. G. Unna: Zur Kenntniss des elastischen Gewebes der Haut; Die Rosaniline und Pararosaniline (Voss, Hamburg).—Scientific Memoirs by Medical Officers of the Army of India; edited by B. Simpson, M.D., Surgeon-General with the Government of India; Part II.—Rapport fait au nom de la Commission chargée d'examiner de Projet de Loi ayant pour objet l'Utilisation Agricole des Eaux d'Egout de Paris et l'Assainissement de la Seine; par M. Bourneville, Député (Quantin, Paris).—Typhoid Fever in Melbourne, its Prevalence and Causation; by Jas. Jamieson, M.D.—Cancer, its Origin and Prevention, with other allied Diseases, in connexion with the C. D. Acts; by Dr. W. Williams, M.D.—Thurley Tighe, or the Life of a Student; by Felix Weiss.—Die Pathologie und Therapie der Gelenkentzündungen; von Dr. Max Schüller (Urban and Schwarzenberg, Wien).—Tenth Annual Report of the Board of Health of the State of New Jersey, 1886.—Ueber Neuritis Optica; von Prof. R. Deutschmann (Fischer, Jena).—Index Medicus, Vol. IX., No. 2.—Parliamentary Companion, 1887.—Hystérie et Traumatisme; par le Dr. Paul Berbez (Bureaux du Progrès Médical).—Magazines for April: Good Words; Sunday Magazine; Leisure Hour; Sunday at Home; Boys' Own Paper; Girls' Own Paper; Scribner's Magazine.—The Medical Treatment of our Time; by one of the Excommunicated (Unwin Brothers).—A new Clothing Case for the Soldier; by W. Thornton Parker, M.D.—Bibliographie des Sciences Médicales (J. B. Baillière, Paris).—La Cosalgia e la Resezione Coxofemorale; pel Dott. A Turretta.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, April 1st, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Mar. 31	30·19	W.	45	43	76	54	37	...	Cloudy
Apl. 1	29·59	W.	39	38	75	47	36	·13	Snowing
,, 2	29·92	N.W.	42	39	84	55	35	·32	Cloudy
,, 3	30·12	W.	46	43	77	55	39	...	Cloudy
,, 4	29·87	W.	44	41	97	58	39	...	Fine
,, 5	29·52	N.E.	42	41	...	43	41	...	Raining
,, 6	29·74	N.E.	42	39	...	44	39	·15	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

THE LITERATURE OF THE SPLEEN.

J. W. (Leicester).—The treatise referred to is by Dr. Guido Baccelli, President of the Accademia Medica di Roma, and some time Professor of Clinical Medicine at the Sapienza. It was published in Latin in the year 1876, and its title is "De Primitivo Splenis Carcinomate (histologice, lympho-sarcomate); historia, diagnosis, extispicium" (on Primary Carcinoma of the Spleen—in histological classification "lympho-sarcoma"—a history, diagnosis, and necropsy). It is inscribed in an appropriate dedication to Dr. Eduard Rindfleisch.

Alpha is thanked for his letter on the Leicester Sick Benefit Society. We shall be glad for any published statement of the case. We could not insert an anonymous letter.

M.B.—The matter should be brought under the notice of the Apothecaries' Society.

Alsina.—The name mentioned was not struck off the Register.

THE LUNACY BILL.

To the Editors of THE LANCET.

SIRS,—Will you kindly allow me through your columns to invite all workhouse medical officers interested in the Lunacy Acts Amendment Bill to attend our council meeting on Thursday, April 14th (5 P.M.), at 3, Bolt-court, Fleet-street, as the clause particularly affecting them will be under discussion. I am, Sirs, yours truly,

J. WICKHAM BARNES.

Poor-Law Medical Officers' Association, 3, Bolt-court, Fleet-street, E.C., April 4th, 1887.

Felix.—Dr. Frederick Roberts' book "Notes on Materia Medica" (Lewis) or Dr. Mitchell Bruce's Materia Medica and Therapeutics (Cassell) will give the proportions.

Mr. C. S. Jeaffreson.—The paper will appear shortly.

BREAD-MAKING.

To the Editors of THE LANCET.

SIRS,—In answer to the letter of Mr. Robert Jones in THE LANCET of the 26th ult., I beg to say that my late father, Dr. Thos. Smith, wrote an article entitled "An Improved and more Wholesome Mode of Making Bread." The article appeared in the *Leeds Mercury* of Feb. 17th, 1844, and I have a printed copy of the same.

I am, Sirs, yours truly,

Cheltenham, April 4th, 1887. FRED. A. A. SMITH, M.D.

THE FIFTY-TWO YEARS' PLAGUE.

ACCORDING to Procopius, "the Byzantine Herodotus," the Plague began A.D. 542 in the Nile delta at Pelusium, and dividing its forces it attacked Alexandra and the rest of Egypt on the one hand and Palestine on the other. Beginning always on the sea-shore, it penetrated inland, depopulating islands, caverns, hill tracts—wherever, in short, human beings were found. In its second year it invaded Byzantium in the middle of spring. Many of its victims felt themselves struck in some part of the body, when, by way of exorcising the assailant, they would utter some sacred word and hurry into the nearest temple. To escape the importunities of friends, others, again, would barricade themselves in their rooms and plug their ears so as not to hear the loud knocking at their doors. A feverish malaise arousing them from sleep or arresting them in their walk or at their work was the first symptom; but there was no change of colour, or sense of burning heat, or inflammatory affection, so that in the evening neither patient nor physician was alive to any danger. But many on the same day or the day following, or a considerable time thereafter, saw a bubo rising on the groin, or in the armpits, or on the parotids, or in other regions, and this symptom was common to every sufferer from the disease. Somnolence, stupor, or acute delirium were often present, with forgetfulness of every call of nature, so that many who happened to be without attendants died of hunger. Contact with patients or with the dead gave the malady neither to physician nor to sexton, while many—they knew not why or how—were attacked and succumbed in a few hours. Patients flung themselves into the sea or from high places in anticipation of death, while in others the bubo, not preceded by visions or delirium, passed into gangrene, and they died in convulsive agony. The physicians suspecting these plague ulcers to contain a poison which caused the disease, opened them in many dead subjects, and found them to contain a large carbuncle. Those cases in which the body was covered with black pustules, the size of a lentil, died within twenty-four hours, while others vomited blood till death relieved them. Errors in prognosis were infinite, able physicians foreseeing death where marvellous recovery supervened, and predicting recovery just before fatal collapse. Therapeutics were equally at fault. The bath was of use in some cases; worse than useless in others. It was quite as ineffectual to fly from the disease as to treat it—such was the ignorance as to its origin or its issue. Those in whom the bubos proceeded to copious suppuration got well, as with the defervescence of the carbuncle the signs of returning health revealed themselves. Recovery was not always, however, complete, the survivors being often afflicted with semi-paralysis of the tongue, impairing distinctness of articulation for life. In Byzantium the plague lasted four months, during three of which it was at its maximum, when the mortality reached 10,000 daily, till the city seemed deserted. Other details confirmatory, with few exceptions, of the powerful description by Procopius fill in the sombre picture, and must be drawn from the histories of Agathias and Evagrius. Gibbon, in his condensation, followed with greater authority by De Renzi, contests the dictum of Procopius that the disease was non-contagious, an epithet scarcely applicable to a visitation which passed from country to country, beginning at the seaports and penetrating inland. Another point indicated by De Renzi is the evidence deducible from Procopius that the Byzantine physicians practised morbid anatomy and sought out the causes of disease by pathological research:—"Even the Christians of the sixth century did not hold the dead subject to be so intangible as not to afford to science the means of exploring the structure of the body, and so of aiding anatomy" ("Scuola Salernitana," vol. i., p. 31).

Mr. Kingzett.—A specimen of the preparation should be sent for examination.

A One-eyed Engine-driver.—We cannot say we are greatly impressed with the force of the argument used by our correspondent.

A WARNING.

To the Editors of THE LANCET.

SIRS,—As a hint to my professional brethren, I send a line to say that a man called at my house yesterday afternoon, at about 3 o'clock, and asked if I was in. On my servant replying in the negative, he asked when I was expected, and was told that I would return in about half an hour. He said he would wait, and taking up a newspaper sat down In a very short time he was seen by my servant going out of the house, saying that he had some business to transact, and would call again. It is needless to say that he did not return, and it was discovered that he had taken with him a pocket dressing-case and binaural stethoscope, together of the value of from £4 to £5. The man was of middle height, dark complexion, about forty years of age, and called himself "Mr. Kerr."

I am, Sirs, yours faithfully,

ARTHUR H. T. LONGHURST, M.D.

Wilton-street, S.W., March 29th, 1887.

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WINTER HEALTH RESORTS AT HOME.

A CORRESPONDENT is anxious to direct attention to the advantages of Colwyn Bay, North Wales, as a winter health resort for poitrinaires. "I have travelled," says the writer, "in many places in Europe and Asia Minor, but find no climate better than this." He regards the relief he has experienced from many severe symptoms of chest affection as due to the ameliorating influence of the climatic conditions prevailing in the four successive winters he has spent in the locality in question.

Mr. A. W. Stirling.—The note was founded upon an article in one of the March numbers of the *Lyon Médical* (March 13th?).

Mr. C. Roberts.—Next week.

RAPID STAINING OF THE TUBERCLE BACILLUS.

To the Editors of THE LANCET.

SIRS,—I can strongly recommend the following mode of staining the tubercle bacillus in cover-glass preparations for clinical purposes. It is a slight modification of Neelsen's method. The stain—which in my opinion is preferable to any of those containing solutions of aniline—is made by dissolving one part of magenta in 100 of a 5 per cent. watery solution of carbolic acid, and adding 10 of absolute alcohol. A sufficiency of this fluid is poured into a watch-glass, and heated on a retort-stand over a spirit lamp till steam rises freely and the temperature is not very far from the boiling point. The cover-glasses, prepared in the usual way, are then floated in the stain for two minutes; if the right temperature has been reached this is quite long enough; the watch-glass should be covered. In Neelsen's method the preparations are then decolourised with acid, and subsequently stained with blue as a contrast. I find that these processes may be very conveniently combined. By dissolving methylene blue in 25 per cent. sulphuric acid till a deep colour is obtained, and immersing the cover-glasses for one minute in this immediately after their removal from the magenta. They are then rinsed in water, dried, and mounted in balsam. The whole process of staining and mounting occupies about six minutes according to my experience. Possibly this method may have been already suggested; if so, it has escaped my notice.

I am, Sirs, yours faithfully,

Eastbourne, March 31st, 1887. HENRY S. GABBETT, M.D.

H. L. H.—1. On the 1st of June.—2. Spottiswoode's, East Harding-st., London, E.C.

Dr. Uhlworm (Cassel).—We cannot exchange.

THE SELFISH PRINCIPLE AND MEDICAL ETIQUETTE.

To the Editors of THE LANCET.

SIRS,—Many of those who recognise the truth of M.D.'s letter under the above heading, in your last issue, will coincide with your comment upon it. We all know the Pharisee in medical etiquette; we know his ways, even if we cannot always escape his toils. These people should concern us very little. Luther is reported to have fought the great battle of the Reformation under the motto, "In quietness and confidence shall be your strength." Such also should be our motto, and it is not that of the complaining Pharisee. What "M.D." really means is that we general practitioners, who endeavour to bear our wrongs in silence, do not receive sufficient support from the medical papers. All that the Pharisee wants is recognition—an incomplete sympathy with his grievance suits him best, and his own glib tongue supplies what is lacking. These wasps of the profession cannot make honey, but they can use their stings, and they dip them in any available venom. The life work of every successful practitioner contains a ready antidote in his consciousness of good done, and perhaps less frequently in its grateful recognition. But no great good is attained without personal peril. Therefore, my brother "M.D.," take courage and persevere—as your work is, so shall your strength be; as your strength is, so should be your silence.

I am, Sirs, yours truly,

April, 1887. ANOTHER M.D.

G. M.—The subject is, we fear, hardly ripe for discussion, but will not be lost sight of.

A very old Subscriber has not enclosed his card.

WHAT IS BRONCHITIS?

To the Editors of THE LANCET.

SIRS,—Will you permit me through the medium of your valuable journal to ask the medical profession what is bronchitis? Is it a fever, and to be classified with other specific fevers, such as whooping-cough and measles? My own impression is that it is not, but that it is a diseased state of the bronchial tubes, invariably the result of fever poison, such as in influenza, (by far the most common cause), and also of typhoid, typhus, small-pox, measles, or some other fever poison. I think this is a matter which should be well thought out by the profession, or at the onset of a disease we may by the bronchitis be led away from the cause of the mischief. And in treating it we should put to ourselves the question, What is the cause of this derangement? Is it from within—i.e., from gout, or from without, from one of the specific fevers? I hold the same view with regard to pneumonia, pleurisy, and peritonitis.

I am, Sirs, your obedient servant,

Slough, April 4th, 1887. WM. U. BURKE, M.R.C.S.

ENGLISH PRACTITIONERS IN ITALY.

HOLDERS of British diplomas in Italy may practise among the English-speaking communities there without an Italian qualification. In Rome (which, as the capital, may be presumed to regulate the usage of the provincial towns) the English practitioner must, if called upon, be prepared to certify to the municipality his professional credentials by producing his diploma, or (still better) the British Medical Register containing his name. The Italian Government, indeed, so far recognises his right to practise in the Peninsula as to make him pay income-tax (*ricchezza mobile*) on the average of his professional income. An Italian qualification, however, is required if the English practitioner's *clientèle* extends to the native population, though cases are quite common in which Italian patients call in the English consultant possessing only a British qualification and remunerate him with a *honorarium* on the English scale.

R. P. (New York).—A dictionary of medical nomenclature cannot be called complete unless it gives correctly the pronunciation of each term. Angina, in the common collocation "angina pectoris," is usually mispronounced. The penult is short, as in the hexameter of Lucilius: "Insperato abiit quem una angina sustulit hora" (He departed unexpectedly, whom angina removed in an hour). Again, in the medical poem of Serenus Sammonicus: "Anginæ verò sibi mixtum sale poscit acetum" (But angina requires vinegar mingled with salt). It is also short in the "Trinummus" of Plautus, v. 540, ed. Cocchia (Turin, 1886), who rightly derives it from the Greek ἀγχόνη.

Justice.—If all the circumstances of the case are correctly stated by our correspondent, we have no doubt that an appeal to the head of the Department would ensure a reconsideration of, and a just decision upon, the claims of the officer concerned.

M.R.C.S.Eng.—From the description given of the lad, we should think the possession of the power attributed to him can scarcely be doubted.

ANOSMIA.

To the Editors of THE LANCET.

SIRS,—In response to "Constant Reader," I beg to suggest the following, and have no doubt if carried out relief will be experienced. Strychnine hypodermically injected at the sides of the nose, together with electricity (a battery of about thirty or forty cells), would best meet the requirements, which should be used daily. This would restore the sense of smelling if anything would, as the olfactory and other nerves would be directly roused by the above. Headaches would be best treated by bromide of potassium and belladonna, to which might be added small doses of tincture of nux vomica, and should be continued with steadily for some time. The solution of extract of ergot and tincture of hyoscyamus are often found of the greatest benefit in the treatment of headaches, and are worthy of a trial. Mild aperients would be essential, especially if any costiveness were present. Further, I should suggest the head to be bathed in cold water daily, and cold applications might be applied during attacks with advantage. The offensive odour is most probably due to some diseased teeth; thus a visit to a dentist would be desirable. A Turkish bath taken occasionally would be highly beneficial. Trusting that the above may be of some help,

I am, Sirs, yours truly.

March 30th, 1887. T. J. LAVERS, M.D., &c.

THE INTERNATIONAL MEDICAL CONGRESS.

To the Editors of THE LANCET.

SIRS,—I take the liberty of addressing you for the purpose of making a suggestion about the forthcoming International Medical Congress in Washington. If I remember aright, when the British Association met at Montreal a few years since the Canadian and American railways gave free passes over their lines to all members who had come from Europe. I think that if the American railway companies could be induced to grant a similar privilege to foreign medical men attending the Congress in September it would result in largely increasing the attendance, and would be an immense boon to many doctors of limited means, who otherwise would be debarred from visiting America. From what I know of the large-minded generosity of the American people, I am sure that if the matter were once laid before the directors of the principal American lines they would accede to the request without hesitation.

I am, Sirs, your obedient servant,

April, 1887. M.B.

Mr. T. Nixon.—Information may be obtained at the office of the Crown Agents for the Colonies, Downing-street.

CLIMATE OF RED BLUFF, CALIFORNIA.

To the Editors of THE LANCET.

SIRS,—I should be obliged could you or any of your readers give me some information concerning the climate of Red Bluff, California (lat. 40° N., long. 122° W.), especially as to its suitability to a patient with delicate chest and tendency to fibroid phthisis.

I am, Sirs, yours faithfully,

April 2nd, 1887. F.R.C.S.E.

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COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Saundby, Birmingham; Dr. A. L. Gihou, Villejo; Mr. Godlee, London; Mr. S. Snell, Sheffield; Mr. F. T. Simson, London; Dr. G. Fischer, Jena; Dr. F. A. A. Smith, Cheltenham; Mr. C. S. Jeaffreson, Newcastle-on-Tyne; Mr. Coles, London; Mr. L. Jefferis, Margate; Mr. T. Jones, Manchester; Mr. C. D. Christmas, Clapham; Messrs. Burroughs and Wellcome, London; Mr. W. R. Macdermott, Newry; Dr. Norman Kerr, London; Dr. C. S. Watson, London; Mr. Stamford, Tunbridge Wells; Mr. J. R. Phillips, Aughnacloy; Mr. J. Allen, Belper; Mr. J. Spitzly, Paramaribo; Dr. Batterbury, Berkhamsted; Mr. H. Kesteven, London; Mr. W. J. Jeaffreson, Folkestone; Rev. J. W. Atkinson, London; Dr. W. Pasteur, London; Mr. E. F. Grün; Mrs. Heatherby, London; Dr. Hilliard, Aylesbury; Mr. Bischof, London; Dr. Braxton Hicks, London; Mr. F. Page, Newcastle-on-Tyne; Messrs. Steel and Jones; Mr. H. J. Moxon, Anerley; Mr. Busée, Slough; Mr. Wickham Barnes, London; Dr. J. T. Graham, Perth; Mr. G. Wale; Mr. Rix, Bradford; Dr. Kapteyn, Alcoude; Mr. Porter, Fleetwood; Mr. C. Roberts, London; Mr. J. Fleming, Glasgow; Mr. Plowright, King's Lynn; Mr. C. Aitken, St. Mawes; Dr. M'Clure, Cromer; Mr. Vacher, Birkenhead; Mr. Rees, Cambridge; Mrs. Tucker, London; Mr. Brain, London; Mr. Taylor, Windermere; Mr. Sotheran, York; Mr. Buckle, Tolleshunt D'Arcy; Mrs. Thomson, Highgate; Miss Nutter, Wakefield; Mr. Harris, Homburg; Mr. Warrener, Walthamstow; Dr. Luke, Hanwell; Mr. Kirby, Leeds; Mr. Young, Poona; Messrs. Benjamin and Co., London; Mr. Hunt, Hull; Mr. Fuge, Taunton; Messrs. Dale and Co., London; Mr. Godrich, Kingston-on-Thames; Messrs. Christy and Co., London; Mr. Hope, London; Mr. Thompson; Dr. Buchanan, Glasgow; Mrs. Pratt, Cardiff; Dr. Hunter, Matlock; Messrs. Wright and Co., Birmingham; Mr. Mackenzie, Ryde; Messrs. Armbrecht and Co., London; Mr. Maw, Bradford; Mr. Moore, Coventry; Mr. Julian Willis, London; Dr. Watson, Bournemouth; Mr. Roulston, Wakefield; Mr. T. Nixon, Lincoln; Mr. R. James, Bagshot; Mr. H. T. Rutherfoord, London; The Inspector-General of Recruiting; Justice; A Doctor of Medicine; Felix; Real Rank; M.B.; F.R.C.S.E.; A Perplexed Surgeon; Surgeon; Upper Blade; A. B., Southampton; A One-eyed Engine-driver; Justitia; Another M.D.; M.D.Lond.; Junior; A very old Subscriber; Junior; M.R.C.S.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Barr, Glasgow; Mr. Heddy, Kensington; Mr. Heap, Hanley; Messrs. Lee and Martin, Birmingham; Mr. Smith, Kinnetty; Mr. Fletcher, Cross Hills; Mr. Cummin, Dublin; Mr. Shaw; Messrs. Oppenheimer and Co., London; Mr. Goodall, Crieff; Mr. Harris, Hamburg; Messrs. Cox and Co., Brighton; Mrs. Temple, Kington; Mr. Blandford, Stockton-on-Tees; Mr. Barnacom, Plymouth; Mr. Hooke; Mr. Warner, South Kensington; Mr. Read, Canterbury; Mrs. Spencer, Ealing; Mr. Pace, Newcastle-on-Tyne; Mr. Morton, Manchester; Mr. Stevens, Nottinghill; Mr. Trestraile, Aldershot; Mr. Anderson, Loftus; Mr. Hodges, Gloucester; Mr. Montgomerie, Glasgow; Mr. Smith, Holloway; Mr. English, Belfast; Beta, Hull; A. K. B., Surbiton; Probe; M.D., Bath; J. H. M.; H. C. A.; Rusticus; T. H. B., Lambeth; Sigma, Northampton; F. L. S.; Chirurgicus

Hospital Gazette, Scottish News, Derby Mercury, Blackpool and Fleetwood Gazette, Blackpool Herald, Torquay Directory, Southport Visitor, Leeds Evening Express, Glasgow Herald, Walsall Observer, &c., have been received.

Medical Diary for the ensuing Week.

Monday, April 11.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.
MEDICAL SOCIETY OF LONDON.—8.30 P.M: Easter Monday. No meeting.

Tuesday, April 12.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 1.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Dr. J. J. Pringle: A case of Aneurysm of the Abdominal Aorta treated by Laparotomy and the Introduction of Steel Wire into the Sac.—Dr. William Henry White and Mr. Pearce Gould: A case of Saccular Aortic Aneurysm treated by the introduction into the Sac of thirty-two feet of Steel Wire.

Wednesday, April 13.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M.; Saturday, same hour.
EPIDEMIOLOGICAL SOCIETY OF LONDON.—8 P.M. Dr. Michael Taylor: The Presence of Mould Fungi in connexion with Diphtheria.
HUNTERIAN SOCIETY.—8 P.M. Mr. T. Mark Hovell: The Treatment of Cystic Goitre (with patient).—Dr. Dundas Grant: (1) Epithelioma of the Larynx relieved by Tracheotomy; (2) Carcinoma of the Œsophagus perforating the Trachea.
BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens will be shown by Drs. Edis, G. Granville Bantock, Fancourt Barnes, and others.—Dr. William J. Sinclair (Manchester): Missed Abortion.

Thursday, April 14.

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ABSTRACT OF

Lumleian Lectures

ON THE PATHOLOGY OF INTRA-UTERINE DEATH.

Delivered at the Royal College of Physicians of London, March, 1887,

BY W. O. PRIESTLEY, M.D., F.R.C.P., LL.D.,

CONSULTING PHYSICIAN TO KING'S COLLEGE HOSPITAL, AND LATE PROFESSOR OF OBSTETRIC MEDICINE, KING'S COLLEGE.

LECTURE I.

CALLING attention to the importance of the subject which he had chosen for these lectures, not only in its general aspects and from a statesman's point of view, as influencing the law of population, but in its interest for the pathologist and medical practitioner, Dr. Priestley said that owing to the large extent of ground covered by it he must content himself with giving in outline a sketch of its broader dimensions, while he dwelt with greater detail on those sections which had more especially excited his interest, or in which he had personally made some investigation. The complex and intricate anatomical structure, and the alterations associated with the rapid development of the contents of the gravid uterus even in the normal state, render, the lecturer remarked, all investigation very difficult. When pregnancy pursues its natural course and development follows its normal progress, the changes which take place are incessant and varying. From the time at which the decidua is first formed in the interior of the uterus, to become the outermost of the fœtal membranes, to the formation of the fully-grown placenta, there is no pause or cessation in the active changes which characterise the progress of growth. The cells and fibres which build up the tissues day by day undergo progressive change, and the vessels equally undergo modification in size, form, character, and in their relation to surrounding parts. So, too, if any derangement occurs, either from accident or disease, the morbid change thus initiated is, or may be, impressed with the same activity of growth, rapid degeneration or abnormalities being produced with surprising quickness. Hence pathological researches into these unstable and ever-changing structures are beset with difficulties, and to this must be attributed the widely different views held by equally conscientious and accurate observers concerning the nature of some of the pathological results.

Many of the causes which either remotely or directly bring about intra-uterine death are very difficult to trace, and some are so subtle in their influence as to be impossible to detect. Thus the child dies in utero with some women in successive pregnancies and without any clearly assignable cause; it is not infrequent to hear of women apparently healthy aborting or losing their children in the later months of gestation ten, twelve, or thirteen successive times. Some women are so prone to miscarriage at any period of gestation, that the slightest imprudence seems to be enough to endanger the existence of pregnancy and to lead to a detachment of the ovum. This is in marked contrast to other and apparently not healthier women, who will bear an extraordinary amount of violence or injury without disturbance to pregnancy, in proof of which Dr. Priestley cited several instances from the experiences of Mauriceau, Henry Davies, Dupuytren, Laujardière, and himself. Whitehead's tables, taken from the records of the Manchester Lying-in Hospital, show approximately the frequency of embryonic death in the earlier stages of gestation, but do not accurately represent the frequency of abortion throughout the whole childbearing period, and a considerable proportion of the women included in them were pregnant for the first time. Dr. Priestley had recently drawn up tables containing the figures of some 400 private patients in whom the evidence of pregnancy having occurred was distinct and unequivocal. The results were as follows: 400 women had been pregnant 2325 times. Of these, pregnancy had resulted in living children 1783 times; and there had been 542 abortions. The proportion of abortions to children was therefore 30·40 per cent., or about 1 in 3; while the proportion of abortions to pregnancies was 23·32, or about 1 in 4. The number of women who had borne children but had never suffered abortion was 152 in the 400, or 38 per cent.; while the number of women who had borne no living child and only had abortions was 27, or 6·75 per cent.—the sum of the pregnancies in 400 women being therefore 2325, or 5·81 for each, and the sum of the abortions being 542, it was 1·35 for each.

TABLE I.—*Analysis of number of Women who had and had not Aborted.*

—	Women below 30 years of age (Whitehead).		Women over 40 years of age (Priestley).	
	No.	Per cent. of whole.	No.	Per cent. of whole.
Women who had not aborted ...	1253	62·65	152	38·00
Women who had aborted	747	37·35	248	62·00
Total number of women under observation	2000	100·00	400	100·00
Women who only aborted—that is, who had borne no living child	—	—	27	6·75

Table I. illustrates the point that whereas among the younger women the proportion who aborted was about one in three—that is, one aborted to two who did not—among the older women the proportion was almost exactly reversed, and two aborted to one who did not.

TABLE II.—*Analysis of Pregnancies in reference to Abortions and to Fecundity.*

—	2000 Women below 30 years of age (Whitehead).			400 Women over 40 years of age (Priestley).		
	No.	Per cent. of whole.	No. per woman	No.	Per cent. of whole.	No per woman.
Children	7459	85·92	3·73	1783	76·68	4·46
Abortions	1222	14·08	0·61	542	23·32	1·35
Total pregnancies ...	8681	100·00	4·34	2325	100·00	5·81

Table II. shows that the older period is more productive of pregnancies than the younger in the proportion of 5·81 to 4·34 (or four to three), but that the percentage of them terminating in abortions is also much greater in the older period than in the younger (23·32 against 14·08). Table III. illustrates the last point in another manner.

TABLE III.—*Ratio of Abortions to Pregnancies and Children.*

—	Whitehead.		Priestley.	
	Per cent.	Being about 1 in	Per cent.	Being about 1 in
Ratio of abortions to pregnancies	14·08	7	23·32	4½
Ratio of abortions to children ...	16·39	6	30·40	3½

It will be seen that the proportion of abortions to full-time pregnancies is considerably higher than Hegar's computation, which is about 1 abortion to every 6 or 10 full-time deliveries. The proportion approximates more closely to Dr. Whitehead's figures, but these is a larger average of abortions as the calculation embraces a longer portion of the reproductive period; and there is another notable difference, which may, perhaps, be put down to easier circumstances and exemption from bodily toil—namely, that if a comparison is made with Dr. Whitehead's limited data concerning those women who had passed the menstrual epoch, it will be remarked that while among the poor of the manufacturing town as many as 37 per cent. had incurred abortion, only 62 per cent. of the women in better circumstances had suffered in this way.

As to the particular pregnancies in which abortion most

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frequently takes place considerable difference of opinion exists, and Dr. Priestley regards the computations on the subject made by Tyler Smith, Whitehead, and Schroeder as not at all satisfactory or conclusive, inasmuch as various elements—age, social position, the occurrence or not of a long journey immediately after marriage &c.—are not considered, and these elements are important factors in making the calculation, more particularly with reference to abortion in the earlier periods of pregnancy.

The relative period of utero-gestation in which intra-uterine death most frequently takes place has been variously stated, and for certain reasons cannot be very precisely determined. It is probably very frequent in the form of abortion during the early weeks of pregnancy, and then it may produce so little disturbance in a woman's health as to be scarcely noticed. Among the poor this is certainly the case, and consequently an estimate of its frequency among them is practically impossible. Madame la Chapelle regarded it as most frequent in the sixth month of utero-gestation. Cazeaux believes abortion to be most frequent in the first two or three months, and Depaul states its greatest frequency to be between two months and a half and three months and a half. Jacquemier, on the other hand, declares abortion is not less frequent in the sixth month than in the first half of pregnancy. Whitehead's figures show that of 602 cases of abortion, 275 occurred between two months and a half and three months and a half, and 147 between three months and a half and four months and a half.

The stage at which development has arrived—about three months to three and a half—points to a period when, *pro tanto*, abortion may be supposed to be the more readily brought about, which coincides with Whitehead's statistics. Then the villi of the chorion have become more concentrated on the decidua serotina, and the young placenta is in progress of formation. There is great increased vascular activity in all the tissues, and yet a certain instability, for the vascular loops projected from the maternal circulation are beginning to surround the fœtal villi in a delicate sort of network, and the spaces which intervene between the membranes, so obvious in the earliest weeks, are not yet obliterated. Besides, the union between the membranes and the uterine walls is less stable than later on, and so separation more readily occurs. Hence a greater liability to blood extravasations, not only into the layers of the decidua, but also between the several membranes, and more especially between the decidua reflexa and the chorion. From the twelfth to the sixteenth week the phenomenon of "quickening" occurs, and if anything hinders or prevents the ascent of the uterus into the abdomen abortion is precipitated. Morgagni and Desormeaux are of opinion that abortion is more frequent with female than with male embryos, but give no statistics; and Cazeaux's reason for thinking this may be true is scarcely a sound one—namely, because at term there are sixteen boys born to every fifteen girls.

In discussing the causes of intra-uterine death, classifications of which have been made by Spiegelberg, Leopold, Barnes, and others, Dr. Priestley announced his intention of taking first the causes acting through the male parent; then those which act through the intervention of the mother; and, lastly, those which more particularly belong to the fœtus itself, although possibly remotely related to both parents.

1. *Causes of intra-uterine death referable to the father.*—As the pollen-cells of a plant are sometimes imperfectly developed as the result of an unhealthy state of the plant, or as the pollen may be injured or spoilt before or during the time it is applied to the pistil, and the result be an imperfectly formed seed or fruit which never reaches maturity, so death of the embryo after conception is due, in some cases at least, to defects in the male parent. The fault is, as it were, *ab initio*. Conception takes place, but it is vitiated from the beginning by some alteration in the fecunding fluid. The male parent may be too young or too old to impart the necessary potency to the spermatic fluid, and so the product of conception breaks down and drops like untimely fruit because it does not possess the necessary amount of vitality to prolong its development. Debauchery, various diseases, and injuries from which men suffer were then alluded to as so deteriorating the constitution as to impair the procreating power, and so cause abortion in the woman. As pointed out by Dévilliers, procreating power is essentially distinct from that of development, and hence a man may possess the power to fertilise, but his whole strength may be expended in this act, and may not extend beyond, so that there is no further development. The faculty of development, too, is relative. Thus a weak man may impregnate a robust woman, and, by so much as she has strength to impart, the vitality of the germ may be carried on entirely under the influence of the woman. The lecturer had not been able to procure any precise information as to the proclivity to abortion in the wives of men who were the subjects of albuminuria or saccharine diabetes; but the general outcome of opinion is that during the progress of these maladies the vital powers become so exhausted that sexual power and desire fall into abeyance, and that it is only during the slighter forms of disease that they are likely to continue. Lead-poisoning not only injuriously affects the child *in utero* when the mother is the subject of it, but indirectly also when the father is affected. In this way it may lead to the death of the fœtus *in utero* and produce abortion or premature expulsion. The most potent, however, of all poisons in producing intra-uterine death at all stages of pregnancy is the poison of syphilis, and this whether the disease exists in the male or in the female parent. A woman who has shown no sign of syphilis in her own person may be impregnated by a spermatic fluid which carries with it so potent a syphilitic virus that in its development it sooner or later kills the product of conception, and this in its turn so poisons the maternal blood that the woman eventually becomes tainted with constitutional syphilis. Several instances in illustration of this indirect influence of syphilis in the male on conception were quoted from the experiences of Charpentier, Professor Harvey, Jonathan Hutchinson, and others.

2. *On the part of the mother.*—The same general causes which influence sterility are concerned in a greater or less degree in the production of abortion and premature death of the fœtus—viz., constitutional conditions, external agencies which depress the general health, extremes of heat and cold, climate, locality, &c. Over-feeding, Dr. Priestley is of opinion, is more pernicious in its effects on the product of conception than under-feeding. Anæmia in the mother may cause death *in utero*, and old age is not favourable to the continuance of pregnancy. Some acute diseases of a specific kind in the mother have a very marked and direct influence in destroying fœtal life: in proportion, *ceteris paribus*, to the gravity of the maternal affection, so is the danger to her progeny. Small-pox was given as an example, but scarlatina, measles, erysipelas, diphtheria, typhoid fever, and its congeners come within the same category. Of the non-specific forms of disease attended by fever, Dr. Priestley instanced pneumonia, which has always a special gravity when complicated by pregnancy, and which, if severe, almost invariably leads to emptying of the uterus. Pleurisy and the feverish state which follows surgical operations generally lead to abortion. Increase in the temperature of the mother increases the fœtal pulse, and *vice versâ;* and the experiments of Runge on the effects of high temperature on the gestation of the lower animals published in 1877 were reviewed at length, their results being as follows:—(1) The temperature of the fœtus is habitually higher than that of the mother, and keeps higher when the mother's heart becomes abnormal; (2) the fœtus dies solely from the heat before it becomes fatal to the mother; and (3) the temperature of the mother, if only raised for a short period to 41·5° C., is fatal to the fœtus, the danger not ceasing with the reduction of the mother's temperature to normal. These conclusions have been confirmed by a series of experiments recently performed under Dr. Priestley's direction by Mr. Tyrell Brooks in the physiological laboratory of King's College. In the course of these inquiries a marked difference was found between the vaginal, the uterine, and the fœtal temperature: thus in the cat, vaginal 98·2°, uterine 98·4°, fœtal 99°. In eclampsia fœtal death may be due to such elevation of temperature in the mother's body as is incompatible with the safety of the child, but when the temperature does not reach so high a standard the death must be attributed to uterine contraction producing imperfect aeration of the blood, or vitiation of the blood from uræmic poison. In phthisical women the tendency to abortion and premature delivery is greater than in healthy women. Diabetes, jaundice, heart disease, malignant cholera, and allied morbid conditions may destroy the product of conception by poisoning it *in utero*, or by inducing uterine contractions and premature expulsion. Several poisons act deleteriously on pregnancy—lead, arsenic, mercury, savin, and the like. The most pernicious organic poison is, however, syphilis, and in women who are its subjects, abortions often succeed each other in frequent

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repetition, and with a persistency belonging to no other cause. Even when there are no external indications of maternal syphilis, the succession of abortions or of dead children in more advanced pregnancy is traceable to a latent form of the disease which manifests itself in this fashion. If a woman has syphilis before conception, she is much more predisposed to abortion than a woman taking the disease after conception; if conception and syphilis commence together, abortion and premature labour with a dead child are the rule, but treatment is more potent in preventing them; syphilis acquired after the mid-period of pregnancy has less influence on the child, and it may escape altogether. One of the ways in which syphilis brings about intra-uterine death is by producing disease in the fœtal appendages; the venereal poison is transmitted to the embryo through the maternal blood, and may affect any or all of the tissues in the gravid womb. Uterine congestion or displacement, leucorrhœa, oxytoxic medicines, and reflex motor actions induced by minor surgical operations (tooth-drawing, &c.), have the effects of inducing abortion in some cases. All surgical proceedings during pregnancy ought to be abstained from, but if such operation be absolutely necessary the time corresponding to the catamenial periods must be avoided, the uterus being at such times more irritable. Dr. Priestley concluded his lecture by briefly referring to the effects of persistent gastric irritation, vesical, renal and rectal irritation, ovarian irritation, and finally to the injurious influence of mental emotion—fright, anxiety, &c.

A Lecture

ON THE

NEW METHOD OF TREATMENT OF CONSUMPTION AND OTHER DISEASES OF THE RESPIRATORY ORGANS BY GASEOUS RECTAL INJECTIONS.

By I. BURNEY YEO, M.D., F.R.C.P.,

PROFESSOR OF CLINICAL THERAPEUTICS IN KING'S COLLEGE, AND PHYSICIAN TO KING'S COLLEGE HOSPITAL.

GENTLEMEN,—Occasional paragraphs in the medical journals have called attention during the past few months to a method of treating consumption and other affections of the organs of respiration which, whatever may be the ultimate estimate of its value, certainly possesses the characters of originality and novelty. I allude to the employment of gaseous rectal injections introduced and practised by Dr. Bergeon, a well-known physician at Lyons, and formerly a *professeur suppléant* in the School of Medicine in that city. Dr. Bergeon brought this subject before the Académie des Sciences and the Académie de Médecine in Paris through Professor Cornil, the eminent pathologist, last summer. Since that time it has been adopted by several eminent physicians in Paris, including Dr. Dujardin-Beaumetz of the Hôpital Cochin, Dr. Constantin Paul, and Dr. Chantemesse, Chef du Laboratoire de Bactériologie in the Faculty of Medicine; by Dr. Vaillet, Professor in the University of Geneva; by Dr. Queirel, Professor in the School of Medicine at Marseilles; and by other eminent practitioners of medicine on the continent of Europe. Our own countryman, Dr. Henry Bennet of Mentone, has written a warm eulogium of its effects, and has claimed for this method "serious consideration and trial." I have thought it my duty, as Professor of Clinical Therapeutics in this College, to make further inquiry into this method, to familiarise myself with its details, and to put it into practice before your eyes. In order to do this, I first communicated with my friend Dr. Leudet of Paris, who has had a very large experience in the treatment of affections of the respiratory organs at Eaux Bonnes, and begged him to inform me what impression his observation of this treatment had made upon him. He replied that there was certainly "something in it," and kindly offered, if I would come to Paris, to obtain for me opportunities of seeing it carried out there. I therefore at the end of last year paid a short visit to Paris for the purpose of informing myself thoroughly of the details and results of this method so far as at present ascertained. My best thanks are due to Dr. Dujardin-Beaumetz, to Dr. Bardet, the able Chef du Laboratoire Thérapeutique of the Hôpital Cochin, and also especially to Dr. Leudet for so kindly affording me all the information I required. I may say at once that I agree with Dr. H. Bennet in considering this method as having been attended with results which would make it culpable in us to disregard it or fail to avail ourselves of such opportunities as we possess to give it a fair and persevering trial. I am, moreover, disposed to believe that the local application of sedative gases and vapours, which this method makes easy, may prove of considerable service in other affections, and especially in the treatment of uterine and intestinal maladies.

Dr. Bergeon's original object was to discover some means by which the development of the tubercle bacillus should be hindered; this does not necessarily mean the destruction of the organism *in loco*, but the modification of its probable chemical action on the tissues, so as to render it harmless. And here I would like to point out that those who have been in haste to repudiate antiseptic medication as applied to the treatment of phthisis, because of the necessity, as inferred from laboratory experiments, of administering such large doses (if the bacillus is to be destroyed) as to render them actually toxic, have really been most illogical and unscientific in their imagined submission to scientific experiment. A narrowness of view is, I regret to say, not inconsistent with an assumption of scientific accuracy. It has not as yet been proved in what way the bacillus acts in destroying pulmonary tissue, and in determining the production of the disease known as pulmonary consumption; and it does not help us to say that it sets up inflammatory changes, and then determines a certain kind of degeneration in the products of inflammation. These are only phrases which explain nothing. Numbers of other microbes reach the lung and do little or no harm there, their mere presence proving harmless! I beg you to mark that.

Are we to assume that it is impossible so to alter the medium, the soil, the surroundings (whatever you like to call it) in which the tubercle bacillus is found and where it develops, as to reduce its presence to the same condition of harmlessness as that of a number of other microbes? It would be most illogical and absurd to do so. It is this idea that is in the minds of those who speak of an "antiseptic" treatment of phthisis as being possible and necessary. One method of fulfilling this indication would be to cause gaseous bodies capable of modifying the development of the bacillus to penetrate the air cells and parenchyma of the lungs. Amongst the substances which seemed capable of doing this were sulphuretted hydrogen and the vapour of bisulphide of carbon. The inhalation of the spray, as well as of the vapours given off by natural sulphuretted waters, and the administration of such waters by the stomach, have long been held in high repute, especially in France, in the treatment of consumption and other chronic diseases of the respiratory passages. In the autumn of 1876, some years before the publication of Koch's discovery of the tubercle bacillus, in a paper I contributed to the annual meeting of the British Medical Association on "Recent Researches in the Treatment of Phthisis," in referring to the use and action of sulphur waters, I used these words: "I am by no means sure that we shall not discover that many of our remedies for phthisis act *antiseptically* which are thought by many to act otherwise. May not the sulphurous mineral waters, such as those of Eaux Bonnes, act in this way?"

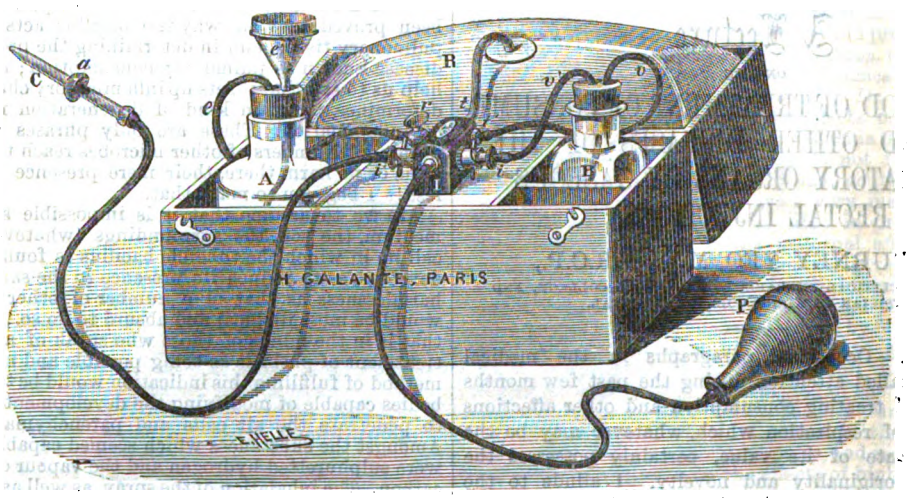
Other vapours were also tried by Dr. Bergeon, such as gaseous iodoform and eucalyptol. This observer had not been able to obtain all the good effects he desired from the use of antiseptic vapours by inhalation; and although, for my own part, I have had most convincing proof that such a mode of administration is attended with benefit in most cases, and with very remarkable amelioration in some, it requires a steadfastness of purpose and a constancy of application on the part of the patients and their friends, as well as on the part of the physician, that are but rarely met with. Without great thoroughness in this mode of applying antiseptic vapours, no doubt they penetrate but very imperfectly to the often diffused and deep-seated foci of disease; moreover, some of these gases would prove poisonous when admitted into the lungs by inhalation. This is the case with sulphuretted hydrogen, which is

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highly poisonous when respired in certain proportions, and it produces serious effects on the blood-corpuscles when it passes into the arterial circulation. Diffused in *small* proportions through the atmosphere inhaled, it has for many years, as I have already stated, formed a part of the regular treatment of affections of the respiratory organs at sulphur spas, such as Eaux Bonnes, Luchon, Cauterets, &c.

It was through calling to mind the experiments of Claude Bernard on the absorption of gases by the large intestine that the method of gaseous rectal injection suggested itself to Dr. Bergeon. C. Bernard discovered that gases were readily absorbed by the large intestine, and that when thus absorbed they passed into the portal circulation, and thence into the pulmonary artery, and there came into contact with the pulmonary parenchyma, and were eliminated (if the dose had not been too large) through the lungs. He found that, if a small quantity of a weak solution of sulphuretted hydrogen were injected into the rectum, it was eliminated without any ill effects by the lungs; while the same quantity respired under a glass jar would be toxic. In administering gases by the rectum, it is, of course, necessary to inject only such an amount as can be readily eliminated by the lungs, otherwise the whole would not be separated and a portion would pass into the arterial system. After a series of test experiments, Dr. Bergeon found that by the method of rectal injection he could administer relatively large doses of antiseptic gases, and it was clear that in elimination they would be distributed over the whole parenchyma of the lungs, and so of necessity come into contact with the diseased parts. Having determined to ascertain the value of sulphuretted hydrogen given in the form of rectal injection, he had next to discover the best gas to be employed as a vehicle. On experiment it was found that atmospheric air, so far from being inert, was a very active irritant to the rectal mucous membrane, and finally carbonic acid gas was chosen because of its well-known anæsthetic properties, and because it is rapidly eliminated. The method employed by Dr. Bergéon was a very simple one. An indiarubber bag, holding from four to five litres, was filled with pure carbonic acid, and this was connected with an elastic ball, the working of which withdrew the gas from the bag containing it and drove it into a bottle—the "barboteur" as it is called in French,—which held a solution of sulphuretted hydrogen or of bisulphide of carbon. In its passage through this solution the carbonic acid gas became charged with the sulphuretted vapours, and this mixture of gases was very slowly injected into the rectum through a tube terminating in an ordinary bone cannula. In the apparatus constructed for this purpose by Dr. Morel, Dr. Bergéon's assistant, the carbonic acid was generated by adding dilute sulphuric acid to bicarbonate of soda. The gas given off was collected in an indiarubber bag, which, when filled, was detached and then connected with the bottle containing the sulphur water or other agent. The following were the objections to this apparatus:—1. That, as the injecting ball was placed in front of the "barboteur," it was difficult to feel the sensation of *resistance* offered by the rectum, as there was a long tube, as well as the fluid in the bottle, between them. This "resistance offered by the rectum" is sometimes very manifest, as we found in the first two cases in which we applied this method. 2. The use of *mineral* acid to generate the carbonic acid is attended with the risk of carrying over irritating sulphuric vapours. 3. The price was excessive—viz., 70 francs, or £2 16*s.*!

The apparatus which I have before me, and which we have used in this hospital, was devised by M. Bardet, the Chef du Laboratoire de Thérapeutique at the Hôpital Cochin, at the request of Dr. Dujardin-Beaumetz. It is manufactured by Galante et Fils, the well known instrument-makers, No. 2, Rue de l'École de Médicine, Paris, and it may be obtained from them at the moderate price of 35 francs (see woodcut). This apparatus has the great advantage of having all its component parts contained in one box, and is therefore easily transported from place to place; its manipulation and application are easily learnt, and may be entrusted, after a time or two, to an intelligent attendant, or even to the patient himself. Moreover, the carbonic acid is generated by means of a vegetable acid, which is neither toxic nor corrosive. It consists, as you see, first, of a "generator" (A), and a large glass bottle with a wide mouth, in permanent communication with the indiarubber bag or "reservoir" (B). In the generator the carbonic acid gas is generated, and for this purpose there are furnished with the apparatus small cartridge-like boxes, each filled with the necessary quantity of bicarbonate of soda and tartaric acid (separated by a partition of cardboard), in the proportion of twenty parts of



the former to sixteen of the latter, to set free enough carbonic acid gas to fill the reservoir, containing four litres. The "injector" (I) is worked by an elastic ball, or "pear" (P), which, with its tube, is outside the apparatus. This injector is provided with valves, which allow the gas to be aspirated from the reservoir (B) by suction action of the ball (P), and when the ball is compressed prevent the gas from flowing back into the reservoir and cause it to escape by the cannula (C). The bottle (B), called a "barboteur," contains the medicated fluid through which the carbonic acid gas is forced to pass on its way from the reservoir to the injector. The box, then, contains the following parts—a generator of carbonic acid (A), a caoutchouc bag or reservoir (B), a "barboteur" (B), and an injector (I). Outside the box are the injecting ball or pear (P), and the "cannula" (C) with the tubes connecting them to the injector. The injector, which is formed of an arrangement of valves (*i* and *i'*), is made of metal, and is, together with the other connecting portions of the apparatus (*r t t'*), combined together into a single solid block. The gas furnished by the generator (A) passes out by the tube *a*, which is connected at the tap *r* with the central metallic block, whence it escapes by the tube *t'*, through which it reaches the reservoir (B). It cannot escape by *t'*, as it is prevented by the resistance of the liquid in the "barboteur" (B). As soon as the reservoir is filled with gas the apparatus can be put in action. We compress the elastic ball (P), and the air it contains is driven out through the valve *i* and the cannula; then, when it re-expands, it tends to produce a

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vacuum, and so opens the valve *i'* and aspirates the gas from the reservoir, which, passing through the tubes *t* and *t'*, reaches the "barboteur" (B) by the tube *v*, which descends to the bottom of that vessel; it becomes charged with the medicinal vapour in passing through the fluid contained in the "barboteur," and then escapes by the exit tube *v'* into the caoutchouc tube connected with the valve *i* and the injector (I); the ball (P) and the injector are then filled with gas. We then compress the ball, and the compressed gas opens the valve *i'* and escapes by the cannula (C), and so on until the reservoir is emptied.

Having described to you the different parts of the apparatus, I will now show you how it is worked. First, you fill the "barboteur" (B) rather more than half-full of the medicated solution you intend to employ (sulphur water, water impregnated with bisulphide of carbon, or hot water containing iodoform, terpinol, &c., in suspension), and you close it tightly with the cork. Secondly, you put a few drops of water into the generator (A) and then empty into it the soda and acid powder contained in one of the little cartridge-like boxes. You wait a few seconds in order that the air contained in this flask may be driven out by the small quantity of carbonic acid, which is set free by the few drops of water which you have placed in the bottom of the vessel previously. You then cork it firmly, and by means of the funnel provided with the apparatus you fill the generator about half-full of water, being careful to see that the tap *r* is open. As soon as the water is added the gas comes off freely, and in about two minutes fills the reservoir; shaking the flask will hasten the discharge of gas. The reservoir being filled, you work the elastic ball (P) three or four times in order to get rid of the air contained in the tubes and in the "barboteur," and then you introduce the cannula into the rectum. The ring on the cannula serves to regulate the length of tube introduced into the rectum and to maintain it there. The injection of the gas must be made very slowly and gently, waiting ten or fifteen seconds between each compression of the ball (P), and taking from twenty minutes to half an hour over the operation. The quantity of gas injected at each operation must depend chiefly on the tolerance of the patient—the minimum being one litre, the maximum about four litres. It is necessary also to take account of a certain amount of resistance to the injection on the part of the rectum encountered during the first two or three attempts with some patients. In this case it is well to wait a few minutes, and then to inject very slowly. As soon as the operation is finished it is necessary to empty and wash out the generator.

It has been stated that Dr. Bergeon, in order to obtain sulphuretted hydrogen in a pure and unirritating form, has hitherto been obliged to confine himself to the use of Eaux Bonnes water. Some bottles of this water are on the table before you. But an obvious inconvenience attends this limitation of the source of the sulphur gas, and, besides, the Eaux Bonnes water is but feebly charged with the gas, and some bottles are found unfit for use, as they yield little or no gas. We have had recourse here to the solutions suggested by Dr. Bardet for generating the sulphuretted hydrogen, and we have found them to answer perfectly. The first of these (No. 1), the sulphuretted solution, contains 10 grammes of sodium sulphide in 100 cubic centimetres of distilled water. This is made by passing pure gaseous sulphuretted hydrogen through a pure solution of soda, subsequently adding a weight of soda equal to that already employed, and then the water necessary to arrive at the strength indicated. A cubic centimetre of this liquid sets free exactly 10 cubic centimetres of sulphuretted hydrogen. No. 2 is an acid solution used for setting free the sulphuretted gas from the preceding; this is made by dissolving 25 grammes of tartaric acid and 1 gramme of salicylic acid in 100 cubic centimetres of distilled water. (The salicylic acid is simply to prevent the formation of mould in this solution.) One cubic centimetre of this solution entirely displaces the sulphuretted hydrogen of 1 cubic centimetre of the preceding. These solutions[1] afford us the means of estimating accurately the quantity of sulphuretted hydrogen administered. It is advisable, as Dr. Bardet points out, even when using a natural sulphur water, to add some solution of a vegetable acid, to set free the sulphur gas; if you do not do so, you will find the carbonic acid acts very slowly in setting free the sulphuretted hydrogen.

With regard to the dose, we have been using here the proportions indicated by Dr. Bardet as giving the best practical results—viz., 10 cubic centimetres of the sulphuretted solution to 200 grammes of water; this mixture is placed in the "barboteur," and 10 cubic centimetres of the acid (No. 2) solution is added. If all the sulphuretted hydrogen were set free from this and mixed with the carbonic acid gas injected, we should obtain a dose of sulphuretted hydrogen equal to 100 cubic centimetres. But there is always a little milkiness produced on the addition of the acid solution, due to the deposition of sulphur, and probably not more than two-thirds or three-fourths of the above stated quantity reaches the rectum, even when the full quantity (4 litres) of carbonic acid gas is injected. As to the quantity of carbonic acid injected, it varies from one to four litres, according to the tolerance of the patient. Dr. Bergeon directs that two injections should be given daily, but in Paris they rarely give more than one, unless the patient can only tolerate a small injection at a time, and then they also give them twice a day. At present we have only given them once daily. Those of you who have seen these injections administered will agree with me that apart from the odour of the gas there is nothing particularly objectionable in this method, either to the medical man or to the patient. But it must be admitted to be a troublesome method, when compared with our routine modes of treatment, and that it takes up much time When, however, we consider the vast amount of time we give to investigations in morbid anatomy, we ought not to complain because modern progress in connexion with experimental therapeutics throws on us additional labour and additional duties in this the most practical and most essential branch of our art. The trouble and labour attending the application of this method make it very desirable that it should be taken up and put into practice, not by one or two physicians only, but by a considerable number, for only in this way can its merits and applicability be tested in a sufficiently large number and variety of cases. Hitherto its application has been limited to affections of the respiratory organs, to phthisis, to asthma, and to catarrhal conditions of the air passages. It has, however, occurred to myself and to others that the injection of sedative gases and vapours by means of this apparatus may be destined to be of great service in other maladies, and especially in some painful uterine and intestinal affections.

Other agents besides sulphuretted hydrogen have been applied in the form of gaseous rectal injection with the aid of this apparatus. Iodoform in suspension in warm water has been placed in the "barboteur," and a mixture of its vapour with carbonic acid injected. It has been found of value especially in cases of fetid expectoration. Eucalyptol has also been used, but it has so far been found to be attended with so much bronchial irritation that its employment has not been persevered in. Terpinol has proved useful in phthisical and catarrhal cases with much fetid expectoration; the fetor of the breath has been agreeably modified.

This method is so new, and, so far as this country is concerned, so untried, that you will not expect me to express at present any very positive opinion as to its value, based on my own observations; but I will tell you what I have been able to gather from trustworthy observers. I will state to you Dr. Bergeon's own testimony, and put before you the results of our own observations so far as they have gone.

And, first, as to Dr. Bergeon's own testimony. He has stated that by this method phthisis, asthma, and chronic bronchitis can often be cured and nearly always alleviated. For more than two years he has been applying this method in cases of chronic diseases of the lungs and throat—more than two hundred in number—with an astonishing amount of success. In cases of early phthisis, he says, the disease is usually arrested in two or three weeks, and in a few months cured; and considerable amelioration is obtained in advanced incurable cases. It lowers the pulse, reduces temperature, checks the night sweats, restores appetite, diminishes greatly the amount of expectoration, and removes its purulent character, while the cough is greatly relieved. In advanced laryngeal phthisis he has observed rapid benefit when all other treatment has failed to give relief. Paroxysms of asthma are relieved more effectually than by any other means. Such is the testimony of the inventor of this method—testimony advanced not hastily, but as the result of two years of careful observation.

Dr. Chantemesse reports that he treated "nine patients in his wards presenting the general and local signs of pul-

[1] Those used in the Clinical Laboratory of the College Hospital were prepared by Messrs. Bell of Oxford-street.

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monary tuberculosis with characteristic bacilli in their sputa, by Dr. Bergeon's method, and they obtained very great benefit. The increase of body weight was rapid—a pound and sometimes a kilogramme a week. Cough and expectoration were considerably diminished. The sputa, however, continued to present the characteristic bacilli of tubercle. They were under treatment for six weeks. One gained nine pounds in weight in that period." He also applied this treatment to two cases of very violent spasmodic asthma. He injected carbonic acid gas mixed with vapour of bisulphide of carbon. Half an hour after the first injection there was a very notable relief of the dyspnœa, and, the treatment being continued, the breathing became free and the paroxysms did not return during the whole course of the treatment. Commenting on the clinical observations of Dr. Chantemesse, Professor Cornil remarks: "So far we may say that rectal injections of carbonic acid and sulphuretted hydrogen gas constitute an excellent therapeutic method in phthisis as well as in asthma, and we ought to accept it all the more readily seeing how powerless are the therapeutic resources which we oppose to phthisis."

Dr. Morel,[2] alluding to the continued presence of the bacilli in the sputa of those restored to health by this method, suggests that their injurious influence is probably neutralised and their infectious properties destroyed by this mixture of gases; but he points out that unless this treatment be maintained in some degree, even in those restored to health, there can be no sense of security against a relapse so long as the characteristic bacillus appears in the expectorations.

In Geneva Dr. Bennet testifies he found several physicians adopting this method of treatment last September with "apparent benefit." He also states that in a case of very advanced phthisis under his own observation this treatment was "attended with an unhoped-for rally," and in a case of obstinate asthma he observed most remarkable alleviation.

Dr. Bardet, reporting the results of the observations at the Hôpital Cochin in Paris, says, "so far our results accord entirely with those announced by Dr. Bergeon. A rapid and constant sedative effect ensues, the cough diminishes rapidly, the patient sleeps much better, and the expectoration tends to disappear. These effects are very remarkable."[3] in Paris they were disposed to regard the carbonic acid itself as a valuable and important remedial agent.

As at present, we have only tried this method in this hospital for five or six weeks, and on a very limited scale, we have not been able to do more than corroborate some of the preceding statements. There is certainly no difficulty or danger in the operation, and we have not found it objectionable to the patients. We have observed a gain in flesh and strength, and an expression of general amelioration; the pulse, temperature, and respiration have fallen, and the expectoration has been diminished; rest at night has been improved. Beyond these statements of general improvement our data at present will not allow us to go. I have been much indebted to the co-operation of our excellent house-physician, Dr. Ewens, and particularly to my clinical clerk, Mr. Verdun, without whose valuable help it would have been impossible for me to have carried out a method of treatment requiring such constant personal supervision.

If bisulphide of carbon be the agent employed in Dr. Bardet's apparatus, it is necessary to empty the "barboteur" after each injection and wash it out with alcohol, and afterwards open the tap r, and by means of the elastic ball (P) drive air through the tubes so as to get rid of all the vapour of the bisulphide, otherwise it will rapidly make the apparatus unserviceable. I saw one case in Paris, a young girl in the cavity stage of phthisis, who had benefited much at first from this treatment, but subsequently it had to be discontinued on account of the difficulty she experienced in expectorating, so greatly was the expectoration diminished in quantity. Another patient also in advanced phthisis, in an adjacent ward, was clamouring for a renewal of the injections (which had been suspended) on account of the benefit he had received from them. No doubt the trouble attending this method of treatment will tend to render it unpopular with hospital attendants, and we must therefore be on our guard how we allow it to be discredited from interested motives. Dr. Bergeon maintains that when this method has failed it had [illegible]

[illegible]

ficient mode of application, and that if it is to be fairly tested it must be on the conditions he has laid down.

It must be admitted that new methods of treatment of phthisis are often submitted—and by those who should know better—to most improper and unsatisfactory tests. If the treatment we have been discussing, or any other treatment, were absolutely curative of phthisis, it could only be so under certain definable conditions. We may go further, and assert that if we possessed at this moment a certain cure for tuberculosis, it would of necessity leave a great proportion of existing cases of phthisis incurable. We should endeavour to realise this fact clearly, and to clearly comprehend what is the problem involved in the "cure of phthisis." To cure phthisis, we must begin to treat the disease before it has led to its most common result, the extensive destructive disintegration of lung tissue. No doubt local ulceration and loss of substance may occur, and cicatricial contraction and arrest of disease follow, when the surrounding lung tissue is sound; but this can only take place when the lung destruction is circumscribed and limited. Unfortunately, we too frequently have cases brought to us for treatment when all chance of curative treatment has passed away, and no matter what remedies we might have at our disposal, we could not work with them impossibilities. Yet we find experienced physicians testing "cures" of phthisis on advanced and hopeless cases of this kind, and reporting that the remedies are useless because they do not cure cases which are by no possibility curable. If the morbid changes which take place in the lungs in phthisis were actually open to our inspection, if we could see them instead of having them concealed from us, the idea of local medication of the lungs in the treatment of phthisis would, I feel sure, make rapid progress. The modification of the ulcerative, decomposing, and disintegrating changes, and tendencies to change, in phthisical lungs by antiseptic agents, which, in whatever form administered, have a local action, would appear to us imperative. Whether our antiseptic influences take the form of the pure aseptic air of the open sea, or of elevated mountain regions, or of pine forests, or of the inspiration of antiseptic vapours in well-ventilated apartments at home, or of antiseptic agents administered by rectal injection, or by hypodermic injection, which latter method is being largely employed in Paris at this moment, the principle is the same—viz., to exert an antiseptic and aseptic influence on the pulmonary or other affected tissues.

It is untrue to state, as some physicians have not hesitated to do, that the idea of antiseptic medication in phthisis has failed to be of much benefit. On the contrary, it has been productive of enormous benefit; and when the professional mind has overcome some of its prejudices and its narrowness of view and mode of thought, it is destined, I feel certain, to be of the greatest possible service. In connexion with this subject I was struck with the report by Dr. Neale in the *British Medical Journal* of Dec. 4th, 1886, of the excellent results he had obtained from what he called the "open-air treatment of phthisis." But what else had the patient besides a freely ventilated apartment? "Iodine is freely distributed about the apartment, and a pad of terebene placed under the chin when the patient is in bed. Food is pushed, cod-liver oil, with iodoform pills, and iron and belladonna, and oxide of zinc to control the night perspirations." I congratulate Dr. Neale on the signal success of his vigorous antiseptic medication. I could not wish a more thorough application of its principles: iodine vapour and terebene vapour to the respiratory passages; iodoform internally; fresh air always.

About the same time that Dr. Neale was pushing antiseptic treatment in the case he has reported, Mr. Pollard, of Queen Anne-street (in October last), brought a young gentleman to see me whom we both thought had but a very short time to live. He presented an aspect of marked cachexia, a temperature of 103° F. at midday, and rising even higher in the evening; physical signs of infiltration of the upper part of the left lung, with patches of dulness over both lungs behind, accompanied with blowing respiration and a pleuritic friction here and there. It is true the disease was of comparatively recent date, and there was no evidence of extensive destruction of lung tissue, but the fever was so continuous, the cachexia so marked, and the infiltration apparently so diffused, that we arrived at a very unfavourable [illegible]. We declined to sanction his leaving home, and pointed out to my friend Mr. Pollard that I considered the only chance of improvement, and that but a faint one,

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rested in antiseptic medication. We gave him, internally, four minims of creasote in two teaspoonfuls of cod-liver oil three times a day, and prescribed the continuous inhalation of equal parts of terebene and eucalyptol. He had also a quinine and strychnine mixture as a general tonic, and some powders at night of bismuth and oxide of zinc to check the night sweats and tendency to diarrhœa. About three months afterwards I own I was somewhat surprised to see Mr. Pollard reappear with his young patient, and transformed. The results of this treatment had been most remarkable. Beyond the continued existence of the physical signs of some infiltration at the left apex, and some irregularity in the inspiratory expansion of the chest, as though from pleuritic adhesions, his condition was most satisfactory. He had gained much flesh; he had no fever, no night sweats, no dyspnœa, and not much cough. The cachectic appearances had vanished. I asked Mr. Pollard how he had contrived to obtain so striking a result. He replied that it was by a most thorough, painstaking, and conscientious adherence to all the details of the treatment we had agreed upon. When, gentlemen, we encounter such results as these from a method of antiseptic medication rigorously carried out, I think we are justified in saying, in the words of Dr. Leudet, "There is something in it."

Clinical Lectures ON DISEASES OF THE EYE.

Delivered at the Nottingham and Midland Eye Infirmary, December 9th, 1886,

BY C. BELL TAYLOR, M.D., F.R.C.S.,
SURGEON TO THE INFIRMARY.

LECTURE V.

EYE TROUBLES IN GENERAL PRACTICE.

GENTLEMEN,—I see no reason to doubt, and there is every reason to believe, that the operations you have just seen will end in the restoration of sight; and to restore sight to the blind has ever, and justly, been considered one of the grandest of human achievements. Brilliant and gratifying, however, as undoubtedly are the results of our most frequent ophthalmic operations, they are, after all, but as dust in the balance compared to the vast amount of human misery which is alleviated and the sum total of blindness which is prevented by the judicious treatment of the most common maladies to which our patients are subject, and which invariably in the early and most curable stages come under the notice of the general practitioner. Take, for instance, that most frequent of all the causes of blindness, the purulent ophthalmia of infants. There is no disease so easy to prevent, there are few diseases so easy to cure, and there is not one so fatal in its effects. If you will look over this work by Professor Corradi, entitled "La Cecité en Italie," you will find that there are upwards of 300,000 blind persons in Europe alone; and if you will glance at this graphic representation of the causes of blindness prepared by Dr. Magnus of Breslau, you will see at once that the purulent ophthalmia of infants stands at the head of the list; while if you will study, as I have done, the reports of the various blind asylums throughout Europe, you will find that from 30 to 46—ay, and 50 per cent.—of the inmates of these institutions owe their misfortunes to this terrible disease. Gentlemen, just consider what this means: it does not mean blindness coming on after a long life of usefulness or pleasure; it does not mean dimness of vision, admitting of more or less hopeful treatment; it does not mean damaged sight or blindness of one eye; it means blindness of both eyes—total, irreparable, coming on in the very earliest days of infancy, and lasting throughout the whole of many a long, weary, tedious, desolate life. Now this disease is not caused, as many have believed and taught (Stellwag), by cold, by a draught, or by sudden exposure to concentrated light. It is caused, as was first pointed out by our distinguished countryman Gibson, of Manchester, by the direct inoculation of the child's eyes with the secretions of the mother's vagina, and may be prevented as easy as easy can be by curing the leucorrhœa of pregnancy, by disinfecting or wiping away the discharge even so late as during the progress of labour, by insisting upon the most scrupulous cleanliness on the part of the attendants, so that their hands may not communicate infection, and by taking care that the child's face is not washed in the same water which is used for its bath, and that its eyes are not wiped with the same sponge that is used for its person. Gentlemen, if these precautions were thoroughly carried out in every case of midwifery, I venture to affirm that there would not be another case of bacterial purulent ophthalmia in the universe. Even if a little matter should have got into one or other of the child's eyes, it may be destroyed at once and *in situ*, before any harm is done, by a drop of a 2 per cent. solution of nitrate of silver;[1] and if one eye should unfortunately have become infected before you see the case—and, mind you, it is seldom that both eyes are struck at once[2]—the sound eye may be protected and sight assuredly preserved by the use of this little simple contrivance, this sticking-plaster shield, which I regard with parental, and I trust with pardonable, pride, since I am sure that I have saved many an eye by its use.[3] (Fig. 1.)

FIG. 1.



Gentlemen, I said the disease was easily cured, and so it is. Let me quote a little evidence on this point. Mr. (afterwards Sir William) Lawrence, late surgeon to St. Bartholomew's Hospital, whose work I have here—and I can cite no higher authority,—writing in 1833, says: "There is a singular contrast between the virulence of this inflammation of the eyes of newly born children, and the serious consequences to which that inflammation so rapidly leads, and the readiness with which it yields to suitable treatment; hence, if we see a case of purulent ophthalmia before any injury is done to the cornea, we may assure the parents, and it gives us great pleasure to be able to do so, that sight will not suffer. Even the most violent form is very manageable, and will do well when properly treated."[4]

Again, Professor Knapp of New York, another eminent ophthalmologist, whose archives I here commend to your notice, tells us, half a century later, that "no child need lose its eyes from ophthalmia neonati, and no child does if

[1] This is Credé's much-vaunted method: a solution of nitrate of silver, eight grains to the ounce, is dropped into each eye of every child born, "dans les services d'accouchement," and Dr. Kaltenbach, in a recent communication to the Congrès Allemand de Gynécologie declares that the cases of purulent ophthalmia have in consequence diminished from 15 per 100 to 0 per 100.—(See Recueil d'Ophthalmologie for August, 1886.)

[2] The ophthalmia almost always appears at first in one eye alone, the other being affected some days after. The transference of the secretion from one eye to the other seems to be the usual origin of the disease in the second eye.—(See Treatise on Diseases of the Eye, by Carl Stellwag, von Carrion Professor of Ophthalmology in the Imperial Royal University of Vienna, p. 317.)

[3] The shield is merely a piece of sticking-plaster with a hole in the centre, cut to correspond with the pupil; the aperture is filled by a piece of gauze. The baby depicted in the figure, whose left eye was attacked with a virulent form of purulent ophthalmia three days after birth, had its right eye protected in this way upwards of a fortnight.

[4] Lawrence on Diseases of the Eye, p. 171.

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faithfully treated"; adding, "I speak from an experience, not of dozens, not of hundreds, but of thousands of cases."[5]

You will find a similar expression of opinion in this excellent *brochure* entitled "The Prevention of Ophthalmia Neonatorum and its Ravages," by Dr. David McKeown, of Manchester, presented to the Obstetrical Society of London in February last year; as also in this popular treatise entitled "Eyesight and how we lose it," by my distinguished *confrère*, Dr. Priestley Smith, of Birmingham. In short, gentlemen, not to detain you unnecessarily, I may say, without fear of contradiction, that on this point ophthalmic surgeons are agreed. The disease is easily cured. How is it, then, you will very naturally say, that so many children lose their sight from purulent ophthalmia? The reply to that question is simply this: either they are not properly treated or they are not treated in time. Let me prove this to you. Of 630 cases treated in an early stage of the disease by Professors Horner, Schweigger, and Hirschberg, 630—that is, every one—recovered with absolutely perfect sight. On the other hand, and I bid you mark the sequel, of 120 cases coming under the care of the same gentlemen, but not seen until a later stage, 49—that is, not quite one half, but more than a third—lost the sight of both eyes beyond all chance of recovery or possibility of improvement. Gentlemen, that is the trouble. The practitioner is called in when the parents are alarmed, or the specialist is consulted when the practitioner is alarmed, and then it is too often too late either to save the eye originally affected or to preserve the sound eye from inoculation. A few days ago—perhaps I ought to say nights, for it was after eleven o'clock—a cab dashed up to my door, the bell rang violently, and a lady with an infant in her arms was ushered into my consulting-room. "Dr. Bell Taylor," she exclaimed, bursting into tears, "will my baby see?" I ascertained that the child's right eye commenced to discharge three days after birth, some days later the left was inoculated from it, and both had been discharging freely for three weeks. All was supposed to be going on well. "The child was said to have a cold in its eyes," and, so far as I could learn, no special anxiety was felt as to the result, when suddenly it flashed upon the mother that her boy might lose his sight; and acting on the impulse of the moment, though late in the day, unfit to travel, and a hundred and fifty miles away, she rushed to the station and caught the train for Nottingham. I succeeded in arresting the discharge in a few days, but both eyes were lost from sloughing and ulceration of the cornea when she started on her journey. Gentlemen, this is a deplorable state of things; it ought not to be; and I can assure you that the various societies interested in the prevention of blindness look to you general practitioners who attend midwifery, and who have so much in your power, to save us from further reproach on the score of blindness from purulent ophthalmia. With regard to treatment, mycologists assure us that the virulence of the disease is due to the ravages of a gonococcus discovered by Neisser in 1879, which, like an elephant in a field of maize, battens on the cylindrical epithelium of the palpebral conjunctiva. It appears that the columnar epithelium of the bulbar portion of this membrane affords no nutriment to this microscopic specimen of the *feræ naturæ*; however that may be, it is an important clinical precept that our remedies must be sufficiently strong to disinfect the conjunctiva, and that they must be applied to the inside of the everted lids at least once in twenty-four hours. I have found chloride of zinc an excellent antiseptic myself; but the remedy *par excellence* is the nitrate of silver, which may be used in the form of mitigated stik, or 2 per cent. solution.[6] Meanwhile the matter must be worked out from underneath the lids, which must be prevented from sticking together by a little oxide of zinc and white precipitate ointment, and the eye must be kept saturated with alum-water or weak solution of chloride of zinc (one grain to the ounce), which may be iced or heated according to the nature of the case. If the lids are swollen, tense, red, and shining, they may be punctured, leeched, or painted with a solution of nitrate of silver in nitric ether; and if the cornea threatens to give way, the anterior chamber may be tapped and a compress bandage applied. You need not fear to separate the lids for the purpose of looking at the eye in the early stages of the disease, but later on the utmost care is needed. I was called to a case of this kind some time ago, a long way off; two surgeons were already in attendance, one a specialist. I said: "The cornea of the left eye is on the eve of perforation, and I think we had better give a little chloroform, tap the chamber, and apply a compress bandage." My ophthalmic friend dissented from this view, and proceeded to repeat my examination for himself. I was leaning over anxiously, I may say fearfully, watching the process, when, probably from some sudden motion of the child, the lens was projected with violence, and struck me in the right eye. By dint of free ablution and the use of antiseptics I was "quit for the fright," but it was a warning to me, and I am sure it will be a warning to you to be careful how you conduct an examination in the later stages of purulent ophthalmia. Apart from the danger to the child itself, the risk to attendants from carelessness in this respect is something greater than you can readily conceive. Let me endeavour to impress this upon you by a recital of two or three very important facts. 1. I have known a short-sighted nurse inoculated by pent-up matter, which spurted out when the adherent lids were suddenly separated. 2. Two friends of my own, surgeons, have each lost an eye from accidental infection. 3. It is a fact that 11·8 per cent. of the nurses in the St. Petersburg Hospital manage somehow or other to contract this disease from children under their care (Haussmann). 4. If you will refer to the reports of the foundling hospitals of Prague, of Vienna, of St. Petersburg, and the records of the Parisian *crèches*, you will find that a considerable proportion—from a fourth to a third (Fuchs)—of the baby inmates of these institutions contract this disease after admission, and may thus be said literally to be taken in and blinded at the public expense.[7] In order to avoid these deplorable accidents it is well that those who are much engaged in the treatment of these cases should wear large protective glasses. Sponges and syringes (the latter also because they are apt to injure the corneal epithelium) should be discarded, and all rags, linen, &c., which have been in contact with the discharge should be at once destroyed, for, as you will learn directly, it is dangerous to wash them.

Adults and others infected from children suffering from ophthalmia neonati present various degrees of purulent ophthalmia, according to the stage and virulence of the source of infection, and authors usually consider gonorrhœal ophthalmia under this head because it is marked by the presence of the same microbe and alike communicated by direct infection. There is no comparison, however, between the amount of reaction and destruction occasioned by inoculation with a mild fluor albus, such as most women suffer from some time or other during their lives, and that which follows the insertion of a particle of gonorrhœal matter into the conjunctival sac; indeed, in the latter case it is almost impossible to save the eye. Speaking on this point, Professor Arlt of Vienna says, "I have lost many eyes from gonorrhœal ophthalmia." Mark that, gentlemen. Professor Arlt is one of the most accomplished practitioners in Europe, and perhaps the most experienced; and if he, with all appliances and means to boot, cannot save the eye in the majority of these cases, it is clear that we have to do with a disease of exceptional virulence. Fortunately, however, in this affection only one eye is infected (unless when the patient has bathed his eyes with his own urine), and we can always guarantee the sight by protecting the sound eye with the shield to which I have already called your attention; and here let me beg of you to apply it on suspicion. This simple shade cannot, under any circumstances, do any harm; sight is not interfered with; ventilation is perfect; the patient is not prevented from helping himself or walking about; and its neglect is often attended with most disastrous consequences. Above all, let me beg of you not to believe the youths and young men, the most frequent subjects of this affection, when they tell you that they are free from venereal taint; for I have known even highly educated gentlemen deny the soft impeachment, when their shirts were stiff with discharge. We had a sad example of the results attending the neglect of the shield in the case of a poor woman from Grantham, who was here three months ago. Her right eye (it is generally the right eye) was inoculated from some

[5] Archives of Ophthalmology for March, 1882. Putnam's Sons, New York.

[6] If the remedies must be entrusted to the friends, the nurse may drop into the eye a solution of nitrate of silver, two or three grains to the ounce, thrice daily.

[7] At the meeting of the Imperial Surgical Society of Paris, on Feb. 21st, 1866, M. Giraldès (L'Union Méd., No. 823, et 26, 1886) reported that in the Hôpital des Enfants Trouvés the loss of eyes (sometimes even of life) by blennorrhœa neonatorum reached the enormous number of from 80 to 90 per cent.

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linen she had to wash, and discharged freely for three weeks; at the end of that time, sad to relate, some of the matter got into the left eye, and when she came here both corneæ had sloughed. She was a widow, forty years of age, strong active, fond of work, and had two children dependent upon her. Of think of it!—hopelessly blind for life; and all for want of a bit of sticking plaster which any country druggist might have applied just as well as the most accomplished surgeon.

With regard to the treatment of gonorrhœal ophthalmia. "Dreadful diseases require dreadful remedies," and if you are to succeed you must be instant in their application. I usually apply leeches by the handful; pack the eye with ice, and, unless there is some contra-indication, keep it constantly applied; slit the outer canthus, incise and excise (if necessary) portions of the chemosed conjunctiva, and get the patient rapidly under the influence of mercury. During the crudescence of the disease, and when it is at its height—that is, during the first forty-eight hours, or while the discharge is serous,—strong caustics are out of place; but you may keep the eye saturated with weak solution of chloride of zinc (½ or ¼ per cent.)[s] from the beginning, and as soon as the serous discharge becomes purulent, apply as well once or twice daily to the inside of the everted lids a 2 to 4 per cent. solution of nitrate of silver, carefully protecting the eye by neutralisation with milk or saline solution. I have saved some eyes in this way, but occasionally the cornea will slough in twenty-four hours, and then all you can do for the patient, and that is everything, is to protect the sound eye from inoculation.

(To be concluded.)

THE GENESIS OF "BRIGHT'S DISEASE."

By J. MILNER FOTHERGILL, M.D.,
PHYSICIAN TO THE CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA PARK.

THE prevalence of the morbid change so far best known by the term "Bright's disease" (from Richard Bright, who first wrote on the subject); its certain ending, sooner or later, in death; together with the fact that its course can be profoundly modified by proper and judicious measures: all combine to give the subject an intense interest for all—physician and patient alike. "Old age is not an entity, but a set of conditions predisposing to what we call chronic Bright's disease. And though to most this comes in natural course when the prime of life is run, yet to some old age is no matter of years and of averages, but the running down of a spring set for an individual." Such is the happy expression of Dr. Goodhart in his well-known Bradshawe Lecture before the Royal College of Physicians of London in August, 1885. It is a slow, gradual growth of the lowly connective tissue of the kidney at the expense of the higher kidney tissues. But the kidney-mischief is only a part of the morbid change. A like growth of lowly tissue is going on in the walls of the arteries—atheroma—rendering them inelastic and brittle. But what calls out the growth of the lowly connective tissue in kidney and artery? The irritation set up by the presence of uric acid (possibly accompanied by other forms of albumen-metamorphosis) in excess in the blood. In order to grasp the matter firmly we must look a little beyond mere clinical facts, so as to read these last aright. We see, in the gradual evolution of life, the reptile, the cold-blooded inhabitant of tropical swamps, casting out its excrementitious matter in solid form—i.e., urates. The uric acid formation still continues in the warm-blooded bird, which also possesses a solid urine. When the mammalia appear, they are found to have a fluid urine, and their form of excretion is the soluble urea. But vestiges of the earlier formation still cling with the tenacity of original sin; and a certain, if small, quantity of uric acid is daily voided by man himself. So that we still carry with us traces of our descent in other forms than the branchial arches—the gills of fœtal life. Indeed, the circulation of the fœtus is that of the higher reptile; and the uric acid formation is distinctly seen in intra-uterine existence. We have long been familiar with the fact that under given circumstances the human body reverts to the early primitive form of urine-stuff. As to gout, we have recognised its association with good eating, especially when accompanied by a lack of exercise. The sensuous monk of old, lazy, fond of good living, and addicted to wine-bibbing, was the typical gouty man. Now, it is the country squire, whose habits were active till gout in his feet cripples him, and then its fell clutch becomes tighter and harder; or the p'ethoric publican, whose pleasures are those of the palate. This was the gout which came of good living. "Gout is the disease of those who will have it," said Meade. But a number of cases of distinct gout were found under widely different circumstances. They occurred in spare beings, small fastidious feeders, whose trencher performances were conspicuous by their temperance. To this class the term "poor man's gout" was applied. It did not explain the apparent paradox, and this inability to explain it was regarded as an opprobrium to the medical profession. Doubtless a large proportion of the sufferers from poor man's gout were descendants of gouty ancestors; and only by the strictest regimen, as to meat and drink, could they elude the visitations of their hereditary foe. But the gouty ancestry was not present in all cases.

The late Dr. Budd held that sundry persons came into the world with what he called "insufficient" livers; and Dr. Murchison endorsed this view. Such livers revert to the uric acid formation very readily; and now poor man's gout stands revealed before us. Indulgence in animal food in excess reduced a normal liver to the uric acid formation. A congenitally insufficient liver reverts to the uric acid formation under an ordinary or even meagre dietary. The result is the same in each case. When the uric acid formation is established we find one of two consequences: either (1) the uric acid is gradually deposited in the body, in the articular cartilages by preference; or (2) is cast out by the kidneys, which, being constructed to excrete the soluble urea, are irritated by the presence of uric acid in excess; with the result of interstitial nephritis, or chronic Bright's disease. Often both are found.

Renal changes are by no means the sole morbid outcome of the uric acid formation. The cardio-vascular system feels its malign touch. A tight artery is the consequence of the blood condition, and, with that, changes in the arteries and the heart. The high blood pressure in the arterial system leads to hypertrophy of the left ventricle, and that, again, to secondary valvulitis of a progressive nature—probably due to the forcible closure of the valves; the mitral by the large ventricle; in the aortic by the recoil of the highly distended artery. Possibly in the latter there is a tendency to gouty deposits, as in the joints. The distension of the arteries leads to a growth of connective tissue in their walls, which lose their elasticity and become brittle—the atheromatous change,—and from these we get apoplexy and aneurysm; while angina pectoris vaso-motoria is called out by occasional spasm of the peripheral arterioles. Sooner or later the growth of connective tissue within the coronary arteries themselves cuts down the nutrition of the large heart, and fatty degeneration spreads throughout its structure. The failing heart leads, in its turn, to dropsy, albuminuria, and death. Indeed, we get a vast number of morbid outcomes in this widespread vaso-renal change, beyond the interstitial nephritis, which is spoken of as "chronic Bright's disease," or "renal cirrhosis," or "the gouty kidney," as it is variously termed. But the consideration here is restricted to what is truly "chronic Bright's disease," a renal change started by an impure blood, as Professor Hayles Walshe asserted in 1849.[1] The uric acid (and possibly other excrementitious matter of nitrogenised character, the products of albumen metamorphosis) irritates the kidney structures, and starts up a rank growth of the lowly connective tissue, or packing material, at the expense of the higher true structures of the kidney. Here and there in minute foci, scattered throughout its mass, mainly in the cortex at the outset, we find the destructive action at work. The lowly invader is preying upon the higher structures, like the Tartar Turk spread himself over the population of the Balkan peninsula, and

[s] I consider the constant application of these solutions of the utmost importance. Dr. Colles of Dublin, writing in the Dublin Quarterly, vol. xxxv. p. 5, declares that he has been singularly successful in cases of gonorrhœal ophthalmia with solution of nitrate of silver, one quarter of a grain to the ounce, injected every ten minutes for twenty-four hours, the strength being afterwards increased to half a grain to the ounce, and injected every half-hour.

[1] THE LANCET report: Bright's Disease not essentially a Renal Disease, but essentially and primarily a Blood Disease.

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with the same result—destruction. Slowly and steadily one minute portion of the kidney after another is caught within the light touch of some soft growth of connective tissue; but as the latter dries up and hardens, it contracts, and the true tissue within its clutch is ruined—squeezed out of (functional) life and (anatomical) form. Bit by bit, and often very slowly, the process goes on, until the kidneys are rendered inadequate as depurative organs, and the blood is rendered toxic by being surcharged with waste of albuminoid origin. Then follow secondary inflammation set up by the toxic blood, or other truly uræmic complications, often desperate attempts on the part of the body to cleanse its blood. To call this widespread change a "kidney disease" is as much a misnomer as to apply "Pimlico" to the whole metropolitan area; and to seek for evidence of it in the renal secretion solely is as imperfect as would be an inquiry into the sanitary arrangement of Lambeth, however carefully conducted, as to the state of the whole area which discharges its sewage at Barking Creek. Casts of the renal tubules are truly the infallible evidence of renal destruction as to existence, if not as to extent. The character of the urine tells much: when it is copious and of low specific gravity we have only too good reason to decide that the injury is extensive and widespread. Sometimes albumen is present in the urine, but its significance depends upon its associations. Dr. Richard Bright found that when albuminuria coexisted with dropsy the kidneys were the seat of disease. But in the diagnosis of several practitioners the dropsy factor drops out of the calculation, and the diagnosis is made in its absence. Albuminuria and "chronic Bright's disease" are, however, not convertible terms by any means, nor the equivalent of each other, as is not unfrequently assumed.

Chronic interstitial nephritis is but one of the numerous morbid progeny of the uric acid formation, albeit an important unit. We are all familiar with this vaso-renal change, as it runs its course in the mesoblastic structures of the men of Norse type, large-boned and florid, giving joint-gout, cardio-vascular changes, chronic bronchitis, rheumatism, eczema, and secondary valvular disease in the large heart. That is one aspect of the vaso-renal change. But this is by no means the only aspect of this change. It may sometimes commence with primary kidney mischief, and consequent imperfect blood depuration. Far more frequently it starts from a congenitally "insufficient" liver. In persons of the neurosal diathesis or Arab type (to whom the term "neurotic" aptly applies), the phenomena are widely different. The mesoblastic tissues are comparatively untouched; while the hypoblastic and epiblastic tissues are the seat of suffering. These persons are of spare habit and complain of indigestion, acidity, and flatulence—matters of the hypoblast; of migraine, accompanied by vesical irritability, of palpitation, of failure of the heart's action, resembling syncope, except that they do not lose consciousness, and realise the horror of their condition—matters of the epiblast. In many cases cardio-vascular change is also present, and the migrainous neurotic is as liable to apoplexy as the red-faced, short-necked gouty man; the urine of the last is usually copious and clear, while in the neurotic the urine is often charged with lithates.

The migrainous neurotic of the uric acid formation is growing more and more common. Town populations have a tendency to grow smaller and darker, as anyone can see by comparing the living crowd with the worthies in effigy at Madame Tussaud's. They have a tendency to revert to an earlier and lowlier ethnic form, and are smaller in the bone. They are precocious, and the early development of the nervous system is accompanied by a deficiency or backwardness in the assimilative organs. There is an insufficient liver, which readily reverts to the uric acid formation; and this is aggravated by the fact that town dwellers eat more animal food than rustic populations of the wage class, while the latter have the advantage of plenty of oxygen. The town dweller works in ill-ventilated rooms, and his amusements are in-door in a vitiated atmosphere. With an insufficient liver, a meat dietary, and insufficient oxidation, the town dweller is the subject, more than all others, of the uric acid formation, with all its varied consequences. At Victoria-park Hospital I have under care at the present time a mite of a girl, not yet thirteen years of age, in whom all the phenomena of the migrainous neurotic are already present. The effect of town life is to produce a [illegible] race of [illegible] than the rustic population. Precocity is seen in early puberty, but reproduction is impaired; and Hayles Walshe, Mr. Cantlie, and others have shown that it is well-nigh impossible to find a true Cockney of the fourth generation. Dr. Ralfe informs me that of 800 inquiries made at the London Hospital only four resulted in genuine Cockneys of the fourth generation. The retrocedent race perishes either by sterility in the females, or their sparse progeny succumb to the diseases of childhood. These urban dwellers, the progeny of town-born parents, this retrocedent race, are the possessors of congenitally insufficient livers, and as a consequence are the victims of the uric acid formation. This liver reversion is the microcosm within the macrocosm. And Bright's disease is especially the disease of this urban race. Teetotalism and vegetarianism are no matters of mere caprice or fashion; but are the unconscious submission to an unseen law ruling the choice. The urban dwellers cannot tolerate the beef and ale of their rural forefathers. No doubt in many cases alcohol and syphilis play their part, and too often an important part. But these are only accessories to the great fact that the descendants of town dwellers die prematurely old of Bright's disease, and that the spring runs down at a much earlier period with them than with rural populations.

Many persons are remarking how common gout is becoming amidst us at the present time. Such is certainly my personal experience; though articular gout is by no means the common outcome of the uric acid formation in town dwellers. Sufferers from articular gout are comparatively infrequent among the crowd of persons who are undergoing that vaso-renal change to which "chronic Bright's disease" is the term most commonly applied. In other cases neurotics are found with the uric acid formation, who seem to owe their "insufficient" liver to hard intellectual toil on the part of their fathers. Nearly every American lady of this class has given me a history of the long and usually successful efforts of her father. "The fathers have eaten sour grapes, and the children's teeth are set on edge." There seems some law of antagonism betwixt the tissues of the epiblast and those of the hypoblast. Long sustained demand upon the brain as "the organ of mind" tells upon the viscera. The liver suffers therefrom; and the progeny of the hard-working brain-toiler comes into this world with an insufficient liver. Clifford Allbutt, F.R.S., some years ago pointed out clearly the mental causes of Bright's disease, in an address which attracted much attention at the time and since. Not only does my experience fall in with his as to the individual, but it seems to teach a further lesson—viz., that hard, sustained brain toil has its Nemesis in an insufficient liver, which reverts to the uric acid formation. The bright, high-souled migrainous-neurotic, one of the most charming patients who enter the physician's consulting-room, owes her fortune and her liver alike to her father's toil, which is rather a hard nut to crack for those whose ambition it is to make a fortune.[2]

Thus we see there are many factors—and some of them little suspected—at work in the genesis of Bright's disease. Nor is it inaccurate to say that it is a disease becoming daily more common in "this madly striving age." More familiarity with its causal relations ought to develop definite preventive measures.

Henrietta-street, W.

CASE OF

EXCISION OF TUMOUR OF CEREBELLUM.

By BENNETT MAY, F.R.C.S.,

SURGEON TO THE QUEEN'S HOSPITAL, BIRMINGHAM.

EARLY in August, 1886, my colleague, Dr. Suckling, informed me that he had a patient under his care in the hospital in whom he diagnosed a tumour of the cerebellum, which he thought might be amenable to operative treatment. Such a case did not at the outset offer to my mind much prospect of successful completion, on account of what I conceived to be the exceptional difficulty of access to a tumour in this portion of the brain. The actual procedure, however, I found to be extremely easy of accomplishment and of no great severity, and I believe that in some respects this

[2] No wonder Bright's disease is so prevalent among the hard-working inhabitants of the United States of America.

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portion of the brain will be found not unfavourably placed for operative procedures. At any rate I wish to make this contribution as a practical inquiry in the study of a subject which is now engrossing so much professional attention. Although this case so quickly terminated fatally, there is no doubt whatever that this was owing to the valuable time which had been lost before the operation was performed, during which the child's vital powers became too greatly reduced to afford much hope of success. In all details of method I closely followed the lines laid down by Mr. Victor Horsley for the preparation of the patient and the treatment of the wound, &c. These appear to me to embody several points of considerable practical importance in brain surgery. In the case of another patient of Dr. Suckling's, whom I have just operated upon for epilepsy, complete primary union, without the slightest departure from normal health, has followed an extensive opening of the dura mater and exploration of the brain, and such favourable result appears to be almost the rule now. The following history and symptoms of the case are furnished by Dr. Suckling, who localised the position of the tumour with such accuracy that I was able to cut directly upon it at the spot he indicated.

"C. H——, a boy aged seven, was admitted into the Queen's Hospital on July 19th, 1886. The only important feature in the family history was that the father's uncle had phthisis. Twelve months previously to his admission the boy had rheumatic fever. In April, 1886, he suffered from severe and persistent headache, chiefly frontal, with vomiting. Since this time his sight had gradually failed. On admission, the pupils were dilated and unequal, but responded to light and accommodation. There was conjugate deviation of the eyes to the left, and paralysis of the external rectus muscle on the right side. There was intense neuro-retinitis on both sides, and the boy was nearly blind. The gait was staggering, the stagger being chiefly in the backward direction, but occasionally to the left side also. The mind was clear, the boy talking rationally and complaining that he could not see. The lungs were healthy. While in the hospital the boy vomited at times, complained of frontal headache, and gradually got worse, very soon being quite unable to stand. On August 20th marked retraction of the head was observed. On October 8th the boy was absolutely blind, and there was well-marked nystagmus. The knee-jerk was lost on the right side, and there was marked emaciation. The symptoms above recorded clearly pointed to a tumour in the cerebellum. The paralysis of the right external rectus led me to conclude that the tumour was in the right lobe of the cerebellum, and was growing downwards and forwards and compressing the right sixth nerve. It was thought also that it was most probable that the tumour was tubercular."

Owing to my absence from home in the autumn a regrettable delay of some weeks took place before the child was operated upon, and during this time his condition greatly changed for the worse, and he had become much collapsed in the few days preceding the operation.

Operation.—Full antiseptic precautions having been taken and the patient brought under chloroform, my first step was to expose that portion of the occipital bone which lies below the superior curved line, so that all proceedings could be carried on beneath the tentorium cerebelli. A curved incision with convexity upwards, and reaching a little above the external occipital protuberance, was carried across the back of the head from one mastoid process to the other. The scalp and subjacent parts were then carried down as a flap by separating all the muscular attachments from the bone, but more on the affected side (the right) than the other, until the neighbourhood of the foramen magnum was reached. The bone being well cleared and exposed, the trephine was applied about the centre of a quadrilateral space bounded above by the right superior curved line, below by the foramen magnum, and inwardly by the occipital crest, and the hole in the bone was freely enlarged by the bone forceps until a large quadrilateral space of dura mater was exposed. This was easily done owing to the thinness of the bone. Extreme bulging of the dura mater gave evidence of great intra-cranial pressure, and the membrane was then opened and turned up by incisions along three sides of the aperture in the bone. The cortex of the cerebellum appeared quite healthy, but at one spot, a little outside the centre of the exposed space, palpation gave an ill-defined feeling of hardness beneath the surface. I then incised the brain substance over this spot with a tenotome, and on entering the finger could detect the hard mass of a tumour nearly an inch below the surface. Having verified its tubercular nature by detaching a piece, I had no difficulty in digging it clean out of its bed by the handle of a small teaspoon. It was larger than a pigeon's egg, hard and horny on the exterior, and caseating in the centre. Hæmorrhage was trifling, and the child gave no evidence of any injury or disturbance to the brain. The dura mater flap was then fastened down and the outer wound closed, this flap affording an excellent protection and covering. Unfortunately the child's condition had sunk too low beforehand to permit of sufficient reaction, and he gradually sank and died of shock a few hours afterwards. No post-mortem examination was permitted, so I am unable to say whether any other tumour was present.

Birmingham.

TREES FROM A SANITARY ASPECT.

By CHARLES ROBERTS, F.R.C.S., &c.

As this is the usual time of the year for planting, pruning, and removing forest trees and shrubs, it is a fit time for considering the influence which trees exert on the sanitary surroundings of dwelling-places. The recent Parliamentary Report on Forestry shows that trees are now of little commercial value in this country; and we may conclude, therefore, that they are chiefly grown for picturesque effect, and for the shelter from the sun and winds which they afford. The relation of forests to rainfall has been studied by meteorologists, but little attention has been given by medical climatologists to the share which trees take in determining local variations of climate and the sanitary condition of dwellings, notwithstanding they play as important a part as differences of soil, of which so much is said and written nowadays. This remark does not apply to large towns, where trees grow with difficulty and are comparatively few in number, and where they afford a grateful relief to the eye, shade from the sun, and to a very slight extent temper the too dry atmosphere, but to suburban and country districts, where it is the custom to bury houses in masses of foliage—a condition of things which is deemed the chief attraction, and often a necessary accompaniment, of country life.

Trees of all kinds exercise a cooling and moistening influence on the atmosphere and soil in which they grow. The extent of these conditions depends on the number of trees and whether they stand alone, in belts, or in forests; on their size, whether tall trees with branchless stems or thickets of underwood; on their species, whether deciduous or evergreen; and on the season of the year. The cooling of the air and soil is due to the evaporation of water by the leaves, which is chiefly drawn from the subsoil—not the surface—by the roots, and to the exclusion of the sun's rays from the ground, trees themselves being little susceptible of receiving and radiating heat. The moisture of the atmosphere and ground about trees is due to the collection by the leaves and branches of a considerable portion of the rainfall, the condensation of aqueous vapour by the leaves, and the obstruction offered by the foliage to evaporation from the ground beneath the trees. The experiments of M. Fautrat show that the leafage of leaf-bearing trees intercepts one-third, and that of pine trees the half of the rainfall, which is afterwards returned to the atmosphere by evaporation. On the other hand, these same leaves and branches restrain the evaporation of the water which reaches the ground, and that evaporation is nearly four times less under a mass of foliage in a forest, and two and one-third times under a mass of pines than in the open. Moreover, trees prevent the circulation of the air by lateral wind currents and produce stagnation. Hence, as Mr. E. J. Symons has truly observed, "a lovely spot embowered in trees and embraced by hills is usually characterised by a damp, misty, cold, and stagnant atmosphere," a condition of climate which is obviously unfavourable to good health and especially favourable to the development of consumption and rheumatism, our two most prevalent diseases.

Now, if we examine the surroundings of many of our suburban villas and country houses of the better sort, we shall find them embowered in trees, and subject to all the insanitary climatic conditions just mentioned. The custom almost everywhere prevails of blocking out of view other houses, roads, &c., by belts of trees, often planted on raised

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mounds of earth, and surrounded by high close walls or palings, from a foolish ambition of seeming to live "quite in the country." This is a most unwise proceeding from a sanitary point of view, and should be protested against as strongly by medical men as defective drainage and bad water-supply. Many houses stand under the very drip and shadow of trees, and "the grounds" of others are enclosed by dense belts of trees and shrubs, which convert them into veritable reservoirs of damp, stagnant air, often loaded with the effluvia of decaying leaves and other garden refuse, a condition of atmosphere very injurious to health, and answerable for much of the neuralgias of a malarious kind, of which we have heard so much lately. A very slight belt of trees suffices to obstruct the lateral circulation of the air, and if the sun be also excluded the natural upward currents are also prevented. As far back as 1695 Lancisi recognised the influence of slight belts of trees in preventing the spread of malaria in Rome, and the cold, damp, stagnant air of spaces enclosed by trees is easily demonstrated by the wet and dry bulb thermometer, or even by the ordinary sensations of the body. A dry garden, on gravel, of three acres in extent in Surrey, surrounded by trees, is generally three or four degrees colder than the open common beyond the trees; and a large pond in a pine wood twenty miles from London afforded skating for ninety consecutive days in the winter of 1885-6, while during the greater part of the time the lakes in the London parks were free from ice.

The speculative builder has more sins to answer for than the faulty construction of houses. He generally begins his operations by cutting down all the fine old trees which occupy the ground, and which from their size and isolation are more beautiful than young ones and are little likely to be injurious to health, and ends them by raising mounds and sticking into them dense belts of quick-growing trees like poplars to hide as speedily as possible the desolation of bricks and mortar he has created. It is this senseless out-door work of the builder and his nurseryman which stands most in need of revision from time to time in suburban residences, but which rarely receives it from a silly notion, amounting to tree worship, which prohibits the cutting down of trees, no matter how injudicious may have been the planting of them in the first instance from a sanitary or picturesque point of view.

The following hints for planting and removing trees may be useful to those persons who have given little attention to the subject. A tree should not stand so near a house that, if it were to fall, it would fall on the house; or in other words, the root should be as far from the house as the height of the tree. Belts of trees may be planted on the north and east aspects of houses, but on the east side the trees should not be so near, nor so high, as to keep the morning sun from the bedroom windows in the shorter days of the year. On the south and west aspects of houses isolated trees only should be permitted, so that there may be free access of the sunshine and the west winds to the house and grounds. High walls and palings on these aspects are also objectionable, and should be replaced by fences, or better still open palings, especially about houses which are occupied during the fall of the leaf, and in the winter. Trees for planting near houses should be chosen in the following order:—Conifers, birch, acacia, beech, oak, elm lime, and poplar. Pine trees are the best of all trees for this purpose, as they collect the greatest amount of rainfall and permit the freest evaporation from the ground, while their branchless stems offer the least resistance to the lateral circulation of the air. Acacias, oaks, and birches are late to burst into leaf, and therefore allow the ground to be warmed by the sun's rays in the early spring. The elm, lime, and chestnut are the least desirable kinds of trees to plant near houses, although they are the most common. They come into leaf early and cast their leaves early, so that they exclude the spring sun and do not afford much shade in the hot autumn months, when it is most required. The lime and the elm are, however, beautiful trees, and will doubtless on this account often be tolerated nearer houses than is desirable from a purely sanitary point of view.

Trees are often useful guides to the selection of residences. Numerous trees with rich foliage and a rank undergrowth of ferns or moss indicate a damp, stagnant atmosphere; while abundance of flowers and fruit imply a dry sunny climate. Children will be healthiest where most flowers grow, and old people will live longest where our common fruits ripen best, as these conditions of vegetation indicate a climate which is least favourable to bronchitis and rheumatism. Pines and their companions, the birches, indicate a dry, rocky, sandy or gravel soil; beeches, a dryish, chalky, or gravel soil; elms and limes, a rich and somewhat damp soil; oaks and ashes, a heavy clay soil; and poplars and willows, a low, damp, or marshy soil. Many of these trees are found growing together, and it is only when one species predominates in number and vigour that it is truly characteristic of the soil and that portion of the atmosphere in connexion with it.

Curzon-street, Mayfair, W.

A CASE OF TRANSFUSION.

BY WARRINGTON HAWARD, F.R.C.S. ENG.,
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As the operation of transfusion is not a very common one, and as there are several methods of performing it, it may be worth while to relate an instance in which the method recently introduced by Mr. Annandale was used with good effect.

A boy, fourteen years of age, who had been in St. George's Hospital under my care for two months, with periostitis of the femur and chronic pyæmia, had suddenly a profuse hæmorrhage into the cavity of a large deeply seated periosteal abscess of the thigh. The abscess had been opened and a drainage-tube passed through it a week before. When seen by the house-surgeon the boy was very much blanched, and had lost a large quantity of blood. The hæmorrhage was controlled by plugging the cavity and bandaging the limb. The following day some more bleeding occurred, in spite of the bandaging, and when I saw him blood was oozing freely through the dressings, and the boy was in a state of collapse. The abscess cavity extended round a great part of the femur, and from the inner side of the thigh a little above the knee to the outer side near the great trochanter. It was therefore too large and deeply seated to lay open, and the boy's condition seemed to forbid the possibility of surviving an amputation. I therefore only enlarged the lower opening sufficiently to give access to the fingers, and then firmly packed the entire cavity with carbolised gauze, placed a pad over the femoral artery, and bandaged the limb firmly from the toe to the groin. But when this was done the boy seemed to be sinking. It was therefore decided to transfuse into him some of his father's blood. This I did, with the assistance of Mr. Dent, in accordance with Mr. Annandale's directions. A vein at the bend of the boy's elbow having been exposed by a short incision over it, a double catgut ligature was passed beneath it, and the loop of the ligature divided. The lower or distal ligature was then tied round the vein. The vein was next opened, and a glass tube or nozzle, having one end bevelled, and the other attached to a short piece of indiarubber tube, was inserted into the vein. The upper or proximal ligature was now tied in a single knot round the vein and nozzle. In the meantime, the boy's father was bled from the arm into a glass measure containing a freshly prepared solution consisting of forty-eight grains of phosphate of soda in two ounces of distilled water—i.e., a solution of the strength of 1 in 20. Six ounces of blood were received into the vessel, so that the mixture consisted of three parts blood to one part of the saline solution. This was constantly stirred with a glass rod and kept at a temperature of about 100° F. by surrounding it with hot water. A three-ounce glass syringe, previously washed out with the soda solution, was now filled with the mixture of blood and solution, and its nozzle being inserted into the indiarubber tube connected with the cannula in the vein, its contents were slowly injected. Nearly three syringefuls were thus injected (eight ounces of the mixture). The cannula was then withdrawn from the vein, the ligature tightened and secured, and the skin wound stitched together with catgut. The syringe while being used was kept surrounded by hot flannels, and all the apparatus was washed in distilled water before commencing the operation.

The effect was striking and immediate. The pulse, which before the transfusion was imperceptible, could again be felt in the temporal artery; the boy regained consciousness, and was able to speak and swallow; and from this time he steadily improved. The transfusion took place on February 10th, and during the two months which have since elapsed he has had no more hæmorrhage.

The operation is an extremely simple one, and seems to me

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to have the great advantage over any of the other methods which I have seen or practised of being free from the difficulties and dangers due to the formation of coagula. Even the simplest apparatus is apt to become clogged if unmixed blood is passed through it, and I can say from experience of it that the complicated instrument of Dr. Roussel is not an exception. On the other hand, the mixture of the phosphate of soda solution with the blood, while it prevents its coagulation, seems to have no attendant disadvantage. The apparatus used is simple and portable, does not easily get out of order, and requires no special skill for its management. This method has on three other occasions lately been practised by Mr. Dewsnap, house-surgeon at St. George's: in one case with complete success—the patient, who was in a state of collapse and insensibility from hæmorrhage, was revived by the transfusion, and is now well; in a second with temporary improvement; while in a third the patient was too seriously injured to recover.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

AN AFFECTION OF THE NERVOUS SYSTEM DURING THE EXANTHEM STAGE OF MEASLES.

BY T. COLCOTT FOX, M.B. LOND., M.R.C.P.,
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THE perusal of Dr. Thomas Barlow's interesting paper on a case of Early disseminated Myelitis occurring in the Exanthem Stage of Measles, and the discussion thereon in the Proceedings of the Royal Medical and Chirurgical Society, has reminded me of a curious case of an affection of the nervous system, which came under my observation in 1884. Notwithstanding the very imperfect nature of the notes, I am induced to send them for publication in the belief that they will prove of some interest at the present time.

Milly G——, aged four years and a half, was carried into the out-patient room at the Victoria Hospital for Children on Oct. 13th, 1884, unable to walk or stand. She was fairly well nourished, of good physique, and had been a healthy girl until her present illness. She could move her limbs—for example, reach out the arms to take proffered things and bend the legs,—but the muscular effort was accompanied by a singular and marked incoördination, the limbs being slowly waved about until brought to rest again, when they remained quite quiet. There was considerable loss of muscular power, the left leg being stronger than the right. The grasp was manifestly deficient. The muscles were rather flabby, but not specially wasted. The child was noted to have a somewhat vacant look, but could see well; the pupils were equal and responsive to light; there was absence of face and tongue paralysis. The speech, however, was markedly affected, for, although words could be articulated, they were only formed slowly and by a distinct effort. The child's intellect seemed good. The tendon and superficial reflexes appeared to be normal, and there was neither ankle clonus nor anæsthesia.

The history I obtained from the mother was as follows:—Two months previously—i.e., in August—the child, who up till then had enjoyed good health, was attacked with measles. The mother described the rash and accompanying bronchitis and absence of sore-throat, and was convinced that the affection was measles. A little brother and two other children in the house were also attacked. As the eruption faded away at the end of about a week, a "vacancy of mind" supervened, the girl became "cross-eyed," and could not sit up or move her limbs. She did not sleep, looked wild, would not endure people in the room, and became very "spiteful," so that they could not feed her from glass vessels. She could speak, put her tongue out, and swallow without nasal regurgitation. Her appetite was enormous. The child was believed to be blind, and Dr. Edwards, of Chelsea, who saw the case in the course of a very busy practice, kindly tells me that he remembers observing a state of dilatation of the pupils with an absence of reaction to light, and hearing complaints of twitching of the limbs. She gradually improved, and fourteen days previously to coming to the hospital she was able to sit up. I admitted her to the wards, and take the following additional notes from the report of Mr. Shaw-Mackenzie, the registrar: There was no retention of urine. The movements of the head were incoördinate, and accompanied by a peculiar slow nodding in different directions and rolling of the head. Nystagmus was observed at times. The ophthalmoscope did not reveal any diseased condition. The deltoid, triceps, and biceps muscles on both sides were believed to be somewhat wasted, but the electrical reactions of the muscles generally seemed normal. The child remained in the hospital for some months and very slowly improved, being able to stand by herself for a moment or two on January 5th, 1885, and she was discharged, almost entirely recovered, on March 8th. Throughout her stay the temperature was normal. As the family have changed their residence I have not been able to trace the case further.

To this account I append some observations on James Henry G——, aged one year, the little brother who was attacked with measles at the same time as his sister. On November 13th, 1884, he was brought to me with pneumonia and pain in the left wrist. Up to that date there do not appear to have been any special nervous symptoms. I did not see the child again, but I give the mother's description of the subsequent course of the illness for what it is worth. The pain gradually extended up the left arm, accompanied by stiffness and "shaking," and the left leg became similarly affected. The limbs shook more than his sister's. The tongue was drawn to the left and quivered, the face was drawn, and one eye was turned right into the nose. On the 16th the child was seized with strong convulsions, in which both sides of the body worked, and which recurred every quarter or half hour all day and also on the 17th till 5 P.M., when the infant became "quite sensible," and he died at 1 A.M. on the 18th. The left foot was shaking till the last.

A CASE OF TUBERCULAR DISEASE OF THE TIBIA AND ANKLE-JOINT (RIGHT), TREATED BY SCRAPING AWAY THE MEDULLA OF THE FORMER, AND THE SYNOVIAL MEMBRANE OF THE LATTER.

BY E. HURRY FENWICK, F.R.C.S.,
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CASES in which the medulla of bones have been thoroughly scraped away are few. Those recorded are to be found chiefly in foreign literature, the operation having been performed for chronic osteomyelitis (Bleckmann, Stoll, Petrowski, C. B. Keetley). The following case seems worthy of publication, not only for the novelty and success of the above-mentioned proceeding, which it exemplifies, but also because there was combined with that procedure a new operation of Volkmann's (Halle) for treating tubercular joints. This latter operation is called by him *Arthrectomia Synovialis*, and consists in the total extirpation of the diseased capsule of a joint, with preservation of the bony epiphyses. The ankle-joint in this case was submitted to a modification of this process, with complete success.

A little girl aged two, of typical strumous aspect and build, came under my care at the London Hospital in August, 1885. When I first saw her the right leg was noted as follows:—"The lower half of the right leg is swollen and inflamed; extremely tender. An inch above the internal malleolus there is the opening of a deep sinus, with large flabby granulations bordering it. Probing reveals caries. The ankle-joint is swollen and tender; its movements are restricted; the appearance of the joint is that of tumor-albus, with a tendency to suppurate."

The history of this case was as follows:—The child springs from healthy stock; is the first and only child of moderately well-to-do people of the lower middle class; has always been well fed. Ten months ago, without any assignable cause, the leg began to be swollen and painful, and the little patient lost flesh. She was taken to a children's hospital six months ago, and an incision was made over the lower end of the tibia. The wound never closed. She was an in-patient three months. The diagnosis was easily made as being disease of the lower end of the tibia, probably tubercular, with subsequent invasion of the ankle-joint.

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Resection of ankle, with amputation if necessary, was proposed to and accepted by the parents. An incision was made over the sinus and the spongy periosteum raised from the bone; the sinus was then seen as a rounded hole leading into the end of the tibia; cutting forceps rapidly enlarged the aperture, and a small central necrosis surrounded by a dense caseous material was found in the end of the bone and removed. Incision was then prolonged along the inner side of the foot. The ankle-joint was dislocated outwards, cleaned, and examined. The cartilage of the tibial articulation lay loose in the cavity of the joint like a thin piece of orange-peel, and the astragalus itself was bare. The synovial membrane was everywhere transformed into the spongy, pink, gelatinous material characteristic of a tubercular joint. With a Volkmann's spoon, and here and there with a scalpel and forceps, this diseased structure was carefully removed. Finding the joint so distinctly tubercular, I re-examined the tibial wound and found more caseous material present in the medullary canal. I took a long-handled Volkmann's spoon and scraped away as much of the medulla up to the tibial tubercle as I could remove. The inside of the bone was then plugged with strips of iodoform gauze, and the foot brought into a rectangular position and there fixed by means of an appropriate splint. The wound was dressed with iodoform and wood-wool. The result exceeded my expectations: the medullary canal filled up with rapidity, the wound into the ankle-joint healed in two months, and the child was discharged with a gum-and-chalk casing. She is at the present time in apparently good health. She limps slightly, but this is due to a shortening which exists, the left leg having grown slightly longer than the right. The right tibia is thicker than the left one, and, curiously enough, there is some movement in the right ankle-joint, such as obtains in fibrous ankylosis. She wears an iron on that leg, to limit if possible the tendency to knock-knee on that side—a condition obviously induced by the difference in the length of the legs.

This case is a teaching one as regards the tolerance of the medulla. One is so taught to regard it as being highly resentful of interference that it has hitherto been treated with marked respect. The cases, however, in which the medulla has been scraped show that good results have been obtained; and there is no doubt that much conservative surgery will be the direct outcome of the knowledge now accumulating as to its physiological uses, pathological tendencies, and the amount of operative interference it will submit to.

A CASE OF PURPURA RHEUMATICA.

By G. CHILDS MACDONALD, M.D.

THE following case has recently occurred in my practice.

J. B——, aged twenty-nine, a blacksmith, married. Personal history satisfactory; does not remember ever having been ill, excepting cold, &c. Both father and mother alive and in good health; four sisters alive and healthy; one brother dead. The patient does not know the cause of his illness, but believes it to be due to some childhood complaint. He had not been feeling well for the last week, having suffered from headache and sharp shooting pains in the back and down the legs; he describes them as rheumatic in nature, so much so that his friends were afraid he was going to have an attack of acute rheumatism. Accompanying these pains was a sensation of cold, amounting occasionally to actual shivers; during this period he was extremely thirsty. The bowels were constipated, and sleep was restless and broken. No beer or spirits had been taken, excepting a small amount of brandy when the shivers came on; neither did he have any drugs or particular article of food. At 12.30 P.M. on March 4th he was taken with violent pain and stiffness in both popliteal regions, which became so agonising that he was unable to remain longer at work, and returned home, where, feeling very cold, he sat by the fire, the pain varying in amount, being sometimes better and sometimes worse, until 8 P.M., when he determined on going to bed; he had difficulty in getting upstairs, the legs feeling stiff and heavy. [illegible] sat on the edge of the bed previously to [illegible] the whole of the pain went as if [illegible] had become blood-red, and being naturally alarmed he immediately sought medical assistance. The patient is a well-developed man. Height 5 ft. 8 in.; weight 10 st. 10 lb. Skin somewhat pallid, but feels soft and moist. Pulse 82, quick, full, and hard; temperature beneath tongue 101°; tongue moist and clean. On the back of both thighs, extending from the gluteal folds downwards over the calves of the legs to about the middle, running to the inner surface of the thighs to the middle line in front, and on the legs to the crista of the tibiæ, is a red rash, most intense over the popliteal spaces, where it is uniform and somewhat raised; the rash on the inner surface of the thighs is similar in character; towards the periphery and in other places it is almost petechial. The whole of the involved areas of skin feel to the hand hot and dry; firm pressure has no effect on the colour, and it is unaccompanied by itching. The digestive, circulatory, respiratory, and genito-urinary systems are normal. Urine clear amber colour; reaction acid; specific gravity 1020; no albumen; no sugar. The patient was ordered a saline mixture, with three-minim doses of tincture of aconite in each dose, a ten-grain pill of colocynth with calomel at bedtime, and a milk diet.—March 5th: Has much improved; bowels relieved three times. Pulse 72; temperature 98·4°. There is no further extension of rash, which has become duskier in hue; no pain. Ordered a mixture of dilute sulphuric acid, tincture of perchloride of iron, and sulphate of quinine three times a day.—7th: Patient feels quite well. The eruption has entirely disappeared. Ordered to continue mixture for three days. Ordinary diet.

The points of interest in this case are the violence of the pain, its rheumatic nature, its sudden cessation, its complete symmetrical arrangement, and the rapid recovery, which is usually prolonged in these cases. Dr. Kinnicutt of New York has recorded similar cases in the *Archives of Dermatology*, vol. i., as has also Dr. Duhring in the *Philadelphia Medical Times*, 1873.

Duchess-st., Cavendish-sq., W.

CASE OF RHINOLITH.[1]

By E. CRESSWELL BABER.

N. B——, aged twelve, was admitted a patient at the Throat and Ear Dispensary on Dec. 16th, 1886. She had had an offensive discharge from the left nostril for six years, with bleeding. There was no known cause. Neither she nor her mother remembered anything being put into the nose; but when young she had a habit of swallowing cherry-stones. There is epiphora on the left side when she is exposed to the wind. On examination, the left side of the nose and the left cheek were bulged out; the left nasal passage was impervious to air, the nostril on that side being contracted and its edges excoriated. Anterior rhinoscopy showed, on the right, considerable deflection of the septum towards that side; on the left, the anterior naris blocked by large soft granulations. Behind these, and completely hidden from sight, the probe revealed a hard body about an inch and a half distant from the tip of the nose. On Dec. 18th, with the assistance of my colleague Mr. Treves, the patient being under chloroform, this body was removed through the nostril with scoop and forceps. Afterwards no roughness could be detected with a probe, and the instrument passed easily through into the naso-pharynx. Subsequent examination showed that the left nasal cavity was much dilated, allowing the naso-pharynx to be plainly seen through it. The inferior turbinated bone was much wasted, and presented a deep concavity about its centre. By cleansing the nostril and touching some remaining granulations with solution of caustic, the discharge has now (February 28th) almost ceased, and has entirely lost its disagreeable odour. No diseased bone has been detected. The left cheek still appears larger than the other, and the malar bone more prominent on that side, the inequality being apparently produced by the long sojourn of the nasal calculus. The rhinolith was more or less filbert-shaped, and had, as usual, a rough and mammillated surface. When dry it measured approximately 18×13×8 millimetres and weighed nine [illegible] section it was found to consist of tightly [illegible]

[1] Read before the Brighton and Sussex Medico-[illegible] March 3rd, 1887.

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packed folds of ordinary rag, on to which the salts of the nasal secretion had become deposited.

Rhinoliths, which in spite of increased attention being directed to nasal subjects are still considered uncommon, usually have their origin, as in this case, in a foreign body introduced into the nose. The case just mentioned is, however, peculiar in the nature of the nucleus, and in the circumstance of such a soft body as a plug of rag having by the deposit which had taken place upon it produced no inconsiderable distortion of the neighbouring bones.

Brighton.

NOTES OF A CASE OF POISONING BY TARTAR EMETIC.

BY S. L. DOBIE,
SURGEON-MAJOR, 4TH MADRAS CAVALRY.

ON Jan. 6th, 1887, H. F——, male, Eurasian, aged fifteen, took by mistake about sixty grains of tartar emetic instead of Epsom salts. In ten minutes he broke out into a cold sweat and vomited. He was seen within a quarter of an hour of taking the poison. Vomiting was encouraged, and he was given tea, infusion of galls, gruel, and a small quantity of brandy during the day. Vomiting continued freely all day, and at night he was purged three times; was conscious the whole time.—7th: Vomiting continued; purging ceased; had milk and gruel; remained sensible.—8th: No vomiting or purging; doing well.—9th: About 11 A.M. he became feverish, then delirious. Had an enema, which acted; mustard and hot water to feet; mustard poultices to calves and nape of neck.—10th: Comatose; pupils widely dilated. Ordered enema of turpentine, which acted; six leeches to temples; counter-irritation to scalp, feet, and calves; blister to nape of neck.—On the 11th I was ordered into camp, and saw no more of the youth after the evening of Jan 10th. He remained comatose, was fed with spoonfuls of milk, and died at 2 A.M. on Jan. 12th, nearly six whole days after taking the poison.

The curious features in this case are that the patient lost the ordinary symptoms of antimony poisoning, seemed to be recovering on the third day, became delirious on the fourth day, and died comatose on the twelfth day.

Kamptee, India.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

SARCOMA OF THE FEMUR.—DEATH FOLLOWING NECROSIS OF THE LOWER JAW.

(Under the care of Mr. BRYANT.)

IN the case here recorded of sarcoma of the femur, the following points are chiefly of interest: the development of the disease after direct injury to the part; its malignancy, and extension to the interior of the knee-joint. Growth along the crucial ligaments would appear to be the usual mode of invasion of this joint, but the condition is rare; and it is easy to understand the increased difficulty experienced in diagnosis from primary joint disease. The second case is interesting from the extent of the disease, for which no cause could be found, and the fatal result.

CASE 1. *Sarcoma of the femur, spreading from an aperture in the bone to the periosteum and knee-joint; amputation of thigh; recurrence.* (From notes by Messrs. Bowes and A. Palmer).—C. P——, aged fourteen, a butcher's boy, was admitted on Sept. 16th, 1884. Three months ago he slipped down and knocked his knee. Slight pain was felt in the knee for a day or two; there was no swelling. About a week afterwards, as he was jumping over a hedge he again fell and knocked the same knee, which became painful and swollen; hot fomentations were applied. He consulted a doctor, who applied tincture of iodine and advised him to go to the Hertford West Infirmary, where he remained three weeks. Whilst there his knee was blistered. He was not confined to bed. The patient says the swelling began on the outer side of the knee and gradually involved the whole of the joint; it had been getting larger for the last three weeks, and was only painful at night, and then only at the back of the thigh.

On admission there was a large swelling over the right knee, involving the whole of the joint, most prominent on the outer side, where the swelling first began. There was no fluctuation, The popliteal space was very tense and tender, the tenderness extending along the flexor tendons up the thigh. The patella was quite superficial and movable, but did not float, showing that the trouble was in the joint itself. No glandular enlargement was perceptible in any part of the body, with the exception of one or two hard glands in the right groin. The knee was bent at an angle of 120°; it permitted of very little movement. There was also some thickening of the lower end of the right femur.

Sept. 16th.—Leiter's cold coil applied to the knee. The urine contains triple phosphates, but is otherwise normal.

18th.—The patient had much pain in the popliteal space last night, also in the back of the thigh. The front of the joint is tender. Appetite poor.

19th.—Chloroform having been administered, an exploratory incision was made near the outer condyle, and as a growth was found to exist the limb was amputated by anterior and posterior flaps. The muscles were found to be œdematous, especially in the posterior flaps, and a piece was removed. Silk sutures were applied, the stump was dressed with iodoform gauze, a back splint put on, a large drainage-tube introduced, and strapping applied between the sutures. On making an antero-posterior longitudinal section of the lower end of the femur and upper end of the tibia, the femur was found to be surrounded by a mass of new growth connected with the periosteum, and excavating the bone so that there was only a layer of bone about half an inch thick anteriorly in the lower end of the femur, the articular cartilage and bone representing the condyle to the extent of about one inch; all this was infiltrated with the growth. The bone was fractured immediately above the articular cartilage, and again three inches higher up, during the process of section. The posterior aspect of the femur three inches above the articular cartilage was entirely gone, hollowing out the substance of the bone, and forming a cavity filled with blood-clot and breaking-down growth. Projecting into the cavity was a spicule of bone about an inch and a half long, eroded, and continuous with the compact tissue of the bone-shaft on the posterior aspect. The tibia and patella were normal. In the joint were masses of growth, apparently coming through the capsule on the outer side, and passing forwards, on the one hand, over the outer condyle of the femur, and, on the other, to the outer margin of the articular cartilage of the patella; in both cases it could be raised off the articular cartilage, which did not seem to be affected by it; the growth also extended into the joint from the popliteal space, and here had run along the crucial ligaments, and apparently more or less destroyed them. The growth itself was a firm, opaque, whitish mass, with (especially along the anterior part of the bone) hard, radiating masses, which were doubtless points of ossification, feeling rough when scratched with a scalpel. What was left of the quadriceps muscle had a pale and more or less gelatinous appearance, and was very œdematous. Above the upper fracture the periosteum could be stripped off the bone, and appeared fairly healthy; but opposite to and below the fracture were fungating masses of growth which were fairly adherent to the underlying bone, and which on removal left it irregular and rough. The disease was clearly of a sarcomatous nature.

20th.—The patient passed a good night, with little or no pain, but says there is some throbbing of the limb. Evening temperature 102·2°.

24th.—The patient is going on well; very little pain. There are three or four glands in the groin, which seem to have got larger since the operation. Temperature 99°. Sleeps well; fair appetite; no cough. Limb dressed yesterday; there is a good free drainage, and the discharge (which is very slight) is quite sweet.

29th.—Stump dressed to-day; all the stitches taken out; limb looks well; drainage quite free, and only about three

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teaspoonfuls of sweet discharge. A tonic containing iron and an occasional aperient were ordered.

Oct. 6th.—The stump is practically healed.

17th.—The stump is looking well, and the patient is up on crutches.

Nov. 2nd.—The patient slipped down in the ward yesterday, and hurt the stump a little.

28th.—Much fulness about the stump, and on the anterior part a hard roundish mass can be felt, but there is no tenderness. Circumference eleven inches.

December 12th.—Has complained of pricking pains in the stump for the last two or three days, and has been kept in bed.

15th.—Stump measured this morning: in circumference at ends of cicatrix 12½ in., and 9¾ in. in length from anterior superior iliac spinous process to end of stump. It is soft to the touch; tenderness only just behind external extremity of cicatrix.

25th.—The patient was sent to-day to Bognor Convalescent Home. He is afraid to use his artificial leg, as, after wearing it for two days, it caused a little inflammation in the glands of the groin, from pressure of the iron hoop round the top of the thigh.

February 23rd, 1885.—The patient was readmitted to-day, having fallen down whilst at Bognor. He has had great pain in the stump since. On examination there is a hard swelling, which seems like a nodular thickening of the end of the femur. No discolouration of skin or fluctuation can be felt. There is great tenderness of the stump.

March 9th.—The patient was discharged to-day. Stump swollen, and tender on moving it. The growth has recurred and the glands are also enlarged, so that any further operation would be useless. The stump on discharge was distended, firm, and tender, but neither the skin nor cicatrix had given way. The skin was normal in colour, but the veins were larger and well marked. On palpation in the loin some enlargement of the glands can be felt. The boy's spirits are excellent, his appetite is good, and there are no signs of secondary deposit in the chest.

CASE 2. *Necrosis of the lower jaw; death; necropsy.* (From notes taken by Messrs. Elliot and D. Jones).—M. H——, a woman aged forty-two, was admitted on Oct. 12th, 1885. With the exception of erysipelas of the face, which occurred twelve months ago, and congestion of the lungs, which she had five years ago, her general health has been good. On the 20th of June last the patient complained of cold, and her gums commenced to swell almost immediately; also the salivary glands under the tongue began to swell, until at the end of three weeks they had pushed the tongue up. During this time throughout the whole day she experienced a great secretion of ordinary saliva, which however, had a strong odour. Every morning when she got up her hands felt very cold and looked pale. They, however, assumed a better appearance as the day advanced. In three weeks' time the gums commenced to swell and the teeth to loosen. In four weeks' time the swelling in the submaxillary region commenced, and had gone on increasing. About this time her medical man was called in, who said that it was a case of necrosis of the jaw. He prescribed a strong tonic and a disinfecting gargle for her, and in a week's time the enlargement in the salivary glands subsided. No history was obtainable with regard to syphilis, mercury, phosphorus, injury, or carious teeth. She had not taken any medicine before her illness.

On admission there was a good deal of swelling about the maxilla, the skin feeling brawny and being of a dusky colour. On either side of the symphysis, below the inferior border of the bone, were two sinuses leading down to the bone, which did not appear to be quite bare, but was thinly covered with something soft. These sinuses discharged a fair amount of fetid pus. There was much tenderness about the jaw, and also great fixity, the patient not being able to open it more than an inch. She could not protrude her tongue. The teeth in the lower jaw were all loose, and the gums of both jaws and the mucous membrane over the hard palate were swollen and spongy, so as to overlap the teeth. Her breath was very fetid.

Oct. 15th: The two sinuses are distant respectively an inch and half an inch from the middle line. Bare bone was felt on probing. Ordered boracic acid and spirit gargle, with aperients, and to take fluid nourishment.

16th.—Temperature 103·2°.

18th.—Morning temperature 101·4°; evening 101·6°.

22nd.—During the last three days a large sinus has formed on the right submaxillary region, which leads down to bare bone. Four teeth were extracted.

25th.—Temperature last night and this morning 102 4°.

30th. Patient was very weak, and seemed semi-comatose. She could only open her mouth slightly, and the dresser could not make out what she tried to say. Her face was dusky, although the pupils were not unduly dilated. Had a startled expression when spoken to or touched. She takes all nourishment given her. Pulse very small, rapid, and weak. Respiration laboured (through nares), 46. She passes everything beneath her. Temperature 102 4°. Right submaxillary region presented an intensely fetid, oval, phagedænic ulcer, about three-eighths of an inch deep, three inches and a quarter before backwards, and two inches above downwards, extending from the middle line to about a quarter of an inch behind the anterior border of the masseter, the skin over which was dragged down in small vertical wrinkles; its edges were slightly everted, and not red. The base presented a large grey-black mass of shreds, not coming away easily. The attempt to remove what appeared the loosest shreds caused great pain. Superiorly the ulcer had extended just over the interior margin of the mandible, which was exposed and eroded; and posteriorly it had passed over the facial vessels; but as yet there was no hæmorrhage. In the base of the ulcer were some rounded pits, but it could not be seen whether they communicated with the buccal cavity; on holding a mirror over them, at the same time preventing escape of air through the nares, there was no sign of air coming through them. Discharge fetid and copious.

31st.—The patient had an injection last night; she slept well. She still takes a good deal of nourishment, but is much weaker than yesterday. The wound has been dressed twice each day with boracic acid and iodoform, but the wound is very fetid. Temperature 102 6°. The patient passed into an unconscious condition and died quietly.

Necropsy (conducted by Dr. Goodhart).—A partial examination only was permitted. On opening the mouth widely the hypertrophied condition of the gums was very marked. In the upper jaw it formed a thick ridge just within the row of teeth, giving the appearance of a second row. The anterior edges of the gums also overlapped the teeth very extensively. On examining the wound, a large piece of the lower jaw (right side) was seen to be necrosed; this was removed, carrying with it a few loose teeth and the altered gum tissue. It was found that there was a large piece of the lower jaw quite loose in the mouth; this was also removed, and proved to be the inner surface of the horizontal ramus of the lower jaw, as it formed a complete cast of its dental arch. The muscles beneath the tongue and soft parts forming the floor of the mouth were sloughing. The lungs were not examined, but the patient probably died of septic pneumonia. A section of the hypertrophied gum had the appearance of inflammatory tissue.

LEEDS GENERAL INFIRMARY.

COMPOUND FRACTURE OF THE SKULL; TREPHINING; SPASM OF MUSCLES OF FACE AND ARM; SECOND TREPHINING OVER THE FISSURE OF ROLANDO; RECOVERY.

(Under the care of Mr. M'GILL.)

FOR the notes of the following case we are indebted to Mr. J. Holt, house-surgeon:—

J. T. S——, aged thirteen, was admitted on February 9th, 1887, with a compound fracture of the skull. Shortly before admission he fell twenty-three feet on to his head; he does not remember receiving the blow, and was unconscious for a few minutes after the accident, but soon recovered his senses.

Condition on admission.—The patient is quite conscious, talks sensibly, and answers questions intelligently. There are no cerebral symptoms or constitutional disturbance. There is a compound fracture of the left side of the vertex of the skull, the skin wound being one-third of an inch in length. This is situated near the parietal eminence, and can be marked out exactly as follows: Take a point one inch and a half behind the centre of a line drawn from the root of the nose to the external occipital protuberance; from this point draw a line vertically downwards to the level of the upper border of the pinna of the ear; the centre of this last-named line corresponds with the position of the wound. Through the wound a depression can be felt in the

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skull, and there is a small escape of brain substance. In the absence of symptoms it was determined not to trephine, but to dress the case antiseptically. This was accordingly done, the scalp being shaved, the wound and surrounding skin being irrigated with corrosive sublimate solution, and an antiseptic dressing applied.

Feb. 10th.—The patient has passed a quiet night. The pupils of both eyes are dilated, the right more so than the left; the right pupil does not respond to light. He is very drowsy, is roused with difficulty, but when roused seems quite sensible. In the evening it was determined to operate. The boy being placed under ether, the dressings were removed. The scalp felt soft and infiltrated for a couple of inches in all directions round the wound. Mr. M'Gill made a large crucial incision, leaving the original wound at its centre. From this point a fracture was seen extending upwards towards the vertex, and another backwards towards the occiput; both these fissures passed out of the region exposed by the reflexion of the scalp; at the junction of the two the skull was comminuted, these portions being depressed below the general level. Two of these, irregular in shape and one inch and three-quarters of an inch accross in their longest diameter, were removed, while the third was elevated. A small opening in the dura mater, through which brain substance was protruding, was seen. The edges of the skin wound were brought together by a few points of suture, small drainage-tubes being inserted in each of its four extremities.

11th.—Still drowsy. Slight facial palsy on the right side was noticed in the evening.

During the next two days there was not much change, the general drowsy condition was slightly improved, and the facial paralysis, though still slight, became more marked.

14th.—In the morning the right arm seemed weaker than the left, otherwise the condition is unaltered. The wound on the scalp looks healthy; there is no further protrusion of brain substance. At 7 P.M. the muscles on the right side of the face were attacked by clonic spasm, and during the night till 9 o'clock the next morning he had fifteen attacks of a similar character. All the muscles on the right side of the face were in a state of clonic spasm, the contractions numbering about 40 per minute; drawing up of the angle of the mouth and closing of the eye were particularly marked; on one occasion the patient bit his tongue. His head was twitched to the right side, the contractions of the platysma being clearly visible. The attacks last from three to five minutes; between them he sleeps, but seems to know when the fits are coming on, as he puts his handkerchief into his mouth to protect his tongue. In the second and third attacks the right arm was slightly affected, and in the seventh, at 3.45 A.M., the arm muscles were violently convulsed, and the leg also slightly implicated. After that time the spasms in the arm were as violent as those in the face, the whole limb being attacked, and the fingers, wrist, and elbow being alternately flexed and extended. Nothing further was noticed in the leg; its reflexes, superficial and deep, were normal. The optic discs were also in a normal condition.

15th.—At 9 A.M. there was a more prolonged attack, the right face, neck, arm, and forearm being violently convulsed. After this the patient seemed much exhausted. Mr. M'Gill determined to trephine at once over the lower end of the fissure of Rolando. Chloroform was administered, and a large flap, three inches across at the base and two inches and a half deep, was turned downwards, the anterior part of the former incision being utilised for the purpose. This flap, which included the upper part of the temporal muscle, having been reflected, the pericranium over the upper part of the temporal fossa was turned down, and a trephine one inch in diameter was applied a little in front of the centre of the lower antero-parietal area of Turner. The circular portion of bone was removed, and the dura mater, in which a large branch of the meningeal artery was visible, was exposed. This was next divided along the upper margin of the opening and a flap turned downwards, the artery in it being tied. There was slight hæmorrhage from the brain substance, which was arrested by sponge pressure. Nothing abnormal having been found, the dura mater was replaced and held in position by two fine catgut sutures; a small drainage-tube was inserted between it and the brain substance. The pericranium was next stitched up by another row of sutures; and, lastly, the skin flap was held in position by a few stitches, two drainage-tubes being placed at the most dependent angles of the wound. The operation was concluded at 11 A.M. At 1.50 P.M., the effect of the chloroform having passed off, he was convulsed as before in the face, neck, and arm. In the next twelve hours there were sixteen similar attacks. Then there was an interval, no fit occurring between 1.20 A.M. and 7.30 A.M. on the 16th. Till 7.15 P.M. there were eight attacks; the last one was of great severity, with increased frequency of the muscular contractions (120 per minute), and lasted for forty-five minutes. After this there were only four more fits, of gradually diminishing intensity, the last being at 2.50 A.M. on the 17th.

19th.—Wounds dressed and drainage-tubes removed; they look healthy and are healed in their deeper parts. The paralysis both of face and arm is much less marked. Two days later (Feb. 21st) the paralysis had almost entirely disappeared. From this date there is nothing special to remark; his convalescence was rapid, and on March 22nd he left the hospital with the wounds entirely healed and apparently in perfect health.

Remarks by Mr. M'GILL.—1. No operation was performed when the patient was admitted, there being no cerebral symptoms. This, though perhaps hardly orthodox, appears to be a reasonable proceeding. Few surgeons would operate for a simple depressed fracture of the skull without symptoms, and as by means of antiseptics the compound can be converted into what is practically a simple fracture, the same rule should apply. Apart from theory, experience proves that many cases of depressed compound fracture of the skull treated without operation make rapid and permanent recoveries. 2. How far the trephinings in this case influenced the result it is difficult to determine. It is possible that the operation and the arrest of the fits did not stand to one another in the relation of cause and effect. On the other hand, though no lesion was found, it is possible that some change of cortex existed at a short distance from the trephine opening, and that the relief of tension due to the operation was the cause of the favourable result.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Abdominal and Thoracic Aneurysms treated by the introduction of Steel Wire into the Sac.

AN ordinary meeting of this Society was held on Tuesday last, Mr. G. D. Pollock, F.R.C.S., President, in the chair.

Dr. J. J. PRINGLE contributed a paper on a case of Aneurysm of the Abdominal Aorta treated by Laparotomy and the introduction of Steel Wire into the Sac. The patient was a man, aged forty-six, admitted to the Middlesex Hospital with the symptoms of aneurysm arising from the upper part of the abdominal aorta; there was no appreciable sign of cardiac or general arterial disease. Treatment for a month by rest, appropriate diet, morphia, and full doses of iodide and bromide of potassium was futile, the increase of the aneurysm being evidenced by aggravation of pain, extension of pulsation, and the development of a diastolic in addition to the systolic bruit previously present. The operation described was performed by Mr. Henry Morris, full details being given in the paper. The principal difficulties encountered were: (1) the introduction of the wire, which was coiled on a roller, into the cannula, necessarily held deep in the abdomen; and (2) the adjustment of the cannula between the outward force of the pulsation and the inward force of pressing the wire into the sac. Only about a foot of wire was introduced before an insurmountable kink stopped its further progress. No hæmorrhage of importance complicated the operation. For two days the patient progressed satisfactorily, but he subsequently became almost maniacal, and died of asthenia five days after the operation, his highest recorded temperature being 100·6° F. At the necropsy both sides of the heart were distended by mixed clot; there was no peritonitis beyond a narrow line of adhesion between the operation-wound in the parietal peritoneum and the subjacent viscera. The aneurysm was found to arise from the aorta at the level of the coeliac axis, and to be very saccular and filled with clot, more than one-third of which was laminated and presumably due to the procedure adopted. The remarks touch briefly upon the significance of the diastolic bruit present and the

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advisability of giving ordinary medical treatment a protracted trial in similar cases, but refer principally to the treatment ultimately resorted to. The statistics of *proximal compression* of the aorta are analysed, and the results regarded as probably less satisfactory than recorded experience would appear to show, whilst the procedure is obviously inapplicable to the majority of aneurysms of the abdominal aorta, which arise too near the diaphragm. The records of *distal compression* are discouraging, as are those of *galvanopuncture* in similar cases, whilst the remarkable success obtained by Loreta, of Bologna, by the treatment here adopted justifies its trial. The result of that trial presents many encouraging features. Mr. Henry Morris adds remarks commenting upon the advantages of steel wire over fishing-gut or horsehair, advocates in future having the wire coiled on a reel held by the operator to enable it to be paid direct into the cannula, and suggests for discussion the question, "What is the smallest quantity of the foreign body which must needs be introduced to excite the requisite formation of clot?"

Dr. W. H. WHITE and Mr. PEARCE GOULD communicated a case of Sacculated Aortic Aneurysm treated by the introduction into the Sac of thirty-two feet of Steel Wire. The patient, a powerful man aged forty-eight, had noticed a swelling of the front of his right chest for five months before he came under Dr. White's care. Two months later cough and dyspnœa on exertion supervened. On his admission into the hospital on Nov. 20th, 1886, a prominent swelling was found in the position of the right mamma, extending from the second to the fifth rib, and from the edge of the sternum to the axilla; it was the seat of a forcible expansile pulsation, and over it was heard a harsh systolic murmur. Above the chest anteriorly, and down to the angle of the scapula behind, the resonance of the right chest was much impaired, and the respiratory murmur was distant and weak. The man was kept in bed, on a restricted diet, and was ordered fifteen grains of iodide of potassium three times a day. He continued about the same until the second week in January, 1887, when he was much excited, and the swelling was noticed to increase rapidly in size and to become very prominent. It was then decided to employ Moore's treatment, and on January 11th Mr. Pearce Gould passed thirty-two feet of steel wire into the aneurysm through a Southey's cannula, introduced in the third intercostal space. A good deal of blood was lost during the operation, but the hæmorrhage was quite stopped by a pad of lint. The tumour became harder, and the pulsation more heaving in character, and from one of the punctures (two had been made) reddish serum continued to drain in considerable quantities for several days. Accordingly, on January 17th the pad of lint was fastened on more firmly; next day there was observed great swelling of the subcutaneous tissue over the aneurysm, and on the 19th the skin was found to be gangrenous, and in a few hours the patient died. At the necropsy the first part of the arch of the aorta was found dilated to the size of a large orange, and springing from the upper part of this dilatation was a sacculated aneurysm the size of a cocoa-nut. The intra-thoracic portion of the tumour had a distinct but thin sac, but that part which protruded from the chest was destitute of a definable sac, and was limited by infiltrated muscle. The wire together with loose fibrinous clot formed a very dense mass, nearly filling, but not adherent to, the sac. The authors suggest that the fatal result was largely due to the absence of a distinct sac to the outer part of the aneurysm, and to the effects of the formation of a very hard solid mass in the aneurysm, combined with rather firm external pressure applied for the arrest of the serous oozing. They submit the following conclusions: 1. Moore's treatment is worthy of further careful trial in properly chosen cases. 2. The operation should be performed before there is reason to suspect rupture of the sac. 3. Only a small quantity of wire should be introduced at any one time. 4. No firm pressure should be made over the aneurysm afterwards.

Mr. J. W. HULKE related a second case on which he had recently operated. The treatment was absolutely innocuous, and perhaps slightly beneficial. The patient was a sailor, who fell from a height on Oct. 13th, 1885, and three weeks after the accident a swelling appeared at the root of the neck on the right side. For this aneurysm he was treated with some success at St. Mary's Hospital. On Aug. 19th, 1886, he was admitted into Middlesex Hospital, under the care of Dr. Cayley, who, with Dr. Douglas Powell, diagnosed a large aneurysm probably of the innominate and aortic vessels. After rest in bed and a large dose of iodide of potassium the patient was placed under strict Tufnell treatment from October to January, 1887, with the result of a slight diminution in the size of the aneurysm, but without real improvement. He left the hospital only to return in a month, and on the same day of his readmission, Feb. 24th, for increased pain and swelling in the aneurysm, of which the coverings were extremely thin, Mr. Hulke introduced thirty-three feet of steel wire. There was no trouble at the operation, and the wire was introduced through a cannula, hand over hand. After its introduction palpation revealed some degree of hardness of the sac. On March 1st there was increased pain and much arterial tension, which was relieved by bleeding to the extent of five or six ounces, enabling a good night's rest to be obtained. The man died on the 9th—i.e., thirteen days after the operation. The aneurysm examined by Mr. Leopold Hudson appeared to have begun in and been limited to the first part of the subclavian artery, and exhibited but a small amount of clot about the wire. There was no appearance of inflammation in the large space. In the first case already recorded he had had some difficulty from the kinking of the wire, but not in this second case. A tubular needle furnished with a couple of wheels for paying in the wire without touching it with the fingers would afford much aid. A rough model of this apparatus, devised by the surgical mechanician, was handed round.

Mr. HOWARD MARSH opined that the usual length of wire introduced was far too great.

Mr. T. BRYANT said that in Mr. Morris's case it was clear that the aneurysm was on the way to a cure. In Mr. Hulke's and Mr. Gould's cases there did not appear to have been any signs of healing: but in Mr. Gould's case it would seem that the large mass of wire might have been actually harmful. Still, the facts obtained by experience up to the present were not unfavourable to the operation in itself. It was almost impossible to determine with accuracy the size of an aneurysm in the throat, and so it would be difficult to say how much wire should be introduced. In the thoracic cases, perhaps, a repetition of the introduction of wire might be feasible and advisable; but this could hardly be so for abdominal aneurysms necessitating abdominal section and where the size of the aneurysm was more definable. The evidence seemed to show that the steel wire did harm in Mr. Gould's case. The use of good fishing-gut would, in his opinion, be preferable to wire. The point of steel wire must be more or less injurious, and if cut off close to the skin might become a source of irritation to the tissues. A blunt trocar might be employed with a view to pushing the cut end of the wire into the centre of the aneurysmal sac.

Mr. T. SMITH could not but be struck with the mechanical difficulties in the carrying out of the operation. A hollow needle, he agreed with Mr. Hulke, would be more suitable, and he thought that such an instrument already existed in the shape of the needle employed in cleft palate and vesico-vaginal fistula. The mill-edged wheel acted as an efficient payer-in of the wire.

Dr. PRINGLE, in reply, said that an objection to the employment of galvanism in the introduction of the wire was that the clot resulting from electrolysis is distinctly softer than ordinary clot. He would have been glad of suggestions as to any other feasible operation in cases of abdominal aneurysm, which usually encroached on the diaphragm.

Mr. HENRY MORRIS said that there would be much less tendency for the wire to assume the coil shape if a straight needle were used, such as Mr. Smith recommended. He recognised the force of Mr. Bryant's remarks, but he was not aware till now that fishing-gut could be made to coil up. Large quantities of wire would offer an obstacle to one very important element in the cure of the aneurysm—viz., retraction and contraction of the sac.

Dr. HENRY WHITE said that the aneurysm proved not to be so large as it appeared during life, and doubtless this was one reason why so much wire was introduced.

Mr. PEARCE GOULD, in reply, said that Mr. Moore, in first performing this operation, appears to have used a blunt trocar to thrust the end of the wire into the centre of the sac. The needle of Mr. Hulke or of Mr. Smith would leave the end of the wire out in the subcutaneous tissues. In future cases he would not use anything approaching the quantity of wire employed in previous cases. He shared Mr. Bryant's opinion that the evidence was against the employment of steel wire.

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PATHOLOGICAL SOCIETY OF LONDON.

Alveolar Ulceration in a Child with General Tuberculosis.—Hypertrophic Goitre, with Secondary Tumours in Bones of Skull.—Tumour of Pineal Gland.—Chronic Inflammatory Disease of Uterine Appendages.—Meningeal Cerebral Hæmorrhage, with Secondary Degeneration of Spinal Cord.

AN ordinary meeting of this Society was held on the 5th inst., Sir James Paget, Bart., F.R.S., President, in the chair.

Mr. JONATHAN HUTCHINSON, jun., showed some specimens of Alveolar Ulceration and General Tuberculosis, obtained from a child aged two years, who died while under the care of Dr. Stephen Mackenzie. When twelve months old she had had measles, and subsequently became cachectic, and for a considerable time had suffered from ulcerative stomatitis, or "putrid sore mouth," which had caused several of the lower teeth to fall out and had invaded the lower lip. At the necropsy the peritoneum and abdominal viscera, especially the liver, were found to be the seat of miliary tuberculosis. The tubercles were disseminated throughout the liver, and in its capsule occurred as minute elevations one-tenth of an inch in diameter; they appeared to be of recent formation, though slight caseation had occurred in a few. It was uncertain whether any causal relation existed between the stomatitis and the tuberculosis, as the latter was a rare complication, nearly all the cases of ulcerative stomatitis in children recovering under the use of chlorate of potash or other treatment. Nor did sections of the affected gums and lip show tubercle bacilli or any tuberculous structure. The surface of the ulcers was ragged, and for a varying depth was in a necrotic condition, the structures being ill-defined and not staining well. In the lip the muscular bundles next the surface were matted together, and the striation was indistinct. Micrococci were plentiful in this layer, but the long bacilli found by Lingard and Batt in ulcerative stomatitis of calves and in a case of noma were not present. Under the necrotic layer there was considerable inflammatory cell-effusion. It was stated that ulcerative stomatitis of children could be inoculated (Bergeron), but the microscopical appearances would confirm the clinical evidence that this disease was quite distinct from noma and from the ulcerative stomatitis of calves and other young animals.—Mr. F. TREVES said that there were many arguments in favour of the suggestion that the ulcerated tongue was the seat of inoculation of tubercle.

Dr. JOSEPH COATS introduced a case of Hypertrophic Goitre with secondary tumours in the skull. The thyroid gland presented considerable enlargement of both lobes. The tissue of the enlarged gland was that of ordinary goitre—namely, greatly multiplied saccules, with occasional colloid matter in them. There were two further changes, both of which evidenced chronicity in the growth—namely, fibroid induration and calcareous infiltration. This latter change was in the indurated connective tissue, and probably in connexion with some necrosis. The goitre was first noticed sixteen years before death. There were several tumours in the skull, only one of which was visible during life, and had been observed for a year and a half; this was in the occipital region, and it formed here a pulsating swelling. This tumour replaced the bone of the skull over an area an inch and three-quarters in diameter, and projected both outwards and inwards, pushing the torcular herophili before it. Another projected chiefly inwards, and was adherent to the dura mater. All the tumours apparently originated in the diploë of the skull. Their structure was identical with that of the goitre, consisting of innumerable small saccules lined with epithelium, and occasionally with colloid contents. Dr. Coats referred to Cohnheim's case, which was of a similar nature; and he also quoted a case of Wölfler's in which a tumour, removed during life by Billroth from over the eye, was found to have typically the structure of the ordinary goitre. This patient was also affected with goitre.—Mr. R. J. GODLEE had examined Mr. Morris's specimen of pulsating tumours of the left parietal bone associated with other similar tumours of the right clavicle and both femora recorded in the Pathological Transactions, vol. xxxi. There was also a goitre in this case, and the tumour of the skull showed thyroid-like tissue.—Mr. G. R. TURNER mentioned a case of goitre associated with secondary growths in the lung reported in the Pathological Society's Transactions.—In reply to Sir James Paget, Dr. COATS said that Wölfler had figured many tumours of the thyroid: carcinomata, sarcomata, and the ordinary forms of goitre. In some cases of advanced goitre the formation of colloid was often more pronounced, leading to the formation of large cysts. In reply to Mr. Godlee, he said that he had not detected sarcomatous tissue in cases of ordinary goitre.

Dr. JOSEPH COATS also showed a large Tumour of the Pineal Gland. The tumour, which consisted of two rounded lobulated masses, measured about three inches transversely, and two inches from before backwards. It was surrounded by a capsule and loosely attached, except at one point which corresponded to the situation of the pineal gland. In its growth it had dislocated and disturbed the neighbouring structures, the parts affected being there normally in relation to the pineal gland. The corpus callosum, choroid plexus, and velum interpositum were pushed upwards, the corpus callosum being greatly softened. The corpora quadrigemina were pushed backwards and upwards, and the thalami optici outwards and forwards, these parts being greatly flattened. The bulk of the tumour was in the third ventricle, but it had also extended somewhat into the aqueduct and fourth ventricle. The structure of the tumour was very peculiar—namely, a basis of sarcomatous structure, with pieces of cartilage and epithelial or glandular structures embedded in it. The sarcomatous cells were chiefly spindle-shaped, and some of them in the shape of the nuclei and general arrangement suggested smooth muscle. The cartilage was hyaline, with the cells unusually abundant. The gland structures were in the form of saccules or ducts lined with epithelium, usually cylindrical. The saccules were occasionally dilated, but did not form true cysts. Dr. Coats was disposed to call the tumour, from its structure, an adenoid chondroid sarcoma. He referred to four other cases of similar forms of tumour, recorded by Weigert, Falkson, Ziegler, and Turner, in all of which the structure was complex, with epithelial or glandular structures, and in three of the cases with cartilage. The observations of Baldwin Spencer on the pineal eye were referred to as indicating the original complex structure of the pineal gland, and it was stated that the embryonic structure indicated that the pineal gland was an epithelial body.

Mr. LAWSON TAIT read a paper and exhibited fifty-eight specimens, removed during the year 1886, illustrating the Pathology of Chronic Inflammatory Disease of the Uterine Appendages. Although Ruysch had recognised these diseases, their frequency and serious nature had only been allowed during the last ten years. The frequency was somewhat indicated by the fact that Mr. Lawson Tait had operated sixty-three times, with but one death, during the past year. All the patients had suffered for years. Cases were grouped under four headings: (1) simply catarrhal; (2) due to exanthematic disease at puberty; (3) gonorrhœal; (4) inflammatory mischief in the pelvis in the post-puerperal condition—i.e., after a miscarriage or a full term labour. A fifth was added by Mr. Tait: cases in which the only explanation was the existence of an infantile condition of the uterus due to arrested development. Retroversion, with complete fixation and enlargement of the appendages, was general. The preponderating influence of the third and fourth causes was at once indicated by the fact that out of the sixty-three cases there were only ten unmarried women. Of these ten single women, there can be no doubt that in at least three of the instances the origin was gonorrhœal. In two of the single women there had been pregnancies, and these were in all probability the source of the diseased appendages. In one case prolonged efforts had been made to cure anteflexion by means of intra-uterine pessaries, and this doubtless resulted in the double pyosalpinx. Of the four remaining cases in single women, two were probably due to scarlet fever. In the fifty-three women who were married, the average age was a little over thirty-three years. Of these, twenty-three had never been pregnant, and they had been married on the average ten years. Of the remaining thirty cases, sixteen had been pregnant once, the pregnancy occurring immediately after marriage, and being associated in every instance with the history of subsequent pelvic trouble. The average interval in these cases between the pregnancy and the time of the operation was eleven years. Only fourteen of the patients had more than one child, and the average period between the last pregnancy and the time of the operation was six years. These facts were enough of them-

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selves to show how completely sterility is produced by chronic inflammatory disease of the uterine appendages. In by far the greater majority of the specimens the occlusion has taken place by the trumpet getting glued on to the ovary. The frequency of this occurrence substantiates, to some extent at least, the tradition that the infundibulum gets fastened on to the ovary temporarily at some time or other in connexion with the process of ovulation. Formerly the author thought he should be able to prove that this relation did actually occur, but he has never been able to make himself certain of it. In some cases the trumpet is found to have closed its tentacles, like a polyp, and to have had them coalesced in that position, leaving the ovary free. In the group of twenty-three women who had been married for an average period of ten years and had never been pregnant, there can be no doubt, from the clinical histories of nearly a third of them, that the disease arose from old latent gonorrhœas or gleets in their husbands excited into activity by the indulgence of early married life. In rather more than a third the author believed the disease originated in the exanthematic diseases of girlhood, most especially scarlet fever; and in the others no clue to causation could be obtained. In the second group of fifteen women in whom there had been one pregnancy within a short time of marriage, we assume, of course, that at the time of marriage their productive machinery was intact. In all but two of these cases, the story of pelvic peritonitis following their only labour placed them clearly in the group in which puerperal mischief has to be regarded as the cause. In the exceptional two, the author believed that he failed to get the history rather from the stupidity of the patients than from an absence of the facts. A third group was readily formed of fourteen women whose fecundity was not limited to one child. In this group were found the most acute and severe cases. At least eight of these women suffered from subacute or even acute gonorrhœal salpingitis of comparatively recent origin, the average time which had elapsed between the last pregnancy and the operation being three years. On the other hand, in the six other women in this group in whom the author could get no such history (or doubtfully in two of them), fourteen years had on the average elapsed between their last confinement and the date of the operation. These facts have a striking pathological significance. In the acute or early stage the appendages are intensely congested and swollen, and are very friable. In fact, it is a matter of difficulty to remove them entire. In the old-standing cases the organs are contracted and atrophied, and few if any traces of normal follicles can be discovered in the cirrhotic and densely adherent ovaries. At this stage the tubes generally contain very little fluid, and their contents are sometimes cheesy. They may be purulent on one side and serous on the other. Certain it is that neither the quantity of this fluid nor its pathological characters bear any definite relation to the sufferings of the patient. The pain endured in these cases is related to the adhesion of the organs, and to nothing else. The author had been much interested lately in reading a paper by Dr. Säuger of Leipsic, in which he determines varieties of tubal disease by the application of the germ theory, giving to the varieties names based on the kind of lowly organisms found in the contents of the tubes. Thus when a gonococcus is found he speaks of salpingitis gonorrhoica; and when he finds actinomycetes he calls it S. actinomycotica. If it is characterised by Koch's bacillus tuberculosis, he records it as S. tuberculosa. This kind of distinction seems to the author to have much attraction for the speculative mind, and but little for the practical pathologist. It has, besides, the initial difficulty that it is based on a doctrine which has yet to show that it is not mistaking the phenomena of decomposition for those of disease. Since reading Säuger's paper the author had given some little attention to the fluid contents of the tubes, and he had already found evidence that if the distinction of varieties were to be based upon the characters of the lowly organisms present in the fluid, the probability was that their extension would be indefinite and easily multiplied. In conclusion, the author submitted a post-mortem preparation for which he was indebted to the kindness of Dr. Littlejohn of Edinburgh; it was an example of the simple hydrosalpinx without adhesions, and so far as its clinical history could be ascertained the patient suffered little or nothing, but was perfectly sterile. Also an admirable drawing made by Dr. Kellie, used in his lectures nearly a century ago, which showed the condition of occlusion and distension of the tube most beautifully. Also some drawings of Dr. Price of Philadelphia, showing the ovaries and tubes in a condition of acute gonorrhœal inflammation.

Mr. ALBAN DORAN showed specimens illustrating the Development of Tubo-ovarian Cysts as a result of Inflammation of the Uterine Appendages. He exhibited a pair of appendages which had recently been removed by Dr. Bantock from a woman aged twenty-three, subject to chronic pelvic pains and other severe symptoms. The right tube and ovary had undergone complete cystic degeneration, so as to form a cyst with one cavity. The left tube was dilated; a cyst had formed in that part of the ovary most distant from the dilated tube. Mr. Doran showed a series of diseased appendages from the museum of the College of Surgeons, where every stage of the process of conversion of chronic inflamed appendages into tubo-ovarian cysts was demonstrated. On the other hand, he had never succeeded in finding a tubo-ovarian cyst developed as a part of the process of development of the common ovarian cystic tumour, a non-inflammatory disease. Hence he believed that tubo-ovarian cysts almost invariably represented an atrophic inflammatory condition.—Dr. HADDEN referred to the frequency of tubercular disease of the Fallopian tubes. Why was the outer half of the tube more dilated than the inner?—Dr. ANGEL MONEY said that tubercular disease of the abdomen in children frequently got well. He had seen genuine tubercular pyosalpinx in children.—Dr. JOSEPH COATS also thought that tubercular disease was also a common cause of disease of the Fallopian tubes. He had seen it nearly always in tubercular peritonitis. It might also occur alone.—Dr. GRIFFITH remarked that he had been lately engaged in investigating the subject of tubo-ovarian cysts, the literature of which was very scanty, and a paper by him on the subject was now in the hands of the Obstetrical Society. His investigation led him to the conclusion that there were two kinds in addition to that described by Mr. Doran, the rarest of which was formed by the union and communication of a dilated tube with one loculus of the common multilocular cyst. Another variety which seemed to be very uncommon was that first described by Adolphe Richard, consisting of a dilated tube adherent to and communicating with a thin-walled unilocular cyst of the ovary, the size of a child's head, or smaller, producing a tumour having the shape of a retort, and containing thin watery fluid, more resembling the contents of a broad ligament than an ovarian cyst. These were discovered in young women in whom the history and evidence of past inflammation were very scanty. Dr. Griffith believed that the specimens brought forward by Mr. Lawson Tait would well repay careful examination. The clinical history and histology of diseases of the tubes had yet to be investigated.—Mr. LAWSON TAIT said that he treated only of cases operated on by him during the past year. He had seen but one case of tubercular pyosalpinx, on which he operated, and the patient recovered, which made him doubt the tubercular nature. He agreed with Mr. Doran's view of the mode of formation of tubo-ovarian cysts.—Mr. ALBAN DORAN, in reply to Dr. Griffith, stated that "tubo-ovarian cyst" was a matter of definition. Many of the observers to whom Dr. Griffith referred appeared to apply the term solely to cases where the tube had communicated with a true ovarian cyst.

Dr. HALE WHITE showed a specimen of Old Meningeal Hæmorrhage, with Cerebral Softening and Secondary Degeneration, which was taken from a patient who died owing to the effects of a femoral hernia. From the history it would appear that the meningeal hæmorrhage took place eighteen months previously. At the necropsy ante-mortem clotting in the sinuses was discovered. On the left side, over the ascending parietal and frontals, and the back part of the first, second, and third frontal convolutions, there was some soft yellowish-white material, evidently old blood clot. The grey matter over the area mentioned had quite disappeared; the white substance immediately underneath was a little altered; no distinct degeneration could be seen in the pons or internal capsule, but the pyramidal tract in the medulla, and both the crossed and direct pyramidal tracts in the cord, were distinctly degenerated, being grey, translucent, and hard-looking. The lateral column was smaller on the affected side than the healthy. The microscope showed the sclerotic changes to be the same as those usually described.

The following card specimens were shown:—Mr. E. H. Fenwick: Tumour of the Bladder. Dr. Turner: Congenital Stricture of the Jejunum. Dr. Hale White: (1) Peripheral

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Neuritis; (2) Dilatation of the Ureter and Hydronephrosis of one side, secondary to stricture of urethra. Mr. D'Arcy Power: Sequel to case of Endosteal Sarcoma. Dr. Thin for Dr. B. Bake: Drawings of Bacillus of Leprosy. Dr. Edmunds: Carcinoma Myxomatodes. Mr. F. W. Clark: Acute Pericarditis. Mr. Hudson: Colloid Cancer of Stomach. Dr. Allchin: Perforating Ulcer of Duodenum. Mr. Shattock: (1) Congenital Dislocation of Hair; (2) Two specimens of Osteomalacia, showing metaplasia of osseous into fibrous tissue.

OBSTETRICAL SOCIETY OF LONDON.

A MEETING of this Society was held on Wednesday, April 6th, Dr. John Williams, President, in the chair.

Uterus Bicorpor.—Dr. HANDFIELD JONES showed a uterus having one cervix and two bodies. The left horn had been recently pregnant, while the right one was enlarged, either from sympathetic hypertrophy or owing to subinvolution after previous pregnancies of the right horn. The woman had died of puerperal eclampsia after her fifth confinement. Douglas's pouch was bipartite.

Anterior Parametritis and Perimetritis.—Dr. W. S. GRIFFITH showed two characteristic specimens of these conditions with drawings.

The Mechanism of the Third Stage of Labour.—This paper, by Dr. CHAMPNEYS, was the second of a series, and dealt with the Expulsion of the Placenta. The author reviewed the literature of the subject, including the observations of Lemser, Salin, Duncan, Schultze, Ribemont, and Ahlfeld. He showed that the question centres round the opposing views of Schultze (which are corollaries of those of Baudelocque) and those of Duncan. The difference is as to the presence or absence of hæmorrhage as part of the normal procedure, including the inversion of the placenta, this being described by Schultze and denied by Duncan. Direct observations are very few and are contradictory. The author gave his own observations of 70 cases, carefully observed and tabulated, as regards the manner of the expulsion of the placenta and the blood lost in each case. The fœtal surface presented in 64, the maternal in 2 (in both of which the cord had probably been pulled upon), the amnion in 4. Adding his results to those of Pinard and Ribemont, the author found that the fœtal surface presented in 127, the fœtal edge in 27, the maternal surface in 5. The presenting point was nearer the lower edge of the placenta in 65, nearer the upper edge in 1, midway in 2, no note of its position in 2. The lower edge, or amnion below the lower edge, presented in 16. In the great majority of cases a point within two inches of the edge presented, but on the fœtal surface. There was a complete absence of fundal attachments. It was found that the presenting part varies in its position with the position of the placenta. The higher the placenta the higher the presenting point, and *vice versâ*. The average loss of blood before the expulsion of the placenta was six ounces, in the membranes or with the placenta six ounces, making an average of twelve ounces for each labour, not including post-partum hæmorrhages. The author believes that a moderate loss of blood is a normal phenomenon of the third stage of labour; the third stage of labour is not either actually or nearly a bloodless operation. He concludes finally that—1. Some measureable hæmorrhage is a normal constituent of the phenomena of the third stage of labour. 2. The placenta presents in the great majority of cases by a point on the amniotic surface. 3. The presenting point is almost invariably near the lower edge of the placenta. 4. The position of the presenting point varies with the position of the placenta. 5. The "inversion" of the placenta is not due in the great majority of cases to traction on the cord, but is part of the natural mechanism. These observations, therefore, accord in essentials with those of Schultze, though his diagrams are greatly exaggerated. These observations bear on the opinion previously expressed as to the causes and mode of *separation* of the placenta. Therefore—1. It is probable that, in addition to reduction of the placental site, some escape of blood plays a part in the ordinary mechanism of placental detachment. 2. The slight inversion of the placenta, which does take place, is probably due to this cause. 3. The effusion of blood is not, in ordinary cases, sufficient to form a large mass bulging into a large uterine cavity behind the placenta.—Dr. MATTHEWS DUNCAN congratulated the Society on the elaborate paper just read, not only on account of its intrinsic value, but also because of its affording the Society an opportunity of contributing to the progress of the greatest obstetric work of the century. In the history of midwifery there were only three works of the very highest class as yet achieved. The first in scientific order of progress was done in the eighteenth century by W. Hunter, whose plates on the "Anatomy of Pregnancy" were its crown. The second was a work mainly of this century, and was known as the "Mechanism of Parturition," and with it were connected many names, especially those of Solayrer and of Naegele. The third was still incomplete, the greatest, most difficult and most glorious of all, a work of the nineteenth century, the "Anatomy of Labour." In this country no name was so great in the anatomy of labour as that of Barbour, and he was actively engaged in it at this moment. No contribution to it had come from London, and the papers of Dr. Champneys he hailed as worthily bringing a part of it before this Society. The anatomy of labour made no progress till the introduction of homalographic sections of frozen bodies. No such sections had been done in London, and nowhere had such sections been made in the third stage of labour. The work of Dr. Champneys was mainly physiological, and should come after the completion of the anatomy of the third stage, for the subject of his work would not be settled till the anatomy was finished. Failing to find bodies for the sectional anatomy of the third stage, obstetricians had examined the uteri of the operation of Porro. This was an imperfect substitute for frozen sections, and might be very misleading. The Porro uterus examined by Barbour showed that the placental area might be contracted to a diameter of four inches without separation, and the absence in these cases of hæmatoma was hostile to the theory of separation by utero-placental hæmorrhage, but it did not disprove it. Absence of separation, with contraction to an area of four inches in diameter, seemed to astonish many, and to favour the detrusion theory of separation. Dr. M. Duncan always imagined a much greater contraction as necessary for separation. He referred to his own paper of 1871, which was now a matter of "ancient history." Yet, admitting its imperfections, he was still an unbeliever in the presence of hæmatoma in a natural separation in a theoretically natural case, and he continued to hold that the cake descended edgewise through the cervix, and a reference to Dr. Champneys' table, columns A and B, confirmed this. The old detrusion theory of separation he had found difficult to make intelligible. He could not understand the production of detrusion till after separation. He could not imagine detrusion pushing off the lowest flap (as in the Porro case exhibited by Dr. Galabin) without pushing off all above it.—Dr. GALABIN understood that the author had not come to a decided opinion whether the separation of the placenta was from the periphery to the centre or *vice versâ*. Dr. Galabin thought this depended on the cause of separation. If the cause were from shrinking of the placental site, separation must be from the periphery inwards. If hæmorrhage were the cause, it must occur away from the margin, and could only effect a separation from the centre towards the periphery. Even if it were admitted that an effusion of blood is normally present, it does not follow that the hæmorrhage is a cause rather than a consequence of detachment.—Dr. Galabin thought that the Porro uterus was in favour of shrinking of the placental site, with possibly detrusion as a cause of detachment, and not hæmorrhage. Detrusion, acting as a supplementary cause to shrinking would cause detachment of the *lower* margin first. As regards the mechanism of expulsion, he thought it depended on the management of the third stage of labour. In Salin's cases the placenta presented at the os by its lower margin, and there was no inversion. In Dr. Champneys' cases there was partial inversion. In Lemser's cases the upper edge usually presented. The probable reason was that the management of Salin's cases promoted the best uterine contraction; that of Lemser's the greatest relaxation; that of Champneys' an intermediate condition. Dr. Galabin did not think that leaving the uterus unsupported with the patient on her side and the fundus dependent would give the most ideally natural mechanism.—Dr. HANDFIELD JONES thought that an ideally healthy labour was bloodless as regards the separation of the placenta, though there might be variable amounts flow afterwards.—Dr. BOXALL thought there were causes for separation of the placenta not mentioned in Dr. Champneys' papers. After

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the birth of the child the conditions were profoundly altered: the flow of blood from the fœtal portion of the placenta to the lungs ceasing, the thin lamina of maternal tissue is deprived of support towards the cavity of the uterus. The position in which the placenta is implanted on the uterus Dr. Champneys had shown to be important, and this again was indissolubly connected with the separation of the membranes. As long as the membranes at the edge of the placenta remain adherent to the uterine wall, inversion of the placenta is maintained. If any portion of the attachment gives way, the adjacent margin of placenta, being no longer supported, becomes the most dependent part, and the subplacental hæmatoma finds an exit of escape, and the lower the implantation of the placenta the more easily will this happen. There were other causes that altered the process of detachment, as pulling on the cord and abnormal adhesion. Dr. Boxall explained a series of experiments which he had made to determine the placental presentation by means of staining. He also confirmed Dr. Champneys' remarks on the rarity of fundal attachment of the placenta. He had found the fundus overlapped (to the extent of an inch and three-quarters) only once. Out of one hundred cases, he should say that the placenta would occupy the upper zone in twenty-one, the middle zone in seventy-seven, and the lower zone in two.—Dr. GANDY wished to know if kneading of the uterus was made use of to expel the placenta.—Dr. W. S. GRIFFITH thought there was some analogy between the detachment of the membranes in membranous dysmenorrhœa and the detachment of the placenta.—Dr. CHAMPNEYS replied.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

AN ordinary meeting was held on Feb. 4th, Dr. S. C. Smith, President, in the chair.

Method of Ligaturing an Intercostal Artery.—Mr. CLIFFORD TURNER described a method by which a special curved needle was passed below the vessel and upwards over the rib, the ligature being tied over a pad. He described various modifications of the process, according to the position of the wound and the age of the patient.

Resection of Bowel for Intussusception.—Mr. LAWFORD KNAGGS described a case of laparotomy for intussusception in a young child, and showed the removed portions of gut. The patient died in a few hours. In a review of the treatment to be adopted in such cases, he recommended the cautious use of inflation, and should this be unsuccessful, immediate laparotomy to be had recourse to.—Mr. PRIDGIN TEALE, who had seen the case, said he thought abdominal section should be more frequently done in these cases. He described several cases—one in a man of eighty-six, where he had removed gangrenous bowel and sutured the ends of the gut together. The patient lived six days, dying of exhaustion, the obstruction having been relieved.—Mr. MCGILL had decided that in the next case under his care he would make a longitudinal incision over the distended bowel, withdraw and incise the invaginated portion, stitching the opening to the skin, making a fæcal fistula which could be dealt with afterwards. He thought that excision of gangrenous bowel and suture must nearly always be fatal.

Hemianopsia.—Dr. WARDROP GRIFFITH described, with the aid of diagrams, the several varieties of hemianopsia and their probable anatomical relations, both with regard to lesions of the optic tract and internal capsules and the cortex of the brain. He related several cases where a permanent hemianopsia appeared to indicate grave organic disease.

Pathological Specimens.—Dr. CHADWICK showed some Living and Preserved Specimens of the Filaria Sanguinis Hominis, from a case under the care of Dr. Stephen Mackenzie.—Mr. MAYO ROBSON showed (1) a Foot with extensive Sarcomatous Disease of bone; (2) a Hydrocele in the Sac of an old Hernia, the neck being sealed by a piece of omentum.—Mr. BACON showed a Larynx from a case of poisoning with Carbolic Acid, much eroded by the action of the irritant.

A meeting was held on March 4th, Dr. Eddison in the chair.

Raynaud's Disease.—Dr. ERNEST JACOB described two cases of this disease lately under his care, one of the patients being exhibited. Case 1: A lad of twenty from his ninth to his twelfth year used to handle a wet chain in a colliery. His hands ever since had been always cold. The fingers were stiff, blue, and cold, and subject to acute pain. There was no arterial disease, and his general health was good. He improved under the use of iron internally and a stimulating liniment to the hands. Galvanism was tried in vain. Case 2: A laundress, aged fifty-seven, began to suffer from coldness and numbness of the hands thirty years ago, with severe pain of lancinating character. This recurred whenever her hands were at all exposed to cold. Two years ago she became worse; the fingers became black and discoloured, remaining so for two or three weeks, when they would become red, and the nail drop off, being succeeded by a new nail. Gradually gangrene supervened, and the tips of the first and second fingers of the left hand had disappeared. On the right hand the first finger had lost the two terminal phalanges and the little finger the third. The general health was not good, and though the arteries seemed healthy, there was an aortic regurgitant murmur. She had since been an in-patient in the infirmary under the care of Mr. McGill, the gangrene having still further progressed. The history of the disease was referred to, its pathology as a vice of arterial innervation, and its clinical connexion with the "night palsy" described by Dr. Weir Mitchell, paroxysmal hæmatinuria, and different varieties of vasomotor spasm were alluded to.

Treatment of Mastitis.—Mr. C. J. WRIGHT described a number of cases of painful lactation or inflamed breasts, in which he had found firm pressure by a bandage or towel afford great relief to the pain and other symptoms. Abscesses were to be opened antiseptically, and poulticing to be used as little as possible.—Mr. A. ROBERTS spoke of the advantages of fomentation with solution of ammonium carbonate.—Dr. PURDY had been disappointed at the results both of pressure and ammonium carbonate fomentation.—Mr. J. W. TEALE thought belladonna plaster useful mostly through the support it gave; he spoke highly of pressure, but generally gave a morphia injection as well.

Dangers of Cocaine.—Mr. A. ROBERTS described a case where he amputated the breast after injection of cocaine, sixty minims of a 6 per cent. solution being used. The patient felt no pain, but became blind, talking rapidly and somewhat incoherently. The blindness lasted four hours, but she recovered completely.—Dr. CLIFFORD ALLBUTT said he had experienced after the use of cocaine symptoms which had been recorded by others—viz, dreams in which writhing worms formed the principal object.—Mr. HEWETSON said that in using cocaine for ophthalmic purposes corneal opacities were apt to be left if a mercurial antiseptic were used.—Mr. OAKELEY had seen bad effects from strong solutions, but found that the desired effect could be produced with a maximum of thirty minims of a 4 per cent. solution. He had found amylic nitrite very useful as an antidote.—Mr. MAYO ROBSON had had two cases only out of a large number which had caused him any anxiety—viz., one in which severe syncope followed an operation for circumcision, and another where aphasia, lasting four hours, followed the removal of a nasal polypus.

Mr. LAWFORD KNAGGS showed a patient on whom Abdominal Section had been performed. The case was found to be one of tubercular peritonitis, and the patient had completely recovered.

Last days of a case of Graves' Disease.—Dr. CLIFFORD ALLBUTT was called to a case of a lady almost moribund, with symptoms of failing heart. There was dropsy, congestion of lungs, orthopnœa, &c. The heart's action was quick, but there was no detectable valvular lesion, the action being most like that noticed in a case of Graves' disease. Inquiry showed that there had been both enlargement of the thyroid and great exophthalmos in the past, but these had disappeared two years before.

Syphilitic Coma.—Dr. ALLBUTT referred to a paper by Dr. Althaus on syphilitic coma, and described the case of a lady of fifty, who had had repeated attacks (seven or eight) of coma, lasting from two to five days, on two or three occasions accompanied by slight hemiplegia, but with perfect recovery. He regarded this as due to syphilis, of which there was good evidence in this case, and potassium iodide had been of great use in the treatment.

Acute Atrophy of Liver.—Dr. HUTCHINSON showed a liver with microscopical sections. There was jaundice for nine days before death, and there was some cirrhotic change, as well as the indications of atrophy.

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Mr. LITTLEWOOD showed fresh cut sections of an Alveolar Sarcoma from the back of the Sacrum.

Dr. JACOB showed microscopic sections of a "Duct" Cancer of the Breast, from a case under the care of Mr. T. P. Teale.

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

THE sixth meeting of the session was held in the Faculty Hall, St. Vincent-street, on March 23rd.

Dr. MURDOCH CAMERON showed a Cervix Uteri amputated by Prof. Leishman for elongation in a nullipara, and advocated the use of the galvanic écraseur in such cases.

Mr. J. S. NAIRNE exhibited two simple forms of Wire Clamp, and Dr. SMITH exhibited Cones of Cocaine and Boric Acid, recommended by Dr. E. Head Moore for use in primiparæ and cases of rigid os.

The President, Dr. Sloan, then showed the Spleen and Uterus and Appendages of a primiparæ, aged twenty-two, who had died in the Maternity on the twenty-second day post partum, after a somewhat unusual illness. The specimens had been kept in spirit. The spleen had been adherent, and on removing it a quantity of grumous material had escaped from a cavity in the upper extremity. In this region it separated in two parts, joined by a mass of tough fibrinous material, its surface being coated with lymph. Otherwise the tissue was friable, and Dr. Dalziel had reckoned that the rupture indicated by these appearances must have taken place from three to four weeks prior to death. There was no appearance of pus in or around the organ. The uterus measured four inches and a half in length, and with its appendages looked quite normal, being covered with smooth and glistening peritoneum, and showing no trace of pus or putrefaction. There were no appearances elsewhere of septicæmia or pyæmia. Though the urine was one-third albuminous, the kidneys were found healthy post mortem.

Reviews and Notices of Books.

Recent Essays by various Authors on Bacteria in relation to Disease. Selected and edited by W. WATSON CHEYNE, M.B., F.R.C.S. London: New Sydenham Society. 1886.

Les Bactéries, et leur Rôle dans l'Anatomie et l'Histologie Pathologiques des Maladies Infectieuses. Par A. V. CORNIL et V. BABES. Deuxième Édition. Paris: Felix Alcan. 1886.

THE New Sydenham Society, which has done not a little to familiarise the English practitioner with the best writings of foreign scientists, has seldom accomplished better work than in undertaking the collection of monographs included in the volume edited by Mr. Watson Cheyne, in which, after a very interesting and suggestive introduction, we have, gathered from various sources and translated by capable hands, some of the best bacteriological work of the day. It is a great advantage to have access to such notable essays as that of Koch on Tuberculosis, Fehleisen on Erysipelas, Friedländer on Pneumonia, and Israel on Actinomycosis; and these only form a small portion of the rich contents of the volume. Dr. Koch's paper on the Investigation of Pathogenic Organisms, translated by Mr. Horsley, fitly introduces the volume. It is characterised by the clear and definite phraseology which has done so much to add to the charm of its author's expositions. His far-famed monograph on the Etiology of Tuberculosis, for the translation of which Mr. Stanley Boyd is responsible, comes next. No one can read this without becoming convinced of the truth of a discovery which aptly came to crown the labours of pathologists upon the nature of tubercle. "Seldom in the course of my life," wrote Cohnheim, "have I received such glad tidings," when the news of Koch's discovery of the bacillus tuberculosis reached him. On the additional light which such a discovery has shed upon specific diseases and inflammations there is no need now to dwell. One of the most interesting monographs—to English readers—is that by Dr. Gaffky upon the Etiology of Enteric Fever, which is translated by Dr. J. J. Pringle. Gaffky's researches were confirmatory of Eberth's discovery of a special bacillus in the intestinal lesions as well as in other organs. This bacillus is about one-third the diameter of a red corpuscle in length and three times as broad as long, and is distinguished from other bacteria by its power of spontaneous movement, its slight affinity for aniline dyes, the non-liquefaction of gelatine inoculated with it, the characteristic colonies it forms when grown on potato or solid blood-serum, and the spore formation at the extremities of the bacillus. The failure to produce inoculation of animals does not tell so strongly against its pathogenic character as might be supposed; and, as pointed out by Gaffky, there is as much reason for regarding it as the specific agent as there is in the case of the spirochœte of relapsing fever or the bacillus of leprosy. Fehleisen's memoir on Erysipelas is translated by Dr. Leslie Ogilvie. It is admirable for the clearness of its reasoning, and for the light it sheds upon the nature of erysipelas, as distinguished from other forms of dermatitis and cellulitis. The specific nature of the micrococcus discovered by Fehleisen is attested by the crucial experiments on human subjects, who were inoculated with cultures for the therapeutic purpose of causing the absorption of new growths through the action of erysipelas. Friedländer's paper on the Micrococci of Acute Pneumonia is translated by Edgar Thurston. The subject is one which has been further investigated since this discovery was announced, and the precise significance of the pneumonococcus is still *sub judice;* yet there can be little doubt as to the characteristic morphology and mode of growth of this remarkable microbe. Amongst other papers included in this collection we are glad to see that of Dr. Koch upon the Etiology of Cholera (translated by Dr. G. Laycock). The comma bacillus may or may not be the cause of cholera, but in the history of that disease the researches conducted by Koch which resulted in the discovery of that micro-organism will always hold a prominent place. Mr. Watson Cheyne supplies valuable abstracts and translations of writings upon Traumatic Infective Diseases, notably those of Rosenbach, in which the determination of the part played by the two varieties of staphylococcus pyogenes was first clearly established. Dr. Loeffler's paper on Diphtheria in Man—of which an abstract is furnished by Dr. T. Whiteside Hime,—although suggestive and interesting, proves how difficult it is to arrive at a definite conclusion upon the etiology of this disease. In some cases the specific organism seems to be a streptococcus, in others a bacillus; whilst perhaps the most important idea gained from the study is that primarily the disease is a local one. Dr. Hime also supplies an abstract of Israel's well-known paper on Actinomycosis in Man—another of the real additions to pathological knowledge for which science is indebted to the bacteriologist. Other papers in the volume are those by Neisser on the Bacilli of Leprosy, translated by Dr. Thin; by Loeffler and Schütz on the Bacillus of Glanders, translated by Dr. G. Ogilvie; several papers by Koch and others on Disinfection, abstracted by Dr. Whitelegge; and last in order, but not in importance, a very valuable abstract by Dr. Dawson Williams of the work done, largely by Pasteur and his pupils, upon the Attenuation of Virus and Protective Inoculation. The volume, as we have said, is of great value, and it only remains to congratulate the various contributors on the manner in which they have performed their several tasks.

It says much for the prevalent pursuit of bacteriology that the standard work of Cornil and Babes should have attained to the honour of a second edition within twelve months of its first appearance. It is evidence also of the high value set upon the work itself, for undoubtedly it deserves to rank as the leading treatise on the subject. Its

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authors have a great reputation, and they have amply maintained it in this work, which contains not only their personal researches, but a carefully digested account of all that has been done in this wide field. So rapidly is progress being made that, as they truly remark, books on bacteriology soon fall out of date, and certainly they seem to have spared no pains to keep their volume up to present knowledge. Although so much has been accomplished, MM. Cornil and Babes point out how much more there is yet to do, both in the direction of the discovery of micro-organisms in certain specific diseases, and in the verification of discoveries alleged to have been made in others. Bacterial research has gone far to banish the doctrine of the spontaneous origin of specific disease, and to establish the specific nature of other affections; whilst the more knowledge that is gained concerning the nature and mode of action of these minute parasites, the more is the field open for successful prophylaxis. The work is divided into three parts, the first containing chapters on the methods of investigation and experiment, as well as a description of the varieties of bacteria, and the doctrine of ptomaines. The second part is devoted to acute infectious diseases attributable to the intervention of bacterial organisms, those limited to animals being first discussed; then traumatic infective diseases, pneumonia, diphtheria, typhoid fever, relapsing fever, intermittent fever, cholera, anthrax, variola, scarlatina, &c. The third part treats of chronic bacterial diseases, such as rhinoscleroma, tuberculosis, leprosy, and syphilis, a description of M. Pasteur's labours in hydrophobia being appended. This mere enumeration can, however, give no adequate notion of the special excellence of the work. The pathology of each disease, and particularly its pathological histology, is amply discussed side by side with the description of the specific microbe to which it is attributed: and all that can be done by a liberal use of illustrations, mostly coloured, is given. We must be content here with simply welcoming the work, and expressing a very strong opinion of its value.

Health at School, considered in its Mental, Moral, and Physical Aspects. By CLEMENT DUKES, M.D. Lond. Pp. 324. London: Cassell and Co. 1887.

THIS book, which is an expansion of the article on Health at School contributed by the author to Mr. M. Morris's "Book of Health," appears to us to supply a want which has been long felt; for although there have been many works on different matters connected with school health, we do not know of any one which has gone so exhaustively into the whole subject. It contains matter which deserves the careful study of parents, head masters, house masters, and form masters alike. In the selection by parents of a suitable school for their boys, its healthy situation, its sanitary condition, its adaptation to the capability of the boy, the character and traditions of the school, the qualities of the head master, and still more of the house master under whose care they are to be placed, are all matters demanding the most serious consideration. But parents must not forget how much depends upon themselves in the formation of the character of their boys before they attain the age at which it is usual to send them to school. It is their special duty to see that habits of truthfulness, honour, and uprightness are formed in the earliest years—really before school-days commence,—as it is almost impossible to form such habits afterwards. The sanitary construction of the school and of the master's boarding-houses is clearly set out and strongly dwelt upon; the means of preserving the health of the boys by attention to their diet, their school work, and their play, are all matters which require the constant supervision of the masters. On the subject of overwork, which has of late been much discussed, Dr. Dukes' remarks are excellent. He points out how clearly the amount of work which can be safely done depends, in a great measure, on collateral circumstances—the age and health of the boy, the conditions under which he works, as regards food, sanitation, exercise, and a judicious arrangement of the work; while he does not forget to inculcate the necessity for care and judgment to prevent shamming, and to avoid attributing to overwork conditions which are due to other causes. "Thus, headaches are sometimes caused by working or sleeping in impure or prebreathed air; often through a failure in sight, which could be, and should be, rectified at once by appropriate spectacles; and most frequently of all, these headaches are toxæmic, from imperfect action of some of the secretions, such as constipation, but especially would I mention albuminuria. On several occasions I have seen boys who had all the symptoms of overwork, and from whom no further work could be obtained, cured of all head symptoms, as soon as the cause was discovered, by an aperient and a milk diet only for twenty-four hours."

The chapter on Illness is one of great importance, as it discusses the medical arrangements for the treatment of disease and the isolation of infectious, and thorough quarantine of doubtful, cases until their exact nature has been determined. The steps which ought to be taken to prevent, as far as possible, the introduction of disease into school, and its spread if a case unfortunately should occur, and the measures incumbent on the school authorities to prevent infectious disease being carried home from school are very well laid down, and, if adopted, cannot fail to exercise a most beneficial influence in preventing the spread of disease, which is only too common from neglect of these precautions. Dr. Dukes gives tables of the period of incubation of various infectious diseases, and the probable duration of infection where efficient disinfection is in force and where it is not in force. These will prove useful to parents and masters in carrying out a system of protection for the boys under their care. He has also suggested forms of certificates to be used in cases of boys coming from homes in which there has been infectious disease, and of those returning to their homes from school under similar circumstances. We commend the study of this chapter to all who have any control over or are responsible for the welfare of schoolboys.

The book has been evidently prepared with great care, and shows a practical knowledge on the part of the author of the subjects of which he treats. We cannot recommend it too highly to the head masters and governing bodies of public schools, and to all who are interested in the welfare of the rising generation. Should it reach a second edition, we trust that the author will not omit to add to its practical value by preparing a copious index, so as to facilitate reference to any of the special points in it on which information may be desired.

OUR LIBRARY TABLE.

Some Phases of Cerebral Syphilis. By J. ALTHAUS, M.D. London: Longmans and Co. 1887.—This small volume of fifty-five pages is the substance of an address delivered before the New York Academy of Medicine, on Oct. 7th, 1886. It is chiefly interesting from the accounts given of syphilitic coma and hemiplegia; the former state, we agree with the author, has not received sufficient recognition from the general members of the profession. Dr. Althaus summarises his own experience of eight cases. They all occurred in males between twenty-five and forty-two years of age. A definite history of primary and secondary syphilis was obtained in all. In one case the coma appeared eight months after infection, in six between three and five years, and in one case seventeen years afterwards. In two cases no other cerebral symptoms had occurred before the coma,

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while six of the patients had at various time suffered from giddiness, epileptiform convulsions, and transient loss of power in the limbs. The author compares "syphilitic coma" with diabetic, alcoholic, and other causes of coma, and also analyses the progress of the clinical course.

First Year of Scientific Knowledge. By PAUL BERT. Translated by JOSEPHINE CLAYTON (Madame PAUL BERT). Third Edition. Pp. 343. London: Relfe Brothers. 1886.—We read in the preface: "This little work is so popular in France that in three years 500,000 copies have been sold, and there is scarcely a school, even in the smallest village, that does not use it"—a sufficient evidence of the value of the work. It may be considered as drawn up on nearly the same lines as the Primers that were published some years ago in this country by Messrs. Macmillan, by Professors Hooker and Michael Foster, and others, except that it is abundantly illustrated, and that there is a mixture of question and answer. The subjects dealt with are, in order—Zoology, Botany, Mineralogy, Physics, Mechanics, Chemistry, and Physiology, both Animal and Vegetable. These subjects are treated in a very simple manner, and the book might well be introduced into many of our elementary schools.

1. *Guy's Hospital: Instructions for Case-taking in the Medical Wards.* 2. *Method of Case Reporting for Clinical Clerks.* By T. CHURTON, M.D.—The importance of enforcing a systematic method in the examination and record of clinical cases is fully recognised at the present day. Most manuals of practical medicine contain instructions on the lines to be pursued in such investigations, which are essential to the art of diagnosis; and the multiplication of diagnostic aids renders the need of definite rules more necessary. The "instructions," which have been in use at Guy's Hospital for some years past, are particularly useful; whilst Dr. Churton's scheme is perhaps somewhat more elaborate. In the former there is more explanation given than in the latter. The clinical clerk who will conscientiously work out his cases according to such methods as either of these points out will not only render his records of greater value, but will vastly assist himself in his own studies, and lay the foundation for accuracy and breadth of view in dealing with disease.

Elementary Animal Physiology. By GEORGE A. BUCKMASTER. Fifth Edition. Pp. 203. London: Moffatt and Paige.—This little work has been written up to the requirements of the Science and Art Department of the South Kensington Museum, the syllabus to which is placed at the head of the first chapter. Mr. Buckmaster states that the present edition has been completely rewritten, and care has been taken, in consideration of those for whom it is chiefly intended, to introduce only well-ascertained facts. He recommends the teacher to show to his class the structure and position of the organs which are the objects of his instruction. The book gives a fair exposition, in simple and easily understood language, of the main facts in anatomy and physiology, and supplies just such information as a teacher, armed with the certificate of the Science and Art Department of South Kensington, ought to know and to be able to communicate. The illustrations are sufficiently numerous and good.

Christian Theocracy and the Dynamics of Modern Government. A Dialogue for the Times. Edinburgh: Maclachlan and Stewart. London: Simpkin and Marshall.—This is to a large extent a psychological work, and as such will interest many of our readers. It consists of a dialogue in verse, between Physicus, a "thoughtful materialist," and Psychicus, an "enlightened supernaturalist." The work as a whole may be said to consist of an effort to reconcile the views of scientific and religious thinkers respectively in their bearing upon social and political questions. Its argument, if sometimes lengthy, is for the most part skilfully presented, and is not wanting in originality of sentiment, while its diction as a rule is correct and graceful. As usually happens in such cases, neither disputant convinces the other, but there is material enough for the reflection of a third party in the utterances of each. The expression of modern sentiments in a somewhat archaic style, and a vagueness of meaning which appears at times to darken the mystery natural to this subject, are blemishes which might with advantage be removed in a new edition. Apart from these shortcomings, there is much that is fresh and ingenious in reasoning in this latest addition to speculative literature.

Wear and Tear. By S. WEIR MITCHELL, M.D.—This thoroughly revised fifth edition of an essay that originally appeared in *Lippincott's Magazine* is a most charming and thoughtful piece of work. One does not know which most to admire—the style, the matter, or the logic. Such happy combinations are of rare occurrence. This new edition comes opportunely when so much is urged on behalf of the higher culture of women. "It were better not to educate girls at all between the ages of fourteen and eighteen unless it can be done with careful reference to their bodily health." Everyone should read this *brochure*.

The Birmingham Medical Review. March, 1887.—This monthly journal is certainly one of the best of our provincial periodicals. The practitioner must find the Retrospect a very valuable feature. Dr. Suckling supplies the abstracts on Nervous Diseases; Mr. Wood White, those on the Diseases of the Eyes; Dr. Bostock Hill, those on Hygiene; and Dr. Arthur Foxwell, one of the editors, those on Therapeutics.

A Descriptive List of Anthropometric Apparatus. Published by the Cambridge Scientific Instrument Company. 1887.—This little pamphlet contains an account of the various instruments for measuring and testing the chief physical characteristics of the human body. The instruments have been designed under the direction of Mr. Francis Galton, and include dynamometers, instruments for testing height, weight, keenness of the senses, and the like.

Dod's Parliamentary Companion. London: Whittaker and Co.—In consequence of a special edition of this volume being necessitated by the early dissolution of the last Parliament and published during the autumn of last year, the issue of the new edition for 1887 has been delayed until a few days ago. The additional information which has, however, been included in the current issue fully justifies the delay. The work is now in its fifty-fifth year, the volume under notice being the sixty-first issue, and may with advantage be consulted by those desirous of obtaining succinct information respecting the hereditary and elected representatives of the nation.

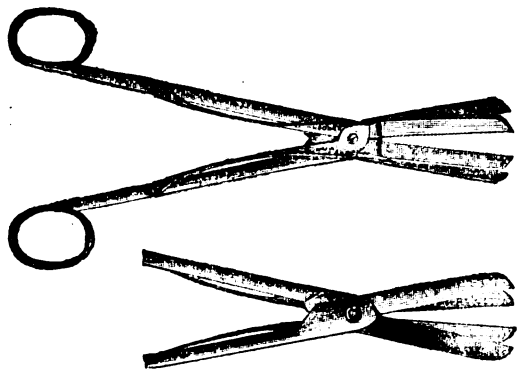
UNIVERSITY OF DUBLIN MEDICAL SCHOOL.—At the prize examinations for the session 1886-87, the following were successful:—Practice of Medicine: First prize, James Magauran; second prize, William McNeely Wilson. Midwifery: First prize, Charles Fitzmaurice Harkin; second prize, Alan E. Mahood. Anatomy: Senior Division—First-class honours, Alan Mahood (prizeman), A. E. Barrington, Edward Cuffey (equal), Robert Heard, E. R. E. Ivatts, W. J. Haslitt, F. P. Nowlan, and R. L. Whitty; second-class honours, V. L. Jones, C. M. McLaughlin, W. Burkitt, and W. A. Isaac. Second Years' Division—First-class honours, R. A. Yeates, Thomas North (equal), and J. H. Head; second-class honours, T. Tate, T. Gordon, F. Myles, J. Cook, R. Dowdall, and J. Kilgariff. (The prize was awarded to R. A. Yeates, after a special examination.) Junior Division—First-class honours, D. Corrigan (prizeman), W. Dawson, T. Miles, J. Heron, E. Taylor, and V. Rutledge; second-class honours, P. Kilkelly, E. Seale, A. Adair, R. Going, H. Earl, J. Graham, E. Brook, G. Donaldson, and P. Walker.

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New Inventions.

A SCISSORS-CLAMP FOR EXTERNAL HÆMORRHOIDS OR OTHER SMALL TUMOURS.

IT has long been the aim of surgeons to devise an instrument that would cut and clamp by the one single movement of the finger and thumb. Such an instrument I have endeavoured to place before the medical profession. Its action is self-evident, and requires no explanation. The simplicity of the instrument at once strikes the observer; nevertheless, it has taken eight months' hard working out. The great difficulty found in practice was to get the clamp to work and clamp throughout its entire length before the

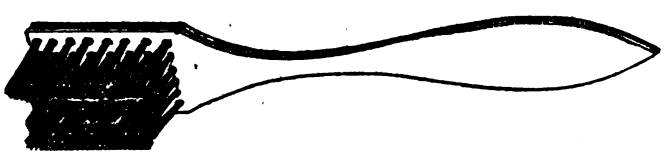


scissors-blades began to move. With the instrument as it now is this has been accomplished, the clamp being firmly closed before the blades of the scissors begin to move. Anyone requiring it can have a rack fixed on the handles, so as to fix the clamp action without holding the instrument. It has been made for me by Messrs. Maw, Son, and Thompson, Aldersgate-street, London. The instrument is elegant in form, light in weight, and very powerful.

Portland House, Cheltenham. FRED. A. A. SMITH, M.D., C.M.

A NEW FORM OF TOOTH-BRUSH.

WE have received a "three-sided tooth-brush" from Mr. Wall of Dublin, which he has invented to enable the molars and bicuspids, being the teeth most generally neglected, to be more easily cleaned. The name is rather misleading, as the hairs are arranged on one side only, as is



usual, but the free surface of the brush is deeply concave, so that the crowns and sides of the teeth are cleaned at the same time. It does its work efficiently; but, after all, more depends upon the manipulation than the form of brush used.

THE RUBBER STETHOSCOPE.

THIS is a very convenient and portable form of stethoscope, single or double, which has been produced and patented by Messrs. Arnold. It is made entirely of rubber, from ear-to chest-piece, and can be squeezed and even sat upon with impunity. It measures twenty inches in length, and is very flexible. It is therefore convenient for use where the shorter and stiffer instruments are inconvenient. It may fairly lay claim to being a handy, useful, portable stethoscope.

LIFE ASSSURANCE.

THE thirty-second annual meeting of the Whittington Life Assurance Company was held on the 28th ult., when the directors presented a report and accounts for the year 1886. By a special resolution the date up to which the accounts are made has been altered just now from May 1st to December 31st, so that practically the account now under notice is an eight months' account only. In that time the directors have received 506 insurance proposals, for the sum of £111,452. Of these 410 have been accepted, and policies have been issued for £80,213, producing an annual premium income of £2571. The number of proposals declined has been 28, for £8880; the remainder being still in abeyance. Ten annuities have also been granted for the sum of £199 14*s.* 4*d.* During the same period an agreement with the Emperor Life Office has resulted in the transfer of assurances which originally amounted to £192,866, but which under the terms of the agreement have been reduced to £142,485, for which last-named amount the Whittington has accepted liability. The net premium income of the year was £55,050, and the Assurance Fund at its close amounted to £145,532.

THE PATHOLOGY OF INEBRIETY.

THE annual meeting of the Society for the Study and Cure of Inebriety was held on the 29th ult. in the rooms of the Medical Society of London, Dr. Norman Kerr in the chair.

The President took for the subject of his address "The Pathology of Inebriety." The study was important, yet difficult; difficult because some diseases, such as certain forms of insanity, left no post-mortem traces. In the disease inebriety there was either structural degradation or functional disturbance, or both. There was a prior morbid state before the outbreak. Every sensation had a physical antecedent or coincident, normal in health, abnormal in disease. Dr. Kerr classed drinkers as (1) voluntary and (2) involuntary. Moderate drinkers belonged to the former as a rule. The latter comprised inebriates from heredity, traumatic inebriates, and inebriates from the direct or indirect effects of disease. Involuntary drinking was abnormal with a pathological antecedent. The transition from moderate to immoderate drinking was often a pathological process. The pathological antecedent might be exaltation or depression, or some other undefined morbid state. There was depression, for example, after exhausting hæmorrhage and in the crises of neurotics. Besides the pathology of the inebriate pre-paroxysmal physical antecedent, there was the pathology of the inebriate diathesis. Even in many cases of evanescent inebriety there was a diseased condition. The majority of drinkers did not respond to excitation to inebriate excess because they had no inebriate diathesis. Those who did so respond possessed this diathesis. The inebriate diathesis consisted in a deficient brain and nerve tonicity. The brain and higher nerve centres were the seat of inhibition, which power was affected by the physical state of brain and nerve; a brain imperfectly or improperly nourished heavily handicapped the power of control. This defective tonicity might be (1) inherited or (2) acquired, as also might special susceptibility to narcotics. The alcoholic was the most delicate transmitted narcotic susceptibility. The inebriate diathesis might be (*a*) latent or (*b*) developed. Alcohol was an effectual weakener of control, and specially injured brain and nerve cell, thereby being hurtful to intellect, thought, and *morale*. The pathological action on brain and nerve was often accompanied by other bodily pathological changes. Abnormal nutrition initiated these pathological alterations. By a pathological process alcohol begat inebriety. After a fatal paroxysm the post-mortem appearances were hyperæmic, involving specially the stomach, cerebrum, and meninges. Sometimes this extended to the liver, kidneys, heart, and respiratory organs. In old-standing cases these lesions were more serious, with neuroglian proliferation and tortuous atheromatous vessels. Dr. Kerr concluded by pointing out that in many cases where there were no special post-mortem appearances, there had been dynamical and psychical brain disturbances, constituting a true departure from sound health. Only by a recognition of its disease-aspect could inebriety be intelligently treated with a fair prospect of cure.

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THE LANCET.

LONDON: SATURDAY, APRIL 16, 1887.

THERE is a great tendency in the mind of everyone to magnify the importance of the work in which he is engaged, and to seek better methods or further powers for its execution. It is by such efforts that improvement is made, for by constant perseverance the worker succeeds in carrying with him the greater number who know or care little about the subject matter which their more enthusiastic fellow-citizen has taken in hand. We can, therefore, fully sympathise with a desire to see perfection attained, and certainly no one who has any experience of the ill-health which can be produced by ill-constructed houses will hesitate to welcome any well-directed effort made to bring about the changes which increasing knowledge has shown to be necessary, and especially when evils are being perpetuated more on account of the want of appreciation of that knowledge at its proper value than for any other reason. When, however, it is proposed to embody in compulsory legislation for the many the principles which have been accepted by the few, it is time to consider how far the proposal is calculated to effect improvement, and whether the cost and the means to be adopted for this improvement are such as to meet with general approval.

Two Bills have during this session been brought before Parliament relating to the drainage of houses and public buildings. It is not at first obvious why other parts of house-construction, which certainly are as intimately associated with health, are not deemed worthy of similar treatment; but as matter of fact they are omitted from consideration. The reason for drainage being held to be of such pre-eminent importance is probably due to the circumstance that a large number of people are now employed in the reconstruction of house drains and their fittings while as yet no such attention has been devoted to the other conditions to which we refer. As a result, the use of the word "sanitary" is being limited, very improperly, to matters which relate to drains, and we not only hear of sanitary surveyors as a class of persons who devote their attention especially to drainage, but we have a Sanitation of Houses Bill dealing solely with this subject. The authors of this Bill are evidently dissatisfied with the manner in which house drainage is constructed in the metropolis, and feel there is little hope of improvement from the local authorities, who have since 1855 very generally neglected to exercise in the best way the powers with which from that year they have been endowed, they therefore propose to constitute an entirely new authority to take over the duties which have remained unfulfilled. The Bill unfortunately, in its inception departs from those principles which are the foundation of all modern legislation, and therefore has small prospect of becoming embodied in the Statute-book. However right may be the views held by certain professional associations, it is not probable that the Legislature will empower them, as the Bill provides, to elect the members of an authority authorised to enforce these views upon all London house-owners. The proposal to place all houses under the control of a dozen men elected in this manner is, indeed, evidently the suggestion of amateurs.

The second Bill is more modest in its ambition, inasmuch as it proposes to limit itself to dealing with buildings of a quasi-public character, such as schools, hospitals, hotels, and lodging-houses, but the area of its jurisdiction is to be wider and is to extend to all towns of 2000 inhabitants and upwards. The Local Government Board are to be an authority for the issue of licences in sanitary practice to certain persons and corporations, and for the most part are to grant these upon the certificates of a governing body to be elected in the same manner as in the other Bill. Existing local authorities are under this Sanitary Registration Bill to be permitted to have some share in this comprehensive work, for they are to open a register for all buildings which receive certificates from the licentiates, and are to prosecute the owners, lessees, and occupiers of those buildings which have not received this evidence of the perfection of their drainage. But this certificate is not to remain in force for more than five years, and the same process will therefore be repeated at the end of this period.

There is much to be said in favour of the principles of drainage which are embodied in these measures. Speaking generally, they are those recognised in the model bye-laws of the Local Government Board. When, however, it is recollected that under the Metropolis Local Management Act and the Public Health Act there is already ample machinery for bringing about, both in the metropolis and in the provinces, the ends which the promoters of these measures have in view, it may well be asked, What is the need for further legislation? The answer is doubtless to be found in the fact that the local authorities have to a considerable extent neglected to exercise these powers. This accusation is, we believe, well founded, but the remedy suggested is impossible. What is possible, however, is for the supporters of these Bills to influence the authorities, and by joining them and taking share in their proceedings they would inevitably bring about the more effectual local supervision which is required. Nor need their influence be limited to drainage alone; there are other important questions of local government not less seriously neglected, and the best results would follow if skilled members of the professional classes thus made their special knowledge a guiding power in matters which closely concern the health and prosperity of communities.

THE subject selected for treatment by the Croonian lecturer of this year is one of abiding interest; and he deserves thanks for doing much to widen and deepen that interest. The study of the pulse and its indications is, indeed, as ancient as the medical art itself; and one has only to turn to the writings of HIPPOCRATES to learn how closely and how accurately its variations were observed, with much remarkable result in prognosis and treatment. For, however faulty may have been the ideas concerning the nature of the pulse that have prevailed from the days of HIPPOCRATES almost until now, no one can venture to dispute the accuracy of observations and the sagacity in clinical interpretation that

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have gathered around this subject. With the rise and progress of physiology there seemed to be a fear lest we should set at nought the old teachings and neglect too much the time-honoured practice of feeling the pulse. Nor was it without reason that the lament arose that the rising generations of practitioners were neglecting the old ways, and relying more upon instrumental aids than on the *tactus eruditus*. To feel the pulse was in danger of becoming a merely ceremonial act; and the reading of the sphygmographic tracing was held of greater import than the reading of the lessons of the finger. Not that we believe this lament to have been ever justified, or that mechanical apparatus, however cunningly devised, can equal in delicacy the educated tactile sense. There was never any real danger of converting our clinical records into a series of observations in which the observer only played the part of a skilled mechanic. Yet it is well to be reminded that the pulse is to be read with greater accuracy and certainty by the old method than by the use of the instrument which we owe to the genius of MAREY. The sphygmograph has done a great deal to interpret the significance of the pulse, and advance our knowledge of the circulation in health and disease; but as a means of clinical observation, as an aid in diagnosis, its place is necessarily subordinate to the older practice. This Dr. BROADBENT did well to state, and also to dismiss, once and for all, the pretensions to a precision which the sphygmograph cannot claim. No doubt much of the attraction that the study of the pulse had for our fathers lay in the mystery that invested it; and the care with which they separated its varieties, and allied them to differences in temperament and habit, as well as employed them in prognosis and diagnosis, was more or less influenced by the superstitious reverence in which it was held. Nor did the discovery of the circulation, the starting-point of physiology as a science, go far to dispel the glamour that invested the subject, and the true nature of the pulse remained more or less concealed. Dr. BROADBENT, therefore, did well at the outset to clear the matter of its surrounding misconceptions by laying stress on the fact that the pulse felt by the finger as it depresses the artery against a resisting surface is the sign of the momentary heightening of the blood pressure due to the impact of the ventricular systole. It cannot of course be denied that the vessel is distended at the moment of its receiving this impact; but it is not dilated. It is not in healthy conditions disturbed from its bed. Nor does it indicate the actual movement of the blood column. It is a physiological truism that the rate of the (so-called) pulse wave is wholly different from the rate of the blood current; whilst if the current be checked the pulse grows in vigour. The pulse, then, thus simply interpreted, gives information mainly upon one of the chief factors in the circulation; it indicates changes in the degree and duration of arterial blood pressure, besides informing us of the rate of the cardiac contractions, which are also often dependent upon changes in that pressure. By observation of the pulse we determine the condition of the circulation; we infer from its indications the character of the circulation in the periphery, as well as the vigour of the heart; we can learn the condition of the arterial system; and, finally, base upon physiological grounds the evidences of derangement in the circulation thus derived.

No more can be claimed for the pulse than that it is the best index we have of the condition of the circulation in the human subject, and the more the sense of touch is educated to detect the variations in the pulse, the more accurate will be our perception of this condition. The Croonian lectures have introduced us to this subject, with ample illustrations drawn from a wide clinical experience; and yet, if they have done good service in directing attention to the relations between conditions of circulation and disease, they have equally left open many paths for further exploration. Dr. BROADBENT has no hesitation in dispelling a delusion which is as old as the art of feeling the pulse. He declares that he has been unable to associate any condition of pulse, as regards low or high tension, with any special vigour of body or mind or any peculiarities of temperament. Persons with a pulse of low tension may perhaps, he tells us, be longer lived; they may not wear out so rapidly; but, if better able to endure the stress of life, they are less capable of withstanding the onset of acute disease. In the presence of such considerations and of individual differences, it would, then, seem to be hopeless to create a criterion or a standard of health from the condition of the circulation alone, in spite of all *a priori* notions to the contrary. When, then, we learn, as in the very interesting lecture that closed the series, that certain nervous derangements—notably insomnia, convulsions, and melancholia—are referable to circulatory disorder, we may fain ask whether this latter is sufficient by itself to produce these effects. As regards insomnia, the evidence adduced by Dr. BROADBENT would seem to be all-sufficient, and his very practical suggestions upon the different forms of insomnia associated with pulses of high and low tension respectively will be appreciated. As to convulsions, and their assumed induction from changes in the intra-cranial pressure due to changes in arterial pressure, it requires something more than the latter to account for the phenomenon. We admit the strength of the evidence adduced in support, especially that afforded by the arrest of the convulsions on reducing the blood pressure by bleeding; but the circulatory condition is one so common, apart from these nerve symptoms, that we must assume superadded instability of nerve tissue in all such cases, whether uræmic or otherwise. The same applies to the argument respecting melancholia, by which we gather that Dr. BROADBENT would infer that the long continuance of heightened blood tension leading to vascular changes will ultimately affect the nutrition of the brain and degrade its tissue. That calomel should purge the soul of melancholy is an interesting, if ancient, fact; but that the whole of its explanation lies in the reduction of the arterial tension, or that changes in the arterial tension are alone adequate to explain the cerebral state, are subjects which may well be further investigated. This is but one instance of the points raised in these lectures. We must refer to the text for the careful expositions, with a wealth of clinical illustration, of the variations in the pulse; the conditions of low tension and high tension, and their significance; the bigeminal pulse, and its relation to the infrequent pulse, in which only one out of every two cardiac beats succeeds in reaching the wrist; the conditions of irregularity and intermittence, of dicrotism and of abnormal frequency, especially some remarkable neurotic conditions described.

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These topics were dealt with in a manner which is sure to attract attention, and cannot fail to render great service to clinical medicine by enforcing greater precision in observation and supplying fresh material for thought.

THE excellent abstracts of English and foreign chemical research which appear every month in the Journal of the Chemical Society of London render it an easy task to trace the progress which physiological chemistry is making. Nothing very remarkable has appeared for some time, but there is a constant influx of new and careful observations, valuable in themselves, and still more valuable as supplying material for new generalisations. England's share in the work is unfortunately but small. We have a few good workers, but Germany beats all other nations put together in her industry in this branch of inquiry. We cannot pretend to summarise all the discoveries of the last few months, but a short account of a few will be interesting to those who have not time to read the journals in which they have appeared.

J. SEEGEN, in *Pflüger's Archiv*, has contributed some interesting experiments on the relations of sugar in the organism. Confirming and extending his previous observations, he finds that with any diet and even during inanition the liver forms sugar, probably from peptone. The quantity of sugar is doubled during the passage of blood through the liver. In a dog weighing 10 kilogrammes the quantity of sugar formed in twenty-four hours was not less than 200 grammes. With an almost exclusively fat diet this quantity continued, and as the quantity of nitrogen excreted was only 15 grammes the sugar could not have been due to the decomposition of proteïds. In a second paper the author shows that the liver is capable of converting not only fat, but each of the proximate constituents of fat, the fatty acids and glycerine, into sugar. This is very important indeed. In the same number which records the last observation F. RÖHMANN states that ammonia, as well as its derivatives asparagine and glycocol, increase remarkably the quantity of glycogen formed in the liver. The true relation of glycogen to sugar in the liver seems still a little uncertain. Is glycogen always formed first, and is the sugar found in hepatic blood formed by the continual metamorphosis of glycogen? That seems the most probable view. SEEGEN, on the other hand, from experiments on the action of defibrinated blood and peptone on fresh liver, concludes that sugar is formed directly from fat and from albumen, but not from glycogen. In that case what becomes of the glycogen? Some interesting researches on the subject—which, however, do not appear final—were contributed to a recent number of the *Comptes Rendus* by CHAUVEAU and KAUFMANN. They confirm the statement that glycogen accumulates in the muscles during rest, but diminishes during motion. It will be remembered that, on the other hand, lactic acid increases during exercise. Glycogen, according to the last-named observer, is a storehouse of energy available at any minute for increased work.

Some interesting studies of the ptomaines, so important from the toxicological point of view, have lately been made. One of great practical value appeared in our present volume. Mr. FIRTH (THE LANCET, 1887, vol. i., p. 213), tracing the origin of an epidemic of purging and vomiting among soldiers in the Punjaub, obtained from some suspected milk which had been kept in foul pans a crystalline substance of unpleasant odour and taste which communicated similar symptoms to men and dogs. Pure milk after standing for two months yielded the same substance. In the *Chemisches Centralblatt* of last year (p. 647) appeared a paper by C. GRAM, in which some light is afforded in regard to the difficult question why some of the so-called ptomaines are poisonous while others are not. Ptomaines were obtained from putrid meat easily enough, and proved inert. But when the hydrochlorates and lactates of these bases were exposed to heat, the former remained inert, while the latter developed distinctly poisonous properties. This seems to illustrate the ready formation of poisonous ptomaines from milk. The author then proceeded to test the theory which has been started—that the active poison of ptomaine is isocholine or neurine, the isomeric variety of choline. By heating the lactate of choline, itself inert he obtained a poisonous substance similar, at any rate to a poisonous ptomaine, and possessing the peculiar odour of muscarine, which is oxy-choline. BRIEGER (*Berichte* 19, p. 3119) describes a volatile alkaloid forming crystallisable salts, and having the formula $C_5H_{11}N$, which he obtained from beef extract in which Rosenbach's microbe had been cultivated. It is monobasic.

Of interest in another direction is an hypothesis on the origin of the free hydrochloric acid of the gastric juice propounded by LANDWEHR (*Chem. Cent.*, 1886, p. 484). It is well known that common salt is decomposed by free lactic acid. This takes place even in cold solutions, as may be shown by the addition of common salt to a solution of lactic acid coloured by methyl-violet. According to LANDWEHR, who has worked on the subject in conjunction with FICK, lactic acid is formed by fermentation from the mucus of the stomach, and, acting on alkaline chlorides, liberates hydrochloric acid, which in its turn acts on the albuminoids, combining with them. As peptonisation goes on, the hydrochloric acid is liberated, while the lactate of sodium is assimilated.

Another valuable research is that of R. KULZ on the gases of parotid saliva, which was published in PETTENKOFER and VOIT's *Zeitschrift für Biologie*, pp. 23–321. Dr. HALLIBURTON's able synopsis is only a little too long to be quoted entire, and we wish we could reprint it. Saliva was drawn by a cannula from Stenson's duct, and was collected over mercury. One hundred cubic centimetres gave 7 cc. of gas, of which 1 cc. was oxygen, 2·5 cc. nitrogen, and 3·5 cc. carbonic acid. Phosphoric acid caused the evolution of from 40 cc. to 60 cc. of carbonic acid present as carbonates in the saliva. It is noteworthy that the oxygen and nitrogen are higher than in blood-serum. The uniform alkalinity is due to the carbonates, and it is found that the secretion of gastric juice, which produces great variations in the acidity of the urine, even in some cases rendering it alkaline, does not affect the saliva. This is shown by direct filtration, and also by the estimation of combined carbonic acid.

Space forbids us to speak of some other recent contributions to physiological knowledge, but a word must be spared for H. STERN's paper on the origin of the bile colouring matters (*Chem. Cent.*, 1886, p. 481). The experiments were made in two

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series, in one of which the bile ducts were ligatured, and in the other the liver was thrown entirely out of the circulation. In neither case did blood, urine, or tissues show any trace of bile pigments, and the author concludes that these substances originate entirely in the liver itself.

AN influential party in the State has commenced an agitation as to the quality, or, as they put it, the purity, of the great national beverage, beer. It is alleged that beer is adulterated, not only in obvious defiance of the law by publicans, but also with the sanction or connivance of the law by many brewers. Beer, say the complainants, is a beverage made from malt, hops, yeast, and water. Anything else used in the manufacture is an adulteration, and is not only a fraud on the purchaser, who thinks he is buying malt-and-hop beer, but is also a possible and even probable injury to his health. These are serious allegations, and require most careful consideration. We will state our view of the case impartially, and shall at any rate be acquitted of sympathy with the baneful work of the adulterator.

First in the order of study comes the all-important question, What is beer? And the answer is by no means so easy as might be supposed. Beer, like wine, is of extreme and unknown antiquity. It was made by the Egyptians from barley, probably, as Herodotus asserts, because the vine did not flourish in Egypt. In some parts of Europe it took the place at a very early period of the mead made from honey which maddened the brains of more northern races. As far as malt goes, the definition of beer appears, therefore, at first glance simple enough. Taking our stand on ancient history, we may say that it is a liquid obtained by the fermentation of malt, or rather of the sweet wort obtained by the diastasic conversion of the starch of barley. But in the fermentation by which the alcoholic beverage known as beer is finally produced, the chief chemical change is the conversion of sugar into alcohol and carbonic acid; and other kinds of sugar besides the sugar of malt, now known as maltose and recognised as a distinct compound, are capable of yielding alcohol and carbonic acid by fermentation. For many years past the law has, rightly or wrongly, permitted the use of sugar in brewing, and it is very extensively employed at the present time. We have, therefore, in this as in all other cases of alleged adulteration, to inquire first, and above all, whether such a modification of the old brewing process is detrimental to health, and, secondly, whether it can be considered as a fraud upon the purchaser. We are unable to answer either of these questions in the affirmative. It has, indeed, been asserted that the products obtained in the fermentation of artificial glucose are cruder and more noxious than those derived from a natural sugar, such as the glucose of grapes or the maltose of wort. But, as far as we know, no definite proof of this assertion has been produced, and until it is forthcoming the assertion itself must be dismissed. The question of fraud is less simple, but the answer appears to us to be equally inevitable. If the Excise permit the use of any innocuous saccharine fluid in brewing, the public are thereby made aware of the fact. The demand for the beer so made will depend on its quality and its price, and on both these points the public are competent judges. The price will evidently be determined ultimately by the ordinary laws of competition. To put an extreme case, suppose that beer equal in quality to that supplied by the best-known brewers could be made for half the present cost, it cannot be doubted that those great firms would soon find themselves suffering from a competition which, although unpleasant for them, would be advantageous to the beer-loving public. If the cheap beer were inferior to that of the well-known makers, there would be, as there are now, plenty of people willing to give the higher price for the better article. But to prohibit the sale of cheap beer, unless on the ground that it was unwholesome, would be as absurd as to prohibit cheap claret or cheap tea. Of course, if the brewer or the publican sold such beer as made from malt and hops only, or, worse still, as that of well-known manufacturers, he would commit a fraud, as he would if he sold *vin ordinaire* as some celebrated vintage. But if he sells a pint of beer or a bottle of claret without further description, he commits no fraud. If the purchaser does not like it, he will go elsewhere, and the vendor will lose his customer and in time his trade.

The case of hops is still simpler. The hop-resin is a wholesome tonic bitter, but its use in brewing is, compared with the manufacture itself, quite a modern innovation. Nowadays we think it an improvement, as some may do a dash of chicory in coffee. The beer of to-day, even when made from malt and hops only, is a very different thing from the beer which washed down the breakfasts of our forefathers. Now and then in an old-fashioned inn we still meet with the "hard" or fully fermented ale which was formerly so much prized, but to most modern palates it is unpleasant. Surely no one would pretend that the brewer who left out hops altogether did not brew beer. The experience of thousands of years would contradict him. But the taste of the present time demands a bitter, and provided that the bitter be wholesome we do not see that it matters much which is used. If the brewer uses picric acid or strychnine or any other noxious substance, we have nothing but detestation for him—down with him by all means, and as soon as possible. But if he selects a perfectly harmless bitter, he has, we submit, a perfect right to do so. The beer will perhaps be nasty, but in that case the public will be no more willing to drink it than they would a decoction of senna. We have tasted beer made, we were told, without either malt or hops. It was interesting as an example of applied chemistry, but we experienced no desire to repeat the experiment.

The fact is, the cry about pure beer is but the despairing wail of the unfortunate agriculturists, for whom in their bad times everyone feels the deepest sympathy, but for whose misfortunes it is hard to find any remedy that would not be worse for the community than the disease. Simultaneously with the beer agitation, and illustrative of it, is the cry for an import duty on hops. It is not for us to discuss the vexed question of free trade *versus* protection, but it is obvious that hop-growers are not the only persons who suffer from free importation, and that if they were relieved by an import duty it is difficult to see where we could stop.

DR. BRUNTON has fulfilled the promise made in our columns that in the preface to the third edition of his well-known

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work, "Pharmacology, Therapeutics, and Materia Medica," he would express his opinion regarding homœopathy in reply to the charge that he had taken many of his principal drugs from the Homœopathic Materia Medica, as well as the indications for their use. It is a favourite delusion of those who hold peculiar views that all other people's best ideas have their germ in what they think their peculiar property. The homœopaths have this delusion to a happy extent, and cultivate it diligently in their writings, though in their practice nowadays they are as little hindered as other practitioners by any exclusive principles or dogmas. Our simple object, however, just now is to give our readers the benefit of Dr. BRUNTON'S views on homœopathy as a system. First, and most pleasantly, let us record his admissions of the service it has done, though similar admissions have been made before. Dr. BRUNTON says the system which HAHNEMANN founded has done great service by teaching the curative power of unaided nature, the use of diet and regimen in treating disease, and the more than inutility—the actual hurtfulness—of powerful drugs in many instances. Dr. BRUNTON shows how homœopaths are led to be anxious about diet. "If," says he, "a patient was being treated with *carbo vegetabilis* in the thirtieth dilution, the utmost care was necessary to his diet, for if he happened to eat a single piece of burned toast at breakfast he would consume at one meal as much vegetable charcoal as would, when properly diluted, have served him for medicine during the remainder of his natural life." This is the only passage in which Dr. BRUNTON allows the ridiculous aspect of homœopathy to find full expression. We shall try to practise the same repression which he shows, and deal seriously with the claims of HAHNEMANN and his representatives.

First, Dr. BRUNTON very lucidly states what homœopathy is *not*; and, secondly, as lucidly states the very essence of the doctrine. One sentence on page xii. of the preface will give both points:—

"It is not the use of a single drug at a time, of a small dose, of a globule, nor even, as we have already seen, of a drug which may produce symptoms similar to those of the disease, that constitutes homœopathy. The essence of homœopathy as established by HAHNEMANN lies in the infinitesimal dose and the universal application of the rule *similia similibus curantur*."

The ordinary practitioner differs from the homœopathic in being free to use any drug which he knows to be of use in the case, and that in any quantity experience shows to be best. HAHNEMANN'S greatest delusion was that the causes of disease were not material but spiritual, and that medicines must be spiritualised to cope with them. Hence his infinitesimal doses. Fancy any of our best and most certainly remedial agents being used in this way and on this theory. When would ague be cured by quinine, or pemphigus by arsenic, or syphilis by mercury, if the spiritual theory of disease and drugs were adopted? Dr. BRUNTON says that HIPPOCRATES knew that in some instances a drug in small doses will cure a disease exhibiting symptoms similar to those produced by a large dose of the drug; but HIPPOCRATES had the sound sense to see, as some homœopaths have had the sense to see, that this was not a rule of invariable application; therefore not an invariable law, as HAHNEMANN taught.

Dr. BRUNTON deals with the favourite case of cinchona and ague, the action of which drug on the healthy frame, homœopaths are fond of saying, led HAHNEMANN to investigate the action of other drugs, and thus lay the foundation of his system. Dr. BRUNTON shows that, though HAHNEMANN got symptoms of intermittent fever from taking large doses of cinchona, they were probably produced by the irritant action of cinchona on the stomach, which JORG found to be produced by two-drachm doses, half the dose that HAHNEMANN took. He thinks that pork-pie might have had similar consequences, having often seen ague reproduced from heavy dinners and other stomach irritations. We are pretty familiar nowadays with the effects of large doses of quinine, the essential cure of ague, but the production of intermittent fever is certainly not one of them. Our homœopathic friends appear to have been much misled by Dr. BRUNTON'S therapeutical index, which indeed seems a sort of *omnium gatherum* largely done by an amanuensis, and so imperfect that Dr. BRUNTON had nearly left it out of his book altogether. His own description of many of their favourite remedies is very slight, and such as to show no personal belief in their specifics. His estimate of HAHNEMANN will be endorsed by all who with sound minds have gone into the study of his views. This estimate is summed up in one or two sentences: "It seems to me that in founding homœopathy HAHNEMANN has proceeded with his facts as he did with his medicines—diluting his active drugs with inert matter, and diluting his facts with much nonsense." Again: "It is the falsity of the claim which homœopathy makes to be in possession, if not of the universal panacea, at least of the only true rule of practice that makes homœopathy a system of quackery."

If homœopaths rely on Dr. BRUNTON for any countenance of their fundamental doctrines they must be wofully disappointed. He is a leader in a new and active school of therapeutics. He is bound to no master. He seeks help in understanding the use of drugs from a study of their action both in health and disease. He gives HAHNEMANN credit where credit can be given, but this does not prevent his denouncing his system, and pointing out to those who have renounced his errors the supreme duty of frankness.

Annotations.

"Ne quid nimis."

THE REGISTRAR-GENERAL'S ANNUAL SUMMARY.

THE Registrar-General's annual summary of the mortality statistics of London and other large English towns in 1886 has just been issued, and contains no statistical fact of more interest than the proof of the continued low death-rate in the metropolis. The London annual death-rate was equal to 24·4 per 1000 in the ten years 1861-70, and fell to 22·5 in the following decennium 1871-80. During the first six years of the current decennium 1881-90, the mean death-rate further fell to 20·5; the rate in the last two years, 1885 and 1886, having been so unprecedentedly low as 19·8 and 19·9. It is worthy of note that the birth-rate in London in recent years has also shown a very considerable decline. In the nine years 1872-80 the range in the birth-rate was only between 35·9 and 35·3; while since 1880 the rate has steadily fallen year by year to 32·3 in 1886. The decline in the birth-rate in recent years has not been confined to London, or even to England; but having regard to

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the long-continued commercial depression, which must have affected the growth of towns, it is only reasonable to bear in mind the possibility that the population of London may not have grown since 1881 at the same rate that prevailed between 1871 and 1881. If this has been the case, the Registrar-General's estimate of the London population is too high, and consequently the calculated birth- and death-rates in nine years have been somewhat understated. Allowing for such possible understatement, however, the London death-rate in 1885 and 1886 was, beyond a doubt, unprecedentedly low. Corrected by the distribution of deaths in institutions, the death-rates last year in the five groups of registration districts were 17·7 in the west, 18·0 in the north, 19·2 in the south, 22·5 in the east, and 25·9 in the central; thus, in equal numbers living, mortality in the central group of districts was as 146 to 100 in the west districts. It may be desirable to point out that these central districts of London, where the high death-rates of former days still linger, include St. Giles's, St. Martin's-in-the-Fields, Strand, Holborn, Clerkenwell, St. Luke's and the City. On account, it may be presumed, of the difficulty of estimating the present local population, the Registrar-General does not publish rates of mortality for the individual sanitary areas, which would certainly show a wider range than do the rates in the five groups of districts. The rates of infant mortality (that is, the proportions of deaths under one year to registered births) in the sanitary areas ranged in 1886 from 121 in Plumstead, 130 in Lewisham, and 131 in Hampstead, to 199 in St. Martin's-in-the-fields, 202 in Stepney, 210 in Holborn, and 219 in the Strand. Marked, therefore, as has been the decline in the London death-rate in recent years, the excess of mortality in the central districts, whether measured by the death-rate at all ages or of infants, points conclusively to the possibility of still farther reduction.

DR. WITHERS MOORE AND THE BRIGHTON MEETING OF THE ASSOCIATION.

ALL of us remember the successful meeting of the British Medical Association at Brighton last year, and most of us will agree that not a little of the success and pleasantness of it was due to Dr. Withers Moore, whose able address supplied material for articles in the press for a week after. It is no slight testimony to Dr. Withers Moore, and to the liberality of the profession at Brighton, that, after paying the expenses of the Association meeting, a good balance was left, and was appropriated by the subscribers to the purchase of a very handsome solid silver candelabrum, which has been presented in their name by Mr. Edward Turner. The candelabrum bears the following inscription:—"Presented to W. Withers Moore, M.D., F.R.C.P., by his professional brethren, as a testimony of their regard and in recognition of his courtesy and success in discharging the duties of President of the British Medical Association during their recent visit to Brighton in the year 1886." We heartily congratulate Dr. Moore on so graceful and well-earned a tribute from his neighbours, and hope that he may long be spared to use it.

THE PRACTICAL VALUE OF THE GONOCOCCUS.

IN a paper contributed to the *Journal of Cutaneous and Genito-urinary Diseases* (March, 1887), Dr. Charles W. Allen discusses the subject of the specific micro-organism of gonorrhœa, and arrives at favourable conclusions respecting the importance and practical value of Neisser's discovery. Dr. Allen has repeatedly confirmed the observation that the gonococcus is present within the gonorrhœal pus, and even in the watery and mucous discharges of chronic gleet. The detection of the oval cocci within the pus cells is sufficient for diagnosis, the separation of the gonococcus from other bacteria being based on the fact that this microbe, after staining by Gram's method, can be at once decolourised by absolute alcohol, all other organisms remaining visibly stained. The practical value of the discovery is shown in the diagnosis of gonorrhœa in the female, and the determination of the infective character of a discharge at a long period after contagion. Evidence is given where gonorrhœa has remained long latent; and, when called into activity by excesses, has on examination proved still to retain the specific organism. The bearing of this on ophthalmia, neonatorum and on uterine disease is of great importance; and Dr. Allen goes so far as to maintain the value of the test in medico-legal practice. Of course, as he remarks, "great care would have to be exercised to include all possible sources of accidental contamination." We have not yet had recourse to the evidence of a bacteriologist in a court of law, and the belief in the pathognomonic character of the gonococcus will have to be very deeply implanted before we shall rely on such evidence. It is interesting to read the stains on linen have been determined to be gonorrhœal from the detection of the gonococcus. The proof that the gonococcus is the *materies morbi* of gonorrhœa still awaits full confirmation, inoculation experiments having mostly failed; but Dr. Allen refers to successful inoculations by Bumm of cultures, the seat of inoculation being the female urethra. In one case he used the twentieth generation of a pure culture in human blood serum, and induced a typical gonorrhœal discharge, which took five weeks to cure! As regards treatment, the discovery of the gonococcus has not apparently led to any methods superior to those already in vogue, although the use of injections of germicidal solution, as bichloride of mercury, carbolic acid, &c., has perhaps been supported. The difficulty lies in the want of thorough application of the anti-parasitic agent.

THE "DOCTOR."

THE life of the practitioner of medicine can hardly fail to be an eventful one. Apparently free from sensation, and visited not often by opportunities of high distinction, it would be superfluous to say how it abounds in occasions of fruitful effort, how little there is in it which is really little, and how freely it taxes the best energies of those who devote themselves to it. It has been truly said by some who have recently written on this subject that such observations apply most fitly to the life work of the general practitioner. The "doctor," as he is familiarly styled, without too special reference to degrees or qualifications, is a man to whom belong responsibilities the more varied that they are not solely professional, and he had therefore need to be, and commonly is, as truly human in sense and sympathy as he is well trained in the proper duties of his calling. He may be regarded as the most typical representative of his profession. There is in his case no concentration of energy on the treatment of a special illness or group of illnesses. Disease in general is the object of his attack. The whole man he takes to be his specialty, the relief of his bodily needs a large but limited field for his exertions, and he endeavours therefore, without presumption and without denying the special aptitude of pioneers in new methods of treatment, to do his duty as a healer even in so large a field. The personal qualities which befit a man so usefully ambitious had need to be as various as the ever-changing conditions of his daily life. Painstaking, with a care engendered, or at least fostered, by the discipline of student life, and maintained afterwards by a constant need of observation, endowed with a readiness which is the product of actual practice and the confidence that comes of sound instruction, he must, moreover, learn daily the great lesson of self-denial, also how to combine with a shrewd and true

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understanding of human nature a sympathy no less just and real with human feeling. We have spoken of non-professional duties as now and then devolving on practitioners, and what member of the profession cannot recall occasions when he has been applied to as an adviser in matters of importance wholly foreign to his province as a medical man? At such times, as inevitable as they are undesired, a judicious mind and a careful tongue are far more to their owner than an accurate knowledge of medicine. It is the possession of these and similar elements of character, as much as technical training, which have earned for family practitioners that reputation for wisdom and integrity which we would in no boastful spirit acknowledge as an honour conferred on the profession as a whole.

INFECTION AND DISINFECTION.

IT has often been pointed out in our columns, as elsewhere, that deodorisation is one thing and disinfection another. The destruction of bad smells by no means involves the destruction of "infective agencies," but the destruction of bad smells is also an important work, and one which every disinfectant intended for general use ought to accomplish. Carbolic acid is defective in this respect, for although a good disinfectant, it does not deodorise, and simply adds its own disagreeable smell to those which existed before. Chlorine, metallic chlorides—such as the chlorides of zinc, mercury, and lead—sulphurous acid, and the alkaline permanganates are far more effectual in this respect, and each possesses in a greater or less degree the power of disinfection. Whilst the "saucer" treatment of sick-rooms with a little Condy's fluid or chloride of lime may well be distrusted, the laudation of such means as the use of euchlorine (a mixture of chlorine and chlorine peroxide) and bromine as aerial disinfectants cannot be commended. Sulphurous acid is sometimes underrated. As gas it is just as unsuitable in the presence of patients as bromine or euchlorine, but in dilute solution it is very active. Complete disinfection of an infected atmosphere in the presence of patients is impossible, but partial disinfection is easy, and the complete disinfection of wearing apparel, bedding, &c., by the prolonged use of weak solutions of metallic chlorides, sulphurous acid, and the like, can be readily effected without the slightest injury to the fabrics.

MEDICAL ATTENDANCE ON THE POOR.

A PAPER, reprinted in pamphlet form, by Dr. F. H. Alderson, on "Medical Attendance on the Poor, not Paupers," brings out many points which it is desirable to keep in view at this moment, when a committee is trying to put attendance on the poor on a satisfactory footing. Dr. Alderson clearly appreciates what we have been trying to show for years, that the provident dispensary system so far has not been a success, either as regards the people or the profession, and that many so-called provident dispensaries are worked by unqualified assistants, and are practically a fraud on the patients. The only cure, however, he sees is in the establishment of dispensaries of an improved type that will attract to their staff good, competent, and popular medical men, at rates that shall be fairly remunerative. Dr. Alderson thinks that at present such institutions cannot be entirely self-supporting, but must have a charitable element. He objects to patients being received in actual sickness, on a ready-money payment, thinking this destructive of the principle of providence or forethought. To meet the difficulty he would allow a certain number of free letters to be used by subscribers in favour of the sick, on the understanding that the latter are to join as soon as they are well. This seems to us as dangerous to the provident system as the principle of admission on special payment, which has been actually adopted by the committee now sitting. One feature of Dr. Alderson's views is the suggestion of a graduated scale of payments ranging from 6s. to 30s. for single persons per year, or 30s. to £6 a year for families. He very properly urges that the payments for children should not be less than threepence per month, as they are most prone to illness and give most trouble. If a friendly system of co-operation between the hospitals and dispensaries could be arranged, it would be good for both. The hospitals would have the dispensaries as a clinical field for the study of common diseases, and the dispensaries would have the right of recommending fit cases to the hospitals, or asking for a consultation with the hospital staff, if necessary. We do not know whether Dr. Alderson is quite right in saying that the classes whose benefit is sought by the committee over which Sir Spencer Wells presides so ably are only the poor, not the industrial classes.

PERINEAL RUPTURES IN THE BRUSSELS MATERNITY.

IN Professor Kufferath's maternity department in Brussels the smallest lacerations of the perineum are sutured immediately. During the year 1886 sixty cases of laceration occurred, varying in extent from one centimetre to four centimetres, the sphincter not being involved in any case. These were mostly operated on by students, with the result that complete primary union was obtained in fifty-one cases, and incomplete union in five more, while in four cases the operation was entirely unsuccessful. The method adopted is as follows. The patient is placed in the (dorsal) obstetrical position, the thighs being separated by assistants. The vagina is washed out by a copious antiseptic injection, and the vulva and perineum scrupulously cleansed, any dead parts being cut away from the torn surfaces. A plug of charpie impregnated with corrosive sublimate is introduced into the vagina, so as to prevent the flow of blood inconveniencing the operator. The left lip of the wound is seized between the thumb and index finger of the left hand, and the needle, which has, together with the silver wire attached to it, been previously disinfected, passed into the skin half a centimetre from the torn edge. When it has reached the bottom of the wound, its direction is changed and it is passed through the opposite lip, its point emerging at a spot corresponding exactly with that at which it was first introduced. Any hæmorrhage produced by the introduction of the needle is removed by charpie impregnated with corrosive sublimate, and the wire is not tied until this has been done. The first suture is placed at the most posterior part of the wound, and the rest near together, one after another, till the fourchette is reached. If necessary, some superficial sutures are added. In this way the edges are retained in close juxtaposition, a condition indispensable for preventing the accumulation of blood and the lochia in the deep parts of the wound, otherwise union cannot take place. The wound is dressed with iodoform, the legs being left quite free. Antiseptic vaginal injections are given twice daily, followed by renewals of the iodoform dressing. On the sixth or seventh day the sutures are removed, the patient being placed for the purpose in the lateral position. Dr. Tournay, who communicates these particulars to *La Clinique*, believes that when the operation as described is properly performed, it is, or ought to be, invariably completely successful, as indeed it always has been in his own hands, whether in the clinic where he is assistant or in private practice. It will be observed that he does not introduce the finger into the rectum, or pass the needle so as to make the entire circuit of the wound, and that he omits all reference to the use of the catheter after the operations, matters which are considered by many writers indispensable to the perfect healing of perineal ruptures.

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THE FRENCH ENTRANCE EXAMINATIONS FOR MEDICAL STUDENTS.

M. LORTET, dean of the Medical Faculty of Lyons, has just presented a report to the Council of the Faculty on the subject of the entrance examination required in France from all medical students intending to proceed to the Doctorate This consists of the Baccalauréat ès Lettres and the Baccalauréat ès Sciences modified with regard to the mathematics. M. Lortet appears to have no fault to find with the first of these examinations; but as to the second, or modified B.Sc., he says that men come up as a rule very badly prepared, some of them getting plucked five or six times, and those who do pass doing so with a minimum of marks. Again, the science which the candidates have learned is of but little real use to them, as they have to attend the chemical and other scientific courses afterwards, the medical faculty not considering the courses in the Lycées nearly good enough. It would, in the opinion of M. Lortet, and apparently in that of most of the medical faculties of France, be quite sufficient to insist upon the possession of the Baccalauréat ès Lettres only for medical students leaving them to learn their science once for all at their medical school. A year would in this way be gained. The Lyons examiners would appear to be particularly and increasingly severe, and to have frightened away most of the candidates to other faculties where more merciful boards are to be found, the result being that the Lyons School is suffering from a certain amount of competition downwards. The number of candidates for the modified baccalauréat in Lyons in 1877 was 94, of whom 29 passed; this number has been rapidly decreasing, being 15 in 1885, of whom 4 passed, and 12 in 1886, of whom none passed. Several other medical schools of certainly not superior note to that of Lyons admitted in 1885 a much larger number—e.g., Bordeaux admitted 50; Dijon, 29; and Toulouse, 67. M. Lortet concludes his report by urging the Faculty to transmit to the Minister of Public Instruction a request that the modified Baccalauréat ès Sciences may be dispensed with altogether.

THE EFFECT OF HYDROCHINONE ON URINE AND UREA.

DR. ANTAÏFF, working in Professor Sushchinski's pharmacological laboratory, has recently investigated the effect of the presence of hydrochinone on the alkaline fermentation of urine and on urea itself. Hydrochinone is represented by the formula $C_6H_4(HO)_2$—being, in fact, benzole in which two atoms of H are replaced by hydroxyl; it is isomeric with paracatechine and with resorcine. Mering found it in the urine after arbutine had been given, and Baumann and Presse in that of persons who were taking carbolic acid. Dr. Antaëff found that when 2 per cent. of hydrochinone was added to fresh urine the latter remained entirely free from alkaline fermentation. After twenty-five days no cloudiness or precipitate had formed, there was no ammoniacal odour, the smell being just like that of fresh urine; the reaction, too, was acid. When only 1 per cent. of hydrochinone was added some deposit formed after a time, but there was no ammoniacal odour, and the reaction only became neutral. Observations were then made on solutions of urea. To 100 cubic centimetres of distilled water were added one gramme of urea and one gramme of hydrochinone. After twenty-four hours 17 per cent. of the urea had been decomposed. When the hydrochinone was omitted, only 1 per cent. of urea was decomposed in the same time. Again, when larger quantities of urea were present, hydrochinone in the same quantity as before exerted a still greater effect in increasing the decomposition; thus a 3 per cent. solution of urea lost 0·2 per cent. of its urea, but when hydrochinone was present it lost 13·5 per cent. The solutions of urea with hydrochinone turned a light cinnamon colour, which became darker on standing. The destruction of urea by hydrochinone was believed by Dr. Antaëff to be due, not to a fermentation process, but to a chemical action of hydrochinone upon urea. Dr. Dianin suggests that the action may be analogous with that of acids on urea, which cause it to break up into ammonia and carbonic acid, with this difference, however, that hydrochinone probably forms a compound with the ammonia as it is disengaged, which is not easily decomposed by hypobromite of sodium. This theory will also account for a certain deficiency in nitrogen which was always observed in azometric determinations of urea in solution with hydrochinone.

POOR-LAW AND SANITARY HOSPITALS.

WE have elsewhere adverted to the need for hospital accommodation for infectious diseases in the Toxteth-park urban district—a district which adjoins Liverpool, and as such is very liable to receive infection. The Toxteth guardians have been considering the same subject, and at a recent meeting a proposal was made to arrange with the sanitary authority for the use by them of the new infectious hospital attached to the workhouse in Smithdown-lane. This discussion raises the whole question as to the propriety of sanitary authorities using Poor-law institutions for the isolation of the infectious sick. As to this, we would at once say that unless the Poor-law infectious hospital can be entirely transferred to the sanitary authority, and be administered by a staff wholly different from that belonging to the workhouse, the idea should not be entertained. So long as the hospital remains vested in the hands of the Poor-law authority it is a pauper institution, and all persons entering it are thereby pauperised—a result which sanitary authorities desiring to protect health in their districts have no right to bring about. Formerly, these workhouse fever hospitals were the only ones available, and they were used without any strict inquiry into the social status of the sick: but of recent years new ones have, we believe, not been erected unless there was every prospect of their being needed for essentially Poor-law purposes. The position which Toxteth occupies with regard to Liverpool doubtless affords a sufficient reason for the erection of this new pauper hospital, and the mere fact that it has not been used during the twelve months for which it has been opened is no proof whatever that it is not needed for the precise purposes for which it was erected. The question has now been referred to the General Purposes Committee, and it is important that they should understand at the onset that so long as the hospital belongs to the guardians it cannot be legally used for any non-pauper purposes. Whether a hospital just erected for Poor-law purposes ought now to be alienated from those purposes and transferred to the sanitary authority is another matter, into which we need hardly enter at present.

THE CONTAGIOUS DISEASES ACTS IN INDIA.

A PARLIAMENTARY paper published recently gives a summary account of the machinery by means of which the Contagious Diseases Acts are administered in India. In itself the information is sufficiently interesting to justify its publication, although it might have been considerably improved in this respect by the addition of such statistical facts as would have given the British public some idea of the number of persons affected by them and the character of the work being done. That, however, was probably not the object with which this return was called for. The intention of the promoters no doubt was to attack the administration of these Acts in India, as they have attacked them at home. Experience shows that in this crusade the sanitary results obtained go for little or nothing, and that the responsibility of the Government for preventable mischief

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is a doctrine to which the repealers will not listen. Better in their view the nameless horrors of surreptitious vice—so long as it is branded with the name of vice—than the restriction of the ravages of a disease from which countless innocent victims as well as the vicious have to suffer. As yet, however, we hope that wiser counsels will prevail. It is bad enough that our military stations at home have lost the benefit of this useful, though unpopular, legislation. It would be a still worse case if the benefit of such precautions were lost to our army in India. The ostrich policy of turning prudishly away from the consideration of such problems and burying our heads in the sand of *laisser faire* can lead to nothing but disaster.

FATAL RESULT OF INTRA-UTERINE MEDICATION.

DR. OTTO ENGSTRÖM of Helsingfors relates the following case in a Swedish medical journal. A woman, aged thirty-seven, had suffered from persistent metrorrhagia. The uterus was retroflexed, but no signs of past or present inflammation could be discovered. It was replaced and scraped out with a Simon's sharp spoon, two small spoonfuls of hyperplastic tissue being removed. A solution of iodine in iodide of potassium at 45° C. was then injected; the relative proportions of iodine, iodide of potassium, and water being 1, 2, 30. No fever and scarcely any pain followed. In five days' time a second injection was used, the temperature being 40° C., and the relative proportions of iodine, iodide of potassium, and water 1, 2, 10. No pain was experienced, and the patient walked up- and down-stairs. On the evening of the second day, however, a rigor came on, followed by pyrexia, abdominal tenderness, diarrhœa, and convulsions, death occurring two days later. At the necropsy there were found broncho-pneumonia, chronic œdema of the lungs, endocarditis, and purulent peritonitis. The substance of the uterus was soft, friable, and grey-coloured, containing specks of blood and lymph. The peritoneum over the uterus was of a yellowish-red colour and covered with puriform matter. The Fallopian tubes and their fimbriated extremities were not dilated or particularly reddened, and the mucous membrane presented no abnormality. The os uteri was too small to admit a fine probe. A large quantity of pus occupied the peritoneal cavity. Dr. Engström does not think any of the injection can have passed into the tubes, still less into the peritoneal cavity, and believes that the fatal peritonitis was due to an extension of the inflammation directly from the uterine wall to the peritoneum.

HANGING AS A SOURCE OF PLEASURE.

IF those are to be believed who, having been more or less hanged, have been resuscitated, and have narrated their experiences, the much-commiserated victim of the law's extreme penalty is not wholly miserable. It would seem that even death "sus. per coll." has its ameliorating conditions or circumstances. One sufferer in the religious cause in France is said to have "complained" because he was called back to consciousness from an experience of surpassing delights, in which he enjoyed the pleasure of gazing upon the most beautiful scenery. The immediate sensation of pain is momentary; and it would appear not unlikely that, in our anxiety for the avoidance of needless annoyance to those we put to death judicially, we may be actually increasing their sufferings and diminishing their pleasure. The instantaneous deaths have all the pain and little or none of the pleasure. Slowly induced congestion of the brain may be the least painful, and if only the blood pressure be effectually raised at the centre that sees, the beautiful light and charming scenery are enjoyed in the highest perfection. The subject is a grim one, and we are not sure that the new view of hanging experience tends to make the death penalty increasingly deterrent, but it is right that both sides of a question which the late Mr. Whalley once excited the merriment of the House of Commons by describing as "a poor man's question" should be carefully considered at all costs.

THE AIR IN SHIPS' HOLDS.

DR. A. T. DOBROTVORSKI has recently published the results of a number of observations on the character of the air in the holds of Russian men-of-war from a hygienic point of view. In reviewing the works of previous writers on this subject, he claims for a Russian observer, "N. T.," who wrote an article in the *Morskoï Sbornik* (Nautical Magazine) for 1869, the credit of being the first to make definite analyses of the air in ships; observing that Parkes, in the second edition of his book, published in England in 1866 and translated into Russian in 1869, states that the composition of the air in holds is not known. "N. T." found 1·19 per 1000 of carbonic acid on the upper deck of the monitor *Bronenosets* during the night when forty-one men were sleeping there. Dr. Dobrotvorski's estimations of CO_2 were made by means of a modification of Pettenkofer's method proposed by Nagorski, which, however, he does not further describe, though he says it is the most exact and convenient plan, only requiring small bottles of the air. For the free and albuminoid ammonia he employed Dr. Fox's method, as given in his "Sanitary Examinations of Water, Air, and Food." This, as being probably but little known in Russia, he describes pretty fully. In the bilges of the *Peter the Great*, the largest vessel in the Russian navy, the moisture was found to be 89·5 per cent., the CO_2 4·6 per 1000, the free ammonia 0·026 milligramme per 1000 litres, and the albuminoid ammonia 0·246 milligramme. The highest estimates of CO_2 were in frigates and floating batteries, the lowest in clipper ships. In the engine-room of the *Admiral Spiridoff*, an iron frigate built in 1868, the CO_2 was found to be as high as 8·22 parts per 1000. The ammonia found varied a great deal—being, however, only slightly higher in the frigates and batteries than in clipper-built vessels, and bearing little relation to the quantity of CO_2; thus, in the bilges of the *Peter the Great* the albuminoid ammonia was 0·246 milligramme per 1000 litres, in the engine-room of the *Admiral Spiridoff* 0·154 milligramme, while in a part of the floating battery *Pervenets*, where the CO_2 was only 2·37 per 1000, the albuminoid ammonia was 0·564 milligramme per 1000 litres.

INSANITARY BETHNAL GREEN.

THE Mansion House Council, which has investigated the sanitary state of many parts of the metropolis, with reference especially to the housing of the poor, has brought under the notice of the Local Government Board the state of a number of houses in Bethnal-green, where, it is implied, there has been considerable neglect. According to a letter addressed by that Board to the Bethnal-green vestry, it is said that the plan followed on a former occasion—namely, that of requesting the Home Secretary to appoint an officer to investigate the circumstances of the alleged complaint—will be followed this time.

DEATHS OF EMINENT FOREIGN MEDICAL AND SCIENTIFIC MEN.

THE deaths of the following foreign medical and scientific men are announced:—Dr. Wilhelm Brummerstadt of Rostock, well known for his writings on obstetrical and gynæcological subjects. Dr. Johann Streng, Professor of Midwifery in the Bohemian University of Prague. Dr. Andreas Boecker of Berlin, a well-known laryngologist.

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TESTIMONIAL TO DR. KENNEDY OF MERCER'S HOSPITAL.

AT a meeting recently held at the Shelbourne Hotel, Dublin, Sir Charles Cameron in the chair, it was resolved to present Dr. B. Burke Kennedy, resident surgeon of Mercer's Hospital, with an address expressive of sympathy with him in the trying ordeal through which he has passed; also to open a "Defence Fund" to pay the heavy legal expenses to which he was put. It will be remembered that a charge of manslaughter was made against Dr. Kennedy for removing a delirious patient from an ordinary to a special ward. After the evidence for the prosecution had been heard, the jury stopped the case, and returned a verdict of acquittal, with the following rider:—"We consider that, according to the evidence, Dr. Kennedy should not have been subjected to the hardship of a prosecution." Subscriptions to the fund should be forwarded to the hon. treasurer, Dr. McVeagh, 1, Rutland-square East, Dublin. A copy of the Report of the Corporation Commission of Inquiry, and of the Abstract of Trial and Verdict in the Law Courts, may, we understand, be had on application to the hon. secretaries—George H. Kidd, M.D., L.R.C.S.I.; Arthur H. Benson, M.D., F.R.C.S.I.; Robert Wade, F.R.C.S.I.; and F. Alcock Nixon, F.R.C.S.I.

THE OVER-STOCKING OF THE PROFESSION.

WE have long pointed out that the creation of new doctors in Great Britain exceeds the waste of the profession by some hundreds yearly. In Germany the increase is so steady and serious, that at the recent meeting of the German Physicians' Association (a society organised, as the *New York Medical Record* puts it, in the social and economic interest of the profession, rather than in that of medical science) an address was issued advising young men against entering the profession as the prospects are becoming worse yearly. The *Record* takes some warning from this action of the German Association. It understands it to mean that there will be a larger importation of pure German physicians into the States. And our contemporary adds, with much force, "as our colleges turn out from 4000 to 6000 new doctors every year, the prospect is, of course, most pleasant."

CHRONIC URETHRAL DISCHARGE.

THIS ailment is one which not unfrequently proves singularly intractable, and calls into requisition all the acumen and practical skill of the surgeon for its successful treatment. It is a disorder of a symptomatic nature which owns many sources of origin, mostly local, but sometimes in part constitutional. What is the appropriate remedy in one case may be, on the whole, unsuited to another, so that empiricism in medication is apt to fail where a rational course of procedure gives the happiest results. It must not be assumed that all cases of urethral catarrh are gonorrhœal—we use the latter term in its clinical, not its pathogenic sense,—for not seldom one meets with patients suffering from chronic discharge, concerning whom the practitioner elicits no evidence to prove or suggest that the disorder is the consequence of impure intercourse. The menstrual flux, lochial flow, or the acrid vaginal secretion often met with in pregnant females, are severally capable of setting up acute or subacute urethritis, which when once initiated may give considerable trouble to eradicate. The complaint, whatever its cause, is, in the ordinary routine of practice, too often assumed to be entirely local in its nature as it was in its incidence. But just as in a strumous individual some slight irritation is apt to start a troublesome attack of eczema, so in patients of a pyogenic tendency urethral catarrh may vary in intensity and duration far beyond the measure of its primary cause. In such cases ferruginous tonics, a bland regimen, and mild astringents are the appropriate treatment. Again, we have known instances in which the removal of obstruction to the free circulation through the hæmorrhoidal vessels has acted beneficially on the urethra—such, for example, as the removal of piles or the cure of chronic constipation. If the discharge is dependent on urethral granulations, the site of which is frequently indicated by increased sensitiveness to catheterism and resistance to the passage of the instrument then gentle pressure with a bougie, continued for, say, a quarter of an hour at a time and repeated two or three times a week, may suffice. Or the pressure may be combined with the application of some astringent in the form of soluble gelatine medicated bougies. On the supposition that the morbid action depends on the vitality of certain microscopical organisms, some surgeons advise the employment of antiseptics, such as iodoform, eucalyptus oil, &c., weak solutions of perchloride of mercury, and the like. These chemical substances are inimical to the life of micrococci, and, moreover, tend to check the physico-chemical reactions involved in the decomposition of animal matter. We cannot deprecate too strongly the unrestricted use of strong astringents—or even of weak solutions for the matter of that; for we are convinced that it is not a rare event for chronic urethral discharge to be perpetuated by the very means adopted for its removal. Nay, further, it is not too much to assert that not a few cases of stricture owe their origin to the practice of doing too much. It should be borne in mind that urethritis has a tendency to get well of itself, and that the tendency may fail in giving place to accomplishment on account of meddlesome surgery.

THE DUCHESS OF CUMBERLAND.

FROM information just received from our correspondent at Vienna, we learn that the preliminary stage of the illness from which the Duchess of Cumberland has been suffering was one of long duration, characterised by languor, insomnia, and disinclination for food, together with anxiety and the possession of painful delusions. Her constitution, which has always been somewhat delicate, appears to have been severely taxed by the troubles incident to maternity. The physical and mental condition of the Duchess is now, however, greatly improved. Artificial feeding has never, in spite of rumours to that effect, been found necessary, and sleep is now obtained without resort to hypnotics. The cheerfulness significant of returning health is also beginning to be manifest. The physicians in attendance express their opinion that the case is a curable one, and that gradual progress towards recovery may be anticipated.

A DANGEROUS TOY.

AN inquest was held on the 6th of April on the body of a boy aged eight years who had died suddenly from asphyxia. At the post-mortem examination, a toy, only too well known as "a squeaker," with the indiarubber bag attached, was found impacted in the larynx. This had formed a most perfect plug, completely closing the air passage. It is to be hoped that this accident may be noted by parents, and the use of this toy forbidden; not only will they thus be relieved from a source of anxiety, but their friends from one of much annoyance.

THE MARGARET-STREET INFIRMARY.

DR. John Beckett, Dr. Tuckey, Dr. Roberson Day, and Mr. Kenneth W. Millican have been elected to fill vacancies at the above infirmary. We are not aware whether all these gentlemen are avowed homœopathists; if they are not, we can but deplore their acceptance of the posts.

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REPORTED ILLNESS OF MEMBERS OF PARLIAMENT.

THE Right Hon. the Speaker of the House of Commons has authorised us to state that a paragraph which appeared in several of the morning papers on Wednesday (13th inst.), to the effect that within the last fortnight six members of the Lower House had been incapacitated from attending the debates by diphtheria, is without foundation.

THE ASSISTANT-PHYSICIANSHIPS AT GUY'S.

WE understand that the governing body at Guy's have determined that they will receive and entertain applications from physicians outside the hospital for at least two of the vacancies at present among the assistant-physicians. The appointments will be filled up at the Court of Governors to be held on April 27th, and candidates are requested to send their applications to the treasurer prior to this date. We cannot but think the Court well advised in thus opening up its appointments and in seeking to obtain the best available men for the vacant posts. The example is worthy of imitation by lesser schools.

THE LEICESTER SICK BENEFIT SOCIETY.

MR. JAMES WILLAN, of 62, Humberstone-gate, Leicester, after appearing repeatedly before the borough magistrates for neglecting to show a member the books of the Leicester Sick Benefit Society, has been fined £5 or one month's imprisonment. The magistrates were dissatisfied at the defendant for not producing the ledger, and the vague excuses made by him for not doing so. The financial affairs of this society, and the representation of them by the secretary, have been the subject of much adverse criticism during the last few months, and apparently with too much reason. The defendant gave notice of, but does not seem to have yet made, appeal.

CHILDREN'S TEETH.

IT is gratifying to learn that the importance of proper attention to the teeth of school children—a subject on which we have more than once commented—is coming to be more fully recognised by managers of schools. Thus, at the North Surrey District School, Mr. Henry J. Moxon, L.D.S., has, at the solicitation of the managers, and with the approval of the Local Government Board, just delivered a popular lecture to the officers and senior scholars of the institution, on the construction, function, and means of preserving the teeth. This, we believe, is the first occasion on which an address of the kind has been given in a Government school, and it offers an example which may well be followed in other similar establishments.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—Privy Councillor Olshausen of Halle has accepted the invitation to fill the late Professor Schroeder's chair of Midwifery, and will commence his lectures on May 1st.

Buda-Pesth.—A new department for ear diseases in the Rochus Hospital has been established under the charge of Professor Böke, who gives clinical instruction there.

Marseilles.—The Medical School has recently increased considerably, and a chair of Bacteriology has been founded, for which the Council-General of the Bouches-du-Rhône has voted the sum of 2000 fr. The Chamber of Commerce has passed a resolution expressing its desire that the Medical School, which is at present one of the *écoles de plein exercise* or second-grade schools, should be converted as soon as possible into a faculty or first-grade school. It is stated that the number of entries has been for the doctorate 129, and for the licence (as *officier de santé*) 114, besides 381 in the Pharmaceutical School.

Rostock.—The chair of Botany, vacated by Professor Göbel, who has gone to Marburg, has been offered to and accepted by Dr. Paul Falkenberg, Extraordinary Professor in Gottingen.

Würzburg.—The vacant chair of Psychological Medicine, which was offered to Professor Jolly of Strassburg, having been declined by him, will now be offered to Dr. Rieger, *privat docent*.

TEACHING AT THE "ZOO."

IT may not be generally known that by the combined liberality of the Zoological Society and the Association for the Extension of University Teaching, facilities are now offered to students desirous of obtaining a real and practical knowledge of the science of zoology. Familiar demonstrations will be given by Professor Beddard to all who choose to attend during the next three months, at a cost not exceeding the bare price of admission to the gardens. In arranging this course the University Teaching Association has taken a decided step in the right direction, and it is to be hoped that further advances will be speedily made towards the development in the teaching of physical science.

ON the 12th inst. Dr. Daniel Rutherford Haldane died at his residence in Edinburgh. The deceased took the degree of M.D. at the University of Edinburgh in 1848, and became a Fellow of the Royal College of Physicians in 1852. He was a Fellow of the Royal Society of Edinburgh, and several years ago received the degree of LL.D. from the University of Edinburgh. Dr. Haldane was for some time president of the Royal College of Physicians of Edinburgh, and represented the College in the General Council of Medical Education and Registration of the United Kingdom.

THE sudden death on the 8th inst. is reported of Mr. J. J. Eberle, of Thirsk. The deceased was well known in the profession, having for many years acted as a private tutor for the various medical examinations of the licensing bodies.

AT the next meeting of the Royal Statistical Society on Tuesday evening next, the 19th inst., at the Royal School of Mines, 28, Jermyn-street, a paper on "Class Mortality Statistics" will be read by Mr. Noel A. Humphreys.

THE circumstances attending the sinking of the emigrant ship *Kapunda* have largely influenced the Board of Trade in the determination to ask for the appointment of a Select Committee to inquire into the subject of loss of life at sea.

ANTITHERMIN is the latest introduced antipyretic agent. It is allied in its chemistry to antipyrin; phenyl-hydrazin-levulinic acid is the chemical name.

DR. ROBERT BARNES has been elected an Honorary Fellow of the Chicago Gynæcological Society.

PRESTON MEDICO-ETHICAL SOCIETY.—At the annual meeting of this Society, held on Thursday, March 31st, the following members were re-elected officers:—President: Dr. Moore. Vice-President: Dr. Lonie. Treasurer: Dr. Walmesley. Committee: Dr. Smith, Dr. Garner, Dr. Green, Dr. Rayner, Dr. Trimble, and Dr. C. Rigby. Hon. Secs.: John Holden and J. J. Byrne. The subjoined resolution was also passed: "That, in the opinion of this Society, it is very desirable that an independent inquiry be made on the sanitary condition of the town by the Local Government Board, more especially in regard to the high mortality."

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VOLUNTEER MEDICAL STAFF CORPS: EASTER MARCH.

THREE companies of this corps joined in the Easter manœuvres of the Volunteers, two going to Dover and one to Eastbourne. The Dover contingent, about 100 strong, with full complement of officers, left Charing-cross on Friday morning, under the command of Surgeon-Major A. T. Norton. The men were divided into two companies under Surgeon-Major Casson and Surgeon Willett. The Adjutant, Surgeon Lees Hall, M.S., and Surgeons Lake and Raw also accompanied their seniors. On Friday night the corps took part in the night attack, and during and after the fight kept up careful search for wounded men over the scene of the fight. At Dover the headquarters of the corps were marked by a conspicuous white flag emblazoned with a red cross. On Saturday the force had a very long tiring march, moving in three columns by different routes from Bridge and Canterbury to Dover. Each column was accompanied by an ambulance and water-cart, and the senior medical officer was responsible for the medical arrangements, Surgeon Whitmore (3rd London), Surgeon Jones (14th Middlesex) and Surgeon Buck (17th Middlesex), being in charge of the columns. The Volunteer Medical Staff Corps accompanied the centre column. Only eight men fell out during the day, which is a matter of congratulation, considering that the right column marched twenty-three miles over very rough country. In this column only two men fell out.

On Monday the bearer companies marched past with great *éclat*, their smart appearance and well-locked up ranks eliciting much approbation. A company of the V.M.S.C. also went to Eastbourne under Surgeon Squire. On the Tuesday before Easter, however, a small party of fourteen men under Serjeant MacLeod very pluckily set out to march to Eastbourne with regulars. The main body of the company marched on Friday morning, Surgeon Valentine Matthews joining it later on. The company was well equipped with mule litters, and had its own signallers. At Eastbourne a station hospital was established. Ample opportunity was afforded the men of learning what real work meant, and their smart appearance elicited hearty applause on more than one occasion from on-lookers. Staff Quartermaster Robertson and Quartermaster Clarke accompanied the Dover companies; Quartermaster J. J. Thomson accompanied the Eastbourne company, and from the careful preparations of these gentlemen, combined with the invariable hospitality of the medical men throughout the districts through which they marched and were stationed, most certainly the V.M.S.C. had no cause of complaint.

Some real surgical work occurred during the day, showing the efficiency of the medical staff and the men attached to their corps. It appears that towards the end of the action three gunners of the 3rd Kent Artillery force were injured by the premature discharge of a gun. There happened to be no surgeon with the battery, so that their comrades proceeded to render "first aid" whilst a surgeon was sent for. Mounted officers galloped off in two directions—one to the field hospital and the other in the direction of the bearer company. Acting Surgeon Pearce, M.D. Lond., of the "Artists," on duty at the field hospital at Maydensoule Farm, speedily providing himself with a surgical haversack, rode across country at once to the scene of the accident. He found that Gunner Whitmore, who was seriously injured, had been placed on a stretcher made of a hurdle, an improvised tourniquet had been efficiently applied above the elbow, and the shattered hand well bandaged. He was being borne towards a neighbouring farm near the scene of the accident. He was then carried into the farmhouse and laid upon a couple of tables. At this moment Surgeon Raw and Quartermaster Webb, A.M.D., with a detachment of the Volunteer Medical Staff Corps, all of them medical students from St. Bartholomew's, London, Guy's, and St. Mary's Hospitals, arrived in an ambulance waggon completely equipped with surgical appliances and medical comforts. Surgeon Pearce took charge of the case, and before proceeding to further steps Surgeon Raw administered chloroform, and the shattered limb was examined after reapplication of a tourniquet, the fracture set, wounds dressed, and the injury of the eye and scorching of the head attended to. The unfortunate man was placed in an ambulance waggon and conveyed to Dover Castle Station Hospital, where the limb was amputated below the elbow by Surgeon-Major Greenhill, G.M.O., Surgeon-Major Slaughter, Surgeon Begg, M.S., with the active assistance of Surgeon Raw and Acting-Surgeon Pearce. The other injured men, who were much scorched about the face, were conveyed to the field hospital, and received attention from Surgeon Bourlton, M.S. The whole medical administration for the day reflects great credit upon the medical authorities, and the accidents which we regret to have to record found the medical aid of the Volunteer department, of which we have heard so much lately, not wanting when the time of real emergency arrived.

THE LANGMORE DEFENCE FUND.

WE published last week from Dr. Leachman a letter headed "A Victim of the Law," and appended some comments thereto, in which we intimated that a subscription had been started by the Council of the Metropolitan Branch of the British Medical Association to reimburse the gentleman referred to in that communication, the costs of the defence in a suit (Hughes *v.* Langmore and others) which, it will be remembered, came on for hearing before Mr. Justice Manisty in November, 1886, and which resulted, after four days' trial, in a verdict for the defendants with costs. The amount of the costs was considerably increased by the fact that, on the plaintiff's petition, one of her witnesses (the doctor who was actually attending her at the time of Dr. T. W. Langmore's visit) was examined by special commission; but at the trial the plaintiff refused to put in the evidence thus taken, or to place the witness himself in the box, though it was elicited that he had been quite recently, and it was inferred that he was then, resident in England. The plaintiff being a person of small means, Dr. Langmore has not been able to obtain payment from her of any portion of the costs awarded him, and has been called upon to pay legal expenses amounting to £240 8*s.* 1*d.*, irrespective of personal expenses connected with the action, and the inevitable loss of time and practice. Donations should be sent to Mr. George Eastes, M.B., 69, Connaught-street, Hyde-park-square, London, W., one of the honorary secretaries of the Metropolitan Counties Branch.

The following subscriptions to the fund have been already promised or received:—

Mr. W. Adams	...	£3	3	0	Sir W. W. Gull, Bart.	...	£2	0	0
Mr. C. A. Aikin	...	2	2	0	Dr. C. J. Hare	...	5	5	0
Mr. C. E. Aikin	...	1	1	0	Sir W. Jenner, Bart., M.D.		10	10	0
Mr. W. Morrant Baker	...	2	2	0	Dr. G. Johnson	...	1	1	0
Dr. R. Barnes	...	1	0	0	Mr. H. Juler	...	1	1	0
Dr. G. P. Bate	...	1	1	0	Dr. Norman Kerr ...	...	1	1	0
Dr. J. S. Bristowe ...	...	2	2	0	Dr. A. W. Leachman	...	5	0	0
Mr. Lennox Browne	...	1	1	0	Dr. J. D. Mann	...	1	1	0
Dr. T. Buzzard	...	2	2	0	Dr. H. C. Martin ...	...	2	2	0
Dr. W. B. Cheadle ...	...	3	3	0	"Member of the Branch"		0	10	0
Mr. Willington Clark	...	2	2	0	Mr. J. J. Merriman ...	...	1	1	0
Dr. W. F. Cleveland	...	1	1	0	Dr. T. Morton	...	0	10	0
Mr. G. A. Critchett ...	...	1	1	0	Dr. Dawson Nesbitt ...	...	1	1	0
Dr. H. R. Crocker ...	...	1	1	0	Mr. H. Owen	...	1	1	0
Mr. J. B. Curgenven ...	...	1	1	0	Sir James Paget, Bart.	...	2	2	0
Dr. W. H. Day	...	1	1	0	Dr. W. Price	...	1	1	0
Dr. J. Langdon Down	...	1	1	0	Dr. Henry Savage ...	...	2	2	0
Dr. J. Matthews Duncan		1	1	0	Mr. W. B. Sibley ...	...	2	2	0
Mr. A. E. Durham ...	...	2	2	0	Mr. Morton Smale ...	...	1	1	0
Dr. John Easton ...	...	2	2	0	Dr. W. V. Snow	...	1	1	0
Mr. W. Fuller	...	0	10	0	Dr. C. S. Tisehurst ...	...	1	1	0
Dr. A. T. Gibbings ...	...	0	10	6	Mr. J. Smith Turner	...	1	1	0
Dr. J. F. Goodhart ...	...	1	1	0	Mr. A. M. Vann	...	0	5	0
Dr. W. R. Gowers ...	...	1	1	0	Dr. E. H. Vinen ...	...	1	1	0
Dr. W. C. Grigg ...	...	2	2	0	Dr. Julian Willis ...	...	1	1	0

PASS AND PLUCK IN BRUSSELS.—At the recent examinations in the University of Brussels for the Doctorate in Medicine, one out of ten was rejected for the first Doctorate, and four out of ten for the second, while all the seven candidates for the third Doctorate, or final examination, passed, so that only five of the whole twenty-seven candidates failed to satisfy the examiners. From the list of names published it would appear that there were no candidates, or at least no successful ones, from this country. In the two preliminary examinations for the title of candidate dealing with anatomy, physiology, chemistry, &c., six candidates were rejected out of a total of sixteen.

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Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Bedford Urban District.—Dr. Prior deals at considerable length in his annual report for 1886 with the question of isolating cases of infectious diseases. Bedford is one of those towns which can make a sort of plea that such accommodation is not pressingly needed by them, because there is a special fever hospital at the General Infirmary, and also a so-called small-pox hospital just outside the town. But the fever hospital belongs to a body of governors; it is unfit for the reception of two kinds of infectious fever, although the different floors were at one time so used before disaster occurred in consequence, and as a matter of fact it does not answer the public health requirements of the district. Then the small-pox hospital is an iron shed belonging to the guardians, and as such leading to the pauperisation of those who use it; it is also a deterrent and unsuitable building. Taking Bedford with this provision, Dr. Prior compares it with Biggleswade, where a proper hospital has been erected, and he gives it as his experience that it is such a hospital which is needed for the Bedford urban and rural districts. And he gives force to his contention by showing his authority that Bedford is probably on the verge of another scarlet fever epidemic. Even if the two authorities referred to are not prepared at once to provide for the total needs of their two districts, they would do well to secure a proper site and make a commencement by erecting such an isolation pavilion as is shown in the recently issued diagram of the Local Government Board. And as they progress in this matter it would be well if they were to receive all infectious cases by arrangement with the General Infirmary, and enable the existing fever building to be utilised for the general purposes of the infirmary. Bedford had in 1886 a death-rate of 15·42 per 1000.

Kettering Urban District.—Mr. Dryland finds remonstrance with parents as to the impropriety of feeding infants with the food of adults quite useless, and this notwithstanding the fact that the practice leads to a waste of infant life which could easily be avoided. Some typhoid fever has occurred in connexion with polluted well-water, and apparently a difficulty is experienced here which is often felt elsewhere. It is not easy to ensure closure of wells unless pollution can be proved, but wells sunk in dangerous relationship with contaminating sources are often only intermittently fouled, and hence action has to be delayed until the evil which should be avoided has actually taken place. In this case water evidently producing typhoid fever could on certain occasions be found to pass as uncontaminated in the analyst's hands, and under such circumstances the owners of the wells, and even magistrates, are disinclined to believe that the negative evidence of the chemist is, in such cases, all but valueless. But we would counsel officers of health to support their action in such instances by making widely known in court and elsewhere the evidence published on this subject in Dr. Buchanan's official report a few years back. Good work is going on in Kettering as to the abolition of privies, the fitting of flushing apparatus to closets, the reconstruction of house drains, and the supervision of such establishments as slaughter-houses. A small outbreak of small-pox took place last year, but no recently vaccinated person was affected. The death-rate for 1886 was 17 per 1000.

Toxteth Park Urban District.—In this favoured suburb of Liverpool the annual death-rate for 1886 was 13·4 per 1000 on a population of some 17,500. The zymotic rate was somewhat higher than the average; the more fatal of the diseases in question having been measles, whooping-cough, and diarrhœa. Amongst the infectious diseases which were reported to Dr. Steeves there were 24 from scarlet fever, 14 from diphtheria, and 2 from typhus. These occurrences alone suffice to show the need for being prepared to isolate the first attacks, and the report states that during the year a site for a hospital was inspected by Dr. Thorne Thorne and General Carey, of the Local Government Board. The site is one in which the adjoining district of Wavertree is interested, and probably owing to the failure to secure united action between the two authorities delay is taking place in this important matter. In the meantime good sanitary work is in progress; dairies and bakehouses are inspected, and ashpits are subject to a weekly supervision.

Towyn Urban District.—In connexion with an outbreak of some fifty cases of scarlet-fever at Bryncrug, Mr. Groshols brings under the notice of his sanitary authority the more recent information as to the causation of this disease, but he is able to show that infectious diseases are by no means prevalent. In some respects the water-services would be improved if filtration and increase in quantity could be provided. Towyn drainage scheme unfortunately has fallen through, and certain parts of the town have to trust to cesspools. This town is one to which visitors are now attracted, and all its sanitary circumstances should be carefully looked into. At Aberdovey improvements in sewerage are needed; at Bryncrug water-supply and privies need attention; but, speaking of the district generally, much has been done in the interests of cleanliness. The general death-rate during 1886 was 17·9, and the zymotic rate 0·54, per 1000.

Brentford Urban District.—This district continues to make some trivial use of the Highgate and Islington-road Hospital for its infectious cases; but it is dangerous to trust to the accommodation there, for at any moment there may be none available. The zymotic rate was unusually high, this being mainly due to whooping-cough and measles; but at any time it may be some disease urgently calling for isolation, and hence Mr. Williams begs the authority to consider the needs of the district in this respect. Progress has been made as to sewerage and drainage in the district, which in 1886 had a death-rate of 18·9 per 1000.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5426 births and 3641 deaths were registered during the week ending April 9th. The annual rate of mortality in these towns, which had been 23·5 and 21·6 per 1000 in the preceding two weeks, further declined last week to 20·5. During the last quarter the death-rate in these towns averaged 20·0 per 1000, and was 2·2 below the mean rate in the corresponding periods of the ten years 1877-86. The lowest rates in these towns last week were 17·0 in Portsmouth, 17·1 in Birkenhead, 17·2 in Brighton, and 17·8 in London. The rates in the other towns ranged upwards to 25·4 in Sunderland, 25·9 in Cardiff, 28·0 in Oldham, and 32·6 in Manchester. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had increased in the eight preceding weeks from 340 to 471, further rose last week to 502; they included 250 from measles, 117 from whooping-cough, 41 from scarlet fever, 24 from diphtheria, 34 from "fever" (principally enteric), 33 from diarrhœa, and only 3 from small-pox. These zymotic diseases caused the lowest death-rates last week in Wolverhampton, Portsmouth, and Bolton; and the highest rates in Cardiff, Norwich, and Sunderland. The greatest mortality from measles occurred in Hull, Huddersfield, Oldham, Manchester, Norwich, and Sunderland; whooping-cough in Bristol, Huddersfield, Blackburn, and Cardiff; scarlet fever in Birkenhead, Blackburn, and Bristol; and "fever" in Birkenhead and Manchester. Of the 24 deaths from diphtheria in the twenty-eight towns, 15 occurred in London, 2 in Liverpool, and 2 in Oldham. Small-pox caused 2 deaths in Cardiff and 1 in Blackburn, but not one either in Greater London or in any of the twenty-five other large provincial towns. Nine cases of small-pox were under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease, including 8 which were admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 509 and 417 in the preceding two weeks, further declined last week to 363, and were 142 below the corrected average. The causes of 99, or 2·5 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Preston, Bolton, and in six other smaller towns. The largest proportions of uncertified deaths were registered in Sunderland, Salford, Blackburn, Liverpool, Oldham, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 26·2, 25·9, and 23·5 per 1000 in the preceding

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three weeks, further declined to 22·9 in the week ending April 9th; this rate exceeded, however, by 2·4 the mean rate in the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 14·6 and 15·8 in Perth and Leith, to 25·1 in Glasgow and 32·4 in Aberdeen. The 573 deaths in the eight towns last week showed a further decline of 15 from the numbers in recent weeks, and included 34 which were referred to measles, 33 to whooping-cough, 12 to diarrhœa, 11 to scarlet fever, 8 to "fever" (typhus, enteric, or simple), 4 to diphtheria, and none to small-pox; in all, 102 deaths resulted from these principal zymotic diseases, against 127 and 111 in the previous two weeks. These 102 deaths were equal to an annual rate of 4·1 per 1000, which exceeded by 1·3 the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of measles, which had been 55 and 43 in the preceding two weeks, further declined last week to 34, of which 21 occurred in Aberdeen and 13 in Glasgow. The 33 deaths from whooping-cough showed an increase of 2 upon the number returned in each of the previous two weeks, and included 11 in Glasgow, 9 in Edinburgh, 7 in Dundee, and 4 in Aberdeen. The 11 fatal cases of scarlet fever, of which 5 occurred in Edinburgh and 3 in Glasgow, exceeded the number in the previous week by 5. The 12 deaths attributed to diarrhœa showed a decline from recent weekly numbers, and agreed with the number in the corresponding week of last year.; 5 occurred in Glasgow and 3 in Edinburgh. Six of the 8 deaths referred to "fever" were returned in Glasgow, as well as all the 4 fatal cases of diphtheria. The deaths from acute diseases of the respiratory organs in the eight towns, which had been 152, 146, and 132 in the preceding three weeks, further declined last week to 110, but were 1 above the number in the corresponding week of last year. The causes of 68, or nearly 12 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 31·3 per 1000 in each of the preceding two weeks, declined to 30·0 in the week ending April 9th. During the thirteen weeks of last quarter the death-rate in the city averaged 30·9 per 1000, the mean rate during the same period being but 17·8 in London and 19·4 in Edinburgh. The 203 deaths in Dublin last week showed a decline of 9 from the number returned in each of the preceding two weeks; they included 5 which were referred to measles, 5 to diarrhœa, 2 to "fever" (typhus, enteric, or simple), 2 to scarlet fever, 1 to whooping-cough, and not one either to small-pox or diphtheria. Thus 15 deaths resulted from these principal zymotic diseases, against 18 in each of the preceding two weeks; they were equal to an annual rate of 2·2 per 1000, the rates from the same diseases being 1·7 in London and 3·6 in Edinburgh. The fatal cases of measles showed a slight further increase upon recent weekly numbers, and those attributed to diarrhœa were considerably more numerous; those referred, however, to "fever" and scarlet fever showed a decline. The deaths of infants showed a further increase upon recent weekly numbers, while those of elderly persons had further declined. Four inquest cases and 2 deaths from violence were registered; and 62, or nearly a third, of the deaths occurred in public institutions. The causes of 25, or nearly 14 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

WAR OFFICE.—Army Medical Staff: Brigade Surgeon William O'Halloran is granted retired pay, with the honorary rank of Deputy Surgeon-General (dated April 13th, 1887); Brigade Surgeon William Cherry has been granted retired pay, with the honorary rank of Deputy Surgeon-General (dated March 28th, 1887); Surgeon-Major Daniel Charles Grose Bourns, from half-pay, to be Surgeon-Major, vice F. H. Welch, promoted (dated April 1st, 1887).

ADMIRALTY.—The following appointment has been made:—Mr. William Hunter, to be Surgeon and Agent at Rothesay.

James Booth Clarkson, L.R.C.P., &c., Surgeon Superintendent in Her Majesty's Government Emigration Service, has been transferred as Lieutenant from the 19th Lancashire Rifle Volunteers to the 3rd Battalion, Royal Fusiliers (City of London Regiment)—the old Royal Westminster Militia.

ARTILLERY VOLUNTEERS.—1st Banff: David Lechmere Anderson, Gent., to be Acting Surgeon (dated April 13th, 1887).

ENGINEER VOLUNTEERS.—1st Newcastle-on-Tyne and Durham: Acting Surgeon C. N. Lee, M.B., resigns his appointment (dated April 13th, 1887).—1st London: Sidney Reginald Dyer, M.R.C.S., Gent., to be Second Lieutenant.

RIFLE VOLUNTEERS.—4th Lancashire: Acting Surgeon W. M. Roocroft, to be Surgeon (dated April 13th, 1887).—2nd Oxfordshire: John Arthur Rigge, Gent., to be Acting Surgeon (dated April 13th, 1887).—1st Volunteer Battalion, the Princess of Wales's Own (Yorkshire Regiment): Charles Tweedy, Gent., to be Acting Surgeon (dated April 13th, 1887).

Correspondence.

"Audi alteram partem."

THE COLLEGE OF PHYSICIANS, THE COLLEGE OF SURGEONS, AND THE APOTHECARIES' SOCIETY.

To the Editors of THE LANCET.

SIRS,—From your admirable leading article in last week's LANCET, I collect that Mr. Berkeley Hill has enumerated "Dublin" amongst the "places of refuge for those who have been repeatedly rejected in London." So far as the College of Surgeons in Ireland is concerned, I give that statement an unqualified contradiction, and I challenge Mr. Berkeley Hill to support it with one single example. With respect to your observations as to the duties thrown upon the Medical Council in face of the present unfortunate condition of affairs, I fully endorse them, and that to such an extent that more than ten days ago, I sent a notice of motion for our forthcoming meeting of the General Medical Council couched in the spirit of your remarks.

Faithfully yours,

Dublin, April 12th, 1887. RAWDON MACNAMARA.

To the Editors of THE LANCET.

SIRS,—The President of the Royal College of Physicians stated the other day, at a meeting in reference to the union of the Apothecaries' Society with that body, that the College does not compete with the former corporation. I wish to ask if the chief design of the creation of the grade of Licentiates of the College was not of set purpose to compete with the Society of Apothecaries? I have the most distinct recollection of the fact that the chief argument used at the time of its creation was that it would rescue the future general practitioner from being called an "apothecary." Previously the Society of Apothecaries and the College of Surgeons of England qualified, and well qualified, the general practitioner, and I submit that we have gained nothing by the substitution of the name "Licentiate of the College of Physicians" for the name "Licentiate of the Society of Apothecaries." Neither of the corporations gives a qualification in surgery that is of the slightest value in the estimate of the profession; and if the examination for the licence of the College of Physicians were dropped to-morrow, we should not feel its loss, for I have yet to learn that either its curriculum or its examinations are stricter or better in any sense than those of the Society of Apothecaries. I rather think anyone, recollecting with myself the creation of this "Licentiate" of the College of Physicians, will not fail to see that not only has the College successfully competed with the Society of Apothecaries, but has passed up an order or grade of men who neither in status nor practice differ from the Licentiate of that body.

I am, Sirs, your respectfully,

April, 1887. M.D. LOND.

To the Editors of THE LANCET.

SIRS,—I feel somewhat apologetic in criticising any remarks of a gentleman so eminently distinguished as Mr. Berkeley Hill, but being one of those men upon whom his stigma of reproach has fallen, I am sensible of the honour

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even of his contempt. I, for one, did not go up for the L.R.C.P. Edin. because I had failed in London. I have never presented myself at the London College, having had a higher diploma in view, although I was exempted from part of their first examination. Having obtained my M.R.C.S. (I may add without being ploughed), and wanting a medical qualification directly, I went to Edinburgh, where there is an examination for the licence every month. Does Mr. Berkeley Hill think that taking materia medica with the final examination, as at Edinburgh, does not add another element of risk; whereas in London that subject is taken separately? Secondly, I may add that if one does not pass on the paper work, one is not allowed to make up in the clinical and *viva voce* examinations. Thirdly, one has known cases of men who were proverbial for being lazy at their hospital, yet still pass their L.R.C.P. Lond., to the astonishment of their friends. No doubt this is so at Edinburgh, but it does happen in London also. Finally, does Mr. Berkeley Hill think that examinations are conclusive tests of ability? Would all well-qualified men be able to pass all their examinations again equally successfully? Is it not true that a man may not be able to localise a cerebral lesion, but be still a good physician? In conclusion, the vexed question of degrees and diplomas is a disgrace to our profession, and the sooner there is one and only one degree for every medical man in the kingdom, the sooner will good taste and brotherly feeling become the rule and not the exception. There are not a dozen degrees at the Bar. It is the work done that makes the man. Why should it not be so in the medical profession? I am, Sirs, yours obediently,

April 12th, 1887. M.A., M.R.C.S., L.R.C.P. Ed.

To the Editors of THE LANCET.

SIRS,—The sum and total of Mr. Davy's letter is, that the Apothecaries' Society should not be allowed a seat on the Conjoint Board, because by so doing they would perpetuate the idea that seems to exist amongst the profession of drugs occupying the first place in our treatment. I do not think an opinion formed upon so poor a ground will carry much weight with those who have to deal with the question. The subject has been well threshed out, but I ask you to allow me to mention a few points which seem to escape those of your correspondents who, while they sneer at the L.S.A. diploma, exalt that of the College of Surgeons.

1. If the standard of the Hall examination is so inferior, as is supposed by many, to that of other examinations, why does the College of Surgeons of London accept as equivalent to their examination in Medicine and Midwifery that conducted by the Hall, whereas the Scottish corporations do not accept it?

2. Some years ago the College of Surgeons granted their diplomas without examining in medicine. Are not those who possess such diplomas, and have not a medical qualification, quite as inefficiently qualified to practise as the L.S.A.'s?

3. And has it not been stated in the Medical Council that the standard of the examination of the Apothecaries' Society is equivalent to that of the College of Physicians, London, as ascertained by the examination visitors appointed by the Council?

Many suppose that the reason the Hall examination is not a fair test is because the time given to answer the written questions is so short that it is impossible to gain a fair idea as to the candidate's knowledge, whereas at the L.R.C.P. examination more time is given, and a better result obtained. I think the case is like an examination in algebra—the candidate who solved the most equations in the shortest time would be more successful than he who took the longest time. I may say that the corporations of Edinburgh conduct their examination much in the same manner as the London Apothecaries. Examinations are poor tests of knowledge, and no man should too highly praise his own diplomas or decry that of his neighbours. I submit, in the interests of the public and of our poorer students, who cannot afford a more expensive diploma, that the Apothecaries' Society will carry on the good work she has rendered to the profession hitherto, so that she will be able to write on her walls, "Tuta virtute mea."

I remain, Sirs, yours obediently,

April, 1886. JUSTITIA.

THE SURGICAL TREATMENT OF PULMONARY CAVITIES.

To the Editors of THE LANCET.

SIRS,—In the various modes of operative procedure referred to in Mr. Godlee's interesting lecture on the Surgical Treatment of Pulmonary Cavities, published in your issues of the 5th and 12th inst., an amount of injury to lung tissue is involved which is calculated to excite dismay in those whose experience of such formidable operations is limited, or who are mindful of the disastrous consequences which frequently follow even the most trivial wounds of the respiratory organs. The advantages of the simple and comparatively trifling operation of paracentesis thoracis, in cases similar to some of those described, do not appear to have engaged his attention, nor, as far as I am aware, that of any other surgeon of recent times who has specially studied the subject of pulmonary surgery. That such an operation would be attended with satisfactory results in cases where the tubercular process had reached the stage of formation of a cavity is shown by the history of the following case, the details of which I had the privilege of noting some years ago, whilst the patient was under the care of Professor D. C. O'Connor in the Mercy Hospital in this city.

T. K——, aged twenty-seven, admitted December 21st, 1881, stated that in the month of May of the previous summer, he had had a severe attack of hæmoptysis, in consequence of which he had attended the out-patient department of the hospital. A second attack of the same kind, two months later, obliged him to seek admission as an in-patient, and it was then found that he had lost considerably in weight since he first sought treatment. He was troubled by a severe cough, with night sweats; and under the right clavicle all the symptoms which indicate the existence of a pulmonary cavity were apparent. At the end of three weeks, during which the usual methods of treatment were adopted without influencing the course of the disease to any appreciable extent, an event of a remarkable nature occurred. One morning, whilst the patient was changing his position from the right to the left side, he suddenly experienced a sense of suffocation, attended by severe pain, which was referred to the right pectoral region. The dyspnœa rapidly abated, but the pain continued with varying degrees of intensity for two days. On examination it was found that the respiratory movements of the chest walls on the affected side were scarcely perceptible; percussion was markedly tympanitic all over the area of the pleural cavity; the respiratory sounds were altogether absent, and the patient could only rest comfortably in the dorsal position or on the right side. In fact, all the signs of a pulmonary cavity had disappeared, and their place was taken by those of a distinct pneumothorax. Subsequently the patient rapidly improved, and after an interval of a fortnight was discharged, in order to enable him to avail himself of an opportunity which offered of residing in a healthy country district.

In this case there can be no doubt that what happened was this. In the effort of making a change of position, an inspiration followed by closure of the glottis caused an unusual strain on the pulmonary tissue, which, together with the pleura pulmonalis, gave way at a weak point, allowing air to enter the pleural cavity and causing collapse of the lung. As a consequence of this occurrence, which may be regarded as a paracentesis thoracis from within, so to speak, the condition of the patient, as has already been remarked, underwent a considerable change for the better; and that this is what we ought to expect, a consideration of the pathological conditions established by the collapse will show. The presence in any organ, for physiological purposes, of a large quantity of blood creates in that organ an especial tendency to the inflammatory process, which has been recognised and admitted as the initial step in the commencement of many morbid phenomena, both those which have been identified as being due to the presence of a specific bacillus and those which have not yet been so identified. In the case of the lungs this tendency is much exaggerated by the highly venous condition of a great portion of the blood circulating in them. Nor is it necessary that the point of actual congestion should be reached in order to establish the danger. When collapse of a

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tubercular lung occurs, this great volume of venous blood is excluded from the seat of disease; a pure and nutritious supply, comparatively free from effete material, is derived from the bronchial arteries, and thus an impetus is given to the process of repair which nature is continually striving to establish, even under the most adverse conditions. But it is not in the stage of disintegration alone that the beneficial effects of pulmonary collapse would be evident. In the earlier periods of tuberculosis, when the "deposit" exists in the form of an integral mass, it is readily conceivable that the cutting off the inflammatory blood-supply would have even a more powerful influence than in the later stages of the disease. The abnormal product would be strangled at the outset before the constitutional effects of the local lesion had reduced the general health below par, and thus a serious obstacle to the success of operative measures would be avoided.

There is another symptom in the phthisical series, the urgency of which should secure for the operation of paracentesis a favourable consideration at the hands of the surgeon. I refer to profuse and uncontrollable hæmoptysis.

Apart from the pathological points indicated, the effect of collapse in reducing the pulmonary circulation to a minimum is so evident that it is unnecessary to do more than refer to it. The operation, if carried out with a reasonable amount of care, and with proper antiseptic treatment of the warmed air admitted to the pleural cavity, ought to be free from danger, either at the time of performance or subsequently.

I am Sirs, yours faithfully,

F. E. ADAMS, M.D., M.Ch.,
Extra Physician to Cork Fever Hospital.

Camden Quay, Cork.

THE PULSE.

To the Editors of THE LANCET.

SIRS,—I have noticed that Dr. Broadbent suggests that irregularity of the pulse in mitral regurgitation may be due to the respiratory movements. Allow me to offer another suggestion in explanation, which occurred to me some time ago, and which I do not think I have seen mentioned anywhere. The regurgitant stream from the left ventricle, one would think, would generate a pulse wave in the pulmonary veins, which might be reflected back to the neighbourhood of the mitral valve. This might have its own rhythmical period, which would probably not agree with the rhythmical period of the action of the left ventricle. When certain parts of these two periods coincided, the regurgitant stream from the ventricle might be met and opposed by the reflected wave, and then more blood might be thrown into the aorta than at other times.

I am, Sirs, yours truly,

W. W. COLBORNE.

Margate, April 11th, 1887.

ON PUNCTURE OF THE ABDOMEN FOR EXTREME FLATULENT DISTENSION IN PUERPERAL CASES.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of April 9th is the relation of an interesting illustration of the value of puncture of the abdomen for the relief of tympanites by Surgeon-Major Franklin, communicated through Dr. Priestley. He says: "The obstetric authorities—Playfair, Barnes, and Ramsbotham—gave him no help as to the way he was to relieve the extreme abdominal distension which was threatening the life of his patient"; so that after a consultation with Dr. Harris he punctured the ascending colon with a small trocar.

I am sure Surgeon-Major Franklin and Dr. Priestley will be gratified to learn that this treatment is fully discussed in the "System of Obstetric Medicine and Surgery" (vol. ii., 1885, p. 500) of myself and Dr. Fancourt Barnes in the following terms: "The treatment of tympanites is partly operative. The distress and danger attending tympanites are due in some measure to the great pressure from distension. This impedes respiration, circulation, and other functions. If the tension could be reduced, corresponding relief might be expected. Braxton Hicks advocated abdominal puncture with this intention (Obstetrical Transactions, 1868-69), and related cases in illustration. A small exploring trocar is the best instrument. By it the intestine is pierced in three or four of the most prominent points. As Hicks says, 'The pressure of the gas upon the sympathetic ganglia and nerves, and the tension of the tissues which they supply, add much to the collapse and vomiting. The least that can be claimed for the operation is that the last moments of the patient can be rendered comparatively free from suffering.' *We have adopted the plan, and can speak favourably of it.* It must never be forgotten that tympanites is not necessarily a fatal symptom; and it may well be that relieving this symptom may conduce to recovery."

Surgeon-Major Franklin's case bears happy confirmation to the truth of this observation.

I am, Sirs, yours faithfully,

ROBERT BARNES.

Harley-street, April, 1887.

PYREXIA.

To the Editors of THE LANCET.

SIRS,—In the paper of Dr. Maclagan on this subject I am much astonished at the criticism of Dr. Ord's paper. It seems that Dr. Maclagan has not quite grasped Dr. Ord's meaning.

It is now no new thought that the vital force is not a thing, but a state—a condition of delicate instability of organic compounds. These, assuming more stable conditions, liberate energy which, save in certain diseased conditions—e.g. delirium,—is not permitted to run wild, but is confined to definite channels and results. Here, then, are two processes: the raising of compounds from a stable to an unstable condition (analogous to the raising of a weight against the force of gravitation); and the opposite process—viz., the resolution of unstable into more stable compounds (analogous to the falling weight). Now, the principle of the conservation of energy applies everywhere, and in organic structures as in the purely physical world. What change of form of energy, then, has occurred during this raising of bodies to the sensitive instability of living tissues? This is Dr. Ord's question, it seems to me, and he replies thus: "This operation is the result of that form of energy called 'heat.' Heat disappears, and instead we find instability, or, as we may surmise, separation of atoms and molecules." In Dr. Maclagan's paper he states: "No evidence is adduced to support this. But there is much evidence, though chiefly on the physical side. Delicate tissue change, like all other change, can only result from other energy." The expression "absorption of heat" hardly expresses the actual physical process. The keynote of Dr. Ord's lecture is not absorption, but transformation. What was energy of motion (heat) becomes energy of position (the instability of higher tissue formation). In the building up of tissue day by day a large quantity of force must be required. If this building up cease, then this force is free, and escapes, as all force must, as heat. In fever tissue formation is lessened, and, unless disintegration be checked in proportion, heat must result. To regard heat as an excretory product is word-play. It is produced during retrograde tissue metamorphosis, but is not a product. In a similar way the remarks about the experiments on cucumbers are not to the point. The same processes occur in the animal as in the vegetable world, although the tissue changed may differ.

Dr. Ord's position is well based, not only physiologically, but physically. He points out the process of tissue formation and disintegration, although admitting that we do not know what is the controlling element. This check to tissue change is the secret of life; it is that which differentiates living from ordinary physical substances.

I am, Sirs, yours faithfully,

F. W. BENNETT, M.D. Lond.,
Assistant-Physician to the Leicester Infirmary.

DEGREES FOR LONDON STUDENTS.

To the Editors of THE LANCET.

SIRS,—It is a matter of deep regret that the plan for a united action on the part of University and King's Colleges, together with the two Royal Colleges, to form the new University of Westminster, and thus jointly to apply for a charter, was not proceeded with. For this scheme would apparently have solved most of the difficulties that at present surround the question of degrees for London students and that of a teaching university. It is most desirable that

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the Charter should be obtained before October next, otherwise our London hospitals will have still fewer entries; indeed, a parent would be undoubtedly to blame if he did not so arrange his son's professional education as to enable him to get a degree after honest work. It is trying enough now for capable practitioners to hold their own against the crowds of Scotch and Irish graduates, but this competition will get still severer for the London student every year unless something is promptly done to give him an equivalent title.

I am, Sirs, your obedient servant,

April 12th, 1887. A PARENT.

THE RIVIERA IN 1887.

THE EARTHQUAKE.—MONTREUX.—LES AVANTS.

(By our Roving Correspondent.)

THOSE who, year after year, leave England for more genial climates have had strange experiences this season. Many no doubt who have encountered the severe trial of the earthquakes in the Riviera have thought that there is much truth in the refrain that "there is no place like home," and hundreds have sought refuge in the congenial spring of Great Britain from the worry and anxiety which necessarily surrounded all who found themselves in the unhappy district upon which such great calamities have come. Earthquakes, however, are not of every-day occurrence, and not easy to avoid, for we know that our own island is not altogether free from them, as the country near Colchester testified some three years since. The Riviera will be more or less empty for this season at least, but there is little doubt that its bright sun and lovely scenery and foliage will prove attractive enough to outweigh the unpleasant memories of February, 1887, and that in a year or so the normal and well-deserved popularity of the district will be restored. There is a silver lining to every cloud, it is said, and we may hope that the earthquake may bring some compensation to those who seek health and relaxation in the south of France. Many of the hotels have been rudely shaken, some few so severely that they will have to be rebuilt. When the repairs are undertaken, it is to be hoped that the proprietors will not be content with mere patching and a delusive hiding of dangerous cracks by a superficial daubing with untempered mortar. There is no doubt that many hotels have been "run up" at a great pace, and there is equally no doubt that many of them are thoroughly bad, both in design and workmanship. A sojourn in almost any of the hotels in the south of France is sufficient to show how flimsy are the parti-walls, which are often constructed of one layer of thin hollow bricks placed on edge, the surface being daubed with mortar. These parti-walls have no struts of timber running through them, and it is not to be wondered at that when the houses began to shake these flimsy divisions quickly broke, and fell on this side and that. These hollow brick partitions are excellent conductors of sound, and the occupant of any one room can generally hear through the wall the intimate conversation of those who inhabit the rooms on either side of him. Light sleepers are often unable to get their much-needed rest until their neighbours have gone to bed; and if they do not luckily fall asleep in the brief period which elapses between the talking and snoring of some Teutonic Stentor, an almost sleepless night is the consequence. Hotel proprietors must be made to know that quiet and rest are as important for invalids as are the quality of the food and air, and the parti-walls between the rooms in the hotels should be sufficiently solid to exclude sound and withstand the really moderate amount of vibration to which many have been subjected this year and may be again. The doors of communication between rooms and between rooms and corridors should in all cases be double, for the purpose of excluding noise. I have dwelt on the importance of this matter in previous letters, and no excuse is needed for again drawing attention to it. Speaking from a professional point of view, it seems most important that invalids should not be allowed to stop in any hotel where they cannot command rest and quiet at any hour they please.

Hotel staircases again demand attention. Most of the staircases in the south of France and Italy are of a kind which must be dangerous in case of fire or earthquake. Constructed, as they often are, of thin slabs of marble, supported on one side only, each step getting its outside support merely from the step below, it is obvious that if one step be cracked by fire or vibration and be shaken from its position, the whole structure is in great danger of coming down "with a run." This actually happened in many houses during the late earthquake, and it is to be hoped that during the work of reconstruction this important matter will be attended to. Architects are very prone to make a great feature of the staircase; and there can be no doubt that when travellers from the North, accustomed to narrow, steep, wooden stairs, are ushered into an hotel, and see before them a broad staircase of easy gradient, with steps of pure white marble running upwards in ten or a dozen flights, their minds are startled by the unaccustomed and palatial magnificence. The danger of such staircases, however, is often directly proportioned to their height and breadth, and we may hope that we have seen the last of them. Such staircases are often very undesirable channels for noise, and not unfrequently the smell of the kitchen ascends by them and pervades the whole house. Staircases should be constructed so that the steps are supported on both sides by walls, and if so constructed they would be comparatively safe in case of accident. In large hotels two staircases of moderate dimensions are better from every point of view than one, be it ever so broad and palatial in design. The staircases, kitchen, and sanitary offices should always be in a structure more or less distinct from the rest of the building, and thus the parts of the house devoted to living rooms would run no risk of being pervaded with air from kitchens, closets, or sinks. It need not be said that in the reconstruction of hotels what may justly be called the "unsanitary offices" will need to be remodelled. All sanitarians admit that in a water-carriage system of sanitation imperfectly carried out we have the very demon of pestilence, and foreign hotel keepers need to be reminded that a sprinkling of some carbolised powder and the use of a brush are no compensation for half-inch supply pipes, faulty traps, and no ventilation. It may be laid down as an axiom that a closet which stands in need of a brush and disinfectants must be a perpetual source of danger in a house, and travellers should be well aware of this fact before selecting a house in which to make a long sojourn. The introduction of water-carried sewage along the coast has made the foreshore unpleasant in many places, and those who walk upon the beach to get a "sniff of the briny," sniff a good many other things which are neither savoury nor sweet. It is needless to say that with the rapid increase of population the sewage evil is increasing, and must increase; and I have little hesitation in predicting that that locality which can find some means of efficiently treating its refuse other than washing it into the the sea will experience a rapid rise in popularity. The water-supply is for the most part above suspicion, and is obtained from sources high up in the Alpes Maritimes. The Nice Water Company supplies excellent water, not only to the city of Nice, but to other towns near it.

It may not be uninteresting to your readers to place upon record, now that the excitement of the catastrophe is overpassed, the actual experience of one who felt the earthquake in full, though not its fullest severity. He was located *au troisième* in an hotel standing on one of the highest points of the rock at Monte Carlo. After a lovely day, in which a powerful sun had been shining in a cloudless sky, he retired to rest. The noise of persons returning late from the carnival caused the night's rest to be a good deal disturbed. The final disturbances occurred at a few minutes before six, when he was awoke by a noise above, below, and on either side, which, on reflection, seems to be best likened to the labouring of ships at sea, and was doubtless due to the breaking of the various materials of which the house was built. The bedroom was distinctly rocking, and his first instinct was to jump out of bed to avoid rolling out. In a few seconds the house steadied, and then the mental question arose as to the cause of this rude disturbance. The window commanded the Bay of Monaco with the old town opposite and the district of La Condamine below lying between Monte Carlo and the old town. Looking out, the commencing colours of a glorious sunrise met the gaze, and from the old town, and from La Condamine, some 200 feet below, there arose a babel of voices of persons, doubtless inquiring of each other what was the matter. With the voices was intermingled the barking of innumerable dogs, that had been apparently as much surprised and startled as their owners. These facts made it apparent that

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the disturbance had affected the whole locality, and a shock of earthquake seemed the only reasonable solution of the phenomena. Under the circumstances, it seemed advisable to get up (further sleep was certainly impossible, and the morning was tempting enough to call one from one's bed under any circumstances). Just as a rather hurried toilet was drawing to a close the second shock occurred, not so strong as the first, but only too distinct and most unpleasant, causing the house to creak and the windows to sway. Downstairs and into the open as quickly as possible seemed the reasonable course, for it is obvious that a house cannot stand many shocks such as we experienced, and it might happen that a third would cause it to give way. All the world was up and in the streets, the toilets being most peculiar and imperfect. Being up, what was to be done? It is difficult to know what can make one feel so utterly powerless as a shock of earthquake. No human power can prevent it; and when you have sought the open air, you have done all that is possible in the way of avoiding the possible consequences of further shocks. I have seen it stated in many of the papers that a condition of "panic" prevailed, but to this I should demur. Certainly I saw none, neither at Monte Carlo nor (later in the day) at Nice. That persons should get into the open air as quickly as possible was reasonable, and was distinct evidence of cool thought rather than panic. The question as to the cause, direction, &c., of the shock was naturally discussed, and when many persons discuss at once there is noise, but certainly there was no shrieking, and throughout the day I saw only one young girl who had "fainted," but as the colour of her cheeks was good, I concluded that she was merely "taking on," to use a common expression. The population of Monte Carlo is Franco-Italian, and might be assumed to be impressionable and excitable, but certainly they treated this unfortunate occurrence with the greatest *sangfroid*—a fact which made me suspect that this shock was a thing concerning which they were not without previous experience.

The amount of material damage sustained by the buildings at Monte Carlo was singularly small. The swaying of the houses had been sufficient to stop the clocks, but beyond this ominous fact there was little external evidence of the strain to which the buildings had been subjected. In the low-lying La Condamine, between the rocks of Monaco and Monte Carlo, there was more evidence of external damage, but even here the evidence was limited to a few fallen parapets and chimneys. In this part of the town the buildings are not so high, few being more than two or three storeys, and yet it was evident that these comparatively low houses had suffered more than the huge caravanserais perched on the rock of Monte Carlo. From facts which came to light subsequently it appeared that Monaco as a whole had suffered less than Mentone on the east and than Nice on the west. Mentone, being nearer to the centre of disturbance, might be expected to suffer more than Monaco; but Nice being further from the centre, ought, at first sight, to have suffered less. The reason, apparently, for the comparative escape of Monaco lies in the fact that, with the exception of La Condamine, the houses are built directly on the solid rock, while at Nice and Mentone a large proportion of the buildings are upon the alluvium which has been carried down by the torrents which intersect these cities. The trembling of the earth would cause more movement in the loose alluvium than the solid rock, and hence houses on the alluvial ground seem especially to have suffered.

An interesting point in connexion with the catastrophe was the difficulty in obtaining any accurate information as to the extent and severity of the trouble; in fact, it was not until the arrival of the English papers that the real facts became known. On inquiry at the telegraph office one learnt that the shock had been felt "all over France." It was said that Grasse was in ruins, that the shock had been terrible at Marseilles, and that a church had fallen at Mentone &c. In estimating the value of the current reports, it is needless to say that great allowance had to be made for the natural desire of hotel proprietors &c. to retain their guests, and to impress upon travellers that by moving in any direction they would be going out of the frying-pan into the fire. The fact of most value which enabled a judgment to be formed as to the probable focus of the disturbance was the blocking of the telegraph wires to the east, while they remained open to the west.

(To be concluded).

EDINBURGH.

(From our own Correspondent.)

UNIVERSITY OF EDINBURGH.

AT the approaching graduation ceremonial, the Senatus Academicus have decided to confer the honorary degree of LL.D. upon Professor von Kölliker, of Wurzburg. The degree was offered him on the occasion of the tercentenary celebrations, three years ago; but he was prevented from being present at the time. The degree is now to be conferred *in absentid*, as Professor Kölliker's feeble state of health precludes the possibility of his travelling such a distance at the present time.

PROPOSED UNIVERSITY HALL.

A need has of late been growingly felt in Edinburgh to provide the possibility of a more corporate and social college life for the students of the University than has up to the present obtained among them. With this view an association has now been formed, with Sir William Muir, Principal of the University, as its president, which will undertake the establishing of a number of halls of residence for the students as occasion seems to demand. A beginning has been made by securing a convenient block of buildings near the University buildings and the infirmary; these premises are to be prepared for the reception of students in the coming summer session. Rents of rooms are to be adjusted so as merely to cover expenses, and it is stated that desirable rooms are attainable at from 7*s.* 6*d.* to 15*s.* weekly by students anxious to join the colony. It is desired by the promoters of the scheme to combine some beneficial influence on the surrounding districts with the ordinary avocations and studies of the inmates of the hall; and it is stated that students interested in such work as is done at Toynbee Hall, London, by Oxford and Cambridge students, will obtain preference for their applications for entrance. Out of a total of 3500 students, it is probable that a sufficient number will be forthcoming to fill this hall, and possibly another should the first experiment be successful. If carefully managed its success is assured, and its establishment probably marks an important point of departure in our academic institutions.

THE FEVER EPIDEMIC.

The epidemic of scarlet fever dies out slowly, and the City Fever Hospital is still crowded with inmates. The report for the present week shows that of 244 cases in the wards 200 are cases of scarlatina.

CLINICAL INSTRUCTION IN FEVERS.

As the outcome of strong representations to the city authorities some months ago, it was decided to open the wards of the City Fever Hospital for the visitation of students; and a system of clinical instruction was inaugurated by Dr. Allan Jamieson, the visiting physician of the institution. The results up to the present have been highly satisfactory, and Bailie Russell, to whose efforts this improvement is largely due, was able to report recently to the Town Council that twenty-six students and four medical graduates had availed themselves of Dr. Jamieson's teaching during his first course of lectures, and that none of those attending had taken fever.

EDINBURGH UNIVERSITY COURT.

At its last meeting the Court confirmed the arrangements approved by the Senatus, under which Professor Haycraft, of the Mason College of Science, Birmingham, will take charge of the department of Physiology and superintend the teaching of the practical classes during the coming summer, in the absence of Professor Rutherford. The arrangements include the payment of £200 to Professor Haycraft by the Professor of Physiology.

THE NEW EXPERIMENTAL LABORATORY.

The new laboratory established by the Edinburgh Royal College of Physicians has already commenced its objective existence. A very convenient building, in close proximity to the infirmary and the medical schools, has been acquired, and will shortly be supplied with all the modern requirements of an experimental laboratory. The directorship of the new institution has not yet been filled up. Applications for the post were received by the committee in charge up to the end of last week, and it is anticipated

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that the result of their deliberations will be shortly announced. Application has been made entirely by private letters addressed to the chairman of the Electing Committee, and testimonials have not been received on behalf of any of the candidates. Owing to the conditions of the contest, it is not definitely known how many competitors are in the field; but the names of Dr. Sims Woodhead, Dr. William Hunter, and Dr. Noël-Paton are mentioned as probably successful candidates. If these gentlemen are really among the competitors, the College has cause for congratulation in the *embarras de richesse* thus placed at its disposal; although the strong claims of each, based on the valuable work they have already accomplished, will make the decision a difficult one. The first task of the director, when appointed, will be to superintend the thorough equipment of the laboratories; subsequently his duties will chiefly consist in advising suitable lines of research and in organising the daily duties of his department. The laboratory and its success are the objects of great interest in Edinburgh, and there is every prospect that the new institution will form a useful channel through which the pent-up scientific energies of the school may freely develop themselves.

THE RECTORSHIP OF EDINBURGH UNIVERSITY.

The Marquis of Lothian, K.T., has been chosen by the University Conservative Association as their candidate for the Rectorship of the University, vacant through the death of the late Lord Iddesleigh. The date of the election is still nearly six months distant, but the Association is desirous of losing no time in placing their candidate before the constituency of undergraduates, and in conducting an active canvass in his behalf.

During the last six months a sum of £2750 has been received for the Royal Infirmary in the form of legacies.

Edinburgh, April 12th.

ABERDEEN.

(*From our own Correspondent.*)

THE CITY HOSPITAL.

After a long and careful inquiry into the burning of a patient at the City Hospital, the Public Health Committee have issued a report, in which they state that they "are of opinion that the head nurse acted wrongly in placing the ward maid, Margaret Easton, in charge of the patient, knowing that Easton would be obliged to leave her several times quite alone for a period of from twenty to thirty minutes; they are further of opinion that the head nurse failed in her duty in not taking steps for securing a proper complement of nurses." It is also stated that, "in the opinion of the committee, it is matter of regret that the medical attendant did not report the occurrence earlier, and that after the accident took place he did not consider it requisite to visit the patient more frequently than once a day." The head nurse has sent in her resignation, which has been accepted. At a meeting of the Town Council, it was agreed, on the motion of the Lord Provost, to ask Surgeon-Major Fassor, superintendent of the Edinburgh Infirmary, to visit the hospital and report "as to what changes and improvements should be introduced for the purpose of placing the institution in a thoroughly efficient and satisfactory condition."

THE ROYAL INFIRMARY.

At a special meeting of the Committee of Management, held on the 8th inst., the Plans Committee submitted a revised design for the extension and improvement of the infirmary buildings. According to the proposed plan, the new building would accommodate 233 beds, with a cubic space of 1400 feet per bed. The approximate cost of the new design is £30,890. The "Jubilee Fund" now amounts to nearly £19,000.

ABERDEEN UNIVERSITY.

The last of the "professional examinations" took place to-day at Marischal College, and the graduation ceremony takes place on Friday, the 15th inst. The summer session commences on the 25th, and the preliminary examinations are to be held on the Friday and Saturday preceding. At a meeting of the Senatus held on the 2nd inst., Dr. Cash, recently appointed to the Chair of Materia Medica, was duly installed. At the same meeting it was resolved to provide an album for the purpose of receiving the signature of every student at matriculation and graduation. To-day's *Aberdeen Journal* says that "some correspondence has taken place recently between the University authorities and the Government with reference to a grant in aid of the extension of the University buildings. The sum needed to carry out the scheme is £84,000, and of this sum one-fourth was proposed to be raised locally. Information has been received that under existing circumstances (the smallness of the local efforts) the Lords of the Treasury cannot meet the wishes of Aberdeen."

ABERDEEN MEDICO-CHIRURGICAL SOCIETY.

Dr. McKenzie Booth has been elected librarian in room of the late Dr. William Fraser, and Dr. John Gordon succeeds the late Dr. Beveridge as treasurer to the Society.

Aberdeen, April 12th.

DUBLIN.

(*From our own Correspondent.*)

THE QUEEN'S JUBILEE.

SIR WILLIAM STOKES, President of the Royal College of Surgeons in Ireland, has issued cards for a dinner in celebration of Her Majesty's Jubilee. The banquet, which will be held in the College on Saturday, the 23rd inst., is expected to be a magnificent success, and will be attended by his Excellency the Lord-Lieutenant, his Serene Highness Prince Edward of Saxe-Weimar, the leading medical men in Dublin, and many others holding high official positions.

PROPOSED HOSPITAL FOR CONSUMPTION NEAR DUBLIN.

A subcommittee has been appointed by the Executive Committee of the City and County of Dublin Jubilee Committee, in order to select a suitable site for the proposed institution, and ascertain the cost of erecting the same, to provide accommodation for about twenty-five beds. Lord James Butler, the chairman of the Managing Committee of the Adelaide Hospital, has urged the necessity of establishing a convalescent home in connexion with that hospital, to be styled "The Jubilee Victoria Convalescent Home," under the same management, and has initiated the movement by a gift of £50.

UNIVERSITY OF DUBLIN.

The authorities of Trinity College, Dublin, by desire of Her Majesty, have arranged to allow credit for the Trinity Term examinations to all students, except candidates for the degree of Bachelor of Arts, whose names shall be on the College books at the dates fixed for their respective examinations.

NIGHT LECTURES.

The Standing Committee of the Royal University of Ireland on March 31st last adopted a resolution, to the effect that after that date certificates of night lectures would be refused by the University. This announcement came as a very disagreeable surprise to many hard-working students, who from no fault of their own may be prevented from attending day lectures; and, unless this objectionable rule is rescinded by the Senate, they will become ineligible for the next examinations of the University. The writer of this has lectured for some years to both day and night students, and can conscientiously state that for anxiety to learn, steadiness, and general good conduct, night pupils are in no way inferior to those attending the day classes. If the Senate enforce the carrying out of this resolution, a serious injury will be inflicted on a large and deserving class of medical students.

A bazaar and fancy fair in aid of Sir P. Dun's hospital will be held next week at the College of Physicians.

Dr. J. W. Swan died, on the 8th inst., at Clarinda Park, Kingstown, aged eighty-four years.

Dublin, April 12th.

NEW HOSPITAL IN WEST RENFREWSHIRE.—At a special meeting on the 7th inst. contracts were accepted for the erection of a combination hospital for the parishes of Houston, Kilbarchan, Erskin, and Inchrinen, including the burgh of Johnstone. The cost will be under £2000.

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PARIS.

(*From our own Correspondent.*)

M. PASTEUR'S METHODS.

On the 20th of last July a man named Hamyau, of Dunkirk, was bitten by a dog. On the 20th of the following month the same dog, at that time probably rabid, bit another man, who was forthwith sent to Paris and subjected to the intensive treatment. His death from paralytic rabies formed the subject of M. Peter's first communication to the Academy. Hamyau, who six months ago was a strong, vigorous man, is now suffering from a strange illness, which those favourable to M. Pasteur's treatment affirm to be pulmonary congestion. M. Peter, on the other hand, does not hesitate to declare that the symptoms are due to *canino-experimental* inoculation. Since the middle of February there has been paresis of the lower limbs and of the organs supplied by the pneumogastric nerve. The breathing is constantly oppressed, the pulse remains at 120, and the abdomen is tympanitic. Pressure made by M. Peter on the vagus gave rise to alarming dyspnœa and palpitation. The patient seldom passes a day without feeling neuralgic pains at the seat of the inoculations, but no abnormal sensation is felt in the scar of the bite. The symptoms have been somewhat relieved by the administration of pilocarpine in doses of fifteen grains daily, but M. Peter considers that the case will terminate fatally.

INOCULATION AGAINST PORCINE MEASLES.

A provincial paper relates another mishap, which is not uninstructive. A veterinary surgeon had been supplied with the preservative against porcine measles, and inoculated a herd of swine belonging to one of his clients. Unfortunately the pigs died, and the veterinary inoculator was obliged to reimburse their owner. The *Echo du Midi* says that he is about to bring an action for recovery against M. Pasteur.

PROPHYLAXIS OF YELLOW FEVER.

MM. Freire, Gibier, and Rebourgen presented a note at the Academy of Science on the Prophylaxis of Yellow Fever by the Inoculation of an Attenuated Virus. In 1885 and 1886, 6524 persons submitted themselves to this protective vaccination in Rio Janeiro, and during this period the total number of deaths from yellow fever was 1675. Of the victims 1667 had not been inoculated, the mortality amongst those protected amounting to eight deaths only. The authors state that, taking as the basis of their calculation the population exposed to the contagion, the percentage of deaths for the whole number was 1 per cent., whereas for those who had been subjected to preventive inoculations it was only 1 per 1000.

THE SLEEPER OF THENELLES.

The *Revue d'Hypnotisme* contains a report by Dr. Edgar Bérillon on *la Léthargique de Thenelles*, a young woman who will shortly have accomplished the fourth year of an uninterrupted trance. Miss M. B——, now twenty-five years of age, has always been sickly, delicate, and nervous. On May 30th, 1883, after a fright, she had several convulsive attacks, and then fell into a profound sleep, from which she has never awakened. She is kept alive by small quantities of liquid food, which are swallowed automatically. The excretions are greatly diminished, and menstruation is now entirely suppressed. When examined by Dr. Bérillon, the limbs were found to be much wasted, and all trace of adipose tissue had disappeared. Anæsthesia is complete, and the knee reflex is abolished. The pulse is almost imperceptible, and gives 100 beats to the minute. Respiration is regular, but feeble. The breath has not the autophagic odour of insanity and starvation. The face is pale, waxy, and without expression. The mucous membranes are colourless. When the eyelids are opened the eyes are seen to be convulsed upwards, and blowing upon them produces no palpebral reflex. The jaws are tightly closed by contracture of the masseters. The arms can be easily raised, but enter at once into contracture. The muscles are in that state known as neuro-muscular hyper-excitability, and the slightest touch or puff suffices to cause contracture, which can be removed by the application of warmth. Besides the sensory anæsthesia there is complete mental inertia, and the patient is inaccessible to any kind of hypnotic suggestion.

Paris, April 12th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

At a quarterly meeting of the Council held on Thursday last the minutes of the last meeting were confirmed. On the recommendation of the Museum Committee, it was determined to purchase a very fine specimen of the egg of the Epiornis.

Mr. James Berry, of 60, Welbeck-street, was awarded the Jacksonian Prize for his essay on "The Pathology, Diagnosis, and Surgical Treatment of Diseases of the Thyroid Gland."

The seventh report of the Committee on Charters and Bye-laws containing the draft of the new supplementary Charter to give effect to several alterations in the Charters agreed to by the Council, was approved and adopted, and it was resolved that the necessary proceedings be taken to submit the same to the Privy Council.

The resignation of Mr. Howse as Examiner in Anatomy was accepted.

Permission was given to the President to hold a private conversazione in the College in June next.

The Council having taken exception to the mode of advertisement of a Member, and he having sworn before a magistrate to cease from such practices, the Council agreed not to take further proceedings in the matter.

The proposal of the Committee of Delegates having been approved by the College of Physicians, authority was given to the delegates to erect a statue of the Queen in the Examination Hall, at the joint expense of the two Colleges.

It was referred to the President and Vice-Presidents to prepare an address of congratulation to Her Majesty on the completion of fifty years of her reign. Further memorials (one of them from Scotland) against the proposal from members of the medical profession and men of science to found a laboratory for the prosecution of pathological and physiological research were presented.

A resolution, proposed by Mr. T. Smith, was carried *nem. con.*—viz., "That a professional auditor be appointed to audit annually, in association with the committee of auditors, the College accounts."

Sir James A. Hanbury, K.C.B., of the Army Medical Staff, was elected a Fellow of the College, under Section 5 of the 15th Victoria, applicable to Members of twenty years standing.

Obituary.

CHARLES HUTTON, M.D. ST. AND., M.R.C.P.

DR. CHARLES HUTTON, late of 26, Lowndes-street, Belgrave-square, long engaged in the practice of obstetric medicine, died on the 27th of last month, after a short attack of acute bronchitis, at the age of sixty-nine. Dr. Hutton had for some time been in failing health; his last illness was apparently the result of a cold caught while employed on an errand rather of charity than duty on the night of March 13th.

Charles Hutton, M.D. St. And., was the youngest surviving son of the late William Hutton, Esq., of Beetham and Overthwaite, in the county of Westmoreland. The family was an old one, the property having descended from father to son for upwards of 300 years. Dr. Hutton studied at St. George's Hospital and Paris, and shortly after the completion of his studentship married in 1850 a daughter of the late Dr. Seymour, then one of the physicians of St. George's Hospital. This lady survives him with a son and two daughters. For many years Dr. Hutton was physician to the Hospital for Children and Women, Waterloo-bridge-road, and to the General Lying-in Hospital, York-road, Lambeth. During his long professional career he won the affection and esteem of all who knew him. He was a man of unblemished honour. He was most unselfish in all his proceedings, ever sympathising with and striving to relieve suffering, whether among rich or poor, regardless of his own profit or advantage. His patience and devotion were unwearied, and a wide circle of professional and private friends will sincerely lament his loss. Dr. Hutton was of a retiring nature, and, though of acknowledged skill in his special department, was

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not successful enough to be able to leave a provision for his family. His long, honourable, and laborious life appears to have been inadequately rewarded. It is not impossible that some attempt may be made to relieve in some small measure the necessity of Dr. Hutton's family.

PIETRO CIPRIANI.

A PHYSICIAN and citizen of the first order has just been lost to Italy in the Senator Pietro Cipriani, who died at Florence on the 4th inst., in the seventy-ninth year of his age.

Born in San Piero a Sieve on Dec. 10th, 1808, as a boy he gave early indications of future distinction, and at the age of eighteen began his medical curriculum at the University of Pisa. He took the degree of Doctor in Medicine in 1832, and next year repaired to Florence for better means of clinical observation and research. He soon displayed remarkable skill in diagnosis and treatment, which led to his appointment as assistant-physician to the Florentine Hospital. This post he filled with increasing acceptance till August, 1835, when the cholera explosion at Leghorn summoned him thither to take charge of the lazaretto specially set apart for sufferers from that disease. His devotion to his heavy and hazardous duties was such that at the disappearance of the malady he was publicly thanked by the municipality; while the gratitude of the entire population towards him took the form of a gold medal struck in his honour.

Fresh from the cholera wards at Leghorn, he was welcomed back to Florence by the heads of the profession, and he became assistant in the Clinica Medica Generale to the illustrious Maurizio Bufalini. So highly did Bufalini estimate his clinical and expository powers, that on the frequent occasions when he had to be absent as a consultant, he delegated to young Cipriani the duties of the day in the ward and the lecture-room. Meanwhile, in great measure due to the rigid inductive teaching of Bufalini, medicine throughout Italy, and especially in Tuscany, was making signal advances, one effect of which was to separate from the general clinic such diseases as had asserted their claim to distinct and special consideration. Skin affections were one of these, and for the chair of "Malattie Cutanee," created for the first time in Florence, no fitter occupant was found than Cipriani, who, however, before entering on its duties, took care, with characteristic modesty and thoroughness, to qualify himself by a diligent course of study at the renowned dermopathic clinics of Vienna and Paris. It was in 1840 that Cipriani delivered his first course of lectures on the "Malattie Cutanee," and such an interest did he throw round his specialty that students from all parts of Italy came to listen to his prelections. He was not destined, however, to close his career in dermatology simply; for on the veteran Bufalini having, from age and ill-health, to resign his post at the head of the Florentine "Clinica Medica," Cipriani was selected as one of the only two Tuscan physicians who were worthy to take up the torch of the master. The duties that now devolved on him were arduous and complicated; but all difficulties faded before his chivalrous sense of honour, his indefatigable application, and his admirably disciplined powers.

He was too active a practitioner and too fastidious a writer to publish much; but as president of the Medical Faculty of the Florentine Institute he signalised himself as a sound critic and man of taste, and guided others to the path of authorship from which he shrank himself. In 1879 his health began to decline, and it was only after reiterated appeals to be relieved of his official duties that he was allowed to limit his activity to consultations merely. He continued, as Emeritus Professor and as occasional Assessor at the directing Council of the Florentine Institute, to give the profession the benefit of his experience and judgment, while his devotion to good works kept him to the last the chief promoter of the Blind Asylum of Florence. Sometimes, too, he would appear in Rome during great political crises and take his part as Senator in the deliberations of the "Patres Conscripti." But within the last few years the decline of health, the death of familiar friends, and not a little domestic affliction, withdrew him more and more from the public view, so that it was with much less surprise than sorrow that on the 5th inst. Italy received the news of his death.

JAMES BARRON, B.A., M.D.

IT is with sincere regret we have to announce the death of Dr. Barron, of Belfast, which took place at his residence in that city on the 2nd inst., under very sad circumstances, he having succumbed to typhus fever, a disease which has carried off so many Irish medical men, and which he contracted from a dispensary patient whom he was attending. Dr. Barron, who was a native of Antrim, was educated at the Belfast Medical School. He graduated in the Queen's University, and at his M.D examination was awarded a first class and the gold medal. Shortly after receiving his diploma he was appointed dispensary doctor at Templepatrick; but, being of an ambitious nature, he went to Belfast, and was elected house-surgeon at the Royal Hospital, a post which he held for several years, until, a vacancy having occurred in the surgical staff, he was appointed assistant-surgeon. He then began private practice in Belfast, and shortly afterwards resigned his hospital appointment on being chosen to take charge of one of the dispensary districts, an office which he held up to his decease. He was secretary of the Ulster Medical Society, and a short time ago was elected a member of the staff of the Ulster Hospital for Women and Children. Dr. Barron was thoroughly versed in all branches of the medical profession, and being a man of the most kindly disposition he was extremely popular with his brother practitioners, as well as with a large circle of patients and friends. It is melancholy to think that within a short interval two medical men in Belfast, living in the same district—Dr. Wadsworth and Dr. Barron—have both fallen victims to typhus fever. An immense number of medical men and other friends were present at the funeral, to show a last mark of respect to one who had become so deservedly popular.

G. BACON SWEETING, M.R.C.S., L.R.C.P. LOND.

THE death of this gentleman took place on March 23th, at Great Smeaton, in Yorkshire, where he had gone in search of health. For upwards of thirty years he occupied a prominent position in the profession at King's Lynn and the neighbourhood. Born at Bridport in Dorsetshire, on March 26th, 1824, he was apprenticed to his father, Mr. William Sweeting, himself a practitioner of considerable repute. After studying at University College, and subsequently in Paris, he entered the profession by taking the membership of the College in 1848. For some years he was engaged with Mr. Image, of Bury St. Edmunds, in active practice. In 1856 he went to reside at King's Lynn, and at once took a foremost place in the profession. Although engaged in general practice all his life, his opinion and aid as a consultant both in medical and surgical cases were constantly sought by his brother practitioners. The trust they thus bestowed in him was never betrayed, and so he succeeded up to the time of his death in successfully filling the difficult position of a consulting general practitioner. For a short time he was surgeon to the West Norfolk and Lynn Hospital, but finding the tax on his time too great, he retired, and was appointed consulting surgeon. He was a Fellow of the Royal Medical and Chirurgical and Chemical Societies. Of imposing presence, and possessing a fine physique, he was universally respected. He was an ardent lover of field sports. The late Mr. Sweeting was never married. He was actively engaged in practice until four weeks of his death, which took place within one day of his attaining his sixty-third year.

PROFESSOR LUIGI LAURENZI.

THIS able surgeon and teacher, the head of the Ospedale della Consolazione in Rome, died on the 5th inst., in circumstances distressingly sudden. He had made his usual morning visit to the wards, and had driven to his house in the Via Borgogna, when his coachman remarked that he alighted with great difficulty, and was deadly pale. The coachman accordingly made a signal to Madame Laurenzi, who happened to be at the window with her daughters, to come down at once. The lady descended forthwith, and with the aid of the coachman, succeeded in assisting her husband in-doors, though he attempted to conceal how ill he was, and deprecated her alarm. Within half an hour thereafter

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he expired. Professor Laurenzi had, it seems, been suffering from urgent cardiac symptoms for some time, but such was his devotion to his patients and his pupils that, in spite of a very bad night, and contrary to the entreaties of his friends, he insisted on going that morning to the hospital.

His death is widely and deeply lamented. He was in the zenith of his powers, and his high reputation, acquired at the Consolazione by a long series of brilliant operations, had caused him to be respected and consulted as one of the soundest and most successful surgeons of Rome and the province. Some of his lectures and notes of interesting cases, reported in the *Gazzetta Medica di Roma*, had also carried his reputation beyond the Italian frontier. He was, moreover, very popular in the class-room, and a singularly pleasant and affable colleague.

He was buried in the Campo Verano on the morning of the 7th inst., the funeral *cortège* consisting of a numerous train of friends, colleagues, and representatives of the University and learned bodies. In the Piazza di Termini the procession paused for a space, and, according to custom, brief addresses were pronounced in his honour. The speakers were the veteran Dr. Filippo Scalzi and Prof. David Toscani, both of them equal to the melancholy task.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.—The following qualified candidates, having passed the final examination, have been granted the licence:—

Bridgwood, John Francis, Stafford.
Waite, Davis Allan, London.
Callender, Gerald, St. Mary's Hospital, London.
Wrentmore-Tucker, Robert Frank, Clifton, Bristol.
Farmer, William Henry Francis, London.

SOCIETY OF APOTHECARIES.—The following gentlemen passed the examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise on April 7th:—

Shute, George Sidney, Gillingham, Dorset.
Wedgwood, William Brackenbury, Fern Bank, East Dulwich.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Richard Watson Councell, Bristol School of Medicine; Geo. Andrew Gunton, St. George's Hospital.

The results of the Examination in Arts held at the Hall of the Society on March 3rd and 4th last have recently been published. There were 204 candidates, and from the Pass List it appears that 2 were placed in the First Class, 44 in the Second Class, and 116 were certified as having passed in some of the subjects, but not in all. The number of candidates was larger than on any former occasion, though the examination is held four times annually.

A FRESH outbreak of diphtheria is reported from Saltash.

IN the House of Commons on the 12th inst., the Aberdeen Infirmary and Lunatic Asylum Bill was read a second time.

HYDROPHOBIA: M. PASTEUR'S TREATMENT.—Senor Ramon was bitten by a wolf on Feb. 15th. M. Pasteur treated him for hydrophobia, but death has ensued.

PLANS have been selected for the proposed Ashburton and Buckfastleigh Cottage Hospital. The building will, it is estimated, cost £1200.

MIDDLESEX HOSPITAL.—The first Broderip scholarship at this institution has just been awarded to Mr. W. H. Vickery.

THE Duke of Bedford has intimated his intention of contributing £300 to the Endowment Fund of the Tavistock Cottage Hospital and Dispensary, which has recently been started.

REGISTRATION OF PLUMBERS.—Of nineteen journeymen plumbers examined at the last meeting of the examiners, nine candidates passed and ten failed to satisfy the examiners.

THE memorial stone of the new infirmary buildings to be erected for the parish of Birmingham was laid on the 31st ult. The building, which is designed on the pavilion principle, will cost about £70,000.

A GENERAL MEETING of the members of the London cab trade was held on the 8th inst., with a view of increasing the contributions to the Hospital Saturday collection.

THE recent performances at the Theatre Royal, Birmingham, on behalf of the local hospitals, realised £300, which will be distributed amongst the charities on the principle of the Hospital Saturday collection.

FRENCH PROTESTANT HOSPITAL, VICTORIA-PARK.—On Monday last a general court of governors and friends of this charity was held, and a report read which showed that much good work is being done through the agency of the hospital.

NAVAL MEDICAL SUPPLEMENTAL FUND.—At the quarterly meeting of the directors of the fund, held on the 12th inst., T. Russel Pickthorn, Esq., Inspector-General, in the chair, the sum of £53 was distributed among the several applicants.

THE usual monthly meeting of the Metropolitan Public Gardens Association was held on the 5th inst., when reports as to the progress of works in different parts of London which have been undertaken by the Association were presented.

THE Committee of the Manchester Southern Hospital are appealing to the public for funds to enable them to establish a lying-in hospital in connexion with that institution, the urgent need for which has been for some time recognised.

ROYALTY AT THE LONDON HOSPITAL.—On the 12th inst., his Royal Highness the King of the Belgians, accompanied by Sir Edmund Currie, paid a visit to the London Hospital. The King inspected many of the wards, and expressed himself highly pleased with the excellent hospital arrangements.

STRAY DOGS IN LONDON.—The number of stray dogs taken by the police during the month of March to the Dogs' Home was 1246. Twelve were killed in the thirty-one days in the London streets as mad or ferocious. Sixty-five persons, including two constables, were bitten during the same period.

THE "JOHN REID" MEDICAL PRIZE.—This prize, of the value of £25, founded by Miss Reid in memory of her brother, the late John Reid, surgeon, Glasgow, and awarded for the best original research bearing on any of the departments of medical science conducted in one of the hospitals or laboratories of Glasgow, has been gained by Mr. R. C. Wakefield for an able paper on "Aneurysm."

THE WOLVERHAMPTON NURSING INSTITUTE.—The Mayor (Mr. T. Vincent Jackson, F.R.C.S.) has received a communication from the Secretary of State, informing him that Her Majesty the Queen has consented to the proposed Nursing Institute, which is to be established in that town as a permanent local Jubilee commemoration, being named "The Queen Victoria Nursing Institute."

MEDICAL MAGISTRATES.—Robert Leamon Bowles, M.D., F.R.C.P., was sworn in on the 6th inst. at Canterbury as a Justice of the Peace for the county.—Robert Spence, M.B., Craigkennochy, Buntisland, has been placed on the Commission of the Peace for Fifeshire.—Dr. Evan Roberts, Penygroes, has been placed on the Commission of the Peace for Carnarvonshire, and qualified at the recent Easter Quarter Session for the county.

STOCKPORT INFIRMARY.—The annual meeting of the trustees of this institution was held on the 30th ult., when it was reported that 1660 out-patients, 825 home patients, 1052 cases of accidents, 621 in-patients, and 650 casualties without recommendation had been treated during the past year, making a total of 4808, against 5006 in 1885. The total amount of income was £3678, against £3492 in the preceding year, and the expenditure amounted to £2931.

ST. THOMAS'S HOSPITAL.—The testimonial to the retiring librarian, Mr. Denison, will be presented in the Library of the Medical School on Monday, May 16th, at 4.30 P.M. Dr. Ord, Dean of the School, will preside. The testimonial will consist of a clock, and a purse accompanied by an engrossed list of the subscribers. In order that the list may be ready, it is necessary that any who have not yet subscribed but intend to do so, should send in their names at once.

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AN EASTER OFFERING TO THE BROMPTON HOSPITAL. On Sunday last, after a sermon at St. Peter's, Cranley-gardens, by the Rev. F. Byng, the sum of £56 was collected for the benefit of the funds of the above hospital.

THE JUBILEE.—In commemoration of the Jubilee it is proposed to found a convalescent home in connexion with the Adelaide Hospital, Dublin.—On the 6th inst. it was decided by a meeting of the inhabitants of Eastbourne to enlarge the Princess Alice Memorial Hospital.—It is expected that the foundation stone of the Royal Jubilee Children's Hospital, which is to be erected at Gateshead, will be laid early in June.

Births, Marriages, and Deaths.

BIRTHS.

HOLTHOUSE.—On the 10th inst., at Gower-street, the wife of Edwin Hermus Holthouse, F.R.C.S., of a son.

KIRKHAM.—On the 24th ult., at Downham, Norfolk, the wife of F. W. Kirkham, M.A., M.D., of a son.

SANDBERG.—On the 5th inst., at Liverpool Lodge, Brixton-hill, S.W., the wife of Arthur Sandberg, M.D., of a son.

SCOTT.—On the 1st ult., at Batu Gajah, Kinta, Perak, the wife of W. Duncan Scott, M.B., C.M., of a daughter.

STEVENSON.—On the 10th inst., at Camberwell-grove, Denmark-hill, the wife of Leader Stevenson, M.D., of a son.

WATNEY.—On the 8th inst., at Buckhold, Berks, the wife of Herbert Watney, M.D., of a son.

WEST.—On the 7th inst., at King Henry's road, N.W., the wife of J. Arthur West, M.R.C.S., L.R.C.P., of a son.

MARRIAGES.

FULLER—BLACK.—On the 12th inst., at St. Marylebone Church, Henry Roxburgh Fuller, M.D.Cantab., to Julia Louisa, second daughter of the late Patrick Black, M.D.

HENDLEY—BEAL.—On the 12th inst., at Jeypore, Rajputana, India, Surgeon Harold Hendley, 7th Bengal Cavalry, to Emmie, second daughter of James Beal, of Roseneath, Hammersmith.

WHITE—CHALMER.—On the 13th inst., at Christ Church, Fulwood, Sheffield, by the Rev. A. G. Tweedie, M.A., John Sinclair White, M.D., F.R.C.S., to Evelyn, only daughter of Frederick Chalmer.

DEATHS.

EBERLE.—On the 8th inst., suddenly, John James Eberle, L.R.C.S., L.R.C.P.Ed., at Thirsk, Yorkshire, aged 40.

GLASSE.—On the 1st inst., at his residence, Queen's-road, Guernsey, Henry Dunn Glasse, late Deputy Inspector-General of Hospitals, Bombay Presidency, aged 73.

GOSTLING.—On the 3rd inst., at Naples, on his way home from Bombay, Henry Walter Gostling, M.R.C.S., L.R.C.P.E., aged 43.

GRENFELL.—On the 10th inst., at Penzance (from ear disease and purulent meningitis), Henry Grenfell, M.R.C.S., L.S.A.

HALLS.—On the 5th inst., at Courtfield-gardens, South Kensington, Thos. Edward Hornby Halls, M.R.C.S., aged 59.

PARKER.—On the 6th inst., at Shrivenham, Berks, Charles Gunning Parker, F.R.C.S., aged 76.

JACKSON.—On the 31st ult., at Brunswick-terrace, Brighton, after a short illness, John Jackson, M.D.Cantab., F.R.C.P., late of the Bengal Medical Service, aged 82.

WANE.—On the 5th inst., at Fitzjohn's-avenue, Hampstead, Daniel Wane, M.D., M.R.C.P., late of Grafton-street, Berkeley-square, aged 73.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ADAMS, JOSEPH, M.B., C.M.Ed., has been reappointed Medical Officer of Health for the Runcorn Rural Sanitary District.

AVERILL, C., M.R.C.S., L.S.A., has been appointed Junior House-Surgeon to the Macclesfield General Infirmary, vice Gell, promoted.

BUNCLE, ALEXANDER, M.B., C.M.Ed., has been reappointed Medical Officer of Health for the Featherstone and Pontefract Urban Sanitary Districts.

DE'ATH, GEORGE HANBY, M.R.C.S., L.R.C.P.Lond., has been re-appointed Medical Officer of Health for the Buckingham Urban Sanitary District.

DUDGEON, JOHN, M.D. Glas., has been appointed Physician and Private Secretary to His Excellency the Marquis Tseng at Pekin.

FLOWER, FREDERICK ISAAC, M.R.C.S., L.S.A., Medical Officer of Health for the Rural Sanitary District, has been appointed Medical Officer of Health for the Warminster Urban Sanitary District, vice Grubb, resigned.

FOWLER, JAMES, M.R.C.S., L.S.A., has been appointed Consulting Surgeon to the Clayton Hospital, Wakefield.

GAULT, ARTHUR H., L.R.C.P.Lond., M.R.C.S., has been appointed House-Surgeon to the Ashton-under Lyne District Infirmary.

GREEN, F. KING, F.R.C.S., L.S.A., has been reappointed Honorary Assistant Surgeon to the Royal United Hospital, Bath.

HEAP, CHARLES SYDNEY, M.R.C.S., L.K.Q.C.P.I., has been re-appointed Medical Officer of Health for the Swanage Urban Sanitary District.

HIRST, HERBERT, M.B., C.M.Edin., has been appointed Assistant House Surgeon to the Huddersfield Infirmary, vice L. Demetriadi, resigned.

HORSFALL, HENRY, M.D. St. And., M.R.C.S., has been reappointed Medical Officer of Health for the Bedale Rural Sanitary District, Yorkshire.

LATHAM, P. W., M.D.Cantab., F.R.C.P.Lond., has been reappointed Physician to Addenbrooke's Hospital, Cambridge.

LAWSON, J. BURNETT, M.D.Glas., has been elected Medical Officer for the Rothesay Parochial Board, vice Maddever, deceased.

MENZIES, WILLIAM FRANCIS, M.B., C.M.Edin., has been appointed Assistant Medical Officer to the Lancashire County Asylum, Rainhill.

MUDGE, THOMAS H. TRACEY, M.R.C.S., L.R.C.P.Lond., has been appointed Medical Officer of Health for the Paignton Urban Sanitary District, vice Stone, deceased.

O'CONNOR, JOHN, M.B.Dub., has been appointed Assistant House-Surgeon to the Portsmouth Hospital.

PEAKE, JOSEPH, L.F.P.S Glas., L.S.A., has been appointed Interim Medical Officer to the Parochial Board of Falkirk, vice Hadden, deceased.

SCOTT, RICHARD J. H., M.R.C.S., has been reappointed Honorary Assistant Surgeon to the Royal United Hospital, Bath.

STANGER, WILLIAM, F.R.C.S.E., L.S.A., has been appointed Honorary Surgeon to the Clayton Hospital, Wakefield.

STEPHENS, EDWARD, L.R.C.P. Ed., M.R.C.S., has been reappointed Medical Officer of Health for the Chard Rural Sanitary District.

SYMES, E. WEST, M.D.Edin., M.R.C.S., has been appointed Surgeon to the Waterhouse's Charities and Blue Coat School, Halifax, vice Solomon Smith, M.R.C.S., &c., resigned.

WALKER, JOHN W., M.R.C.S., L.R.C.P.Lond., has been appointed Honorary Surgeon to the Clayton Hospital, Wakefield.

WALKER, L. NEWMAN, L.F.P.S.Glas., L.S.A., has been appointed by the Cape Government Medical Officer to the Zwartkops and Cookhouse Section of the Cape Government Railways, South Africa.

WILTON, JOHN PLEYDELL, M.R.C.S., L.S.A., has been reappointed Medical Officer of Health for the Gloucester Port Sanitary District.

YOUNG, JAMES MARTIN, M.B., C.M.Aber., has been appointed Resident Surgeon to the Birmingham and Midland Eye Hospital.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

BIRMINGHAM BORO' ASYLUM.—Resident Clinical Assistant. Board and residence are given, but no salary.

BRISTOL ROYAL INFIRMARY.—Assistant Resident Medical Officer and Pathologist. Salary £80 per annum, with board, lodging, and washing.

CHELSEA, BROMPTON, AND BELGRAVE DISPENSARY, Sloane-square, S.W. Surgeon.

CHESTER GENERAL INFIRMARY.—Visiting Surgeon. Salary to commence at £80 per annum, with residence and maintenance in the house.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—Resident Clinical Assistant. A gratuity of £20 is usually awarded at the close of the term of office (six months).

COUNTY AND BOROUGH OF CARMARTHEN INFIRMARY.—House-Surgeon. Salary £100 per annum, with board, lodging, fire, light, and washing.

CUMBERLAND INFIRMARY, Carlisle.—Assistant House-Surgeon. Salary £40 per annum, with board and lodging.

EASTERN FEVER HOSPITAL (METROPOLITAN ASYLUMS BOARD), The Grove, Homerton, E.—Assistant Medical Officer (Clinical Assistant) for a period of three months.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark-bridge-road, S.E.—House-Surgeon. Salary £70 per annum, with board, washing, and residence.

GREAT NORTHERN CENTRAL HOSPITAL, Caledonian-road, N.—Aural Surgeon. Also two Clinical Assistants.

HOLBORN UNION INFIRMARY, Archway-road, Upper Holloway, N.—Assistant Medical Officer. Salary £100 per annum, with board, lodging and washing.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, Bloomsbury, W.C.—Clinical Assistants in the Out-patient Department.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT, Margaret-street, Cavendish-square, W.—Honorary Visiting Physician.

KIDDERMINSTER INFIRMARY.—House-Surgeon. Salary £140 (increasing by £10 per annum to £170), with rooms in the infirmary and attendance.

LIVERPOOL INFIRMARY FOR CHILDREN, Myrtle-street.—House-Surgeon. Salary £85 per annum, with board and lodging.

LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W.—Junior House-Surgeon. Board and residence in the Hospital.

QUEEN'S HOSPITAL, Birmingham.—Obstetric and Ophthalmic House-Surgeon. The appointment carries with it board, lodging, &c.

ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY, Wigan.—Junior House-Surgeon. Salary £80 per year, apartments and rations (exclusive of wines, spirits, and washing).

WHITECHAPEL UNION INFIRMARY, Whitechapel, E.—Assistant Medical Officer (Resident). Salary £150 per annum, with furnished apartments, coal, gas, and washing.

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Medical Diary for the ensuing Week.

Monday, April 18.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M; Thursday, 2.30.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. C. B. Lockwood: On a Mode of Restraining Hæmorrhage during Operations upon the Tongue.—Mr. H. H. Clutton: A case of Catheter and Calculus removed by Lithotrity.—Dr. Angel Money: Renal Sarcoma in Infancy; is Surgery Justifiable?

Tuesday, April 19.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 1.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.

ROYAL INSTITUTION.—3 P.M. Mr. John Hopkinson: Electricity.

ROYAL STATISTICAL SOCIETY.—7.45 P.M. Mr. N. A. Humphreys: Class Mortality Statistics.

SOCIETY OF ARTS.—8 P.M. Major-General Sir Charles Warren: South Africa.

PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Messrs. Bowlby, Lockwood, W. Adams, Morgan, and Shattock: Specimens illustrative of Congenital Dislocation of the Hip.—Mr. Lunn: Disease of the Humerus.—Mr. Shattock: Fibrous Metaplasia of Bone.—Dr. A. H. Robinson: Osteitis Deformans.—Mr. Hutchinson: Destructive Arthritis of Knee without Suppuration.—Mr. Hutchinson, jun.: Sarcoma (?) of Knee.—Dr. Pitt: Carcinoma of Spine and Liver.—Dr. Coupland and Dr. Pasteur: Diffuse Sarcoma of Spinal Pia Mater (two cases).—Dr. Maguire: Interstitial Aneurysm of the Inter-auricular Septum. Card Specimens:—Mr. Fenwick: Tumour of the Bladder.—Dr. Willcocks: Congenital Malformation of the Heart.—Mr. Shattock: Tuberculous Disease of the Skin.

Wednesday, April 20.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M.; Saturday, same hour.

SOCIETY OF ARTS.—8 P.M. Mr. A. Reckenzaun: Electric Locomotion

Thursday, April 21.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. Dewar: The Chemistry of the Organic World.

HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Mr. F. Treves: The Treatment of Wounds.—Dr. W. B. Hadden: Demonstration on Pathological Changes in the Brain and Spinal Cord.

Friday, April 22.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

CLINICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Bilton Pollard: Three cases illustrating the Difficulties in establishing Natural Respiration after Tracheotomy, and their Treatment by Tracheal Catheterisation.—Mr. Meredith: A case of Large Omental Lipoma successfully treated by Abdominal Section.—Mr. Godlee: Some cases of Abdominal Cyst following Injury.—Mr. B. Pitts: Abdominal Exploration for Chronic Intestinal Obstruction, Relief of Symptoms by Artificial Anus, subsequent Removal of a Growth involving Splenic Flexure of Colon, Recovery.

ROYAL INSTITUTION.—9 P.M. Sir Frederick Abel: The Work of the Imperial Institute.

Saturday, April 23.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Mr. R. Von Lendenfeld: The New Zealand Alps.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments)

THE LANCET Office, April 14th, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Apl. 8	30·11	N.E.	45	42	97	54	35	...	Fine
,, 9	30·19	N.E.	41	40	81	52	39	...	Overcast
,, 10	30·23	N.E.	43	39	81	50	38	...	Cloudy
,, 11	30·17	E.	46	43	99	60	36	...	Fine
,, 12	30·04	N.E.	43	41	92	65	37	...	Overcast
,, 13	30·11	E.	41	39	...	48	39	...	Overcast
,, 14	30·26	N.E.	39	36	82	63	34	...	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

THE PERTH INFIRMARY.

Humanitas writes to us to the following effect:—"The reference to Perth Infirmary in your last issue is calculated to convey a false impression. As a neutral party, but one who for many years has closely watched the course of events leading to this crisis, I can vouch for the fact that, with the exception of Drs. Stirling, Calder, and Graham, the whole of the medical profession in this city and county warmly espoused the cause of Dr. Bramwell. So strong is the feeling against the present infirmary management that a movement is on foot to erect a cottage hospital."

Junior.—1, 2, 3. Occasionally, but not often.—4. The data given are too scanty to warrant a definite conclusion.

Dr. Sheppard (Liverpool).—*Gazzetta degli Ospitali*, Corso Magenta, 48, Milan.

THE SLEEPING MAN.

To the Editors of THE LANCET.

SIRS,—This represents an extreme case of the loss of power resulting from shock, which, according to modern medical phraseology, may be termed "neurasthenia" or "neurosis." It will be interesting to observe to what extent Chauffat will recover his former health. It has too often happened that young women in a similar but not such an extreme condition have been treated with taunts, reproaches, and coercion, under the impression that they were wilful, obstinate, and shamming; in other words, that they were the subjects of hysteria, by which term the condition of neurosis has been erroneously designated. It cannot be too widely known that loss of physical and moral power is the essential characteristic of all such cases, and that the object of treatment should be to restore power and give a helping hand until the patients are able to help themselves. The effect of the maltreatment above mentioned has been to prolong such cases indefinitely, and aggravate them to any amount of intensity; and it must be understood for the future that such prolongation and aggravation are due to mismanagement, either domestic or medical, or both—in other words, that they are factitious.

I am, Sirs, your obedient servant,

Mansfield-street, W., April, 1887. D. DE BERDT HOVELL.

OXALIC ACID AS AN EMMENAGOGUE.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Jan. 29th last there is a paragraph about the emmenagogue action of oxalic acid. Can any of your readers tell me if it is of any benefit? I should like to try it. Is it a safe medicine?

I am, Sirs, yours truly,

April 11th, 1887. G. W.

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THE MOXON MEMORIAL FUND.

PRESIDENT: Sir William Jenner, Bart., K.C.B., M.D., F.R.S. The following contributions have been received since those announced in THE LANCET of March 26th. All subscriptions should be forwarded to the Honorary Treasurer, R. Clement Lucas, B.S., F.R.C.S., 18, Finsbury-square, E.C., by whom they will be acknowledged, and cheques should be crossed "City Bank."

Fifth List.

Subscriptions announced	£541	0	6	H. C. Hilliard, M.D.	£1	1	0
R. S. Wilkinson, Esq., D.L., J.P.	5	5	0	D. D. Malpas, M.D.	1	1	0
T. Farries, Esq.	5	5	0	J. N. Cregeen, Esq.	1	1	0
Sir Henry Peek, Bart.	5	0	0	J. H. Evans, Esq.	1	1	0
Professor Odling, F.R.S.	3	3	0	F. G. Larkin, Esq.	1	1	0
W. H. Newnham, M.D.	2	2	0	M. C. Dalton, M.D.	1	1	0
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J. Cooper Wilkinson, Esq.	1	1	0	M. H. P. Cuff, Esq.	0	10	6
R. A. Nell, Esq.	1	1	0	H. Creswell, Esq.	0	10	0
Mrs. Nicholls	1	1	0	G. B. Chapman, Esq.	0	5	0

Convict.—Application should be made to the Directors or Commissioners of Prisons, and the appointments are in the hands of the chairman, Sir E. Du Cane.

Mr. C. Williams.—We are not aware, but will make inquiry.

FRIENDLY SOCIETIES' MEDICAL ASSOCIATIONS.

To the Editors of THE LANCET.

SIRS,—I have read with much interest the letters which have from time to time appeared in your columns on the above subject, and your own remarks upon them. While I entirely sympathise with you and your correspondents in the objects you have both at heart—viz., the maintaining the dignity of the medical profession, and increasing the remuneration of certain branches of it which are at present scandalously underpaid and overworked,—I take leave to doubt whether you are taking the best way to attain them when you attack the Friendly Societies' Medical Associations. I am myself surgeon to such an association. It will, perhaps, surprise some of your correspondents to hear that I find it a very pleasant and comfortable berth. I am not at all overworked, although the association includes between 2000 and 2500 members, the great majority of whom have wives and families whom I am expected to attend on the same terms as themselves. I have found them not merely reasonable in their demands, but almost invariably considerate and thoughtful. There is a managing committee of working men whose treatment of me has from the first been not only fair and just, but even courteous and gentlemanly. Subject only to the condition that my work be done, I am at liberty to arrange it exactly as I please, and I do not feel my present position to be one whit less independent than that of any brother practitioner who has to study the whims and humours of his private patients, while it is a thousand times more so than that of his assistant, with whom I would not change places for treble the salary he pays him. And that brings me, Sir, to the point of my letter, which is this: You will never effect any improvement in either the status or the remuneration of what may be called the lower ranks of the profession by attacking these associations, or trying to dissuade men from entering their service, while you have not a word of censure for the principal who, with an income of, say, £1000 a year, is not ashamed to offer £60, £70, or £80 to a "doubly qualified" man to become his drudge for that wretched pittance. Look at your own advertising columns! I remember well the time when I used to scan them weekly with a sinking, well-nigh hopeless heart. There, Sirs, is your mark; there is the real cancer to be cut out. Till that scandal is reformed you will attack all lesser abuses in vain. Do you seriously suppose that men will be deterred from accepting positions where, if they will only do their work reasonably well and exercise a little tact and common sense, they may easily be comfortable and independent, when in nine cases out of ten the only alternative is an assistancy with its poverty and drudgery? Why, I know a dozen assistants, men of excellent abilities, character, and qualifications, every one of whom is much harder worked and much worse paid than I am. Of course, I would have no objection to be better paid. I think the association get my services very cheap; they are by no means exempt from the common human weakness of being willing to take the maximum of work for the minimum of pay. But associations are not the worst offenders. Leave them alone for a little and turn your attention to the wealthy professional brother who makes a drudge of his assistant and pays him little more than the wages of his coachman. If you can make him ashamed of his meanness, you will earn the thanks of hundreds who need your sympathy and championship far more than does,

Yours truly,

Feb. 15th, 1887. M.O., F.S.M. Assoc.

ANOSMIA.

Senior Surgeon writes that recent letters on this subject which have appeared in our columns suggest to him that the case described may be one of ozæna, with probably diseased bone.

R. B. K.—Our correspondent will not be affected by the new Act.

LONGEVITY.

THE Berlin *Statistischen Korrespondenz*, by way of celebrating the Emperor of Germany's ninetieth birthday, has recently published a list of all the known persons in the Prussian kingdom who are older than the sovereign. At the taking of the census of Dec. 1st, 1885, there was one man of 120 years, another of 118 years; a woman of 117, another of 115; two women of 112; two men and one woman of 111; five women of 110; one man and four women of 109; three men and two women of 108; two men and ten women of 107; thirteen men and seven women of 106; and quite a large number who had attained to their 105th year. The total number of persons who gave their age at over 100 was 160. The Province of Silesia appears to be exceptionally favourable to longevity. Out of the 1073 male persons between their ninetieth and ninety-fifth year in all the Prussian provinces one in five is a Silesian, and out of the 306 men between 95 and 100 years old fifty-one are natives of Silesia. Out of the 2766 Prussian women between the ages of ninety and ninety-five, 371 are Silesians. There are ninety-nine women in Silesia between ninety-five and 100 years old and thirty Silesian women who have exceeded their 100th year. The centenarians are thickest in the district of Oppeln. They are also numerous in the Provinces of Posen and East Prussia; but the western dominions of the King of Prussia, and particularly the Rhineland and the manufacturing districts of Eberfeld, Crefeld, and the Dutch frontier, are not so favourable to extraordinary length of life. At Maidstone a maiden lady named Heathorn, known locally as the "Maid of Kent," has just entered upon her 105th year. She retains her good health and the use of all her faculties. She has a clear and accurate recollection of events which happened before Trafalgar was fought and won, and describes a visit she paid to the *Victory* before and one paid after the battle.

Roma.—The question would, we think, be more appropriately addressed to the editor of the *Queen*.

420.—We quoted the answer as given in the House.

Mr. Simeon Snell.—Soon.

THE INCOME TAX.

To the Editors of THE LANCET.

SIRS,—We are going to ask for a small space in your journal to remind your readers that now is the time for claiming relief and repayment of income tax in all cases where the profits for the past year have not amounted to the sum upon which tax was paid for the year ended April 5th. This claim can be made whether an appeal was made against the assessment or not, and if successful has the additional advantage that it fixes at the same time the assessment for next year necessarily at a lower figure than this year. From the numerous letters we have received in consequence of a letter in your columns mentioning our agency, we are more than ever convinced that medical men are scandalously over-assessed. In all cases where exemption is not claimed by reason of the income being under £150, we advise appeal being made to the Special Commissioners instead of to the District Commissioners. It ensures at the same time greater secrecy and better justice. Should the surveyor attempt to deny this privilege, we hope the fact will be at once reported to us, that we may take steps to have it allowed; we have, in fact, no less an authority than the assistant solicitor to the Inland Revenue to uphold our interpretation of the clause in the Act. As the time for claiming is very limited, notice should at once be given to the surveyor and accounts prepared for supporting the claim. Our special balance sheets have proved a great success, and where adopted last year have been again asked for this year. We require no better testimony to their usefulness.

We are, Sirs, your obedient servants,

THE INCOME TAX REPAYMENT AGENCY.

16, Artesian-road, W., April, 1887.

ERGOTINE IN INTERMITTENT FEVER.

To the Editors of THE LANCET.

SIRS,—In your issue of Feb. 19th, 1887, p. 391, I notice a remark under "Pharmacology and Therapeutics" as to the efficacy of ergotine in intermittent fever. I called attention to this fact in a short paper which I contributed to the *Practitioner* in the latter part, I think, of 1879. The main object of the paper was to point out the great value of arsenic in cases of metrorrhagia. The last paragraph of my paper runs as follows:—"The fact of the efficacy of quinine in ague, taken in conjunction with its action on the uterus led me to try ergot in cases of ague, and I found it extremely efficacious in checking the paroxysm." Since that time it has been my constant practice to use ergot in the milder cases of intermittent fevers with good effect.—I am, Sirs, yours faithfully,

Meean Meer, March 20th, 1887. C. S. RANKING, M.D.

THE BROWN DEFENCE FUND.

To the Editors of THE LANCET.

SIRS,—Would you kindly allow me to acknowledge the following subscriptions received up to the present date in aid of the above fund? Lennox Browne, Esq., £1 1s.; Dr. Robert Barnes, £1; Dr. Holman (Reigate), £1 1s.; M. G. Biggs, Esq., 10s. 6d.; J. T. Boyd, Esq., 10s. 6d.

I am, Sirs, yours faithfully,

Meadow Side, 23, Upper Richmond-rd., Putney, April 13th, 1887. G. STANLEY MURRAY, M.D.

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WIESEN AS A HEALTH RESORT FOR PHTHISIS.

To the Editors of THE LANCET.

SIRS,—I should be glad if you could find space for a few remarks relating to Wiesen in connexion with the article in THE LANCET of March 19th on "The High Altitude Treatment of Phthisis." Your correspondent in this article says: "We are still without definite statistical information on the results of treatment at Wiesen last winter." The time during which I have practised here has been too short for me to be able to furnish the statistics which your correspondent wishes for, nor have I as yet sufficient material to publish, though I hope before long to be able to give more exact information. But I may say that we have reason to be satisfied with the success already attained. Of thirty cases which have been under my observation this winter, the majority (about two-thirds of the cases) have made considerable progress, and even severe cases have done very well. When we ask whence this success arises, we can only attribute it to the peculiarly favourable and isolated position of the place, far from all disturbing sounds. It also enjoys, in addition to its pure air, the advantage of being a small health resort, where every step of the patient can be regulated and controlled by his doctor. There are here no opportunities for pursuing any pleasures which might be prejudicial, since there is nothing besides the two excellently arranged hotels from which the visitor can derive amusement. Certainly for those who have no great admiration for the beauties of nature and but few resources in themselves the place may appear somewhat dull. But he who realises how dependent recovery is on a well-ordered life, and how important it is to be healthy, will surely renounce willingly the pleasures of life for a short season in the interest of his health. I am, Sirs, your obedient servant,

Wiesen, April 7th, 1887. P. BALZER, M.D.

Mr. E. D. McNicoll.—The matter is rather one for the advice of a solicitor. We should deprecate the publication of the correspondence in a local paper.

Mr. Harrold Fenn is thanked.

SHAM PATIENTS IN KENSINGTON.

To the Editors of THE LANCET.

SIRS,—The same thief who paid Dr. Longhurst a visit called at my house, evidently in pursuit of plunder. Having watched me out of the house, he rang the bell, and was allowed to remain in my consulting-room about two minutes. My wife, fortunately being in, asked what he wanted. He said it was a professional call, and that he would call at 3 o'clock in the afternoon. I need hardly say he did not return. He gave the name of "Kerr," and went on to the house of my friend, Dr. Lew, where he gained his object, pocketing a case of surgical instruments and a silver cigarette case. Such scamps ought to be "run in" at once, and have at least five years' penal punishment.

I am, Sirs, yours truly,

Earl's Court-road, W., April 12th, 1887. WOOD HILL.

Atropos.—We should not advise vaccination round a nævus in the situation described.

COMMUNICATIONS, LETTERS, &c., have been received *from*—Mr. Rawdon Macnamara, Dublin; Dr. Dickinson, London; Mr. C. Mansell Moullin, London; Dr. Barnes, London; Mr. Haslam, Birmingham; Dr. Percy Boulton, London; Mr. Clement Lucas, London; Dr. Colcott Fox, London; Dr. Percy Kidd, London; Dr. Shea, Reading; Dr. Stanley Murray, Putney; Mr. Cantlie, London; Mr. Birchall, Liverpool; Mr. J. W. Walker, Wakefield; Mr. Phillipson; Messrs. Woodhouse and Rawson, London; Dr. Millar, Homerton; Mr. E. J. Callender, Haydon Bridge; Mr. Coates, Manchester; Dr. Byles, Beccleshall; Dr. Henry Skelton, Downend; Dr. W. J. Fleming, Glasgow; Dr. Clark Bell, New York; Mr. Stephenson, Norwood; Dr. Lewis, Canterbury; Dr. Tucker Wise, Wiesen; Dr. C. F. Knight, Dublin; Mr. A. Evans; Mr. Booth Clarkson, Liverpool; Mr. Jas. Turton, Brighton; Mr. J. A. Jones, Tir Caradoc; Dr. F. A. A. Smith, Cheltenham; Mr. A. E. Salter, Port Kennedy; Mr. T. Henderson, Rome; Mr. Keetley, London; Mr. Simeon Snell, Sheffield; Mr. A. Gray, Barrow-in-Furness; Dr. Ranking, Mean Meer; Dr. J. C. Steele, London; Dr. Fishbourne; Messrs. Dawson Bros., Montreal; Dr. Beaney, Melbourne; Mr. W. Bebinson, Great Driffield; Mr. W. Curran, London; Mr. B. H. Thwaite; Mr. De Bardt Hovell, London; Dr. Holden, Preston; Dr. E. P. Thurstan, Tunbridge Wells; Mr. F. Alison, Launceston, Tasmania; Messrs. Hopkinson and Co., Nottingham; Mr. J. W. F. Rogers, London; Messrs. Smith and Sons, Weston-super-Mare; Dr. Colborne, Margate; Dr. Jacoby, New York; Mr. J. Hurll, Glasgow; Mr. Bell, Dover; Messrs. MacLachlan and Co., Edinburgh; Mr. L. Humphry, Cambridge; Messrs. Simpson and Co., London; Mr. Armstrong, Manchester; Dr. Colligan, New York; Mr. Landall, Bath; Mr. Munday, London; Mr. Woods, South Kensington; Dr. Kisk, London; Mr. Lister, Burnley; Messrs. Deacon and Co., London; Mr. MacArthur, Manchester; Messrs. Shanks and Co., London; Dr. Braithwaite, Rickmansworth; Messrs. Ortidge and Co., London; Lieut.-Col. Graham, Bristol; Miss Proctor, Eastbourne; Dr. Prieger, Kreuznach; Mr. Dixon, Northampton; Mr. Blackwood, London; Dr. Skerritt, Bristol; Mr. Scott, Manchester; Mrs. Spencer, Ealing; Mr. Beach, London; Mr. MacMahon, Glasgow; Mr. White, Wolverhampton; Dr. Hawkings, Kirkburton; Messrs. Robertson and Scott, Edinburgh; Mr. Leitershofen, Homburg; Messrs. Street and Co., London; Mr. Pool, Shrewsbury; Mr. Edwards; Messrs. Spong and Co., Biggleswade; Mr. E. D. M'Nicoll, Southport; Dr. Clement Dukes, London; Mr. Musgrove, London; Mr. W. L. Strain; Mr. Wood Hill, London; Mr. Maynard, Newcastle-upon-Tyne; Messrs. Isaacs and Co., London; Mr. Cawen, Liverpool; Mr. Brett, Bridgend; Mr. B. B. Joll, Woolton; Mr. Aiken, Aberdeen; Dr. Reynolds, Ventnor; Mr. M. Collier, London; Mr. T. W. Coffin, London; Mrs. Taylor, Windermere; Mr. Elliott, Carlisle; Mr. Mark, Kidderminster; A Parent; Roma; Senior Surgeon; Resident Physician; 420; G. W.; Constant Reader; Carex; Atropos; Hand-in-hand Fire and Life Office; Lady Superintendent, Ipswich; Humanitas; A Former Surgeon of the Perth Infirmary; M.A., M.R.C.S., L.R.C.P. Ed.; Matron, Newcastle-on-Tyne; R. J. P. S.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Tilley, Queensland; Mr. Harbison, Victoria, Australia; Mr. Hearder, Newton Abbot; Mr. Royle, Jersey; Mr. Walker, Durham; Messrs. Benjamin and Son, London; Mr. Kemp, Hull; Dr. Knight; Mr. Topping, Forest Gate; Miss Hunter, Lowestoft; Mr. Howe, Hitchin; Mr. Appleyard, Yorks; Mr. McClelland, Glasgow; Mr. Buchanan, Wigan; Mr. Kirk, London; Mr. Gayley, Tipperary; Mr. Smith, Holloway; Mr. White, Bradford; Mr. Gimblett, London; Mr. Field, Bradford; Mr. Millson, Manchester; Mr. Howe, Balham; Mr. Lambton; Mr. Haywood, Manchester; Dr. Hunter, Matlock; Miss Minchin, Slough; Dr. Harding, Whittlesea; Mr. Rideal, London; Dr. Puega; Messrs. Benjamin and Son, London; Mr. Cripps, London; Mr. Harrild, Enfield; Mr. Ward, Wimbledon; Mr. Fielding, Rotherham; Mr. Dalgleish, Trowbridge; Mrs. Dearmer, Eastbourne; Mr. Winckworth, Thetford; X. Y. Z.; Alpha, London; M.D., London; A. B., Bridgend; Matron, West Bromwich; Cantab; F. N., Watford; R. N.; A. D. N.; D. M.; Lady Superintendent; Dr. D., Fulham; B.A., Clapham; Practical; H. G., London; Veritas, Reading; Medicus, Hove; Dr. D., Ingleton; K., Camden-town; H., Bradford; Chemicus; E. M., London; E. R. H., Birmingham; H. S. B., Brixton; Medicus, Hull; Medicus, Welshpool; Cardiac, Stafford; F. W. F., Coventry; M.B., Dublin; Lady Superintendent, Bath; Scalpel; Dr. E., Brixton; B. W., Barnsbury; J. B., Camberwell; F. B. J.; Sigma; Jack, Pimlico.

Lincolnshire Chronicle, Wakefield and West Riding Herald, Carnarvon and Denbigh Herald, Cork Examiner, Christian Commonwealth, &c., have been received.

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An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on page 2, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

Advertisements are now received at all Messrs. W. H. SMITH and Son's Railway Bookstalls throughout the United Kingdom and all other Advertising Agents.

Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

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Clinical Lecture
ON
TROPICAL ABSCESS OF THE LIVER.

By SIR DYCE DUCKWORTH, M.D., F.R.C.P.,
PHYSICIAN TO, AND LECTURER ON CLINICAL MEDICINE AT, ST. BARTHOLOMEW'S HOSPITAL.

GENTLEMEN,—The subject of hepatic abscess is one of great interest to all English students of medicine. It cannot fail that some of you will have to practise your profession in some part of our tropical possessions, and in these days, when locomotion is so rapid and easy, some of you will also as certainly not fail to have experience of this disease at home. I think it is not unlikely that abscess of the liver is now less often met with in the tropics than formerly. I have no facts to support this view, but I conceive it to be likely, because Europeans nowadays take better care of their health, eat and drink less than formerly, come home at shorter intervals to recruit their powers, and are thus less exposed to and saturated with malarial influence.[1] For twenty-one years I have had a special experience of Anglo-Indians of all ranks in connexion with the services of several of the great Indian railway companies, and I may at once state that my experience of hepatic abscess as a cause of invaliding in these persons has not been extraordinary. To be sure, the worst cases have died in India or on their way home; others have had favourable, and generally rapidly favourable, terminations by rupture of the abscess, usually into some part of the gastro-intestinal tract. Others again, such as the case I take for the subject of to-day's lecture, have developed the symptoms of their malady after arrival in this country. I wish first to point out to you that all Europeans in the tropics are not equally liable to hepatitis and abscess, as I have here and elsewhere declared; the special predispositions of persons materially affect their tendency to go wrong in any morbid direction. A large chapter in the history of medicine within the tropics has yet to be written, which shall relate to the influences of climate, and the habits thereby engendered, upon individuals of the several constitutional conformations or so-called diatheses. To such a chapter the late Dr. Norman Chevers contributed very notably and with great ability. He formed the opinion that persons with tubercular proclivity were more than others apt to suffer in India from dysentery, while strumous persons were similarly predisposed to hepatic abscess. In respect of idiopathic hepatic abscess, he did not consider that any of the ordinarily assigned causes, such as malaria, intemperance, dysentery, portal pyæmia, and tuberculosis, were essential, and he concluded that the influence of tropical heat was specially causative.[2]

You have been already taught in your systematic lectures that hepatic abscesses are mainly divided into two classes: first, the pyæmic or multiple form, and, secondly, the tropical or solitary form. This is an artificial division, and worthy of retention; however, you must expect to find in practice that there may be more than one abscess owning no direct connexion with either dysenteric ulceration or pyæmia. The etiology of liver abscess has been a hotly debated question, especially in respect of the relation which dysentery bears towards it. At one time the abscess was thought to induce the dysentery; later it was thought that dysentery led to the abscess. Again, it was believed that both were due to a common cause. The late Dr. George Budd, of King's College and the *Dreadnought* Hospitals, was one of the earliest advocates of the direct connexion between dysentery and hepatic abscess, teaching that the latter was due to direct absorption from the ulcerations in the colon of purulent or infecting matters. This theory, you see, is especially an embolic or pyæmic one. Hepatic abscess, as most commonly seen in Europe, is of the pyæmic or multiple variety, and is naturally regarded as a most fatal malady. No one now doubts the connexion I have just described, cases being frequent in which purulent absorption takes place from breaches of surface in any part of the alimentary canal drained by branches of the portal vein. Thus gastric ulcer and ulceration of the gall-bladder and bile-ducts, and operations on the rectum, may induce embolic abscess in the liver. A noteworthy point in the matter is this, that dysentery is far more common *uncomplicated* with hepatic abscess. There must, therefore, be some other factor than mere ulceration to account for infecting absorption and resulting hepatic abscess, and this factor is without doubt *a special infectivity attaching to the detritus of the bowel ulcerations*. It is very noteworthy that no such accident occurs in connexion with the ulceration of enteric fever or tuberculosis. With suppurative pylephlebitis we are not now concerned; the mischief here extends along the veins involved. Next, observe that hepatic abscess in the tropics is common enough when no history of dysentery is to be had in the case, no pyæmia is present, and no very obvious cause can be adduced. The pyæmic theory fails to fit such cases; and in the majority of instances in the tropics the abscesses are either solitary or limited to two or three, whereas in Europe we commonly find innumerable points of suppuration in the liver, and readily discover their origin in some distempered breach of surface in the line of the portal circulation, or in some other part of the body. Hence, both forms of abscess may occur in the tropics, but the pyæmic or multiple form only arises in Europe. A large solitary abscess may occur in connexion with dysentery in the tropics, or several small dysenteric abscesses may coalesce gradually into a large one; but this is not often seen in this country. Multiple pyæmic abscesses are the rule here. The late Dr. Moxon thought the differences between tropical and pyæmic abscesses depended on their different ages or duration, and that ulcerations or cicatrices of them would be usually found if carefully sought for. But this view will certainly not apply to the history of many cases. The embolic theory has captivated the attention of pathologists to the exclusion of that which explains the production of abscess as the outcome of a specific hepatitis. The latter explanation appeals rather to the bedside than the deadhouse physician. Many differences of opinion in medicine are, in my thinking, to be thus explained. Clinical explanations may be seemingly fanciful sometimes, but they cannot be dispensed with till post-mortem research has modified or confuted them. It would appear that with improved methods of treating tropical abscess the opportunities for examining the intestines for cicatrices of ulcers will grow fewer and fewer.

What, then, are the probable causes of the solitary or tropical abscess? Without doubt they depend on peculiarities of life and climate. It is certain that tropical climates induce in many Europeans congestion and enlargement of the liver. Unusually, hot weather in Europe produces this much, unless great care in diet and habits of life be practised. Indulgence on the part of tropical residents in European habits as to eating and drinking, with undue exposure to the sun, are to blame to a large extent for this. But beyond these causes, there is something specific in the effects of prolonged heat upon the functions of the liver; all constitutions not being equally susceptible, however. Again, it seems certain that malarial poisoning has largely to do with this congestion. The spleen suffers with the liver under this exposure, and both organs fail of their due functions. It is noteworthy that hepatic abscess is less common by far in the West than in the East Indies and China. Malaria is perhaps equally pernicious in both. It is not remarkable that the bowels should suffer sometimes together with the other viscera mentioned, and hence, with exposure to chill, the risks of impure water and of improper food, all the conditions for the onset of dysentery are provided. In Indian nosologies you will often meet with the term "hepatitis": acute and chronic varieties are mentioned. No very clear distinction has been drawn between congestion and hepatitis. If the inflammatory process reaches a certain point, we naturally have to deal with abscess as the outcome of it. Chronic hepatitis is applied to a long-standing condition of hyperæmia and engorgement, which, if neglected, usually passes into a form of cirrhosis. As indicating in some measure the etiology of the troubles we are now considering, note that women are more rarely the subject of such hepatitis in India as leads to abscess, and that in children the disease is practically unknown, although

[1] Sir Joseph Fayrer, however, informs me that he thinks hepatic abscess is now as common as formerly.
[2] Sir Joseph Fayrer and others with large Indian experience do not, however, agree to this.

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dysentery is very common amongst them. Hepatic abscess is rare under the age of twenty, and more frequent after twenty-five years. These facts, which I give you on the authority of able observers—Dr. John Macpherson and Sir Joseph Fayrer—would indicate that alcoholic intemperance, with greater exposure to solar influence and intenser grades of malaria, are not a little causative, and this is the opinion I have been led to form.

With these remarks, with which I have thought it well to begin my lecture to-day, I now pass to the case illustrating it. It is that of M. N——, aged twenty-eight, single, a medical officer practising in the Bombay presidency. He went out to India in 1883. He is of excellent constitution, and his family history is satisfactory. He has been stationed in several districts, and been exposed to malaria. After being out for a few months he had a slight attack of dysentery, being laid up for ten days. He made a good recovery, and had no return of this trouble. He was always temperate. Within the first year of his sojourn he had an attack of catarrhal jaundice, and he also suffered six or seven times, but not severely, from malarial fever. As he expressed it, "he knew he had a liver." In June, 1886, he left India on leave of absence for three months and came home, landing on July 19th. He believed himself to be in perfect health. In August he suffered from chill after being overheated, and was seen by Mr. Coalbank of Twickenham, who found him confined to bed, suffering much pain from pleurisy in the left side (postero-lateral region). His liver was then enlarged and tender. His temperature reached 103° and 105°. (Dr. Norman Moore saw him later in my absence, and confirmed Mr. Coalbank's opinion as to pleurisy, with malarial fever.) He lost flesh somewhat rapidly, and looked ill. On Sept. 16th he was recovering, but was still weak, had a coated tongue, and wavy, uneven pulse. Dr. Sedgwick Saunders, who saw him at that time, refused to allow him to return to India. On Oct. 28th I saw him for the first time. He was still thin and cachectic-looking. I could find no physical signs anywhere in the chest beyond a trifling amount of dulness, with imperfect respiratory note, in the left postero-lateral region. There was no jaundice, and the urine was natural. I sanctioned his return to India in November. On the night of Nov. 1st, after a busy day in London, he awoke with very severe pain at the epigastrium radiating to the left side. The pain was of a stitchy, "catching" character, and there was agonising cough. In no way could he account for this attack. He had had a slight cough for a few days previously. He came up from Twickenham and saw his friend, Dr. Goodhart, who examined him, but found no signs of pleurisy, but observed some fulness about the left hypochondrium. His temperature was raised to 102° and 103° at this time. Cough troublesome, with glairy, tenacious sputa, not rusty. He kept to bed for three weeks. The pain was very severe, and nothing relieved it. There was a dull dragging pain in the left costal arch, and much epigastric tenderness. No rigors. His weight was then 10st. 7½lb., his usual weight being about 12st. On Nov. 30th I found the same physical signs as before in the left pleura. On Dec. 11th I saw him again. Dr. Andrew had also examined him, and found nothing to explain his severe pain, which was attributed to pleural adhesions. The pulse was 84, and regular. He was still looking pale and ill. I had a suspicion of hepatic mischief as the cause of all his trouble, but there were no physical signs to justify any certainty of this at this time. I recommended an extension of leave for three months, careful regimen, and good diet. On January 19th, 1887, Dr. Andrew again examined him, and found a tumour projecting under the left costal arch, indistinctly fluctuant. No improvement had occurred in the general health. There was a slight icteric tint of the conjunctivæ. On the 21st Dr. Andrew and I saw him together. There had been no rigors, no sweatings, no shoulder pain. The tumour was evidently an abscess in the left lobe of the liver. Slight pulsation was communicated to it from the heart. At the beginning of January severe pain had returned about the ensiform cartilage, but there had never been freedom from pain in the left side since October. Vomiting had occurred about once daily, generally about an hour after taking food. There was much flatulence. He was admitted to John ward on Jan. 22nd. The temperature was 98·2° on the first night. The tongue was coated all over. Bowels open; stools bilious. Urine: Specific gravity 1025; faintly alkaline; depositing phosphates; void of albumen, blood, glucose, and bile. Heart's apex in fifth space, in normal situation. Sounds natural. Pulse 72, of fair volume and power, and regular. In the chest nothing abnormal. The liver dulness began at the sixth rib. To the left of the epigastrium a rounded projecting tumour, everting the cartilages; deep-seated fluctuation made out; the skin was not red over it. Spleen not felt. Abdomen otherwise natural. Lower edge of right lobe of liver not felt or apparently depressed. On Jan. 23rd the temperature reached the highest point recorded in the hospital—100·2°. On the 24th, after a restless night, the temperature was 99·2°. Chloroform having been administered, Mr. Langton aspirated the tumour, and twelve ounces of chocolate-like grumous matter was withdrawn, containing pus and débris of blood. Temperature last night 98°; to-day 97·8°. Sick after chloroform. Dragging pain relieved, but pricking pain in region of abscess. Pulse 64, of good volume and strength. Had better night. On the 26th the temperature was 96·4°; pulse 72, feebler and irregular. Much nausea, and vomited once. Urine loaded with urates. On the 29th he was going on very badly; no action of the bowels. It was decided now to have the abscess freely opened. Under chloroform and with full antiseptic precautions, my colleague, Mr. Langton, cut down through the left rectus abdominis and came upon thickened adhesions between the sheath of muscle and peritoneum. He passed in an exploratory syringe, then a director, and then his finger. Reddish pus (six ounces) flowed freely away, and an indiarubber tube was inserted and stitched into the lips of the wound. Iodoform and antiseptic dressings were used. The nausea continued for two days and gradually passed off. Nourishment was badly taken, and a quinine and nitro-hydrochloric acid mixture could not be borne. Nutrient enemata were given in default of sufficient by the mouth, and about two ounces of brandy were given each day. The wound did well and discharged freely. It was dressed daily antiseptically, and remained quite sweet. The temperature remained subnormal. The appetite soon became large, and flesh was rapidly gained. On Feb. 12th the patient was sitting up daily and making progress in all respects.

Let me briefly review the history and course of this case, and comment on the procedures of treatment. The patient while in India suffered from most of the ailments that befall Europeans, and, though never severely ill, it is clear that the climate and the circumstances of his life told upon him. Thus he had dysentery, malarial fever, and catarrhal jaundice. I have already told you that he was a very temperate man, and lived carefully. In June of last year he left India, feeling in perfect health, intending to stay a few weeks only at home. In August he began to suffer after a chill, and had pleurisy and remittent fever. At this time the pleurisy was at the back of the chest, on the left side. He failed to make a satisfactory recovery of his general health, losing flesh, looking ill, and having a not very explicable cough. It would be interesting to know the temperatures that occurred at that period. Very early in November a second attack of pleurisy unaccountably came on, this time near the cartilages adjacent to the ensiform cartilage, the pain being very severe and the temperature raised. No rigors and no sweatings. Six weeks later, although the second attack of pleurisy had passed off, there was no improvement in the general health, and a pinched and sallow appearance was manifest. Physical signs alone were insufficient to explain this condition. In three weeks' time there was a return of the severe pain near the ensiform cartilage, and in less than three weeks afterwards a tumour was detected in the left lobe of the liver. Gentlemen, it is easy to be wise after an event, but the fact remains that while the symptoms I have detailed to you fall in admirably with those that might be expected in such a case, there was a marked absence of physical signs to justify a confident diagnosis of all that was proceeding in the liver. Suspicion there was in the minds of several of those who saw the case, but nothing definite could be established, and certainly nothing could justifiably have been done more than was done.

The case, then, illustrates a point which has long been recognised in respect of the latency and insidious character of hepatic abscess. Large collections of matter may occur in the liver without any symptoms distinctly referable to that organ. In this instance it is not clear when the abscess began to form. It is quite possible that the disease was already in progress before the patient left India. The pleuritic attacks were plainly significant of the mischief that was going on below the diaphragm, and the severe pains near the ensiform cartilage betokened adhesive capsular

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hepatitis of the left liver lobe, the results of which ultimately proved so protective and beneficial. You will understand that according to the special seat of the abscess so will the symptoms vary in any case. Thus, if they come to press or point upwards, pain will be felt and irritation be excited in the diaphragm, pleura, or lung, with cough; if downwards, there will be interference with the functions of the stomach, and nausea and vomiting may be expected. In this instance irritation occurred on both aspects of the left lobe, the pleura and stomach both being implicated. The liver substance appears to be little sensitive, but when the capsule is involved there is commonly severe pain; hence the pain in hepatic abscess is probably due to pressure on the capsule and to the happily protective perihepatitis that is often set up as the abscess pushes its way.

The leading symptoms, when present, of abscess of the liver are fever, hepatic pain, severe gastric catarrh, with foul coated tongue, nausea, vomiting, hiccough, and inability to lie on the left side. The abdominal wall is rigid, one or other rectus muscle contracting to protect tender parts below. Pain in one or other shoulder or scapular region is sometimes met with, induced either through the reflex mechanism of the phrenic and cervical nerves, or through the pneumogastric and spinal accessory branches. There is great languor and lassitude, rigors are common, and nightly rises of temperature. Slight jaundice is present, simulating ague. The urine is loaded with lithates, and may contain albumen. As suppuration proceeds profuse sweats occur. Bile is present in the stools. Tropical abscesses point usually superficially, and present in a low intercostal space or under the cartilages in the hypochondria. The spleen is not enlarged as a rule. Now in this case there were no rigors, no shoulder pains, and no sweatings. The absence of these symptoms added somewhat to the difficulties of diagnosis.

Respecting the treatment. There is now only one opinion as to the necessity of early and free opening for tropical hepatic abscess. At one time, in India, it was thought best not to operate, and to wait for spontaneous bursting. Nature was found to be sometimes kind, and to allow the pus collection to empty itself into some evacuant channel. But, unhappily, rupture into the lung or pericardium, or into the peritoneum, is greatly to be feared. Amongst the triumphs of modern antiseptic surgery is the treatment of hepatic abscess. A more important question remains for consideration in each case, and it relates to the establishment of adhesions between the liver capsule and the parietal peritoneum. There is always an apprehension of the abscess-cavity collapsing after being opened and discharging into the peritoneum. To prevent this accident, preliminary measures have been recommended to set up inflammatory adhesions. This question also comes to be discussed in operating on hydatid cysts in the liver. It has been proposed to set an issue with caustic potass and peas, and thus secured the end desired. I have seen this method practised twice, but do not expect to see it again. Simply tapping by aspiration is often performed in the hope of setting up adhesions in advance of the subsequent graver operation. This was done in the present case partly for completing the diagnosis, and with the prospect of aiding adhesions. Again, it is proposed to cut down to the surface of the tumour and stitch the edges of the wound to it, completing the operation a few days later. In by far the majority of cases these methods are unnecessary. In the progress of the abscess, as it pushes towards the capsule, perihepatitis is often induced and firm adhesions are set up. This is not, perhaps, so often the case in suppurating hydatid cysts. In support of the general safety of immediate and bold operative measures, we have the unique experience of Sir Joseph Fayrer and of many of our surgical brethren in India, a body of men of whom this country is not, I think, sufficiently appreciative, who now never hesitate to evacuate these abscesses so soon as they diagnosticate them, and practically disregard the question of adhesions. Their results were so satisfactory that we may fairly follow them in this practice. Any remaining considerations, such as insertion of drainage-tubes, relate so specially to surgical details that I cannot enter upon them. If decided improvement does not follow the evacuation of the abscess, we may suspect either imperfect drainage of it or the existence of an independent one. You remember that there may be two or three centres of suppuration in even tropical non-embolic cases. I would add a few words on the subject of washing out the abscess cavity. I believe this to be unnecessary if free drainage is secured, and even if done antiseptically to be a possible source of mischief. In this case, as in cases of empyema, I believe it to be the better practice to abstain from washing out the cavities. You may ask if any surgical interference is ever called for in respect of dysenteric or multiple abscesses. Even in these cases, according to Sir Joseph Fayrer, puncture and evacuation may be useful.

Respecting the prognosis for the future in any case where the abscess has burst favourably or been opened successfully, we have no grounds for believing that any special immunity from a future attack exists. Such patients do best to leave the tropics and live at home, but not seldom they return and do well. Second attacks may occur, but it is generally believed that these may be due rather to undeveloped or residual abscesses, which have later become active. A residual abscess may long remain encysted, and be symptomless, till by gradual thinning of its walls it suddenly gives rise to fatal symptoms. Dr. Maclean and Professor Aitken have related such a case to me from their experience. Hence, there must always be a somewhat guarded prognosis in any case, and for some long period. In my experience, where abscesses have burst favourably the patients seldom long remain unmindful of their trouble. Dragging pains, probably caused by adhesions, are sometimes suffered from. In the case of an officer of Horse Artillery under my care, he could never wear his sword comfortably through a field day. With care in diet, and in all other respects, some of these patients manage to complete their tropical career fairly well. The drugs which prove useful are quinine, cinchona, and mineral acids. When the tongue is coated and there is no appetite, alkalies, such as sodium bicarbonate with bark, given after effervescence with a little citric acid, do better than quinine and acid. Subsequently, the chloride of ammonium, with some bitter, or with the mineral acids, is very useful. Prolonged stay at the seaside in some mild or sheltered part is the most efficient climatic agent. Sea-bathing and cold baths must be forbidden, and warm sea-water baths or tepid sponging only be sanctioned.

I will draw out for you on the board the leading characters of the two varieties of hepatic abscess, so as to impress them on your memory. Remember, however, that all such categories are made on somewhat rigid lines, and that large bedside experience tends to impair one's estimate both of tabulation and statistics:—

HEPATIC ABSCESS (two chief varieties).

A. *Tropical* (specific suppurative hepatitis).—Solitary, or few in number. May be very large, form rapidly, or occupy some months before urgent symptoms arise. Course often latent and insidious. Connexion with dysentery not commonly traceable. Infrequent in women; unknown in children. Rare before twenty; commoner after twenty-five. May occur in temperate and careful-living persons. Tendency to burst; jaundice slight; spleen not enlarged. Probably due to solar, climatic, and dietetic influences. Some constitutions—e.g., strumous—more apt than others to suffer. Commoner in East than in West Indies, and occurs on Mediterranean littoral.

B. *Pyæmic* or *Embolic* ("dysenteric abscess").—Multiple, may be very numerous and small. Course rapid. Follows on dysentery or septic inflammation of parts drained by portal vein. Part of general pyæmia, especially after head-injuries and damage to medulla of bone. Jaundice marked; Spleen enlarged. Seldom bursts. Occurs independently of climate, but much connected with dysentery.

THE TOWER HAMLETS DISPENSARY.—This old institution, founded in the year 1792, seems to be well supported. In spite of the hard times, donations and new subscriptions have been received which have reduced the indebtedness of the dispensary. The mortality in the year, with a total of 4497 cases, was 75. The chief causes of death were: bronchitis, 11; consumption, 10; whooping-cough, 5; pneumonia, 4. The payments on account of the dispensary are £511 14*s.* 10*d.*, of which the patients contribute £139 4*s.* All the patients do not pay. They are divided into two classes—those receiving relief gratis, and those coming under a system of payments, as follows: recipients to pay an entrance fee, and on each renewal of the letter, 6*d.*; on each subsequent attendance at the dispensary, 3*d.*; for each visit at home, 6*d.*; teeth extracted, 3*d.*; midwifery fee (by midwives), 3*s.* 6*d.* Would it not be possible to make all such institutions provident—i.e., to procure systematic periodical payments throughout the year, and pay the medical men an honorarium at least?

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ABSTRACT OF

Lumleian Lectures

ON THE PATHOLOGY OF INTRA-UTERINE DEATH.

Delivered at the Royal College of Physicians of London, March, 1887,

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LECTURE II.

IN this lecture Dr. Priestley spoke of the causes of intra-uterine death which are associated with faulty conditions of the fœtal envelopes and fœtal appendages, taking first those which properly belong to the earlier part of pregnancy. He stated that a too scanty formation of the decidua may lead to the growth of a placenta too small for the needs of the embryo. Charpentier believes that an arrest of development in the decidua reflexa, or its premature destruction, are frequent causes of death in the embryo. When the ovule has been successfully implanted in the decidua, and the normal development of the decidua reflexa and other structures is going on in progressive series, there is great tendency in some women to go wrong, apparently from mere weakness of the outer structures which form the ovum. In some women the union between the pregnant uterus and the decidua is so unstable that a fall or stumble, or a shaking of any kind, may be quite sufficient to detach a portion of the latter, rupture the intervening vessels, and cause extravasation of blood. If limited, these extravasations need not interrupt the continuance of pregnancy. If more extensive and separating a larger portion of the decidua, they necessarily interfere with the nutrition of the ovum, produce death of the embryo, and precipitate abortion. The same result may ensue from contractions of the uterus, either provoked by local irritation directly applied, or from reflex causes—as, for example, suckling a child after a fresh pregnancy has commenced. Occasionally, during the very early stages of gestation, blood flows directly into the decidual cavity, and fills it with coagula. The result is either that all traces of the embryo and its immediate surrounding structures are obliterated, or the embryo is compressed and destroyed by the invading flood, rudimentary portions of it only being discovered. In from the second to the third month the decidua reflexa or ovuli is fully formed, and the villi of the chorion are everywhere embedded in its substance. Then another form of hæmorrhage may occur. In this the blood is not alone extravasated between the decidua vera and the uterine wall, or into the meshes of the decidua itself, but between the decidua reflexa and serotina, and the chorion or outermost of the true fœtal membranes. In the process of development the villi of the chorion are pushed into the decidual tissue, and are soon surrounded by the bloodvessels which are to form the maternal placenta. The decidua is, then, a highly vascular membrane, especially at the site of the future placenta, and the maternal vessels which everywhere ramify through it undergo a development which in the human body is unique. Appearing first as capillaries, they rapidly enlarge, and eventually become sinuses, which are filled with maternal blood, and in which the fœtal villi are eventually suspended. These delicate and rapidly dilating maternal vessels are very liable to rupture. Hæmorrhage taking place in this locality floods the loose tissue of which the decidua serotina and reflexa is composed, and destroys or compresses the chorion villi implanted there, being sometimes so extensive as entirely to surround the embryo. The nutrition of the embryo is arrested if the extravasation be extensive enough to interrupt the normal circulation through the imperfectly formed placenta, and the embryo may be found stunted and shrivelled, suspended by its umbilical cord from some part of the amniotic cavity. These extravasations of blood between the chorion and the decidua constitute the typical "apoplexy of the ovum" described by many authors. It is found in a multiplicity of forms and modifications, and is no doubt produced by a variety of causes. Thus it may be produced by faults in early development, or by any cause which produces detachment of the well-formed decidua from the uterine walls, or from rupture of its bloodvessels. Apoplexy of the ovum is a very common cause of embryonic death, and, judging from the large number of specimens preserved in the various museums, is by far the most frequent of all the pathological changes affecting the early ovum. Congestion of the decidua is, it is believed, a sufficient and adequate cause, irrespective of any other, to produce rupture of its bloodvessels and extravasation into its substance. Inflammation of the decidua, taking various forms, has been described by Virchow, Hegar, Schroeder, and Spiegelberg. Slavjanski has described an acute form associated with cholera in pregnant women, and leading to hæmorrhage with the death of the fœtus. These inflammations are, however, generally chronic, and are continuations or extensions of previously existing inflammation in the unimpregnated mucous membrane of the uterus, and three forms have been described as producing different alterations in the decidua.

I. The first, "chronic diffuse endometritis" of authors, produces a thickening or hyperplasia of the uterine mucous membrane, which when conception occurs renders it unfit for the reception and growth of the fecundated germ. According to Spiegelberg the hypertrophy consists in a development of connective tissue, which not only thickens but indurates the membrane, and extends down to the muscular fibres themselves. The arrangement of the hypertrophied tissues is such as often to give rise to the appearance of cysts, which, however, are probably only the "cups" of Montgomery enlarged. Schroeder regards it as a chronic and diffuse proliferation of the mucous cells, both parietal and reflected. The thickened membrane presents, he says, the large cells of the decidua, united *en masse*. By their proliferation, particularly in the deeper layers, they may produce a cavernous structure, and even form cysts. This alteration, he says, produces death of the embryo and abortion, by the irritation which the inflammation produces on the uterine nerves. A variety of this chronic diffuse endometritis constitutes the "adhesive endometritis" of Braun. It takes place in the later months, and it then attacks the utero-placental mucous membrane, setting up such irritation that it imperils the life of the fœtus and precipitates premature labour. Strictly speaking, the affection may be regarded as a disease affecting the placenta. One of its results is to produce adhesions between the placenta and uterus, and so complicate delivery. Its presence is characterised by the fœtal movements giving pain, and often, besides this, acute pain and tenderness are experienced in the walls of the womb, which some have described as "uterine rheumatism." It may be produced by chills, overwork, &c.; and, according to Kaschewarowa, it is one of the results of syphilis, or a pre-existing endometritis.

II. A second form of inflammation affecting the decidua has been described by Virchow under the name of "polypoid endometritis." It would seem to be only a more advanced degree of the inflammatory condition just described, but the mucous membrane is thickened to twice or thrice its ordinary depth, and prominences and projections like polypi protrude from the free internal surface.

III. A form of inflammation affecting the decidua has been named "catarrhal endometritis." It is characterised by a persistent discharge from the gravid uterus, which constitutes the "hydrorrhœa" of pregnant women. A woman, generally about the sixth month of pregnancy, loses suddenly and at intervals a quantity of transparent colourless fluid, analogous to ascitic fluid. This is succeeded by a dribbling more or less prolonged and without pain. The pregnancy may go on to term; and the membranes, as a rule, are found intact.

Discussing morbid changes in the chorion, Dr. Priestley remarked that the pathological change which has received the most attention is what is commonly called cystic, or vesicular, or hydatid degeneration. The literature on this subject is abundant, and was reviewed at length. As to the manner of the formation of the cysts, most authors agree in regarding them as the results of pathological changes of one kind or other in the villi of the chorion, but the crucial question, and one which has been much discussed, is whether the disease precedes the death of the embryo and so causes its death, or whether the embryo dies first and the disease is the consequence. On this point authors differ. Dr. Priestley gives his adhesion to the former theory. Alluding to the amnion, Dr. Priestley pointed out that it does not

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always escape the effects of extravasation, beginning in the decidual structures. The condition which has received most attention in connexion with the pathology of the amnion is hydramnios, or superabundance of liquor amnii. The result to the mother is that she may suffer greatly from the distension. Respiration is impeded, and the patient may not be able to lie down night or day. The digestion is deranged from physical pressure, and the heart's action is disordered, while other secondary symptoms, such as œdema of the lower limbs and blueness of the countenance, may be superadded. The effect on the child is to impede its development, and, if born alive, it is commonly too feeble to survive its birth. Frequently the child is affected with dropsy, hydrocephalus, or other complication. Two or three facts have been distinctly made out in relation to its pathology. 1. Scarpa noticed a coincidence between this form of dropsy and the presence of twins. This has been fully confirmed by the observations of Winckel, McClintock, and others. 2. In pregnancies complicated with hydramnios, the child often presents some vice of conformation. Monsters are, in fact, common with this affection. 3. The children born with a superabundance of liquor amnii often present evidences of syphilis, and this whether they are born dead or alive. 4. Hydramnios is comparatively rare in first pregnancies as compared with others. 5. It is more frequent with female children than males. Of thirty-three cases collected by McClintock only eight were males.

The impression derived from a careful study of all the circumstances is, that hydramnios is not a product of inflammation of the amnion, as some have supposed, but that it arises sometimes from constitutional conditions affecting the mother, sometimes from local causes.

Clinical Lectures ON DISEASES OF THE EYE.

Delivered at the Nottingham and Midland Eye Infirmary, December 9th, 1886,

BY C. BELL TAYLOR, M.D., F.R.C.S.,
SURGEON TO THE INFIRMARY.

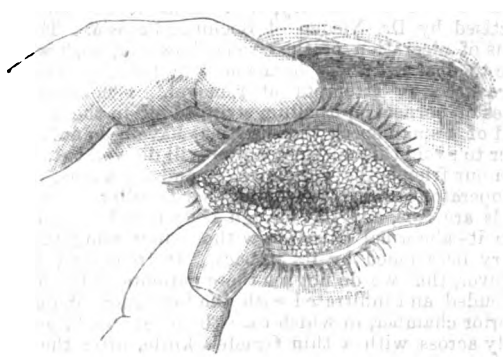
LECTURE V.

(Concluded from page 767.)

HITHERTO, gentlemen, I have been speaking exclusively of bacterial purulent ophthalmia—a disease which, so far as the infant and infection from the maternal passages are concerned, must occur within the fifth day of birth or not at all; and it is well that you should note this, because, of course, a baby may get a cold in its eye any time, just the same as you or I. Such accidents are, however, for the most part trivial, infrequent, and readily dealt with by the simplest remedies. It is different, however, when catarrhal ophthalmia attacks older children or adults living in common, in barracks, schools, reformatories, poor-houses, prisons, asylums, refuges, penitentiaries, and the like, where the inmates are often overcrowded and placed under defective hygienic conditions; for the disease, which is highly contagious—nay, more, under certain circumstances infectious,—spreads rapidly, is apt to assume what is termed the follicular form, to develop minute bodies beneath the conjunctival epithelium resembling sago grains,[1] and to culminate in that horrible, chronic, and intractable disease which we know as trachoma (τραχός, rough), or granular lids. These defective hygienic conditions, combined with filth, misery, and overcrowding, exist to a high degree in Egypt, the cradle of the arts and sciences, and, as Haller has remarked, "cæcorum in omni tempore fœcunda nutrix," where the cold nights, the heavy dews, the hot days, the glare, the flies, the atmosphere of dust, and periodic inundations, have rendered the disease endemic to such an extent that at one time there were as many as 8000 blind persons in the mosque at Cairo; and Volney, in his interesting "Voyage en Syrie," tells us that of 100 persons he met accidentally 50 were affected, 20 quite blind, 20 with films and discharges, and 10 with only one eye apiece. As might have been anticipated, the soldiers of Sir Ralph Abercrombie and Napoleon I., at the close of the last century, imported the disease into Europe, where it raged at one time to such an extent that 4000 British soldiers were blinded by it, 5000 French were in a similar plight, and 10,000 others had lost one eye apiece. In this disease the inside of the lid resembles a nutmeg-grater, a sliced fig, or a granulating wound (Fig. 2); and by constantly rubbing upon the cornea creates so much irritation, inflammation, vascularisation, and formation of protective tissue, that the patient is pretty nearly blind; and in some cases the cornea is so completely covered with a fleshy mass (*pannus*) that it is not possible to see the eye at all.

Here is a patient on whom I operated some years ago. He lost the right eye by an accident when a child, and when I first saw him the left eye was completely hid by a dense piece of flesh. I got rid of this by repeated inoculations with gonorrhœal matter, bringing into view an opaque cornea. There was, however, a small lancet of comparatively clear tissue near the margin, and opposite this I was lucky enough to succeed in forming an artificial pupil. The patient, who was formerly quite blind, I am thankful to say

FIG. 2.



has since had excellent sight, and has been for years able to manage an important business.

In dealing with granular lids and the catarrhal and follicular conjunctivitis which gives rise to it, we must remember that prevention is better than cure, and at once segregate our patients as much as possible. Let them live out of doors; teach them, as Arlt says, "that houses are only to sleep in." Banish, so far as possible, media of contagion. Let each boarder have his own towel, his own soap, and let them wash at the tap, for basins are dangerous. It is very seldom that better-class patients suffer from this disease; but when you are consulted by such persons, it is well, as a purely hygienic measure, to recommend migration for a time to some mountainous district, such as Switzerland, where the disease is unknown. With regard to treatment, I scarify the lids; squeeze out the sago grains; occasionally, but not often, excise the retro-tarsal fold, and apply liquor potassæ, sulphate of copper, or syrup of tannin (nitrate of silver as a caustic does not go deep enough), and deal with bad cases by peritomy and inoculation with ophthalmia neonati or gonorrhœa, or infusion of paternoster bean.

I have here a patient whose conjunctivæ were both completely destroyed by trachoma before I saw her (xerosis), and I have only managed to preserve a little sight by establishing an artificial ankyloblepharon in both eyes. We do not see many cases of trachoma at this institution, I am happy to say, but here is a small boy who is a characteristic example of a form of disease which, like the poor, we have always with us. This lad's mother informs us "that he is very subject to getting his nose stopped up," and "that at first they thought it was weakness which had fallen into the glands of his neck." On examination we find that the nostrils and upper lip are swollen, that the cervical

[1] Sattler says the disease is caused by a microzoon, which he calls the diplococcus of trachoma. It is a small ball, cleft by a tiny line, very like the gonococcus of Neisser, but it may be cultivated in various soils, whereas the gonococcus of Neisser can only be cultivated in the serum of the blood. Speaking on this point, Mr. Power, in his admirable lectures on Bacteriology, says:—"The diplococcus of trachoma has its seat inside the trachoma follicles, but outside the cells, not on the surface, but in the follicles of the conjunctiva; hence the method of squeezing, cutting, or scratching out the follicles is bacteriologically correct."

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glands are enlarged, and that there is an eruption on the scalp and in the neighbourhood of the right auricle; in short, the boy has got eczema of the skin, and we need not wonder, under such circumstances, if he has also eczema of the conjunctiva, and that is precisely what is the matter: "phlyctenular conjunctivitis," or conjunctivitis scrofulosa, as it used to be called. There are two forms of this affection, the miliary and the solitary. The miliary phlyctens are scattered like grains of sand on the vascular limbus of the cornea, usually come on after measles or scarlet fever, and are masked by considerable general conjunctivitis. The solitary phlycten is about the size of a hemp-seed, is surrounded by a vascular zone, and marked by a small bundle of vessels which radiate outwards towards the equator of the globe. Both forms yield readily to the yellow oxide of mercury ointment, with general treatment, and it is only when the phlyctenular conjunctivitis becomes phlyctenular keratitis that you are likely to have any trouble with the case. Vesication and ulceration of the cornea, however, is a very painful process. Nerve terminals are exposed, photophobia is intense, iritis is sometimes set up, the constitution sympathises, the patient loses his rest, and the ulcers, even when healed, leave scars which may subsequently seriously interfere with vision. In these cases it is necessary to apply leeches, give mercury, put a seton behind the ear, and use hot belladonna fomentations. You will also find that an excellent plan of treatment is to open the anterior chamber with a broad keratome, so as to divide the vessels and nerves at the base of the ulcer. In this way tension is reduced, pain relieved, healing promoted, and the effect may be kept up by daily tapping of the aqueous with a blunt probe; while the ulcer, if obstinate, may be touched with the galvanic or thermo-cautery, after the method so successfully practised by Dr. Nieden of Bochum, Prussia. The worst forms of ulceration of the cornea, however, with which we have to deal are those occasioned by foreign bodies, often aggravated by attempts at removal. I constantly find pieces of corneal epithelium stripped off in the neighbourhood of a small speck that need not have been enlarged. In order to avoid this mischance, you will do well to take a hint from our friends the watchmakers, and use a lens. Fixed in the operator's orbit after the manner familiar to us all, both hands are free, and the foreign body may be readily lifted from its abnormal situation without increasing the area of injury occasioned by its impact. It frequently happens, however, that we do not see these patients until the cornea is clouded and infiltrated with the formation of pus in the anterior chamber, in which case the ulcer should be divided freely across with a thin Graefe's knife, after the manner recommended by Professor Saemisch.[2] Organised lymph and shreds of matter should be gently removed with forceps, and warm fomentations, antiseptics, and atropine or eserine, according to the situation of the ulcer, applied. The chamber may be reopened daily, so long as the pus re-forms, by a mere touch with a blunt probe, and an artificial pupil practised afterwards, if necessary.

When minute fragments of steel have penetrated the cornea, their presence may be demonstrated by this admirable instrument, the electro-magnet, for which we are indebted to Mr. McHardy, Professor of Ophthalmology at King's College. It is not often in these cases that the lens escapes without injury; but I recently extracted a piece of steel through a small incision from the anterior chamber with this fine bent conductor without the formation of cataract or any further damage to the eye. When the lens is wounded it swells, presses forward, and acts upon the iris both as a chemical and mechanical irritant. In these cases we must extract the lens, or if from the nature of the accident this is too great a risk to run, a piece of iris may be removed.

Sight, however, may be seriously affected without any loss of corneal transparency, by mere abnormalities of shape. The cornea may be too flat and the eye too short (hypermetropia), or too long (myopia), or it may be too convex (kerato-globus), or the refraction may differ in different meridians (astigmatism), or it may even project like a sugar loaf (kerato-conus). When the eye is too flat the patient can see at a distance, even through a convex glass; but vision with the naked eye for near objects soon becomes confused; in these cases we must prescribe convex glasses. In cases of astigmatism a combination of cylindrical and spherical lenses is requisite. Iridectomy, in some exceptional cases, is said to do good in kerato-globus, and I am in the habit of treating cases of conical cornea by touching the apex of the cone with the galvanic cautery. With one or two applications the aqueous escapes; the wound in healing, after the manner of burns, contracts; the normal curvature of the cornea is restored; and the cure is completed by making a pupil sideways, and, if necessary, tattooing the scar. With regard to myopia, it is very generally believed that because short-sighted persons can see minute objects with very imperfect light, and because they can read without spectacles at an age when most persons require such aids, that therefore short sight is strong sight. This, however, is a mistake. The vast majority of such patients suffer from permanent organic changes, which, increasing, may at any time damage or even destroy sight. Speaking on this subject, Dr. Williams, the eminent Professor of Ophthalmology in the Harvard University, the oldest University in the United States, says: "Very high degrees of myopia should be recognised as an infirmity deserving careful consideration before assuming the obligations of marriage; for those in moderate circumstances may well hesitate to choose partners, who, though highly cultivated, may probably at middle life become unable to provide for their households or care for their children."[3] Surely that is a serious disease. He adds: "Myopia is one of the gravest affections of the eye: capable of limitation by constant care during childhood and youth; but if not thus limited, likely to be a source of future disability and misery, and *to be handed down as an onerous inheritance to children.*"

Let me epitomise for your guidance a few facts relative to this very important subject. If short sight is not developed before sixteen years of age, it will not be developed at all; if it has not reached a higher grade than one-tenth by twenty, it is not likely (if care be taken) to increase. Higher degrees than this are an ever-present source of danger, disability, and frequent disaster. It is more likely to be developed in weakly children than in others, and frequently makes rapid progress in those who are recovering from illness. It is unknown among savage tribes and tillers of the soil, and is the direct result of a vicious system of excessive education, making its appearance first in the children at village schools in the proportion of about 1 per cent., in schools of higher grade 20 per cent., higher still 40 per cent. Not only the numerical ratio but the intensity of the disease is also increased in direct proportion to the hours spent in study, and the attention of the German Parliament has recently been called to the fact that in some districts where compulsory education has been longest in force, upwards of 50 per cent. of the inhabitants are affected. With regard to treatment, again I say prevention is better than cure; better indeed in this case, for cure is impossible. I see many of my eminent colleagues suggest desks, and fittings, and light arrangements, and props to keep the children's heads in certain positions; but, to my mind, desks and props and fittings do not meet the difficulties of the case. From five to fifteen is the dangerous age—the very period that the School Board have selected for their paternal ministrations; and if the eyes of a child between these ages begin to give way, there is no rational treatment but enforced absence from school; and I do not think myself that such compulsory holiday ought to be regretted by anyone, for children's brains do not grow in proportion to the stuff they cram into them; and, after all, true education is something that a man seeks for himself and finds for himself, and does not usually begin until long after school-days are over. Short-sighted persons, who must complete their curriculum of study for the Church, the Bar, the Civil Service, or other professions, should wear weak concave glasses for reading, so as to be able to hold print about twelve inches from the eye. The light should be good, and come from the back or side, and they should not read or work when lying down, leaning forward, or travelling in a railway carriage. "Seekest thou great things for thyself? Seek them not." To no class does this sage warning apply with greater force and justice than to the myope. Of two brothers, Germans, myopes, and students of medicine, one took heed of this warning, accepted a mediocre degree, and preserved his sight by an out-door life and country practice. The other heeded not, but worked on, and at last achieved distinction, only to find himself, shortly after middle life, unable to walk alone or recognise his fellows. Another condition that

[2] Handbuch der Augenheilkunde.

[3] Diagnosis and Treatment of Diseases of the Eye, p. 374.

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you will find very much benefited by glasses occurs in patients of forty or upwards, who occasionally suffer from marginal blepharitis, the formation of styes, and a feeling of general worry about the eyes owing to reflex irritation from neglect of these aids to vision. Still another is that of chronic invalids, specially women suffering from uterine complaints, painful menstruation, and the like, who spend much of their time on their backs, who read in this unnatural position, and complain of pain and neuralgia whenever they use their eyes. In these cases, in the absence of any marked ametropia, I usually prescribe weak convex glasses combined with abductive prisms, and recommend graduated exercises after the plan first suggested by Dr. Dyer, of Pillsburgh, Pa.

Gentlemen, I have already pointed out to you the great danger of mistaking a slight case of iritis for mere surface irritation,[4] and neglecting to dilate the pupil; the equally great, if not greater, danger of using atropine if the case should be inflammatory glaucoma, a disease which you are so apt to mistake for iritis. I have dwelt on squint and cataract, and pointed out those cases where the eyeball must be extirpated, and those where, in my opinion, opticociliary neurectomy may be advantageously substituted. Let me close this brief and necessarily imperfect sketch by calling your attention to two other errors which I find very frequently committed.

Here is a boy who was sent to me by his surgeon to be treated for myopia, and in truth, on ordinary inspection, you might easily conclude that his imperfect sight was due to that cause; but if you dilate the pupil, or use the ophthalmoscope, you will see at once that he is suffering from congenital cataract. Bear in mind, therefore, that there may be considerable opacity of the lens which is not at all visible on ordinary inspection.

Some years ago I was sent for to operate upon a lady, the wife of a military gentleman of considerable social importance. Two surgeons and a physician were already in attendance, and I was informed that the patient, although advanced in life and very nervous, would prove a good subject for operation, as the cataract was fully formed in each eye. On examination, however, I found that the case was one of simple glaucoma; there was no cataract at all; and the time for beneficial treatment had gone by. Now you will avoid this latter error by remembering that a dusky pupil is quite a natural phenomenon in aged persons, and that it is not at all safe to conclude that, because this appearance is accompanied with failing vision, therefore the case is one of cataract. You must use the ophthalmoscope, or, failing that, trust to subjective symptoms. Of these the most important are limitation of the field and iridescent vision. You will find, if the case is one of glaucoma, that the patient cannot see to the inner or nasal side, or vision is very limited in that direction, and if he looks at a candle or artificial light it is surrounded by red and green colours. You will see what I mean if you will breathe on the glass and look at the street lamp outside. This is an early and significant symptom of glaucoma, and if it does not disappear on rubbing, is not accompanied by evident opacity of the cornea, and does disappear under the influence of eserine, you must be prepared to treat for glaucoma or call in the aid of an ophthalmic surgeon.

Gentlemen, when I was a student I was taught to contemn specialism, and my teacher was Mr. Syme. Now I look upon the late Professor of Clinical Surgery in the University of Edinburgh as probably the first surgeon of the century, and am therefore disposed to regard any opinion of his with exceptional reverence; in this, however, I feel sure he was wrong. Life is so short; art is so long. It is so human to err. You require to see so many hundred patients before you know how to treat one; you require to perform the same operation not only over and over again, but to be always at it, before you can ensure for your patient the utmost benefit that art can afford; so that I feel convinced that if science is to be advanced and humanity benefited, it will be mainly by gentlemen who devote special attention to special subjects, and who place the fruits of their labours at the disposal of the whole profession. It is in the fulfilment of that duty that I am here to-night; that I venture to offer you these few hints, and to assure you that I am highly gratified by your gracious acceptance of the same.

[4] See Lecture I, on the Use and Abuse of Mydriatics, THE LANCET, vol. ii. 1886.

A FORM OF ULCERATION SIMULATING LEPROSY.

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LAST year Dr. Hale White was kind enough to show for me at the Pathological Society[1] specimens from a case of peculiar ulceration which had been mistaken for leprosy, and admitted to the Trinidad Leper Asylum. Having now three more cases under my care, and not having found this condition mentioned in any article on the diagnosis of leprosy, I have thought that a few notes of these cases may perhaps be of interest.

CASE 1.—P., a Hindoo woman aged thirty-seven. Twelve years' history. The chest and extremities are covered with superficial cicatrices. Above the ankles the dark skin is replaced by light flesh-coloured patches, showing former deep ulceration. The thumbs are intact, but the fingers are strangely distorted. The general arrangement is this: The first phalanges are inclined forwards, the second backwards, and the last phalanges forwards again. The phalangeal joints are more or less dislocated; in some there is ankylosis, in others more or less limited movement. The left forefinger is flail-like, and turned round to one side. The nails are filbert-shaped and slightly split longitudinally. The toes are curved downwards and are somewhat shiny. The toe-nails are worn away. There are superficial ulcers on the feet. There is no tache or anæsthesia anywhere. The toes are hyperæsthetic. No enlarged glands can be felt, and the bones are not markedly thickened. Chest sounds are normal. Magenta shows no bacilli.

CASE 2.—M., a Hindoo woman aged forty-two. Three years' history. The skin of the face and trunk is mottled, but there are no anæsthetic taches. There are old deep cicatrices on the dorsal and ulnar surfaces of the forearms, and over the left ulna are some long punched-out ulcers, exposing bare bone. The hands and fingers are very thin and wasted, but there is no ulceration, destruction of nails, or anæsthesia. On the front of the legs, upper surface of the feet, and left sole are old cicatrices and punched-out ulcers. Dead bone has been removed from shaft of left tibia. The toe-nails are intact, and sensibility is good. No enlarged glands can be made out, and the chest signs are normal. The patient is still extremely wasted, but has improved much since admission. Magenta shows no bacilli.

CASE 3.—D. J., a Negro aged forty-four. Five years' history. There are pale patches on the cheeks, joining beneath the nose; they are not anæsthetic. Trunk normal. The fingers of the left hand are partly ankylosed, the last phalanges being turned backwards towards the dorsum. On the extensor surfaces of the fingers are hyperæsthetic cicatrices. The third and fourth fingers of the right hand are also becoming distorted. The nails of both hands are long, intact, and more or less filbert-shaped. The finger-pulps are hyperæsthetic. Over the left external malleolus is a superficial ulcer about two inches long, nearly cicatrised. The toes are flexed, ankylosed, but not anæsthetic. Nails intact. There are scars on the dorsum of the right foot. Harsh breathing at left apex and nummulated sputum. Enlarged cervical glands on left side. Patient much wasted. Magenta shows a few bacilli in discharge from ulcer.

The main differences from leprosy are seen to be three:—1. There is no anæsthesia of fingers or toes. Indeed, in Cases 1 and 3 there is very marked hyperæsthesia. 2. There are no anæsthetic taches. In Cases 2 and 3 there is more or less leukoderma, but sensation over these patches is perfect. 3. There is no loss of phalanges or deformity of nails. In Case 2 the toe-nails are worn away, but this appears to be simply mechanical and very different from the destruction and deformity common in leprosy. The presence of bacilli in the last case is not to be wondered at, seeing that the patient is the subject of advanced phthisis.

The cause of this form of ulceration is obscure. On looking through the literature of tropical disease, it seems to me that this ulceration presents a remarkable analogy to the "parangi" disease of Ceylon as described by Gavin Milroy.[2] He says: "The characteristic features of the malady are diverse forms of skin disease, ulcerations of the surface in

[1] Path. Soc. Trans., vol. xxxviii., p. 544.
[2] Endemic Diseases of India (Fox and Farquhar), p. 95 *et seq.*

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different parts, and frequently also affections of the bones and joints, leading on, in bad neglected cases, to emaciation, exhaustion, with much suffering and death. ..... Sometimes it exhibits all the appearance of inveterate lepra." He remarks also on its resemblance to some endemic forms of disease in the Western hemisphere, and Fox and Farquhar comment on its relation to Delhi sore and its allies. I would venture to suggest that the above cases are Western analogues of these Eastern diseases.

Trinidad.

ON SOME CLINICAL FEATURES OF GRAVES' DISEASE.[1]

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IT is far from my intention in this paper to dwell on the whole train of symptoms which go to make up the disease recognised under the name of exophthalmic goitre. I shall limit myself to certain features of the affection, illustrated by cases occurring in my own practice. Let me in the first place direct attention to the eye symptoms. They are three in number—viz.: exophthalmos; Stellwag's symptom, or retraction of the eyelids; and Graefe's sign, or loss of the coördinated movement between the upper eyelid and the eyeball, and thus if the globe is turned downwards the eyelid does not follow fully, but leaves a zone of sclerotic visible above the cornea. The relationship of these symptoms, and especially the latter two, to Graves disease is the question which I wish first to discuss.

Dr. Wilks, at the discussion on this subject at the Ophthalmological Society in May last year (1886), said that "increase of cardiac rapidity he regarded as a primary and necessary symptom; quickened cardiac action, combined with exophthalmos and emaciation, or with enlarged thyroid, he would regard as characteristic." The general experience seems to be that it is exceedingly uncommon for the cardiac symptoms to be absent. Trousseau and most writers believe that they preceded other symptoms. Graefe held a different opinion. It is not difficult, however, to find a reason to account for this diverse experience; for physicians would naturally be consulted in the first place by those in whom the cardiac symptoms were primarily pronounced, and Graefe by those in whom the first in order were the ophthalmic. At the same time Sattler, from the same standpoint as Graefe, says: "It belongs to the rarest exceptions for the cardiac palpitation not to form the first symptom." Sooner or later the eye symptoms make their appearance, and the constancy with which they occur is generally recognised, and their presence often regarded as pathognomonic. At the same time, cases have occurred in my practice which lend support to the belief that no infrequently the eye symptoms—and I mean especially the lid signs—occur among the early indications of the disease. It is also possible that their occurrence has been overlooked in cases where the observers, having failed perhaps to note the fulness of the globe, have not examined for less apparent lid symptoms.

A woman who is under my care, and whom I have introduced this evening, I take to be one of the character I have mentioned, with the early development of the characteristic signs of the lids. Her age is forty-five, and she saw me at the infirmary on Dec. 10th for the first time. Six months ago, after a severe headache, she first noticed anything unusual about her eyes. Then, as at the time of coming to the infirmary, she supposed it was the left eye that did not open sufficiently, and that the right was perfect. She has been a widow for eighteen years; the catamenia have been very irregular since then, and menstruation has been entirely absent for eighteen months or more. She has had a good deal of anxiety about the success of a son during the last twelve months, and has been "nervous." She does not admit that she is thinner than usual. Examination at once disclosed that the faulty eye was not the one the patient supposed. The left eye was normal, and only apparently more closed in contrast to the altered state of the right. On this (right side) retraction of the upper eyelid (Stellwag's symptom), causing a widening of the palpebral fissure, was present; also when the patient looked down the relation of descent between the eyelid and the globe was broken, and a zone of sclerotic left bare above the cornea (Graefe's sign). There was no real exophthalmos present; the widening of the palpebral fissure would account for any little apparent prominence. Vision in each eye was normal, $\frac{20}{20}$, and the eyes were free from disease; on the right side there was venous retinal pulsation. The thyroid gland was perceptibly enlarged, and the right side more so than the left; it had not, however, attracted the patient's attention. Cardiac symptoms were absent; pulse 80; "flushings" had not been experienced; and there was also an absence of the "flurried fussy manner" of a complete case of Graves' disease. Urine: sp. gr. 1020; no albumen; no sugar. Notwithstanding the absence of the third cardinal symptom and the monocular character, I do not see how this case can be regarded as otherwise than as one of exophthalmic goitre. It is possible the other symptoms may develop later.

Not long ago, too, a young woman came under my observation with the retraction of lids (Stellwag's sign) and also Graefe's symptom, with some amount of exophthalmos. The other symptoms were not marked; and though I was myself disposed to regard the thyroid as a little goitrous, it was at all events so little that others disagreed with me. Dr. Dyson saw her at this time, and she has been under his care since, and he has kindly consented to her coming here this evening, as the other cardinal symptoms have since developed. The patient has reminded me of the interesting fact that she did not come to the infirmary respecting her condition at all, but only accompanied a relative, and that I, noticing something about her eyes, examined her and found the condition I have stated. It had never attracted her attention before. The eye symptoms are more marked on the left side.

About a year ago, also, I saw a young lady with an absence of all symptoms of Graves' disease, except a nervous irritability, and that in the right eye Graefe's symptom, and especially Stellwag's, were both well marked. There was no exophthalmos. The left eye was normal. This case caused me at the time and since to reflect whether these symptoms may occur independently of exophthalmic goitre, or indeed in a case which does not actually pass into the train of symptoms recognised under that disease; especially, moreover, as in this case treatment affected more than it usually does in Graves' disease. Bromide of potassium was used without much benefit; but the constant current, with tonics and change of air, were followed by marked improvement. No other definite cause in the way of diseased teeth &c. was found. She remains now practically well at the lapse of ten months since discontinuing treatment.

A still more interesting case is that of a miner aged thirty-six, whom you have seen, and who is suffering from well-marked miners' nystagmus, the oscillations being both rotatory and of a to-and-fro character, and the movements being increased by placing the head in an oblique position, as well as by the other means that generally aggravate the oscillatory motions in the nystagmus of miners. The interest for our present purpose lies in the fact that there is also present retraction of the eyelids (Stellwag's symptom), rendering the sclerotic bare round the cornea, and very marked Graefe's sign. He appears, moreover, to possess some control over this condition, for he can lower the eyelids to the cornea and present an almost normal appearance; and this does not seem to bear any very exact relation to the nystagmus. The eye movements, though worse at some times and in certain positions, never cease. It is doubtful whether there is any real exophthalmos—probably not; nor can the thyroid be considered as enlarged. There is a complete absence of all other symptoms of Graves' disease.

At the discussion at the Ophthalmological Society Mr. Lang read an epitome of six cases in which unilateral lid phenomenon, without proptosis, was associated with no other evidence of Graves' disease except slight enlargement of the thyroid in two cases. In four, however, paresis of the orbital muscles was present. Dr. Hughlings Jackson mentioned also that he had observed Graefe's sign in a case with no Graves' disease. An immense number of cases of miners' nystagmus have at one time or other passed under my observation, but such an association of lid symptoms as witnessed in the case related is unique in my experience.

Fortunately, notwithstanding the degree of protrusion of eyeballs which in some cases occurs, sloughing of the cornea

[1] Read before the Sheffield Medico-Chirurgical Society, Dec. 23rd, 1886.

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is a very rare occurrence. No such result has occurred in my practice, though two cases have come under my care in the infirmary—one not long after the suppuration had commenced, and the other only after the globes had become destroyed.

The first case was that of a young woman, unmarried, aged twenty-three, and she was admitted into the Fir Vale Workhouse on Nov. 14th, 1882, where our present house-surgeon, Mr. C. F. Coombe, saw her, whilst acting as resident medical officer to that institution, and he has kindly supplied most of the particulars which follow. At this time she presented well-marked enlargement of both lobes of the thyroid gland, with great prominence of the eyeballs. She had frequent attacks of very severe palpitation, and systolic bruits were heard both at the base and apex of the heart. During the next fortnight the exophthalmos increased considerably, and became so great that she could not cover the globes with the eyelids. Ulcers appeared on the cornea, spreading and assuming a sloughing character. On Dec. 2nd she was admitted into the Sheffield General Infirmary, under Dr. Bartolomé, and on the 4th was transferred to me. Shortly after admission she was attacked with erysipelas (facial), and died on Dec. 12th. No post-mortem examination was allowed. When she came under my observation both corneæ were extensively sloughed, altogether past recovery. No cause was assigned for the disease, but her condition from the first when under my care was such as to preclude the possibility of taking detailed particulars of her case.

The second instance was in a married woman aged forty. She was admitted into the Sheffield General Infirmary in May last (1886) with both eyeballs destroyed by sloughing of the corneæ. The thyroid gland was markedly enlarged; there was palpitation and a loud hæmic murmur (basic). There was the excitable nervous disposition met with in patients having Graves' disease, and "flushings" were likewise experienced. The eyelid symptoms were obscured as a consequence of the sloughing of the eyeballs, but Stellwag's symptom (retraction of eyelids) was undoubtedly present.

A remark occurs to me respecting the condition of the thyroid gland in these cases of exophthalmic goitre. Frequently one lobe is larger than the other, and in recorded cases in which the side is particularised, the right is the one referred to. Anatomists, however, state that the right lobe is normally larger than the left. Have clinicians borne in mind sufficiently the anatomical fact?

Monocular cases.—Generally speaking, Graves' disease is bilateral, though not unfrequently it is more marked on one side of the body than the other. Several cases are on record in which the eye symptoms have been confined to one eye. Dr. Hill Griffiths stated at the Ophthalmological Society that the eye symptoms in his thirty cases were bilateral in twenty-three instances; in four the right only was affected, and the left in three. In addition to the patient already referred to (No. 1), I have notes of two other cases.

The first occurred in a female, aged fifty-four, who consulted me in 1877. She suffered greatly from palpitation; pulse 150. Exophthalmos (right side); lids closed over the eyeball but not easily. Had only been married recently; her health was poor, and she had had a great deal of nursing; slept badly. Menstruation ceased a year ago. The thyroid gland was enlarged; my note does not say whether equally so, or whether one side was larger than the other. I only saw her a few times.

The next case was a domestic servant aged twenty-three, who was first seen in June, 1884. For three or four months the left eye was noticed to be prominent, and had been much worse during the last two months. The retraction of the eyelid (Stellwag's symptom) was well marked, and had been so for two months, the patient stating that the eye had been as wide open during that period as it was at the present time. The eye was prominent, and Graefe's sign, loss of coördinated movements in descent of eyeball and upper eyelid, was present. The eye was myopic; V = fingers, and was but little improved by any – glass. There was divergent squint; there were extensive choroidal changes in the region of the macula. She had been aware of the badness of vision with the eye for many years. The right eye was hypermetropic, and the symptoms present in the left were absent. She suffered a great deal from palpitation; there was a hæmic cardiac bruit, audible with first sound at base and into the neck. Goitre was present, and had only been noticed two or three weeks—not large but distinct, and, if anything, the right was the larger side. No shock or other apparent cause. Menstruation was frequent. She was introduced at one of our meetings some time after this. She remained under my care, and in the following November it seemed as if the right eye would also become affected; but it never did so. At the end of twelve months the following note was made: "She has been at Scarborough, and is in much better health. The prominence of the left eye is now very much less, but she thinks it is not quite as it was before the attack commenced. The right eye is quite good. No flushings now, nor palpitations. Has lost her nervousness. Catamenia regular."

A theory to be satisfactory must be able to account for the whole train of symptoms. The one that seems to fall in best with this condition is the central lesion theory brought forward by Sattler, and which has found in these islands a very able advocate in Dr. W. A. Fitzgerald of Dublin.[2] Briefly, Sattler assumes a lesion of the vaso-motor centre that presides over the vaso-motor nerves of the thyroid gland and orbital tissues, and it is inferred from the frequent association of goitre and exophthalmos that these centres must be close together. The cardiac symptoms he ascribes to lesion of the cardio-inhibitory centre for the vagus, and Graefe's symptom is explained on the assumption that there is a centre governing the associated downward movements of the eye and eyelids, just as the associated movements of both eyes. He coincides in Stellwag's opinion that the widening of the palpebral opening is due to a lesion of the reflex centres, which are set in motion by stimuli from the retina, cornea, and conjunctiva. The experiments of Filehne on the restiform bodies have given considerable support to this theory, these being the parts through which the nerve paths from the vaso-motor centres and vagal centres pass. In one case he succeeded in inducing the three cardinal symptoms, and in the others a varying association of the symptoms. Moreover, the interesting association of diabetes in some cases of Graves' disease is well known, and it is worthy of notice that the region described as the diabetic puncture is close to the vaso-motor area. Do not the cases referred to in this paper lend support to such a central theory? In other diseases we are accustomed to regard a lesion as spreading and gradually encroaching on contiguous areas, either by direct extension or by irritation of surrounding tissues. May we not, therefore, regard the cases in which the lid symptoms are among the earliest as instances in which the lesion has only affected the centres governing the coördinated downward movement of the globe and eyelid, with the lid reflexes generally closely associated, the other centres becoming implicated later on, with a consequent further development of symptoms? Or are there cases which stop at a lesion of the lid centres?

COLOTOMY FOR MALIGNANT DISEASE OF THE RECTUM, WITH NEARLY PERFECT CONTROL OVER THE ARTIFICAL ANUS A YEAR AFTER THE OPERATION.

BY HARRISON CRIPPS, F.R.C.S.,
ASSISTANT-SURGEON TO ST. BARTHOLOMEW'S HOSPITAL.

THE patient, a woman aged fifty, was kindly placed under my care at the hospital by Dr. Griffith. I am indebted for the following notes to Mr. Balgarnie, her dresser.

The woman was admitted on Dec. 15th, 1885. She dates her present illness from the spring, when she first noticed pain in the lower part of the back, and soon afterwards pain during defecation. The character of her motions gradually altered, becoming smaller in size, and at times flattened and generally tinged with blood. The frequency of her stools increased, at first to three or four times a day, but latterly much more often. She has been getting thinner, and at times has much severe pain, which she described as like "labour pains."

The patient on admission looked weak and anæmic, with a feeble pulse. She had nearly constant pain, and was much distressed by a troublesome diarrhœa, having to go to stool as often as ten or twelve times in the night. The act of defecation was very painful, and nearly always attended by loss of blood. On examination the anus appeared healthy, and on

[2] Dublin Medical Journal, 1883.

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ntroducing the finger the mucous membrane for about three inches felt smooth and natural. The finger then came in contact with a mass feeling not unlike an enlarged cervix uteri. Around this was a cul-de-sac, deeper posteriorly than anteriorly. The mass itself was hard and nodular. The opening through it would only admit the tip of the finger, and the bowel at the constricted point was firmly fixed to the surrounding structures.

The patient, not wishing then to stay in the hospital, left, but was readmitted on Feb. 1st. She had become weaker, and her symptoms had increased since her discharge. The mass also had grown considerably, and could now be felt to be within an inch and a half of the anus. On Feb. 8th, 1886, the case being considered unsuitable for excision, lumbar colotomy was performed by Mr. Harrison Cripps. The various layers between the skin and the lumbar fascia were purposely not divided on quite the same level, and the opening in the fascia was considerably above that in the skin, so that the bowel when drawn out ran obliquely for a short distance between the skin and the fascia. The wound united by first intention. No motion passed through it for a week. During the next six weeks a certain amount of fæces passed through the rectum as well as through the wound. This gradually ceased, and when she was discharged in March everything passed through the artificial anus. She improved very much whilst in the hospital, and was comparatively free from pain.

April, 1887.—The patient is not only alive, but wonderfully improved; and notwithstanding that the local growth has made some advance, her general health and strength is far better than it was a year ago. She is no longer troubled with diarrhœa, but has one good motion daily through the artificial anus, and she has been able to attend as usual during the year to her domestic duties. The artificial anus readily admits the forefinger, and the mucous membrane is exactly on the level of the skin. There is no sign of cicatricial tissue round the orifice, which is perfectly soft and dilatable. The patient knows when she is going to pass a motion, which she has the power of controlling, there being no involuntary escape. In fact, the patient herself says she is no more troubled with the artificial anus than when the opening was in the natural situation. The patient was shown at the Medical Society.

After carefully watching a large number of cases of rectal cancer, in some of which colotomy had been performed, while in others nature had been allowed to take its course, I do not hesitate to pronounce strongly in favour of the operation. The relief to the symptoms is very marked, the constant diarrhœa and tenesmus which forms so frequent and distressing a complication being entirely relieved. The downward course of the patient is certainly made far easier, and the miserable termination of life by obstruction or perforation prevented. Moreover, I feel confident that the progress of the growth is retarded in consequence of the bowel acquiring physiological rest by the cessation of its function. That the rapidity of malignant growth depends much on the activity and consequent blood-supply of the organ affected admits of no doubt, and as an example may be instanced the relative rapidity with which cancer grows in the breast of a pregnant or suckling woman. So that, apart from life being indirectly prolonged by the relief which colotomy affords to distressing symptoms, I feel confident that the growth itself is often retarded, and rendered comparatively quiescent when the rectum is placed at rest by the operation. Colotomy is in no sense a rival operation with that of excision. Excision is doubtless the proper operation when the disease is within easy reach and still confined to the walls of the rectum, thus admitting of a free and complete removal. Such favourable conditions are, however, unfortunately exceptional, the disease either having commenced too high or spread too far by the time the case has come under observation to admit of local interference. The practical question that arises is as to what period in the course of a case of rectal cancer colotomy should be performed. In answering this question, I am in complete accord with Mr. Reeves, who advocates the performance of the operation so soon as symptoms of stricture become prominent. The troublesome diarrhœa, pain, tenesmus, and blood-stained discharge owe their origin far more to the retention of scybala above the contracted part than to the actual disease itself. To wait until the unfortunate sufferer is at death's door, worn out by the constant discharge, or by the actual occurrence of complete obstruction, is not only to have deprived the patient of the benefit of the operation, but to perform it at a time when it becomes a dangerous procedure. The operation, if performed before the patient is much reduced in strength, has but little risk; indeed, I can say in my own practice that I have hitherto had no death as the immediate result of the operation when performed for malignant disease. It is essential, if the patient is to derive full benefit from the operation, that care should be taken to prevent the opening from contracting. It is of great importance, with this view, to get union of the bowel with the skin by first intention. If this occurs there is little or no tendency to contract. On the other hand, if the bowel falls away from the skin the granulating tissue with which the interval is occupied is nearly sure to contract on healing. In one case in which I recently operated half the benefit was lost from this cause, for, on seeing the patient two months after the operation, the opening would barely admit the finger. If there is any tendency to contraction, it is best prevented by allowing the wound to heal over a full-sized plug. I regard it as a great advantage to make the opening through the abdominal walls as valvular as possible, and this is best accomplished by making the incision through the skin considerably lower than that through the fascia. If the opening is made in this way, and care taken during the healing process to prevent contraction, the patient will have little or no difficulty in managing the artificial anus. In the case recorded, the part was perfectly clean, the patient had one motion daily, and had control over the bowel, while she was able to do her daily work without annoyance of any kind.

Stratford-place, Oxford-street, W.

EXTIRPATION OF RUPTURED UTERUS.

BY E. C. ANDREWS, B.A., M.B., B.C. CANTAB., &c.,
SCHOLAR OF ST. JOHN'S COLLEGE, CAMBRIDGE, AND SENIOR OBSTETRIC RESIDENT AT GUY'S HOSPITAL.

ON September 12th, at 5.30 P.M., one of the extern midwifery attendants was called in to attend the fifth labour of Mrs. S——, who was said to have had pains for twenty-four hours. She was a delicate woman of short stature and her previous confinements had all been normal. Vaginal examination showed the os fairly dilated, membranes unruptured, and the vertex presenting resting on the pubes. The pains were of medium frequency, and apparently those of the first stage of labour. At 6.30 P.M., the pulse being then about 120, the membranes ruptured, and the pains increased in force and frequency, culminating about 8 P.M. in exceedingly strong expulsive efforts, which affected the progress of the head but little, if at all. Immediately after these the patient complained of intense pain in the stomach, there was marked collapse, and all labour pains ceased.

I was now summoned to the case, and found the patient nearly pulseless, pale, and exhausted, but quite conscious, and the head on the brim of the pelvis and rather movable. Recognising the urgent necessity for immediate delivery, I directed the abdomen to be well supported by the extern, introduced the long forceps, and proceeded to deliver the child. No difficulty was experienced in the introduction of the blades, and but very gentle traction was required. Fearing that the perineum might rupture, I withdrew the forceps as soon as the head was well down upon it, but instead of expulsion taking place, the head receded into the vagina. I again applied the forceps, and delivered without further difficulty. The child was a large one, weighing 9½ lb., was stillborn, and the delivery was followed by a gush of blood, though the uterus appeared firmly contracted. After waiting a few minutes, finding that the placenta did not come away, I introduced my hand and found that it passed through a rent in the uterine wall into the abdominal cavity. Following up the cord with my fingers, I discoverd the placenta in the abdominal cavity above the uterus, and removed it without difficulty. An injection of two-thirds of a grain of ergotine was now administered. The pulse was quite imperceptible and the patient apparently dying. An hour later the patient had rallied considerably; the pulse was 140, of fair force, and there had been no further hæmorrhage from the vagina. About 10.30 P.M., however, the pulse was much feebler, and coils of intestine had come down through the rent into the vagina.

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In the temporary absence of Dr. Galabin, I consulted with my colleague, Mr. A. E. Price, and we agreed that the patient's only chance lay in the immediate performance of abdominal section. Ether was accordingly administered, and, with the assistance of Mr. Price and Mr. F. R. B. Bisshopp, I proceeded to open the abdomen by an incision in the median line extending from a quarter of an inch below the umbilicus to a quarter of an inch above the pubes. Each layer was in turn divided on a director until the peritoneal cavity was reached, and then, passing my hand downwards and to the left over the surface of the uterus, I found a large, ragged tear in the left and front of the organ, while the abdominal cavity contained a very large quantity of blood. The position and extent of the rent, together with the extreme laceration and thinning of its edges, determined me to remove the entire uterus and appendages rather than attempt to unite the tear with sutures. I accordingly lifted the uterus out through the abdominal wound, placed a double ligature round both broad ligaments, and divided them. Then carefully clamping the cervix below the rent, I transfixed the pedicle with a needle and tied each half with a double ligature, afterwards carrying one of the ends round the whole stump. Cutting through the pedicle above the clamp, I now removed the uterus. The peritoneal cavity was sponged out as completely as possible, and the pedicle brought forward and fixed with harelip pins to the lower end of the abdominal wound. I then closed the upper part of the incision with wire sutures, and applied the usual gauze dressings. During the whole operation, which lasted three-quarters of an hour, there was but very little hæmorrhage, and during the earlier stages the patient's condition was all that could be desired. Towards the end, however, she gradually sank, and died soon after the operation was completed.

Subsequent examination of the uterus showed the organ to be of the normal size after parturition, and weighing roughly twenty-four ounces. The rent extended from the attachment of the upper part of the left broad ligament vertically downwards to the lower third of the cervix, and then passed transversely across the anterior cervical wall to the right side, its total length being nearly six inches and a half. The edges were much lacerated and very thin, and in the surrounding tissue there was a good deal of blood extravasated. The placental site was on the fundus and posterior wall, and the muscular tissue was firm and well contracted, showing a healthy structure on microscopic examination. In the right ovary there was a characteristic corpus luteum of pregnancy, and in the left two minute cysts.

As far as I am aware, the uterus and appendages have not before been removed for a rupture of that organ. I have stated above the reasons which led me to prefer this operation to any attempt to sew up the tear, though I opened the abdomen with the intention of doing so. Immediately after delivery the patient appeared to be sinking much too rapidly for any operative interference to be attempted. As my notes show, she rallied from the shock, but only to sink again from hæmorrhage into the peritoneal cavity as soon as the reaction was well established. That this hæmorrhage was the fatal factor in the case I have not the least doubt. Not having a serre-nœud at hand, I had to make use of an ordinary ovariotomy clamp, but I feel sure that the former is much the more suitable instrument. In conclusion, I believe that such an operation as I performed gives a chance to an otherwise hopeless case, and that it should be undertaken without hesitation under such circumstances.

Prince Arthur-road, N.W.

A REMARKABLE CASE OF COMA DUE TO MALIGNANT PUSTULE (ANTHRAX).

BY F. J. REILLY, L.R.C.P. ED., M.R.C.S.

ON Tuesday, April 12th, at 9 A.M., I was sent for to see Mr. H. I. S——, residing in Hackney. I found him in bed, totally insensible and convulsed. His case presented some of the appearances of irritant poisoning, such as vomiting, head fixed rigidly backwards, and the muscles of the trunk and limbs having tonic and clonic spasms. The breathing was stertorous, and he was totally unconscious, with insensitive conjunctivæ. On careful examination, I found his temperature was 105°; pulse 140, soft and compressible. I also found on the nape of his neck a dark livid black spot about the size of a threepenny-piece, with hard base 2½ in. by 2½ in., and then came to the conclusion that it was blood-poisoning of the most virulent character. I then wired to Dr. Angel Money, who kindly came directly and suggested an operation of removing the whole of the affected part at the nape of the neck, which I immediately did; this operation relieved the patient's convulsions considerably, but he died five hours after in coma. There was no albumen in the urine and no sugar, and nothing to suggest either Bright's disease or diabetes. The patient had never been ill in his life. He had been at business on the previous Saturday. In the evening he played whist with his friends, about a mile from his own residence, partaking of a hearty supper, and then walked home between 12 and 1. He went to bed and slept well. On Sunday morning he took his breakfast as usual, and was only noticed to complain of feeling chilly. He wore an overcoat, and did not put on his collar because of the "boil." Took his dinner, and in the evening amused his children by reciting. He went to bed and remained there until 4 P.M. the following day, when he got up and came downstairs complaining of great prostration. He returned to bed at 7 o'clock, and all night was most restless. At 6 A.M. he got up and made some tea, took a cupful and gave his wife one; at 8 A.M. he got out of bed and fell down from what I consider to be syncope. He so far recovered from this to get back to bed without assistance; becoming insensible, I was then sent for, and found the condition above stated.

The most important feature about this case is that Mr. H. I. S. was a tanner, employing about seventy men, and his long experience made it important that he should superintend the sorting of hides, which he did on Saturday, and it is not unreasonable to suppose that from this source the contagion was contracted. The Government ought at once to take some steps, now that anthrax is so prevalent amongst animals, to make an immediate order that all their skins and carcases should be cremated. Dr. Angel Money took the portion removed away, promising to mount and examine for bacillus anthrax. A preliminary examination has demonstrated the presence of a few short rods having the characters of the bacillus in question.

Victoria-park-road, Hackney.

NOTE ON EXTEMPORISED INHALERS.

BY THEODORE MAXWELL, M.D., B.SC.

FEW practitioners who have been in the habit of employing inhalations in diseases of the respiratory organs would willingly give them up for all the draughts and mixtures that have been invented. Why, then, do so few prescribe inhalations? Probably because the use of the various instruments in vogue is attended with inconvenience, and the patients, as a rule, object to wearing a hideous and uncomfortable semi-mask or to lean over an earthenware jug with a mouthpiece for some time each day. In some cases, too, as with chloride of ammonium, the inhalers to be had are both cumbrous and expensive. A little ingenuity will enable the practitioner to obviate many of the objections to prescribing medication in this form. For example, is it desired to inhale the vapour of a few drops of volatile liquid, such as creasote and ether dissolved in spirit? Take a piece of indiarubber tubing about three-eighths of an inch in diameter, and two inches and a quarter in length; cut out three-quarters of the circumference of the middle third; there will then be left two tubes, three-quarters of an inch long, joined by a mere band also three-quarters of an inch long. Roll up a little strip of blotting-paper, and insert into each of the tubes. This will absorb from three to five minims of liquid dropped into each tube. All that has then to be done is to bend the apparatus into the form of a U, and insert it into the nostrils, the indiarubber band resting against or below the bridge of the nose. The patient should inspire by the nose and expire by the mouth. This is, in fact, a simplified—may I say an improved—form of Cozzolini's inhaler mentioned in THE LANCET of March 19th.

Again, chloride of ammonium vapour is simply invaluable in winter cough with so-called asthma, a few puffs from the apparatus described and figured by Dr. Kendal Franks in

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THE LANCET of January 22nd being frequently sufficient to afford immense relief; but this apparatus (Vereker's), as well as another of Lee's, is cumbrous, and too expensive for poor patients. Besides, such goods are not to had in ordinary chemists' shops in country towns. The apparatus itself may be improvised with three wide-mouthed bottles and a few pieces of glass and indiarubber tubing; the difficulty about the Y-shaped tube, which only a practised glass-blower can make, can be got over by leading the ammonia and hydrochloric acid separately into the wash-bottle, whose cork must thus have three holes. The gases combine quite as well in the water, or after they have passed through it, as they do in the leg of the Y-shaped tube. But there is a much simpler plan still, which can be extemporised in any surgery in two minutes. Remove the piston and cork from a glass syringe (male or female), the larger the better; tear, so as to fit the tube loosely, four pieces of sponge; damp them; insert one down to the end; put, say, a dozen drops of strong hydrochloric acid on the second, and push it down near the first; then insert the third, which is simply damped; on the fourth drop, say, a dozen minims of dilute solution of ammonium, insert it, and finally a perforated cork. Tell the patient to smoke the "patent cigar" from the nozzle for five minutes. If the sponges have not been too tightly rammed in, there will be no difficulty, and the peculiar white cloud will issue from the mouth or nostrils at each exhalation. I find it necessary to explain to patients that the "smoke" is not merely to be sucked into the mouth, but drawn deeply into the chest. This "patent cigar" can be used by several patients successively in the surgery, but the charge will not last long. After use, the sponges may be withdrawn with an old pair of dressing forceps, and recharged when required again, as the sponge containing the acid soon gets spoiled; pumice-stone or asbestos is better. Before letting a patient inhale, the "cigar" should be cautiously tried, lest either the acid or the ammonia should be too strong.

Woolwich Common.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

TWO CASES OF COLOTOMY FOR MALIGNANT DISEASE.—FRACTURE OF THE TIBIA DUE TO NECROSIS.—REMOVAL OF FOREIGN BODY FROM THE ANTRUM.

(Under the care of Mr. BRYANT.)

THE cases in which colotomy was performed present very good examples of forms of disease in which the employment of this operation gives very great relief from the more urgent symptoms and also prolongs life, the malignant disease being no longer in a constant condition of irritation, and growing less rapidly. It is rare to find fracture of the tibia due to necrosis, and not unfrequently the condition of the parts compels amputation. The fourth case shows the necessity of careful inquiry and examination where these sinuses may possibly be due to a foreign body.

Recto-vesical fistula due to malignant disease; colotomy (two stages); pins used. (From notes by Messrs. E. Deane and A. G. W. Bowen.)—E. P——, aged forty-six, was admitted on January 18th, 1886. Has had very few illnesses, and gives no history of any intestinal trouble or inflammation; she is married, but has had no children; she has had one miscarriage. Nearly four years ago she noticed that she had trouble with her urine, which she passed frequently and in small quantities, accompanied with great pain. A few weeks later she noticed fæces in the urine, during micturition the stream would be stopped by lumps of fæces which came away like pieces of string. She also noticed that she passed flatus per urethram. During this time she had much difficulty and pain in passing her motions, which were smaller than normal, never exceeding the diameter of the forefinger. The menses became irregular about six years before admission, and ceased entirely between four and five years ago. On Dec. 24th, 1885, the patient lost a large quantity of blood, the flow commencing from the vagina and afterwards coming from the rectum as well; previous to this she had very severe pain in the lower part of her body, and a good deal of slimy matter was passed with the motions. She complains of a good deal of pain in her back and loins. She has lost flesh considerably of late, and cannot sleep well owing to pain and having to get up frequently to pass urine. More fæces pass in the urine on straining or taking severe exercise, or when the bowels have not been open for some time. She says she passes white fibrous-looking lumps in the urine as well as fæces. Urine slightly acid; sp. gr. 1018; contains a small quantity of lithates, albumen, and pus, but no blood or sugar.

Jan. 21st.—On examination per vaginam, the uterus is found to be fixed and slightly flexed forwards. On examination per rectum, nothing very definite can be reached by the finger, but it seems to just reach a hardish, nodular, movable mass.

27th.—She is quite certain that fæces are still passed per vaginam, but none can be found in the urine.

29th.—The patient complains of very severe headache, with occasional shivering fits and sore-throat. Five grains of quinine were given.

Feb. 3rd.—With the aid of the microscope numerous pus-cells and some epithelial cells can be seen in the urine, which has a distinctly fæcal smell.

11th.—Condition of urine not improved.

12th.—Chloroform having been given, Mr. Bryant made an oblique incision three inches in length and about two inches and a half above the crest of the ilium on the left side, dividing fat and muscles down to the transversalis fascia. The bleeding was then stopped by twisting a few small vessels. The bowel was then inflated with air, and on dividing the fascia a large coil of bowel presented through the wound. This was fixed there by passing two long hare-lip pins through the integuments below, transfixing the colon through rather more than half its diameter, and passing out through the integuments above the wound; the bowel was not opened. The posterior end of the wound was then closed by two silk sutures, and the whole dressed with iodoform gauze and terebene oil.

13th.—A grain of opium was given last night. The patient was sick several times after the operation. She complains of a good deal of pain around the wound. The discharge had soaked through the dressings, which were renewed. Fomentations over abdomen, containing equal parts of tincture of opium and belladonna liniment.

15th.—The pain was less and the fomentations discontinued. Wound looking well; dressed to-day. Urine still contains pus. Patient has passed flatus and fæcal matter since the operation.

17th.—The bowel was opened to-day with a tenotomy knife. The patient experienced no pain then nor later when the needles were withdrawn.

20th.—The patient complains of flatus still coming per vaginam when she passes urine.

March 1st.—Nearly clear-coloured urine; a deposit of mucus; only a trace of albumen; very few pus-cells.

3rd.—Flatus has not passed through the vagina since last week, but there is still a little discharge per anum.

11th.—There is a red circular area around the aperture of the wound, about an inch wide from its circumference to its edge.

15th.—The redness has entirely disappeared.

On the 17th there was some pain during micturition. Flatus and fæcal matter had ceased to pass per vaginam. A colotomy belt was ordered on the 22nd, and she left much improved on the 31st. Her last report three months ago was satisfactory.

Malignant growth of pelvis (sarcoma?) involving rectum: colotomy. (From notes by Messrs. Bindley and C. J. Fuller.) C. L——, aged twenty-six, a clerk, was admitted on May 21st, 1885. The patient states that his father died of dropsy and his mother of cancer. Has one brother and three sisters; one of his sisters was operated upon by Mr. Bryant for periosteal sarcoma of the lower jaw fifteen years ago. He enjoyed fairly good health until May of last year; he then suffered from hæmorrhoids for two or three

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months. Since Christmas he has had diarrhœa badly. During the last two or three days he says that he has felt a burning pain at the anus, and that mucus and blood have passed.

Examination on admission.—On examination per rectum the anus was found to be unduly patent; in front of the rectum, in about the situation of the prostate and base of bladder, was felt a firm, smooth, hard, painless mass, encroaching upon the calibre of the gut, but not completely obstructing it. On passing the finger towards the left side this mass was found to be continuous with a similar mass filling up the left side of the pelvis, and apparently firmly attached to the left ischium. Behind the rectum the concavity of the sacrum could be felt apparently quite free. On passing to the right side of the central mass the pelvis was found to be occupied in the same manner as the left side, but to a less extent, and, upon pressing upwards with the finger here, tenderness was elicited. The rectum was found to contain liquid strong-smelling fæces, but no blood; one or two small solid portions of fæces were also felt; further, from the wall of the rectum small pedunculated soft masses about the size of small grapes could be felt; the interior of the bowel otherwise was quite smooth, the abdomen was slightly distended, and a hard, irregular, painless mass, dimpling on pressure and apparently fæcal, could be felt in the left iliac region; there was a little gurgling, too, on palpation.

May 22nd.—To have a grain of opium every six hours.

26th.—The patient having been prepared and anæsthetised, an incision about two inches and a half long was made halfway between the last rib and the crest of the ilium, the muscles and fasciæ cut through, and all bleeding arrested. Mr. Bryant then introduced his finger and felt the kidney with the bowel in front of it; this was difficult to bring to the front on account of the great number of adhesions; it was, however, inflated and brought out, when it was found to be of the normal thickness of wall. On this account, instead of being put through the bowel, the stitches were introduced, one towards the front through an appendix epiploica and three on the other side through a transverse band. The wound was then stitched up on each side of the bowel, a piece of which, to the extent of about an inch and a half, was left protruding. The wound was then dressed with oiled lint and padded up with iodoform gauze, and the patient put carefully to bed.

27th.—The patient feels very comfortable, only a slight tightness across the abdomen. Urine acid; sp. gr. 1025; no albumen. Morning temperature 102°.

28th.—Was sick last evening and in the night; he cannot keep down his iced milk; no pain in abdomen or wound. Morning temperature 100·4°. The opium pills were repeated. Sedative bismuth mixture ordered three times a day, and port wine, barley-water, milk, and lime-water allowed.

29th.—He was very sick early this morning, but this has ceased; he lies with his hands clasped over his head. Respiration chiefly thoracic; the abdomen, however, moves slightly. He complains of tenderness over the epigastrium, and a griping pain as soon as he takes anything to eat or drink. Around the wound there is a slight red blush; has suffered much from hiccough. Pulse 92, fair volume. Complains of a feeling as if the abdomen was being screwed up. He is now taking a little weak brandy-and-water.

30th.—Wound dressed to-day. There is a little discharge. The stitches were not taken out. Has had no hiccough last night or to-day. Respiration thoracic.

June 1st.—Bowel protruding nicely from wound; granulating healthily. One stitch was removed on each side, and the bowel opened with a small narrow scalpel. No anæsthetic was given, and the patient felt nothing of the operation. The handle of a scalpel was then introduced, and some portions of light-coloured fæces were removed.

6th.—Patient seems comfortable,; there is still a great deal of discharge.

19th.—Wound again dressed; there is still some discharge both from the anus and the colotomy opening.

July 28th.—Patient discharged.

In July, 1886, this patient was comfortable, and there was not much evidence of the local disease having progressed. The Sister of the ward has just heard of his death.

Syphilitic necrosis of tibia: fracture at this spot; sequestrotomy. (From notes by Messrs. Deane and D. J. Jones.)—A. B——, aged fifty-three, was admitted on Oct. 28th, 1885. Five years ago an ulcer appeared in the upper part of the sternum, which broke and then healed up; soon afterwards she had an ulcer on the left shoulder, which was soon cured; six months later she had a tumour on the dorsum of the tongue. The tumour disappeared, under treatment; but she continued to take the medicine for some months. About two years ago two ulcers came on the front of the leg, one above the other, midway between the knee and the ankle. She applied a lotion. In a short time the two ulcers joined, and they have been getting deeper since. Last week she got up from a chair to walk across the room; as she did so, she felt something in her leg crack, and was unable to walk a step.

On admission there was great enlargement of the left leg beneath an old ulcer; above and below the ulcer the skin was clearly defined, dipping down along the margin of the ulcer; there was a mass of black necrosed bone at the bottom of it. The bone was broken completely across at the seat of necrosis. There were scars of old ulcers on the sternum and left clavicle, and slight scarring on the soft palate and pillars of the fauces. Urine normal.

On Oct. 31st Mr. Bryant enlarged the wound, and, finding the sequestrum loose, he removed it in two pieces. The cavity left was found lined with granulation tissue, which was wiped away; the lower end of the upper fragment of broken tibia was also freshened by chiselling off a small portion. The antero-external surface was quite black from exposure, and hollowed out from gradual disintegration of its substance. Elsewhere the surface of the sequestrum was irregular and worm-eaten. There was very little production of new bone in the neighbourhood of the sequestrum. It was two inches and a quarter long, and the antero-external surface was one inch in breadth. The limb was put up in a posterior and two-side splint, as in a simple fracture.

Dec. 7th.—Wound dressed; two small pieces of bone (compact tissue) taken away.

15th.—Patient would not stay in the hospital, so the leg was put up in a plaster-of-Paris bandage, a window being cut in the bandage so that the wound might be dressed. There seemed to be firm bony union between the two ends, and the granulations were healthy-looking. At a later period the woman reported herself as well.

Sinus of right cheek following the impaction of slate pencil in antrum four years previously; removal of foreign body; cure. (From notes by Messrs. Price and J. Aynard.)—M. C——, aged sixteen, a pupil teacher, was admitted on July 16th, 1885. When quite young the patient had several blows about the cheek; to this her medical attendant attributes her present complaint. About three years ago patient's friends noticed that when she laughed there was a curious retraction of the skin about two inches below the right eye. On looking, they found a small hard lump about the size of a pea, which seemed to be attached to the bone, but evidently was also attached to the more superficial structures. On consulting a surgeon, she was told that if the first molar were removed she would probably get rid of her trouble. After the removal of the tooth cotton-wool was placed in the cavity; when this was taken out next day it was saturated with discharge; the discharge continued for a day or two. Seven weeks ago the patient was operated on. A small elliptical incision was made, and a lump about the size of a pea with the depressed skin was removed; the skin was then separated from the muscle beneath, and the edges of the wound stitched together. On admission she presented the same appearance as she did before the operation, the only difference being that the lump with the depressed skin around was smaller.

Under chloroform Mr. Bryant passed a probe through the small sinus, and felt what he thought was bone, then another probe was introduced and held in. The lip was now everted and pulled up by means of retractors; then the mucous membrane was divided, and some bone was removed with a chisel, and the superficial and deep structures were separated from the bone right up to the probe. Incisor forceps were now used to extract what turned out to be the top of a slate pencil; several other pieces were removed. A probe was next introduced where the pencil was taken from, and a communication with the orbital cavity was found. A plug of iodoform gauze was then introduced into the hole. On being asked about the pencil, the patient said that when quite young she fell down with a pencil in her hand, and it ran into her cheek.

On July 28th the patient left the hospital, the face being still swollen. Within two weeks, however, she was quite well.

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MANCHESTER ROYAL INFIRMARY.

ACUTE TRAUMATIC SUPPURATIVE OSTEOMYELITIS OF THE HUMERUS; EARLY EMPLOYMENT OF THE TREPHINE; RECOVERY.

(Under the care of Mr. THOMAS JONES.)

FOR the following notes we are indebted to Messrs. Walker and Platt.

James C——, aged eleven, a half-timer in a foundry, was admitted into the infirmary on Nov. 20th, 1886. Father dead; cause of death unknown. Mother, one sister, and two brothers living and healthy. The patient himself bears no indications of any hereditary disease. On Nov. 11th he fell on his left shoulder. When he got up he was able to move his arm, and could put his hand on the top of his head. He had a good deal of pain at the time, and his arm has continued to pain him ever since. Next morning he went to his work, which consists in knocking off the rough pieces on iron castings with a hammer and chisel; and in the afternoon he went to school, but whilst there was sick, and had to go home. The pain was much worse that night, and three days later a medical man was called in, and on his advice a mustard plaster was applied to the shoulder, without any relief. The pain was of a shooting character, and began to increase in intensity about 6 P.M.

On admission the left shoulder was œdematous and very hot to the touch; there was a very tender spot on the inner side about the coracoid process, and here fluctuation was very distinct. The whole arm was swollen, tender, and red, and the subclavicular fossa effaced. Urine: sp. gr. 1020; alkaline; no albumen; no sugar; deposit of mucus.

On the 22nd the temperature of the right shoulder, taken by the surface thermometer, was 99°; of the left shoulder, 102·2°. The patient was put under chloroform, and an incision made on the front of the arm just below the junction of the upper epiphysis with the shaft. A considerable amount of pus was evacuated, and a piece of rough bone could be felt with the finger lying immediately to the outer side of the bicipital groove. A drainage-tube was inserted, and the wound dressed with iodoform and a wood-wool pad.

During the next three days the wound discharged very freely, but the temperature continued very irregular; so on Nov. 26th an exploration was conducted by Mr. Wright, who found the shaft of the humerus quite separated from its upper epiphysis. Some counter-openings were made, and the cavity syringed out with an antiseptic sublimate solution (1 in 3000) and drained. There was no improvement either in the local or general condition, the evening temperature reaching 102°, and even higher. On the 30th he complained of a very tender spot on the outer aspect of the arm, an inch and a half above the external condyle. There was very little spontaneous pain in the limb, but when handled intense agony was experienced. The lad at this time presented a dusky appearance, and had a short distressing cough and a most rebellious diarrhœa. He was again anæsthetised, and a vertical incision an inch and a half long made over the tender spot; the incision was carried down to the bone through infiltrated and œdematous structures, and the periosteum found to be thickened and easily stripped off, but there was no pus beneath it. The bone was then trephined, and about a teaspoonful of pus escaped, the suppurating medulla being at the same time exposed. The upper incision previously made was now enlarged downwards; the periosteum here was extensively separated from the bone, but there was no pus between the two. The trephine was again employed, and the medullary canal laid open. While this was being done, some thick pus oozed up into the wound. The medullary tissue between the two trephine holes was then removed, the canal washed out with the perchloride solution (1 in 4000), and a drainage-tube passed through it, its ends projecting from the upper and lower wounds. The same night he complained of intense pain in his arm, which was being irrigated with the sublimate solution (1 in 5000), but after a subcutaneous injection of a quarter of a grain of morphia he passed a very fair night.

The next morning the patient was much better; his temperature fell to normal, and the limb, although still swollen and œdematous, was free from pain unless handled. The piece of bone from the lower trephine hole was eroded and eaten away on its inner surface until the part was translucent. The pus was evidently making its way at this spot, which corresponded with an area of intense tenderness. After the trepanation and clearing out of the medullary canal the temperature gradually fell, and kept down for about a week, except on Dec. 3rd, when there was a slight rise owing to a block in the drainage-tube. On Dec. 8th, the temperature again began to rise, and the next day the patient was placed under the influence of chloroform, the drainage-tube removed, the medullary cavity syringed out, and a piece of solid rubber catheter placed in the lower sinus. The temperature continuing to rise on the 11th, the patient was again put under chloroform, and the upper end of the diaphysis was discovered to be quite loose, soft, inflamed, and infiltrated with pus. The epiphysis moved smoothly in the glenoid cavity, and the latter was apparently quite unaffected. The diaphysial extremity had been causing much annoyance and pain, so about an inch of it was removed. The wounds were dusted over with iodoform, and the sublimate irrigation continued. After this operation the temperature began to fall, and came down nearly to normal. The medullary canal was syringed out daily, and on the 21st the irrigation was discontinued, the wound being dusted over with iodoform and covered with a wood-wool pad. The medullary canal soon began to fill up with granulations, and by Jan. 15th, 1887, it became impossible to force any fluid through it. The temperature about this time on more than one occasion rose to 102°. There was nothing local to account for it, nor did the lad's general condition indicate anything going wrong, it having been steadily improving for at least ten days. His appetite was remarkably good, and, except when the arm was moved, he complained of no pain whatever. The piece of catheter in the lower opening was removed on Feb. 1st, and its removal did not occasion any rise of temperature. The discharge from this sinus steadily decreased. The granulations in the upper openings were exuberant and painful when the dressings were renewed. In the centre of the original opening there remained a distinct sinus, which led down to some dead bone. On Feb. 12th he was again anæsthetised, the sinus was enlarged, and a small sequestrum removed from the upper end of the diaphysis. The prominent painful granulations were scraped away at the same time, and the several surfaces dressed as before. After this, the patient's temperature remained normal, the arm was dressed every other day, the discharge visibly diminishing.

The patient left the infirmary on Feb. 26th, with two sinuses, the original opening and the trephine-hole still discharging a little. His condition at the present time is much the same, a small amount of pus escaping from the two sinuses. The arm is thicker than its fellow, from the large amount of new bone which has been formed by the periosteum; the shoulder and elbow joints are quite movable, and the boy has more than regained his original state of health.

Remarks by Mr. JONES.—It is not often that cases of osteomyelitis are seen in hospital practice at this early stage. The disease was no doubt induced by the injury, and commenced close to the upper epiphysial line of the humerus. It promptly produced a solution of continuity in this situation, and at the same time travelled downwards in the interior of the shaft. This mode of propagation is not so often observed as the upward, while we see it in the tibia when the acute affection commences in the upper end of the diaphysis of this bone. What guided me in the diagnosis of implication of the interior of the shaft was the non-appearance of improvement after the persistent abscess had been freely laid open; the lad maintained the same dusky aspect, and complained bitterly whenever the arm was touched. I was induced to perforate the humerus in the spot mentioned by the intensity of the pain produced by pressure being greater here than elsewhere; also in other and similar cases I have observed that Nature made an opening in this situation. Had we waited long enough, an exit for the suppurating marrow would have been established here as the condition of the circle of bone clearly proves. Meanwhile, however, the acute illness would have continued, and it is very doubtful whether the system would have been able to withstand the strain put upon it. What I did then was to anticipate and assist Nature in her efforts. It is a remarkable fact that the shoulder-joint remained intact throughout, although the disease was raging in its immediate vicinity. Indeed, we are told that a portion of the epiphysial junction is actually within the capsule of the scapulo-humeral articulation. This can scarcely have been the case in this instance.

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otherwise the joint would not have remained so free from disease. It will be noticed that at the spot where the humerus was trephined there was no pus between the periosteum and bone, showing clearly that we ought not to wait for this before resorting to a perforation. To my mind, the clinical features of acute osteomyelitis are alone quite sufficient to warrant us in forming a diagnosis, and when once this is done, it is our duty, and without delay, to perforate the bone and drain the medullary canal after removing its contents. Nothing short of this treatment will suffice, and by adopting it early we should save the patient an immense amount of suffering, if not from actual death, besides diminishing the risks of a tedious necrosis. When the acute process subsides, a chronic change will generally go on for some considerable period, the bone becoming sclerosed and leaving unmistakable traces of the disease, which will have an important influence on its future life history. The case I have narrated is almost the exact counterpart of a historical case which occurred in the Manchester Infirmary nearly 120 years ago, and in which Charles White is supposed to have excised the shoulder-joint, but where in reality he removed the upper end of the diaphysis, which had become separated from the epiphysis, the patient recovering with a movable joint, and where the entire motion of the limb was preserved.[1]

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Congenital Dislocation of Hip. — Disease of Humerus (? Osteitis Deformans or Osteomalacia).—Fibrous Metaplasia of Bone.

AN ordinary meeting of this Society was held on Tuesday last, Dr. R. Douglas Powell, F.R.C.P., Vice-President, in the chair.

Mr. A. A. BOWLBY showed a specimen of Congenital Dislocation of the Hip, removed from a girl aged thirteen who died in St. Bartholomew's Hospital from a new growth in the stomach. She was the first child of the family. The labour was easy and natural, no interference being necessary. Nothing was noticed amiss till she began to walk, and lameness was but slight until about the age of three years. There was no history of accident, and none pointing to hip disease. An examination showed that the head of the right femur was displaced on to the dorsum ilii. In the position of the normal acetabulum was a triangular depression, which, although it evidently represented the acetabulum, was far too small to have accommodated the head of the bone at any time. The floor of the depression was covered on its upper part by cartilage, and its edges were scarcely raised above the level of the surrounding bone. The upper portion of the acetabulum, that formed by the ilium or the iliac segment, was deficient, and the cavity was formed by the junction of the pubic and sciatic portions. The head of the bone rested in a depression on the dorsum ilii immediately above the deformed acetabulum, and was in this situation surrounded by a fibrous capsule. The ligamentum teres was undeveloped. It is probable that this condition of the acetabulum is a more frequent cause of congenital dislocation of the hip than is generally allowed, and there are no good reasons for believing that such displacements are the result of injury during parturition.

Mr. LOCKWOOD showed two Fœtuses, both of which had Developmental Peculiarities of the Hip-joints. One was a stillborn microcephalic fœtus at about the full time; it was the sixth and last child. Its parents were very healthy. The midwife said that it was born a "double breech" presentation. The other five children are alive and healthy. The thoracic and abdominal viscera of the fœtus were normal. The skull was very bony and microcephalic, and the spine had a very well-marked lateral curvature. The brain only filled a small portion of the skull, and had no convolutions: it looked like a fibrous vascular bag. The cerebellum was exceedingly deficient and had the same appearance. The spinal cord was unusually thin, and reached as far as the lumbar region. The fingers were crumpled up into the palms of both hands, and the feet were in the position of talipes varus; moreover, the legs assumed a crossed position. The hip-joint possessed no rim, and was merely a shallow hollow. The head of the femur was not displaced. Mr. Lockwood thought that since the brain and spinal cord of this fœtus were so decidedly abnormal, and since the organs of volition were affected, and not the viscera, there was therefore some association between the two sets of conditions. The various histological specimens of the embryo showed that the margin of the acetabulum was formed in cartilage before the second month of intra-uterine life. This process seemed to have failed in this case. The second fœtus was born of healthy country parents. It was not the first child. It was delivered by Mr. Allen, who says that it was a breech presentation. After birth the legs had a curious tendency to remain flexed upon the abdomen. The fœtus had ectopia of the abdomen, with protrusion of the liver and intestines. In other respects the viscera of the chest and abdomen were quite natural. The brain and spinal cord were well grown and normal. The hands were flexed upon the arms to a right angle, and upon the right side there was no thumb, and upon the left a very rudimentary one. The head of the right radius was dislocated upon the front of the humerus. The margins of both acetabula were deficient, and the heads of the femora, instead of lying in their usual place, were displaced upon the dorsum of the ilium. Mr. Lockwood thought that in this case the absence of the margin of the acetabulum had predisposed to the dislocation, and the muscles had, during intra-uterine life, drawn the head of the femur upwards. The cases were compared with ordinary cases of congenital dislocation of the hip, and it was argued that the cases which went by that name were seldom, or perhaps never, traumatic, but due to developmental effects. He thought that in intra-uterine life physiological movements of the limbs were an essential element in the proper development of joints.

Mr. W. ADAMS exhibited two dried specimens from the museum of the College of Surgeons which belonged, in Professor Stewart's opinion, and in his own, to the class of Congenital Displacements of the Hip. Mr. Bowlby's case was, Mr. Adams said, of special importance, because it was accompanied by a trustworthy history, which was absent in all the other specimens in London, with one exception, which was that shown by Mr. Morgan. This specimen had been shown to the Westminster Medical Society by the late Mr. Edwin Canton (*London Medical Gazette*, N.S., 1848, vol. vi., p. 559) as an example of "congenital dislocation of both hip-joints." As the specimens exhibited proved, the head of the femur in these cases was displaced in various directions, directly upwards, upwards and forwards, upwards and backwards towards the sciatic notch, or on the centre of the dorsum ilii. All the specimens agreed in showing no trace of disease; but, on the other hand, the innominate bone was evidently congenitally deformed. The acetabulum was represented only by a flattened triangular depression, the base of which was formed by the border of the obturator foramen; while the apex corresponded to a point a little above that which should represent the centre of the acetabulum if that cavity were present. The upper half of the prominent border of the acetabulum, which should naturally be formed by the ilium, was entirely absent; so that there was nothing to prevent the head of the femur passing upwards on to the dorsum ilii when the weight of the body was thrown on the limb. In all these specimens the lower part of the innominate bone was narrowed and elongated; the ischial tuberosity was everted, and its ramus twisted; the head of the femur was smaller than natural, generally flattened behind and below, but covered with healthy articular cartilage; the round ligament was occasionally present, being greatly elongated; and the head of the femur remained within the capsule ligament, which was not only elongated, but thickened. The collection of specimens would help to dispel several errors; for it would be seen that the condition was really a consecutive displacement of the femur resulting from a congenital deficiency of the acetabulum, rather than a true dislocation. Two practical results were the outcome of these views. In the first place, the accoucheur must be freed from all possible blame in producing the displacement or so-called dislocation; and, secondly, the practice of dividing the tendons of the glutei and rotator muscles must be condemned as an irrational and useless procedure.

Mr. J. H. MORGAN exhibited a specimen from the Charing-cross Hospital museum, which was of historical as well as

[1] Particulars of this case were read before the Royal Society on Feb. 9th, 1769, and are recorded in C. White's "Cases in Surgery." London, 1770, p. 57.

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pathological interest, as being the first specimen illustrating the condition of parts found in congenital dislocation of the hip. It was exhibited to the Westminster Medical Society in March, 1848, by Mr. Canton. The patient was a female, aged thirty-two, who was affected in both hips. She died fourteen days after giving birth to a living child at full term. Examination of one hip only was permitted. The body and upper limbs were well formed, whilst the lower extremities were somewhat atrophied. The head and neck of the femur were found on the dorsum ilii, the former having passed beneath the small external rotators, whilst a large bursa existed between the latter and the capsular ligament which immediately covered the former like a hood. This ligament preserved its natural connexions, but was considerably elongated, thickened, and strongly fortified with supplemental bands at its upper part. The head of the bone was coated by a bluish film of cartilage, which was continued over a superficial impression, marking the site of the pit for the ligamentum teres, which was not present. The portion of the dorsum ilii played upon by the femur was smoother than natural. The acetabulum was triangular in form, the base directed outwards; the height one inch, the breadth half an inch; the cavity was nearly filled with fat. Mr. Morgan remarked that although specimens exhibited that evening placed it beyond doubt that in some cases an erroneous development of the acetabulum occurred, and the head of the femur was thus forced to make for itself a socket upon the dorsum ilii, he believed that there were other cases in which inflammation of the synovial membrane occurring at or soon after birth, rupture of the ligamentum teres took place, and the femur was pushed out of the acetabulum, and drawn up on to the ilium. The appearances in the specimen which he exhibited were quite compatible with this view. He had had an opportunity of seeing this condition in a case under Dr. Barlow at the Hospital for Sick Children in Great Ormond-street, where the femur became dislocated in the course of rheumatic fever; and on cutting down upon it, the head of the femur was found thus displaced, covered by the stretched but unaltered capsule, and forming for itself a new cavity, in which it rotated. The acetabulum was filled to a level with its margin by granulation tissue. In two cases which had lately come under his observation, presenting all the clinical features of congenital dislocation, he had detected the marks of small abscesses, which very possibly had resulted from some such course of events.

Mr. SHATTOCK said that his specimen was precisely like that of Mr. Bowlby's. In Mr. Lockwood's specimens there was evidence of a strict intra-uterine malposition. He had dissected cases of what Volkmann called "genu recurvatum," in which the knee was over-extended. In a healthy individual either the hamstrings must rupture or a subluxation of the hip would occur if this faulty position were assumed.

Mr. D'ARCY POWER showed an ancient specimen, said to have belonged to Mr. Stanley, 1834, who had presented it to the museum of St. Bartholomew's Hospital.

Mr. HOWARD MARSH said it was still doubtful whether the dislocation of the hip might not be due to injury during labour. Mention was made of a case of back presentation, in which the dislocation might have been due to violence during delivery. He did not think that such violence was the usual cause of this "congenital dislocation." The condition doubtless varied slightly in different cases. As a rule, the joint appeared to be rudimentary, so far as it could be ascertained by external examination. Dupuytren had put hereditary cases on record. He mentioned a case in which the mother was similarly affected. This supported the view that an original defect must have been transmitted.

Dr. T. BARLOW supported the contention that some cases might be inflammatory in their origin. He referred to the case of a child one month old, in which there was a purulent swelling over the buttock, with considerable mobility of the hip-joint. Another abscess occurred in one of the joints of the foot, and the case was probably pyæmic. It had many of the characters of a congenital dislocation of the hip; the acetabulum was rudimentary, and oval in shape, and filled up by solid connective tissue; the head of the femur was swollen and spongy. The capsule was very large. The abscess communicated with the hip-joint. There was no sign of ulceration or caries, and Mr. Barker believed the abscess was secondary to the condition of the joint. A committee of the Pathological Society contended that it was a case of early arthritis which produced the condition of the acetabulum found. He rather supported this view. In early arthritis the ultimate changes were different from those found later in life. The power of formation of connective tissue was so great that union and healing might go on to a surprising extent, so that we might hardly suppose that an inflammation had ever been present. In cases of extensive bone lesions resulting from syphilis, the signs of actual inflammation might be very slight after the lapse of some time. We should not expect the final results of inflammatory disease in early life to show the same signs of destruction and caries as would be found in disease occurring in later life. In cases of dislocation occurring during fevers, without abscess, the anatomical appearances might be somewhat like those found in the congenital dislocation of the hip.

Mr. R. BARWELL considered that by far the greater number of congenital dislocations were due to malformation of the acetabulum, and a few to malformation of the head of the femur. He said that in some cases division of muscles could effect considerable improvements.

Mr. EDMUND OWEN had seen a case of breech presentation with congenital dislocation, in which neither the midwife nor the doctor had arrived before parturition. He did not think the condition of the hip-joint was a dislocation, but was due to the faulty position described by Mr. Shattock.

Mr. BOWLBY said that cases due to previous inflammation were separable from cases of so-called congenital dislocation.

Mr. J. R. LUNN showed a specimen of an obscure form of disease affecting the Humerus of a man aged eighty-six. Three months before his death it was noticed that the right arm was becoming curved outwards and was tender; no other bones were affected. There was no history of syphilis, gout, or rheumatism. The bone, when examined after death, was curved obtusely about the middle; the thickening was greatest where the bone was most curved, the bone regaining its normal dimensions at the ends. The bone was softened, the medullary canal at the curvature narrowed, and the cancellous tissue at this point tough and compact. The shaft above was rarefied, and the cancellous tissue within the tuberosity and neck deficient, the enlarged portion of the medullary canal being filled with fat. Mr. Shattock found that the curved portion of the bone showed, on microscopical section, well-formed osseous trabeculæ, including a vascular connective tissue; in parts, large osteoclasts lay against the trabeculæ, and there was abundant evidence that these had been altered in direction. In most of the spaces ossification was in active progress, and in places "brushes" of stiff osteogenic fibres spread into the new bone as "perforating fibres." New bone was also in process of formation in a dense, fibrous, connective tissue in the deeper layer of the periosteum. Mr. Lunn, after commenting on the difficulty of diagnosis and the improbability that it could be classed with osteitis deformans, owing to the fact that only one bone was implicated, expressed the opinion, founded on the microscopical appearance, that the case was an example of osteo-malacia affecting a single bone.

Mr. SHATTOCK read a note on Fibrous Metaplasia of Bone. He showed macroscopical and microscopical specimens of the femora of well-known cases of osteo-malacia: Howship's, from the Royal College of Surgeons; and Solly's, from St. Thomas's Hospital museum. Neither of these had been previously examined by the ordinary histological methods now in use. That the rarefaction was not due to osteitis was proved to the naked eye by there being no trace of osteo-plastic periostitis; and microscopically the evidence was still more weighty; for there was no hyperæmia, and any small-called infiltration was entirely absent. Moreover, in both cases the disease was progressing at the time of death, and caused death at the ages of thirty-five and thirty-nine. The specimens showed all stages of a direct conversion of the osseous substance into fibrous tissue. As Mr. Savory said, bone was but calcified fibrous tissue. In osteo-malacia the bone was unmade and reconverted into fibrous tissue. In Howship's case there was a distinct interval between these two processes. In the process there was sometimes to be seen the lacunæ enlarging and coalescing, as described by Durham in the Guy's Hospital Reports. The decalcified matrix, by its fibrillation, was converted into fibrous tissue. The connective tissue might become replaced by fat from infiltration of its corpuscles, and so there was, as Sir James Paget had described, a fatty degeneration. The term degeneration usually indicated that the tissue lost all its physiological functions. When one physiological tissue

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results from another physiological tissue the process should be termed, after Virchow, "metaplasia," rather than degeneration. In museum preparations the spirit often had an acid reaction. In one case of spina bifida, amongst other acids, sarcolactic acid was found by Dr. Bernays, and probably resulted from muscular tissue. The presence of this acid might lead to a certain degree of decalcification, and prove a serious source of fallacy.

Dr. A. H. ROBINSON showed the Calvaria and one of the Clavicles from a case of Osteitis Deformans. A large sarcomatous tumour connected with the left lobe of the cerebellum, removed from the same case, was also shown. The patient was a clerk, aged fifty-two. He had never been intemperate, nor had he suffered from rheumatism or syphilis. There was no history of cancer in his family; his twin-brother died an imbecile. He was father of a family of ten children, his wife having had no miscarriages. Two of the children died of scarlatinal dropsy, at eight years of age, and were said to have very large heads, resembling in form their father's. One of the patient's brothers died at the same age, and suffered similarly, his limbs being much distorted. The patient's symptoms dated back ten years, beginning with pain in the back and weakness in the lower limbs. His left tibia was the first bone observed to be enlarged, and the head afterwards began to enlarge rapidly. The right femur and humerus then became thickened to almost double their normal diameter; for some months prior to his death, which occurred quite suddenly, he was bedridden. At the necropsy the left side of the heart was found to be hypertrophied, and the right dilated, the organ weighing fourteen ounces. There was no valvular lesion. The lateral ventricles were distended with serous fluid. To the left lobe of the cerebellum a large round-celled sarcoma was found adherent, probably springing from the membranes. There were no growths elsewhere in the body. The section of the skull showed hypertrophy, chiefly on the right side and in the occipital region, with complete obliteration of the sutures and disappearance of the diploë. A portion of the outer table was removed at the vertex, and showed a condition of rarefaction beneath. The thickening of the clavicle was confined to the inner two-thirds of the bone.—Mr. D'ARCY POWER said there was no thickening of the medullary canal, and considered that the specimen shown by Mr. Lunn was one of osteo-malacia, not osteitis deformans.—Mr. MACNAMARA said that there were different classes of osteo-malacia, as, e.g., those occurring in pregnancy and the specimens presented to the meeting. In some specimens there were evidences of distinct sarcomatous tissue which filled the medullary spaces. In cases of rheumatic arthritis the bony trabeculæ may simply have disappeared, owing to deficient activity of the osteoblasts, which allowed only of the formation of fibrous tissue. In osteo-malacia there was progressing softening, but in osteitis deformans a hardening and thickening process occurred also.—Mr. LUNN, in reply, agreed that there must be a softening stage as well as a thickening one.

The following card specimens were shown:—Mr. Lockwood: Development of the Hip. Mr. Adams, Mr. Morgan, and Mr. Shattock: Drawings of Congenital Dislocation of the Hip. Mr. E. H. Fenwick: Tumour of the Bladder. Dr. Willcocks: Congenital Malformation of the Heart. Mr. Shattock: Tubercular Disease of the Skin. Dr. Dakin: Atrophied Kidney and Dilated Ureter from a female child aged two. Dr. Colcott Fox: Infantile Scurvy.

MEDICAL SOCIETY OF LONDON.

Treatment of Hæmorrhage from the Tongue.—Catheter and Calculi removed by Lithotrity.—Renal Sarcoma in Infancy; is Surgery justifiable?

AN ordinary meeting of this Society was held on Monday ast, Dr. Hughlings Jackson, F.R.S., President, in the chair.

Mr. LOCKWOOD read a paper on a mode of restraining Hæmorrhage during Operations upon the Tongue. After speaking of the serious nature of that accident, the various plans which had been devised to prevent it were mentioned. None of these seemed to be quite free from objection, although all were more or less efficacious. After discussing the anatomy of the lingual artery, it was concluded that, at the place where the vessel lay upon the side of the pharynx near the greater cornu of the hyoid bone, the depth of tissues was so small that there could be no difficulty in compressing the vessel. The great constancy of the course of the vessel lent itself to this proposal. Forceps were then described which had been devised after a great many experiments upon the dead body. These instruments were quite efficient in preventing the passage of thin injection through the lingual artery. They were so arranged that one blade passed by the side of the tongue into the pharynx, whilst the other was bent to fit the contour of the lower jaw and meet the other near the tip of the greater cornu of the hyoid bone. Dissections had been made after the forceps had been adjusted which showed that the artery was tightly grasped and impermeable. A case was then described in which Mr. Lockwood had removed half the tongue whilst the forceps were in position. The tongue was split down the median septum and then removed with scissors. The lingual artery did not pulsate or bleed, and the operation was rapid and bloodless. Other cases were then described in which Mr. Willett had used the forceps; and, in conclusion, it was thought that there was a sufficient amount of evidence to show that the lingual artery might be easily and safely compressed.—Mr. F. BOWREMAN JESSETT thought that in limited disease of the tongue the forceps would be unnecessary, and when the glands were infiltrated the lingual artery should be ligatured as a preliminary. In such cases the instrument would be in the way.—Mr. MARMADUKE SHEILD said in rare cases of accidental wound of the posterior part of the tongue the instrument might be applicable.—Mr. SPENCER WATSON thought there would be no difficulty in applying the instrument to any jaw.—Mr. BOYCE BARROW thought ligature preferable to compression of the artery.—Mr. W. PYE referred to the feeble power of the forceps.—Mr. LOCKWOOD said that the ideal was to get cancer of the tongue so early that neither the whole of the tongue nor the submaxillary glands should require removal.

Mr. H. H. CLUTTON read a case of Catheter and Calculi removed by Lithotrity from a man aged twenty-nine, a groom by occupation, who was sent to Mr. Clutton by Mr. John Powell of Weybridge in September, 1886, on account of the following symptoms. Ten weeks previously a kick from a horse had ruptured his urethra. He was treated in a country hospital by a catheter tied into his bladder, and left in three weeks with the wound healed. He subsequently sent for Mr. Powell on account of the occasional passage of small calculi and inability to pass water. In using the catheter for his relief Mr. Powell found a calculus in his urethra and thought he felt another in his bladder. On admission into St. Thomas's Hospital he was found to have a fistula at the peno-scrotal angle, a stricture of his urethra, and a calculus in both places indicated by Mr. Powell. Under ether the stricture was dilated by Otis's urethrotome and a lithotrite introduced. During the manipulation small pieces of a black French catheter were found adhering to the jaws of the lithotrite, and eventually the fragments of a catheter, thirteen inches in length, were removed. The man lost all his bladder symptoms, and left the hospital perfectly well. He had, however, a small fragment in the urethra in a pouch behind the stricture, but he would not allow a second operation. Three months afterwards he reported himself as so well that he would scarcely permit an examination to be made. On further questioning after the operation, he gave the following history. One night in the country hospital, after a small catheter had been tied into his bladder, he was sitting on a bed pan and suddenly felt a sharp pain in his bladder as if he had been struck violently just above the pubes. He called the nurse and declared that the catheter had slipped into his bladder. She assured him this was impossible, and pointed to the bone end still adhering to the orifice of the urethra. The house-surgeon next morning, failing to find any evidence of the catheter, passed a larger one and tied it in. The mechanism by which a catheter may slip up into the bladder, or so far into the urethra as to be with difficulty withdrawn, was discussed.—Mr. E. H. FENWICK had had three cases recently in which the catheter was removed from the bladder by lithotrity. A case of a foreign body—an ear of wheat—was mentioned as having got into the bladder per urethram; it led to a calculus, which was removed supra-pubically.—Mr. W. PYE said that good rubber would be unacted upon by acid or alkaline urine.

Dr. ANGEL MONEY made a communication on the subject of Renal Sarcoma in Infancy, and specially discussed the question whether surgery was justifiable. He briefly related four cases that he had observed at the Hospital for Sick Children. All the cases had the characters of a renal

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tumour, and in all the enlargement of the abdomen was the first clinical sign. Hæmaturia occurred in none. All the cases were females, and the ages ranged between eighteen months and thirty-four months. The other kidney was unaffected in each case. One tumour probably began in tissues not strictly renal. One was evidently of supra-renal origin, and in this case there was enlargement of the external genitals, on which an enormous growth of hair had taken place during the last nine months of the life of a female child aged twenty-one months at death. All the tumours were large, and abutted against the diaphragm. There were secondary deposits in three cases, and in the fourth the mesocolon was infiltrated as well as the retro-peritoneal glands. Dr. Money gave the statistics of Leibert from the *Jahrbuch für Kinderheilk.*, Band xxi., p. 276. Of fifty cases, both kidneys were affected only twice; twenty-six of the cases occurred under the age of three years. The course of the case was always longer as the age of the child was greater. A study of recorded cases in which nephrectomy had been performed seemed to show that life was not prolonged, even in the successful cases, and the statistics proved the dangers that attended the operation. So that, in his work on the "Treatment of Disease in Children," he summed up the present situation by saying that removal of the tumour is useless. Doubtless, if the tumour were detected when small, a chance for surgery existed, but, as a rule, the tumour was not discovered till it had reached a great size and secondary growths were almost inevitable.—Mr. MARMADUKE SHEILD thought they might be removed if small.—Mr. BERNARD PITTS said that the last case might have been suitable for operation. Cases seen early would be favourable for operation.—Dr. HUGHLINGS JACKSON asked what operation would be done.—Mr. F. B. JESSETT said the question of diagnosis was the difficulty.—Dr. ANGEL MONEY, in reply, said that so far operation had proved useless, but he hoped that surgery would show a better record in future, though this could only be by the physician's diagnosing the cases early.

HARVEIAN SOCIETY.

THE meeting on March 17th was occupied by the consideration of the subjects of Hereditary Syphilis and Habitual Constipation in Children.

Case of Hereditary Syphilis.—The PRESIDENT (Mr. Edmund Owen) showed a girl aged fifteen years, the subject of hereditary syphilis. She had first come under his care ten years ago, when she had an ulcerated gumma in the groin, and ulceration and sloughing of the soft palate and tonsils. She was then also the subject of symmetrical deafness of corneitis, and of inflammation of the upper epiphysis of each ulna and tibia. It was then ascertained that, when six months old, she had undergone a course of treatment by grey powders. Mr. Owen prescribed three-grain doses of iodide of potassium in plenty of water three times a day, under which treatment all the symptoms rapidly cleared up. A year later the child was again brought with an ulceration of the tonsil, which quickly yielded to the iodide; she had also periostitis of the shaft of the ulna, which ended in suppuration and in the exfoliation of a surface layer of the bone, which was shed in the quiet way so characteristic of syphilitic necrosis in childhood. After eight years' absence the child was again brought with chronic diffuse osteitis of each tibia, which had determined not only great thickening of the bone, but also a lengthening. This latter was to be explained by chronic inflammation in the cartilages connecting the shaft of the tibia with the epiphysis. There was also ulceration of the skin over the shins. The child was kept in bed, and every night was rubbed with blue ointment after having a hot bath; under this treatment she was rapidly improving. Mr. Owen also called attention to the scars at the angles of the mouth, to the large, square forehead, and to the teeth; the left central incisor was notched, and the central incisors were sloping towards each other.

Habitual Constipation in Children and the Methods of Treatment.—Dr. DAY read a paper on this subject. Most cases, he said, are due to (1) a sluggish state of the muscular coat of the intestine; (2) to a diminution of secretion from the mucous membrane or the liver; and (3) to improper dietary. Children are variously affected by constipation: the bilious and plethoric require a daily evacuation, or the health suffers; whilst the neurotic, eating similar food, may have no evacuation for days together without inconvenience. Prolonged constipation is apt to lead to disease of the cæcum, chronic inflammation and thickening of the intestinal walls, dilatation of the tube, and occasionally perforation of the gut. Highly nutritious food, by not furnishing any residuum to be carried into the intestines, is conducive to constipation. In treatment, the author referred to the importance of bringing about regular action of the bowels by the child making a voluntary effort every morning, whether the desire be present or not. He next referred to the value of enemata when the colon was torpid and the rectum blocked, and of proper diet in the constipation of young children. Among drugs, strychnia and belladonna, by imparting tone to the bowels, relieving spasm, and lessening flatulence, were advocated. Nitric acid in some cases of chronic constipation was recommended. The author dwelt at some length on the great efficacy of an occasional mercurial purgative in constipation from deficient secretion of bile. Children bear an occasional dose of mercury remarkably well, but if repeated too frequently it causes lassitude, pallor of the face, softness of muscle, and irritability of temper. He spoke of its danger in the constipation of strumous and rickety children. Saline aperients were sometimes useful in children of full habit. Change of air and exercise were recommended as calculated to assist the viscera in the performance of their functions. Massage he considered a powerful remedy in chronic constipation, and if conducted by a competent person the process was pleasant and soothing to the child. Attention to diet was of primary importance.—The PRESIDENT called attention to the importance of making a digital examination in all cases of chronic constipation, and quoted a case where such an investigation led to the discovery of congenital deformity of the bowel.—Mr. CRIPPS LAWRENCE remarked on the treatment of typhlitis due to chronic constipation.—Dr. JELLY referred to the value of massage as a therapeutic agent.—Dr. ALDERSON remarked on the value of mercurial treatment in the case of bilious children.—Dr. WALTER PEARCE considered that constipation in some cases depended on the child avoiding stool, owing to the pain produced by soreness of the anus consequent on the irritation of thread worms.—Dr. SYDNEY PHILLIPS agreed that aperients should not be lightly used; tubercular peritonitis, obstruction from concretion, &c., had to be carefully considered. In many cases there was a deficient formation of bile; the stools were pale, hard, and scybalous in these children, and the administration of acids and calomel was called for. In many cases the small intestine was at fault and not the large, and it was necessary to decide if possible where the fault lay. The combination of aloes and belladonna was most valuable.—Dr. DAY briefly replied.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

Coal Gas as a Cause of Sore-throat.

AT the meeting on April 15th, Dr. Alfred Hill, president, and subsequently Dr. Dudfield, vice-president, in the chair,

Professor CORFIELD read a paper on Outbreaks of Sore-throats caused by slight escapes of Coal Gas, of which the following is an abstract. He pointed out that in considering the deleterious effects of escapes of coal gas into dwelling rooms, attention has hitherto been almost entirely directed to cases of poisoning by asphyxia produced by such escapes—asphyxia which has been shown to be due to the carbonic oxide contained in the coal gas. He referred at some length to the interesting recent investigations of Professors W. T. Sedgwick and W. Ripley Nichols, of the Massachusetts Institute of Technology in connexion with the relative poisonous effects of coal and water gas, but these investigators only refer to effects produced by the carbonic oxide, and indeed conclude that "it is probably true that carbonic oxide is the only component of illuminating gas whose poisonous qualities are at present of practical importance to the public health." Michel Lévy, in his treatise on Hygiene, suggests that some of the effects produced on persons working in atmospheres charged with the products of combustion of coal gas may be due to unconsumed substances, such as the sulphite of carbon, but the author has been unable to find any account of definite illnesses produced by continuous slight escapes of coal gas from defective burners or joints in pipes. Dr.

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Corfield then stated that during the past few years his attention has been gradually arrested by cases of illness, and more especially of relaxed, and even of ulcerated, sore-throats occurring in persons sleeping in rooms in which there were defective gas burners or pipes, but living in houses of which the sanitary condition was otherwise as perfect as the application of modern sanitary knowledge could make it. That the slight escapes of gas were the cause of the sore-throats was proved by the fact that the persons attacked became quite well on the defects in the gas burners or pipes being remedied, and that no other cases occurred. The following are some of the more remarkable cases which he described. In 1884 Dr. Corfield was summoned to a large country house, where the sanitary arrangements had been put into order under his own direction. On inspection, no escape whatever was found either from the drains or soil-pipes into the house. A slight escape of gas was noticed from a burner in the bedroom, in which the first case of sore-throat occurred, but this was not at the time thought to have anything to do with the matter, more especially as a nuisance had been created in the neighbourhood of that room by an earth-closet which the men-servants had brought in from outside and had used without properly supplying it with earth. However, after the removal of this nuisance, several more cases of severe ulcerated sore-throat occurred, some being those of visitors who successively slept in a particular room. On investigating the matter further, the author, who himself slept a night in that room, found a very evident escape of gas from one of the brackets there, the gas having, moreover, a very foul smell from being insufficiently purified. An examination was then made of the gas brackets all over the house, and other escapes were found. These were all remedied, and no cases of sore-throat have occurred since. At another house in London a similar outbreak of sore-throats took place on the return of the family after the summer outing. Slight escapes of coal gas were found in the rooms in which the persons who were attacked slept. These were remedied, and there have been no more cases of sore-throat. Several other similar cases were described by Dr. Corfield, who ended by saying that he himself had personally suffered in a similar manner from a slight escape of gas from a defective pipe in his own bedroom. He also pointed out that coal gas may get into houses through the basement, floor, and even up through the walls, especially behind panelling from defective mains in the streets. He had no doubt that the cause of the sore-throats was the breathing for weeks or months, especially at night, of air contaminated with a small proportion of coal gas, and he believed that the effective agents in producing the irritation in the throat were the bisulphide of carbon and other sulphur compounds in the gas.—In the discussion which followed, Dr. Sykes, Messrs. Wynter Blyth, Rogers Field, Butterfield, and Shirley Murphy took part.

CAMBRIDGE MEDICAL SOCIETY.

AT the meeting on March 4th the following communications were made.

Intussusception of the Bowel: Abdominal Section: Recovery.—Mr. STREET read the case of a boy aged three years, admitted into Addenbrooke's Hospital, under Mr. Carver, on Jan. 20th, 1887. There had been pain, vomiting, and partial obstruction for four weeks, and complete obstruction for three weeks. The abdomen was opened on the day of admission, and the intussusception reduced. The patient was discharged cured, the bowels acting regularly, on March 5th.—Mr. ARNOLD INGLE (Shelford) mentioned the case of an infant five months old, who was attacked one day with pain in the body, and vomiting the next day. When seen by him on the third day there was no abdominal swelling or tumour to be felt, but two motions had been passed of bloody mucus. An aperient was given and the bowels acted, but the vomiting recurred; the abdomen became distended and the child died. At the necropsy a diverticulum was found in the ileum, and an intussusception of the bowel.

Cyst of Cerebellum, enclosed in Fourth Ventricle.—Mr. HEMMING (Kimbolton) described the case of H. N——, aged eighteen, who till twelve years of age was healthy and bright; then was attacked with unilateral convulsions, with aura up the left side; slight paresis of the left side generally followed each fit for a short period; the fits increased in frequency, the mind gradually weakened, and the body ceased to grow. He walked about for two years, then kept his bed for the last four years, gradually losing consciousness. He had not spoken for a year and nine months, and there was extreme rigidity of the left side for more than a year. The convulsions at last were bilateral, and the rigidity extended to the right side, neck, and back. Great emaciation took place, and he died of sheer exhaustion, the convulsions persisting to the last. At the necropsy the skull was thick, well ossified; head small, no gaping of sutures; dura mater not very adherent, not dry or sticky; some fluid between arachnoid and dura; brain rather shrunken; no apparent disease in motor area of cortex; arachnoid of Sylvian fissure glued up; cranial nerves looking healthy, except that the optic appeared small and very firm (his parents considered he had had no sight for some time); veins thickened; sinuses not gorged; corpus callosum firm and healthy; lateral ventricles containing fluid, but not much distended; third ventricle opened up by fluid, and anterior commissure tough; commissura mollis very tough, stretching half an inch without tearing. The fourth ventricle was distended into a globular form, lifting up the cerebellum, with thin and transparent walls posteriorly. Fluid clear, and floor of fourth ventricle perceptible through the fluid. Although fluid had drained from the lateral and third ventricles, the fourth ventricle remained distended. Cerebellum firm, not to say hard. On opening the fourth ventricle, a small cyst, containing clear yellow fluid, of the size and shape of a hazel-nut, presented itself on the right side of the under surface of the cerebellum. It was partially embedded in the substance of the right lobe of the cerebellum, causing a sharply defined concave indentation and some extra hardening and thinning of the lobe around it. Mr. Hemming, on examining the pons and medulla, did not at first recognise any evidence of pressure, but these parts were removed and sent to Dr. Sharkey, who instantly noticed the small size of the right pyramid in the medulla before decussation, a drawing of which was shown. No doubt the pressure of the cerebellum in the living state upon the back of the pons and medulla was the cause of the gradual and prostrated illness, of convulsions, paralysis, and rigidity, and this case would support Dr. Sharkey's view.

Cases of Cerebellar Tumour.—Mr. MARTEN brought forward the case of M. S——, aged fifty-two, admitted into the hospital, under Dr. Bradbury, on Dec. 1st, 1886, and died on Jan. 8th, 1887. The symptoms had been severe occipital headache, vomiting, double optic neuritis, and a tendency to fall backwards in the middle line. No rigidity. The post-mortem examination, made by Mr. Griffiths, showed a cyst in the cerebellum pressing on the fourth ventricle, and excess of fluid in the ventricles.—Mr. LAURENCE HUMPHRY read the case of Ellen W——, aged twenty-one, single, admitted into the hospital, under his care, on July 14th, and died on October 25th, 1886. The previous history showed twelve months' frontal and parietal headache, dizziness, and vomiting. The eyesight became defective in March, and complete blindness in June. No fits or rigidity. On admission she was just able to walk. Pupils dilated, no reaction to light, no squint; constant purposeless vomiting; pulse regular, 64; temperature normal; speech laboured and thick. There was slight paresis of the muscles on the right side of the mouth and right supra-orbital region. The grasp of the right hand was a little weaker than the left. Reflexes were normal. There was no tenderness to percussion over head. Flushing of face was constantly noticed, and there was intense double optic neuritis. The urine contained no albumen or sugar. The patient left the hospital, but was kept under observation, and gradually sank from exhaustion. At the necropsy a tumour (a round-celled sarcoma) was found on the upper aspect of the cerebellum, of the size of a tangerine orange, and there was much basic meningitis and gelatinous thickening of the membranes at the base, involving the optic commissure and nerves.

Sarcoma of Testis in a Child.—Mr. STREET showed this tumour, which had been removed by Mr. Wallis from a child four years old. The swelling was first observed nine months ago, and at the time of operation was as large as a duck's egg. It extended up to the internal abdominal ring. The child recovered. Microscopic examination showed a spindle-celled sarcoma, with a large amount of fibrous tissue.

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MIDLAND MEDICAL SOCIETY.

A MEETING was held on March 16th, Mr. Lloyd Owen, F.R.C.S.I., President, in the chair.

Chronic Phlegmasia Dolens, leading to Elephantiasis.—Dr. SUCKLING showed a man, aged thirty-eight, who had suffered from enlargement of the left leg for nearly four years. The swelling commenced in the foot, and shortly after an abscess formed in the groin, which discharged externally, leaving a depressed scar. The leg has remained enlarged since then, and is now much larger than its fellow; the skin is rough and thickened, and can scarcely be pinched up. There is well-marked pitting upon pressure in the foot and leg. The circumference of the left thigh is three inches greater than that of the right, and the left leg is similarly enlarged. The patella and tibia on the left side are apparently much enlarged. A depressed scar is present in the groin, and enlarged glands can be felt there. The patient cannot walk about for more than a month at a time, the leg then becoming very painful and the swelling increasing. At this time he has to go to bed for a week or so, when the pain ceases and the swelling somewhat subsides.

Gastric Ulcer.—Mr. WHITTINDALE showed the stomach from a female aged twenty-two, who had died in the Queen's Hospital. For the last four months she had had pain in the epigastrium and vomiting after taking food, but no hæmatemesis. Two hours before admission there had been profuse hæmatemesis. This stopped for a time, but was soon followed by another attack, which proved fatal. On a post-mortem examination all the organs were found to be exceedingly anæmic. The stomach contained a pint of dark grumous material and blood. On the posterior aspect, near the lesser curvature and at the pyloric end, there was a chronic ulcer the size of a sixpence, the edges of which were much indurated. A large vessel had been opened by the ulceration, but the serous coat was not perforated.

Renal Calculus.—Mr. MORRISON showed a uric acid calculus that had been removed from a man who had been treated for spinal disease for many years. On admission to the General Hospital he had several sinuses in the left lumbar region, which led down to a roughened body, supposed to be a sequestrum. This, on removal, was found to be a calculus. The patient made a perfect recovery.

Pyo-salpinx.—Dr. MALINS showed a large pyo-salpinx that he had successfully removed from a patient aged twenty-eight.

Rhinolith.—Mr. AUGUSTUS CLAY showed a large rhinolith.

Mr. SIDNEY BARWISE read notes of a case of Mollities Ossium.

Dr. CARTER read two short papers: one, "Observations on the Salicyl Treatment of Acute Rheumatism"; the other, "A Note on the action of the Colchicum Preparations in Gout."

At the meeting on March 30th the following specimens were exhibited:—

Syphilitic Stenosis of Trachea.—Dr. SUCKLING showed a woman aged fifty with signs of tracheal stenosis, which he considered was most likely due to syphilis. She contracted syphilis twenty years ago, and five years later she suffered from ulceration of the hard palate, which resulted in perforation. For the last nine years she has suffered from difficulty in breathing, which is noisy and stridulous. The stridor is constant, accompanying both inspiration and expiration, but is aggravated by emotion and by exposure to cold. On several occasions the dyspnœa has been extreme, and almost necessitated tracheotomy. The breath sounds over the larynx and trachea are high pitched and sibilant. The hard palate is perforated in the middle line and on the left side. There is no laryngeal stenosis or other disorder, the cords moving freely. On inspiration the glottis is rhomboidal in shape, being extremely dilated. Nothing abnormal could be seen in the trachea. There were no signs of mediastinal tumour, no dysphagia, or other pressure symptoms.

Aneurysm of Aorta.—Dr. SUCKLING also showed a case of aneurysm of the transverse and descending aorta in a man aged sixty-three.

Epithelioma of Male Breast.—Mr. BARLING showed a patient aged forty-seven, who nearly five years ago noticed a burning and smarting pain at the left nipple, and on handling the part found a hard swelling; this slowly increased, and eighteen months ago the skin over it broke. Since that time the ulcer has slowly increased, until now it is a circle of three inches in diameter, shelving gradually from the edge to the centre, which is the deepest part. For the most part the ulcerated surface is nearly smooth, but presents in places a few coarse granulations. The edge is thickened, very hard, and markedly everted, and the base of the ulcer so fixed that it cannot be moved over the bony wall of the thorax. There is a chain of enlarged glands running to the top of the axilla under the anterior boundary, and some hard enlarged glands are also to be felt above the clavicle. The patient's general condition is good, and, as a rule, he has but little pain. A scraping from the ulcer shows that it is a squamous-celled carcinoma.

Multiple Exostoses.—Dr. W. RICHARDS exhibited a case of multiple exostoses.

Excision of Goitre.—Mr. CHAVASSE showed a woman aged twenty-nine, from whom he had successfully removed the right lobe of the thyroid, and read a paper on the subject.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

Treatment of Lupus.—Removal of Uterine Appendages.—Athetosis.

A MEETING of this Society was held on Jan. 21st, Mr. Hatherly, President, in the chair.

Mr. CHICKEN read a paper on the Treatment of Lupus and its Allied Disorders. He took epithelioma as a type of the diseases allied to lupus as exhibiting a cutaneous or mucous cell development, infiltrating or penetrating subjacent tissues, and depending on a specific morbid impulse. In the case of an affection of the skin, or those parts which could be safely operated upon, he advocated the treatment of the part by thoroughly scraping away, as far as possible, the new growths, and then the free rubbing in of iodoform. In those instances where the situation was such that this could not be done—as, for example, in epithelioma of the cervix uteri—he employed the frequent application of iodoform. Although, in these difficult cases, it was not possible to eradicate the disease, it modified the subsequent progress and unpleasantness of the malady in a marked degree. In epithelial stricture of the rectum, he first washed out the bowel with warm water, and then injected into the stricture from two to four drachms of iodoform daily by means of a special insufflator. In exposed situations, where the treatment could be thoroughly carried out, the result was very satisfactory. He showed two cases, one of lupus and one of epithelioma, both of which had been operated upon in the manner described, some years ago. There had been no recurrence. Mr. Chicken drew the following conclusions:—1. That lupus and epitheliomata are types of a cellular infiltrating new growth, and are best treated by scraping with a blunt knife, and when the surface has been as far as possible cleared from the invading cells, by rubbing in a remedy, of which iodoform is a good example, with the object of penetrating to those outlying detachments which the knife has not reached. 2. That when the growth is situated in a part that can be readily attacked the treatment gives ground for a good hope of recovery, at any rate better than excision. 3. That when the situation is such that scraping cannot easily be done, the copious insufflation of large quantities of iodoform is practically without risk and of great benefit to the condition of the patient. 4. Iodoform is specially applicable, because it seems to exert a specially sterilising influence on the growth, and is capable (by virtue of its volatile and peculiar penetrating properties) of permeating tissue more than an insoluble non-volatile substance. It is quite harmless and unirritating to healthy structures.

Dr. MUTCH showed the Ovarian and Fallopian Tubes removed by Dr. Elder from a patient aged twenty-seven, married. The left tube, about the size of a kidney, was full of pus, the ovary being converted into a multilocular suppurating cyst. The right tube was enlarged and inflamed. The patient made a good recovery.

Dr. ELDER showed the following specimens:—1. Sac of an Ovarian Cystoma, of which the pedicle had become

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twisted, producing suppuration of its contents and acute peritonitis. 2. The ovaries and Fallopian tubes from a patient operated upon on Jan. 13th. The patient has been more or less of an invalid since marriage; lately quite so. The uterus was retroverted, and the ovaries, enlarged and exquisitely tender, lay under it in Douglas's pouch. Rest and the usual treatment had failed to give even partial relief. At the operation both uterine appendages were removed, the ovaries being enlarged and the seat of cystic degeneration. She is making an excellent recovery. 3. Uterine appendages removed by his colleague, Dr. Truman, for persistent pain, dating from one month after the patient's marriage three years ago.

Mr. T. D. PRYCE showed a case of Athetosis in a youth aged seventeen. There was a history of convulsions when eleven months old, followed by loss of power and motion of the right side. Mr. Pryce considered the condition to be due to a cerebral lesion coincident with the early convulsions, and also to a subsequent degenerative change of the lateral columns, and to a slight extent of the anterior grey matter of the spinal cord.

At a meeting held on April 1st,

The PRESIDENT (Mr. Hatherley) showed for Mr. Thompson a specimen of Enchondroma of Finger.

Drs. HANDFORD and HUNTER showed a case of Congenital Absence of Left Leg, Left Pelvis, and Left Kidney. The diaphragm and lower part of rectum were also absent.

Dr. ELDER read notes on two cases of Hydramnios.

Mr. PRYCE read a paper on Perforating Ulcer of the Foot, and illustrated it by pathological and microscopic specimens and diagrams.

Reviews and Notices of Books.

On Fevers: their History, Etiology, Diagnosis, Prognosis, and Treatment. By ALEXANDER COLLIE, M.D. London: H. K. Lewis. 1887.

THIS volume, which forms one of the "practical series" of medical and surgical manuals in course of publication by Mr. Lewis, deserves attention from the fact of its author having been so long devoted to the subjects of which it treats. He is therefore in a position to speak with authority, as well as with complete freedom and independence. Illustrations of these characteristics are not far to seek. They are perhaps most particularly to be found in the chapters dealing with enteric fever and small-pox. On the etiology of the former disease Dr. Collie has no hesitation in adopting views which at the present day are held by comparatively few. They are the views of Budd rather than those of Murchison, and are supported by the author with some striking evidence of the propagation of the disease amongst the nurses at Homerton Free Hospital. Dr. Collie has been persuaded by this experience to the belief that enteric fever is propagated by direct infection; and he explains the apparent facts of incommunicability on the grounds of immunity and the early period of life at which it prevails. Upon this we need only remark that the *onus probandi* rests upon those who adopt Dr. Collie's argument, since the possibility of contagion through fæcal contamination must be quite excluded before such a conclusion can be reached. Amongst other statements which are undoubtedly novel we note those with regard to relapse in enteric fever: "Relapse occurs in a small proportion of cases..... It is rarely fatal. Second and third relapses have been mentioned, but they are very rare" (p. 78). "*Relapses:* These are almost invariably mild and the prognosis favourable" (p. 84). The rarity of relapse here implied does not accord with our experience; and the posthumous work of the late Pearson Irvine clearly proved how many cases of prolonged typhoid must be regarded as examples of relapse. Dr. Collie has never met with enteric fever in the subject of phthisis—a suggestive and striking fact, which, like many other statements, is of much value in the natural history of the disease. Within a small compass he has succeeded in giving a clear outline of the main facts, but has not discussed the question of etiology which has come so much into prominence of late—we mean that of the typhoid bacillus. The article on small-pox, again, bears evidence of the author's personal observation, and is illustrated by tables showing the influence of vaccination upon mortality. The strongest parts of the work are those which deal with diagnosis and treatment, for here Dr. Collie is thoroughly at home and succeeds in imparting to the work its "practical" character, for which it will be highly valued. Nevertheless, we are not wholly satisfied with it. The author has not, it seems to us, given himself scope enough to adequately discuss his subjects. He relies too often, in the descriptive passages, upon excerpts from other writers, whereas we well know how capable he is himself of clinical description. The book is well printed, and contains some coloured plates illustrative of typhoid and variolous lesions.

Sputum; its Microscopy, and Diagnostic and Prognostic Signification. By FRANCIS TROUP, M.D. Edinburgh: Oliver and Boyd. 1886.

THE thoroughness with which it is possible to investigate clinically cases of pulmonary disease is one of the most encouraging facts in scientific medicine. The microscope comes to the aid of the stethoscope, and the information gathered by the one serves to justify or modify that derived from the use of the other of these essential instruments. Dr. Troup deserves well for having presented in so lucid and striking a manner the results of his own researches into the microscopical characters of the sputum. Availing himself of photo-micrography, he has so amply illustrated his work that a study of the plates alone will be of the greatest possible service. We have seldom seen such excellent photogravures and chromolithographs; and their fidelity to the objects represented is, at least in the case of the former, of course unimpeachable. The text is also to be commended, for it is evident that the writer speaks from the fulness of his own personal knowledge. It is, for instance, an instructive point to bear in mind that he has found the detection of elastic tissue in the sputum to have a greater diagnostic meaning in tubercular phthisis than the presence of the bacillus; for 90 per cent. of the cases in which elastic tissue is found are cases of tubercular phthisis, from which it is not difficult to distinguish other destructive lung diseases that yield the remainder. Dr. Troup also lays great stress upon the relative abundance of the pulmonary elastic tissue as indicative of active destruction. There is an interesting chapter upon Curschmann's spirals, which are to be found in cases of bronchial irritation, and are probably formed primarily in the minute bronchioles. The bacillus of tubercle is treated with all necessary detail; and its persistence in putrefied sputum leads to a remark condemnatory of the bacterium termo treatment. Dr. Troup also notifies the occurrence, not only in phthisical sputum, but in all cases where there is more or less bronchial inflammation, of diplococci of various sizes and arrangements, sometimes in large numbers. He considers that the tubercle bacillus is of more value in diagnosis than in prognosis. A chapter on pneumonic sputa follows, and the opinion held that various forms of pneumonia are probably associated with other micro-organisms besides the pneumococcus. In the next chapter the characters of the sputum in bronchitis, bronchiectasis, and whooping-cough are considered. Micrococci are described in the latter, but are not believed to be pathognomonic. Other chapters deal with pigmented sputa, bloody sputa, and the sputa in disease of the larynx and its neighbourhood. The volume is one which, apart from its practical value, has been produced in a manner highly creditable to both author and publishers. We heartily commend it to the notice of practitioners.

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The Man of Science, the Man of God—Sir James Y. Simpson. By the Rev. CHAS. BULLOCK, B.D. London: *Home Words* Publishing Office, Paternoster-square.

THE scientific reputation of Sir James Simpson is world-wide. The double presentation of his mind and character which is set before us in this modest volume and in the larger "Life" is perhaps less widely familiar. In these pages, while personal faults are not denied, the rise and growth of qualities which proved in their application so useful to mankind are clearly brought out. Professor Simpson, it may be noticed, was not, like some great men, a human phenomenon from his earliest youth. As a boy he evinced, nevertheless, the elements of mental and moral faculties which needed but the stimulation of circumstances, not always favourable, to develop a strong and helpful as well as a keenly perceptive character. He was quick, industrious, tenacious of memory, and generally liked because of his kindness of disposition. As a student he was of the working order, and achieved considerable distinction in a time when the Edinburgh school did not abound in scholastic honours. When, after graduation, he became a practitioner, the same laboriousness was one of his most striking characteristics. Energetic and resolute, sleeping often far too little, persevering in spite of occasional ill-health, he did full justice to scientific sympathies which were wide and yet particular. He was no mere specialist, though leaning from the first towards one department of medicine. Matters of the most general, even comparatively trivial, interest engaged his attention for the time being almost as if they formed the chief business of his life. Investigations in anæsthesia very early entered into his varied curriculum of self-education, and when at last, in 1847, he saw the dawn of his own great discovery in the successful use of ether for this purpose, he "could think of naught else." As a man Professor Simpson did not belie the promise of boyhood, but, notwithstanding the faults of an impulsive nature, exaggerated by the bustle and battle of life, gave in his day many proofs of a genial and considerate disposition to friends and patients of every station. Neglect of professional engagements has been attributed to him by some, but this was commonly the natural consequence of overwork. Till he had reached the prime of manhood Professor Simpson's most active life was almost entirely an intellectual one. Religion did not show itself much upon the surface. Certain forms he acknowledged; he chose his church, but it is not till within some twelve or thirteen years of his death that we find any important profession of his personal views upon the subject. It does not appear, however, that his ultimate adhesion to the simplest principles of evangelical belief was quite a sudden matter; it was rather the culmination of previous deliberations, and was characteristically outspoken. The reading public will find much to interest in this little work. One or two errata might be excluded from later editions, such as "Wallis" for "Walter" on p. 48, and "Turner," we suppose for "Thomas" Keith on p. 55.

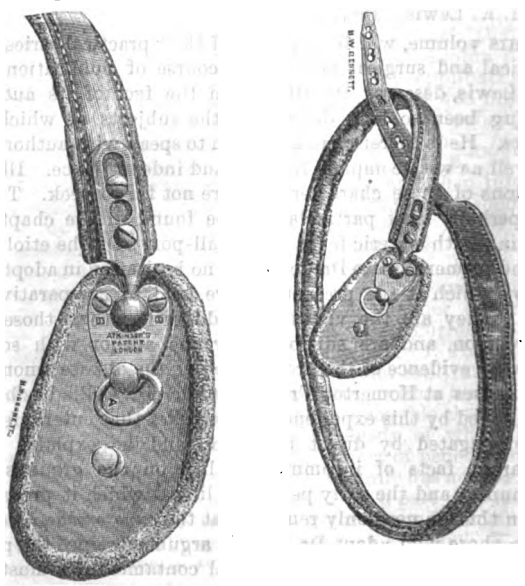
On Medical Climatology: a Scheme for defining Local Climates by combined Meteorological and Phenological Observation. By CHARLES ROBERTS, F.R.C.S., &c.

THIS is a short paper read by Dr. Roberts at the congress of the Sanitary Institute held at York last September. The title explains the proposed method of the author. Linnæus long ago collected information with the view of showing the influence of locality upon the leafing, blossoming, fruiting, and fall of the leaf in plant life. We are accustomed to estimate the climate of any given locality by purely meteorological considerations. Mr. Roberts holds, and we think with good reason, that a combination of these two methods might lead to results of great practical utility. He points out that "plants are most exposed to, and most distinctly declare, the geological and climatic conditions of a country or district. Being fixed to the soil, they show its character; and being confined to one place, they sum up the whole range of meteorological phenomena to which they are, and have been, exposed." The researches of Bowditch in America and of Buchanan in this country have shown how important a factor the character of the soil is with regard to the etiology of one important disease—viz., phthisis. Mr. Roberts proceeds to tabulate the dates of the various epochs of plant development in different localities, and then works out the temperature and moisture equivalents for these periods. On page 5 he gives an interesting diagram, showing at a glance the relative viability of a few common trees, shrubs, and flowers in London and its neighbourhood. Mr. Roberts' methods of observation are full of interest to the botanist, and have promise of real utility for the medical climatologist and the practical physician.

New Inventions.

ATKINSON'S "PERFECT" TRUSS.

MR. B. J. ATKINSON, formerly of 3, Hemming's-row, Charing-cross, but now of 7, Mill-street, Hanover-square, W., has recently patented an important improvement in trusses. This consists in uniting the pad to the spring of the truss by a universal joint, thereby allowing it, when necessary for adjustment, to be moved in any direction. When the wished-for position has been attained, a lever, acted upon by a binding screw, compresses the ball of the joint and completely fixes the pad. The accompanying woodcuts will afford a good idea of its construction. When an alteration



in the position of the pad is required, the binding screw is released, the pad adjusted, and the screw again tightened. A special feature, also, of this truss is that it is made to press over the internal ring, and slightly in advance, without pressing upon the spermatic cord; and further, from the peculiar formation of the pad (a perpendicular section of which will show a parabolic curve) pressure may be made by a comparatively flat surface or a more or less obtuse one, at the discretion of the surgeon. The whole design has been very carefully considered, and can best be understood by an examination of its parts. The form of truss varies, of course, in the case of femoral hernia, though the above remarks apply as well to this condition. The practical surgeon will see the great advantages presented by this kind of truss.

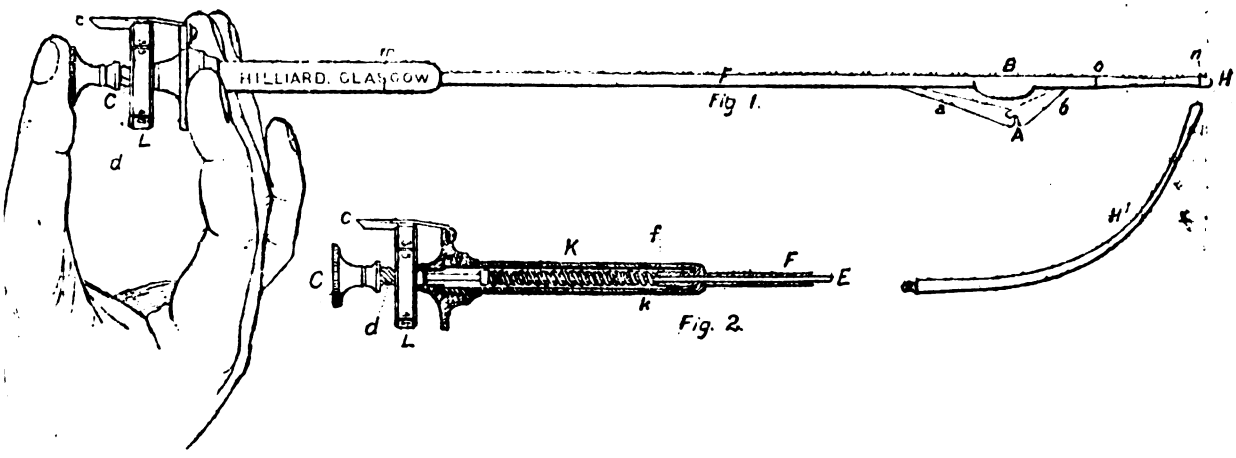
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A MODIFIED FORM OF URETHROTOME.

A LARGE majority of surgeons are agreed that internal division is the best treatment of many strictures of the urethra. Of the innumerable instruments for the performance of this operation which I have seen or have been able to find described, all of them, while possessing many good and ingenious qualities, have had also some one or more faulty features. My aim has been to combine in one instrument all the good and eliminate all the bad points. I do not claim for my instrument many original features, only that it possesses the merits and avoids the faults of its predecessors.

That this instrument possesses the other qualities of a perfect urethrotome as given above will be seen from the following description. It consists essentially of a jointed knife (A, fig. 1), which can be projected from a sheath (B) to regulated distances. This is effected by pressure on the button (C, figs. 1 and 2), which is continuous with the steel rod (E, fig. 2) tightly fitting the tube (F), the end of this rod being the knife (*a*), and the rod being reduced and tempered for a short distance from the knife. The other blade (*b*) also runs into a fine-tempered end-piece, which rests against the solid probe point, either straight (H) or curved (H''), which screws on at *o*. The blades are withdrawn on removal of the pressure by the spring (K, Fig. 2). The extent of projection of the knives is regulated by the graduated wheel (L), turning

Fig. 3.



There seem to me to be required in a perfect urethrotome at least seven qualities—viz.: (1) to be used with one hand; (2) to cut either from before back or from behind forward; (3) to incise any part of the circumference of the urethra; (4) to be easily regulated, so as to cut to any depth, even when the blades are out of sight in the urethra; (5) to be of the smallest calibre possible when the blades are sheathed; (6) to be adapted to carry a guide bougie; and (7) to be easily cleaned. The value of the first of these may not be apparent; but with one hand you have a much more delicate sense of touch, which is all you have to rely upon in this operation. Who would hold a probe or a catheter with both hands? It is also advantageous to be able to grasp and steady the urethra with the free hand. To attain this the projection of the knives must be produced by flexion of the fingers, because this is more powerful than extension, and much more completely under our control—I presume in consequence of our habituation to use all instruments by the aid of the flexor muscles.

on the screw (*d*), and held in place after setting to the required number (French gauge) by the spring wedge (*c*). The whole tube (F) carrying the knives is only slotted for a short distance, and the steel rod is squared and fitted to a square box at the point *f*, Fig. 2. To clean the instrument screw off H. Turn the milled head (C) until the two parts of the rod which are united by a screw at *k*, Fig. 2, are separated. The anterior part of the rod with the blades can then be drawn out at the end (*o*). The spring box unscrews at *m*, Fig. 1. Fig. 3 is the conducting bougie, which can be screwed on at *n*, Fig. 1, in place of the probe point. The tube carrying the knife-rod is only slotted for two inches and a quarter, and is thus rigid. The square socket at *f*, Fig. 2, prevents twisting of the knives.

The instrument has been most satisfactorily made for me by Messrs. Hilliard and Son, Renfield-street.

WM. JAS. FLEMING, M.D.,
Surgeon to the Glasgow Royal Infirmary.

NINTH INTERNATIONAL MEDICAL CONGRESS.

IN the section on Medical Climatology and Demography of the Congress to be held at Washington in September next, the following scheme of subjects for papers and discusions has been prepared:—

1. Importance of the study of climatology and demography in connexion with the science of medicine. 2. What constitute determinate climatic characteristics. 3. The effects of climate on the human race as manifested in local demographic conditions; and of the several elements of climate as shown by coincident meteorological; morbility, and mortality statistics. 4. The question of acclimation. 5. Relative advantages of mountain and seaside resorts for recuperative purposes and as palliative or curative in certain diseased states of the system—segregation *versus* aggregation of invalids at health stations. 6. The therapeutic value of natural mineral waters. 7. Accurate records of prevailing sickness in any community a necessary factor in any comprehensive system of vital statistics. The responsibility of Governments to amply supply their people with the climatic and vital statistics of their respective countries. 8. Collective investigation, apart from aiding the study of the natural history of disease, as contributive of numerical data having a demographic bearing—(1) as to the kinds and proportions of prevailing diseases; (2) as to the absolute amount of daily sickness and consequent loss of time, occupation, &c. 9. Medical nomenclature considered in its practical relations to vital statistics. 10. The melioration of demographic conditions effected by preventive medicine. Influence of the physical well-being of a population upon its economy. Offences against moral and civil law in their medical relations to demographic circumstances.

Albert L. Gihon, M.D., P. O. Box 291, Vallejo, California, is president of this section; and Charles Denison, M.D., of Denver, Colorado; Isambard Owen, M.D., of Hertford-street, Mayfair, London; Dr. E. Bertherand, of Algeria; and Dr. A. Wernich, of Cöslin, Germany, are the secretaries.

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THE LANCET.

LONDON: SATURDAY, APRIL 23, 1887.

THE deficiencies in the knowledge of the routine work of professional practice shown by our young practitioners fresh from the schools and from examinations, which have been so frequently referred to in our columns by ourselves and by numerous correspondents, were officially brought before the General Medical Council at its last session by Dr. GLOVER, and a committee to consider the question was agreed to. He has reprinted as a small pamphlet the statement in which he introduced his resolution. Hospital practice is very unlike general practice, and it is evident that the success and value of a practitioner depends much more on his familiarity with everyday diseases and their treatment than on his making exceptional diagnoses of phenomenal cases. How this routine knowledge can be best obtained without materially interfering with the general plan of his medical curriculum is the question which is before the committee for consideration, and everyone will agree on its importance. "A *limited* pupilage with a registered practitioner, and insistence on more clinical, therapeutical, and pathological teaching and work at medical schools," are the remedies suggested by Dr. GLOVER for this defect, and we hope that the committee will be able to make some useful recommendations for the guidance of parents and teachers. The difficulties, however, in framing any useful report are greater than appears at first sight. In England, owing mainly to the non-enforcement at the present time of an apprenticeship, which was formerly required by the Apothecaries' Society, medical education more and more tends to a commencement at a medical school or recognised hospital, and in Scotland this practice is almost universal, for in the quinquennium 1871–75 only seven students out of 1717 began their study elsewhere than at the Universities. Any enforced pupilage would therefore entirely change Scotch medical education, and are there sufficient grounds for doing this? Is the Scotch graduate so far inferior to his compeers in England and Ireland in the practical details of his work that his methods of early study must be radically changed? The average interval between the registered date of studentship and the date of a first qualification has been shown to be nearly five years, although forty-five months only is the period insisted on by the Conjoint Examining Board in England; and no regulation can be adopted which will in any way lengthen this period of study without materially affecting the number of those who are desirous of entering the medical profession. Pecuniary reasons alone will be sufficient to deter many, otherwise well qualified, from studying for the profession if an increased length of probationary study be required. Moreover, another factor besides the student must be dealt with. The committee will have to judge whether every general practitioner is fitted for the duties involved in taking pupils. Pupilage with a scientific practitioner is the greatest possible boon; pupilage in other cases may degenerate into something but little removed from drudgery, and very few parents outside our profession can be expected to discriminate between the two extremes. Besides details of medical practice, a pupil may reasonably expect to be taught chemistry and physics, a little botany, and the rudiments of materia medica in his first year; and this should be secured, either by the practitioner being really able as well as willing to undertake these obligations, or by his seeing that an efficient teacher can be found within ready distance. Dispensing medicines and visiting ordinary cases are very important, but they should not occupy the whole time of a pupil between his leaving school and his entering at a hospital, if the pupilage is to extend over more than two or three months. Again, the more select in the status of the patients the practice may be, the less can the pupil learn, so that it is only in mining, factory, Poor-law, and similar large practices that he can gain the essentially practical knowledge of infantile and common diseases that is urged on him as a necessity. Dispensing and book-keeping are not now so formidable as in former days. Dispensing has been quite changed within late years. Mixtures, concentrated infusions, and pills are now largely used according to set formulæ, and have materially lightened the work which made great inroads on the time of the older practitioners; and anyone quickly learns to keep his books on his own plan and system. The proper writing of prescriptions is another and a different matter, but we question if this can be judiciously taught until late in a student's career, and it may be and should be made a prominent feature in the instruction obtained from out-patient class-rooms. We would like to ask the committee to seriously weigh these arguments for and against an early pupilage even for a limited time, and to take the opinions of practitioners in the provinces and in the metropolis, and also of some of our younger teachers brought up under the new *régime*, as to whether six months devoted to general practice spent between the second and the final examinations would not be a better alternative. There are, however, objections to this course also, for it would interfere with the regulations for resident appointments in many medical schools, which are so valuable to the student from every point of view; and if required to assist in working a general practice at this period of his curriculum a student would probably ask to be paid for his services, instead of having to pay a premium as under the old apprenticeship system. To Dr. GLOVER'S other suggestions for utilising country hospitals and workhouse infirmaries as centres of medical education no objection whatever can be taken, and the difficulties surrounding their practical application could be easily removed. We hope that the committee will draw up a reasonable and workable scheme, so that the great advantages held out by the proposition may be realised to the medical student.

IN an article last week we commented on certain Bills which have this session been introduced into Parliament, and which have as their object the improvement of house drainage, but which take no heed of the many conditions connected with the dwelling which are also concerned in prejudicing the health of the inmates. Professor CORFIELD has now brought before the profession other circumstances

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which affect health, and has shown much reason for thinking that so simple a matter as faulty gas fittings may be responsible for some of the ill health which has hitherto been attributed to defects in house drainage.

Some three years ago Professors W. T. SEDGWICK and W. RIPLEY NICHOLS contributed a paper on this subject to the Massachusetts State Board, in which they discussed the relative poisonous effects of coal and water gas. They contended that such harm as resulted from the inhalation of small quantities of these gases was due to carbonic oxide, and they proceeded to show that water gas, inasmuch as it contains more carbonic oxide than coal gas, would necessarily be more injurious in its effects. Some account of the symptoms is given both where the quantity breathed was large and where it was small; the latter producing intolerable headaches in a lady previously in fair health, but who happened later to occupy a bedroom in which was an escape of water gas from a leaky pipe below the floor.

Professor CORFIELD has now related to the Society of Medical Officers of Health a series of cases observed by himself in which health appears to have been injuriously affected by small escapes of coal gas into sleeping-rooms through defective gas fittings. The symptoms he described are not identical with those mentioned by American writers, the more prominent in the English cases being relaxed and ulcerated sore-throat. This difference, however, may not have any importance as affecting the evidence that the illness was dependent upon the condition to which the writer attributes it. It is probable that loss of health might show itself in one person by headache and in another by soreness of throat, and the number of cases which have yet been observed is not sufficiently great to warrant any generalisation on this point.

Apart from the interest which attaches to observations by so trustworthy an authority, a further lesson is to be learnt. There has for some years been a growing tendency on the part of many to accept as an assured fact that throat illness is necessarily evidence of defective drainage. Dr. CORFIELD'S cases are of value in showing that this assumption is not safe, and if later we are led to conclude with him that coal gas may produce results not dissimilar from those usually attributed to the air contents of drains, the more necessary is it that we should be prepared to find still other causes which may affect the inmates of a house. The difficulties which surround all questions of this sort are no doubt very great, and it is not easy to see how such exact evidence as we desire is to be obtained. It is enough at the present moment to allow that Dr. CORFIELD has indicated the necessity for more extended observations, and for more reserve in the acceptance of a too general belief that the occurrence of throat illness must be due to faulty drains. While, therefore, we fully recognise the importance of a perfect drainage system, we would desire to repeat our recent warning that householders must not assume that an expenditure of money in improvements of this character will ensure them against further ailment. There is, indeed, much need for more investigation into local causes which may affect health, and those skilled in etiological inquiry will render greater service by seeking in the first instance the cause of disease, than by effecting the improvement of only one of many possibly unhealthy conditions.

IF the affiliation of Hospitals and Dispensaries is to pass from the academic region into that of practical medico-social politics, the beginning of the passage may be expected on Tuesday next, when a vote will be taken in the Medical Attendance Organisation Committee on the following motion, proposed by Mr. BOUSFIELD and seconded by Mr. TIMOTHY HOLMES:—

"That the true functions of the out-patient departments should be mainly consultative, and that their committee and medical staffs be requested to confine their patients, as far as possible, to those who have been previously treated at provident dispensaries or by ordinary medical practitioners."

Already a lively discussion on this motion has taken place, in which Dr. ORD, Mr. TIMOTHY HOLMES, Dr. J. C. STEELE, Dr. GILBART SMITH, Mr. NELSON HARDY, and others took part. All those who hold strong opinions, or who feel the importance of the question as affecting either medical education or public opinion concerning hospitals, might rely confidently on a short hearing on Tuesday from the committee, which meets at 5, Lamb's-conduit-street. Dr. GILBART SMITH on Tuesday last described the views of Mr. NELSON HARDY on the abuses of the out-patient department as "poetry." This is a euphemistic expression which breaks no bones. It represents the views of the ardent physicians and surgeons of the out-patient departments who feel that interesting cases must be found, and that crowds must be forthcoming to supply them. They regard such visions as those of Mr. HOLMES and Mr. NELSON HARDY as "utopian" in the present state of society, when the strata of poverty in such a community as that of London are so deep and dense. Students, too, must be attracted and employed, and for this end numbers are an advantage. Numbers have a charm, too, for hospital treasurers and secretaries, when the reports are made up. They seem to swell the sound of the good done and the charity dispensed. Moreover, as Dr. STEELE puts it, the hospitals are reluctant to institute a sort of relieving officer, and are disposed to regard inquiry into the means and character of every applicant as an inquisitorial and ungenerous process. It would be folly to underrate the force of some of these considerations, or of all of them combined. But there are some others to be set off against them. The out-patient department of the hospitals is their weakest and most vulnerable spot. It has led to more adverse criticism of hospitals than any other part of their administration. The public would be deprived of half its excuses for not supporting hospitals more generously if the grievances of the out-patient department were removed. Nay, more, the hospitals would have the credit of being the most powerful promoters of thrift and providence. It is not proposed absolutely to close the out-patient department, but to restrict it to a more serious class of cases, recommended by dispensaries or practitioners. With such limitations cases would be carefully examined and prescribed for, without overtaxing the hospital staff. If the commoner cases were in this way kept in the dispensaries, they would not necessarily be lost to the use of students and for educational

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purposes—for it is part of the scheme of affiliation, or might be made so, that the dispensaries should be brought into the service of medical education. Then, as a still more convincing argument, some hospitals have actually carried out this reform. At Guy's, at St. Thomas's, and at St. George's there is a restriction of the number of cases of out-patients, and it is found to work well. Under all these circumstances we bespeak for the resolution quoted above a fair hearing. No doubt its promoters would agree to any modification likely to make it more workable. The objection to all such motions is their lack of feasibility. What is wanted is a resolution to satisfy, not the social and medical philosophers in Lamb's-conduit-street, but the medical profession, medical teachers, and the public.

AT the recent meeting of the Council of the Royal College of Surgeons, as we announced last week, "the seventh report of the Committee on Charters and Bye-laws, containing the draft of the new supplementary Charter to give effect to several alterations in the Charters agreed to by the Council, was approved and adopted, and it was resolved that the necessary proceedings be taken to submit the same to the Privy Council." It will not be amiss, therefore, to remind our readers of the principal alterations which the Council proposes to ask for in the constitution of the College. They may be briefly summarised as follows. Firstly, to permit voting by means of voting papers as an alternative to voting in person, as at present; secondly, with respect to the eligibility of Fellows for election to the Council, to reduce the term of qualification from fourteen to ten years; thirdly, to abolish the restriction as regards Fellows who are candidates for the Council which prohibits their practising as Apothecaries, and requires them to be in the *bonâ fide* practice of Surgery; fourthly, to abolish the Midwifery certificate of qualification; fifthly, to enlarge the powers of the Council as to the election of Members of the College of twenty years' standing to the Fellowship—i.e., to give the power to elect Members of that standing to a number not exceeding ten instead of only two such Members, as at present; and lastly, to give the power to elect two Honorary Fellows in each year, whether Members of the College or not, such Honorary Fellows to have no vote for the election of members of the Council. It is worthy of note that none of these proposed alterations were primarily proposed by the Council. They all had their origin outside. The Council, it is true, did originally propose a few alterations; but these were of only minor importance and did not materially affect the constitution of the College except so far as they will secure to the Council greater freedom with less responsibility, and get rid of a certain amount of external and salutary check and control. It is both significant and characteristic that, in spite of emphatic and repeated expressions of opinion by large numbers of Fellows and Members—amounting in the aggregate to many thousands,—the Council persists in its determination to ask for a new Charter which studiously ignores the important and radical recommendations twice carried in general meetings by overwhelming majorities, and without appreciable or calculable opposition. These recommendations are chiefly two—first, that in some way and in some degree Members of the College shall, under conditions, be empowered to vote in the election of the Council and be eligible to sit in the Council; and, second, that no alteration shall be made in the constitution of the College or in its relations or in any of its bye-laws without the consent of the Fellows and Members specially convened to consider and discuss them. These reasonable demands the Council apparently both rejects and resists. It is obvious that the matter will now have to be fought out before the Privy Council. There can be no doubt that after the confirmation of the minutes at the next Council meeting of the College the new Charter will promptly be submitted to the consideration of the Privy Council. Before this is done the Charter as now drafted should be submitted to a general meeting of Fellows and Members. It is only right that they should be able to understand definitely and in detail what the Council are applying for, whether the alterations be acceptable and agreeable or not. This is impossible unless the Charter itself, as it undoubtedly should be, is open to their inspection. The Council can surely have no objection to so reasonable a demand, and will, we trust, lose no time in calling a general meeting for the purpose. At the least, printed copies should be available for those who care to apply for them.

Annotations.

"Ne quid nimis."

WARNING TO THOSE NOT REGISTERED.

IT cannot be too explicitly stated that Tuesday, May 31st next, will be the last day on which degrees and diplomas can be registered, unless they have been conferred after a qualifying examination in medicine, surgery, and midwifery, held expressly for the purposes of, and under the conditions stated in, the Medical Act of 1886. We therefore counsel our readers in all parts of the empire who intend to register on old diplomas to do so without delay.

ARMY MEDICAL SERVICE.

IN accordance with the promise made to the deputation which recently waited upon him on the subject of the relative rank of the army medical officers, the Secretary of State for War has reconsidered the terms of the Warrant, and, "after consultation with the Director-General of the Army Medical Department," has altered them as follows:—"125*a*. Officers of departments of our army, not having honorary rank, shall rank as follows for purposes of precedence and other advantages attaching to corresponding military rank; but this shall not, except as provided in articles 265, 348, and 307*a*, entitle them to military command of any kind, to the presidency of courts-martial, courts of inquiry, committees, or boards of survey, or to precedence in their own departments over officers holding a superior departmental rank." This is followed by the classification of officers as given in the previous Warrant, with this difference, that they are stated to rank "as" instead of "with" the corresponding military grades. It is gratifying to us to find that the course adopted by the War Minister accords with that which we pointed out as being a satisfactory mode of solving any doubt which might be raised as to the military status of the various grades of medical officers. (See THE LANCET, April 2nd, p. 688.) But there is a question connected with the Army Medical Staff to which we attach great importance, and which, we fear, has been lost sight of in this scare on the subject of relative rank—that of rewards for professional services. Rewards for medical officers ought not, as at present, to be dependent

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upon the recommendation of the military officers alone, and to be given only for services in the field; they ought to be conferred on the nomination of the Director-General, to whom all reports as to services rendered should be referred, and with whom the appreciation of these should rest and the consequent action upon them should originate. It has hitherto been the practice to grant honours and rewards solely upon the recommendation of the military authorities, who certainly cannot be deemed the best judges of the value of professional work. One result has been that, while for service in the field a fair amount of recognition has been bestowed, the more arduous work, in the hospitals and in the conflict with epidemics or in the important labours connected with the preservation of the health of the soldier by the adoption of sanitary measures, has been practically ignored. We would desire to claim for the head of the Army Medical Service a more potent voice in its practical working than has hitherto been accorded. No measure affecting the department should be introduced without his being taken into council, as we fear was the case with the last Warrant; and all rewards to medical officers should originate with him, or, if from any other source, should pass through his hands and be subject to his comments before being submitted to the War Minister. Were this the case, we should no doubt have rewarded for professional work officers who, however meritorious, are at present passed by without notice, because the military authorities, with whom the initiation now rests, are not competent to form a correct estimate of the value of such special service. It is not too much to expect that the head of an important scientific branch of the army, the labours of which can be truly appreciated only by an expert, should be consulted on all questions affecting its position and its mode of action, and that he should have the power to recommend to the War Minister for rewards or honorary decorations such officers as he may consider to have earned a title to them by valuable professional work.

POST OFFICE AUTHORITIES AND INFECTIOUS DISEASE.

IN a recent report on Kensington Dr. Dudfield draws attention to an important point in connexion with the existence of infectious disease in the families of Post Office servants. In 1882-83 correspondence was held with the Postmaster-General on the same subject, the Kensington vestry being desirous of having reported to them by the Post Office medical officers the existence of any such cases of illness, in order "to secure the isolation of the cases," and "to facilitate the removal of the sick to hospital when they cannot be safely treated at home." In answer, the Post Office authorities stated that a notice had been issued to the numerous medical officers of the department, in which they were instructed that, if in their district it be not already the rule to give notice of such disease to the sanitary authority, it would be well that such a rule should be introduced in the case of Post Office servants. But the letter, referring further to the question of admission to hospital, said that the department was not prepared to adopt compulsion. Within a month during the early part of this year Dr. Dudfield heard of three occurrences of scarlet fever in the families of postmen. The postal authorities very properly relieve their men from duty during such occurrences, and it appears that in these three cases they refused to allow them to resume their work until disinfection had been carried out. And it was the need for getting this process done that brought the cases under the notice of the vestry. Dr. Dudfield had, we think, ground for complaint, and hence he communicated the facts to the chief medical officer of the department, who in turn says that forms had been supplied to the postal medical officer of the parish for the purposes of communicating with the sanitary authorities, together with a recommendation to use them, but "the department is not prepared to employ compulsion in the matter." So far as we were able to judge, the question of compulsion in the former correspondence related to removal to hospital, and in this respect we entirely concur with the Postmaster-General that Post Office *employés* should not be treated differently from other members of the public. But we do think that, as regards notification, the department, which is maintaining the sick family at the public expense, might properly let the authority know, and might rightly require that the forms issued should, in every case, be used for the purposes indicated. It is known how largely children from such families as those of letter carriers attend elementary schools, and the Post Office department should not withhold from the sanitary officer the information which he needs in order to give effect to the provision of the Education Code issued by another Government Department as to the exclusion from school attendance of scholars living in infected houses. The Post Office authorities seem to claim some credit from the fact that the information does, owing to their requirements, at last reach the sanitary authority. But it is practically useless for the principal preventive purposes when it comes to hand only at the termination of the illness; and if it is the intention of the Post Office hereafter to require their servants to apply to the local authority for the purposes of securing disinfection, they might at the same time have regard to public health requirements, and instruct their officers to give the needed information at the onset of the disease, when it can be most usefully employed for all parties concerned.

FASTING FOR THE SAKE OF SCIENCE.

THE case of M. Cetti, who recently undertook, in the interests of science, to fast for thirty days in Berlin, was brought before the Medical Society of that city at a recent meeting by Prof. Senator. It should be said that the observations were not prolonged beyond eleven days, M. Cetti being informed that there was no necessity, from the scientific point of view, for him to continue his fast beyond a fortnight. During this period he was subjected to very careful observation. He is twenty-six years of age, and his weight was reduced from 57,080 grammes to 50,650 grammes during the eleven days, an average daily loss of 585 grammes. Starvation was not absolute, since he was allowed to drink water *ad lib.* He also smoked cigarettes, which, however, could not be shown to have had any influence on nutrition. His general condition remained very good. The quantity of chloride of sodium eliminated in the urine sank from eight or ten grammes on the first day to less than one gramme on the last days. The temperature was always within normal limits, attaining on the seventh and eighth days nearly the physiological maximum. On these days it reached 37·4° C. (99·3° F.), at other times varying between 36·4° and 36·8° (97·5-98·6° F.); but it never rose above that level. On these two days he was not very well, complaining of colic and suffering from hiccough. The pulse was normal, but very excitable, merely sitting up in bed causing an increase of the rate from 76 to 120. Professor Senator did not enter into further details, which are reserved for later publication, but described the very thorough methods to which M. Cetti was subjected. These comprised accurate measurements of the body and estimations of the excreta, examination of the blood as to its corpuscular richness and hæmoglobin capacity, and sphygmographic studies of the pulse. Observations on the vital capacity and estimation of the oxygen and carbonic acid of respiration were made daily. Dynamometric records were kept. The urine was most thoroughly investigated, chiefly by Drs. Müller and Munk, the analysis including estimations of urea, chloride of sodium, phosphoric acid, sulphuric acid, soda, potash and

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ammonia, indol, phenol, acetone, and diacetic acid, and also of the digestive ferments which have been recently shown to be present in urine in certain conditions and absent in others. The saliva and the fæces were also submitted to examination. Professor Virchow, who was associated with Professor Senator in the observations, added a few remarks upon the object of the experiment; and M. Cetti, who was present at the meeting, gave his reasons for undertaking the fast, and stated that he had felt no appetite or hunger until he was told that on the next day he would be allowed to eat. The desire then returned to him at once, and he kept awake half the night. He expressed himself very gratified with the kindness and attention bestowed upon him by the scientific men who had taken him in charge.

THE EXAMINATIONS OF THE PHARMACEUTICAL SOCIETY.

THE *Chemist and Druggist* of April 9th contains the reports of Dr. Headlam Greenhow, the Government visitor to the examinations of the Pharmaceutical Society, on the examinations held by the Society in the years 1885 and 1886. The main facts are of considerable interest to the profession as well as to the public. The examinations reported on are three in number: the preliminary, the minor, and the major. The preliminary examinations are conducted by the College of Preceptors. In 1885, for the first or preliminary examination, there were 1278 candidates. Of these 588, or 46 per cent., were rejected. This proportion of rejections is said to be rather less than usual. For 1886 the number at this examination was 1305, of which 673, or 51·57 per cent., were rejected. The subjects are Arithmetic, Latin, and English. Arithmetic is the rock on which most of the candidates come to grief; in 1885, 209 failed in it alone. If the number of those who failed in it and in one or both of the other subjects be added the number of failures in arithmetic is raised to 476. In 1886, 238 failed in arithmetic alone, and 323 in it and one or both of the other subjects. The failures in Latin in 1885 were 252, and in English 240. Dr. Greenhow very properly insists on the seriousness of deficiency in arithmetic, a knowledge of which subject he regards as not only a test of a fair elementary education, but as absolutely requisite in dispensing and chemical operations. We are glad to see, in spite of indications of carelessness of the medical examining bodies on the subject of Latin, that the Society still insists on a knowledge of this subject in its candidates. In the minor examinations for 1885, of 744 candidates only 255 passed; 489, or 65·7 per cent., were rejected. Of the rejected candidates, 81 failed on account of general weakness in all the subjects, 171 in practical dispensing, 70 in chemistry, 64 in pharmacy, 43 in reading prescriptions, 22 in materia medica, 27 in botany, and 11 in two or more of these subjects. In 1886 the rejections at this examination were 530 out of 824 candidates, or 63·1 per cent. The subject in which the largest proportion of them failed was practical dispensing, which brought 205 candidates to grief. In chemistry 71 failed. The candidates for the major examination are much fewer, being 87 and 90 in the two years respectively, the rejections being 46·0 per cent. and 43·3 per cent. It is not the least proof of Dr. Greenhow's fitness for this duty that he has carefully considered the large proportion of rejections and has made suggestions, in the interest of fair examination, for an extension of the *time* in the minor examination, as well as an extension of the number of articles to be dispensed. He is quite satisfied of the general fairness of the present examinations, but thinks more *time* should be given. He urges, too—a very important point,—that the preliminary examination should be passed before the student is allowed to proceed with his proper studies. We are surprised that this is not already required. It is a grievous unkindness to students not to be severe in this requirement.

THE JUBILEE AND THE UNIVERSITY OF LONDON.

AT a special meeting of Convocation of the University of London on the 19th inst., the chairman read a communication from the Prince of Wales, inviting the co-operation of the University in the establishment of the proposed Imperial Institute. It was then resolved, on the motion of Dr. Baines and seconded by Mr. Lemon, that the jubilee of the University be celebrated this year, and that it is desirable to associate therewith the commemoration of the jubilee of Her Majesty's accession to the throne; and that a special committee be appointed to carry out the wishes of Convocation in this respect. Dr. Quain moved and Sir A. K. Rollit seconded the following resolution: "That an appropriate method of carrying out the wishes of Convocation as expressed at this meeting would be the placing of a statue or other similar memorial of Her Majesty in the University building. That this proposal is especially appropriate, inasmuch as the University was founded by a Charter granted by Queen Victoria, that Her Majesty is the visitor of the University, and was graciously pleased to open the University building in person, and that Her Majesty has recently granted to this University the high privilege of presenting an address to Her Majesty upon the throne in like manner as is allowed to the Universities of Oxford and Cambridge." The motion was unanimously agreed to, and the proceedings terminated with the passing of a third resolution, moved by Sir Philip Magnus and seconded by Mr. Lemon, to the effect that the statue or other memorial should be presented to the University at a special meeting or reception, at which the presence of Royal and distinguished persons should be invited.

EARLY WELSH MEDICINE.

IN our appreciation of the great advance in medical and surgical knowledge which has taken place in recent times, we are but too apt to undervalue the services of those who have laboriously laid the foundation of our art in remoter ages. Of a part of this indebtedness we are reminded by a short but interesting paper on "Early Welsh Medicine" by Mr. P. Rhys Griffiths, from which it appears that not only was the art of medicine cultivated by the Britons at a very early period, but that the Cymric practitioners during the mediæval and perhaps even in the earlier Christian epoch enjoyed a status and exercised a degree of skill by no means contemptible. Tradition tells us that up to the time of the Welsh king, Prydain (1000 B.C.), the knowledge of medicine and other sciences was usually found in connexion with the priestly office. After that date men of science and physicians appear to have formed a group by themselves. Regarding their methods there is little information, save that they seem to have relied chiefly on herbs as means of treatment. It is not till we reach the year 930 A.D. that any very definite information on medical matters is obtainable. About this time we learn from an Act of Howell the Good certain interesting particulars as to the position of the royal medical attendant. This functionary was evidently a person of some consequence. His "lodging was with the chief of the household," he held his land free, was allowed a horse, and received fees according to a fixed scale. Early in the thirteenth century the name of Rhiwallon, household physician to Rhys Grug, prince of South Wales, attracts especial notice. He was the most famous of the early Welsh physicians of whose life and work we possess reliable information, a copious contributor to the literature of medicine, for his time a practitioner of a very high order, and a man of true professional principle and personal integrity. The teaching and practice of Rhiwallon and his three sons were probably inspired in a greater or less degree by that of Hippocrates, who is more than once referred to in their writings, though the works

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of the Persian and Roman teachers were also included among their studies. In this connexion it is noticeable that the humoral theory of disease was familiar to these early British physicians, while the prominent place assigned in their treatment to dietetics is no less significant. In regard to diet, indeed, they evidently possessed a fairly accurate though an empirical idea of what was or was not physiologically suitable. In diagnosis they relied almost exclusively on the evidence afforded by the general bodily condition and the appearance of excreta. The heart, pulse, and temperature revealed nothing to them. Their materia medica consisted almost entirely of organic substances, for the most part vegetable, and included some of the sources of our own most valued remedies, such as digitalis and the poppy. The plants employed in treatment were home-grown, as might be expected, and were administered either as external applications or in the form of infusions or decoctions. While thus occupying in medicine the position of herbalists, and nearly ignorant of scientific method, these early practitioners were in some respects well advanced in surgical skill. They were good lithotomists, they treated abscesses in the lung or brain by puncture and trepanning, and they incised the chest in empyema. In some other ways their ideas, as may be imagined, were of the most primitive order. Tumours they treated by applying the rump of a live fowl, feathered, to the part. Charms were probably less used at this than at an earlier epoch, but their employment in medical practice was not yet by any means unknown. The early practitioners of Wales appear, therefore, to have proceeded in their treatment on much the same lines as their brethren elsewhere, and were probably rather more than less intelligent in the methods they were wont to use.

ANTHRAX IN CHESHIRE.

FOR some time past alarming notices have been appearing in the local papers in reference to the alleged occurrence of anthrax on a farm in Cheshire, and questions were asked in Parliament on the subject. To these questions the usual stereotyped answers were given, containing, however, rather more than the usual amount of official wordiness. It was alleged, among other things, that the outbreak was due to "the insanitary condition" of the farm! We venture to say that "insanitary condition" never did and never will produce anthrax. It is fortunate that Dr. Hime, who is well qualified for the work, has been enabled to examine into the question on the spot, as some confusion has now been introduced into the matter by official declaration as to the simultaneous existence of "occult" swine fever. He has been resident on the farm for some days, and has made several post-mortem examinations of animals which have died there. He has stated that all these animals had anthrax, and that no symptom or sign of swine plague was to be found either before or after death. Dr. Hime also prepared numerous microscopical mounts, which, when shown to competent observers, left no doubt on their mind that the disease was typical anthrax. But there were numerous peculiarities in the case. In fact, the occurrence of anthrax in the pig is in itself uncommon, and its possibility is distinctly denied by Klein over and over again. But the fact that the animals lately attacked have survived so much longer than the first victims is noteworthy, the latter having mostly perished rapidly with symptoms of splenic apoplexy, while the later cases have lasted six, seven, and even eight days. Again, the splenic disorganisation was not nearly so marked in the latter cases. Dr. Hime caused very energetic steps for prevention to be taken. All animals which died during the visit were burned, and not buried according to the Privy Council Orders; perchloride of mercury was liberally used instead of chloride of lime. The floors were ordered to be dug up and the earth burned, the walls to be scraped and disinfected with the perchloride, &c. The unfortunate farmer has not only lost some £600 worth of stock, but has suffered grievously from the restrictions of the authorities. Because some pigs were ill, all the healthy stock and their milk &c. were put under a ban. Dr. Hime strongly represented the unnecessary hardship of this to the authorities, and we believe considerable relief was then afforded. We hope to be able shortly to give a fuller account of this remarkable outbreak. The disease has also made its appearance in Romney Marsh.

A MINISTER OF HEALTH.

IT is announced that Earl Cadogan, Lord Privy Seal, and the Right Hon. C. T. Ritchie, President of the Local Government Board, have been invited to join the Cabinet. The news of Mr. Ritchie's promotion will be received with much satisfaction by those who have the health interests of the country at heart. We have many times commented on the need for this recognition of the importance of the duties which devolve upon Mr. Ritchie's department; it is indeed extraordinary that the country which sets an example to all other nations in the estimation in which it holds sanitary progress, both as regards life and commerce, should ever exclude from the Cabinet the statesman who presides over the branch of administration which is concerned with this subject. In Mr. Ritchie's case there is the further argument that his high abilities must render his services of especial value. We fear there is not just now much hope for domestic progress, but Mr. Ritchie's presence in the Cabinet should ensure immediate attention being directed to those subjects in which the future of England is involved, and certainly amongst these must be reckoned the placing of the sanitary service on a better footing than at present. The hope that has for long been entertained, that improved methods of local government would be seriously undertaken by successive Ministries, has been hitherto grievously disappointed; but recent public statements of the President of the Local Government Board have shown that they have not been forgotten. Probably all that is wanted is the necessary opportunity for bringing them before Parliament. We trust that Mr. Ritchie's relation with the Local Government Board may be continued until this is afforded, and that he may have the direction of the legislation which we may now anticipate will follow.

THE TITLE OF "DR." AMONGST DENTISTS.

THERE has been a keen discussion in one of the dental periodicals about the use of the title of "Dr." by graduates of American colleges who are in practice here. All the writers equally disclaim any intention of decrying the D.D.S. or D.M.D. which is legitimately gained after a reasonable term of residence, but their arguments are aimed at those who, whether licentiates of one of our colleges or *sine curriculo* men, go out to America to obtain a diploma, too often a bogus one, and then return to practise under the title "Dr." It is freely admitted by the leading Americans themselves that the practice of dental surgery in all its branches is fully as well taught, theoretically and practically, in our dental schools as across the Atlantic. The editor of the *Journal of the British Dental Association* suggests that the title "Dr." should be dropped by those dental surgeons holding it in this country. Those conscientious practitioners, whether English or American, who are always welcome in our midst, might or might not agree to this; but those who abuse the title certainly would not, and it is the abuse that we wish to attack. The public, we think, do attach considerable importance to the title "Dr." amongst dentists, and therefore we would point out that this term, used in virtue of the D.D.S., does not signify a *medical* qualification, and, when honestly obtained, is

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similar, and by no means superior, to our L.D.S. We are heartily glad to see that the Americans are awakening to the fact that their degree is fast falling into disrepute, and only last month a "diploma mill," with the title of "Druidical University of America," had its charter repealed; but it is not only these illicit manufactories that need looking after, but the recognised universities where diplomas are given after a few weeks' residence.

THE GASTRIC JUICE IN CANCER OF THE STOMACH.

PROFESSOR A. V. PELIA, in a "preliminary note" published in the last number of the *Vrach*, states that he has observed in several cases of suspected carcinoma of the stomach that the gastric juice, even after the addition to it of hydrochloric acid or pepsine, or both, remained incapable of peptonising coagulated albumen and fibrine; and not only so, but when added to normal or artificial gastric juice possessing peptonising power this cancerous gastric juice actually destroyed that power, showing that its own property was not of a merely negative character but of an active anti-fermentative nature. Professor Pelia suggests that in cancer of the stomach some new chemical principle of the nature of an anti-ferment may be secreted in the stomach. This is, he thinks, secreted also in these cases by the kidneys, for he has been able several times to show that the urine of a patient with anti-peptonising gastric juice possessed a similar anti-fermentative power. He remarks that Cahn and Mering have recently shown that an absence of free hydrochloric acid in the gastric juice is not a proof of the existence of cancer of the stomach; but he does not wish to express any opinion himself on the question of the significance of hydrochloric acid from a diagnostic point of view.

SANITARY WORK IN MUCH WOOLTON.

DR. B. B. JOLL'S report on an outbreak of fatal measles in the Much Woolton urban district raises two points worthy of notice. In the first place, the sanitary authority appeared to be much astonished at his attendance at their meeting, and the chairman had to explain to them that their medical officer of health had not come there to assert any right, but only as a matter of courtesy and with a view to any explanations that might be required on his report. That such a statement should have been necessary implies, we fear, a very scant appreciation of their duties by the authority. No medical officer of health has an actual right to be present at all meetings of the sanitary authority, unless indeed such right forms a condition of his appointment; but many such officers do make it a practice to attend, and many authorities either require or are only too glad to have the advantage of their presence. The Order of the Local Government Board requires the attendance of the medical officer of health at such stated times as the sanitary authority may direct; for it is assumed that such authorities stand in need of their skilled adviser in matters relating to health whenever sanitary topics are under discussion, in precisely the same way as they need the attendance of their clerk when legal and administrative topics are being dealt with. The episode at Much Woolton implies that hitherto the sanitary work has been done without the sanitary adviser of the Board; and this is probably the explanation of the second point to which we would advert. We refer to a proposal on the part of this authority, with a population bordering on 5000, and in whose district twenty-eight deaths from measles have just occurred in a single month, to make an annual payment to the Prescot Hospital, now in course of erection some six or seven miles away, for the use of one solitary bed for the infectious diseases calling for isolation within their jurisdiction. Dr. Joll has cause to protest against anything so utterly ridiculous. If the Much Woolton Board have no intention of giving their district the benefit of hospital accommodation such as the Public Health Act intended them to provide, they had far better say so at once than go through the form of making a provision which is void of substance.

DEATH OF DR. ALFRED MEADOWS.

WE regret to announce the death, on the 19th inst, of Dr. Alfred Meadows, after a comparatively short illness. The deceased, who was held in high esteem by the members of the profession, was recently appointed a Justice of the Peace for Middlesex, and was well known in Masonic circles. We hope in our next issue to give a more detailed account of his career.

Sir Edward H. Sieveking presided at a meeting of the staff and students at St. Mary's Hospital on Wednesday last, to express the deep regret felt by all at the sudden death of Dr. Alfred Meadows. Mr. Field, the dean of the school, read letters from gentlemen unable to be present expressing sympathy. The chairman, in a touching speech, alluded to Dr. Meadows' many good qualities and the irreparable loss sustained by his death, and then called on Mr. Edmund Owen to move the following resolution, which was seconded by Dr. Montagu Handfield Jones, and carried unanimously: "That the staff and students of St. Mary's Hospital have received with poignant regret and sorrow the intelligence of the death of their beloved friend, Dr. Meadows; that young and old who have had the advantage of intercourse with him have learnt to admire his excellent qualities of head and heart; and that the staff and students of St. Mary's Hospital request Mrs. Meadows and Miss Meadows to accept the assurance of their profound sympathy in the irreparable loss they have sustained." A service will be held at All Saints', Margaret-street, to-day (Saturday), at 11 A.M.; and a special train will leave Paddington at 2.30 P.M. for Colnbrook, where the interment will take place.

THE BOWEL LESION IN TYPHOID FEVER.

How far ought the intestinal ulceration met with in typhoid fever to be considered pathognomonic? Is the detection of ulcers in Peyer's patches, presenting none of the characters of the tuberculosis or dysentery, to be taken as proof of typhoid fever, even in the absence of well-marked clinical symptoms? Are we justified in believing in latent typhoid from post-mortem evidence alone? Such are the questions which are suggested by an interesting *brochure* recently published by Dr. Vandyke Carter, upon "A Peyerian Ulcer Lesion of the Small Intestines, apparently new" (Bombay, 1886); and the answer he would impel us to give to them would be a decided negative. The material upon which he bases his paper consists of about ten cases, in natives (in whom typhoid fever is rare) suffering from symptoms described as remittent fever, and after death, which in some cases was due to perforative peritonitis, exhibiting more or less extensive ulceration of the small intestines. Constipation rather than diarrhœa was the rule; and in not more than one case did the "fever" run the course of typhoid. But Dr. Carter does not rely on clinical grounds to establish the non-identity between the intestinal lesion in these cases and that present in typhoid fever. He subjects the type of ulceration to a close scrutiny, and points out several prominent features of difference, the most striking being the absence in his cases of the excessive swelling and infiltration of the Peyer's patch that precede the stage of ulceration in typhoid fever. He inclines to the belief that these non-specific ulcers are produced by embolic or thrombotic plugging, and that this depends on septic conditions. That septic causes are adequate to produce in-

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testinal lesions of this kind is not to be gainsaid; and we think that Dr. Carter has made out a case for further investigation. At the same time, with the knowledge we have of the various forms assumed by typhoid fever, or at any rate by cases classed together as typhoid, and the great variety and extent of the intestinal lesion in cases of this disease, we may hesitate at first to accept his conclusion. A less cautious observer than Dr. Vandyke Carter would doubtless have been satisfied with the detection of the numerous ulcers in the favoured seats of election, and the occurrence in many cases of perforation, to declare that the cases came under the head of typhoid fever, modified it may be by the conditions under which the disease occurred. Hitherto we have been led to rely upon the ulceration of the intestines as the only positive criterion of this disease; but now it will be necessary to review our position in regard to it, and it may be that we shall have to fall back upon the detection of the typhoid bacillus to determine the diagnosis.

MEDICAL OFFICERS OF HEALTH.

OUR attention has been directed to a recent appointment in which a gentleman has been selected as medical officer of health who possesses no sanitary certificate, in preference to another holding that of the University of Cambridge. It is but natural that some disappointment should be felt by the unsuccessful candidate, who has spent time and trouble in the acquirement of knowledge which would undoubtedly have been useful to the local authority had they elected him. It must, however, be recollected that these distinctions are not yet understood by the public, and that other circumstances than those of the possession of certificates frequently guide these bodies in the selection of officers. Sanitary medicine is still in its infancy, and it is only within the last few years that the special knowledge which it requires has become appreciated by examining bodies, and only during the present year that the General Medical Council have recommended that the subject should be separately taught at the medical schools. It would therefore be expecting too much if we were to cavil at a local authority for neglecting to recognise the value of the evidence of special training which is afforded by the possession of certificates in sanitary science. Progress is necessarily slow, but the disappointment which is felt by such a circumstance as that to which we refer must serve as no discouragement to those who are looking forward to a career in public health. We do not doubt that in the future preventive medicine as a public service will occupy all the position it deserves.

EPIDEMICS OF MEASLES.

THERE have been during the past six months numerous severe epidemics of measles. In the metropolis there was a diminution in the fatality from this disease during 1886, as compared with the average for the decennial period 1876-85, but since the commencement of this year several localised epidemics have occurred. In a similar way measles has been widely prevalent in several of the large towns and cities of the kingdom. In Liverpool 472 cases and 70 deaths came under notice between April 1st and 14th, and during the month of March there were 788 cases, of which 107 were fatal. At the last meeting of the Health Committee, Dr. Taylor, the medical officer of health, stated that there was no hospital accommodation, and that for want of this the disease had spread, and many lives had been lost in consequence. In Sunderland there is also an extensive prevalence of the disease, the fatal attacks in the four weeks of the period March 19th to April 9th having been 17, 29, 19, and 26 respectively. And again, in Aberdeen, an epidemic commenced at the close of last year. Thus, 127 cases of measles were reported in the months of November and December, 158 in January, 762 in February, and during March there were no less than 1653, with 138 deaths. Measles is unfortunately a disease against which hardly any precautions are taken by the majority of parents; many being under the false impression that every child must have the disease sooner or later, and therefore the sooner it is over the better. But measles, like small-pox or scarlet fever, is contracted from an antecedent case, and hence it can to a large extent be avoided. Isolation of cases in hospital is not so easily effected as in several of the other infectious fevers, because the disease is so infectious in an early stage when it cannot positively be recognised, and consequently the mischief is often done before prophylactic measures can be adopted. But in a large proportion of cases the spread of the disease could be prevented if parents and school officials only took pains to check the dissemination of the infection. Measles is at times a very fatal disease, and hence it is one that ought to be prevented as far as prevention is possible. Thus, whereas in 1886 the deaths in England and Wales for scarlet fever were 5895, from "fever" 5831, and from small-pox 284, there were no less than 11,576 fatal attacks of measles.

ISLE OF WIGHT SANITARY ADMINISTRATION.

THE Isle of Wight rural district is becoming proverbial for its sanitary difficulties. Another has just arisen. A man who is certainly not a pauper—he being in receipt of his club money—contracts small-pox. No hospital is available except that at the workhouse, and the patient distinctly refuses to allow himself to be isolated there if he is to be regarded as a pauper. Dr. Groves, the medical officer of health, manages, in the sanitary interests of his district, to get him removed there, and the relieving officer is to be asked to make an order for his admission after the admission has been effected. Thus the man is made a pauper whether he likes it or not. The subject in its legal bearings having been discussed by the authority, Dr. Groves was instructed to confer with the clerk and the workhouse medical officer as to the best line of action in future cases. We agree with Dr. Groves that there is nothing to confer about. The workhouse hospital is not intended for such cases; it is illegal so to use it as long as it belongs to the Poor-law authority, and the sanitary authority fails to make any other provision. Until that provision is made there must be constant risk of a deadlock, and such risk cannot be put off by requesting the medical officer of health to take part in a conference with his Poor-law colleague.

GRANULOMA FUNGOIDES.

PROFESSOR KAPOSI, in a paper lately read before the Imperial Medical Society of Vienna, stated that he had seen seven cases of mycosis fungoides (three being males) and of these five had died. He discriminated three clinical types of the affection. In the first the patient suffers at the commencement from a scaly eczema of the trunk, sometimes associated with very severe itching. After from one to three years the spots on the skin become prominent and glistening; an infiltration takes place into these small nodules, which disappear or sometimes break out in other parts. In the course of months or years large fungating tumours appear on healthy skin, attaining the size of a fist, having a bluish-red colour, occasionally dense or very soft and easily compressible. These tumours are mostly seated on the trunk; next on the face, extremities, and scalp. They sometimes disappear with remarkable rapidity; new ones arise in other parts and attain colossal dimensions. Some tumours ulcerate, the ulcers having excavated margins; and after the disease has lasted some years, death takes place from fever, marasmus, or pulmonary or pleural complications

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In the second type, instead of eczema, there is an eruption of red, urticarial spots, whitish or fawn-coloured in centre, and somewhat dense to the touch. These wheal-like formations persist, extend, and become brown in colour, and the appearance is that of scleroderma or even lepra. All these formations may disappear and occur again, but the spots do not itch; and they ultimately are changed into nodules, which become fungating tumours and ulcerate, taking on the characters and the clinical course of the cases of the first type. The third variety, examples of which have not been seen by Kaposi, consists in the development of the fungoid tumours, without any antecedent process. In speaking of their histology, Kaposi differentiated them from leukæmic tumours, and disputed the discovery of cocci made by Schiff and Hochsinger; he adhered to his previous conclusion that the condition must be regarded as "sarcomatosis cuti." It is not absolutely incurable. Erysipelas is sometimes followed by a complete disappearance of the tumours, and arsenic was to be recommended. This drug was being taken by the patient shown by Prof. Kaposi to the Society—a man thirty-six years of age, who had suffered from the disease since 1875.

SMALL-POX AT PLUMSTEAD.

EVERY epidemic of small-pox is preceded by indications that the disease has a high power of infectivity, and we therefore cannot but regard with some anxiety a localised outbreak of this disease at Plumstead. In the week before last six cases of small-pox were removed to the hospitals of the Metropolitan Asylums Board, and last week a seventh case occurred in the same locality. It is now reported that these patients contracted the disease from a man who had come direct from Port Said, or, rather, from some other persons who in their turn had been infected by him. However this may be, sufficient time has not yet elapsed to show whether the outbreak has terminated, or whether we may expect its still further development. The sanitary authority for Woolwich, the district adjoining Plumstead, are unfortunately without the aid of the services of a medical officer of health, and there is ground for serious apprehension that London may thus be involved in great difficulties for want of the proper machinery for dealing with any immediate extension of small-pox in that locality. We trust the attention of the Local Government Board will be directed at once to this matter, and that the Metropolitan Asylums Board, upon whom the burden of expense of small-pox in London falls, will themselves use their influence with the Woolwich authority for preventing any such calamity as that we indicate.

TREATMENT OF CATARRHAL JAUNDICE.

DR. GLUZINSKI, writing in a Polish journal, states that in cases of catarrhal jaundice he has found excellent results follow the treatment recommended by Krull—viz., the repeated injection into the bowel of large quantities of cold water. This increases the peristaltic action of the intestines, and removes any mechanical obstacle to the flow of bile. Again, as has been shown by Röhrig and Mosler, who injected large quantities of cold water into dogs, the bile is thus rendered both more liquid and more abundant, so that it more easily overcomes any obstruction. At first water at 59° F. is injected into the bowel until the patient complains of a feeling of distension in the abdomen. He is then made to retain it as long as possible. Most patients manage to retain two litres for from a quarter to half an hour. The next day the enema is repeated, but with water about 4° higher. The temperature is again raised on each succeeding day, but when 72° have been reached no further increase is made. The reason of the increase is that the repeated introduction of cold water is apt to irritate the mucous membrane of the bowel. Altogether four or five enemata are sufficient to produce the desired effect. The increase of the biliary secretion may be judged of by the colour of the fæces. Of course, the diet is attended to in order to prevent a recurrence of the affection.

WINDSOR HOUSE DUST.

THE Windsor Town Council have had under consideration a proposal of one of their members to compel householders to provide movable receptacles for house dust, and thus give facilities to the dust collectors to remove this material. This proposal was not adopted, but it is one which the inhabitants of Windsor might readily carry into effect without compulsion. The serious delay which is now caused by the emptying of fixed dustbins must add largely to the cost of collection, and ratepayers would be acting in the interest of their own pockets in adopting a method which would effect an enormous saving in the time of the workpeople employed. There is, moreover, the great additional advantage that this method would prevent the large accumulations of offensive matter, which are now almost inevitable. Although the motion was rejected, it may be hoped it may come before the sanitary authority in some other form. The Town Council are now actively engaged in considering the steps which should be taken for the improvement of the health condition of their district, and certainly so important a subject as the removal of house refuse deserves serious attention.

INTUBATION IN LARYNGEAL DIPHTHERIA.

DR. NORTHRUP (*Medical Record*, Dec. 11th, 1886) advocates the practice of intubation of the larynx originally suggested and practised by Bouchut, and later introduced with greater success by Dr. Joseph O'Dwyer, for the relief of dyspnœa in laryngeal diphtheria. Amongst the advantages claimed for the method, he cites the simplicity of the operation and freedom from shocks, the fact that no objections can be raised to it on the part of friends, and that the subsequent care of the case requires no trained attendant. The inspired air is admitted into the lungs moist and warm; and subsequent tracheotomy is not precluded. One notable objection is the difficulty of swallowing fluids that is experienced, at least at first; and there is a danger lest the false membrane be detached and thrust into the trachea before the tube. The cases in which the method has been practised with relief to laryngeal obstruction amount to 165; and the recoveries amount to 28·5 per cent., a percentage which Dr. Northrup does not think could be shown by tracheotomy, and is the more encouraging in view of the novelty of intubation and the few hands by which it has as yet been practised.

INFECTIOUS DISEASES IN BRUSSELS.

M. DESTRÉE, in presenting the Belgian Academy of Medicine with a chart showing the course of infectious diseases in Brussels during the last six years, remarked that a glance at the chart would show that a very considerable diminution had taken place in all infections but one—viz., diphtheria,—which had been steadily increasing, until in three years the number of cases had been quintupled. He had fancied, as it is thought by some that tetanus has some relation to the keeping of horses, that possibly the occupants of the poultry-yard might in some way cause diphtheria. He therefore injected croupal membranes into pigeons, but always without result. He, however, was much struck, while attending two children in a family for diphtheria, by noticing that all the fowls and pigeons, besides the cat, died during the children's illness.

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THE MANAGEMENT OF POST-PARTUM HÆMORRHAGE.

DR. SCHÖNBERG, of the Lying-in Institution in Christiania, writing on post-partum hæmorrhage, states that the number of cases in which this occurred to a serious extent during the years 1876-1884 was 54 out of a total of 2533 labours—i.e., about 2 per cent. of all cases. He appears to have but little faith in ergot for immediate arrest of violent hæmorrhage, either administered internally or as ergotine injections. In the case of women subject to hæmorrhage he advises a course of tonic strengthening treatment during pregnancy. When hæmorrhage occurs the coagula must be expelled by external manipulation, and then he finds that the most advantageous plan of immediately arresting the flow is to close the os uteri by compression. He refers to Hamilton's paper in the *Edinburgh Medical Journal* for 1850, and to Fasbender's similar plans described in 1869, without apparently any knowledge on the author's part of Hamilton's previous work. The Norwegian surgeon introduces the fingers of one hand into the vagina, the tips reaching to the anterior fornix, and pressing the anterior lip of the os backwards. The other hand grasps the uterus externally, anteflecting it while the fingers compress it from behind against the fingers of the other hand, the os being thus mechanically closed. Dr. Schönberg is inclined now to prefer cold to hot injections, notwithstanding the great estimation in which the latter are beginning to be held. He warns obstetricians not to administer irritants too freely, as they set up nausea, and this adds to the condition of collapse. He has, however, latterly been in the habit of giving teaspoonful doses of a concentrated solution of common salt with excellent results.

ACTION OF DRUGS ON GASTRIC MOVEMENTS.

SOME excellent researches are still in process of conduction by Schütz, on the action of some medicaments on the movements of the stomach. Emetine, tartar emetic, apomorphine, strychnine, in a less degree caffeine, veratrine, chloride of barium, nicotine, and pilocarpine in small doses, act as direct excitants of movements of the stomach, which become spontaneous and of abnormal character. Muscarine directly stimulates the terminal ramifications of nerves, in causing generalised contractions of the stomach. Physostigmine, digitaline, scillitine, and helleborine produce an increase in the excitability of the muscular coats in such a fashion that the stomach at a given time is agitated by generalised and prolonged contractions. Actual paralysis of the auto-motor centres has not been observed, but chloral, urethane, morphine, pyrophosphate of zinc, arsenic, as well as nicotine and pilocarpine, in large doses, have caused weakness of the gastric contractions. Paralysis of the terminal branches of the nerves has only been obtained by atropine. Ether and chloroform suppress the excitability of all the innervation apparatus, but only during the time when the stomach is exposed to the direct action of the vapours. During anæsthetic sleep the gastric movements are not influenced.

A SYPHILITIC PLACENTA.

M. DEBRAY described at a recent meeting of the Brussels Anatomical and Pathological Society some peculiar appearances presented by the placenta of a woman who said she had had syphilis a year before her confinement, but who certainly had chancres and a specific roseolous rash at the time. The confinement was at term, and the placenta was removed with some difficulty three hours after the child was born. It was hard and abnormally small. Microscopic examination showed the presence of connective tissue fibres and of numerous plastic elements lying between the connective tissue bundles and forming arterio-sclerotic rings round the vessels.

THE "VICTORIA" DISASTER.

WE regret to see among the list of missing passengers from Newhaven to Dieppe by the ill-fated steamer *Victoria* the name of Mr. F. T. A. O'Meara, L.R.C.P.Lond., M.R.C.S.E., resident accoucheur at King's College Hospital. Mr. O'Meara intended spending a short holiday in Paris, previously to entering on his duties as house-surgeon to Sir J. Lister on May 1st. He entered the medical department of King's College in 1881, and was a prizeman in anatomy surgery, clinical surgery, and obstetric medicine. He also obtained the special prize in Diseases of Women and Children instituted in memory of the late Dr. Tanner. Mr. O'Meara was one of the most intelligent students at King's College, and had gained the affection and regard of all his teachers, fellow-pupils, and colleagues. His loss—for we fear that there is now little hope of his having been saved—is deeply deplored by everyone who knew him.

ALBUMINURIA IN DIABETES.

DR. A. POLLATSCHEK of Carlsbad has published (*Zeitschr. f. Klin. Med.*, xii., 4) some statistical results of the systematic examination of diabetic urine for albumen, with a view to determine whether the occurrence of the latter varies in proportion with the amount of sugar. He found that out of 1187 specimens containing sugar, in amounts varying from traces to as much as 5 per cent., there occurred more or less albumen in 437. The percentage (37) was almost the same, when reckoned on the cases examined in 1885, as on those of 1886, showing a curious uniformity. By grouping the specimens of urine according to their richness in sugar, he shows that there is no constant relation between the amount of albumen and of sugar—the lowest number of albuminurics (29·1 per cent.) occurring in cases of urine with a minimal quantity of sugar, and the highest (43·8 per cent.) in urines having from 2 to 3 per cent. of sugar.

INSPECTORSHIPS OF EXAMINATIONS.

THE Branch Councils in the different divisions of the kingdom are busily engaged in selecting names for recommendation to the General Council in May for appointment as Inspectors of Examinations under the Medical Act of 1886. These appointments should not be mere sinecures, and the profession will expect that they shall be made with much care and impartiality, so that the bodies may all feel that their work is to be ably and impartially judged. The Branch Council for England will meet mainly for this purpose on May 2nd.

COMA FROM ANTHRAX.

THE interesting and in many respects remarkable case which is recorded in another column by Dr. Reilly is perhaps most noteworthy from the insignificant attention given by the patient and his friends to the "boil" at the back of his neck. The state in which the patient was found might have been due to very many causes, but the brief, though clear history, the occupation, and the presence of the malignant pustule, proved sufficient to establish the true nature of the case. It is to be regretted that a necropsy was not allowed.

DEATHS OF EMINENT FOREIGN MEDICAL AND SCIENTIFIC MEN.

THE deaths of the following foreign medical and scientific men are announced:—M. A. Norbert Michot, the veteran Belgian botanist, at Mons, in his eighty-fifth year. Staff-Surgeon-General Dr. Karl Ritter Heidler von Egeregg of Vienna, in his seventy-seventh year

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EMPLOYES OF OMNIBUS AND TRAMWAY COMPANIES.

IT is strange that we should still be asked to direct attention to the hard case of the drivers and conductors of omnibus and tramway companies. It really needs no medical knowledge to see the injustice of exacting sixteen hours' work a day from these officials. Such hours give no fair time for rest, or recreation, or home life. It is pitiable to see the men at their principal meals, bolted furtively, often in the car, and before the passengers eager to be off. If the cupidity of shareholders is so great as to blind them to this cruelty, legislation should be invoked. We are opposed to over-legislation. It should not be necessary to invoke the assistance of the Legislature for such a purpose, but if the end cannot be secured otherwise, this step must be taken. The Legislature grants great privileges to tramway and omnibus companies. It has a right to insist that they discharge their duties to the public, and "are merciful to" their men as well as to "their beasts." We have before us a petition to the members of the House of Commons, signed by numerous medical men, urging the reduction of the hours. We heartily support the petition.

ELECTRIC LIGHTING IN THE HOMERTON INFIRMARY.

THE guardians of the Hackney Union have provided their new infirmary at Homerton with electric light, acting on the recommendation of their medical officer, Dr. Miller. Altogether there are 110 incandescent lamps, each of which is of sixteen-candle power; of these many are used for illuminating the corridors, the greater number of the remainder being in the six largest wards, containing in each sleeping accommodation for forty patients. Thus, for the lighting of a ward, the lamps are arranged in groups of three, and four groups are found sufficient, an additional incandescent lamp being provided for night purposes. There is no doubt that electricity, as compared with gas, affords considerable health advantages, and it is probable that the success which has attended the use of this light in the Homerton Infirmary will lead to other institutions following the example which has been set them. The motor power has been provided by a small alteration of the machinery used for pumping water.

ARMY HOSPITAL CORPS IN THE UNITED STATES ARMY.

WE learn from the Washington Army and Navy Register that a law has been passed providing for the organisation of an Army Hospital Corps, and that the Surgeon-General is about to bring it into operation as soon as possible. In the first instance, it will be raised by volunteers from the regiments of the line, but it is probable that afterwards it will be kept up by recruits specially enlisted for this service.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—The veterinary school, which has increased the number of its students threefold during the last ten years, is now raised to the position of a *Hochschule* or university.

Gratz.—Dr. Rudolf R. Jaksch von Wartenhorst has been appointed Extraordinary Professor of the Diseases of Children.

Prague.—Dr. Friederich Ganghofner has been appointed to the Chair of the Diseases of Children in the German University.

AT the annual graduation ceremonial in connexion with the Edinburgh University on the 20th inst., the degree of Doctor of Law was conferred upon Professor Kölliker of Würzburg.

ON May 8th the Federation of the Italian Hygienic Societies will hold its first Congress in Florence. The sittings will last till the 10th and among the proceedings will be a discussion on the new code of public hygiene submitted to the Italian Senate by the Prime Minister, Depretis, and a paper by the Senator, Professor Pacchiotti of Turin, on the "Vaccinazione Anti-rabica" of Pasteur. The great *feste*, of which during the first three weeks of May the Tuscan capital will be the seat, form an attraction of which the promoters of the Congress will avail themselves for enhancing the success of their inaugural meeting.

WE regret to notice the death, on the 3rd inst., of Mr. John Kirkman, at his residence at Brighton. The deceased, who was in his ninety-third year, was for forty-five years (1831 to 1876) superintendent of the Suffolk County Asylum. His name was well known in connexion with the non-restraint system of treatment of the insane.

OUR contemporary the *Echo* kindly gives prominence to the report that one of the few physicians in Brooklyn opposed to vaccination has contracted small-pox from a patient, and that there is little hope of his recovery. We hope he may have a better fate than his folly deserves.

THE President and Council of the Medical Society of London will give a conversazione at the Society's rooms, 11, Chandos-street, Cavendish-square, on Monday, May 2nd. An oration will be previously delivered by Sir William Mac Cormac, F.R.C.S.

DR. W. JULIUS MICKLE was elected some time ago a vice-president of the section of Psychological Medicine and Nervous Diseases at the International Medical Congress.

SIR SPENCER WELLS and Professor BILLROTH have been appointed Honorary Members of the German Surgical Society, which is now in session at Berlin.

A BILL to amend the Acts relative to lunacy has just been issued.

ABSTRACT OF

LECTURES ON MALARIAL FEVERS.[1]

BY W. NORTH, B.A., F.C.S.,
LATE RESEARCH SCHOLAR OF THE GROCERS' COMPANY.

LECTURE I.

THEIR DISTRIBUTION AND THE GENERAL CONDITIONS UNDER WHICH THEY PREVAIL; HISTORY OF THEM IN THE PROVINCE OF ROME.

THE wide distribution of malarial fevers, their disastrous effects upon the population of countries in which they prevail, and the obstacle they constitute to all material progress, are not generally realised; whereas this subject is one which should attract the attention of Governments, inasmuch as these diseases materially increase the cost of administration. We as a nation have had a vast experience of them, and the literature of the subject is enormous, but withal little or nothing has been done towards understanding their etiology, or the precise conditions necessary for their existence or production.

If we examine the malaria chart of the world, we cannot fail to be struck by the gradation of the disease from the Equator to the Poles, and by the characteristics of the countries where it prevails. They are briefly countries where nature has her own way, and swamps, jungle, and

[1] Delivered at the London Institution, April 18th, 1887.

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virgin forest abound. The map suggests a relation of the disease to temperature and water. If we compare the malaria chart of Europe with a physical map of the Continent, the relation of the disease to low land, abundant water, and hot, moist climate is very evident. Make the same comparison between a physical map of Italy and the map of Senator Torelli, showing the local distribution of the malaria, and the relation of the disease to altitude of the land, to water, and to temperature becomes a certainty. A study of the local distribution and variations of intensity of malarial fevers in the province of Rome shows us that local conditions have a most important bearing on the subject, and are therefore worthy of minute and careful examination; the general conclusions drawn from the consideration of large areas are still found to apply, and we find the disease to be generally most severe on low-lying land—in valleys and marshy districts. An examination of the distribution of the population in the province of Rome shows us that the usual order of things is reversed, and that, whereas in most civilised countries the population is densest in the plains and least dense in the mountains, in the province of Rome exactly the reverse is the case, and we find the mountain population stands to that of the plains in the ratio of sixty-eight to twenty-eight persons per square kilometre. This startling exception to a well-recognised rule leads us to inquire whether political causes have led to the abandonment of the plain and the malaria has simply stepped in and taken possession, or has the malaria itself been the cause of this abandonment; and in either case, when did the causes begin to operate? This is a historical question of the very greatest interest, and also of the very greatest importance to the subject, as tending to show what are the conditions necessary for the development and spread of malarial fevers. There is, however, one very great difficulty in the inquiry, and that is that malaria develops so slowly that, unlike the "black death" or the "sweating sickness," it does not attract the attention of the historian, and thus we are driven to argue its presence or absence and its intensity from the history of individual localities. The one great fact that we have as a starting-point is that in even the later days of the Roman Empire places now absolutely uninhabitable were not only inhabited, but held in high esteem by the Romans as health-resorts, so much so that the whole coast line of the province was covered with their villas and country houses, of which we can see the ruins to-day; and we know from the writings of Pliny and others that these villas were maintained in a state of luxury and magnificence, quite incompatible with the presence of such an enemy to health as malaria. There is some evidence, however, that the Pontine district was not all that could be desired even in those times, and Seneca advises a friend to avoid the neighbourhood of Ardea as not being very healthy. The invasions of the Goths swept away these villas and the high cultivation which surrounded them, the gardens and sacred groves were destroyed, and the population driven to the hills and secure places. Rome itself sank almost to insignificance, the destruction done by the Northern barbarians was never repaired, and the Campagna continued the battle-ground of Saracens, Lombards, rival popes, and barons, rendering a return to the ancient civilisation almost hopeless. In the seventh and eighth centuries we hear of fever, not isolated but wide spread, and of serious attempts by various popes to recolonise and cultivate the desolate country. The so-called Domuscultæ were established, with the double object of military defence and the reclamation of the land, on the site of places which flourished under the empire; but they do not appear to have been successful, or at most, only partially so, and though some of them exist at the present day—e.g., the Isola Farnese, the site of the ancient Etruscan City of Veii,—they are only aggregations of hovels, and so unhealthy that the population desert them in the summer and autumn.

Thus we see that the Campagna was abandoned from causes purely political, and nature was allowed her own way in a country where the unceasing toil of man is required to keep her under control. There can be no doubt that the reckless destruction of trees which has gone on steadily ever since it was begun by the Goths has played a most important part in altering the local conditions and local climate of the country, and in comparatively recent times the reckless cutting of timber in the mountains has caused the streams which rise in them to become uncontrollable and destructive, converting large areas of the lowland into bog and swamp, and rendering cultivation difficult and unprofitable. Our inquiry, therefore, leads to the conclusion that from political causes the local condition of the Campagna have been most profoundly altered, and that *pari passu* malaria has arisen and increased in intensity. A minute examination of the relation of local conditions to the disease will form the subject of the next lecture.

CLASS MORTALITY STATISTICS.

IT is not easy to overrate the importance of the subject of a paper read before the Royal Statistical Society on Tuesday evening last by Mr. Noel A. Humphreys, of the Registrar-General's Department. For elucidating the true value of local rates of mortality we have urban and rural death-rates, we have death-rates at different age periods, we have death-rates from different causes, and we have the death-rates of male adults engaged in different occupations. Till recently, however, we have known very little of the rates of mortality prevailing in the different classes of society. The object of Mr. Humphreys' paper was to discuss existing mortality statistics throwing light upon this important subject, and especially to examine critically the full bearing of the statistics issued during the last few years by Dr. Grimshaw, the Registrar-General of Ireland, dealing with the mortality prevailing in various social classes of the population of Dublin.

On account of the marked variations of the age proportions of the various social classes of the population, the only thoroughly satisfactory method for comparing the mortality statistics of such classes is by the construction of life tables, and the first part of the paper is devoted to the examination of the principal English life tables, and especially of those which throw any light upon the special subject of the paper. It is pointed out, in the first place, that the various English life tables based upon the general population show a marked and steady increase in the mean duration of life in recent years. The Carlisle table gives 39 years as the mean duration of life, whereas Dr. Farr's table, based upon the mortality of the 17 years 1838-54, gives 41 years; a table based upon the mortality of the five years 1876-80 gives 44 years; and the mortality of the next five years, 1881-5, shows a still further extension of life. Dr. Farr's healthy district table (based upon the mortality statistics of sixty-three registration districts in which the mean death-rate in the ten years 1841-50 did not exceed 17 per 1000) gives 49 years as the mean duration of life. Very few life tables based upon class mortality statistics exist. The most important examples of the class life tables referred to by Mr. Humphreys are Bailey's and Day's Peerage Tables, Ansell's Tables of Upper Classes, and Hodgson's Clergy Tables. Although not, correctly speaking, class tables, the Experience Tables of the Institute of Actuaries, and of the American Life Offices, throw valuable light upon the mortality of insured, and therefore of selected healthy lives, belonging, for the most part, to the middle and upper classes. Ansell's Upper Class Table gives a mean duration of life of 53 years—an increase of four years upon that by the Healthy District Table. Unfortunately, it appears that no life table of the working classes exists, although the mortality statistics issued by Dr. Grimshaw for the General Service Class in Dublin are such as to suggest that the mean duration of life in this class can scarcely, if at all, exceed that by Dr. Farr's Liverpool table—namely, 26 years.

An examination of these several life tables shows that the mean duration of life is mainly controlled by the rate of mortality in childhood. In all the life tables based upon the mortality statistics of the general population, the mortality during infancy and early childhood is so great that the expectation of life is greater at ten years of age than it is at birth. By Dr. Farr's English Life Table, for instance, the expectation at birth is 41 years, while at age 10 it is 47 years; and even by the Healthy District Table it is 49 years at birth and 51 years at age 10. Ansell's Upper Class Table, however, has such a comparatively low rate of child mortality that the expectation of life is 53 years at birth, which declines to 52 years at age 10. The variations in the annual death-rate of children under five years of age by the different

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tables is very noteworthy; it is 65·7 per 1000 by the English Life Table (Dr. Farr's No. 3), and 39·4 by the Healthy District Table, while by Ansell's Upper Class Table it does not exceed 28·2. Dr. Grimshaw's statistics show a rate of only 22·0 among children of the professional and independent class in Dublin during the three years ending 1885.

Subsequently to childhood the greater vitality of the middle and upper classes, compared with that of the general population, is only somewhat less marked than it is under five years of age.

The most recent statistics of occupational mortality, constructed by Dr. Ogle, and issued by the Registrar-General, although not coming within the scope of class mortality statistics, as they only deal with adult males, throw, at any rate, a side-light upon the subject. Taking the mortality of all males aged 25 to 65 years as 1000, the relative mortality of males engaged in different occupations, after due correction for age differences, is shown by Dr. Ogle to range from 556 for "Clergyman, Priest, Minister," 599 for "Gardener, Nurseryman," 631 for "Farmer, Grazier," and 701 for "Labourer in Agricultural Counties"; to 1839 for "Miner (Cornwall)," 1879 for "Costermonger, Hawker, Street Seller," 2090 for "General Labourer (London)," and 2205 for "Inn, Hotel Servant." Many of these differences are evidently due far more to the influences and risks of occupation than to the mere influence of class; and it seems probable, however, that the wide difference between the mortality of labourers in agricultural counties and labourers in London must be mainly due to difference of housing and sanitary surrounding, as both classes probably suffer about equally from poverty, hard work, and hard living.

As information of the variations of child mortality in the various classes is essential to a full appreciation of the lesson to be learned from class mortality statistics, Dr. Grimshaw's statistics, notwithstanding defects, in great measure unavoidable in such an experiment, are especially valuable. They demand attention, in the first place, to the marked variations in the age distribution of the population in different classes. For instance, 1000 of Dr. Grimshaw's professional and independent class contain only 75 children under five years of age, instead of 121 in the artisan class. Then the proportion per 1000 of persons aged upwards of sixty years is 158 in the professional and independent class and only 63 in the artisan class. Mr. Humphreys shows that given identical rates of mortality in each of Dr. Grimshaw's four classes, at each age period, the death-rate at all ages would, owing alone to the differences of age distribution, range from 19·5 in the middle class to 25·2 in the professional class. The actual mortality in the classes differs, however, very widely in the other direction. If 1000 be taken to represent the mortality that would occur in each class if English life-table rates prevailed, the mortality in Dublin in the three years 1883-4-5, in Dr. Grimshaw's four classes, corrected for age differences, was equal to 632 in the professional and independent class, 1093 in the artisan class, 1333 in the middle class, and 1659 in the general service class.

The variations in the death-rates at different age periods in the several classes is especially striking. Thus, the mean annual mortality under five years is just five times as great in the general service class as in the professional and independent class. The difference at the next age-period, 5 to 20 years, is almost as great, and in each of the three age-periods of adult life the rates of mortality are more than twice as high in the general service class as in the professional and independent class.

The rates of mortality from various causes of death show fully as wide differences as do the death-rates at different ages. For instance, mortality from measles is nearly ten times as great in the general service class as in the professional and independent class; from whooping-cough, more than four times as great; from scarlet fever, more than twice as great; from diarrhœa, nearly three times as great; from typhus, nearly five times as great; from phthisis, more than four times as great; from lung diseases, more than three times as great; from convulsions, nearly thirteen times as great; and from violence, more than five times as great in the general service class as in the professional and independent class.

In concluding his analysis and discussion of Dr. Grimshaw's figures, Mr. Humphreys urges the necessity for further investigation in the same direction, and expresses the hope that medical officers of health and others may follow Dr. Grimshaw's lead and improve upon his statistics. Calling special attention to the near approach of the death-rates among the clergy and labourers in agricultural counties, he urges a stronger faith in the possibility of reducing the present wide range between the death-rates of the upper and of the working classes. Comparing the rates of labourers in agricultural counties and of labourers in London, it is suggested that this is due not so much to difference of poverty and hardship, but to the unhealthy homes and impure air from which the London labourer mainly suffers. The marked reduction in the working-class mortality, especially of infants, in the Peabody buildings, points, at any rate, to one effective method of bringing the mortality of the working classes within sanitary control. These and other similar facts indicate further possible reductions in the now rapidly declining English death-rate, the possible extent of which it is not easy to estimate.

THE LUNACY ACTS AMENDMENT BILL.

A MEETING of the Council of the Poor-Law Medical Officers' Association, to which workhouse medical officers had been invited, was held at their rooms, 3, Bolt-court, Fleet-street, on April 14th. Prior to commencing the business of the evening, a unanimous feeling of regret was expressed at the continued absence from the chair of Dr. Joseph Rogers, owing to severe illness. Clause 14, subsections 5 and 6, of the Lunacy Acts Amendment Bill was then discussed, and it was considered by the Council and visitors present that the alteration of the clause by the Parliamentary Bills Committee of the British Medical Association fully met the requirements of the case, and the secretary was requested to write to the chairman of that committee to tender the co-operation of the Association, in what manner it may be deemed advisable, with a view to having the obnoxious clause amended in the Commons. It was also suggested that the word *shall* be substituted for *may* in Clause 19, line 4, which refers to the payment of fees by the guardians under orders of the justices. The opinion of the secretary of the Lunacy Commissioners as to the great value of the certifying of pauper lunatics by the workhouse medical officer was considered important in reference to the amendments proposed.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Chailey Rural District.—The general survey of sanitary districts carried out by the Local Government Board was extended to this area, and Mr. Graveley reports that as a consequence special attention was devoted to the drainage of several villages, to the abatement of nuisances from the keeping of animals and from filth accumulations, and to the enforcement of bye-laws. The current systematic inspections were also carried out during the year, and the dairies and milkshops were placed under supervision. The annual death-rate for 1886 was 15 per 1000. Six deaths occurred from typhoid fever, the disease originating in an encampment of people travelling in vans.

Coventry Urban District.—Owing to the prevalence of measles in the city, and its extension on such a rapid scale that hospital isolation could not check it, the closing of elementary schools became a necessity. Dr. Fenton explains that this step involved to the school managers and teachers a loss of £110, and hence that it is a serious one to adopt. It has generally been assumed that any loss of grant accruing from actual closure of schools would be made good if the closure were effected under the regulations of the education code; and it is certain that this should be so, otherwise a great hindrance is placed in the way of checking the spread of disease. In eight weeks ending with the second week of October, 570 fresh attacks took place, the schools being open. School closure was then resorted to, and the new attacks fell in three weeks from 76 to 10. They were then reopened,

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th an increase to 23 and then to 42 a week. The fresh break was found to be associated with one single school, d this being closed a second time, the disease subsided. nongst the other matters dealt with in Dr. Fenton's port is an account of the use made of the excellent hos-al for infectious diseases. As already implied, it could t be much used for measles, but 111 patients were mitted, 84 of these suffering from scarlet fever. Formerly ık followed on the sending of children home direct from e hospital, but under the arrangements now in force the mmunication of infection by this means has virtually en put an end to. Excellent work was also done during ıe year as to disinfection, 3140 articles and 91 houses being ubmitted to that process.

Halifax Urban District.—With a population of 78,287, ıe death-rate for 1886 was 22·2 per 1000. The borough ospital received 48 cases of infectious disease, 18 of these eing typhoid fever; there were also 16 deaths from diph-neria in the borough, but no cases of this disease were eceived into the hospital. Amongst the matters needing eform to which Dr. Ainley refers is the scavenging of the oads, which is evidently badly carried out, causing needless ffensiveness to the public, and especially to the tradesmen n the principal lines of traffic. The report of the sanitary nspector shows an excellent amount of work, carried out with efficiency and regularity.

Lytham Urban District.—During 1886 there was an in-rease in the number of cases of enteric fever, most of the ttacks being associated with obvious faults in sanitary arrangements. Good work is steadily in progress in the matter of the removal of excreta and refuse from the vicinity of dwellings; and many of the old-fashioned privies, which cause such abominable nuisance, have been done away with. Complaint as to sewer ventilators has been found to be occasioned by fault in the tributary sewers. Both these and house drains joining them, if faulty, are likely to cause nuisance in an otherwise good system of sewers. Deducting the sad loss of life which occurred in the seven lifeboatmen who were drowned during the year, the death-rate was 16·3 per 1000, the birth-rate being 26. *Preston Port* is also in Dr. Eason's district, and as to it he states that he has had no occasion to inspect any vessel on account of infectious disease. We hope we may assume that inspection is not limited to such instances. The main value of port sanitary inspection is to secure a gradual improvement in the sanitary circumstances of the vessels and crews entering the several ports, and we regard it of even more importance to make a regular chronicle of the results of such preventive work than to record action taken on the occurrence of such diseases as would largely be prevented by systematic sanitary inspection.

Sunderland Port District—Considerable vigilance was necessary in this port during the past year owing to the recurrence of cholera in Europe. The number of vessels clearing from the port was 6982, and of these 2223 were inspected for sanitary purposes. There were 37 written notices served in consequence, all of which were complied with; and 289 verbal notices were also met in the same way. Of the British ships inspected, 15·9 per cent. were in an insanitary condition, compared with 10·2 per cent. of all foreign ships examined. This reflection upon British ships applies in the main to those engaged in the coasting trade, of which 5437 cleared from Sunderland, and the defects complained of relate not so much to structural defects as to great and inexcusable carelessness. The Danish and Dutch cargo ships entering the port are typical examples of cleanliness, and this notwithstanding the fact that they are usually built of wood, and that many are old. Mr. Harris has pointed this out in the hope of inducing a greater amount of care amongst the masters of British cargo ships.

Watford Urban District.—This town, which has at intervals suffered, a good deal from diphtheria, had some recurrence of the disease last year, but both diphtheria and other infectious diseases were isolated in the sanitary hospital. At one time the sewers were credited with mischief; they are now flushed every fortnight, and a disused chimney shaft is to be brought into requisition for the ventilation of one portion of the system. Unfortunately, houses are being built where they cannot at present be sewered, and hence cesspools are resorted to. It is to be hoped that modern bye-laws control the construction of such receptacles, thus keeping them at a distance from dwellings and water-supplies, and preventing any escape either by soakage or overflow. The death-rate during 1886 was 18 per 1000.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5806 births and 3696 deaths were registered during the week ending April 16th. The annual rate of mortality in these towns, which had been 23·5, 21·6, and 20·5 per 1000 in the preceding three weeks, was last week 20·9. During the first quarter of this year the death-rate in these towns averaged 20·0 per 1000, and was 2·2 below the mean rate in the corresponding quarters of the ten years 1877-86. The lowest rates in these towns last week were 10·6 in Brighton, 14·5 in Halifax, 17·0 in Cardiff, and 17·8 in Derby. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had increased in the nine preceding weeks from 340 to 502, further rose last week to 510; they included 266 from measles, 115 from whooping-cough, 45 from scarlet fever, 32 from diphtheria, 26 from diarrhœa, 24 from "fever" (principally enteric), and only 2 from small-pox. These zymotic diseases caused the lowest death-rates last week in Birkenhead and Derby; and the highest rates in Norwich, Hull, Sunderland, Manchester, and Huddersfield. The greatest mortality from measles occurred in Manchester, Sunderland, Norwich, and Huddersfield; whooping-cough in Oldham, Plymouth, and Blackburn; and scarlet fever in Bristol. The 32 deaths from diphtheria in the twenty-eight towns included 21 in London, 2 in Bristol, and 2 in Liverpool. Small-pox caused 1 death in Greater London and 1 in Blackburn, but not one in any of the twenty-six other large provincial towns. Seven cases of small-pox were under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease; no new case was admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 509, 417, and 363 in the preceding three weeks, rose again to 363 last week, and were 107 below the corrected average. The causes of 76, or 2·1 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Salford, Newcastle-upon-Tyne, Portsmouth, Preston, Norwich, Plymouth, and Derby. The largest proportions of uncertified deaths were registered in Liverpool, Huddersfield, and Brighton.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined in the preceding four weeks from 26·2 to 22·9 per 1000, rose again to 23·7 in the week ending April 16th; this rate exceeded, however, by 2·8 the mean rate in the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 13·0 in Perth and 15·8 in Leith, to 27·3 in Glasgow and 33·7 in Aberdeen. The 593 deaths in the eight towns last week showed an increase of 20 upon the number in the previous week, and included 36 which were referred to whooping-cough, 28 to measles, 10 to scarlet fever, 7 to diarrhœa, 6 to "fever" (typhus, enteric, or simple), 4 to diphtheria, and not one to small-pox; in all, 91 deaths resulted from these principal zymotic diseases, against 127, 111, and 102 in the previous three weeks. These 91 deaths were equal to an annual rate of 2·6 per 1000, which was 0·3 below the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 31 and 33 in the preceding two weeks, further rose to 36 last week, and included 15 in Glasgow, 9 in Edinburgh, and 6 in Aberdeen. The deaths from measles, on the other hand, which had been 58 and 43 in the previous two weeks, further declined last week to 28, of which 14 occurred in Aberdeen and 10 in Glasgow. The 10 fatal cases of scarlet fever, including 4 in Edinburgh, 3 in Glasgow, and 3 in Dundee, exceeded those in the previous week by 4. Of the 7 deaths attributed to diarrhœa, showing a considerable decline from the numbers in recent weeks, 4 occurred in Glasgow and 3 in Edinburgh. The 6 and 4 deaths referred respectively to "fever" and diphtheria differed but slightly from recent weekly numbers; 2 from "fever and 3 from diphtheria were returned in Glasgow. The deaths from acute diseases of the respiratory organs in the eight towns, which had declined in the preceding four weeks, from 152 to 110, rose again last week to 126, and exceeded the number in the corresponding week of

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last year by 4. The causes of 55, or 9 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 31·3 and 30·0 per 1000 in the preceding two weeks, rose to 34·1 in the week ending April 16th. During the first quarter of this year the death-rate in the city averaged 30·9 per 1000, the mean rate during the same period being but 17·8 in London and 19·4 in Edinburgh. The 231 deaths in Dublin last week showed an increae of 28 upon the number returned in the preceding week; they included 7 which were referred to measles, 6 to "fever" (typhus, enteric, or simple), 4 to scarlet fever, 4 to whooping-cough, 1 to diarrhœa, and not one either to small-pox or diphtheria. Thus 22 deaths resulted from these principal zymotic diseases, against 18 and 15 in the preceding two weeks; they were equal to an annual rate of 3·3 per 1000, the rates from the same diseases being 2·2 in London and 3·6 in Edinburgh. The fatal cases of measles exceeded the number returned in any previous week of this year, and the deaths from "fever," scarlet fever, and whooping-cough showed an increase upon those in the previous week. The deaths both of infants and of elderly persons also showed an increase upon the numbers in the previous week. Eight inquest cases and 9 deaths from violence were registered; and 78, or a third, of the deaths occurred in public institutions. The causes of 37, or 16 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

Deputy Surgeon-General W. Cattell has been appointed Principal Medical Officer at Cork.

Deputy Surgeon-General Sir J. A. Hanbury, K.C.B., embarked on the 21st inst. for Gibraltar, to take over the duties of Principal Medical Officer.

Surgeon General Simpson, Sanitary Commissioner with the Government of India and head of the Indian Medical Service in Bengal, comes home shortly in anticipation of his retirement from the service next autumn.

INDIA OFFICE.—The Queen has approved of the following admissions to the Indian Medical Service:—To be Surgeons (dated September 30th, 1886): Bengal—Robert Joseph Macnamara, M.D., Herbert Wilson Pilgrim, George Brooke French, Francis Wyville Thomson, Edwin Harold Brown, Charles Norman Bensley, Selby Herriot Henderson, David Wilson Scotland, Charles Robert Mortimer Green, James Henderson Sellick, Edward Christian Hare, Frank Cecil Clarkson, John Gregory Jordan, John Digby Marsh Swinburne, Herbert Mackinlay Morris, Allan Rupert Postance Russell, James Morwood, M.D., and Edmund Alexander William Hall. Madras—Gilbert Capel Hall, Richard Henderson Castor, Frederick Geo. Maidment, Marie Joseph Toby Joinville Blancard, and Ignatius Purcell Doyle. Bombay—Blenman Buhot Grayfoot and Thomas Edward Dyson.

The following Officers, whose admission to the Indian Medical Service (Bengal) has already been notified, should have been placed in the following order:—William Grant Thorold, Patrick Hehir, Lionel John Pisani, Basanta Kumar Basu, Narendra Prasanna Sinha, Wm. Rice Edwards, Charles Mactaggart, John Fenton Evans, George James Hamilton Bell, Joseph Thomas Daly, Henry Fooks, Ernest Hudson, Arthur Cecil Deare, Arthur William Dawson, William Henry Banner Robinson, and Henry Anderson Sheppard.

ADMIRALTY.—Staff Surgeon Robert George Bird has been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet (dated April 11th, 1887).

The following appointments have been made:—Surgeon Thomas Nunan, to the *Wasp* (to date from 21st inst.); Mr. James P. Smith, to be Surgeon and Agent at Ullapool; and Mr. T. E. Mellerick to be Surgeon and Agent at Waterville.

RIFLE VOLUNTEERS.—5th Durham: Surgeon and Honorary Surgeon-Major P. Brown resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the corps on his retirement (dated April 16th, 1887). 1st Shropshire: George Hopton, Gent., to be Acting Surgeon (dated April 16th, 1887).

Correspondence.

"Audi alteram partem."

PUNCTURE BY TROCAR OF THE TYMPANITIC ABDOMEN IN PUERPERAL CASES.

To the Editors of THE LANCET.

SIRS,—May I be allowed to correct an error into which Dr. W. O. Priestley has inadvertently fallen, through my fault, in his note on the above subject in your issue of April 9th. After remarking that Major Franklin had said that he recollected some suggestion of mine concerning tapping in such cases, he adds, "and Dr. Hicks tells me that though he had suggested it as applicable under certain circumstances, he had not himself employed it." At the time Dr. Priestley spoke to me on this subject I did not remember that the last of four published cases which I had myself done was after a case of Cæsarean section. This case occurred in 1867. The report was read before the Obstetrical Society of London in 1868, and published in vol. x., 1869. In one of your contemporaries of that year the matter was discussed by others as well as myself, cases being narrated, and questions of priority raised showing that a number of quite independent practitioners had been relieving tympany by trocar; but it appeared that it had been employed in France earlier than here. It was afterwards discussed in the Clinical Society and published in its Transactions. I believe that with care this operation might be had recourse to more frequently than hitherto in cases of severe distension, where the depression caused by the generally accompanying peritonitis is much intensified by the pressure on the sympathetic system. In any case, I can answer for an enormous relief to the sufferings of the patient, and in some cessation of the constipation resulting from the over-distension of the bowels by the gaseous contents.

I am, Sirs, yours truly,

J. BRAXTON HICKS.

George-street, Hanover-square, April 18th, 1887.

To the Editors of THE LANCET.

SIRS,—In 1875, while house-physician at St. Bartholomew's, a case of scirrhus of the rectum was under my care. The patient suffered acutely from distension due to flatus. I therefore asked the house-surgeon to puncture the colon. His refusal may be taken as indicating that this little operation was not fashionable in those days. Hence this short illustrative note. I at once inserted a fine exploring trocar. While the gas was issuing from the cannula, the patient loudly proclaimed the relief attending its exit. One may fairly presume that the puerperal cases are not unfavourable to the performance of this simple but effectual operation; but surely the necessity for its employment seldom occurs.

I am, Sirs, yours faithfully,

April 20th, 1887. T. H. SAWTELL, M.D. Lond.

THE MARGARET-STREET INFIRMARY APPOINTMENTS.

To the Editors of THE LANCET.

SIRS,—Will you allow me, as one of those who have accepted vacant posts in the above institution, to submit, with all respect, that in your implied censure (in the annotation this week) of any who are not "avowed homœopathists" for accepting such vacancies you seem to take up an untenable position? The presence of homœopathists on the staff is either prejudicial to the interests of the patients or it is not. If the former, then the action of medical men—not avowed homœopathists—in joining the staff deserves your approbation, since by diluting homœopathic influence and diminishing homœopathic practice, they would tend, *ex hypothesi*, to augment the advantages and lessen the risks of the patients. If, on the other hand, homœopathists do *not* imperil the welfare of the patients, there is no justification for your condemnation of those who choose to exercise the same charity as they. You may hold that I have not stated the real point at issue, and maintain that it is professional honour which is at stake, in which case if applied to me you would exalt the importance of boycotting [illegible]

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mbers of the profession above the needs of those for ose benefit the charity exists. Doctors are made for man, ; man for doctors. Supposing every member of the pro- sion who is not a homœopathist, avowed or otherwise, l abstained from applying for the vacant post, one of > things must have happened—either the vacancies uld have been filled by homœopathists or not filled all. I have dealt above with the question of a mœopathic staff as affecting the patients; and as ards the other alternative of the posts being left ant, it comes to this: that the leading journal of a so- led noble profession—a profession which is supposed embody some of the grandest instincts of humanity >y implication advocates that patients should be left stitute of advice until certain offending brothers, guilty the unpardonable sin of differing from the majority pecting therapeutic doctrine, shall be excommunicated. e interests of the poor are to be sacrificed in order that ofessional prejudice may be satisfied. For myself, I do t profess kinship with either "'path." I believe it my alienable right to pursue any path (in my efforts to relieve e sick) which may, in my judgment, offer the fairest omise of success; and I think members of a charitable—a ogressive, liberal, and scientific—profession, whose views e notoriously in a chronic state of change, should nerously accord to others the same liberty of opinion ey claim for themselves. Of this I feel assured: the iblic—and particularly the poor who may avail themselves this charity—well know how to appreciate the moral urage of those who, at the risk of being branded as mœopathists, and boycotted accordingly, consider it an nour to serve the needy, though it be in the Margaret- reet Infirmary. Even if exposed to contamination therein, e shall have the satisfaction of continuing, with enlarged portunities, our quest for what is still undetermined— e truth about therapeutics.

I am, Sirs, yours obediently,

JOHN BECKETT.

Brook-street, Grosvenor-square, W., April 18th, 1887.

To the Editors of THE LANCET.

SIRS,—Permit me to state, in reply to the, no doubt unin- ntional, *suggestio falsi* contained in your paragraph anent ie Margaret-street Infirmary, that I am *not* a homœopath, r any other kind of "'path," either "avowed" or covert; nd in order that there may be no misunderstanding, I mean hat I do not adopt the dogma of *similia similibus curantur*, r any other dogma, as my rule of practice, but aim as nearly s may be at a rational empiricism, ignoring no source of nformation claiming to be backed by clinical experience. Iy opinion on matters therapeutic cannot be more lucidly tated than you have yourselves expressed it in your leading rticle of to-day: "The ordinary practitioner differs from he homœopathic in being free to use any drug which he nows to be of use in the case, and that in any quantity xperience shows to be best." I accord *in toto* with the ositive side of this statement, though as regards the egative side I have yet to learn that homœopathic prac- itioners repudiate that freedom. Having, I need scarcely ay, expected some antagonistic remarks on the matter, I was prepared to make the above statement, but being fully ware of the vast amount of prejudice which exists, I had letermined to keep silence on the ethical side of the uestion. However, the moderation of your leading rticle, when dealing with the subject of homœopathy, nduces me—whether judiciously or not remains to be een—to depart from that determination, and to offer a ew remarks. Considering your admission that homœo- athy *has* done some service to medicine; considering he fact that I am frankly compelled to admit the debt I owe (I will not say to homœopathy, but at any rate) o individual homœopathic practitioners for the intro- luction to certain drugs, particularly in my own special lepartment of practice (e.g., the tinctures of apis mellifica and of æsculus hippocastanum), as well as for the extended phere of utility of others (e.g., bichromate of potash), of all of which I shall by-and-by have something to say, founded not upon any dogma but upon clinical experi- ence; and considering that for the survival of one or two principles of therapeutic action—e.g., the value of minute subdivision in developing therapeutic power in comparatively inert substances (of which a dark example remains to us in the hydrargyrum c. cretâ of the B.P.) —medicine is, I believe, mainly indebted to homœopaths, I fail to see the logical consistency of maintaining in public relations a position of exclusiveness, especially on the surgical side, which is being, to my absolute knowledge, tacitly shelved every day in private practice by numbers of my professional brethren holding positions on the staff of hospitals connected with the great medical schools. Remembering, as I do, the outcry and prejudice aroused by the utterances of Dr. Bristowe and Mr. Jonathan Hutchinson at the British Medical Association's meeting at Ryde, I do not anticipate that these remarks will have any weight with those from whom I have the misfortune to differ. But perhaps they may serve, at any rate, to show that in medical as in other politics it is possible for two parties to arrive at diametrically opposite conclusions in perfect sincerity and good faith. With apologies for occupying your valuable space to such an extent with personal and therefore uninteresting matter,

I remain, yours faithfully,

Welbeck-street, W., April 16th, 1887. KENNETH MILLICAN.

SCOTTISH DIPLOMAS.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of April 2nd we have your leader and Mr. Berkeley Hill's remarks as to Scotch and Irish qualifications, which are blackballed, in comparison with the "London diplomas" of L.R.C.P. and M.R.C.S., a subject not new to your paper, especially the "Scotch" part of the question. It is, I think, a great pity that gentlemen in the position of Mr. Berkeley Hill in the profession should deal in such statements, supported by him by no argument, good, bad, or indifferent. If you or he can find holes in the Scotch system of examination, in its results, in its methods or the degree of competency it insists on, in the breadth and completeness of the test for any Scotch diploma at all, why do you not do so? Why does not Mr. Berkeley Hill do so? Any person who likes to observe or inquire into the truth of this matter will simply find that all such statements are the result of a warped judgment—I might justly add, in very many cases of jealousy. The English public respects Scotch diplomas. That is a truth that will stand probing, and the success of men holding them as an integral part of the medical profession is notorious and above cavil. And why? The reason is not far to seek if Englishmen could put aside their "green spectacles," and I will state it briefly. The "evolution" of the English medical man is only now, in 1887, reaching a point that it had reached in Scotland centuries ago. In medical education and examination the Scotch system always did, and does yet, involve a complete curriculum, a complete examination, and a complete qualification. In England, as is well known, such has not been and is not the case yet, or until very recently. It is to become law in June, 1887; and I say it fearlessly that England is only now attaining a point of efficiency in matters of medical qualification that was attained in Scotland 250 years ago. This is true of medical education and examination. It is likewise true of the general education of the respective nations of Scotland and England. Scotland has led the van in advance by hundreds of years. I will prove what I say if you or your readers choose to contravert it; meantime, I must not encroach on your valuable space further.

I am, Sirs, yours faithfully,

Birmingham, April 16th, 1887. JAMES GILROY, L.F.P.S.GLAS.

A DOCTOR'S INCOME.

To the Editors of THE LANCET.

SIRS,—Various articles have been appearing in THE LANCET lately in regard to the position of the profession and the pressure on the general practitioners produced by the depression of trade, by the competition of hospitals, and so on. As we general practitioners have no voice but through the medical press, may I ask space for a rather long letter? The differences which separate consulting physicians and surgeons on the one hand, and family doctors on the other, are as wide and deep as those between barrister and solicitor. The general public do not know this. They imagine that any clever ambitious lad who can find the funds to squeeze into the profession somehow may rise to be Sir Somebody Something with an income of £15,000 a

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year. If they knew how hopelessly improbable this is, and, further, knew what the actual financial prospects of a lad entering the profession (to be a family doctor) are, I cannot believe such numbers would continue to crowd in. I have made several calculations to enable me to arrive at a correct estimate of a general practitioner's income, which I submit. The first method I adopted was to add up the value of all the practices advertised for sale in various numbers of THE LANCET. The mean of 175 practices was £625 a year, which I consider as the average income of the family doctor. From this I deducted the working expenses. Taking into consideration surgery expenses, drugs, horses, carriages, assistants, dispensers, &c., I reckoned these as ranging from £25 a year to £500. I allowed three small practices to two medium and one large, and this gave the mean working expenses as £150 a year. Again, I reckoned the average cost of a medical education at £700. I have further estimated the cost of starting in practice, whether by making a practice or buying one (much the same as regards expense, I take it), at £1000. This gives £1700 capital sunk. On this I have reckoned 5 per cent. interest—i.e., £85 a year and £35 insurance premium to safeguard the capital, or £120 in all. My sum stands thus:—

Average gross income of a family doctor ...		£625
Average working expenses of do.....	£150	£270
Interest on capital sunk.....	£120	
Mean net income		£355

Further, it being usually necessary to live in an important thoroughfare, we pay higher rent, and therefore rates, than most men with incomes of £355 a year. We pay income-tax on the £120 a year, which enables us to recover our lost capital. Out of the remaining £355 we have to save for sickness and old age, and yet we pay income-tax on the whole. The pensioned classes pay no income-tax on the sums that Government virtually lays by for them. Finally, while carriages are a necessity in almost all practices over £500 a year, we pay tax on them on the ground that they are luxuries! If all this is considered, we can hardly estimate a doctor's income at much over £300 a year. This is the income of those who *have* practices, but there are hundreds of men who for lack of capital or other causes have no practice. They are assistants at salaries ranging from, say, £50 to £150 a year and their board; or they are ship's surgeons at a salary of about £80 or £90 a year and their food whilst on board; or they are house-surgeons or physicians at salaries ranging from nothing to £100 a year and their board. If all these men were taken into consideration, I feel sure the net income of a general practitioner would be found to range somewhere near £200 a year. I will now consider this question from another point of view to check my first results. Of the 175 practices I examined for the purposes of this letter, seventy-three, or nearly one-half, were purely country practices, and the mean gross income of these was only £442 a year, and therefore the net income probably not much over £200 a year.

Again, I will take a third point of view. I know of a practitioner who travels four miles for a charge of 1*s.* a visit, one-quarter of the cab fare that would be charged him if he hired a public conveyance. This does not sound profitable, but there is worse to come. Almost every country doctor has a benefit club included in his practice, for attending the members of which he receives from 4*s.* to 5*s.* per head per annum. I find that the mean sickness per head per annum, according to the experience of the Foresters, is 1·917 week, or say two weeks, per annum per head—equivalent, say, if the work is honestly done, to six visits per head per annum. This gives us from 8*d.* to 10*d.* per visit, including medicine. The parish doctor descends still lower. A vacancy was advertised recently in THE LANCET. A parish doctor was wanted for a district having an area of twenty-four square miles. I presume this doctor was not expected to *walk* his rounds? In that particular county one in every twenty-six of the population is a pauper. Allowing the visits to average seven per head, instead of six for the members of friendly societies (as women and children are included as well as men), the doctor will receive about 7*d.* per visit, out of which he has to find medicine and carriage expenses. Lower still are the "sixpenny" dispensaries of London. Lastly, every medical man does some work for nothing at all. With such rates of remuneration, how can the profession prosper? Do you wonder now that you hear daily of medical men dying utterly penniless? Remember that a doctor works on Sundays as well as weekdays, by night as well as by day. It is more difficult for him to get a holiday than for almost anyone. Besides his hard work he has many special perils—perils of epidemics, perils of post-mortems, perils of exhaustion from want of adequate rest or sleep, perils of exposure at night when ill, and nowadays we must add perils of worry from vexatious actions or false accusations. Such is the state of affairs what is the remedy?

I am, Sirs, yours faithfully,

April, 1887. E. PAGET THURSTAN, M.D.

GASEOUS RECTAL INJECTIONS IN CONSUMPTION.

To the Editors of THE LANCET.

SIRS,—Dr. Burney Yeo's able Lecture on Gaseous Rectal Injections in Consumption is a welcome contribution on a subject which is exciting much notice, and, along with a paper which appeared in one of your medical contemporaries last December, will doubtless serve to bring Bergeon's method still further under the attention of practitioners in this country. After making some trial of it, I wrote to Mr. W. H. Perkin, F.R.S., regarding tests for discovering chemically the vapour of bisulphide of carbon in the breath, in order to find out if it was eliminated unchanged, and, in replying, he cautioned me on the injurious effects the bisulphide sometimes produces on the health of those working with it. That such cautions were not altogether needless was soon proved by the symptoms which overtook one of my patients: great irritability and moroseness, and a "tipsy feeling," which so distinctly amounted to incapacity for work or clear thinking as to be noticeable by others. My object is not to deter practitioners from the use of bisulphide of carbon vapour, but to advise that care should be exercised about the dose, and particularly about the frequency of its administration, for its elimination from the system appears to me much slower than that of sulphuretted hydrogen. As the symptoms did not come on till after many days of its use, I am inclined to trace them to accumulated arrears of imperfect elimination. Those who care to inquire further into these symptoms may refer to "Blyth's Poisons, their Effects and Detection."

I have now abandoned the use of the bisulphide, and adopted the sulphuretted vapour from the Eaux Bonnes water. Dr. Burney Yeo properly remarks on the inconvenience of obtaining this water. Perhaps Harrogate might be an available source, for the old sulphur well there contains 5 3 cubic inches of sulphuretted hydrogen per gallon, as against 1½ cubic inches per gallon in the water at Bonnes.

I am, Sirs, your obedient servant,

Ventnor, April 19th, 1887. JAMES M. WILLIAMSON.

"SURVIVANCE AFTER GUNSHOT AND OTHER WOUNDS OF THE HEART."

To the Editors of THE LANCET.

SIRS,—Should the following account of a case of wound of the heart, with which I have been just favoured by my old friend and correspondent Dr. James Martin of Portlaw, approve itself to your better judgment, I will thank you much to give it the benefit of your great publicity. It shows, at least, great faith in the curative virtues of bleeding, and may, so far, interest those *laudatores temporis acti* of our art who, if there be still any such amongst us, regret the disfavour into which that once much-admired remedy has fallen. But of this anon. Writing under date April 3rd instant, my kind informant says: "Reading your paper in THE LANCET to-day recalls to my memory a case in which I was interested so far back as 1827, while I was serving my second year's apprenticeship in the Queen's County Infirmary. It stands thus: 'A man who was going home from the town (Maryborough) attacked another (who carried with him a bayonet for his protection) with a loaded whip. The attack was repelled by a thrust of the bayonet, and this thrust floored the man, who fell down and became at once unconscious. He remained in this state during the fifty-three hours he survived, and meanwhile ninety-six ounces

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of blood were taken from him, at intervals, during this time. Notwithstanding this deprivation, however, he did not die from loss of blood. On the contrary, the young man—who was just on the point of qualifying—who remained in constant attendance on him, maintained to his dying day that this patient would have lived had the surgeon in charge permitted him—the young attendant—to take more blood from him. On examination of the remains there was only one mark of injury on them—viz., a small triangular wound two inches below the edge of the ribs on the left side. The weapon seems to have traversed the stomach and penetrated the diaphragm, the pericardium, and the wall of the left ventricle. The pericardium contained a large fibrinous clot, which had undergone some organisation, but the fibrinous element predominated in it." It is, in either case, not easy to see how phlebotomy, even *usque ad deliquium*, could have prolonged this poor fellow's life. Yet such was one of his quasi-qualified attendant's belief; and this belief affords of itself another illustration—were any such wanted—of the fact that nothing takes so much killing as an old superstition.

I am, Sirs, your obedient servant,

Auriol-road, W., April 10th, 1887. WM. CURRAN.

To the Editors of THE LANCET.

SIRS,—With reference to the paper on the above subject by Brigade Surgeon Curran, in THE LANCET of the 9th inst., the following brief abstract of a "gunshot wound case of the heart" may throw a ray of light on the subject, and be deemed of sufficient interest to publish.

About ten years back, whilst I held medical charge of the R.A. division at Allahabad, North West Provinces, Bengal, a gunner of the division deliberately shot a sergeant of his own battery one night. The poor victim, an excellent non-commissioned officer, highly thought of, in some way incurred the ill-will of the murderer, a good-for-nothing, morose, ill-tempered man, of intemperate habits; and as the sergeant, accompanied by a comrade, reached the top of the stone staircase leading to his own quarters, a little after gunfire—i.e., nine o'clock at night,—the bullet struck him as he turned towards the left hand side to go to his own room. It was given in evidence, I believe, by the non-commissioned officer who was by his side, and had ascended the stairs in his company, as well as from information given me by others who were near enough to hear, that the poor fellow, when shot, turned round about a quarter-circle towards the spot whence the shot was fired—a doorway to the left and behind the stairway, fifteen to twenty feet only away—advanced a few steps towards the murderer, whom he was able to clearly recognise by the barrack-room and passage lamp, saying, as he did so, "Ah! is that you, ——?" or somewhat similar words, showing he saw clearly who it was that had fired the shot, and then reeled and fell to the ground. Of course, I am speaking from memory, but the unusual occurrence made a deep impression on my mind. Moreover, the whole facts of the case were fully recorded in the official reports and trial in the High Court. The post-mortem examination was also noted by me in the case-book at the time. Suffice it now to say that I found the bullet had struck the left ribs—fourth or fifth, as well as my memory recalls—external to the nipple line, then passed through the anterior portion of lung overlying the heart in that position, had passed backwards through the left ventricle, inflicting two ragged wounds, then through the root of the right lung, smashing two ribs on the right side, and was found in several large and small pieces scattered about the right axilla, and under the scapula of the same side. The weapon used was a Snider carbine, calibre 0·577, with full service charge of powder, and fired not over twenty feet away; yet, in spite of the terrible wound inflicted on the heart, there was evidence to prove that not only was the murdered man able to turn partly round, but also to walk a few paces, speak in a clear voice, and to clearly recognise his assailant.

Two facts may be considered interesting as bearing out Brigade Surgeon Curran's views regarding the murder of the native Kadir near Peshawur, and of his being probably able to speak and recognise his assailant after receiving the fatal wounds in the heart, and it should be remembered that a Snider bullet is over half an inch (0·577) in diameter, and usually inflicts a terrific wound, as I have seen a case where a similar bullet striking a man in the forehead tore out nearly the whole of the occipital bone in its exit. The case may also be interesting from a medico-legal point of view.—I am, Sirs, yours truly,

April 12th, 1887. J. E. FISHBOURNE, M.D., F.R.C.S.I.

To the Editors of THE LANCET.

SIRS,—In connexion with Brigade-Surgeon Curran's interesting paper on the above subject, allow me to draw attention to the following passage from General Gordon's Journals at Khartoum, page 17:—"One man received a wound in the chest; he lived eleven days, and died. The doctor found a bullet lodged in the centre of his heart, in wall of ventricle. The doctor has this heart in spirits. It was a ball weighing the same as our Martini-Henry bullet." Accompanying the paragraph is a drawing showing a section of the heart and the embedded bullet, thus proving that the General had seen and sketched the specimen. The record, apart from its pathological interest, is a striking instance of the catholic sympathies of the hero of Khartoum.

I am, Sirs, yours faithfully,

Brighton, April 7th, 1887. JAMES TURTON, M.R.C.S.

THE TREATMENT OF PLACENTA PRÆVIA.

To the Editors of THE LANCET.

SIRS,—I have read with interest Dr. Braxton Hicks' letter in your issue of the 9th inst., and fully endorse his supposition, "that no particular method of managing placenta prævia can claim being *the treatment*." Also the rule, "deliver as early as possible after the recognition that the placenta is about or athwart the mouth of the womb," with the addition, "do not leave the patient till she is delivered." In many cases, however, where there is a sharp loss after detachment of the placenta as far as the finger can reach and it is not possible to turn and plug the os by the leg or breech, I have found the air-ball pessary simply invaluable.

Some four or five years since I was called to a primipara—the smallest woman I ever delivered,—who had been in pain for some hours, and was losing freely. The history was that of placenta prævia. With the greatest difficulty I reached the os, which barely admitted the tip of my finger, and, finding the diagnosis correct, ruptured the membranes and detached as much of the placenta as possible. My patient suffered from a weak heart, precluding the use of chloroform; her abdomen was so unusually tender that any handling was impossible; the vagina barely admitted two fingers, and sharp hæmorrhage was going on. An air-ball pessary (I always carry one in my bag) was applied, which at once stopped the bleeding and so stimulated the os by its pressure that regular pains began almost immediately; the vagina at the same time being dilated by the artificial wedge. Twice the ball was withdrawn and reapplied—after the finger had been swept around the os,—being kept as large as the patient could bear it, so assisting dilatation that although the forceps were applied as soon as the os was sufficiently open, the perineum was uninjured and the recovery perfect. Since that time, in every case of placenta prævia, save one, I have adopted this plan, with the same success.

The exception mentioned was that of a woman who had been attended by a medical man from a cheap dispensary, and who had calmly watched her flooding herself pulseless—the condition in which I found her—from Friday morning until 11 P.M. on Monday, when the husband begged me to save his wife, if possible. Another medical man had been previously fetched, but he declined to undertake the case, and promptly retired from the scene. I found the room like a slaughter-house; the child's right hand and funis protruding from the vulva, the arm fortunately plugging the os, and the patient requesting that she might be allowed to die in peace without further torture. After administering eggs and whisky, the only available nourishment, I detached the placenta as far as was necessary, turned, delivered, and was able to leave the house within the hour. The patient recovered without any bad symptoms.

I am, Sirs, yours truly,

T. WALKER COFFIN, F.R.C.S. Ed.

Haverstock-hill, N.W., April 11th, 1887.

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CURRELL'S CASE.

To the Editors of THE LANCET.

SIRS,—Having presented a numerously signed medical memorial to the Home Office praying that an examination should be made of Currell previously to allowing the law to take its course, as suggested in your columns, I give a few facts relating to the case. The Home Secretary responded to the prayer of the petitioners, but, so far as I can judge from the account in the newspapers, the examination was directed to his *present* state, not his past, which was the point raised by the petitioners. Since his execution, I have had Currell's verbatim confession placed before me. The opinion I entertain remains as before. It is confirmed by the statement. Currell says: "I have been for a long time accustomed to taking drugs, and have had frequent bouts of drunkenness. One of these bouts commenced about a week before the murder. During the whole of the succeeding week I had very few sensible moments, and, if I were to have my liberty for it, I have not the slightest recollection of how I spent the whole of that week." This was part of a confession written on Sunday night, within a few hours of his execution. It accounts for the "irrational state of mind" into which Mr. Justice Grantham says he must have been at the time, and justifies any petition that was forwarded asking for a medical examination. His apparent indignation at being thought irresponsible is made much of in the papers as evidence of his sanity. It is a well-known fact that many persons would rather go to gaol as rational beings than be liberated on the ground of unsoundness of mind. This fact also strengthens my argument. The whole case from beginning to end was one of moral insanity. Whether caused by drugs, alcohol, or not, the case remains the same, and aggravated by strong hereditary taint of mental disorder.

I am, Sirs, yours obediently,

L FORBES WINSLOW, M.B.CANTAB., D.C.L.OXON.

Hammersmith, April 20th, 1887.

"PASTEUR'S METHODS."

To the Editors of THE LANCET.

SIRS,—In his letter under the above heading in your issue of the 9th inst., Mr. Vincent Richards expresses his anxiety that the dangers of Pasteur's prophylactic treatment for hydrophobia should be recognised, but he seems somewhat to ignore the much greater dangers of untreated bites from rabid animals. It is largely a question of statistics. Mr. Richards' reasoning about the necessity of the prophylactic inoculation being begun on the day of the bite rests on a misapprehension on his part of the facts of the case, for as regards length of incubation, there is all the difference between accidental bites and inoculation by trephining.

The published statistics up to the end of last year are as follows:—

—	No. of cases treated.	Deaths from all causes.	Mortality.
Paris	2730	45	Under 2 per cent.
Odessa	325	12	" 4 "
St. Petersburg ...	118	1	" 1 "
Moscow	112	2	" 2 "
Vienna	96	0	—
Warsaw	84	0	—
Naples	48	0	—
Samara	47	2	Under 5 per cent.
	3560	62	Under 2 per cent.

During the present year several more deaths have occurred (some, very possibly, from the treatment), but they do not appear to have exceeded 12 or 15, bringing the total deaths from all causes among these 3560 persons to something less than 80, and giving a mortality not exceeding 2¼ per cent. In contrast with this we must place the average rate of mortality after bites from rabid animals, and this is probably about 16 per cent. So that it would appear that for every death occurring after Pasteur's treatment there would probably have been seven deaths had that treatment not been adopted. I do not maintain that this result is final and certain, but I think the evidence for it should not be lost sight of by those who are so keenly alive to the dangers of Pasteur's system of treatment.

I am, Sirs, yours &c.,

April 12th, 1887. R. J. P. S.

THE INTERNATIONAL STATISTICAL CONGRESS.

(*From our Correspondent.*)

UPWARDS of fifty representatives of statistical research met on Tuesday, the 12th inst. in the hall of the Ministry of Finance, under the presidency of Sir Rawson W. Rawson, to inaugurate the first International Statistical Congress. There had been other meetings of a similar kind, in which the statisticians of all countries assembled to compare their work—meetings composed of official delegates of different European states, and first set on foot in 1853 by M. Quetelet. But international jealousies had marred their efficiency—notably, on occasion of their permanent seat having been proposed to be fixed in Paris, when the German delegates intimated that in that case they either would not or could not attend, and so at the jubilee meeting of the Statistical Society of London in 1885 it was resolved to make the International Congresses independent of all Governments, representing simply the best science of each country, though, of course, quite open to receive whatever co-operation or support these Governments would vouchsafe.

Italy showed herself, as she always does, full of hospitality towards the visitors who had come to assist at the august occasion, and her Minister of Agriculture and Commerce, Signor Grimaldi, opened the proceedings by a brief address in French, in which, after indicating the value of statistics as a basis for legislation throughout the whole civil order, hygiene included, he extended to the Congress the welcome of the Italian Government.

Sir Rawson W. Rawson followed, also in French, of which he is a master, and gave a lucid narrative of the progress of statistical organisations, of the circumstances in which this first unofficial or purely scientific International Statistical Congress was being held in Rome, and of the rules and regulations which had been devised and approved for the "International Statistical Institute," as it is henceforth to be called.

The institute is an international association having for its object the development of the progress of administrative and scientific statistics: 1. By introducing, as far as possible, uniformity in the methods of compiling and abstracting statistical returns, and by adopting it in the compilation of statistical publications, with a view to a comparison of the results obtained in different countries. 2. By inviting the attention of Governments to the various problems capable of solution by statistical observation, and by applying for information on those subjects which have not hitherto received adequate statistical treatment. 3. By preparing international publications as a means of bringing into communication the statisticians of various countries. 4. By endeavouring, through the medium of publications, and, if practicable, by public instruction and other suitable means, to foster the general appreciation of statistical science, and to stimulate the interest of Governments and individuals in the study of social phenomena.

The sitting of Wednesday, the 13th, was exceptionally interesting. Professor Neumann Spallart, of Vienna, read a memoir on "Social Statistics," in which he expounded with characteristic clearness the method devised by himself of estimating with the greatest possible precision the social and economic state of a country in a given period, and of arriving at a numerical and approximately exact expression of the conditions, economic, social, and moral, of a nation. Restricting his data to Western Europe and the United States of America, he explained the "graphic system" whereby he proposes to determine the production of [illegible] country for each year. On the same system he determines the mean of emigration, of crime, of disease, by which may be called a barometer of sociologic and [illegible] phenomena. He has convinced himself that he can [illegible] at approximate sociological forecasts, and with [illegible] accuracy as is displayed in those [illegible]. An animated and most interesting [illegible]

which the method was criticised from the point of view of the economist, the statesman, and the hygienist, and a detailed reply on the part of Professor Neumann Spallart brought the discussion to a close. The official report cannot fail to interest all scientific readers—not least the medical.

Of much more direct professional interest was the memoir of Dr. Léon Vacher, member of the French Corps Législatif and president of the Statistical Society of Paris. His subject was the "Diminution of Mortality and the Augmentation of the Mean Duration of Life in Europe." Having established, from official returns drawn from the various statistical bureaux of European States, that mortality is lessening and that longevity is increasing in the more civilised countries, he passed in review the causes which have produced, or which have contributed to produce, this result; first, among the latter—that is, the contributory—causes being, in his view, so far as France is concerned, the French Revolution, from the economic ameliorations it brought in its train and the more effective organisation of State medicine. He also drew confirmation of his doctrine from the sanitary condition of the young Italian kingdom, and dwelt on the immense progress made in a few years in public hygiene throughout the peninsula as highly creditable to nineteenth century sanitation. Turning to Rome, he said that from the hygienic point of view the city was scarcely recognisable as the same centre of population which existed before 1870, a fact which redounded highly to the praise of the Italian Government. Dr. Vacher's paper, which was heard with much attention, and emerged from the subsequent discussion with its main positions unshaken, will form not the least interesting of the publications of the Congress shortly to appear, with their author's revision, under the editorship of the Commendatore Ellena, secretary to the Ministry of Commerce and Agriculture.

The subject, so well introduced by Dr. Vacher, was followed up by a communication from the Cavaliere Bodio, of the statistical bureau of Rome, to whose unwearied and well-inspired activity the success of the Congress is largely due. This was a table, with a diagram on the "Lexis" model, for calculating and comparing the mean mortality at the different periods of life and in different countries. This the Cavaliere explained in a lucid exposition, and set forth many interesting facts on the ratios of births and deaths, on the malaria, and on the other sources of disease prevalent in Italy. The discussion was continued by Professor Levasseur and others, and a really instructive report was compiled for Signor Ellena's editorship.

Friday's sitting began with a report drawn up by Sir Rawson W. Rawson and Signor Maffeo Pantaleoni, on the "Means of preparing in each country a catalogue of publications, official and non-official, giving exact information on every one of the more important branches of statistics"; after which, at 8 P.M., Dr. Ole Jacob Broch, sometime Minister of State in Norway, and correspondent of the Institute of France, read a paper on the "Consumption in Europe of Nervine Excitants: the Alcohols, Coffee, Tea, Cocoa, Sugar, and Tobacco." Beginning with a retrospect of the introduction into Europe of alcoholic beverages, which have made immense strides from the early years of the eighteenth century to our own days, he showed by numerical data that the countries in which the consumption of these is greatest are Denmark, Belgium, Russia, and Germany; next come England and France. Italy is one of those in which the consumption is least. He maintained that in Norway the consumption of spirits is decreasing, owing to legislative provisions restricting their sale and also to the temperance societies. He then treated of the production and consumption of coffee, tea, and cocoa, showing that the production of coffee in the latter half of this century has doubled, while the countries that consume most of it are the Netherlands, Belgium, Norway, and Russia. Tea is mostly consumed in England, after her coming the Netherlands, Denmark, and Russia; while the countries in which the consumption of cocoa is greatest are Spain, France, and Switzerland. As in the case of the alcohols, so in that of these beverages, he supported his conclusions by financial returns. Passing next to the general production and consumption of sugar and the rise of prices, he noted that the production of Barbadoes sugar has probably attained its maximum. England, Ireland, and France are the greatest consumers of sugar—from 1880 to 1884 from two to three million tons of it having been used. Its consumption, indeed, is on the increase everywhere. Finally he demonstrated that the production and consumption of tobacco amounts to 500 millions of chilogrammes yearly, its consumption being greatest in the United States of America, in the Netherlands, in Denmark, England, Germany, Sweden, Norway, and France. The state revenue from the consumption of tobacco exceeds a milliard of francs, France deriving the most from it and Great Britain next. An interesting and animated discussion on Dr. Broch's essay ensued, in which the Swiss and German delegates took the chief part.

The remainder of the proceedings included no other topic bearing directly or remotely on medicine.

Saturday's sittings were the last, and, among the incidents of the forenoon, was the invitation of M. Inama Sternegg, of Vienna, to the members of the institute to attend the great Hygienic and Demographic Congress in the Austrian capital in September next.

M. Körösi, in the afternoon, read a paper in which he proposed to make international statistics uniform by the adoption of a table containing the following heads:—1. Statistics of houses and of the families occupying them. 2. Statistics of families according to the number of their members. 3. Agglomeration of the population and classification of cities. 4. Classification of the population by sexes. 5. Classification by age. 6. Bachelors, married men, widowers, divorced husbands, according to age. 7. Nationalities. 8. Religious creeds. 9. Unlettered (*analfabeti*), according to age. 10. Place of birth. 11. Distinction of groups under 2000 inhabitants in the country and above 2000 in the town. 12. Physical and moral disease.

A conversation then ensued on the next time and place of meeting, and it was finally resolved to convene the Congress for September, 1889, in Paris, under the presidency of Sir Rawson W. Rawson.

The Ministers of Commerce and Finance, Signors Grimaldi and Magliani, then congratulated the members of the International Statistical Institute on the success of their first Congress, and expressed their satisfaction at Rome having been made its seat. Sir R. W. Rawson gracefully returned thanks, and the Congress thereafter dissolved.

The proceedings were lightened by many acts of hospitality on the part of the Italian Government towards the members—admission to the first representation in Rome of Verdi's *Otello*, a banquet given by his Majesty King Humbert in the Quirinal Palace, and an excursion to the Falls of Terni (rendered famous by the description in "Childe Harold," and now utilised for the manufacture of steel plates for ironclads) being among the entertainments provided for the "congressisti."

Rome, April 17th.

THE RIVIERA IN 1887.

THE EARTHQUAKE.—MONTREUX.—LES AVANTS.

(By our Roving Correspondent.)

(Concluded from p. 803.)

RATHER severe strictures have been made in the French press and elsewhere *à propos* of the very general exodus which took place after the earthquake. Those who have made them have given no reasons to show that the move away was, under the circumstances, unwise or impolitic. Never, probably, in the history of the world, has a similar catastrophe occurred among a population so essentially mobile. At Nice and Monaco the thousands of visitors were practically all pleasure-seekers, and a large proportion of them were excursionists, furnished with return tickets, who had come for the Carnival. The hotels, as I have said, are for the most part not strongly built, and, although visitors may tolerate these structures for the sake of the southern sun, it is not to be wondered at that the prevalence of earthquakes should breed some degree of distrust in the builder's handiwork. Again, it must be remembered that at Nice and Mentone, where houses had been *lézardé* in all directions, the lighting of fires had become dangerous, and had, indeed, been forbidden, so that even invalids found it difficult to get a cup of warm milk or beef-tea. At Mentone the supply of good bread ran short, and the reflection could not but arise that in all probability a dislocation of water, gas, and sewer pipes had taken place, a state of things which involves consequences upon which we need not dilate. There was no question, be it remembered, of

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persons running from the post of duty, but merely of pleasure-seekers abandoning a spot which had become unpleasant. Again, the effect of the earthquake upon the majority was, the writer believes, as follows. The first shock caused surprise, but not fear; and had there been no subsequent shock there would have been no genuine desire to leave the district. When the second shock came some fifteen minutes later, the sense of distrust was aroused; but the third shock at 8 o'clock, which forcibly brought home to everyone the possibility of continuance, was, we believe, mainly operative in causing the exodus by bringing to every thoughtful person the reflexion as to the number of similar shocks which his or her particular hotel was capable of withstanding. The incessant discussions of the subject became almost intolerable, and after a time was enough to unhinge the nerves of the most phlegmatic, and it was on this account mainly that a speedy removal from the immediate scene of the disaster became desirable, especially for persons who were not strong, and who found it difficult to sleep.

The fact cannot be too strongly insisted on that a considerable proportion of the houses along the Riviera have been very severely strained by the earthquake, and that substantial repairs will be needed in order to make them withstand even a slight recurrence of the shocks. The withdrawal of the visitors has given the inhabitants leisure to undertake the work of reparation; and we trust, in the interests of those who year after year repair to this region, that the task will be undertaken with the serious intent of rendering the houses as strong as human ingenuity can make them. Great praise is due to the authorities of the Paris-Lyons-Mediterranée Railway Company for the manner in which they met the unusual strain put upon their traffic regulations. Happily, no damage was done by the earthquake to the lines, and for a fortnight subsequently to Feb. 23rd a very large number of special trains were run, and all of them were absolutely full. Not only did no serious accident occur, but we did not hear that even a stray handbag or portmanteau was lost.

The loss of one is the gain of another. The serious misfortune which befel many of the places along the Riviera had the result of sending an influx of visitors to other places. Hotels in outlying districts which had been nearly empty suddenly enjoyed a great accession of business, and it was literally true that for a time every hotel along the Riviera westward of Nice and as far as Marseilles was absolutely crammed. The effect was felt further than this. Visitors driven from the Riviera were naturally afraid to return to northern climates at the end of February, and, accordingly, the tide set in towards Pau, Biarritz, Arcachon, and the Pyrenees, towards Meran in the Tyrol, towards the sheltered spots along the northern shore of the Lake of Geneva and our own southern coasts, which are at their best in the early days of spring.

Being desirous, after the earthquake, to get away from the incessant bustle and disquiet which the catastrophe naturally caused in all crowded places, I moved to an hotel not far from Cannes, which, although a fine house in a good situation, was, I had heard, almost empty. This I found to be true, and, on my arrival, I became the co-pensionnaire of some ten other people who were the only occupants of a magnificent building standing in a situation at once lovely and healthful. The chief reason of the emptiness of this fine house was revealed at dinner-time, when a veritable Barmecides' feast was served with most admirable solemnity to guests who unwillingly followed that golden theory of dietetics that "it is good to rise from table with an appetite." This hardly merits to be mentioned were it not for the fact that, in my opinion, much of the hotel feeding along the Riviera is second-rate. Of late years hotel prices have risen considerably, and with the rise of price there has not been, to say the least, a corresponding rise in the quality of the accommodation. The worst food which invalids, to say nothing of healthy persons, can take is second-rate French cookery. The finest climate in the world will not compensate for a diet of disguised garbage, and many of the *plats* which are handed at *tables-d'hôte* merit this description. The characteristic of second-rate French cookery (and there is very little that is first-rate out of Paris) is the absence of refinement or simplicity. When, for instance, a sole is handed to you smothered in a concoction of colour, strong herbs, and grease, you will not be wrong in assuming that this mode of cooking has been adopted as a means of smothering qualities which might prove less appetising than the mess which has been added by the *chef*. Fish has a delicate flavour of its own, but this fact is seldom appreciated, and there is also an utter ignorance of the fact that the varieties of flesh and vegetables have any characteristic flavour. The conceited *chef* who works under a miserly *maître d'hôtel* soon comes to think that any tough rags in the way of meat will serve as a vehicle for sauce, and hence it not unfrequently comes about that, after breakfasting on sour bread and chicory and lunching on rubbish, the person with a delicate stomach succumbs before dinner-time, and as he cannot eat the dinner he has paid for, but requires to be nourished on "extras" in his own room, the shortsighted proprietor, who only looks to the profit of the hour, fails to appreciate how serious is his responsibility in this important matter. I cannot too strongly urge upon delicate persons who are obliged to winter abroad the necessity of great care in the selections of hotels. The points which demand attention are: (1) aspect as regards sun and wind; (2) construction as regards safety, tranquillity, and health; (3) the size and ventilation of the public rooms; (4) the quality of the food, inclusive of the wine. Every hotel proprietor will do well to return to the good old custom of placing a sound "ordinaire" upon the table. All meals ought to be *vin compris*, and in writing for terms this point ought to be insisted upon. It is impossible for persons to pay five or six francs per meal for wine, and it is intolerable that they should be expected to drink so-called "claret" which has been opened for days and kept in a cupboard. The very small quantity of wine which is consumed nowadays ought to be included in the price paid for the meal. This custom still obtains in all localities which have not been ruined by English and Americans. Let those who have had experience in the latter houses only try the experiment by going to dinner at such a house as the "Hôtel des Bains" at La Condamine, and they will find that a modest four francs suffices to get a well-cooked wholesome meal, *vin compris*. To "please the English," hotel proprietors have been led into much lavish expenditure in the matter of gaudy decorations, carpets, and hangings. These things cost money, and, if they are to be kept clean, necessitate a great increase in the staff of servants. Carpets and hangings do not materially increase the warmth of a building, but they do undoubtedly harbour filth of all kinds and, if they be not kept clean, become a constant menace to health. These things are wholly unsuited for a southern climate, and they are especially unsuited for a climate where the mistral upon occasions raises clouds of dust. A glistening floor of tiles or polished wood or marble, kept bright by a daily sweep, is far better suited to the "sunny south" than are thick carpets into which the dust sinks and is forgotten, and in due time, under the influence of the sun, becomes instinct with life. Less hangings and better food must be the order of the day in southern hotels which are used as convalescent hospitals. After a sojourn of ten days near Cannes, and after the rush of persons going west had somewhat subsided, I moved away to the district at the north-east end of the Lake of Geneva, which has the reputation of enjoying a mild climate and of being a pleasant spot in which to spend the spring. Vevey, Clarens, and Montreux, which are almost continuous with each other, are situated along the northern shore of the Lake of Geneva. They face due south, and are protected by a range of high hills from the north, the protection from this source being more absolute at Montreux than elsewhere. The Lake of Geneva is about 400 miles due south of London, so that the sun is more powerful there than here. Again, it is about 1000 feet above sea level, so that the consequent rarefaction of the air increases the effect of the sun's rays upon persons exposed to them. Further, the mildness of the situation is said to be largely influenced by the proximity of the lake, and it is contended that this huge volume of water tends to equalise and increase the mean temperature of the district. There can be no doubt whatever that this district, especially Montreux, is well sheltered, but it must not be supposed that the warmth to be experienced there is at all equal to that which is felt along the Riviera. After spending the winter in the Riviera, and when the sun here gets too strong and a need is felt for a more bracing situation, then a move to the Montreux district is very desirable. One of the chief drawbacks to the latter place is the liability to fog, owing to the proximity of the lake. Arriving at Montreux towards the middle of March, I found every hotel in the place quite

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full, owing to the influx of visitors from the south. I accordingly made for the hotel at Les Avants, which is some 2000 feet above Montreux, and consequently 3000 feet above sea-level. It was about 3 o'clock in the afternoon that I started from Montreux railway station. Montreux was enveloped in fog, which completely hid the sun and obscured all objects at the distance of a few yards. The ascent to Les Avants is rapid and continuous, and the result was that in a quarter of an hour the fog was almost all below me, and in half an hour I was in brilliant sunshine. The drive to Les Avants occupied about an hour and a half, and the road is excellent. Arrived there, I found the hotel situated in the centre of an amphitheatre of hills, which surround it on all sides except the south. The protection from wind is absolute, the sun exposure perfect. It was very interesting to notice how complete had been the change of climate in rising from Montreux to Les Avants. I had left a cold fog and draughty streets to rise into the brilliant warmth of the afternoon sun in a cloudless sky, and with scarcely a breath of wind. This absence of wind was very noticeable during the whole fortnight which I passed at Les Avants. From the point of view that all experience is useful, I may say that I had the good fortune to experience some very severe weather at Les Avants. The weather at the time of my arrival was mild and spring-like, the snow was all gone from the lower fields, and the crocuses were showing their many-coloured tips in abundance. Nearly forty hours' continuous snow, however, at the middle of March (at the same time that the severe snow-fall occurred in England and through Europe generally) changed the aspect of affairs. The snow lay nearly three feet thick, and gigantic icic'es hung from the overlapping eaves. It was very interesting to observe how comparatively little inconvenience was suffered from this very heavy fall of snow—a fall considerably heavier, probably, than any I have ever witnessed. The snow plough was sent down the road as a matter of course to a point to which another snow plough came from Montreux or some neighbouring village, and thus our communications were kept open without any difficulty whatever. The post came with all its proverbial regularity; and even the laundress (who lived at Montreux) was not hindered in her routine journeys for a single hour. Owing to the absence of wind there were no drifts, and by the early use of the plough the snow was not allowed to deprive us of our fresh air and exercise. The snow was, in fact, a source of great enjoyment, for it enabled us to return to the pleasures of winter. The little sleighs called *luges* were soon in requisition, and we had soon an opportunity of seeing how the eight kilometres of winding road which intervene between Les Avants and Montreux may be accomplished *en luge* in some half-hour. From the experience of a few days only it was made evident that mid-winter in these high regions must be very enjoyable, and certainly few things more exhilarating can be imagined than to scud along over the glittering snow at the rate of ten or fifteen miles an hour through the crisp air, illumined by a brilliant sun in a cloudless sky. When you have reached Montreux, the old adage "To go there, I trow, is easy enow, but how about getting back?" is apt to haunt the mind; there is nothing for it, however, but to shoulder your *luge* and get back by the short cut, which can be done in about an hour and a half; and a wonderful chest expander is this return journey. The hotel at Les Avants is good, and the proprietor does all in his power to make his guests comfortable. The writer went for three days and stopped fifteen.

BEQUESTS AND DONATIONS.—Among the numerous bequests of the late Mr. William Brough Phillimore, Hyde-park-gardens, are the following: To the Ventnor Hospital for Consumption, £200; St. George's Hospital, London, £200; Consumption Hospital, Brompton, £300; Royal Hospital for Incurables, Putney, £200; St. Mary's Hospital, Paddington, £200; Middlesex Hospital, £200; University College Hospital, £200; and King's College Hospital, £200.—The secretary of the Leicester and Leicestershire Provident Dispensary has received a legacy of £100 from the executors of the late Mr. G. A. Robinson.—The secretary of the Bristol Eye Hospital has received a legacy of £100 from the executor of the late Mrs. Peace of Devizes.—Mr. W. H. Williamson, of Bradford, has forwarded £50 to the Bradford Infirmary and £25 to the Children's Hospital, to be applied as the Boards of Management of these institutions think fit.

MANCHESTER.

(From our own Correspondent.)

OPEN SPACES.

THE praiseworthy attempts of the Open Spaces Committee to in some degree remedy the neglect in past years to provide open spaces in the centres of our crowded districts are resulting in a very fair amount of success. On the 9th inst. a plot of about one acre and a half, situate in Ardwick, was formally opened by the Mayoress, and there was a large attendance. The society has spent nearly £2000 in laying this plot out and providing swings &c. They will retain charge of it for the next two years, and then hand it over to the Corporation, through whom the land has been acquired. In the neighbouring suburb of Withington, a piece of land some thirteen acres in extent has been given by Lord Egerton, "to be used as a public recreation ground, open to the public free for ever." One of our members of Parliament, Mr. Houldsworth, in conjunction with Sir John Lubbock, is endeavouring to promote a piece of legislation having for its object the granting greater facilities to acquire land &c. for these purposes, making applicable to the whole country the provisions of the Metropolitan Open Spaces Acts.

ROYAL INFIRMARY.

It sounds at first rather strange to hear of donations coming from Germany to our local hospitals. The Royal Infirmary has just received £500 from a lady residing at Frankfort-on-the-Maine, in memory of her late husband, Mr. G. Kissell, who some years ago was in business here.

THE EPIDEMIC OF SCARLATINA

still continues, and shows but little abatement. Dr. Buckley medical officer of health for Crumpsall, in his report for 1886, just issued, referring to the disease in his township, speaks of his inability to get any reasonable proportion of patients suffering from scarlatina removed to the Monsall Fever Hospital. He advocates the provision of smaller hospitals situate nearer the patient's home, and where the friends would feel more in touch with their children than when they are two or three miles away. The Salford Corporation will soon have the question of hospital accommodation for infectious cases to face, they having recently sold their present building to the North-Western Railway Company, and the infirmary authorities have since refused to take more cases from Salford to their fever hospital at Monsall than they do under existing arrangements.

THE SHIP CANAL.

A large model of the proposed ship canal, lately exhibited here prior to going to the Jubilee Exhibition, brings before one's mind very forcibly the danger there may be of there being very little better than an open sewer in the docks and stagnant portions, unless stringent measures are adopted to render less polluted the Irwell and the Medlock, which rivers will form the chief feeders to the canal.

NORTH-WESTERN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

At the annual meeting of this Association, Dr. Tatham, officer of health for Salford, was elected chairman for the ensuing year, and gave an address in which he took rather a pessimist view of the present position of State medicine, and of those who devoted themselves to its service. He, however, showed that there was ground for hope that in the not far distant future a change for the better would be inaugurated, and the status of officer of health improved.

ECONOMIC DIETARY.

The subject of the need for some systematic organisation for providing poor children of school age with cheap meals was recently discussed at a conference held at the Vegetarian Restaurant, Fountain-street. Mr. Sargant, of Birmingham, gave details of what had been done in that town, and it was pretty clearly shown that, without pauperising the people, nutritious meals, necessarily based largely on a vegetarian dietary, could be provided at a cost of less than one penny per meal; but that, from lack of knowledge among the poorer classes, it was impossible for them to obtain the result in their own homes. Hence the need of some organisation.

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DUBLIN.

(*From our own Correspondent.*)

ACADEMY OF MEDICINE IN IRELAND.

A SPECIAL meeting of the members of the Academy will be held at the College of Physicians on the 26th inst., to consider the advisability of applying for Her Majesty's permission to prefix the word "Royal" to the present title of the Academy. The presentation of an address to Her Majesty on the occasion of her jubilee will also be under consideration.

PROPOSED AMALGAMATION BETWEEN TWO MEDICAL SCHOOLS IN DUBLIN.

The proposed amalgamation scheme between the medical school of the Royal College of Surgeons in Ireland and the Carmichael school, about which such sanguine expectations were formed, has again fared badly. At a meeting of the Council of the College of Surgeons last week the matter was under discussion, when the proposal was negatived by 11 to 7 votes. The result has not been unexpected by those who were aware of the difficulties which lay in the way of the proposed scheme.

SIR P. DUN'S HOSPITAL.

The chief maintenance of this hospital has been from the endowment by its founder Sir Patrick Dun, which heretofore has brought in an annual income of from £1200 to £1500. The non-payment of rents in Ireland, however, has gradually diminished this amount, and last year the sum accruing to the institution was only between £300 and £400. A special appeal has been made for funds, and it is to be hoped that it will not be made in vain. There is one circumstance connected with the medical and surgical staff which deserves to be circulated, and that is that one-third of the fees paid by the students attending the hospital is devoted to its maintenance. So far as I am aware, such an arrangement does not exist in any other Dublin hospital, and therefore every credit should be given for this generosity on the part of the medical staff of Sir P. Dun's Hospital.

CASE OF STRANGULATED HERNIA.

A female aged seventy was recently admitted into the Adelaide Hospital, under the care of Mr. Heuston, for strangulated hernia of the right side. On Mr. Heuston operating, he found that the right ovary and Fallopian tube were in a gangrenous condition, and therefore removed them. Such a complication is so rare that its occurrence is worth recording. The patient has made a good recovery, the wound having healed by first intention.

THE CONJOINT SCHEME.

The proposed scheme between the Colleges of Surgeons and Physicians seems at present to be in a very unsettled condition. The proposal of the College of Surgeons to combine with the Apothecaries' Hall of Ireland, appears to be resented by the College of Physicians, and I understand that they have intimated to the Council of the College of Surgeons that should the combination be carried out the agreement between the two Colleges will be at an end, and they will require to consider the entire scheme, especially with reference to the fees to be divided between the two corporations. If the scheme between the two Colleges is abandoned, the College of Physicians will probably regret their decision.

DUBLIN HOSPITALS COMMISSION.

The report of the Commissioners has not yet been issued to the public, and the delay appears inexcusable. The following are stated to be the main suggestions of the Commissioners, but I am not prepared to vouch for them. They recommend that a central board of control be appointed, to consist of the Archbishop of Dublin, the Moderator of the Presbyterian Church, the Roman Catholic Archbishop, the Chairman of the Dublin Hospital Sunday Fund, two members from the College of Physicians, two to be nominated by the Crown, and one each by the Royal College of Surgeons, the University of Dublin, and the Royal University; while three will be selected by the Dublin Corporation. The Government fund will be vested in this board, who will allocate the grants calculated on the amount of work done by the various institutions and the donations and subscriptions received by them. None of the present institutions reported upon are recommended to be closed, but the gradual extinction of the less useful hospitals is provided for, should the recommendations of the Commissioners be carried out.

The Lord-Lieutenant has appointed Dr. McCabe to be a medical commissioner of the General Prisons Board, Ireland.

Dublin, April 20th.

Obituary.

DANIEL RUTHERFORD HALDANE, M.D., LL.D. EDIN.

THE public and professional anxiety caused by the prolonged and serious illness of Dr. Rutherford Haldane was terminated by the announcement of his death, which occurred on Tuesday, the 12th inst. His illness was the outcome of a serious accident met with on Christmas Day, 1886, when he slipped on an icy footpath and fractured his right leg. For a considerable time favourable reports were issued in regard to his progress, and the anxiety of his friends was for the time allayed and a satisfactory recovery anticipated. Latterly, however, symptoms of obstruction of the circulation appeared, and under this serious aggravation of his condition his strength rapidly gave way, and he passed gently away without a struggle. The deceased gentleman held for many years a prominent position in the Edinburgh medical world. His death leaves a most noticeable blank in many leading medical interests of the city, and a deep feeling of personal loss on the part of his wide circle of friends.

Dr. Haldane was a son of the late James Alexander Haldane, so widely known as an Evangelist, as a disinterested Christian reformer, and as a chief founder of the Scottish branch of the Congregational body. After a liberal classical education Dr. Haldane commenced the study of medicine in the University of Edinburgh. He was an able and very successful student, giving thus early evidence of the ability that so conspicuously distinguished his subsequent career. In 1848 he graduated with honours as M.D., after which he spent two years on the Continent in the prosecution of further studies, and in acquainting himself with the more practical aspects of disease. On his return he acted as resident physician to the Royal Infirmary. His career as a highly successful extra-academical teacher was commenced by his undertaking courses in medical jurisprudence and pathology. He was also for a time pathologist to the Royal Infirmary. On the retirement of Dr. Alexander Wood from the College of Surgeons' lectureship on Practice of Physic Dr. Haldane took his place, and it was as a teacher of medicine and of clinical medicine also, on his appointment to the staff of the Royal Infirmary, that he gained the reputation of a great teacher, still so warmly cherished in the minds of his numerous students. He early became a Fellow of the Royal College of Physicians of Edinburgh, a body in the welfare of which he took the deepest interest, and which he has ably represented in its presidential and vice-presidential chairs, and by acting as its representative on the General Medical Council. He was also assessor of the General Council of the University of Edinburgh in its University Court, and his services to his *alma mater* were recognised by the conferring upon him of the honorary degree of LL.D. at the Tercentenary Festival. On the expiry of his term of office on the honorary staff of the Royal Infirmary, he continued his connexion with that institution, firstly as consulting physician and subsequently as one of its managers. In addition to his multitudinous public duties he engaged in a wide practice as a consulting physician, and he was a genial and capable arbitrator in the many weighty matters of professional importance brought under his notice by widely differing sections of the medical community. His personal no less than his professional qualifications gave him the position of a leader in the Edinburgh medical world and of a much-respected public man. In both spheres he is keenly missed, and deeply regretted.

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HENRY GRENFELL, M.R.C.S., L.S.A.

MR. HENRY GRENFELL was born in 1837 at St. Just-in-Penwith, near the Land's End, and educated at Penare House School, Penzance. After having served an apprenticeship with Mr. W. H. Dodge at Penzance, he entered at King's College, London, in 1856, and, soon attracting notice as a diligent student and a skilful dissector, was appointed a prosector to the Royal College of Surgeons. He became a dresser to the late Professor Partridge and a clinical clerk to Dr. George Budd, and was most earnest and assiduous in the discharge of his ward duties. He took his double qualification in 1861, and settled at once in practice at Penzance. He was warmly interested in the Volunteer movement, and served as medical officer in every grade in the western division of the Duke of Cornwall's Royal Artillery, being Surgeon-Major at the time of his death. For some years he had been the acting surgeon to the Penzance Infirmary, and had acquired a wide reputation as a skilful, bold, and careful operator, and as an able exponent of the principles and practice of antiseptic surgery. His death was sudden and unexpected. He had always enjoyed perfect health until two or three weeks ago, when he began to complain of headaches and a slight discharge from the left ear, to which he paid but little attention. On the 9th inst. he suddenly became comatose, and trephining was resorted to, but he never regained consciousness, and died on the 10th inst. at 4 A.M. A post-mortem examination showed the existence of caries of the roof of the tympanum, and extensive purulent meningitis over the anterior lobes of the brain. By his early death at the age of forty-nine, the profession in West Cornwall is deprived of a most capable surgeon, and his family and numerous friends and patients will long regret the loss of a most genial, kindly, and true-hearted man.

DR. DANIEL WANE.

THIS gentleman, whose death was announced on April 5th, at the age of seventy-three, was a M.D. Edin., M.R.C.P. Lond., and a Fellow of the Medical, Medical and Chirurgical, and Obstetrical Societies. He had a large and high-class practice in Grafton-street, Piccadilly, where he practised for many years. His kindness of heart and intense conscientiousness in the smallest details of his profession won for him the love and esteem of all with whom he was brought in contact. He had retired from practice for the last four years, and died at his house in Fitzjohns-avenue from a seizure of an apoplectic nature.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.—The following gentlemen have passed the examination for the Membership of the College:—

Ballantyne, J. W., M.B. Edin. | Rinder, A. W., L.R.C.P. Edin.

The following have passed the Public Health Certificate Examinations:—

Kiddle, W., M.B. Dub. | Robinson, E., M.R.C.S. Eng.

Dr. Woodhead has been appointed Superintendent of the College Laboratory.

UNIVERSITY OF ABERDEEN.—At the late Medical Graduation term, the following candidates, after the usual examinations, received degrees in Medicine and Surgery:—

DEGREE OF M.D.

Alexander, Lewis Daniel, M.B., C.M., Kilcreggan, Greenock.
Carbery, Joseph, M.B., C.M., Matale, Ceylon.
Cheyne, Walter Smith, M.B., C.M., Aberdeen.
Dickson, Matthew, M.B., C.M., Liverpool.
Fallon, Robert Hume, M.B., C.M., Clifton.
Fildes, Thomas, M.B., C.M., Urmston, Manchester.
Gerard, John, M.A., M.B., C.M., Aberdeen.
Hardie, David, M.B., C.M., Brisbane, Queensland.
Letters, Patrick, M.B., C.M., Dundee.
Smith, Ernest Barret, M.B., C.M., Twickenham.

DEGREES OF M.B. AND C.M.

Alexander, William, M.A., Fyvie.
Beveridge, Alexander Thomas Gordon, M.A., Aberdeen.
Brooks, John Harley, London.
Brown, Alfred Tennyson, Banchory.
Bryce, James, Aberdeen.
†Butter, John Soutar, Lotham, Forfar.
Crevie, James, Newburgh, Aberdeen.
Crowe, William Christie, Aberdeen.
Dalgarno, James John Young, M.A., Aberdeen.
*Davidson, David Macdonald, Mauritius.
Duff, Charles Edmund, Turriff.
Fraser, James Winton, Arbroath.
Fyfe, Thomas Henderson, Aberdeen.
Henry, George, M.A., Aberdeen.
Holden, Joseph Eatough, Bolton, Lancashire.
Kelman, George Alexander, Fearn, Ross-shire.
Macdonald, George Bothwell Douglas, Aberdeen.
Manning, Leslie Samuel, Christchurch, New Zealand.
Melvin, James, Aberdeen.
Myles, John Coutts, Aberdeen.
Nicol, Patrick John Smith, Aberdeen.
Pearson, Joseph, Sheffield.
Pirie, James, M.A., Elgin.
Rannie, Robert, Glenbucket.
†Shand, Jonathan, Keith.
Smith, Robert, Aberdeen.
Souter, Charles Henry Joseph, Emmaville, New South Wales.
Souter, John, M.A., Aberdeen.
†Thomson, Thomas Harvey, Stonehaven.
Urquhart, Charles Thiselton Dyer, Aberdeen.
Walker, Frederick William, Darlington.
Webster, James, Aberdeen.
White, Cresswell Fitzherbert, Chippenham, Wilts.
Wilson, George Nicol.

* Highest Academical Honours. † Honourable Distinction.

At the same time the following gentleman was certified to have passed all the examinations, and that he should receive his degrees in Medicine and Surgery with "Honourable Distinction," but did not graduate:—

Ker, George William England.

UNIVERSITY OF GLASGOW.—The following gentlemen have passed the Third Professional Examination for the degrees of M.B. and C.M.:—

Banks, Robert.
Bannatyne, Gilbert A.
Blackburn, Thomas L.
Blair, Alexander.
Bland, Matthew H.
Buchanan, Robert M.
Charles, John.
Copland, Andrew.
Cowen, Herbert O.
Gemmell, William.
Gillespie, J. Paterson.
Jago, Arthur H.
M'Conville, John S., M.A.
M'Glashan, James.
Melville, John.
Monro, Thomas K., M.A.
Niven, Charles R.
Norris, Frederick L.
Paton, William R.
Pinkerton, Robert L., M.A.
Rankin, John S.
Robb, William.
Sandilands, John, M.A.
Wallace, James.
Wilson, James P.
Wylie, Richard J.
Young, James.

The following have also passed in Pathology:—

Boyle, Michael A.
Cameron, Thomas.
Campbell, Archibald.
Curle, David.
Gunn, Archibald.
Hallett, Charles H.
Hamilton, Wm. Cowan.
Harrison, Edward O.
Hay, Thomas Wm.
Innes, Andrew.
Jenkins, Thomas W., M.A.
Kirkland, Hugh.
Laird, Thomas.
Lang, Ebenezer.
M'Kendrick, John.
Sloan, Hugh R.
Wildridge, Charles M.

ST. ANDREWS UNIVERSITY.—The following degrees were conferred on April 20th:—

DEGREE OF M.D.

Charlesworth, Samuel, Hirst, Bradford, Yorks.
Greaves, Charles Henry, Stafford.
Hackney, John, Hythe.
Havard, David, Newport, Pembroke.
Jackson, Jabez Bunting, Birmingham.
Le Page, John Fisher, Salford.
Lyall, Andrew, Leven.
Mac Bain, Hugh Gilles, North Berwick.
Mitchell, Joseph, New Wortley.
Stone, Valentine, Montrose.

DEGREE OF M.B.

Fayrer, Joseph, M.A., Edinburgh.

SOCIETY OF APOTHECARIES.—The following gentlemen, having satisfied the Court of Examiners as to their knowledge of the Science and Practice of Medicine, Surgery, and Midwifery, received certificates entitling them to practise as Licentiates of the Society on April 14th:—

Bishop, Charles Rosser, M.R.C.S., Craven-hill, Hyde-park.
Dickinson, John Clough Hardman, Bow-road.
Hinnell, Joseph Squier, Garland-street, Bury St. Edmunds.
St. Johnston, Charles, Easy-row, Birmingham.
Roe, H. Havilland, M.R.C.S., Woburn-place, Russell-square.
Tonks, H., M.R.C.S., Packwood, Grange, Knowle, Warwickshire.

GUY'S HOSPITAL FUND.—A sermon will be preached in the church of St. Saviour, Southwark, on Tuesday evening, April 26th, by the Lord Bishop of Liverpool, on behalf of the fund of £100,000 which is being raised for the above hospital.

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THE annual meeting of the governors of the Carmarthenshire Infirmary was held on the 12th inst., when satisfactory reports were presented and adopted.

A SUPERANNUATION grant of £67 per annum has been made to Mr. Thomas Gray, late medical officer to the Poplar Board of Guardians.

NEWSVENDORS' BENEVOLENT AND PROVIDENT INSTITUTION.—Sir A. K. Rollit, M.P., LL.D., will, we are informed, preside at the festival of this Society, to be held at the Grand Hotel, Charing-cross, on Wednesday, June 22nd.

VACCINATION GRANT. — Mr. J. B. Muirhead, M.B., Malling Union, has received the Government grant for efficient vaccination in the second district of the above union (first time).

FIRST AID.—At the distribution of certificates to the pupils of the first aid classes at Norton St. Philip, near Bath, the members of the classes presented the lecturer, Mr. W. Godfrey Evans of Beckington, with a very handsome carriage clock.

GUY'S HOSPITAL.—The Michael Harris Prize in Anatomy of £10 has been awarded to Mr. Frederick William Hall, of Sydney, New South Wales; and the Beaney Prize in Pathology of 30 guineas has been awarded to Mr. Theodore Fisher of Greenwich.

GLASGOW EAR HOSPITAL.—At the annual meeting of patrons and subscribers of this hospital, held on the 13th inst., Dr. James Erskine, recently assistant-surgeon to the hospital, was elected a member of the board of directors of that institution.

THE sanatorium which has been erected at Bradwell jointly by the Wolstanton and Burslem Rural Sanitary Authority, the Wolstanton and Burslem Guardians, the Burslem Corporation, and the Tunstall Local Board, was opened on the 6th inst.

DURHAM COLLEGE OF MEDICINE.—A deputation from this College is, we learn, about to wait on the Lord President of the Council with the object of obtaining a Government grant towards the building fund of the institution.

FATAL FOOTBALL ACCIDENT.—At an inquest held at Macclesfield on the 14th inst., the jury returned a verdict of accidental death in the case of a kick in the stomach during a match for the benefit of another player, who had his leg broken.

PROPOSED HOSPITAL AT MONTREAL.—Sir George Stephen, president of the Canadian Pacific Railway, and Sir Donald Smith, one of the directors, have, it is announced, addressed a letter to the mayor of the city offering to contribute a million dollars for a hospital for the city poor, to be named the Royal Victoria Hospital, and to be erected on a site which they hope the city authorities will grant on the slope of Mount Royal.

LEDWICH SCHOOL OF MEDICINE, DUBLIN.—At the termination of the winter session the following prizes were awarded:—Junior Anatomy: Henry Cullman, 1st; J. C. Ryan, 2nd. Senior Anatomy: D. Shanahan, 1st; J. P. O'Meara, 2nd. Surgery: W. J. Thompson, 1st; D. L. Hamilton, 2nd. Practice of Medicine: J. D. Sexton, 1st; P. Rowan, 2nd. Physiology: J. R. Steen, 1st; J. B. Wilkinson, 2nd. Midwifery: D. L. Hamilton. Theoretical Chemistry: C. M. O'Brien.

MIDLAND VOLUNTEERS' MEDICAL ASSOCIATION.—The second annual meeting of the members of this Association was held on the 13th inst. at Birmingham, under the presidency of Surgeon-Major Thompson. It was reported that the work of the year had been extremely satisfactory, but that the medical staff connected with the Volunteers at the present time would be altogether inadequate in case of active service. This is due to the action of the War Office, which declines almost entirely to support or assist them. The Association has also been successful financially, a small balance remaining in the treasurer's hands after payment of all the expenses of the preceding year.

NEW MORTUARY FOR HACKNEY.—On the 6th inst. the Hackney District Board of Works, after a long discussion, decided to purchase a piece of ground and erect a mortuary, post-mortem room, and a room for the reception of the bodies of persons who have died from infectious diseases, at an estimated cost of £1250. This step was taken in consequence of the many complaints which have been received of the great want of accommodation in this respect.

ASYLUM ACCOMMODATION IN PORTUGAL. — In an account of the work done in Count Ferreira's hospital, or rather lunatic asylum, in Oporto, by the director, Dr. A. M. de Senna, a distinguished Portuguese alienist, which has just been published, the author complains bitterly of the great lack of asylum accommodation in Portugal, saying, "Portugal does not succeed in finding room in asylums for a seventh part of her mentally afflicted population, while in England nine-tenths of such persons are provided for."

SEMI-CONVALESCENT HOME AT COOKRIDGE.—By the munificence of Mr. John North of Leeds, a semi-convalescent home is about to be erected at Cookridge as an adjunct of the Leeds Infirmary. Building operations have been commenced, and it is expected that the establishment will be ready for occupation about the beginning of 1888. Room will be provided for forty-two beds at first, with additional accommodation if required. The estimated cost, exclusive of furnishing, is £5000, and this sum has been already advanced by Mr. North.

THE NATIONAL HOSPITAL FOR CONSUMPTION AT VENTNOR.—The festival dinner in aid of the funds of this institution was held on Tuesday, the 19th. The Duke of Cambridge, who presided, pointed out the advantages of such a hospital in cases of diseases of the chest, and mentioned that since its foundation in 1868 it had helped 7384 patients. There are now 118 beds, and later in the year this number will be increased by 20 more. An earnest appeal was made for funds, and during the evening a list of donations and subscriptions was read, the total amounting to about £2400.

BUTTER ADULTERATION IN KENT.—The analyst for the county of Kent has submitted a report to the Finance Committee of the Court of General Sessions on the subject of the adulteration of butter, in which he says that during the past quarter thirty-two samples were examined, and seven found to be adulterated with foreign fat, with a range of from 20 to 92 per cent., giving a mean rate of 54·25 per cent. of adulteration. This falsification of butter by the admixture of foreign fat, and not, as was formerly the case, by complete substitution, is a fraud much more difficult of detection by the analyst, and quite impossible to the ordinary public.

ANOTHER THAMES VALLEY DRAINAGE BOARD.—On the 13th inst. a Local Government Board inquiry was held with reference to an application by the Richmond Urban Sanitary Authority and the Richmond Rural Sanitary Authority for a Provisional Order to form their two districts into a united district, under Section 279 of the Public Health Act, for sewerage purposes; such Provisional Order to provide for the constitution of a joint board to act as the governing body of the united districts. The parishes affected include Richmond, Mortlake, Barnes, Kew, and Petersham, and the new board will have powers similar to those which were exercised for some years by the now defunct Lower Thames Valley Main Sewerage Board. There is no opposition to the application.

HUNTINGDON COUNTY HOSPITAL.—At a meeting of the governors of this charity held on Tuesday last, the Earl of Sandwich presiding, the Duke of Bedford, Lord-Lieutenant of the County, and the Bishop of Ely, were elected patrons of the institution. The Duke of Bedford has intimated his intention of giving £100 to the funds of the hospital. A vote of condolence with the family of the late Mr. Philip Tillard, chairman of Quarter Sessions, was also passed. Mr. Tillard had been honorary secretary of the hospital for nineteen years, from its establishment in 1853. It will be remembered that the hospital adjoins the Great Northern Railway at Huntingdon, and was of great public service at the time of the terrible collision at Abbots Ripton some years ago.

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RABIES AMONGST DEER AT RICHMOND.—At the Richmond Petty Sessions on the 20th inst. an outbreak of rabies among the deer in Richmond-park was reported. About one hundred of the animals have been affected, and consequently destroyed. Every precaution is being taken to prevent the spread of the epidemic, the herd which has been attacked having been completely isolated.

MEDICAL NOTES IN PARLIAMENT.

The Vaccination Acts.

In the House of Commons on the 14th inst., in reply to Mr. Channing, Mr. Ritchie stated that he could not undertake to intervene in any individual case of repeated prosecution for non-compliance with the Vaccination Acts, nor was he prepared to propose legislation which would take away from the guardians, who have the advantage of knowing fully the local circumstances, their freedom of action in the matter.

Army Medical Officers.

In answer to Dr. Tanner, Mr. E. Stanhope stated that army medical officers, as he had already several times explained, will be exactly in the same position as they have hitherto been.

The Sanitary Condition of Barracks.

On the 18th inst., Mr. Norris asked the Secretary of State for War whether any further information had reached him as to the sanitary condition of the barracks at Dover contradictory of the statement contained in the report of the principal medical officer there and the Commanding Officer of Royal Engineers, quoted by him on Feb. 8th last, "that they had failed to discover any insanitary conditions;" whether the death of another young officer, Mr. Keegan, and the illness of a private soldier were attributable to typhoid fever contracted in the barracks; and, if so, whether he would cause immediate and searching inquiry to be made into all the facts of those cases, which followed so closely on the death of Lieutenant Jarrett, of the Buffs, from the same disease; and if he would state whether complaints had reached him as to the insanitary condition of other barracks.—Mr. E. Stanhope replied that according to a report received that morning careful investigation has failed to discover in Fort Burgoyne, where these cases of enteric fever occurred, any insanitary conditions which will account for the disease; but a further minute inspection is to be made and steps taken to remove immediately every possible source of disease to which any suspicion can attach. In answer to the third question, he stated that complaints had been received from other barracks also, and the Government would in every case, if the complaint appears to be well-founded, remedy it with the least possible delay.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BIRCH, ROBERT, M.R.C.S., L.R.C.P.Lond., has been appointed Medical Officer for the Workhouse of the Newbury Union.

BROWN, F. L. HARMAN, M.B., C.M.Edin., has been appointed Second Assistant Medical Officer to the Norfolk County Asylum.

CLARK, MALCOLM R., L.F.P.S.Glas., L.R.C.P.Ed., has been appointed Medical Officer for the Harthill District of the Worksop Union.

COLT, THOMAS A., M.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer for the Portsea District of the Portsea Island Union.

DAVIDSON, JOHN, M.B., C.M.Ed., has been appointed Medical Officer for the South Wallasey District of the Birkenhead Union.

GALLOWAY, ARTHUR W., L.R.C.P.Lond., M.R.C.S., has been appointed a District Surgeon to the City of London Lying-in Hospital, vice Thomas, resigned.

HART, WALTER, M.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer for the Fourth District of the Chelmsford Union.

HAYDEN, WILLIAM G., M.R.C.S., L.R.C.P.Lond., has been appointed Medical Officer for the Third District of the Royston Union.

HOPE, E. W., M.D.Ed., has been appointed Visiting Medical Officer to the City Hospital, Park-hill, Liverpool.

JESSOP, WALTER H., M.B., F.R.C.S., has been appointed Surgeon to the Central London Ophthalmic Hospital, vice W. Charnley, M.D., resigned.

JONES, JOHN O., M.B., C.M.Ed., has been appointed Medical Officer for the Llanfairtalhaiarn District of the St. Asaph Union.

LITTLE, W. MAXWELL, M.B., C.M.Edin., late Second Assistant Medical Officer, North County Asylum, has been appointed Senior Assistant Medical Officer, vice T. J. Compton, M.B., C.M., resigned.

LLOYD, K. M., M.R.C.S., has been re-elected Medical Officer of Health by the Holywell Local Board.

MACINDOE, ALEXANDER, M.D.Glas., has been appointed Medical Officer for the Alderley and Gawsworth District of the Macclesfield Union.

MARTIN, SIDNEY, M.D.Lond., B.Sc., M.R.C.P., has been appointed Pathologist to the City of London Hospital for Diseases of the Chest, Victoria-park, E.

MCDONALD, B. F. P., M.D.Ed., has been appointed Medical Officer for the North Wallasey District of the Birkenhead Union.

MICKLE, JULIUS, M.D.Lond., M.R.C.P., has been appointed Lecturer on Psychological Medicine at the Middlesex Hospital Medical School, vice Case, resigned.

SOUTHERN, JOHN ACTON, L.R.C.P.Lond., has been appointed House-Surgeon to the Derbyshire General Infirmary, vice E. C. Green, M.R.C.S., L.R.C.P.Lond., resigned.

WOODHEAD, GERMAN SIMS, M.D., F.R.C.P.Ed., F.R.S.Ed., has been appointed Superintendent of the new Laboratory, Royal College of Physicians, Edinburgh.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

BRISTOL ROYAL INFIRMARY.—Assistant Resident Medical Officer and Pathologist. Salary £80 per annum, with board, lodging, and washing.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's-inn-road, W.C.—House-Surgeon. Rooms, gas, and firing.—Assistant Surgeon.

CHELTENHAM GENERAL HOSPITAL.—Assistant House-Surgeon. Salary £40 per annum, with board and apartments.

COUNTY AND BOROUGH OF CARMARTHEN INFIRMARY.—House-Surgeon. Salary £100 per annum, with board, lodging, fire, light, and washing.

COUNTY ASYLUM, Stafford.—Resident Medical Officer and Superintendent. Salary £500 per annum, with unfurnished residence within the Asylum, and £200 in lieu of board.

DENTAL HOSPITAL OF LONDON, Leicester-square, W.C.—Assistant Dental Surgeon.

DORSET COUNTY ASYLUM, near Dorchester.—Assistant Medical Officer. Salary £120 per annum, with board &c.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark-bridge-road, S.E.—House-Surgeon. Salary £70 per annum, with board, washing, and residence.

FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY, Bartlett's-buildings, Holborn, E.C.—Honorary Physician.

GLOUCESTER GENERAL INFIRMARY AND GLOUCESTER EYE INSTITUTION.—House-Surgeon. Salary £100 per annum, with board, lodging, and washing.

GREAT NORTHERN CENTRAL HOSPITAL, Caledonian-road, N.—House-Physician.

HORTON INFIRMARY, Banbury.—House-Surgeon and Dispenser. Salary £60, with board and lodging.

MASON SCIENCE COLLEGE, Birmingham.—Professor of Physiology.

METROPOLITAN FREE HOSPITAL, Kingsland-road, E.—Assistant House-Surgeon.

ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY, Wigan.—Junior House-Surgeon. Salary £80 per annum, apartments and rations (exclusive of wines, spirits, and washing).

ROYAL ALEXANDRA HOSPITAL FOR SICK CHILDREN, Brighton.—House-Surgeon. Salary £80 per annum, with board, lodging, and washing (no stimulants).

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Examiner in Anatomy for the Second Professional Examination of the Conjoint Board. Examiner in Anatomy for the Fellowship.

ROYAL LONDON OPHTHALMIC HOSPITAL.—Clinical Assistants. Junior Assistants for the Out-patient Department.

SEAMEN'S HOSPITAL SOCIETY (late Dreadnought), Greenwich.—Secretary.

STANHOPE-STREET PUBLIC DISPENSARY, Clare-market, W.C.—Resident Medical Officer. Salary £105 per annum, with furnished apartments, coals, and gas.

Births, Marriages, and Deaths.

BIRTHS.

CARPENTER.—On the 12th inst., at Trevathan, Albemarle-road, Beckenham, Kent, the wife of E. Carpenter, M.R.C.S., of a son.

CHILLINGWORTH.—On the 14th inst., at Tavistock-street, Bedford, the wife of Andrew Chillingworth, M.R.C.S., of a son.

FORBES.—On the 16th inst., at Stokesley, Yorkshire, the wife of W. G. Forbes, M.B., C.M.Ed., of a daughter.

MARTIN.—On the 13th inst., at The Limes, Walkden, the wife of William Young Martin, M.D.Univ.Dur., F.R.C.S., of a son.

NICHOLAS.—On the 15th inst., at Darloe Cottage, West Looe, Cornwall, the wife of Surgeon Nicholas, M.S., of a daughter.

MARRIAGES.

LEWIS—LEWIS.—On the 14th inst., at the Congregational Church, Ealing, by the Rev. G. P. Gould, M.A., cousin of the bride, T. Preston Lewis, M.D., of Brixton, to Lucy, daughter of the Rev. C. B. Lewis, of Grange-park, Ealing, late of Calcutta.

MYDDELTON-GAVEY—CATT.—On the 14th inst., at the Parish Church, Lindfield, by the Rev. F. Willett, M.A., assisted by the Rev. R. Wyatt, Vicar of Haywards-heath, Edward Herbert Myddelton-Gavey, M.R.C.S.Eng., of Ipswich, to Frances Caroline Catt, daughter of the late Charles Catt, of Summer-hill, Lindfield, Sussex.

OWEN—HALL.—On the 13th inst., Rayley Owen, of 14, Devonshire-terrace, Hyde-park, son of William B. Owen, of 61, Cleveland-square, to Elizabeth, eldest daughter of the late Walter Hall, of 12, Holland-park, W.

DEATHS.

FRANKS.—On the 17th inst., at Darwin House, The Common, Sevenoaks, George Franks, F.R.C.S., in his 89th year.

KIRKMAN.—On the 3rd inst., at St. George's-place, Brighton, John Kirkman, M.D., for forty-five years, from 1831, Superintendent of the Suffolk County Asylum for the Insane, aged 92.

MEADOWS.—On the 19th inst., at George-street, Hanover-square, Alfred Meadows, M.D., J.P., in his 54th year.

VACHER.—On the 15th inst., at 31, Shrewsbury-road, Birkenhead, Isabella, wife of Francis Vacher, F.R.C.S.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

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Medical Diary for the ensuing Week.

Monday, April 25.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M; Thursday, 2.30

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.

RESEARCH SCHOLARSHIPS OF THE GROCERS' COMPANY.—5 P.M. Mr. W. North: Malarial Fevers.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Bruce Clarke: A peculiar Congenital Papilloma of the Thigh.—Mr. William Rose: A case of Severe Injury to the Wrist-joint requiring Suture of Nerves and Tendons.—Mr. F. B. Jessett: (1) A case of Plastic Operation on the Nose; (2) A case of Removal of a Large Cystic Growth from the Neck implicating the Submaxillary Gland.—Mr. Bernard Pitts: A case of Congenital Curvature of the Spine.—Mr. Marmaduke Sheild: Case of Tumour of the Neck greatly reduced in size by Arsenic.

Tuesday, April 26.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 1.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.

ROYAL INSTITUTION.—3 P.M. Prof. W. E. Ayrton: Electricity.

SOCIETY OF ARTS.—8 P.M. Mr. J. Hungerford Pollen: Ornamental Glass.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Dr. Warner and Dr. Fletcher Beach: A case of Chronic Meningitis, probably Syphilitic, and causing Progressive Dementia.—Dr. Poore: An Analysis of Ninety-three cases of Writers' Cramp and Impaired Writing Power, making, with seventy-five cases previously reported, a total of 168 cases.—Dr. Haig: The Relation of a certain form of Headache to the Excretion of Uric Acid.

Wednesday, April 27.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M. Saturday, 1 P.M.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M. Saturday, same hour.

SOCIETY OF ARTS.—8 P.M. Mr. Arthur W. C. Shean: Appliances for Saving Life from Fire.

HUNTERIAN SOCIETY.—8 P.M. Dr. A. J. Davies: Cases of Myxœdema.—Dr. Dundas Grant: A case of Carcinoma of the Œsophagus perforating the Trachea.—Dr. Port: (1) Two cases of Pseudo-hypertrophic Paralysis; (2) On Antipyrin.

BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens will be shown by Drs. Edis, Fancourt Barnes, G. Granville Bantock, Mr. Lawson Tait, and others. Council at 8 P.M.

Thursday, April 28.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. Dewar: The Chemistry of the Organic World.

RESEARCH SCHOLARSHIPS OF THE GROCERS' COMPANY.—5 P.M. Mr. W. North: Malarial Fevers.

Friday, April 29.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

SOCIETY OF ARTS.—8 P.M. Mr. J. F. Hewitt: Village Communities in India.

ROYAL INSTITUTION.—9 P.M. Prof. H. S. Hele Shaw: The Rolling Contact of Bodies.

Saturday, April 30.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Mr. R. Von Lendenfeld: The Australian Alps and the Origin of the Australian Fauna.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments)

THE LANCET Office, April 21st, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Apl. 15	30·45	N.W.	39	35	82	52	34	...	Overcast
,, 16	30·56	E.	44	39	97	52	39	...	Cloudy
,, 17	30·79	N.E.	43	38	62	52	33	...	Overcast
,, 18	30·55	N.W.	42	39	90	64	34	...	Hazy
,, 19	30·33	N.W.	52	45	99	67	41	...	Hazy
,, 20	30·18	N.W.	50	45	102	65	42	...	Hazy
,, 21	29·96	W.	47	44	90	58	41	...	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

DR. BRUNTON AND HOMŒOPATHY.

Dr. Dudgeon is not satisfied that Dr. Brunton will not confess more obligation to homœopathy than he does, and sends us another letter in the same strain as one we lately published. He must excuse us saying that we cannot continue the discussion. We think Dr. Brunton's estimate of homœopathy sound in point of sense and scientific. We think that Dr. Brunton's Therapeutical Index will be the better for even more expurgation than it has received. This will probably make it less trying to homœopaths and more useful to general practitioners; but this is not of the essence of the question of homœopathy or of Dr. Brunton's opinion of it.

Mr. W. Robinson.—Our correspondent is probably referring to cases of nebula of the cornea, which were at one time treated with prussic acid. Cataract was never cured by this means.

Constant Reader.—1. Lauder Brunton's Pharmacology, Therapeutics, and Materia Medica, or Beasley's Formulary, contain the directions desired.—2. Sp. vini rect.

MEDICAL OFFICERS OF HEALTH AND PRISON SURGEONS.

To the Editors of THE LANCET.

SIRS,—Will you kindly inform me whether the medical officer of health of a town is justified in visiting H.M. prison and union workhouse with a view to ascertaining their sanitary condition and reporting upon the health of the inmates without requesting the co-operation or sanction of the medical officer of those institutions, or in any way communicating with him?

I am, Sirs, yours truly,

M. O. H.

*** The Public Health Act apparently contemplates that a medical officer of health shall inform himself of the sanitary circumstances of all portions of his district, including the institutions within it. But where an institution has a medical officer who is responsible for its control and management, the necessary information can usually be obtained from this officer, and it is, as a rule, unnecessary for the medical officer to intervene. Where such intervention becomes necessary, under any special circumstances, it should always be effected in co-operation with the officer of the institution. In the case of prisons, which are under the control of a Government department having a medical staff of their own, and to which access by any but prison officials may properly be denied, it can rarely be requisite for an officer of health to claim a right of entry; and if such entry should be necessary in connexion with the work of his district, it should certainly be secured with the co-operation of the prison medical officer.—ED. L.

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AN INTERESTING CONSIGNMENT.

DR. MACALISTER, F.R.S., the Professor of Anatomy in the University of Cambridge, has, it is stated, just received a case of skulls from Egypt representing different types of people at different periods of the history of that country. By examination and comparison he hopes to arrive at sound conclusions as to the races to which the owners of these skulls belonged.

Perplexed.—We quite agree with our correspondent that his patient would be acting unwisely in adopting the course suggested.

N.—Our correspondent will see that the question upon which he writes has been solved in a satisfactory manner.

A Country Doctor is referred to THE LANCET of last week, page 795.

THE LATE DR. HUTTON.

To the Editors of THE LANCET.

SIRS,—The help of the benevolent is solicited on behalf of the family of Dr. Hutton, late of 36, Lowndes-street, whose death was recently noticed in your columns. Dr. Hutton's course, though one of industry, self-denial, and probity, was not rewarded by pecuniary success. Some of his excellent qualities were not such as lead to worldly prosperity, and even in some respects militate against it. He began life with a small patrimony; but this was sacrificed in the interest of a near relative, without any fault on Dr. Hutton's part, excepting that he was too trustful and too unselfish. Upon this part of the sad story it is not needful to dwell. Dr. Hutton's practice, once considerable, of late years diminished until the daily earnings scarcely provided the daily needs, though these were made matters of the most rigid economy. When the end came there was found to be nothing, or, rather, something less than this. There is a son who holds a commission in the army, which it is trusted he may not have to give up. He is thus provided for; but his pay does not suffice to maintain his relatives. The widow and two unmarried daughters are left with no means of support. The widow, who is advanced in years and is the subject of a painful disease, has a double claim on the profession, since she is the daughter of the late Dr. Seymour, once well known as physician to St. George's Hospital. It is hoped that some who have been less unfortunate than Dr. Hutton, or more successful, will give out of their abundance towards a fund which is being raised for the purpose of saving these ladies from absolute want. How it can best be used will depend on the amount; it shall be guarded carefully, and employed judiciously. Some of the leaders of the profession, as well as some of Dr. Hutton's attached friends, have already subscribed liberally. It is hoped that this appeal to a wider circle may be also responded to. The gentlemen whose names follow have agreed to form a committee for the collection and management of the fund:—L. Cumberbatch, M.D., W. H. Dickinson, M.D., Sir Joseph Fayrer, Geo. Faudell Phillips, Esq., G. D. Pollock, Esq., R. Stewart, Esq., W. Wadham, M.D. Dr. Cumberbatch, 25, Cadogan-place, Belgrave-square, S.W., as treasurer, will be glad to receive and acknowledge subscriptions. Cheques should be made payable to him. The following sums have already been subscribed:—

Sir Prescott Hewett	...	£52	10	0	Sir Benjamin Phillips	...	£5	5	0
Geo. Faudell Phillips, Esq.		50	0	0	S. H. Phillips, Esq.	...	5	5	0
General Seymour	...	50	0	0	W. O. Priestley, M.D.	...	5	5	0
R. Stewart, Esq.	...	31	10	0	W. Wadham, M.D.	...	5	5	0
Sir W. Jenner	...	21	0	0	Sir Joseph Fayrer	...	5	0	0
Sir Andrew Clark	...	21	0	0	Lady Fayrer	...	5	0	0
James Wyllie, Esq.	...	21	0	0	Miss Dickinson	...	5	0	0
J. D. Allcroft, Esq.	...	20	0	0	H. Lee, Esq.	...	5	0	0
L. Cumberbatch, M.D.	...	20	0	0	F. Bagshawe, M.D.	...	3	3	0
Mrs. Cæsar Hawkins	...	10	10	0	J. W. Ogle, M.D.	...	3	3	0
W. H. Dickinson, M.D.	...	10	10	0	Charles Hawkins, Esq.	...	2	2	0
Sir William Gull	...	10	0	0	T. Holmes, Esq.	...	2	2	0
Baroness H. de Worms	...	10	0	0	J. Rouse, Esq.	...	2	2	0
Geo. D. Pollock, Esq.	...	10	0	0	J. Mould, Esq.	...	2	2	0
G. B. Brodie, M.D.	...	10	0	0	J. Cavafy, M.D.	...	1	1	0
J. H. Mudie, Esq.	...	10	0	0	T. P. Pick, Esq.	...	1	1	0
Mrs. Hugh Kennard	...	10	0	0	Clinton Dent, Esq.	...	1	1	0
J. H. Levy, Esq.	...	10	0	0					

I am, Sirs, your obedient servant,
W. HOWSHIP DICKINSON,
April, 1887. Secretary of the Committee.

A Constant Reader.—We have not heard that such an intention has been expressed by any of the various licensing bodies.

Mr. Johnson (Liverpool).—We regret to be unable to assist our correspondent.

"BREAD-MAKING."

To the Editors of THE LANCET.

SIRS,—In answer to the letters of Mr. Robert Jones and "H.," permit me to say that a pamphlet was published about the year 1850 on the subject by a "Dr. Dagleish," or "Dalgleish."—Yours truly,
April, 1887. NO-NATION.

A QUERY.

To the Editors of THE LANCET.

SIRS,—Can any of your correspondents inform me how to prepare the metal, or amalgam rather, used in making children's tin (so-called) toys and capsules for bottles, together with the names of manufacturers of the latter. I require the amalgam for health purposes.

I am, Sirs, yours truly,
April, 1887. J. W.

"SHAM PATIENTS."

ANOTHER correspondent, Mr. R. J. Hutton, of Stapleton Hall-road, N., writes to say that his consulting-room has also received an unwelcome visit from probably the same scoundrel who relieved Drs. Longhurst and Low of valuable property. In the case of Mr. Hutton, the thief managed by picking a lock to decamp with seven sovereigns as plunder.

Miss Keightley.—We do not issue reprints of separate articles which have appeared in THE LANCET.

A. G. P. will see that we allude to the question in an answer to another correspondent.

SUDDEN DEATH.

To the Editors of THE LANCET.

SIRS,—"I fear you are too late," said the husband, as he hurried me to the apartment where his wife, from sudden failure of the heart's action, was lying insensible, and, as the nurse informed me, "dying." It was impossible to administer by the mouth a restorative, so without delay I injected hypodermically twenty drops of ether, sp. gr. 0·720, and, as the improvement was not as quick as I desired, forthwith twenty drops more. To the complete astonishment and great delight of the friends, consciousness and strength rapidly returned.

The sudden deaths which have so lately thrilled the public mind, more especially the death of Lord Iddesleigh in London and Mr. Christopher Bushell here, have influenced me to send you the above record, not as the proclamation of a new discovery, but as a suggestion—a suggestion in connexion with the alarming newspaper reports, which usually run somewhat thus:—"Mr. —— suddenly became ill, when, sinking, he was supported by his friend. Dr. ——, who happened to be present, was most assiduous in his attention, but at last pronounced life extinct." Should it not be impressed on the public that the easiest mode in which respiration can be carried on is when the body is extended at full length—not lying on the back, but with the inclination towards the prone position? Nature throws down to assist the encumbered circulation; the officious kindness of indiscretion and ignorance supports the fainting sufferer. Again, would it not be well in these times of frequent sudden deaths from weakened hearts that each medical man should have in his possession, ready for immediate use, his hypodermic syringe case, with its little bottle filled with ether? Would it not be well, too, that the possessor of a weak heart, or, better still, the friend who accompanies him, should also have the ether and syringe ready for instant employment. Ladies with neuralgia practise hypodermic injections of morphia by the advice and under the direction of physicians. This I would condemn. But the friend of a valuable life, the tenure of whose leasehold is uncertain through the possession of a weakened, or flabby, or a fatty heart, might well be instructed in the use of the subcutaneous injection of ether. More than one example might be adduced to show that the immediate stimulant might rouse the flagging pulse-throb; and then, instead of the announcement that "life was extinct," one might read that after the injection the appalling symptoms quickly passed away, and what appeared to be approaching death gave place to the renewed energy of life, with all its usefulness.

I am, Sirs, yours faithfully,
Liverpool, Feb. 23rd, 1887. W. H. LAMBART, M.D.

FLEXIBLE STETHOSCOPES.

To the Editors of THE LANCET.

SIRS,—In reference to the rubber stethoscope mentioned in your last issue as a new invention, permit us to say that many years ago we constructed the same indiarubber stethoscope from a design furnished us by Dr. B. W. Richardson; that it is fully described, with its advantages, in the *Æsculapiad*, vol. i., page 162-3, 1864; and that we have supplied the profession with it repeatedly, the instrument being much appreciated. The advantage you refer to, that it does not injure the instrument to sit upon it, is noticed in the paper above referred to. Dr. Richardson, we believe, does not use any other stethoscope.

We are, Sirs, yours respectfully,
Duke-street, April 18th, 1887. KROHNE AND SESEMANN.

BROWN DEFENCE FUND.

To the Editors of THE LANCET.

SIRS,—Would you kindly allow me to acknowledge the receipt of the following contributions to the above fund?

Thomas Smith, Esq., F.R.C.S.	...	£3	3	0	Dr. Frazer	... £1	1	0
Dr. Broadbent	...	2	2	0	Dr. Grey Glover	... 1	1	0
Lennox Browne, Esq.	...	1	1	0	Dr. Robert Barnes	... 1	0	0
Dr. Holman (Reigate)	...	1	1	0	J. H. T. Connor, Esq.	... 0	10	6
Benj. Duke, Esq.	...	1	1	0	M. G. Biggs, Esq.	... 0	10	6
					J. T. Boyd, Esq.	... 0	10	6

I am, Sirs, yours faithfully,
Meadow Side, 23, Upper Richmond-road, Putney, April 20th, 1887. G. STANLEY MURRAY.

THE ASSOCIATION OF GENERAL PRACTITIONERS.

To the Editors of THE LANCET.

SIRS,—I hope the above powerful advocate of the rights of the masses will favour us here in Ireland with a meeting next August, on the occasion of the British Association gathering in Dublin. Irish provincials need stirring up, and a little Saxon backbone will do them no harm.

I am, Sirs, yours truly,
Cashel, April 16th, 1887. THOMAS LAFFAN.

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LANGMORE DEFENCE FUND.

IN response to the appeal which recently appeared in THE LANCET several donations have been forwarded; but a sum of £122 is still required to pay the legal expenses necessarily incurred by Dr. J. Wreford Langmore for his defence in the recent trial, although he obtained the verdict of the jury with full costs. Subscriptions should be sent to Mr. George Eastes, M.B., 69, Connaught-street, Hyde Park-square, London, W.

Second List of Subscribers.

Subscriptions announced	£84	16	6	Mr. Malcolm A. Morris...	£1	1	0
"A Friend"	5	5	0	Mr. W. B. Owen	1	1	0
Mr. Thomas Smith ...	3	3	0	Mr. Herbert Page ...	1	1	0
Sir Henry Thompson ...	2	2	0	Mr. F. N. Padley... ...	1	1	0
Dr. W. H. Broadbent ...	2	2	0	Dr. G. V. Poore	1	1	0
Dr. J. Hughlings Jackson	2	2	0	Mr. Henry Power ...	1	1	0
Mr. G. P. Field	2	2	0	Dr. C. Taylor	1	1	0
Mr. Marcus Beck... ...	1	1	0	Mr. A. S. Underwood ...	1	1	0
Dr. Walter J. Bryant ...	1	1	0	Mr. R. H. Woodhouse ...	1	1	0
"H. V. C."	1	1	0	Mr. F. Canton	0	10	6
Surgeon-General W. R. Cornish	1	1	0	"W. D."	0	10	6
Mr. Henry Gaselee ...	1	1	0	Dr. J. Brevard Neal ...	0	10	6
				Mr. Walter Rigden ...	0	10	6

Mr. G. E. Walker.—We know of no institution where the suggestion is acted upon; but it appears worthy of consideration.

M.R.C.S. is referred to an article on the subject which appeared in THE LANCET of Nov. 20th last.

Mr. B. B. Joll will find his question answered in our current issue.

R. N.—Once or twice daily.

ABDOMINAL PALPATION.

To the Editors of THE LANCET.

SIRS,—I am informed that in one of the numbers of your journal the statement was made that the method of abdominal palpation was not taught in any of the medical colleges. I take pleasure in mailing to you to-day one of the announcements of the Long Island College Hospital, by which you will see that, whatever may be true of other colleges, this one recognises the value of this means of diagnosis. I may also add that this plan has been carried out with us for two years past.

I am, Sirs, yours very truly,

J. H. RAYMOND, Secretary.

Long Island College Hospital, Brooklyn, N.Y., April 7th, 1887.

Dr. C. E. Monro (Penge).—If the notice arrived, and we have no recollection of it, it has been mislaid.

Dr. Glanville.—The formula was given in our issue of March 26th.

Dr. J. Hardie's letter is crowded out this week.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from — Sir Dyce Duckworth, London; Dr. Braxton Hicks, London; Dr. Dickinson, London; Mr. Harrison Cripps, London; Herr Fischer, Jena; Mr. C. Higgens, London; Mr. J. W. Watson, York; Mr. Walter Whitehead, Manchester; Dr. Adams, Runcorn; Dr. Forbes Winslow; Mr. Stanley Murray, Putney; Mr. Batterham, St. Leonards; Dr. C. E. Monro, Penge; Mr. Branthwaite, Willesden; Mr. Faulkner, London; Mr. Tallack, London; Mr. H. S. Jackson, Walmer; Mr. Wickham Barnes, London; Mr. H. Bramwell, Newcastle-on-Tyne; Dr. Julius Mickle, London; Mr. J. H. Raymond, Brooklyn; Messrs. Bryce and Whitelegge, Nottingham; Dr. J. Beckett, London; Messrs. Lynch and Co., London; Mr. C. H. Wells, London; Messrs. Kegan Paul and Co., London; Dr. Sawtell, London; Messrs. Maclure, Macdonald, and Co., Glasgow; Mr. J. B. Pike, Loughborough; Messrs. Loeflund and Co., London; Mr. K. Tomson, Luton; Mr. W. E. Sacker; Mr. Barton Smith, London; Mr. R. J. Hutton, London; Messrs. Todd, Burns, and Co., Dublin; Dr. Rentoul, Liverpool; Mr. W. G. Evans; Mr. Kenneth Millican, London; Mr. E. C. Andrews, London; Messrs. Burroughs and Wellcome, London; Mr. G. Banks, London; Messrs. Condy and Co., London; Mr. Lysaght, Sydney; Mr. T. Laffan, Cashel; Mr. W. Greene, Wallingford; Mr. F. C. Turner, London; Mr. G. P. Best, Cheltenham; Mr. Kingzett, London; Mr. Blanch; Messrs. Peebles and Son, London; Mr. Haslam, Birmingham; Dr. M'Kendrick, Glasgow; Dr. McKee, Wiesbaden; Mr. Beck, London; Mr. M. H. Taylor, Richmond; Mr. J. Gilroy, Birmingham; Dr. G. D. Douglas, Bournemouth; Mr. Mosely, Leeds; Dr. Railton, Manchester; Dr. Dudgeon, London; Mr. Cornish, Manchester; Mr. Mayo, London; Mr. Thomas, Birmingham; Mr. Jeaffreson, Newcastle-on-Tyne; Messrs. Beal and Sons, Brighton; Mr. Orchard, Notting-hill; Messrs. Johnston and Co., Edinburgh; Mr. Armstrong, Manchester; Messrs. Wright and Co., Bristol; Mr. Barron, Manchester; Dr. Benthall; Mr. Mackay, Caithness; Mr. Botwood, Ipswich; Mr. Lane; Messrs. Miller and Richards, London; Mr. Amos, Newcastle-upon-Tyne; Mr. McKenzie, Templeogue; Mr. Burton, Peckham; Mr. Houde, Paris; Mr. Lewis, Birmingham; Mr. Cripps, London; Dr. Letters, Dundee; Mr. Sorley, Tottenham; Mr. Barlow, Birmingham; Mr. Battie; Mr. Owen, Liverpool; Mr. Kuhn, London; Mr. Oldham, Liverpool; Mr. Birchall, Liverpool; Miss Frith, London; Mr. Davis, Brighton; Messrs. Lee and Martin, Birmingham; Mr. Bland, Colchester; Messrs. Macfarlan and Co., London; Mr. Maclean, Harpenden; Messrs. Hopkinson and Co., Notts; Mr. Miller, Cambridge; Mr. Yates, Bath; Mr. J. Lewis, London; Mr. Wilson, Radstock; Dr. Alderson; S., Edinburgh; A Candidate; Perplexed; X.; Justitia; A. G. P.; R. P. A., West Bromwich; M.B. Lond. & L.S.A.; J. W.

LETTERS, *each with enclosure*, are also acknowledged from — Mr. Pelt, Tralee; Dr. Macalister, Cambridge; Mr. Hallet, Bath; Messrs. Read and Co., Bristol; Mr. Vacher, Birkenhead; Mr. Hillier, Tunbridge Wells; Mr. Nourse, Exeter; Mr. Gibson, Worcester; Messrs. Krohne and Sesemann, London; Mr. St. Dalmas, Leicester; Messrs. Shelly and Co., London; Mr. Curtice, Yeovil; Mr. Holford; Messrs. Clark and Co., York; Mr. Cairns, Wakefield; Miss Carson; Messrs. Hay and Sons, London; Mr. Juler, London; Mr. Gum, Deptford; Mr. White, Wolverhampton; Dr. Needham, Barnwood; Mr. Moullin, London; Mr. Thompson, Gloucester; Dr. Pattison, Dundalk; Messrs. Spong and Son, Biggleswade; Mr. Williams, Oswestry; Dr. Gardiner, Sheffield; Mr. Sergeant, London; Mr. Dixon, Bootle; Mr. Oldham, Liverpool; Mr. Saville, Wellington; Mr. Profitt, Banbury; Mr. Boughton, Ipswich; Mr. Page, London; Mr. Dixon, Northampton; Dr. Mackay, Eske; Mr. Brigwood, Stafford; Mr. Sotheran, York; Messrs. Smith and Sons, Weston-super-Mare; Dr. Ward, Oxford; Messrs. Chants and Co., Gloucester; Dr. Croke, Hull; Mrs. Cooke, Mold; Mr. Jenkins, Worcester; Mr. Owen, London; Mr. Brown, Tredegar; Mr. Holtby, York; Mr. Rideal, London; Mr. Keay, Polton; Mr. Engelbach, Morton Hampstead; Mr. Affick, Manchester; Mr. Chedwick, Bentham; Mr. Casson, Handsworth; Mr. Symons, Dumfries; Mr. Whateley, Birmingham; Mr. Jeffrey, Epsom; Mr. Maw, Bradford; Mr. Guest, Darlington; Surgeon, Liverpool; Medicus, Streatham; Hope; Z.; R. G. V.; A. B., Bridgend; X., Blackheath; Amicus; Home, Colwyn Bay; Secretary, Bristol; Strophanthus, Newcastle-on-Tyne; Alpha, Hockley; M.D., Tredegar; W. T., London; E.; Tonica; B. P., Forest Hill; Matron, Dorchester; E. P., Grantham; Cantab., Burton-on-Trent; X. Y. Z., Leeds; Beta, London; W. W., Bradford; Gracilis, Newcastle-on-Tyne.

Leicester Daily Mercury, Index, Light, Word and Work, Eastern Daily Press, Greenock Telegraph, York Herald, Dundee Advertiser, Hull and East Riding Critic, Star and Cradle, Measure Fitting, Liverpool Courier, Medical Review, British Dental Review, Manchester Courier, Veterinary Review, &c., have been received.

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Notices of Births, Marriages, and Deaths are charged five shillings.

Cheques to be crossed "London and Westminster Bank."

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Books and Publications (seven lines and under)... ...	£0	5	0
Official and General Announcements	0	5	0
Trade and Miscellaneous Advertisements	0	4	6
Every additional Line	0	0	6
Front Page... ... ... per Line	0	1	0
Quarter Page	1	10	0
Half a Page	2	15	0
An entire Page	5	5	0

The Publisher cannot hold himself responsible for the return of testimonials, &c., sent to the office in reply to advertisements; copies only should be forwarded.

NOTICE.—Advertisers are requested to observe that it is contrary to the Postal Regulations to receive at Post-offices letters addressed to initials only.

An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on page 2, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

Advertisements are now received at all Messrs. W. H. Smith and Son's Railway Bookstalls throughout the United Kingdom and all other Advertising Agents.

Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

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Lectures
ON
INJURIES OF NERVES.

Delivered at the Royal College of Surgeons,

BY ANTHONY A. BOWLBY, F.R.C.S. ENG.

LECTURE I.

MR. PRESIDENT AND GENTLEMEN,—My first duty is to offer you my sincere thanks for the honour you have conferred in appointing me to deliver these lectures. Believe me, I am very fully conscious of the responsibility which is incurred, and can assure you that it was not without some diffidence that I undertook the task. The subject I have chosen is Injuries of Nerves, and if any excuse is necessary for my choice, it is supplied by the fact that to this subject I have given the greater part of my spare time for the past six or seven years, and that what I submit to you is the best work I have to offer.

It is now some nine years ago, Sir, that my attention was first directed to injuries of the nerves by a case at that time under your own care in St. Bartholomew's Hospital. The patient was a man who had injured his ulnar nerve near the elbow-joint some months before admission, and you, Sir, performed the operation of nerve suture, an operation which at that time was new, and had been confined in its application to some few cases chiefly in the hands of continental surgeons. The novelty of this operation interested me, as did also the doubts expressed as to its success and the dangers attending it, and my curiosity was further aroused when I found, on seeking for more information, that there was little that was accurate and much that was speculative in the opinions expressed by writers on the subject. A year later another operation of a similar kind was performed by Mr. Holden; and in 1880, when acting as his house-surgeon at St. Bartholomew's Hospital, I had opportunities myself of treating by suture several divided nerves. From this time forward I determined to solve by my own observations, if possible, those problems to which I could not obtain a satisfactory answer in published works, and was stimulated to additional efforts by the award of the Jacksonian Prize of the Royal College of Surgeons to an essay of mine on "Wounds and other Injuries of Nerves" in the year 1882. That essay I did not publish, neither did I report any of the cases on which it was founded, for I was not at that time sure of my ground, and felt I had yet much to learn of nerve injuries, and especially of their clinical course. Fortunately for my project I was attached to a large hospital, into which many and various accidents were yearly admitted, and to the surgeons under whose care the patients were placed—yourself amongst the number—I owe a debt of gratitude larger than I can ever expect to pay. Without their constant aid and encouragement, without access to the cases under their care, it would have been impossible for me to have attained my object, or to have had the opportunity of delivering these lectures, much of the material for which has been extracted from an essay by myself, to which the Astley Cooper Prize was awarded last year.

The time at my disposal does not permit me to describe the various anatomical and physiological properties of nerves which bear upon the injuries to which the latter are subject, and I shall therefore at once pass to a consideration of those changes which result from simple section of a nerve trunk, and are seen in both its peripheral and proximal portions. With regard to the peripheral end, there is now tolerable unanimity in one respect at least, as all writers concur in describing a degeneration of both motor and sensory fibres, whilst differing in their description of the process. Waller in 1862 first thoroughly investigated the effects of division, and established the facts—(1) that section of the anterior root, before its junction with the posterior, resulted in a degeneration of that part of the motor fibres which are thereby separated from the cord; (2) that section of the posterior root on the proximal side of its ganglion resulted in a degeneration of that part of the fibres only which intervened between the point of section and the cord, while the periphery of the nerve remained intact. Waller therefore concluded that the ganglion cells of the cord formed a trophic centre for the nerves of the anterior root, while the ganglion on the posterior root fulfilled a similar office for the sensory fibres. These conclusions are generally allowed to be correct, as are also the facts from which the author deduces them, despite the difficulty of explaining the *regeneration* which we shall presently see occurs while the distal end is still separated from its trophic centres. In the above experiments the recurrent nerve fibres present in all nerve trunks may be seen for some time in a normal state in the *peripheral* segment, while in the proximal end of the divided nerve some may be seen in a degenerate condition. The recurrent fibres soon undergo atrophy.

While agreeing in the main as to the changes occurring in the distal end of a divided nerve, the various authors who have investigated this subject differ in the details of the process, and it will therefore be advisable to quote here the most important of these conclusions. Waller and Busch[1] believe that the whole of the primitive fibrils are destroyed, and are regenerated by reunion with the proximal end. Ranvier[2] describes a swelling up of the nuclei of the sheath of Schwann, the protoplasm of which collects into large masses, and encroaches upon the sheath of myeline. The swelling commences within twenty-four hours of division, and by the third day the pressure of the newly formed mass has resulted in a complete section of the axis cylinder opposite the situation of the nucleus in each of Ranvier's nodes. By the sixth day the myeline is reduced to small fragments, the protoplasm contains fatty granules, and the nuclei of the sheath are increased in number. Finally, at the twentieth day the fragments of myeline settle into masses separated from each other by slender filaments with oval nuclei formed by the sheath of Schwann. At the same time granulo-fatty degenerative changes are observed in the connective tissue cells in the endothelium lining the vessels, the fatty granules being probably derived from the myeline which passes in a state of solution through the sheath of Schwann. White blood cells become infiltrated into the substance of the nerve tubes, and appear to be instrumental in removing the débris. Mitchell[3] describes a loss of translucency from the fourth to the sixth day, and says that the white substance of Schwann undergoes an irregular segmentation and finally disappears, the nerve assuming a dull grey tint, like a piece of firm connective tissue. While confessing the difficulty of arriving at a very satisfactory conclusion, he considers that the axis cylinder is probably not affected by the process of degeneration. He does not think that this process spreads gradually from the cut end of the nerve to the periphery, but is satisfied that it affects at one and the same time the whole length of the nerve. Benecke[4] agrees with Mitchell that the degeneration affects the whole periphery simultaneously, and that it becomes of a cloudy yellow tinge and tears easily, the medullary substance coagulates and breaks down to a fine detritus, the axis cylinder becomes enlarged and swollen, and finally disappears, whilst the nuclei of the sheath multiply. MM. Cossy and Dejeune[5] consider that the large nerve fibres do not degenerate so rapidly as the fine primitive fibrils, and that up to the third day the only change is that the axis cylinder is abnormally friable and the nuclei of the sheath swollen. Changes in the medullary sheath, similar to those already described, commence on the fifth day, and are considered by these authors to be secondary to those which occur in the axis cylinder; the latter entirely disappears by the twelfth day. Leegard[6] investigated the condition of the distal ends of the nerves after having produced a simple solution of continuity of the myeline and axis cylinder, and not of the sheath, by the application of a ligature which was immediately removed. He found that in three days the axis cylinder broke up in places, and the myeline ran together in cylindrical masses, and ultimately underwent a granular degeneration, the nuclei enlarged and multiplied, and the axis cylinder finally disappeared from the tenth to the fifteenth day. This process of degeneration attacked the whole peripheral

[1] Zeit. für Wis. Zool., 1851, vol. vi.
[2] Comp. Rend. de l'Académie de Science, 1872; and Cornil and Ranvier's Path., 1882.
[3] Injuries of Nerves.
[4] Virchow's Archiv, 1872.
[5] Archives de Phys., 1876.
[6] Archiv de Klin. Méd., 1880.

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segment at once. The foregoing conclusions are all drawn from experiments on animals.

In two cases in which I have had the opportunity of examining the nerves of men (one on the fifteenth day after injury and one on the thirtieth) in which operations for the purpose of secondary suture were undertaken, the condition of the peripheral end was very satisfactorily demonstrated after staining in osmic acid. In the case in which the nerve had been divided fifteen days previously there was found much segmentation of myeline, which had collected in droplets of varying size in the nerve sheaths. In most of the sheaths there was some myeline, but in a few it was completely absent. The nuclei of the sheath had increased in number, although not to any great extent. The condition of the axis cylinders was very difficult to establish with certainty. In most parts of the sections they had completely disappeared, and it was only after a very prolonged search that I could satisfy myself that some of them were yet present, though so much altered in contour as to be almost indistinguishable. In the case in which the section was thirty days old the changes mentioned above were all further advanced. Only a few drops of myeline remained; the axis cylinders had entirely disappeared (or at any rate could no longer be distinguished); whilst the nuclei of the sheath were again but slightly increased in number. In another case I examined the peripheral end of a divided nerve three months after section. Here it was impossible to recognise any nerve tubules at all. There was a complete absence of myeline and of axis cylinders. In the nerves which I have examined at times varying from three to six months after injury similar appearances are found. In most of such specimens the places formerly occupied by nerve bundles are marked by the presence of circular masses of tissue which have the appearance of connective tissue with many nuclei. These masses are, however, much smaller than the healthy nerve bundles, and consequently do not fully occupy the spaces in the perineurium, but appear to have shrunk away from the surrounding tissues. My own observations on human nerves would thus appear to accord with those of other observers on the nerves of animals, and it may be concluded that the degenerative changes are signalised by the destruction of the myeline, the multiplication of the nuclei, and the loss of continuity of the axis cylinder. The majority of observers, and amongst them the most trustworthy, are also agreed that these changes occur in the whole length of the peripheral portion at one and the same time, while others maintain that they commence at the cut end and spread downwards, either a short distance from the point of section or else along the whole periphery. This degeneration commences within a day or two of the injury, and within five or six weeks the nerve has undergone complete atrophy.

Central end.—As has already been mentioned, the fibres of the proximal end are comparatively slightly affected by the nerve section. Ranvier describes the changes as being limited to one, or at most two, of the inter-annular segments, and says that the myeline, instead of becoming broken into large fragments, which subsequently become smaller, as in the peripheral end, is rapidly reduced into fine granules, which later on assume a yellowish-brown colour with osmic acid. The nuclei multiply and increase in size, but instead of encroaching on the medulla they remain flattened against the sheath of Schwann, whilst the axis cylinder remains intact. An infiltration of white blood-cells into the myeline occurs, resembling that already described in the peripheral segment. Neumann also describes somewhat similar changes. Leegard[7] describes changes like those which he noticed in the peripheral end as occurring in the first inter-annular segment of the proximal end; the next three or four segments become also irregular and shorter, with the medulla broken up. The sheath is empty at places, and shows nuclear prolification.

Bulbs.—It is now many years since it was noticed that after section of a nerve the upper end became bulbous, and this has more particularly excited observation in stumps. The very general opinion as to the structure of these tumour-like swellings in the nerves is that they consist of fibrous tissue, a statement which has been handed down from one author to another without apparent investigation. George Hayem in 1877[8] was the first to point out that these bulbs consist not only of newly formed fibrous tissue, but also of new nerve elements. He believes that after section the most distal portion of the upper end degenerates, and is replaced by young fibres which undergo a gradual process of development. In a case which I have recently examined, the amputation (through the leg) had been performed five years previously in a lad aged twelve years. Reamputation became necessary on account of an insufficient covering for the bones, and an examination of the bulb on the anterior tibial nerve showed on cross section a greater number of fibres than did the healthy nerve above. The only conclusion that can be arrived at is that the additional fibres were of new formation; they were mixed with newly formed fibrous tissue. A microscopic examination of such a bulb under a low power shows a proliferation of the perineurium, which penetrates between the different fibres in the bundles, and separates them into smaller bundles of three, four, or more fibres. Later on, these fibres becoming compressed, gradually lose their sheath of myeline, and so appear smaller than normal, until finally they come to be composed only of axis cylinders. The lower down in the bulb the section is made, the more complete do these changes appear; so that between this part and the junction of the bulb with the healthy nerve above all stages of transition between connective tissue and healthy fibres may be seen. Considering that the young nerve fibres also appear on section to be smaller than normal, it becomes very difficult to say for certain whether any individual nerve tube is in a stage of transition into a higher or lower state. Nevertheless, as a transverse section shows, on careful examination, that although some of the thickness of the bulb is due to an increase of the connective tissue elements, yet the larger amount of it is composed of nerve fibres, we are naturally driven to the conclusion that some of these must be of new formation. Sections of the nerve trunk above the bulb do not usually show any of the degenerative changes that are met with in the peripheral end, there being no increase of connective tissue or decrease in the white substance of Schwann unless inflammatory changes have been started and "chronic neuritis" has supervened. In those cases, however, where the section is of very long standing, it appears that after the lapse of a considerable time, probably years, the nerve fibres do in part atrophy and degenerate, and thus follow the example of other tissues and bear evidence to the general truth of the pathological law that "atrophy results from non-use." I have not myself had opportunities of examining the proximal ends of divided nerves at any distance from the seat of injury after simple section, but I have examined the nerves from limbs in which amputations have been performed in bygone years, and have found in them that many of the nerve fibres are diminished in size, that their myeline sheath is greatly shrunken, and that some of them have quite disappeared. This is a pathological fact of the greatest clinical interest, and one to which I shall again have occasion to refer.

Regeneration and union.—The process of degeneration, which has just been described, is succeeded by one of regeneration, resulting, in favourable cases, in a complete restoration of the nerve. It is of great importance to observe that this regeneration *can* take place in the peripheral end previous to any reunion with the proximal extremity, and an examination of the former several months after section will show that some of the axis cylinders have been re-formed, and that around them a deposit of myeline is slowly developing. The fibres are not, of course, collected into symmetrical bundles, as in a healthy trunk, and are smaller than natural; they may be seen scattered about amongst the surrounding connective tissue in all stages of development, some of the axis cylinders yet naked, others with varying amounts of myeline around them. It seems strange that such regeneration should take place without reunion with the nutritive centre, but the importance of the fact for a proper appreciation of the symptoms and results of nerve sections, as well as for the light it throws on the question of treatment, makes it one of much interest. As to the exact process by which these new nerve fibres are formed and the divided ends reunited, time does not permit me to do more than refer very briefly to the opinions and work of others. As a result of experiments on various animals, it has been shown by numerous writers that the nuclei of the sheath are the chief agents in the repair, and that they form new axis cylinders and unite the divided ends. The description by Ranvier of an extension of the axis cylinders of the upper end into the [illegible] of the peripheral portion is not generally [illegible]

[7] Op. cit. [8] Rev. des Sci. Méd.

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already alluded to my own examinations of human nerves in a state of degeneration, and shall now describe the appearances I have met with in cases in which regeneration of the peripheral end had occurred after section, independently of union with the upper portion.

The first case was that of a lad, aged eighteen, in whom an operation for reunion of a divided ulnar nerve was undertaken seven months after injury. An examination of the portion of the peripheral end, which was removed preparatory to suture, showed that, scattered throughout a transverse section, were several small, imperfectly developed nerve fibres such as are met with (and have already been described) in the bulbous proximal end. These new fibres were not collected into definite bundles; they were much smaller than natural, and their myeline sheath was scarcely perceptible. The total number of these new fibres was but small, and I was unable to trace their development in a satisfactory manner.

The second case was that of a woman, aged fifty-three, who had divided the median nerve just above the wrist-joint. An operation for suture was undertaken nine months later, and the condition of the resected portion of the peripheral end was found to be as follows. The circular spaces in the neurilemma, which, in a state of degeneration, I had previously found in other cases and have already described as partly filled with nucleated connective tissue, I now found to be occupied by nerve fibres, in varying stages of regeneration. The steps in the formation of these fibres could, moreover, be most clearly traced. Their first appearance was in the form of oval and spindle-shaped nuclei, which seemed to be identical in structure with the nuclei of the sheath. These nuclei were arranged in bundles, with their long axes parallel to that of the nerve trunk. The next step was the elongation of the nuclei and their gradual transformation into fibres, around which subsequently a myeline sheath was formed. In some parts of the section, bundles of newly formed nerve fibrils could be seen occupying the spaces in the neurilemma which had evidently been previously occupied by the healthy nerve bundles, before the time when the injury was inflicted. The new fibres in some bundles were in a much more advanced stage of development than those in others, the regeneration appearing to progress simultaneously throughout all the tubules in each bundle irrespective of the condition of the fibres in others.

I have also had the opportunity of examining the nerve ends in a case in which the ulnar had been divided nearly two years before I saw the patient. The nerve had been completely cut across, and no union had taken place, the upper and lower ends being separated by about half an inch or more of firm cicatricial tissue. A microscopical examination of the peripheral end showed that many of the fibres had been regenerated. A large number of the bundles contained numerous nerve fibres in various stages of development. In some the axis cylinder alone was formed. In many others the myeline sheath surrounded the young axis cylinders, whilst in some the "nodes of Ranvier" were well marked.

There is, indeed, a tolerable consensus of opinion as to the part played by the nuclei of the sheath, from which, according to most authors, the new axis cylinders are formed. The strongest objection to Ranvier's theory, that the undegenerate fibres of the central end grow into the empty sheath of the periphery, lies in the fact that, as I have already described, the peripheral end will regenerate even when ununited to the central healthy fibres; and if further proof of this be necessary, it may be found in the investigations of Phillippeaux and Vulpian,[9] who not only saw regeneration of the peripheral fibres without union with the proximal end, but found the same take place in a piece of nerve resected and transplanted into the surrounding tissues. If, then, the peripheral end has become regenerated, and is placed in sufficiently close proximity to the central portion, union will result by the continued formation of nerve fibres between the divided extremities. But, on the other hand, should union fail, it appears probable that the nerve again degenerates, perhaps never to recover. I have found no mention of this by other authors, but am, nevertheless, inclined to feel certain that such changes must occur, for otherwise we should have some difficulty in explaining those cases in which many years after injury the nerves have been found completely atrophied. As examples of such I append the following two cases. Israel[10] records the case of a man who had been shot through the median and ulnar nerves thirty-two years previously. The peripheral ends were found to have only the thickness of a knitting-needle, and to consist chiefly of connective tissue. In vol. xxiv. of the Pathological Society's Transactions, Mr. Butlin describes a case in which the ulnar nerve had been divided fourteen years before death. No union had taken place, and the lower end was found to consist nearly entirely of connective tissue, a microscopic section showing that the healthy nerve fibres had entirely disappeared, while the presence of any axis cylinders was very doubtful. No doubt many such cases can be found, and all bear but one of two explanations. Either the divided nerve never became regenerated at all, or else it subsequently again degenerated. The latter appears to me the most likely, but before the matter can be considered settled more investigation is necessary.

The conclusions which may be drawn from the most recent investigations are: 1. That the nuclei of the sheath of Schwann (which are developed from epiblast) form the new axis cylinder. 2. That the myeline is subsequently formed around the new cylinder. 3. That the peripheral end may become in part regenerated without forming any union with the proximal extremity, but that it probably again tends to degenerate if union fails.

(To be concluded.)

[9] Gaz. des Hôp., 1861.

[10] Virchow's Archiv, vol. lxxxv.

ABSTRACT OF

Lumleian Lectures

ON THE PATHOLOGY OF INTRA-UTERINE DEATH.

Delivered at the Royal College of Physicians of London, March, 1887,

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LECTURE III.

DR. PRIESTLEY in this lecture discussed the diseases and anomalies of the placenta, one of the chief difficulties in the study of which arose, he observed, from the tendency on the part of authors to regard the particular morbid change which they have had the opportunity of investigating as the chief or only disease with which the organ is affected. All other morbid appearances are for them but consequences or complications of a specific and cardinal lesion upon which the rest depend. Thus Charpentier accepts the investigations of Robin as illustrating the whole range of placental pathology, and believes that when disease has invaded the placenta it commences always in fibro-fatty change; and consequent on this, blood extravasations and successive transformations of effused blood account for all the various pathological appearances associated with the death or enfeebling of the fœtus. Verdier and Bustamente, on the other hand, take entirely another view of these changes. To the lecturer it appeared that one cannot long investigate the diseases of the placenta without discovering that they are most complex in their nature, and that they proceed from a variety of causes inextricably intermixed—sometimes one pathological condition having the precedence, sometimes another. The placenta is, in truth, as liable to be affected by a variety of diseases as the liver or the lung, and some of its diseases bear not only a striking resemblance to diseases occurring in those organs, but have affinities with them and may depend on the same causes. Confusion has also arisen from investigators describing the same morbid condition under a different name, probably because it was observed only in one stage of progress or with some variations; and some have fallen into the error of ranging affections which are intrinsically different under the same appellations. Extravasations of blood into the young placenta are very common, and they occur as the result of rupture of some of the vascular maternal loops which ramify throughout the placental mass and surround the villi of the chorion. These vascular maternal loops eventually become the sinuses or

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cavities which permeate the placental tissue at a later period. If the extravasations be limited in extent, the life of the embryo may not be compromised, but a more extended apoplexy at once stops its nutrition, and the root-like processes of the young villi become so compressed that the circulation can no longer be carried on through the minute fœtal bloodvessels which they contain. Apoplexy takes place into the substance and on the uterine surface of the full-grown placenta also very frequently. There is, however, this marked difference from the earlier period—that now the placenta is larger and thicker, and isolated clots may be deeply embedded in its substance, only to be exposed by incision. Others may have been formed between the uterine walls and the maternal surface of the placenta, making a deep depression into the centre of a placental cotyledon and compressing the placental structures. As a further difference in the results of blood extravasations in the young and more mature placenta, Dr. Priestley pointed out that in the latter several successive effusions of blood may take place, forming apoplexies of varying sizes and dates, without so seriously jeopardising the life of the fœtus as it would do at an earlier period of gestation. The larger size of the placenta and its more extended surface afford a better chance of so much of the potential part of it retaining its healthy relations, and so carrying on the placento-fœtal circulation that embryonic life is sustained. Among the writers on this disease are Sir James Simpson, M. Jacquemier, Verdier, Bustamente, and Robin. The last named differs *in toto* from other workers in the same field as to the order of pathological events in the placenta. He insists that no blood extravasations take place in the placenta without previous disease in the tissue, and that the morbid change which is the most common forerunner of apoplexy is not mere vascular change, but an alteration of the whole structure of the villus. The interference with the life of the child or with the course of gestation depends upon the amount of extravasation, and the excitability or quiescence of the uterine walls under the provocation to contraction.

Inflammation of the placenta, or placentitis, has been discussed by several authors, amongst whom Simpson described it as consisting of three stages: the first being one of congestion, in which the tissue is engorged by an unusual accumulation of blood in the vessels; the second characterised by the exudation of coagulable lymph, producing a greater density of tissue and eventual induration; the third stage being that in which purulent matter is formed. In later days a good deal of scepticism has been expressed about the existence of placentitis—at least, so far as its parenchyma or fœtal portion is concerned. Bustamente disbelieves in its existence altogether, and says the evidence rests on the supposed presence of pus, which has been shown to be fallacious; the supposed purulent matter, according to Robin and other observers, being merely pseudo-pus, produced by broken-down fibrin. It has been further argued that, according to modern theories, inflammation of the placenta is impossible, since there are no capillaries in the maternal portion, and there are no nerves to regulate the contractility of vascular walls in the entire structure. This reasoning does not, however, seem conclusive to Dr. Priestley. There are fœtal capillary loops in all the active villi, and there are also minute capillaries of maternal origin in processes or dissepiments of the decidua which circumscribe the fœtal villi. It is true, nevertheless, that the presence of purulent matter in the placenta in most of the reported cases is supported by imperfect evidence. There are only some ten cases of abscess in the placenta recorded, and as no account is given of the microscopic examination of the supposed pus, the evidence is plainly unsatisfactory. Purulent matter has, however, been found and duly authenticated on the surface of the placenta and in the uterine sinuses at or near the placental site. That some morbid change analogous to inflammation does take place in the placenta or its neighbourhood is apparently indicated by the firm adhesions which are occasionally formed between the placenta and the uterine walls, and from the traces of an exudation which agglutinates and compresses the villi of the placenta.

Dr. Priestley then spoke of a remarkable affection which he designated as placental phthisis, a disease which repeated investigations have convinced him is not, primarily at least, a mere increase of the cell structure or of the fibroid element in the placenta, but in its first stage consists of an exudation or deposit thrown out among the villi, and is probably due to some modification of a low inflammatory process. The disease is not really tubercular in its character; nor have bacilli been found in its substance; neither is it primarily or essentially a fatty degeneration, for the deposit is not affected by the reagents which show the presence of fat. Its corpuscles, unlike fat-granules, are thoroughly coloured by the material used for staining the microscopic sections. It is not due to changed blood clot, for there are neither altered blood-corpuscles nor crystals in its substance. Its general appearance, both before and after section in the earlier phases, is rather that which has been described as fibrinous or other analogous deposit, and it has the chemical characters of protein compounds. Dr. Priestley announced his intention of going into the minute pathological anatomy of this so-called placental phthisis in a paper which he purposes offering to the Obstetrical Society. In the order of successive changes the disease runs in somewhat parallel lines with phthisis in the lungs. First comes solidification, then softening, with breaking up of tissue and resulting hæmorrhage. A notable feature in many of the microscopic sections was the great hypertrophy of the contractile coat of the fœtal bloodvessels. It is not an uncommon form of disease, and there is some reason to believe that although commonly it runs a chronic course, yet occasionally its progress is very rapid. With regard to fatty degeneration of the placenta, the lecturer remarked that the question is whether this disease during the life of the child really occurs as a primary pathological change, or is invariably preceded by some exudation or other morbid change which initiates the fatty metamorphosis. Fatty degeneration, whether it occurs as a primary change or is the secondary effect of some other pathological condition which precedes it, may produce softening and disorganisation of the placental tissue, and so favour extravasation of blood or apoplexy. In other placentæ it leads to atrophy. Virchow has described a very curious morbid transformation of the villi of the placenta, which he terms "myxoma fibrosum." It consists of such enlargement of the stems and villi by fibroid hypertrophy that they form in some cases distinct tumours in the placental structure. Cases of this disease are somewhat rare; but Dr. Priestley has seen two excellent examples in Copenhagen, which have been described in Virchow's *Archiv*, in 1878, by Storch. Virchow regards the disease as a transformation of the mucous element pertaining to the villus structure into fibroid tissue, instead of the soft myxoma which is seen in cystic chorion. The fibroid change is, however, unlike the cystic chorion, more frequently connected with the later period of pregnancy, although indications of it are sometimes seen in the earlier months.

Passing over œdema of the placenta, melanosis, calcareous or osseous concretions, cysts and tumours, Dr. Priestley then came to the subject of syphilitic placenta, concerning which much diversity of opinion exists. So far as his observation goes, he does not think we are yet able to say with precision that any one specific lesion of the placenta belongs alone to syphilis, although some morbid appearances are more constant than others in connexion with syphilis—as, for example, the changes described by Fränkel. In addition to the hypertrophy of the villi described by Fränkel, and morbid changes in the decidua, he had seen fibroid deposits, such as those described by Rokitansky—some unchanged, others undergoing fatty transformation. Again, he had seen the yellowish granulations of varying sizes looking like tubercles, as observed by Lebert; but he had also seen most, if not all, of these pathological appearances where no syphilitic history could be traced. The nearest approach to precision in this respect is to say, as a general rule, when the decidual or maternal portion of the placenta has become so far changed by hyperplasia as to arrest the utero-placental circulation and the full development of the placental villi, that this is probably due to maternal syphilis. It finds its analogy in the changes which take place in the mucous membrane in the uterus and elsewhere when the blood is undoubtedly poisoned by syphilis, and also in the thickening of the decidua during the early pregnancy of syphilitic women, which has been described by Virchow and Dohrn as "endometritis papulosa et tuberosa." When fibrinous and pseudo-tubercular deposits are found in the placenta in connexion with syphilis, they are probably only the expression of a depraved or impoverished condition of the blood, which may be equally associated with anæmia or with some form of dyscrasia. When there is marked hypertrophy and degeneration of the villi, the maternal portion of the placenta being less affected, the syphilitic taint more probably comes from the male parent, and the mother may show no signs of

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the disease. Both Depaul and Tarnier, among modern observers, dispute the existence of absolutely specific lesions in the placenta as the result of syphilis. De Sinéty, one of the latest writers quoted by Charpentier, did not find placental lesions in all women affected with syphilis, but where lesions were present he was able to demonstrate three important points: (1) hypertrophy of the placental villi; (2) fibrous degeneration of them; (3) islands of granulation belonging to the caseous forms of degeneration. This coincidence of the fibrous and caseous forms of degeneration is found in syphilitic gumma, notably in gummata of the liver. De Sinéty had not found this combined degeneration except in syphilis. He does not know if any other disease may produce the combined changes, and does not decide the question as to a specific placental lesion in connexion with syphilis. In reference to all diseases which affect the placenta, it is to be noted that the effect on the life of the child bears a direct relation to the amount of damage done to its tissues, and impairing its double function as an organ for respiration and absorption. In cases of separation of the placenta, a portion still adherent to the uterine walls may be enough to sustain the life of the child, for a time at least; and, in like manner, when the placenta has become diseased, if some portions of it only remain sound, vitality may still be maintained in the body of the fœtus. If the morbid process be slow and chronic, there will probably be progressive emaciation; and if the child be born alive, it will have all the appearances of being starved during its development. If the placental disease is more acute and rapid, and affecting a large area of tissue, the child's movements become at first more restless than usual, and then become less marked and distinct as they subside into absolute quiescence. With the aid of the stethoscope the beats of the fœtal heart have repeatedly been noted in cases of suspected placental disease to become slower and slower, and thus to furnish important indications for the induction of premature labour. Among the further causes of fœtal death in utero which Dr. Priestley said he could not in these lectures overtake are the pathological conditions of the umbilical cord, antepartum hæmorrhage, extra-uterine gestation, and allied conditions, the malformations and diseases of the unborn child—the most fertile cause of the latter probably being syphilis. Time, also, did not permit him to speak of the changes taking place in the body of the fœtus when it is long retained in the uterus after its death; of the inferences to be drawn as to the cause of death from the appearances it presents after longer or shorter periods of retention; and other kindred topics.

With regard to the subject of preventive treatment, Dr. Priestley stated that, so far as obviating some of the forms of intra-uterine death is concerned, we are absolutely in the dark, and the therapeutics of the subject are still a closed book. Still, a careful study of the several pathological conditions in the parents, combined with the local expression of the results of these conditions, allows in some cases of methods of treatment being formulated and of rules for guidance being laid down which in practice have been attended with happy results. Whenever, therefore, a woman has once or more frequently lost the product of conception at an early or later period, careful inquiry should be made into the health of both parents, and any previous history of illness should be accurately scrutinised. No pains must be spared to ascertain whether syphilis is at the root of the misadventures. When either parent has, in the near or distant past, contracted this disease, both should at once be put under anti-syphilitic treatment before a fresh conception is permitted, and this ought to be sufficiently prolonged to give it a fair chance of producing satisfactory results. Dr. Priestley said that he had repeatedly seen good effects from small doses of bichloride of mercury, with bark, given during the first three months of gestation, when there has been no opportunity of commencing the treatment before conception began. Similar favourable results have been observed to follow the administration of iodide of potassium. If inquiry shows that the health of either parent is disordered or deranged from some other cause than syphilis, care must be taken to trace out the nature of the deviation from health, and so to define it that treatment fulfils its purpose. Not the mother only, but the father also, must be put under supervision. Any constitutional peculiarity or diathesis must be met by appropriate means—the strumous, by tonics and cod-liver oil, with such improved climatic conditions as may be feasible; the gouty rheumatic by limitations of diet, careful regimen, and alkaline medicines. Keeping the bowels of women who are liable to abortion unloaded by aperients is important. Such laxatives as are not likely to stimulate undue action of the bowels or straining must be chosen, else the medicines may stir up the very mischief they are given to prevent. Compounds of sulphur, the confection of senna, and saline aperients seem best to fulfil the needful indications. The advantages of general bloodletting are doubtful, and its employment may lead to harm instead of good; but local depletion by leeches is less objectionable. For anæmia, preparations of iron must be administered in some form least likely to disturb the digestive organs of the patient, and these should be given not only antecedent to the occurrence of conception, but continued with such modifications and in such combinations as may be suitable during the progress of pregnancy. Where local conditions have been ascertained or suspected to be the cause of repeated abortion or of later fœtal death, the treatment must be directed in accordance with the special requirements of the case. Especial care should be taken to remove as far as possible all indications of endometritis prior to the commencement of pregnancy, an unhealthy condition of the lining membrane of the uterus being regarded by most authorities as a potent cause of disease in the fœtal membranes and placenta. Rest in the recumbent position is important, especially at the times which correspond to the days of the catamenial period, and all forms of locomotion likely to jar the body must be sedulously avoided. Chlorate of potash, Dr. Priestley thinks, may act usefully as an alkaline salt in preventing the formation of coagula and fibrinous deposits in the placenta. In instances where the progress of zymotic disease or of inflammation in some organ of the patient's body is attended with high temperature, he suggested that an attempt should be made to lower the temperature of the uterus and of the fœtus either by the application of ice-bags to the maternal abdomen, or of those tubular appliances for the application of cold which may be modified to fit any part of the body. Some of the baths and waters on the Continent have a high reputation for their tonic properties and their favourable influence on pregnancy. Aix-les-Baines is said to be useful in these cases. Courses at Schwalbach and Kissingen have been followed by happy results. The former place is more appropriate for patients who are more or less anæmic, Kissingen for those in whom the digestion and portal system are at fault.

ON THE USE OF THE

THERMOPILE AND SECONDARY BATTERIES AS A CONVENIENT MEANS OF PRODUCING ELECTRICITY FOR MEDICAL AND SURGICAL BATTERIES.

BY ALEX. OGSTON, C.M.,
PROFESSOR OF SURGERY, UNIVERSITY OF ABERDEEN.

ELECTRICITY has never played so important a part in the routine of daily practice and consulting-room work as its undoubted usefulness would seem to indicate that it should. In comparing it, for instance, with the stethoscope and thermometer, we find that, while these are in the hands of every physician and surgeon, electricity is hardly met with at work, save in the chambers of a few specialists and in a few well-equipped hospitals. Many common mechanical instruments for studying and treating disease—such as the measuring line, the weighing machine, the concave reflecting mirror, and the speculum—are regularly employed by the majority of practitioners; while electricity, despite its value in the diagnosis and treatment of nervous disease, as an unsurpassed illuminating agent, as an electrolytic destroyer of diseased tissues, tumours, and nævi, as the most manageable cauterising agent, and as supplying the electromagnet for extracting fragments of iron from the eyeball, is superseded for these purposes by less efficient means. The expense of electrical apparatus, and the want of knowledge concerning it, are not the chief reasons for this neglect. The explanation is to be found in the extreme inconvenience attendant upon the methods of generating electricity at present employed. Not to mention, then, the initial cost of procuring a good combined battery, capable of furnishing both continuous and

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induced currents, and without dwelling on the fact that when procured it is unsuitable for the electric cautery, everyone who employs it must be painfully impressed with the constant trouble and time expended in keeping it in order. The zinc plates have to be amalgamated, the acids to be prepared and introduced beforehand, and the corroded connexions gone minutely over and rectified before the battery is used. During its employment difficulties may arise from polarisation and other causes, although in the bichromate batteries the polarisation difficulty has been pretty well overcome. After the battery has been used, and in all likelihood for a few minutes only, the emptying and cleaning of the cells have to be gone through, and perhaps a couple of hours spent in this before it is laid aside. Even then the remains of acid and the resulting galvanic action corrode the brass work and connexions, and it is uncertain whether it may not require before next it is used a prolonged visit to the electrical mechanician's workshop. It is, I think, a fair estimate to say that, when used by the ordinary practitioner of medicine and surgery, each employment of the battery involves three or four hours of work, by far too great an expenditure of that valuable time which to him more than most means money. Nor do the objections named exhaust the inconveniences that are urged against the batteries. Bottles of acids are difficult to keep, stoppers become fixed, and the bottles are broken in their hurried removal, the waste acids are inconvenient to be got rid of, and, above all, no acid battery in ordinary use is in the least suited for the requirements of transport. We are to-day much where we were twenty years ago as regards these inconveniences. The Leclanché batteries are too bulky, and, being weak, too many cells are required, so that, like most others, they are quite unsuited for transport. The Gaiffe batteries are not easily recharged, and in practice have been found unsuitable. The only really convenient appliance for transport—the magneto-electric induction machine—is useful only as an exciter of faradaic muscular contractions.

I wish to direct the attention of the profession to a method by which electricity in all its forms can be readily and easily obtained at all times, by arrangements that are easily and conveniently managed, that are little liable to get out of order, that can be procured at a moderate initial expense, and cost little or nothing afterwards, that are convenient for transport, and are in all respects attended with the minimum of inconvenience. I do not claim that the arrangement I advocate the adoption of is all we could wish it to be, but believe it is a very great step indeed in advance of the plans hitherto proposed, and is likely to satisfy a large number whose employment of electricity in practice is at present hampered or prevented by the drawbacks that have been mentioned. The plan is not my own. It was suggested to me last year by Mr. J. W. Swan, the well-known inventor of the incandescent lamp that bears his name. He pointed out to me that the employment of the thermopile as a generator of electricity would probably be of considerable service to members of our profession, and he was good enough to interest himself in the matter and work out for me, in a manner I could not myself have accomplished, the practical steps towards effecting this. I explained to him our wants, and he devised the means of meeting them. The thermopile, which forms the starting-point of the arrangement, is composed of four groups of German-silver and zinc-antimony elements, each group containing twenty pairs in the form of a wheel, six inches and a half in diameter, in which the elements are the spokes. The four coronal groups are placed on a wooden stand, about sixteen inches square, and are connected together in series—i.e., the positive pole of one group is attached to the negative of the next. Each group has in its centre a gas Bunsen burner, the burners all supplied by a common pipe, but with taps so placed that they may be used separately if required; and when the burners are lit, the difference of temperature between the outer and inner ends of the pairs of elements generates a current of electricity, feeble indeed, but very convenient, since its feebleness can be compensated for, and its convenience, requiring as it does only the turning on and lighting of the gas, is unquestionable. These thermopiles are made by Rebicek of Prague. They give an electro-motive force of about one-tenth of a volt per pair of elements—that is, four volts for the four groups, equal, say, to seven or eight Daniell's and three or four Grove's cells, power sufficient to illuminate a small incandescent lamp. A slight alteration in the thermopile would adapt it for being used with spirits of wine, or even with paraffin. Several of these thermopiles can be arranged in series, with a gain in electro-motive force corresponding to the increase in the number of elements added, but at the cost of an increase in initial expense, and, from their bulk, a lessening of convenience. Were they to come into general use, their bulk could be considerably reduced by some slight alterations.

The thermopile alone, however, is insufficient for the purposes of the practitioner. To render it useful it requires to be supplemented by the secondary battery, or accumulator, as it is sometimes called. With this addition in a suitable form, portability being the chief point, the apparatus is complete. The secondary batteries which Mr. Swan designed for me for this purpose, consist of two portable vulcanite boxes, each three inches square and eight inches high. Each box contains two cells arranged on the principle of Planté, with elements of lead and peroxide of lead, in dilute sulphuric acid of 1 to 10 in strength. Each is closed by an indiarubber washer and a lid clamped on by a screw, to prevent their spilling when carried, a ring-handle being attached for this purpose. They can, like ordinary galvanic cells, be used separately or in conjunction. Each weighs, when filled and charged, 6 lb. 1 oz. Mr. Swan writes concerning them:—"The object in dividing the batteries is that there may be no unnecessary weight to carry where the power of one battery (two cells) is sufficient, and it will be sufficient for surgical lamps for eye and throat examination. For electrical cautery the combination of the two batteries is needed. The thermopile has just power enough to charge one battery at a time when the gas is not very fully turned on—that is, when the flame just burns above the talc disc. Under these conditions the thermopile will send ½ or 0·6 of an ampère through one of the batteries, and that is what is proper for a battery of this size. While charging, the cover should be removed, and several folds of blotting-paper laid on the mouth of the battery to intercept the bubbles of gas that rise from the liquid. It is necessary to make up for this loss of liquid by adding to that in the cells sufficient to cover the plates. The battery should not be allowed to become completely discharged, and, after using, it should, as soon as possible, be fully recharged and left so. The only part of the battery likely to get out of order is the connexion between the positive plate and the outside terminal, but it is very easy to repair, and I think probably little or nothing beyond that will require to be done to the batteries for a long time. Several folds of blotting-paper round the joint of the lid and case, or a waterproof bag to contain the whole, will prevent driblets of acid staining the clothes of the person carrying it."

In using these cells I have not found any drawback to them, save the slight one mentioned by Mr. Swan—viz., an occasional tear of acid pressed out when they are used, closed, or carried, by the pressure of the accumulating gas within. On the contrary, they are among the least obnoxious occupants of my work-room. They stand on a table in a porcelain photographer's tray or common plate beside the thermopile, for the convenience of charging. The tops are removed, because, if they are kept screwed on, the imprisoned gas that is disengaged forces out a few drops of liquid past the washer, and this trickles down; while if they are removed no spilling occurs, and they remain dry and clean. When about to be transported, the lids are screwed on, blotting-paper is put round their upper ends to catch any tear of acid, and, thus arranged, they can be carried about a whole day with perfect convenience. If the liquid in the cells diminishes, a few drops of dilute acid are added by a pipette. After they have been used for any length of time, the thermopile is lit, its conductors are connected with one of the batteries at a time, and in a few hours it is completely recharged, as may be seen by the free escape of gas from the plates. The cells are connected at will with two pairs of insulated cord conductors that pass along the wall and through the partition into the consulting-room. The two pairs of conductors enable the batteries to be used simultaneously for different purposes, one being attached to each pair, or to be both connected with one pair as desired.

I have during the past two months subjected the arrangement to the severest tests of practice, having used it for nearly every purpose save that of extracting steel by the electro-magnet, and have every cause to be satisfied. The batteries yield a sufficient constant current, can be attached to the induction coil for faradisation, answer well for electrolysis, and are very convenient for illuminating the mouth and examining for translucency in cystic tumours. They

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are very efficient for the galvano-cautery, easily heating, when fully charged, three or four inches of stout platinum wire white hot, and fusing thinner pieces. When employed for electric illumination in the work-room, the conductors from one battery are connected with a two-candle power Swan lamp placed in the hollow end of a piece of bamboo, which shades the eyes of the observer from the light, and, acting as a handle, enables it to be directed towards the part to be illuminated or introduced into the mouth. When both batteries are attached I can light up my consulting-room by means of a five-candle lamp that is suspended by a bracket from the wall. In testing the translucency of cystic tumours, the two-candle lamp in its bamboo handle is pressed against one side of the cyst, and, the swelling being shaded by the hand, the other side of the tumour is observed. In cases of hydrocele of the tunica vaginalis, and in one case of congenital cystic hygroma of the neck, the translucency was well brought out, and it is much more convenient than the candle or wax taper, especially in children, whose incautious movements cause danger of scorching them. In the use of the endoscope the greatest inconvenience is felt from the heat of the lamps used in connexion with them, and from the necessity of keeping them upright. This inconvenience is a very great drawback indeed to its employment in examination of the œsophagus, the rectum, and especially the urethra, where it is occasionally of the greatest service. The introduction of a two-candle power Swan lamp into the instrument creates quite a revolution in this respect, and converts the endoscope from a very cumbrous into a most manageable aid to diagnosis. When required for faradisation the conductors are simply attached to the coil standing in the consulting-room. Both batteries have to be attached to the conductors for electrolysis, electric cautery, or the use of the constant current. In galvano-puncture I have not yet had an opportunity of using them, but in electrolysis they answer well, one needle being attached to each conductor. For electro-cautery or the galvanic écraseur the instrument is attached to the conductors and the circuit completed at the moment desired by the button being closed. I was pleased with its action in cauterising the pharynx, and in burning a small canal that had to be closed after an extensive operation for cleft of hard and soft palates. In using the constant current a sponge electrode is affixed to each terminal of the pair of conductors. The method of attachment most convenient is that of a pin slipping into a tube or socket, which is quickly connected or undone, or, when needles are used, joining them to the conductors by a thin bit of silvered copper wire.

During the two months in which I have employed the above arrangement, it has been in almost daily use, and its efficiency has been tested in every way; yet the secondary batteries have only thrice required to be charged by lighting the thermopile for a few hours. The convenience of the whole, and its superiority to any of the methods hitherto suggested, are so very striking, that I unhesitatingly recommend it to the notice of my professional brethren in the very strongest terms.

Note.—The price of the thermopile is about £8; each of the secondary batteries costs 55*s*. They can be had through the firm of Mawson and Swan, Mosley-street, Newcastle.

CASE OF INTESTINAL OBSTRUCTION FROM IMPACTION OF A GALL-STONE IN THE ILEUM.

ABDOMINAL SECTION AND REMOVAL OF THE STONE; DEATH ON THE SECOND DAY.[1]

BY BRYAN HOLME ALLEN, M.D. LOND.

I WAS called to Mr. C. E., aged fifty-seven, on Sept. 20th, 1886, on account of constant sickness followed by faintness. On inquiry I obtained the following history: He had enjoyed fairly good health, but had had an attack of typhoid fever twenty-eight years ago. He was always disposed to be constipated, but by the free use of aperient medicine had kept his bowels acting. He had been a somewhat free liver, and for the last few years had suffered from business anxieties. On July 14th of this year (1886) he was seized with severe vomiting and acute pain in the epigastrium and right hypochondrium, followed by jaundice; the pain was intense for three or four days; the urine high coloured. I could obtain no definite information about the motions; he was supposed to have passed a gall-stone, though nothing was ever seen in the motions. In a month's time he returned to business, feeling fairly well, but not losing the sense of uneasiness in the right hypochondrium. His bowels were more obstinate than ever, acting for the last time on Sept. 13th. On the same day he was seized with frequent vomiting of green bilious matter. On the 17th he consulted a physician in London, who carefully examined him, and, finding nothing in the abdomen, attributed the vomiting to gastric catarrh, and advised him to come to Hastings, which he did on the 20th. On that day I found him complaining of great faintness, and of some pain in the stomach, mostly at the epigastrium, but to a less degree in the region of the cæcum and descending colon, with moderate tenderness in these latter regions. He was vomiting frequently, the vomited matter being very green, of an acid, disagreeable, but not at all feculent smell. His bowels had not acted for a week, nor had he passed flatus per anum. No tumour or special resistance could be anywhere felt in the abdomen. There was no abdominal distension, and no visible movement of the coils of intestine. The pulse was large, soft, and quick. He was sent to bed, moderate doses of opium administered, and an injection ordered, which failed of effect, probably from imperfect administration. On Sept. 21st, 22nd, and 23rd he had an injection each day of three or four pints of soap-and-water, which on each occasion brought away some green offensive, solid, but not hard, lumps, after which the abdominal tenderness disappeared and the pain and sickness greatly diminished, the character of the vomited matter remaining unchanged. He was taking ten minims each of the solution of morphia and tincture of belladonna every four hours, or oftener if required. His diet consisted of half a pint of milk and a little beef-tea in twenty-four hours; a beef-tea enema was given every four hours. On the 24th he was ordered a five-grain cathartic pill (U. S. Pharm.) at bedtime, followed in the morning by an injection through a long flexible tube. On the 25th two pills of the same were given, also followed by an injection, which brought away motions of the same character as before. The vomiting varied from once to three times in the twenty-four hours, but was becoming more distinctly unpleasant. Very little pain; no tenderness or distension; no wind passed per anum. On the 26th and 27th the injections were repeated, but no action followed, and on the evening of the latter day the vomiting was distinctly feculent. There was no distension of the abdomen. On the 28th Dr. Arthur Gamgee saw him with me, and suggested the employment of electricity. Chloroform was given, and a current from a large primary coil was used, being passed from one side of the abdomen to the other, and afterwards through the rectum, but although violent action of the abdominal muscles was produced, no other effect resulted. Nothing definite could be felt in the abdomen under chloroform, but Dr. Gamgee thought that he felt greater resistance in the region of the ascending colon.

The intestinal obstruction had now been complete for sixteen days. Some fæcal matter had been brought away by the injections, but this evidently came from below the obstruction. No flatus had been passed since Sept. 13th, when the symptoms of obstruction set in. After careful consideration of the symptoms, I now came to the conclusion that the case was one of impacted gall-stone in the ileum, and that there was little or no hope of relief except by operation. I was led to this diagnosis by the following points. The invasion was sufficiently sudden to bring it within the class of acute obstructions, and there was a total absence of distension of the abdomen. I therefore excluded all diseases of the great intestine, including volvulus. At the same time, the onset was not sufficiently sudden for an internal strangulation or twist of the small intestine. Moreover, there was a total absence of collapse, the vomiting had never been severe, it was not stercoraceous until the fourteenth day, and the pain was far from acute. The absence of blood or mucus in the evacuations brought away by the enemata, the completeness of the obstruction, and the fact that no tumour could be felt, even under chloroform, seemed to negative the idea of acute intussusception. It was quite certain that there was no peritonitis, either chronic or acute. All these conditions being excluded, obstruction from a foreign body impacted in the small

[1] Read before the East Sussex Medico-Chirurgical Society.

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intestine, either at its narrowest part near the lower end of the ileum, or in some part narrowed by disease, seemed the only probable diagnosis. That the foreign body was a gall-stone I concluded from the history of hepatic colic ten weeks before, accompanied by little, if any, jaundice, and followed by uneasiness in the region below the liver, continuing up to the time of the attack.

On Sept. 29th, at one P.M., Mr. Marcus Beck saw the case with me, and, agreeing in the diagnosis, proceeded to open the abdomen, assisted by Dr. Gamgee, Mr. Brodribb, and myself. Mr. Beck has furnished me with the following account of the operation. The patient, having been placed on a table, was covered with a mackintosh sheet having an oval opening in the middle (an ovariotomy apron). The skin was then carefully cleaned with a 1 in 20 solution of carbolic acid. Ether having been administered, a spray of carbolic acid was turned on. An incision was then made (about three inches in length) in the middle line, the middle of the wound being midway between the umbilicus and the pubes. The abdomen being opened, a coil of distended small intestine showed in the wound. The hand was passed at once into the right iliac fossa, with the intention of feeling for the cæcum, in order to ascertain whether it was distended or empty. Before reaching the cæcum, but close to it, a hard mass was felt in a coil of the small intestine. This was at once drawn up into the wound and out of the abdomen. It was then seen that the gut was completely plugged by a barrel-shaped body of great density. The gut was apparently healthy; its surface was shiny and perfectly free from any sign of inflammation. An attempt was made to push the foreign body forwards, the direction in which it should go being easily recognised by the distended condition of the intestine above it, while below the gut was empty; it would not move with any amount of force which it seemed justifiable to use. It was determined, therefore, to cut it out by a longitudinal incision in the intestine. The opening in the abdomen was carefully plugged with sponges which had been rung out of a warm solution of carbolic acid (1 in 40), and the coil of intestine was laid upon a flat sponge; a small hole was then made in the mesentery close to the gut, immediately above the foreign body; through this a piece of indiarubber drainage-tube was passed and drawn sufficiently tight to occlude the gut, and clamped with a pair of forci-pressure forceps. In this way the escape of fæces from above was effectually prevented. A longitudinal incision was then made at the side opposite the attachment of the mesentery. It was about one inch and three-quarters in length, and was of sufficient size to allow of the escape of the foreign body without bruising the tissues of the gut. A small quantity of very dark fæcal matter escaped, which was immediately received on a sponge. The mucous membrane was intensely injected and considerably swollen. But little blood flowed from the incision. The gut having been cleaned, the edges of the wound were brought together by interrupted Lembert's sutures. Fine common sewing needles were used (No. 7), threaded with fine carbolised silk. The needle was inserted about a quarter of an inch from the edge of the incision, penetrating the serous and muscular coats only, and brought out about one-sixth of an inch from the edge; then inserted on the opposite side about one-sixth of an inch from the edge, and brought out a quarter of an inch. About a dozen stitches were required and were inserted. When all the necessary sutures were inserted, they were tied. The closure seemed perfect, the mucous coat being turned in and the serous from each side brought well in contact. The piece of indiarubber tube was now removed; it had made rather a deep impression in the gut, showing the swollen condition of the bowel. The impression began to disappear immediately, the circulation being rapidly restored in the pale part. The incision was then minutely examined to see if anything leaked from it, and nothing was detected. The coil of intestine was then carefully cleaned, the sponges plugging the abdominal wound removed, and the gut replaced in the abdomen. During the whole operation no blood or other foreign matter had escaped into the peritoneal cavity. It was not necessary, therefore, to clean out the peritoneum by sponging or washing. The external wound was then closed in the usual way. The anæsthetic was admirably administered by Mr. [illegible] that [illegible] time [illegible] on [illegible] The [illegible] covered by a layer of sal alembroth wool. The foreign body was found to be a large gall-stone. It was somewhat the shape of a conical bullet, the advancing end being slightly conical, the opposite end flat. It was marked at its base by a smooth, slightly concave facet, evidently formed by contact with another stone in the gall-bladder. The rest of the stone was rough on the surface, and glistening crystals of cholesterine could be seen upon it. This roughness must have considerably impeded its passage down the intestine. It measured 3¼ in. in circumference, 1⅝ in. in length. It weighed almost exactly an ounce. The patient rallied well from the operation. A dose of morphia was administered hypodermically, and at 9 P.M. the pulse was 100, and of good force; there was no pain or sickness, and the patient seemed to be doing well; but on the following morning the pulse had risen to 120, the countenance was anxious, there was slight distension and some tenderness of the abdomen, but no sickness. He died at 3 P.M., exactly twenty-five hours after the operation. No post-mortem examination could be obtained.

In the treatment of this case I was led to go somewhat beyond the orthodox way of feeding in intestinal obstruction by the willingness of the patient to take food, by the fact of its being retained several hours, and from its not, as far as I could see, in the smallest degree promoting vomiting, and perhaps also from having less faith in the value of nutritive enemata than some have. The medical treatment consisted of opium and belladonna—the doses, in consequence of the moderate amount of pain, being comparatively small,—enemata, and, when they no longer acted, aperients. I was led to try aperients from the recollection of a case I had some years ago, when the combined use of aperients and enemata resulted in the passing, after ten days' absolute constipation, of a stone so large that its passage through the anus caused great suffering.

The following points seem worthy of further consideration in this case. 1. What was the cause of death? Unfortunately this question must remain doubtful. He did not die from shock, for he rallied well from the operation. Every precaution was taken to ensure cleanliness, no carbolic lotion except that upon the hands entered the abdominal cavity, the stitches seemed efficiently to close the gut, and well carbolised silk was used, and yet from the period of death it seemed most probable that peritonitis was the cause. The gut, though not actually inflamed at the time of operation, was much congested and swollen. Most probably inflammation developed in the damaged gut after the operation, and in the weak state of the patient proved rapidly fatal. 2. When was the stone impacted? This could not be accurately ascertained. From the size of the gut and the situation in the abdomen it was probably in the lower part of the ileum, not far from its end. That it was the ileum is certain from the absence of the valvulæ conniventes in the part opened. 3. Was the operation necessary, or would it have been safer, having made the diagnosis, to trust to nature? This question is extremely difficult to answer. I find in the Index Catalogue of the library of the Surgeon-General, U.S.A., references to thirty-nine cases of impacted gall-stone. Of these I have been able, with the limited time at my command, to refer to only fourteen. Among them, I find, is a stone measuring 3½ in. passed safely after twelve days' obstruction. In another case there was a stone of a little over three inches, but there is no evidence that it passed down the small intestine; it probably ulcerated from the gall-bladder into the colon. Fagge also mentions one measuring 1$\frac{1}{10}$ in. in diameter, which passed after seven days' obstruction. On the other hand, I found seven stones, proving fatal, which measured less than that from my patient; the smallest had a transverse circumference of only 2½ in., and yet it blocked the lower end of the jejunum, and caused death after fæcal vomiting. It seems, therefore, that although it is possible for a patient to pass stones of this size through the ileo-colic valve, very few succeed in doing so, and probably the percentage of recovery would be greater if operation were resorted to in every case as soon as the diagnosis is made. Unfortunately, however, the diagnosis is very rarely made at all. In almost all the cases I have met with, their nature was only cleared up at the post-mortem examination. I can find no case but this in which the stone has been removed by operation. The disease is far more common in women than in men. In the fourteen cases I have been able to refer to only two were men.

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CLIMATE AS A THERAPEUTIC AGENT IN PHTHISIS;

WITH AN ACCOUNT OF THE CHIEF SANATORIA FOR PHTHISIS AT HOME AND ABROAD.[1]

BY JAMES ALEXANDER LINDSAY, M.A., M.D.,
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I PROPOSE in this paper to consider four questions:—1. Does climate cure phthisis? 2. How does climate cure phthisis? 3. What climates cure phthisis? 4. What cases of phthisis are curable by climate?

1. Does climate cure phthisis? Yes, beyond question. To doubt this fact is to run counter to a vast mass of unassailable evidence and to give way to an unreasoning scepticism. I have met and talked with cured consumptives in many parts of the world—patients in whom the existence of the disease had been diagnosed by competent authorities, and the genuineness of whose recovery was testified by a long life of vigorous activity. These instances of complete recovery are, however, less common than cases of relative recovery, by which I mean those cases in which the morbid process in the lung becomes dormant and the patient lives out his days, but with diminished vitality, and maimed, as it were, for the rest of his life. It is an extremely important question to determine how many of these cases of cured phthisis are contingent upon the patient remaining in the country and climate where the cure was effected—are, in technical language, relative to his environment; and how many are so complete as to permit of a safe return to the unfavourable climatic conditions which prevail at home. Every practitioner who sees much chest disease has had distressing cases of consumptive patients who have gone abroad and apparently been cured, but who, yielding to that piteous home-sickness which sometimes assails the stoutest heart and disregards the plainest admonitions of prudence, have returned home, and returned to die. I fear that in a large proportion of cases the cure of phthisis is contingent and conditional, and I do not think we can often regard without serious concern the return of a cured consumptive to those climatic conditions which originally produced or predisposed to the disease.

2. How does climate cure phthisis? Not usually by a single or specific quality of the air or by any definite combination of meteorological conditions. The old notion of "healing air"—viz., that the air by virtue of some inherent virtue exercised a direct local curative influence upon tubercular deposits—is a delusion. Bournemouth and Arcachon profess to cure phthisis by the balsamic emanations from their pine forests, but if such emanations have any influence (which is quite doubtful), such influence is but a small and unimportant factor in their general climatic effect. The nearest approach to a specific climatic influence upon phthisis is found in the action of the climates of high altitudes, which has been abundantly proved to depend mainly upon the rarefaction of the air. To sum up this branch of the subject, climatic treatment cures phthisis by removing the consumptive from the evil influences of unfavourable meteorological conditions and of an injurious soil, and by transferring him to a climate where fresh air, sunshine, and an out-door life may be freely enjoyed, and where, in consequence, the processes of respiration, digestion, and sanguification proceed with sufficient energy to combat successfully the hereditary tendency or individual proclivity to pulmonary disease.

3. What climates cure phthisis? There are very many sanatoria which have been *alleged* to cure phthisis, but it is a significant circumstance that, while every year introduces some new claimant to attention, it also witnesses the dropping from the ranks of some discredited impostor. Time was when Montpellier was the reigning favourite. It is now almost forgotten. Pau and Nice have quite outlived their once universal fame. Jersey, with its capital St. Heliers, once boasted great things, but we now know that its boasting was vain. The above losses of popularity have been amply justified, but other fluctuations of medical opinion and practice have been more arbitrary. The most favoured health-resorts of the past generation were Madeira and Egypt. They are both at present under a cloud, but it will probably be a temporary cloud, as, for properly selected cases, these noted and long famous sanatoria have very decided advantages. The chief feature of modern practice is the great and growing popularity of the high altitude stations.

The number of health-resorts for phthisis is so vast that some classification must be attempted, though no satisfactory classification has yet been suggested. In default of better, let us divide sanatoria into three classes:—(*a*) The marine resorts. (*b*) The dry inland resorts. (*c*) The mountain resorts.

(*a*) The best marine resort, if I may so express it, is the ocean-going ship; on the high seas the peculiar features of the marine climate are enjoyed in perfection. Those features are great purity of the air and freedom from all sources of contamination, marked humidity, and very great equability, both as regards temperature and hygrometric condition. The general influence of ocean air is decidedly tonic, and improvement in appetite and gain in weight are almost universal on shipboard. The disadvantages of the sea voyage are—liability to sea-sickness, which is a serious difficulty in only 2 or 3 per cent. of cases; the want of proper sleeping-room, and the consequent contamination of the air at night; and the absence of many home comforts. No consumptive should undertake a sea voyage unless he can afford to travel with tolerable comfort, pay for a roomy cabin, and have suitable companionship. The sailing-vessel should in nearly every case be preferred to a steamer, and the voyage to Australia or New Zealand *viâ* the Cape of Good Hope is the most adapted to the consumptive. The usual time of departure for Australia is September or October, but this is an unfortunate arrangement, as the invalid thus lands at the antipodes at the beginning of summer, the worst and most trying of the Australian seasons. A better plan is to set sail in July or August, so as to reach Australia during the charming and healthful time of spring. Sailing-vessels occupy from seventy to ninety days upon the passage. The sea voyage confers at least temporary benefit upon the great majority of consumptives, except those cases of great debility and prostration which should not be sent to sea. In the course of my four long voyages I have had as fellow-passengers a vast number of consumptives, who, with scarcely an exception, were happy and comfortable at sea, gained in weight, and experienced an amelioration of all their worst symptoms. It is a dictum of most writers upon the climatic treatment of phthisis that hæmorrhagic cases should not be sent to sea. I greatly doubt the accuracy of this view. I have only known two cases of hæmoptysis occurring at sea, and neither proved serious. I am quite unable to understand any theoretical ground on which hæmorrhage should be apprehended on shipboard. When the sea voyage fails, the causes of failure are often obvious. Excessive debility, rendering the patient unable to accommodate himself to the novel conditions of life at sea, sea-sickness, longing for home, which is apt to be strong amid the solitude of the ocean wastes, an uncomfortable ship, an overcrowded cabin, and an improper dietary—these often retard or prevent the beneficial influence of the sea voyage. There is one important point, of which my experience has afforded me several melancholy instances—viz., the proneness to relapse on reaching land. The patient should be warned to practise great caution as regards diet, exercise, and general habits on landing after a long voyage. Nearest to the climate of ocean comes that of the ocean islands, such as Madeira, Teneriffe, the Azores, Nassau in the Bahamas, &c. Cases that have been known to do well on shipboard may be sent to these resorts with tolerable confidence, the climatic conditions being similar. There is admirable accommodation at Madeira, and many cases do well there; but diarrhœa is so epidemic as to be known as the "island complaint," and no case of phthisis should be sent there in which intestinal troubles have been much marked. The climate is very soft and soothing, and grateful to those suffering from bronchial or laryngeal complications, but it is deficient in tonic influence, and its effect upon the general course of the disease is decidedly inferior to that of more bracing localities. Patients may be sent there who lack the necessary vitality to enable them to react to tonic climatic conditions. Of the drier and more tonic marine resorts, Algiers, Tangier, and Malaga are perhaps the best. The reputation of the Riviera is decidedly on the wane. Many seasons are delightful, but often the mistral is exceedingly treacherous, and snow-storms

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are not unknown. The chief stations in the Riviera are Hyères, Cannes, Nice, Monte Carlo, Mentone, Bordighera, and San Remo. Nice has quite lost its old reputation, owing to the sudden changes to which it is subject. Cannes is a lovely spot, but inferior to Mentone and San Remo for the purposes of the invalid. Where much shelter is a desideratum, Mentone should be preferred. Otherwise, San Remo possesses the best climate in the Riviera. Algiers is a great favourite at present. It possesses a dry, sunny, warm winter climate, with complete immunity from frost and fog. There are very few days on which the invalid cannot enjoy several hours of out-door life, and the proportion of charming weather is far higher than upon the northern shore of the Mediterranean. Consumptives should in no case reside in the town, which is very dusty and a prey to evil odours, but should choose the suburbs, such as Mustafa Inférieur or the Village d'Isly, and, as spring advances, a change inland to the dry and bracing climate of Hammam R'Ihra or Milianah may be advantageously adopted. Tangier resembles Algiers in its general climatic features, but the accommodation is inferior, and it is a very dull place. Malaga has a very good climate, but there is nothing to do, and patients soon weary of it. Biarritz is an excellent place in autumn, but too windy for a winter residence. Arcachon suits cases where nervous irritation is marked. As regards the marine resorts in Britain, Ventnor, Bournemouth, and Torquay are the best, and I have given them in what I consider as the probable order of merit. Ventnor is the warmest and driest of these resorts. Bournemouth has more shelter, and suits cases which cannot tolerate the more decided marine flavour of the air at Ventnor. Glengarriff is probably the best winter climate in Ireland. Rostrevor has some local repute, but it has little to recommend it. There are some excellent marine resorts in California, of which Santa Barbara is the best known. The Californian coast in its southern parts enjoys a remarkably dry, bright, and tonic climate, well adapted for many cases of phthisis. Tasmania has a climate of great salubrity, but there are many very diverse climatic types included within the area of that small island. The west coast is stormy and wet, and wholly unsuitable to the invalid. The southern coast is somewhat too windy. The best regions for the consumptive are the north and north-east shores, which possess one of the brightest, mildest, and most genial climates in the world. The coast region of Australia cannot in general be commended, being a sort of battle-ground for the breezes from the sea and the hot blasts from the interior, and the climate is in consequence fickle and stormy. The most favoured region in Australia for the consumptive is the interior plain, of which I shall speak presently. The best marine resorts in New Zealand are Napier and Nelson. Speaking generally, the reputation of marine resorts has somewhat waned in proportion as the fame of the dry inland and the mountain sanatoria has increased. No marine resort is, I think, quite equal to the ocean voyage, where the latter can be enjoyed under the most favourable circumstances.

(*b*) The dry inland resorts. The best of these are Nubia, the interior parts of Algeria, the Orange Free State, and the vast interior plains of Australia, especially the Riverina of New South Wales and the Darling Downs of Queensland. I am inclined to rate very highly this type of climate in the treatment of phthisis. A large proportion of the cases of complete cure which I have known have been effected by a prolonged residence in some dry inland region, the cure being, without doubt, in nearly every case materially promoted by the adoption of an open-air life, plain diet, and simple manners. Of the four regions mentioned, probably the Orange Free State is the best, as it possesses an advantage over the others in being at a considerable elevation. But personal considerations will lead in many cases to the selection of Australia, and it is no small advantage to send the consumptive to the land where he will meet his own kith and kin, where the language, food, and manners of the people will be familiar and congenial to him, and where he may possibly find such remunerative employment as may induce him to settle permanently. Speaking broadly, I would send to Australia only those consumptives to whom a dry inland climate would be thought to be beneficial, advising them in all cases to avoid the coast regions, and especially the capital towns, to go inland at once, settle upon some farm or sheep station, and make up their minds to a residence of at least two years. A large proportion of cases would thus be cured. To recommend Australia as a sanatorium for phthisis without keeping these points in view is to invite failure and disappointment.

(*c*) The mountain resorts. These sanatoria have sprung into sudden favour within the last twenty years, and their popularity grows yearly. The chief are Davos, Wiesen, St. Moritz, and the Maloja in the Alps; Colorado Springs and Manitou in the Rocky Mountains; Bogota, Jauja, and Huancayo in the Andes. The almost complete immunity from phthisis enjoyed by residents at high altitudes first suggested their adoption. The most important feature in the medical climatology of the mountain sanatoria is the rarefaction of the air, which promotes respiratory activity, the expansion of the chest, and the absorption of morbid deposits. The dryness, the purity of the air, and the freedom from organic dust are all of importance, but subsidiary to the atmospheric rarefaction. These sanatoria fall into two classes—the cold and the warm. In the Alps and the Rocky Mountains the winter climate is marked by perpetual snow and severe frost. In the Equatorial Andes the climate at high altitudes is one of perpetual spring—humid, warm, and vernal. The mountain resorts have proved most efficacious in the following cases: delayed recovery from pneumonia with threatening tuberculosis, chronic pleurisy with much fibroid change, incipient catarrh of the apex, chronic tubercular phthisis, with good reaction and the retention of fair constitutional vigour, whether cases of primary disease limited in extent, or single cavity cases without tendency to extend. Hæmorrhagic cases do well, although the profession was long inclined to exclude such cases from the mountain treatment owing to the unfortunate influence which a false analogical reasoning had exercised upon them. The contra-indications against the adoption of this line of treatment are: Weak circulation, which is absolutely prohibitory, senile change, the *eretische constitution*, extreme debility, and marked and progressive emaciation. Moderate pyrexia is not a hindrance, while sweating and fluxive diarrhœa are usually relieved at high altitudes. Where the cold mountain resorts fail the warm may often prove useful.

4. What cases of phthisis are curable by climate? I have hitherto spoken somewhat dogmatically, as the general principles of medical climatology and the general characters of the sanatoria for phthisis admit of very precise statement; but in dealing with this last question—to which I have more than once been obliged to make incidental allusion—I desire to speak with that diffidence which becomes the therapeutist. In many cases there are few more difficult problems than to determine whether a given case of phthisis will respond to climatic treatment, and what type of climate affords the best hope of success. Speaking generally, only chronic cases with fair reaction are suitable for climatic treatment. If the disease has a well-defined onset and threatens to run an acute or semi-acute course; if the patient steadily loses ground and shows no gain in weight or other sign of rally under treatment; if the process in the lung is progressive and there are no evidences of repair—in each and all of these cases the interests of the patient will be best served by vetoing climatic treatment. The patient will die soon and die anywhere, and he may as well be allowed to pass his last days amidst the comforts and sympathies of home. Cases marked by circulatory weakness, with fast, feeble, fluttering pulse, slight cyanosis, and persistent coldness of the extremities, are very unfavourable for climatic treatment, and should on no account be sent to the mountains. Cases in which laryngeal or intestinal ulceration or renal complication have supervened upon the ordinary type of the disease should be allowed to die at home. Cases in which anæmia appears early and is well marked are unlikely to respond to climatic treatment. On the other hand, we see a vast number of cases of phthisis in which the onset is very gradual and the constitutional involvement for a long time slight. Such cases nearly always improve, even in this climate, under a system of high feeding, fresh air life, and cod-liver-oil, and I entertain no doubt that a considerable proportion of them may be completely cured by removal to a suitable climate and the adoption of a prudent mode of life. In determining the climate to be chosen, it used to be taught that the condition of the bronchial mucous membrane was the chief guide: that cases with much bronchial catarrh should go to a dry climate, cases with dry irritable mucous membrane to a moist sedative climate, and so on. I greatly doubt the utility of this rule. Phthisis is not bronchitis, and all

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analogies for its treatment drawn from our knowledge of bronchitis are not merely unfruitful but misleading. In the therapeutics of consumption we have given up directing our medicinal treatment to the bronchial mucous membrane, and I am unable to see why we should still base our climatic treatment on a theory which we thus implicitly acknowledge to be unsound. Hippo, paregoric, and squills have almost disappeared from our treatment of phthisis; and climatic sanatoria, which soothe the patient's cough at the expense of his appetite and strength, must follow them into deserved oblivion. The consumptive does not die of his cough. He dies of progressive wasting. We have thrown aside expectorants and anodynes in favour of good food, exercise, and such aids to nutrition as cod-liver oil, hypophosphites, maltine, &c., and we must, when possible, choose climatic resorts which are tonic and stimulant rather than those that are mainly sedative. The vital point about any climate is, will it promote nutrition? In early uncomplicated cases with vigorous circulation I think the mountain climates offer the best hope. If the circulation be feeble, or if there be much nervous irritation, the choice will lie between the sea voyage and residence in such dry inland resorts as Upper Egypt or the interior plains of Australia. The sea voyage has the great recommendation that it rarely does harm, except in those very advanced cases which are beyond the reach of all treatment. If the patient objects to the mountains and shrinks from the long sea voyage, I think Algeria or Morocco should be preferred to France or Italy. Let me say, in conclusion, that climatic change is a snare instead of a help, a curse rather than a blessing, if it be regarded as a complete therapeusis in itself, and as enabling the patient to dispense with the usual lines of treatment and his customary precautions. Climate is not a specific. At best it is only a condition of cure, and we may expect it to be effectual only when the patient's food, habits, occupation, and mode of life are wisely regulated so as to facilitate its beneficent influence.

Belfast.

TRACHEOTOMY.

BY WALTER WHITEHEAD, F.R.C.S.E., F.R.S. ED.,
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THE operation of tracheotomy is in many cases confessedly a difficult one to perform. This is emphatically shown by the amount of literature written upon the subject, by the many different ways which have been described and practised, and also by the many dangers warned against. My excuse for proposing any change in the methods usually adopted is the simplicity of the plan I have to suggest, and the ease and success which have invariably attended its performance.

The operation is performed as follows. The head of the patient being bent well back over a pillow, an incision is made in the usual situation, but of rather greater length than is common. The incision extends through the skin and fascia, as deep as the interval between the sterno-hyoid muscles. The scalpel is now laid aside, and the raspatory used, not only to separate the sterno-hyoids, but to split the strong fascia which runs down from the hyoid bone to enclose the isthmus of the thyroid gland. This fascia is split to a distance extending from the upper limit of the incision down to the isthmus below—that is, supposing it is desired to open the trachea above the isthmus. The split fascia is then pushed to right and left with the raspatory. Should there be any difficulty in doing this, the fascia is separated to some extent on each side from the upper border of the isthmus. Proceeding carefully, the isthmus itself can be pushed down and the trachea exposed to the necessary extent. If the trachea is to be opened below the isthmus we proceed in a similar manner, remembering that here, however, we have between the fascia and the trachea a quantity of areolar tissue in which lies the inferior thyroid plexus of veins. The front of the trachea can in this way be cleared perfectly, and, since the method is bloodless, the rings of the tube are seen glistening white at the bottom of the wound. The trachea can now be fixed readily between the left index finger and thumb, and opened to the desired extent. There is little or no difficulty in introducing the cannula, since the trachea can be so steadily fixed and the incision into it so clearly seen.

The above method resembles in many particulars the "bloodless" method of Bose, but in the latter operation the scalpel is used to a much greater extent than in the operation here advocated, and when the scalpel is not to be used the use of the director is advised. But the walls of the veins in this region are very thin, and the sharp edges and point of the director have been frequently known to tear these vessels and rob the operation of its bloodless character. This tearing of the veins is much less likely to occur if the raspatory is used. Moreover, the above operation with the raspatory is not only suitable for cases where the surgeon has abundant time at his disposal, but is advised even in emergency tracheotomy; since, although perhaps a little more time is required to reach the trachea, the certainty that when once reached it can be quickly opened and entered is a distinct ultimate gain. What is urged in favour of the operation is—firstly, the ease with which it can be performed; secondly, the small number of instruments required; and, thirdly, the manner in which it meets the four difficulties usually enumerated—viz., of reaching the trachea, of hæmorrhage, of opening the trachea, and of introducing the cannula. Again, it avoids, in an especial manner, those dangers met with when the operation is performed, as it too often is, practically in the dark, from the bleeding, and the not sufficient separation of the parts; thus it is impossible, in this operation, that the cannula should be pushed down between the trachea and the fascia lying in front of it, or that it should be thrust, as has actually happened, into the internal jugular vein. Our resident surgical officer, Mr. J. Collier, who is frequently called upon to perform tracheotomy in emergencies, has definitely adopted the operation described since seeing me open the trachea some months since for the extraction of a gun cap accidentally inspired into the trachea.

Manchester.

THREE CASES OF STONE IN BOYS; REMOVAL BY SUPRA-PUBIC CYSTOTOMY.

BY THOMAS WALKER,
SURGEON TO CLAYTON HOSPITAL, WAKEFIELD.

CASE 1.—Arthur M——, aged three years, was operated on by me on August 2nd. Dr. Wright administered chloroform. I was assisted by Mr. Eskrigge, house-surgeon, and Mr. J. W. Walker, Dr. Holdsworth also being present. The bowel having been emptied by an enema, and chloroform given, an indiarubber rectal bag was introduced, and three ounces of warm water injected into it. A catheter was then passed, and the bladder gently distended with a warm solution of boracic acid, the catheter removed, and a tape tied round the penis. An incision, about two inches and a half long, was made through the skin above the pubes and the tissues separated with the finger-nail and knife down to the bladder; two hooks were introduced into the bladder, when a little fluid escaped. A small opening was made between the hooks, which was enlarged by the finger, and the stone, which was easily felt, removed. The bladder was then explored and washed out with warm boracic acid solution. The wound in the bladder was closed with fine catgut sutures. Four stout silk sutures were inserted in the external wound, the lower one being left untied in case all the urine did not flow by the natural passage, as no catheter was left in. However, as he passed urine three times during the first night, the remaining suture was tied next day. During the operation no artery or large vein was met with. There was very great tenesmus to expel the rectal bag during the latter part of the operation, which brought down the peritoneum into view in the upper part of the wound. On the fifth day a sudden rise of temperature occurred, with symptoms of extravasation extending into the scrotum, which, I think, was owing to the vesical wound not being entirely healed when the catgut sutures became absorbed, consequently the urine escaped into the tissues. On removing the external sutures, however, the urine passed through a small hole at the lower part of the wound, and the symptoms of extravasation quickly subsided. Two incisions were also made into the scrotum, to relieve the swelling. The calculus was of uric acid, weighing eighty-nine grains.

The following notes of the case were kindly supplied by the

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house-surgeon:—Aug. 2nd: After the operation the patient was troubled with persistent vomiting. He passed his urine three times during the night, which had no blood mixed with it. Temperature 99°.—3rd: Wound dressed, the dressings were a good deal stained with blood; the lower stitch through the external wound (which had been left untied after the operation) was now tied. The patient passed urine six times during the day, but no blood. The vomiting has now ceased. Morning and evening temperature normal. 4th: No stain through dressings; passed urine naturally; no pain. Temperature, morning, 99°; evening, 99·5°.—5th: Wound dressed; no blood or urine on dressing. Passed urine naturally. Temperature normal.—6th: Passed urine freely; had a very comfortable day. Morning temperature normal, evening 100°.—7th: Wound dressed; looked rather puffy and red about the stitches, so the alternate ones were removed. Urine passed naturally. Temperature, morning, 99°; evening, 101°.—8th: Considerable extravasation of urine into the tissues and the scrotum took place in the night. The dressings were removed and the other two stitches taken out; some urine oozing from the lower end of the wound. The scrotum was incised on each side of the raphe, and fomentations were applied. Temperature, morning, 100°; evening, 100·5°.—9th: Swelling of the scrotum subsiding; urine passed freely from lower part of wound. Temperature, morning, 99°; evening, 99°.—11th: Urine passed freely through wound; scrotum natural size; general health good. Temperature, morning, 98°; evening, 99°.—16th: Part of urine still passing through the wound, which is swollen. Temperature normal.—20th: Only a drop or two of urine passing through the wound.—24th: Wound healed; general health excellent.

CASE 2.—James H——, aged eight years, was admitted suffering from stone. Supra-pubic cystotomy was performed on November 9th; a very rough stone, weighing 50 grains, was extracted. In this case the wound in the bladder was not sutured, and only two sutures were used in the upper part of the external wound. No catheter was left in the bladder, the urine passing through the artificial opening. Twenty-four hours after the operation he had a rigor. Temperature 102°; the abdomen becoming tympanitic, with pain on pressure. Fomentations were applied, and small doses of opium given. On the following day the temperature was 99·5°; pain much less; abdomen tympanitic. On the fourth day, the bowels having acted, the tympanites and pain gradually subsided. The urine was entirely voided through the wound for the first fortnight, then partially by the urethra. The wound gradually healed by granulations, and the patient was discharged well on December 18th.

CASE 3.—Edward N——, aged four years, was admitted suffering from stone. Supra-pubic cystotomy was performed on Nov. 21st; the stone weighed twenty grains. In this case the wound in the bladder was carefully closed with fine catgut ligatures, not drawn tightly, the linea alba was sutured with stout catgut, and lastly the skin, the lower part of the wound in the skin being left open, in case any urine should escape from the bladder; however, not a drop came away, but all passed easily through the urethra to the end. The wound healed quickly, and without any complication.

Remarks.—I think the supra-pubic operation has a bright future before it. I am of opinion that the danger to life will not be found greater than in the ordinary operation, and, as there is no fear of injuring important parts and functions, this must necessarily be taken into account as a factor in its favour.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—A quarterly court of the directors of this Society was held on Wednesday, April 13th, Mr. Tegart, V.P., in the chair. Three new members were elected, and the death of one announced. Applications for grants were read from sixty-three widows, six orphans, and three orphans on the Copeland Fund, and a sum of £1364 was voted, to be distributed among them at the next court. The expenses of the quarter were £56 6*s.* 6*d.* Dr. Birkett, Dr. de Havilland Hall, Mr. Langton, Mr. Morris, Dr. J. M. Bright, and Dr. H. M. Duncan were selected to fill the vacancies in the court caused by the retirement of the six senior directors. Mr. Fuller, acting treasurer, was nominated as a trustee of the funded property in place of Sir George Burrows, resigned. The annual general meeting was fixed to be held on Wednesday, May 18th, at 5 P.M.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

THREE CASES OF HÆMOPHILIA IN THE SAME FAMILY.

BY HENRY SKELTON, M.D., M.R.C.P.

IN 1881 I was called to A. P——, a lad of about twelve years of age, who was passing blood in his urine to a large extent. His case, apparently, was relieved by gallic acid and rest, and I thought no more of it, particularly as I could make out no cause for the hæmorrhage; and as he seemed to get well, I did not trouble any further about him. In 1882 I again saw the lad, who was then bleeding from his nose. The epistaxis yielded to iron internally, and frequent injections of a strong solution of perchloride of iron into the nares.

Soon after this I was called to another child of the same family (aged one year and four months) who had an abscess on the vertex, the result of a fall from a perambulator three weeks before; and as the abscess was causing a great deal of constitutional disturbance I opened it and evacuated the matter. Copious bleeding ensued, and neither pressure nor the usual remedies stopped it, and the child died on the following day from loss of blood.

I have attended A. P—— several times since with bleeding from the mouth and swollen joints, which was undoubtedly effusion of blood. In 1884 I advised his parents to send him into the Bristol Royal Infirmary, where he was placed under the care of Mr. Greig Smith, who has reported his case fully in the *Bristol Medico-Chirurgical Journal*, No. 6, 1884. There is one error in the statement that blood has not been seen in his urine; I myself have seen it, and also nearly all the large joints distended with blood.

On March 23rd of the present year I was called to see Ernest C. P——, aged one year and five months, who, his his mother said, had been bleeding from the mouth since the middle of the night. I found his lips covered and the front of his clothes stained with blood. On examining his mouth the blood could be seen "welling out"—I know no other word that describes it—from the mucous membrane surrounding the teeth. He had cut the four upper incisors, two upper molars, two lower incisors, and was cutting some more teeth; but it was principally from the sockets of the upper incisors that the bleeding came. Various styptics were used, and internally ergot, hamamelis, turpentine, iron, and ruspini were all tried, and apparently without much effect, as the child died. He had become very anæmic, and before death took place was said to have been convulsed.

Remarks.—Heredity is the supposed cause in all these cases. The mother I have attended in several labours, and she always loses a great deal of blood, but generally does well, and is up, as a rule, on about the ninth or tenth day. She frequently suffers a great deal from attacks of asthma, hypodermic injections of morphine and grindelia robusta speedily giving relief. May not this neurosis, of which so little is known, have something to do in predisposing these boys to be bleeders? She—the mother—is one of eleven, three only of whom grew up, two boys and herself. One of her brothers is still alive; the other died from gastric ulceration. Her father, she states, died from asthma at an early age. That is all the family history I can get, and it is, I am sorry to say, a very meagre one.

Downend, near Bristol.

DISLOCATION OF THE SHOULDER; REDUCTION AFTER EIGHT DAYS BY MANIPULATION.

BY E. L. HUSSEY, F.R.C.S. ENG.

As a case of double right-angled traction, the following may be worth publishing.

A thin, spare man, below middle height, seventy years of age, employed as helper in some stables, fell on the tip of his shoulder at night on July 10th, 1867. He continued at his work, cleaning horses and carriages, and sometimes driving; but he could not raise his elbow, nor could he put

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his hand behind him. He was sent to me on July 18th, by a practitioner to whom he applied for relief. The signs of dislocation at the shoulder were well marked, the head of the humerus resting below the coracoid process. After taking off the man's shirt, I laid him on his back upon a table, close to the edge, and attempted to make extension with my foot in the axilla as I sat on a chair at his side. Finding the position inconvenient, I gave up the attempt. Then, standing at the end of the table, behind the man's shoulder as he lay on his back, I drew the arm away from his side, with the forearm flexed at a right angle and the wrist raised perpendicularly upwards, the hand rather inclining to fall downwards. I kept the limb in that position by hooking my finger in the bend of his elbow, and diverted the man's attention by talking upon indifferent subjects. Forcible extension was not wanted. The muscles soon relaxed, and I then let the hand fall over, thus rotating the head of the humerus inwards, and the bone slipped at once into the glenoid cavity. The man ultimately recovered the perfect use of the limb.

Oxford.

BILHARZIA HÆMATOBIA.

By W. K. HATCH, M.B., M.R.C.S.,
SECOND SURGEON, JAMSETJEE JEJEEBHOY HOSPITAL, BOMBAY.

AFTER observing closely twelve cases of bilharzia hæmatobia in Bombay, where the disease appears to be more common than formerly, especially amongst Mussulmans who have made a pilgrimage to Mecca, I venture to send the following point in diagnosis, which may be of use to army surgeons, now that invalids are constantly returning from Egypt.

1. Pain during micturition, with stoppages of short duration. The pain is said to be of a *pricking* character, generally felt at the root of the penis, or sometimes in the glans. It is caused, I suppose, by the passage of the sharp-pointed ova, while the stoppage may be due to spasm set up by them or to clots. The character of this pain becomes important when no clots can be found in the urine.

2. The passage of a few clots of blood at the *end of micturition*. The urine is seldom seen discoloured, but a few small clots and shreddy fragments of fibrin will be seen, especially on standing. If the latter are examined, ova in quantity will usually at once be found; not so often in the blood clots. Should there, however, be no such fragments, a catheter may be passed, and the eye examined on withdrawal; shreds and ova will usually be brought away. It saves much trouble to do this, as the urine may be searched in vain; and the symptoms, even though ova are not found at first, will give rise to strong suspicion. In hæmaturia due to filaria sanguinis the urine is much discoloured, and jelly-like yellow clots are often present in large quantities, while there is no pain and rarely stoppages during micturition. I may add that the patient with bilharzia is often a strong robust man, and not the least anæmic, unless the disease has lasted for years. The time between the contraction of the disease and the passage of blood and other symptoms may be very short; one patient, who stayed at an hotel at Suez for fourteen days, suffering from them a month after his return to Bombay.

Bombay.

CASE OF POISONING BY HYDROCHLORIC ACID.

By C. H. ROBINSON, F.R.C.S.I.,
MEMBER OF THE COURT OF EXAMINERS, R.C.S.I.; FELLOW OF THE ACADEMY OF MEDICINE.

THE following short notes of a case of attempted suicide may be of interest, inasmuch as hydrochloric acid is not often used for this purpose.

On June 16th last a gentleman aged fifty, who for some time previously had lost his employment in a firm where he had been engaged for many years, during a fit of drinking swallowed an ounce of hydrochloric acid which he had obtained from a neighbouring chemist. Within a few minutes afterwards his wife gave him a mustard emetic, which acted several times, and I was sent for and saw him within an hour of the attempt on his life. He was much depressed, in a cold sweat, and complained greatly of pain in the stomach. There were a couple of stains from the acid about his lips. Very fortunately for the patient, he had taken his dinner shortly before he swallowed the poison. I prescribed the usual remedies, such as milk, magnesia, eggs, &c. The following day he complained of pain in the throat as well as in the stomach, and spat up constantly a quantity of thick mucus. Small doses of laudanum were given at short intervals to lessen the irritation of the stomach, but he was able to take without difficulty beef-tea and egg flip. After a few days the pain in the throat and stomach disappeared, and since then he has never complained of any difficulty in swallowing. I was told he had swallowed a quantity equal to two tablespoonfuls of the acid, but as the throat was affected in only a trifling degree I fancy the amount taken must have been considerably less.

Dublin.

AMPUTATION OF PENIS; COCAINE AS A LOCAL ANÆSTHETIC.

By DUGALD CHRISTIE, L.R.C.S., L.R.C.P. ED.

THE following case may be interesting as illustrating the value of cocaine as a local anæsthetic in minor surgery.

The patient, a Chinese merchant in this city, suffered from epithelioma of the penis. For over two years he had been going the round of the native practitioners, consulting them in vain, and only suffering severe torture from their often heroic but barbarous treatment. He came to me in a state of despair—weak, emaciated, with his nervous system, from prolonged pain and sleeplessness, in a state of extreme irritability. Although a year previously he had refused to submit to amputation as I recommended, he now readily agreed to our proposed method of treatment. Chloroform was carefully administered, but after a few inhalations, proving a bad subject for a general anæsthetic, it was decided to try cocaine. Twenty minims of a 5 per cent. solution of the hydrochlorate were injected, in five-minim doses, at short intervals, round the seat of incision, and into the urethra. A quarter of an hour after the first injection the part was amputated without the patient experiencing the slightest pain; indeed, he would not believe me when informed that the operation was over. Another point of interest is that, except from the large bloodvessels, there was hardly any hæmorrhage, doubtless due to the constricting effect of the drug on the capillaries. As to the after-treatment, there is nothing worthy of note, only that the anæsthesia produced seemed to last over a day, and that the patient complained of no pain after the operation. He recovered without a bad symptom, and now enjoys excellent health. I constantly use cocaine in eye operations, cataract, iridectomy, pterygium, and also in cases of fistula in ano, abscesses, &c., with most satisfactory results.

Houkden, North China.

CASE OF PLACENTA PRÆVIA.

By M. H. TAYLOR, L.R.C.P., L.R.C.S. EDIN.,

ON March 9th, at 6.30 A.M., I was called to a woman who was being attended by a midwife. The patient is a very stout woman, forty-three years of age, and was seven months advanced in her fourteenth pregnancy. I found her almost in a state of collapse, her lips bloodless, and I could scarcely feel her pulse at the wrist. I heard she had been bleeding since 4 A.M. On examination, I found, as I suspected, it was a case of placenta prævia. When I saw her the hæmorrhage had stopped, but on the least movement it came on again. Not thinking it judicious to do anything till she had rallied from the state in which she then was, I gave her brandy and milk, and waited for about half an hour, when she felt better. I then examined her more fully. The os was very soft and dilated, sufficiently to admit two fingers. I found the placenta immediately inside the os; it was detached and felt slightly ragged on the right side, the head presenting. I swept my fingers round and detached as much placenta as was within reach, and as I did this the os dilated so that I was able to pass my hand into the uterus, when by the bipolar method I turned the child and brought down the first leg I could seize (the right), till the foot protruded from the vagina. This I found stopped the hæmorrhage effectually, so I did nothing more for two hours, except to put on a binder, when the

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patient felt much stronger and the wrist pulse was easily felt. I then brought down the other leg and delivered her. The child was dead. The placenta came away with a little trouble. I washed out the uterus with permanganate of potash solution, and at 11.30 A.M., when I left her, she felt quite comfortable. I repeated the washing out every day for a fortnight, during which time several small portions of membrane with many clots came away. Her temperature never rose above normal, and she made an uninterrupted recovery. I saw her on April 12th, and she felt quite well, and I hope will be able to resume her occupation of a laundress in a short time.

On subsequent inquiry, which I had not time to make at first, I was told that the hæmorrhage first came on at the latter end of January, was like ordinary menses, and lasted one day, when with rest it stopped. A week afterwards there was another "show," lasting the same period; four days after this a third came on, which ceased in a few hours; two days later she passed a large clot. On March 6th there was a little more hæmorrhage, which lasted an hour. The next was on March 9th, when I saw her. I have since learnt that the patient has a somewhat curious record of confinements. She has had fourteen children, and three miscarriages at three months each. She has ten children living, their ages varying from twenty-two to three years, and all healthy-looking. Her tenth was a case of spina bifida, and lived nine days. Her thirteenth was also spina bifida, and lived fifteen days. The first spina bifida was, I understand, tapped twice, but the second was not interfered with.

Richmond, Surrey.

LIGATURE OF THE INNOMINATE.

By THOMAS HENDERSON, M.B., C.M.

I HAVE thought the following brief notice of a somewhat rare operation of sufficient interest to merit insertion in THE LANCET.

The patient, a man of about forty-five years, was suffering intense pain from pressure by a very perceptible aneurysm of the second part of the right subclavian. Other means having been tried with no good result, Professor Durante of Rome determined upon ligature of the innominate. Accordingly, on March 25th the operation was performed, with strict antiseptic precautions, the vessel being tied in two places—viz., immediately below the junction of the subclavian and common carotid, and again slightly lower down. The vertebral artery was also tied. The ligature used was No. 3 carbolised catgut. The after-progress, up to the present date (April 5th) has been most satisfactory. Circulation in the right upper limb and side of the head has been completely restored, and the patient's general health is good, with the exception of obstinate constipation, which may account for a rise of temperature having occurred. The external wound, excepting a small drainage aperture, has healed by first intention.

Rome.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

ST. THOMAS'S HOSPITAL.

SUCCESSFUL REMOVAL OF RIGHT OVARY FOR CYSTIC DISEASE NINE MONTHS AFTER OPERATION FOR HYDROSALPINX.

(Under the care of Dr. GERVIS and Mr. SYDNEY JONES.)

IN August of last year (see THE LANCET, vol. ii., p. 399) we published an account of the operation which this patient underwent for the removal of hydrosalpinx on the left side. She had suffered from pain and symptoms referred to this disease for four years; these had followed the birth of a child, and were so severe as to almost completely incapacitate her for any employment. At the operation the right ovary was apparently healthy, and was therefore not removed. She continued well for some weeks, and then pain commenced in the right side, making further operation necessary. We are indebted for the notes of the case to Messrs. Blunt and Sansom.

A. L——, aged nineteen, was readmitted under the care of Mr. Sydney Jones on Jan. 12th, 1886, after having been some months at a convalescent home, to which she went on her discharge from the hospital in June, 1886, having undergone an operation for hydrosalpinx on the left side. She now complained of great pain in the right side of the abdomen, which was persistent, but varied in intensity, increasing in paroxysms at intervals two or three times a day. It was also increased by any muscular efforts, and during the catamenial periods. Since the previous operation the catamenia had been regular, but scanty and very painful. She also complained of dragging pains in the lower part of the back after ordinary exertion. Pain had existed since the operation of last year, but had been gradually increasing in severity. The abdomen was somewhat distended, having a well-marked cicatrix in the middle line, without evidence of protrusion. There was considerable tenderness on pressure in the right iliac fossa, and also in the umbilical region. No tumour could be felt. The general condition of the patient appeared healthy, and the urine was normal. but she did not sleep well on account of the pain. On Jan. 30th, there was much pain in the right side, right hip, and back. The catamenia ceased the day before; had been very painful and scanty, lasting four days. She was transferred to the care of Dr. Gervis, under whose treatment she continued until the end of February.

On Feb. 15th the following note was made: "The external parts look healthy; there is, however, slight granular erosion of the external os. On passing the sound the uterine axis was found to be slightly retroverted, but of normal length. No pain on touching the fundus, and no hæmorrhage followed the withdrawal of the sound. On digital examination of the left fornix, no pain was felt by the patient, but when the finger reached the right fornix there was considerable pain, and a semi-elastic ovoid swelling was felt."

No improvement having followed the treatment employed up to this time, Mr. Sydney Jones again took her under his care, and on March 1st performed the following operation, the nature of which was explained to her. Ether having been given, an incision about three inches in length was made in the old cicatrix in the middle line of the abdomen. The peritoneum was opened with care after the arrest of all hæmorrhage, a finger introduced, and the peritoneum incised for the whole length of the wound. A large flat sponge was then introduced to keep the intestines warm, catch any blood, and keep the bowels out of the way. The ovary was then brought to the surface, and removed after the application of a double silk ligature to its pedicle, this being returned to the pelvis. The ovary was double the normal size, and several cysts were found throughout its body. The Fallopian tube was normal. On the left side the parts were healthy. There was no adhesion of the abdominal contents to the old cicatrix. The wound was closed with alternate silk and catgut sutures. The operation was done under the carbolic spray, and the wound dressed with iodoform, iodoform gauze, and salicylic wool. Morphia was given hypodermically in the evening, and she had a fairly good night.

March 2nd.—She complains of great thirst and a good deal of pain in the abdomen. Temperature at 2 A.M. 100°; at 8 A.M. 99°. Pulse 105.

On March 5th the wound was re-dressed and two sutures removed. On the 8th all the sutures were removed and from along the track which they had made pus exuded on pressure. For some time after the operation it was necessary to give her morphia injections, for although she did not appear to suffer much pain, still she was restless and very impatient of control, being difficult to manage, as on the former occasion. The suppuration which was noted on the 8th extended to the wound, and it was necessary to open this up somewhat in order to give freer vent. Much care was taken with the diet; during the first twenty-four hours only ice was allowed, then a drachm of milk every hour for a day, then this quantity was increased, and so on until it was considered safe to allow solid food. When suppuration came on in the wound and the temperature rose (on one occasion, the 8th, it reached 103·4°) the previous dressing was changed to boracic acid and warm water, strapping being applied after the removal of the sutures. When she

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left the hospital on April 7th there was still a superficial granulating surface of slight extent, but her health was good and she was able to take a long railway journey. The abdomen was supported by a belt, and since she has been to the convalescent home, to which she went on leaving, her general strength has improved; she has lost her pain.

EXTRAVASATION OF BLOOD INTO THE THIGH; GENERAL TUBERCULOSIS; NECROPSY.

(Under the care of Mr. CROFT.)

The patient whose case is recorded below was admitted into St. Thomas's Hospital on the 27th of March, 1884, suffering from multiple fractures of the bones of the face, and fracture of the base of the skull and of the radius on each side. Optic neuritis developed under observation, and also left internal strabismus (see THE LANCET, vol. i. 1886, p. 105). The following account of the further progress and ending of this case, and especially of the post-mortem, is unusually interesting. The man never appears to have completely recovered from the injuries thus received, and was almost constantly under medical care for various ailments, dying at last from tuberculosis. The position and extent of the fracture of the base of the skull, the evidences of the old meningitis, which had evidently been severe, and the more recent inflammation with tubercle, are the points to which most attention will be directed. It is not often that we are able to follow throughout its course a case possessing so much clinical interest. The notes of the case have been supplied by Mr. G. R. Anderson.

W. H——, aged forty-one, housekeeper, was admitted into Edward ward on Jan. 21st, 1887, and died fourteen days later. The family history was good. He contracted syphilis fourteen years ago. Until the last three years he enjoyed good health; he then had an accident, sustaining severe injuries, and lost the sight of the left eye. Since then he has had bad health. In April, 1886, he was admitted for ascites and pleurisy, and has attended the out-patient department since for chronic bronchitis. About five or six weeks ago he first noticed pain on the inner side of the left thigh, and thought that he had strained it. The day before admission he noticed swelling in that situation. This seemed to come suddenly; the pain at the time was intense, and he nearly fainted with it.

On admission he was sallow, and had some facial deformity, with internal strabismus of the left eye, there being complete paralysis of the external rectus and complete atrophy of the disc, the result of the old accident. He complained of pain and swelling along the inner side of the left thigh. Here there was a tense ill-defined swelling, extending half-way down the thigh from the flexure of the groin. There is ecchymosis over the upper part of the swelling, and this is said to be increasing; the swelling is tender on deep pressure. The femoral artery can be easily felt, and also the vessels in the leg. His arteries generally are diseased, very hard, and tortuous. The heart is normal. He is under treatment for chronic bronchitis. Urine normal. Temperature 101·8°; pulse 100, full, and bounding. On both legs there are scars of old syphilitic ulcers. A flannel bandage was applied from the foot upwards, and an ice-bag placed over the swelling.

Jan. 24th.—There is some decrease in the size of the swelling; it is less tense, but there is surrounding œdema, and the ecchymosis has spread. There is slight enlargement of the glands in the groin. The limb is quite warm. He is complaining much of headache.

25th.—Warm lead lotion applied to thigh, the condition of which is much the same. There is a somewhat petechial erythematous eruption about the face. Respiration rapid; pulse 96. Tongue dry, and covered with a whitish-brown fur.

28th.—There has been continued complaint of headache, not relieved by iodide of potassium, and only slightly by bromide of potassium. He has been sick constantly during the day.

30th.—Continued headache, with some tenderness of scalp. The rash on the face has faded and the swelling of the thigh is diminished. Tongue and lips dry and brown.

31st.—Some difficulty in breathing, the inspiration being noisy, with expectoration of bronchitic character.

Feb. 3rd.—Patient lies on his back, breathing somewhat heavily; is apathetic, and does not answer questions readily. His lips are dry, brown, and cracked. Tongue dry, with a dark-brown fur. Pulse full, 90. There is some impairment of power in the right arm.

During the last few days he had complete loss of appetite refusing to take food, and emaciated rapidly. The headache was severe, and not much diminished by medicine. He died on the 4th, in an unconscious condition. The highest temperature recorded was on the evening of the 23rd, when it reached 102·4°. It was usually higher in the evening until the 28th, after which date it did not exceed 99°, and was normal before death.

At the post-mortem examination, held on the following day by Dr. Hadden, there was well-marked tubercular peritonitis with adhesions; tubercles in the kidney and also in the lungs. "There was a united fracture, evidently quite old, of the middle fossa of the skull, which extended from near the apex of the petrous bone obliquely forwards and outwards to the anterior margin of the fossa. The margins of the longitudinal fissure of the brain were pretty firmly adherent in the anterior half, and the tips of the frontal lobes were adherent to the dura mater. There were evident signs of old meningitis at the base. The pia-arachnoid was thickened and opaque, especially over the optic nerves, chiasma and tracts, the crura and pons. The optic nerves were dull-grey and the chiasma and tracts distinctly changed in colour. There was no marked diminution in size. The left third nerve was greyer than the right and more flattened. The corpora quadrigemina were normal in size and appearance. The edges of the fissure of Sylvius were firmly adherent, and in separating them several grey tubercles were seen. There was no recent lymph anywhere. The lateral ventricles were a good deal distended with turbid fluid, and their walls extremely softened." A few calcareous plates were found in the spinal arachnoid, chiefly over the lower half posteriorly. A moderate amount of blood was effused into the subcutaneous tissue of the upper and inner part of the thigh. There was no sign of ruptured vessel. The femoral and other arteries were very atheromatous.

MANCHESTER ROYAL INFIRMARY.

RUPTURE OF THE SPONGY URETHRA; SUTURE; RECOVERY.

(Under the care of Mr. WRIGHT.)

THE notes of the following case were taken by Mr. Brazil, house-surgeon.

Peter A——, aged fifty-four, an unhealthy man, formerly a drinker, was admitted on Jan. 29th, 1887. Shortly before admission, while tipping a coal waggon, he was struck in the scrotum by the shaft prop. Soon after the accident he tried to pass urine, but found he was unable to do so, and that the scrotum swelled up.

On admission, the house-surgeon, Mr. Brazil, tried to pass a catheter, but, finding this impossible, Mr. Wright was sent for. On examination, there was a lacerated wound in the scrotum on the left side of the middle line. On passing a catheter along the penile urethra, it entered a large cavity, but could not be got into the bladder. The patient was anæsthetised, and it was then found that the catheter could be passed out through the scrotal wound; the scrotum and perineum were then laid freely open, and it was seen that the spongy urethra was torn completely across a little in front of the bulb, and the ends of the urethra were separated for a distance of from an inch to an inch and a half; the posterior extremity was recognised after a little searching, and a broad director was passed along it into the bladder. There was free oozing from the torn corpus spongiosum. Four catgut sutures were then passed through the divided ends of the urethra, and a No. 10 silver catheter passed from the penis into the bladder along the director, and the latter removed. It was then found that the two ends of the urethra readily stretched, and could be brought together without great tension. The sutures were tightened, and the parts came into good apposition, so that the catheter was not long exposed. The wound was left entirely open and the catheter tied in the bladder.

For the first two days the urine came partly through the catheter and partly through the wound, which was washed out with boracic lotion and dusted with iodoform. On Feb. 3rd the man's condition was very poor; he was feeble, apathetic, and constantly drowsy, and it was feared that his kidneys were too unsound to allow of repair of the injury. The catheter was removed for the first time on the 7th and replaced. For the next three weeks the wound slowly healed, and the man's condition caused much anxiety;

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diaphoretics and a hot vapour bath, however, improved matters, and he gradually recovered. After the 15th the urine came entirely through the urethra, and the catheter, a No. 10 silver one, was readily passed, every day at first, and later every two or three days. No other bad symptoms appeared, and he was sent to the Convalescent Hospital. On March 2nd he was able to pass urine "as well as ever." The scrotal wound was nearly healed, and though he was weak his general condition was fairly good. About ten days later he left the Convalescent Hospital, a No. 12 catheter having been passed readily before he went home. On March 30th a 12-15 Lister passed easily.

Remarks by Mr. WRIGHT.—Complete rupture of the spongy urethra is of rare occurrence, and, so far as I know, primary suture has not been employed for it hitherto; it, however, seems to be the most rational treatment for such an accident, and in this case has had the best results. Had this not been done, it is probable that the wide separation between the ends of the urethra would have necessarily left the man with a permanent perineal fistula. For rupture of the membranous urethra, suture has already commended itself as a proper line of practice.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Chronic Syphilitic Meningitis, causing Progressive Dementia.—Analysis of 93 Cases of Writers' Cramp and Impaired Writing Power, making, with 75 cases previously reported, a total of 168 cases.

AN ordinary meeting of this Society was held on Tuesday, Mr. G. D. Pollock, F.R.C.S., President, in the chair.

Dr. F. WARNER and Dr. FLETCHER BEACH communicated a case of Chronic Meningitis, probably Syphilitic and causing Progressive Dementia. The case was that of a boy aged seven, who came under the observation of Dr. Warner in January, 1879. While an infant he suffered from snuffles, thrush, and sores about the nates. He never had fits. As he grew up he became a strong boy and went to school, where he did his lessons fairly well. He continued bright and well until about eight or nine months before he was first seen. The first thing noticed was a certain difficulty in his movements, the boy at the same time complaining of headaches and crying for slight causes. The symptoms when first seen were then related, and the progress of the case given. He was under observation until September, 1880, when he was admitted into Darenth Asylum, under the care of Dr. Fletcher Beach. There he remained until his death in January, 1882. At the necropsy, twenty-seven hours after death, the dura mater was found adherent to, but easily separable from, a subjacent false membrane, which had evidently been formed for some time. It was attached here and there to the upper surface of the pia mater by thin membrane, and could be traced for a considerable distance along the floor of the skull. The family history showed that the maternal grandmother was epileptic, that the mother was liable to spectral illusions, and that the father had had syphilis. This interesting case, which had been watched carefully for three years, was clearly one of acquired imbecility, due to chronic meningitis, probably syphilitic in its origin, and is representative of many others, where, owing to the influence of heredity, indicated here by the history on the maternal side, the child is born with an unstable brain easily disturbed by any cause. Syphilis is not a common exciting cause of imbecility, but, according to Heubner, hereditary predisposition to nervous diseases appears to exert an influence in determining the syphilitic poison towards the nervous system. Finally, references were made to the connexion between syphilis and idiocy and imbecility. Photographs of the brain and of the membranes were exhibited.—Dr. ANGEL MONEY had made a post-mortem examination on a similar case in a syphilitic infant aged twenty months, in whom there was an extensive sanguiniferous thick false membrane covering the whole of the brain. He likened such cases to peri-splenitis and peri-hepatitis.—Dr. FRANCIS WARNER had observed progressive loss of mental function in two brothers unquestionably due to syphilis. In one case sudden left hemiplegia occurred. There was an arrest of growth in the bones of the affected side; probably syphilitic arteritis was the cause. He thought such cases of mental loss and epilepsy due to syphilis were not uncommon.—Dr. FLETCHER BEACH said that only three cases of undoubted syphilitic imbecility had occurred in 1600 cases at the Darenth Asylum.

Dr. G. V. POORE communicated a paper on an Analysis of 93 Cases of Writers' Cramp and Impaired Writing Power, making, with 75 cases previously reported, a total of 168 cases. This paper is in continuation of one published in the sixty-first volume of the Society's Transactions. The cases reported are given in the form of tables, as an appendix to the paper. They are arranged in three groups,—viz.: 1. Paralytic, 13 cases (10 cerebral). 2. Degenerative, 14 cases. 3. Neuro-muscular, 66 cases. The cases in groups 1 and 2 are nearly all referable to well-understood pathological conditions which affect the brain or spinal cord. The author is of opinion that a not uncommon cause of impaired writing power is to be found in lesions causing slight degrees of paresis of a hemiplegic type, and that the evidence of a slight, long-antecedent, and possibly forgotten hemiplegia may have almost disappeared, except in the execution of an act such as writing, which requires both delicacy and steadiness. Slight degrees of sclerosis affecting the different columns of the spinal cord may, in like manner, be scarcely noticeable except in the effect which they produce on the act of writing. Out of the total 168 cases of impaired writing power, about one fourth are referred to slight central changes in the brain or cord. The remaining 117 cases (66 in the present paper and 51 in the previous paper) cannot, with any sufficient reason, be referred to central change. They form a group which the author calls the *neuro-muscular* group. The objective symptoms of this group (in addition to the impaired writing power) are: 1. Nerve tenderness. 2. Change in the faradaic irritability of some of the muscles. 3. Tremors. These symptoms may occur singly or combined. Nerve tenderness occurred in 50 out of the 93 cases, and in most of these it was the median nerve which was tender. Change in muscular irritability occurred 61 times in the 93 cases. The change was generally a depression, and it occurred chiefly in those muscles which, in the act of writing, are subjected to prolonged contraction, such as the interossei, &c. Tremor occurred in more than half the cases. Many cases were complicated by slight rheumatic conditions of some of the joints. The pathological significance of altered muscular irritability and nerve tenderness is discussed, and it is shown that these conditions occur under such varied circumstances that alone they have little value in determining the nature of the pathological change or its seat. Both, however, may be induced by excessive muscular exertion, and the author continues to regard the depressed electric irritability as symptomatic of muscular fatigue, and is inclined to regard the nerve tenderness as also connected with over-exertion. In the treatment of cases of impaired writing power the first step clearly is diagnosis. For cases of the neuro-muscular group, blistering and other forms of counter-irritation applied to the tender nerve trunks have proved of marked value. Good results have also been obtained from massage and other methods of improving the nutrition of the affected limb.—Dr. C. Y. BISS thought greater prominence might have been given to the mental and physical states of the patient. He had heard of cases of writers' cramp being cured by massage in two or three weeks. The case of a highly nervous man was narrated in which it was shown how important it was to improve the general health of the nervous system. A massage of the whole body once a day and a favourable prognosis confidently expressed to the patient resulted in a cure in six weeks.—Dr. ANGEL MONEY said that in his experience infantile cerebral hemiplegia was very common, and, doubtless, some cases of impaired writing power were due to a long-past hemiplegia. Compensation and substitution allowed of great repair in children. Some cases of impairment in writing were probably due to impaired nutrition of the motor cortex, and others to defect of the spinal centres. This defect of nutrition would tell most on the terminations of the pyramidal fibres and on the endings of the nerves in muscles, for both sets of fibres had their nutrition controlled by the centres, and the nutrition of the fibres might be considered to be more difficult of establishment the further they were away from the source of nourishment and energisation.—Dr. GARROD alluded to impaired power of writing due

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to the result of pressure on the nerves of the arm during sleep.—Dr. R. J. GODLEE referred to the rheumatic affections sometimes met with in these cases of impaired writing. In some cases of writers' cramp he had noticed a remarkable "clicking" in one or other joint.—Dr. POORE said, in reply, that the mental condition was notably of two kinds. In one the men were of extraordinary energy, and the energy was ahead of the staying power of the muscles and nerves. Great despair was the mental condition of others. Very often in ladies the loss of writing power was largely mental, but this was rare in men. All his work had been with a view to show where the loss of function is situated. Altered irritability and tenderness might be due to central or peripheral lesions, but the evidence was insufficient to say whether the one caused the other, or *vice versâ*. As to the joint conditions, perhaps gout played a share in the causation of some cases. Gouty masses and gouty grating in tendon sheaths Dr. Poore had observed, and also creaking of the shoulder-joint.—The PRESIDENT related cases which were clearly due to fatigue, and easily curable by simple rest and change of occupation.—Dr. POORE said that the writing might be impaired from a multitude of causes—e.g., "rheumatic" affections of nerves, and pressure on musculo-spiral or ulnar nerves. Cases due to fatigue and over-exertion were sometimes of the acute kind. Of these he had seen some, but most of the cases he dealt with in the paper were of the chronic order, lasting for months and years.

CLINICAL SOCIETY OF LONDON.

Three Cases illustrating the Difficulties in establishing Natural Respiration after Tracheotomy, and their treatment by Tracheal Catheterisation.—Large Omental Lipoma successfully treated by Abdominal Section.—Abdominal Exploration for Chronic Intestinal Obstruction; relief of Symptoms by Artificial Anus: subsequent removal of a Growth involving the Splenic Flexure of the Colon; recovery.

AN ordinary meeting of this Society was held on the 22nd inst., Dr. W. H. Broadbent, President, in the chair.

Mr. BILTON POLLARD referred to three cases illustrating the difficulties in establishing Natural Respiration after Tracheotomy, and drew attention to their treatment by Tracheal Catheterism. The difficulty in getting rid of the tube after tracheotomy was by no means uncommon, and in two of the cases related it persisted after most determined and persevering attempts had been made for more than a year and a half by the usual methods. Two of the cases had been for a long time under the care of Mr. Godlee, and had passed into Mr. Pollard's hands when he succeeded Mr. Godlee at the North-Eastern Hospital for Children. The first case was a boy, aged two years and a half, on whom tracheotomy had been performed for laryngitis. For eight months frequent attempts were made to dispense with the tube. Mr. Godlee then catheterised the larynx without benefit. Five months and a half later a piece of india-rubber tubing was passed through the larynx from the mouth to the tracheotomy wound, and left in position for forty-eight hours, without any improvement in laryngeal respiration. The operation was repeated four months later without success. A year and seven months after the tracheotomy Mr. Pollard passed a tracheal catheter from the mouth through the glottis and into the trachea, beyond the tracheotomy opening. It was retained for thirty-one hours, and after its removal the patient continued to breathe through his mouth. The tracheotomy wound was firmly healed in a fortnight, and the child had been perfectly well for the six months that had passed since the operation. In the second case (a boy aged six) the windpipe had been opened for laryngitis. Three months after the operation, all attempts to get rid of the tube having failed, Mr. Pollard passed the tracheal catheter, and in doing so dislodged a piece of granulative tissue, which was coughed up. Pneumonia followed in this case, but the patient was nevertheless cured, and was discharged a fortnight after the operation. He remained perfectly well for the three months that had passed since the operation. In the third case (a boy aged four) the operation had been performed for impaction of a foreign body in the right bronchus. For seven months attempts were made to get rid of the tube. Mr. Godlee then removed granulative tissue from the trachea and catheterised the larynx. The latter procedure was frequently repeated during the next three months and a half. Two years and three months after the tracheotomy Mr. Pollard found the vocal cords adherent; he separated them, and, after dilating the glottis with Lister's sounds, passed the tracheal catheter, which was kept in position for thirty-eight hours. It was not until three weeks after this operation that the patient breathed through his mouth alone. The boy's voice returned, but after four weeks laryngeal respiration was so difficult, owing to the vocal cords having grown together again, that the trachea had to be reopened. The only difference between the plan Mr. Pollard followed and that which Mr. Godlee adopted was that, by keeping the tube in the trachea whilst the tracheotomy wound was allowed to close, the patients were left, on its removal, without the opportunity of making use of the passage which, from constant employment, had become for them the natural one. In the first and second cases the chief cause of obstruction was laryngeal spasm, but in the second there was also a growth of granulative tissue. In the third case there was a genuine stricture of the larynx, and the tracheal catheter served as a means of continuous dilatation; the result in this case showed that the dilatation should have been employed for a longer period. In two of the cases the tracheotomy incision had divided the cricoid cartilage, and Mr. Pollard suggested that this method of operating might be a cause of the difficulty of re-establishing laryngeal respiration in those cases.—Mr. HOWARD MARSH thought that in performing tracheotomy it should not be forgotten that the trachea was a canal, like the urethra, lined by delicate mucous membrane. Ulceration and granulation tissues were frequently developed under the influence of the mechanical irritation of the tracheotomy tube. The fenestra in the tube was often the offending point, and when situated posteriorly, and then a hernial-like protrusion of the posterior wall might become the seat of granulations. He advocated the use of tracheotomy tubes with movable necks, and with a round, not bivalve, body. The surgeon should have an assortment of tubes to fit different cases, for in some the neck was very shallow, in others very deep, and so forth. He doubted whether all the cases could be successfully treated as Mr. Pollard's, and related a case in which no lumen through the larynx, which was full of granulation tissue, could be detected on examination. Such a case was likely to prove hopeless under any method of treatment. The lapse of time was an important item in the cure of such cases, for cicatrisation might occur meanwhile, and the natural growth and enlargement of the respiratory passages would come into operation. He mentioned a case of stricture of the trachea from permanent contraction which occurred in a child, now a woman aged twenty-five, but without any recovery of breathing power.—Mr. C. H. GOLDING-BIRD considered that Mr. Marsh exaggerated a little the harm done by the fenestra in the tracheal tube. The permanent rough edge of the two-bladed tube was very deleterious. At the present time he had two cases under his care in which the children ceased to breathe on removal of the tube. In these the conditions were probably the same as those he had described in 1885. The edges of the tracheotomy wound were grown upon by granulation tissue. In one case a growth of granulations existed on the posterior surface of the trachea, and this was removed by Toynbee's ear forceps. He did not think the tube would account either for the absence or presence of granulations. A phlegmonous inflammation occurred in some cases, but he could not say whether this had any share in the causation of the granulations. In many the muscles of the larynx wanted treatment, and he thought that catheterisation, which he had practised for some years past, might act by rousing the muscles into proper action.—Mr. R. W. PARKER recognised two classes of cases: those with and those without mechanical obstruction; the former far outnumbered the latter. Treatment by catheterisation for the cases of mechanical difficulty would not always prove successful. Thickening of the mucous membrane of the pharynx and aryepiglottic folds was an important condition not sufficiently recognised. In the second case, he believed that the catheterisation proved dangerous by detaching granulations. In some patients the difficulty remained because the surgeon delayed too long the attempt to remove the tracheotomy tube. He agreed with Mr. Marsh that the tube should be fitted to the case, for the variety in size of the neck, trachea, and child was great. He believed that

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treatment was not yet entirely successful. Reference was made to a case under his care in a child aged two years, who had scalded his glottis, but for whom little could be done at present, though doubtless time would prove of great service, as it had done, in his opinion, in Mr. Pollard's case, for the larynx remained small till about the age of twelve or thirteen, when an extra development occurred, especially in the male sex.—Mr. BILTON POLLARD, in reply, could not agree that the pneumonia was due to the trickling down of blood, but believed that it was due to collapse of the left lung, owing to the direction of the tube, which perhaps permitted air only to enter the right lung, for there were no breath sounds on the left side of the chest whilst the tube was in. The further progress of the third case was not altogether unsuccessful; many granulations about the vocal cords had by treatment developed into cicatricial tissue, there being a sufficient opening through the larynx to permit of breathing for as long as twenty-four hours, when the tracheal tube had to be replaced, apparently because mucus in the trachea became excessive, and the child had difficulty in coughing this up.

Mr. MERRIDITH read notes of a case of large Omental Lipoma successfully removed by Abdominal Section. The patient, a woman aged sixty-two, was admitted under his care at the Samaritan Free Hospital in January, 1886, suffering from an abdominal tumour of over four years' standing. Some eighteen months before this she had been an inmate of another special hospital in London, where the abdomen had been opened in the belief that the tumour was ovarian, but had been reclosed on the discovery of the fatty nature of the growth. The patient returned home after recovering from this exploratory operation, but remained more or less constantly bedridden on account of the weight and size of the tumour, which steadily continued to increase. On her admission into the Samaritan Hospital, the abdomen, measuring forty-sixth inches in girth, contained an elastic but evidently solid tumour, which filled the entire cavity and overhung the pubes and groins, without invading the pelvis. The growth, viewed in the light of the former operation, was diagnosed as a lipoma of the omentum on the grounds of its comparative mobility and the absence of any intestinal resonance in front of the mass. The tumour was removed on Feb. 6th, 1886, by enucleation *en masse* from its omental capsule. No serious difficulty was encountered, and the abdomen was closed without drainage. The growth weighed fifteen pounds and a half; it was solid throughout, consisting of dense lobules of fat with a scanty amount of fibro-cellular tissue. The patient recovered well, and left the hospital on the twenty-fourth day after operation. She was seen in good health four months later, having gained flesh and strength. Examination revealed no evidence of further growth.

Mr. BERNARD PITTS read a case of Abdominal Exploration for Chronic Intestinal Obstruction, with relief of symptoms by the formation of an Artificial Anus and subsequent removal of Growth involving Splenic Flexure of Colon. The patient, Mrs. D——, came under observation in St. Thomas's Hospital, on August 21st, 1886. She was aged thirty-seven, and had enjoyed good health until Oct. 1885, when the first obstructive attack took place. For the six weeks prior to her admission she had had no satisfactory evacuation of the bowels, even after repeated enemas. She was a thin, pale woman, with distended abdomen, coils to be seen and felt, much peristaltic movement, and occasional vomiting; one large coil was especially marked, running across the abdomen from above downwards towards the left groin. On examination under an anæsthetic, no tumour could be felt, and the rectum was normal. On September 21st, the vomiting became continuous and offensive, and the patient was very exhausted; the vomiting was checked by morphia, but no action of the bowels could be obtained. In consultation with Mr. Edmunds, it was decided to explore the abdomen in the middle line, and this was done on Sept. 24th. The transverse colon was greatly distended and displaced downwards, and the descending colon was completely empty. The end of the transverse colon was attached to a small separate incision in the upper part of the left semilunaris, but the bowel was not opened till several days had elapsed, and the central wound had healed. The patient was in a very depressed state for the week following the opening of the colon. A very large quantity of fæces continuously passed, and she was apparently poisoned by the gases generated during the evacuation. Her breath had a strong fæcal odour; she was for days very drowsy, not recognising her husband, fractious, and suspicious of those around her. After getting rid of the very large fæcal collection she rapidly improved, and was able to get up on Nov. 5th; her weight was then 7 st. 4 lb.; weight before operation, 6 st. 10 lb. By introducing the finger into the colotomy opening, a movable mass about the size of a small orange could be felt under the ribs, evidently a malignant stricture at the splenic flexure. It was therefore decided to attempt the removal of the affected bowel. After careful preliminary treatment this secondary operation was performed on Nov. 22nd. An oblique incision was made on the left side below the ribs, about two inches above the colotomy opening, and by hauling on the collapsed descending colon the affected portion of the bowel was drawn out of the wound, and about four inches and a half excised; several small glands and some adherent omentum were also taken away. The two ends of the bowel were carefully united by silk sutures throughout their posterior and lateral aspects. The muscular coat of this united part of the bowel was then attached by numerous sutures to the abdominal opening, and the everted mucous membrane carefully stitched to the skin. The patient was then left in the condition of possessing a second colotomy opening, the first opening having contracted to the size of the little finger. The patient made a rapid recovery; the temperature remained normal; and on the tenth day she was able to get up. She left for home on Jan. 2nd, wearing a vulcanite tube, with the hope that fæces might pass into the lower bowel and the natural passage be restored. Mrs. D—— was now, five months after the removal of the growth, in perfect health, and able to do ordinary household work. Her weight was nine stone, or a gain of more than two stone since the relief of the obstruction; the bowels were open regularly every morning by the second colotomy opening, but there was complete control for the rest of the day. The specimen, a typical columnar epithelioma of the bowel, was shown and described. Mr. Pitts, in remarking on the case, gave his reasons for making the abdominal exploration, and quoted two other cases of stricture of the large bowel, in which he had made a preliminary abdominal exploration before opening the bowel at a selected position. By the exploration it was possible to gain definite information as to the cause and extent of the mischief, and this was of immense advantage when any further radical measure was contemplated. When no stricture was found in the rectum, he regarded a chance colotomy as an unsurgical procedure. In each of these cases the selected portion of the bowel had been attached to a separate opening in the abdominal wall for three reasons. 1st. It allows the exploration incision to heal by first intention, and as the second opening is exactly the size wanted, and as the bowel is stitched all round, there is no wound near the bowel opening to heal. 2nd. The bowel is not displaced from its natural position by being drawn up to the central wound. 3rd (and most important). It is of great advantage for after-examination to have the opening near the seat of mischief, so that an after-exploration with the finger may determine the character of the stricture and its relations. At the primary exploration, when the bowels are greatly distended, it is well to be content with a very limited examination, and on no account to attempt any removal of growth until all obstructive trouble has been relieved and the bowel has been thoroughly washed out. Mr. Pitts then gave his reasons for not restoring the complete continuity of the bowel at the time of the colotomy, and discussed the chances of successful after-restoration of the natural passage. The paper concluded with some remarks on prognosis and on the poisoning by absorption of gases that occurred during the evacuation of large fæcal collections.—Mr. MORRANT BAKER said that Mr. Pitts' course was exactly what should have been done. An attempt to close the artificial anus might be successful, as in a case of intestinal obstruction which was treated by an exploratory median incision, and in which he made an artificial anus. The main was relieved, but symptoms of septicæmic poisoning occurred after the escape of fæcal matter, similar to what happened in Mr. Pitts' case. The small intestine was opened in this case, the valvulæ conniventes being seen; and later on a prolapse of the bowel occurred, and in reducing this he resolved to carry out a plan of treatment which should attempt to close the anus, for the natural passages had again resumed their function. After incising the edge of the wound in the abdomen he stitched them together, and the wound healed almost throughout its entire length. Such success was as unexpected as it was agreeable.—Mr. A. H.

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BARKER mentioned a case which illustrated and emphasised the views of Mr. B. Pitts. It was that of a man aged sixty-four, in whom long-continued obstruction, with enormous distension of the abdomen, led Mr. Barker to make an exploratory incision from the umbilicus to the pubes, when a cancerous growth was detected about the splenic flexure in the form of a large mass of hard growth complicated by nodules in the mesentery and parietal layer of the peritoneum. The wound was closed and the right iliac fossa was selected for aspiration, as the cæcum was much distended; this aspiration was repeated several times, with manifest relief, and adhesions formed between the cæcum and the parietes, which ultimately allowed him to stitch the cæcum to the incision made into it with a view to more permanent relief of the symptoms of obstruction. By this method of aspiration a large quantity of feculent matter—three to four pints—was removed, with the effect of relieving distress and causing the sallowness and mental symptoms to disappear. It is now six weeks since the complete opening was made, and the patient was very comfortable. He felt so satisfied that he should adopt the same practice rather than make an opening near the growth causing obstruction. He considered that the artificial anus should be as far away from a new wound as possible. He referred to a case of mental aberration that occurred in a woman after colotomy, which was also relieved by aspiration.—Dr. BROADBENT had observed the curious mental condition in cases of intestinal obstruction without there having been previous operation or any introduction of air into the canal.—Mr. BERNARD PITTS, in reply, said that Mr. Morrant Baker's case, ending in a rather unexpected closure of the artificial anus, could hardly be hoped for in his own case. It was found impossible, owing to the acuteness of the angle at which the intestines joined, either by means of indiarubber or vulcanite tubes, to get the fæces to pass from the upper into the lower part of the united bowel; so that he doubted whether closure of the artificial anus could be easily accomplished. He agreed with Mr. Barker's suggestion that the temporary withdrawal of feculent matter by means of the aspirator would materially help the surgeon to tide over the urgent period of the case. He would prefer that the new wound should be in the immediate neighbourhood of the growth, at least within a reasonable distance—say, from three to five inches.

The following living specimens were shown:—Mr. Victor Horsley: Three cases illustrating Brain Surgery. Mr. R. J. Godlee: Two cases of Abdominal Cyst following injury.

MEDICAL SOCIETY OF LONDON.

Blood Cyst of the Tongue.—Severe Injury of the Wrist-joint, with Division of Nerves, Vessels, and Tendons, treated by Conservative Surgery.—Excision of Nævoid Growth in Neck.—Ossified Epulis.

THE last clinical meeting of the session of this Society was held on Monday last, Dr. J. Hughlings-Jackson, F.R.S., President, in the chair.

Mr. BRUCE CLARKE showed a case of Blood Cyst of the Tongue in a young woman aged twenty-four. The growth was of nævoid aspect; it only began to grow two years ago, and yielded on one occasion serous fluid, and later on only blood, the cyst filling again in five minutes. He proposed to excise the cyst, and if necessary to remove a portion of the tongue. The cautery would probably control any hæmorrhage.—Mr. DAVIES-COLLEY said that blood cysts he had seen were either ordinary hæmatoma or degenerated nævi; he inclined to the latter view of the case shown. A simple plan of treatment would be the use of a ligature. He had successfully treated an extensive lingual nævus by ligatures without the least hæmorrhage.—Mr. F. BOWREMAN JESSETT agreed with the previous speaker; he had seen serious hæmorrhage in treating cases of the kind by ligatures.—Mr. J. H. MORGAN referred to a curious fluctuation in size of nævoid growths.—Mr. BRUCE CLARKE adhered to his own view, whilst admitting the possibility of a nævoid origin.

Mr. WILLIAM ROSE showed a case of Severe Compound Injury of the Wrist-joint. There was a transverse incision dividing all the structures down to the front of the wrist-joint, the median and ulnar nerves, the radial and ulnar arteries, the flexor tendons, and the pisiform bone. The joint was laid freely open. The tendons had retracted, and there was great difficulty in matching them thoroughly, though the nerves were easily found. Immense pains were taken to obtain accurate apposition—end to end union—of the nerve ends. A "tension-stitch" was first used, and then three or four sutures were employed to stitch the nerves together. The posterior interosseous arteries proved sufficient to allow of a flow of blood from the distal ends of the divided radial and ulnar arteries. The treatment was strictly antiseptic. The progress was satisfactory, the joint healing without suppuration. Sensation had returned almost completely. The movement of the wrist-joint was now fairly free. Within one day of the injury there was a return of sensation on the ulnar side of the second finger. He was disposed to break down adhesions under anæsthesia, and to relieve the nerves from their surrounding cicatricial tissues.—Mr. MARMADUKE SHEILD had seen an almost similar case, which he had read before the Cambridge and Huntingdon Branch of the British Medical Association. Primary union of the nerves took place. A glossy skin and bullous eruptions during the winter months were observed. Passive movement and massage were very useful in the treatment.—Mr. BRUCE CLARKE said that it took many months for sensation to return, and it might take more than a year. Careful galvanisation and massage would effect great good.—Dr. ANGEL MONEY referred to the asphyxiated condition met with in cases of peripheral neuritis.—Mr. BERNARD PITTS congratulated Mr. Rose on the result of his conservative surgery. He had treated several cases of injury about the wrist, and had met with some difficulty in "matching" the tendons. An immediate return of sensation might occur within a few hours.—Mr. DAVIES-COLLEY had had seven or eight cases of the kind under his care, though not so severe as in the case shown. He had incised the opening of the flexor sheaths with a view to better finding them. There was no necessity for cutting down on these nerves at present. The interossei did not seem to be wasted. Galvanism would probably prove useful.—Mr. ROSE, in reply, said he intended to employ systematic galvanisation. The improvement had not continued the last two months, and this made him suggest further surgical interference.

Mr. BOWREMAN JESSETT showed a case of Extensive Nævoid Growth, in a young man aged nineteen, situated in the neck about the left ear. At the age of four the growth began to enlarge distinctly. The left ear was greatly swollen and turned forwards by the growth behind. Mr. Jessett attempted to dissect out the whole of the nævus, being fully aware of the nature of the growth. This was found not to be practicable, but the greater part of the growth was removed, with a good result. There was some weakness of the left side of the face.—Mr. WALTER ROSE agreed that it was more scientific and surgical to freely expose the nævus and remove it, rather than to employ subcutaneous methods. Was the pulsation genuine, or merely communicated?—Mr. DAVIES-COLLEY said a large number of these nævi were best treated by excision. In the Guy's Hospital Reports he had described an almost bloodless method of excision. Hare-lip pins were passed crosswise through the base of the nævus, and compressed by means of a drainage-tube twisted round the pins. Pressure by a pad of boracic acid lint was very effectual in preventing bleeding.—Mr. BERNARD PITTS said that excision was very effectual in some cases in the grown-up, but in children the loss of blood and free dissection should be avoided. Nævi that have pulsation at some parts are not very amenable to electrolysis, which was, on the whole, the best method of treating nævi in children.—Mr. J. H. MORGAN had employed Mr. Davies-Colley's method successfully.—Mr. F. JESSETT, in reply, said the pulsation was communicated.

Mr. MARMADUKE SHEILD exhibited a case of Tumour of the Lower Jaw of six years' duration; it was either fibrous or osteoid. The mode of operation might be open to suggestions.—Mr. DAVIES-COLLEY thought it was an ossified fibrous epulis, and he would recommend the removal of part of the alveolar process beneath, in front, and behind the epulis.

ACADEMY OF MEDICINE IN IRELAND.

Resection of the Pylorus.—Œsophagotomy to remove a Foreign Body.

AT the meeting of the Surgical Section held on Feb. 18th, Mr. M'ARDLE read a paper on Resection of the Pylorus, and, as evidence of the importance of this operation, he showed that of 1342 cases of cancer of the stomach, the disease was

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confined to the pylorus in 802, and of this number 496 were suitable for operation, as there was no implication of the neighbouring gland or adhesion to adjoining viscera. He then detailed a case in which he had removed the pylorus for cancer. The patient died of exhaustion four hours after the operation. He called attention to the result in 70 cases of pylorectomy which he collected: 62 were for cancer, with 35 deaths; 8 for simple stricture, with 3 deaths. The high mortality of the former depended on extensive adhesions delaying the operation. In reference to the question as to where these adhesions most frequently occur, Mr. M'Ardle showed that of 289 cases, the tumour adhered to the pancreas in 132, the omentum in 80, the transverse colon in 72, the liver in 4, and the small intestine in 1. He mentioned that those points of frequent attachment should be taken as landmarks in digital exploration of the pyloric region. The conditions under which he considered operation justifiable were—1. Irritable and intractable pyloric ulcer, leading to spasmodic stricture. 2. Simple fibrous stricture. 3. Circumscribed cancer, without adhesion to the pancreas or transverse colon.

Mr. BARTON read a paper entitled "Œsophagotomy for the Removal of Foreign Bodies." He referred to the removal of a foreign body impacted in the pharynx or œsophagus as a safe and justifiable operation in cases where removal through the mouth was difficult or impossible to effect. He spoke of the reasons which had probably combined to deter surgeons from performing it more frequently, and detailed the case of a child from whom he had removed by pharyngo-œsophagotomy the steel roller of a sewing machine, which had been embedded in the pharynx, opposite the cornu of the hyoid bone, for three months. The foreign body, which was larger in diameter than a sixpence, could be felt in the neck, and was safely and easily removed. The child made a good recovery, the greatest difficulty encountered being the feeding of the patient, which was troublesome, owing to the tendency of food to come through the wound, which did not heal for some time. This was overcome by feeding through a stomach-tube introduced through the wound. Mr. Barton called particular attention to this plan of alimentation, which he considered would prove of much value in the after-treatment of cases of this class.

An Outbreak of Diphtheria.—Notes on Cases of Insanity.

At the meeting of the Medical Section, held on Feb. 25th, Dr. MOUILLOT of Gorey read a short account of an outbreak of Diphtheria which occurred in the female school of the Gorey Workhouse. Eighteen children were affected, and there was a remarkable difference in the severity of the cases. In seven the appearance of the throat was that considered characteristic of diphtheria, and in three of these the local and constitutional symptoms were very severe. In ten cases there was no means of distinguishing the appearance of the tonsils and pharynx from ordinary tonsillitis. In one case the disease appeared to begin in the larynx. Out of the eighteen cases, three had laryngeal diphtheria, with two deaths; two cases were followed by diphtheritic paralysis, and sixteen had distinct enlargement of the cervical gland. Dr. Mouillot traced the disease to a foul smell arising from a choked drain immediately under the schoolroom and dormitory windows. He considered that even the mildest cases were really diphtheria—(1) because all were produced by the same cause, and at the same time; (2) because one of the least severe cases was followed by paralysis of the palate; (3) the cervical glands were enlarged; (4) the children with mild sore-throats were put in the same ward in the fever hospital with the certainly diphtheritic cases, and none of them caught a second attack, though the infectious nature of the disease was shown by a child in another ward, who was convalescent from typhus, catching it. Dr. Mouillot remarked that this outbreak went far to settle the question as to the possibility of diphtheria arising from foul drains, and also was a warning not to hastily decide that any case of inflammatory throat mischief was unimportant and non-contagious if it could be traced to foul drainage.

Mr. JOHN MOLONY read Clinical Notes of cases which he had grouped as fair types of "Fixed Delusions" occurring in various forms of mental disease, and cited in connexion therewith the opinions of Clouston, Spitzka, Savage, and Mickel. He also referred to the habit of alvine evacuation-eating in some forms of insanity, for the purpose of eliciting a discussion on the pythogenic origin of enteric fever, and gave a brief account of circumscribed outbreaks of abortive enteric fever occurring amongst agricultural labourers at "seed-time" employed in manuring, and as a contrast pointed to the apparent impunity with which some lunatics can devour decomposed fæcal matter.—Dr. FOOT suggested that the dirt-eating propensities indicated either what the evolutionists described as the doctrine of reversion, being the return to a degraded state, or that the insane found in it some nourishing food or substance which supplied a want. They showed discrimination by taking the excrement fresh without waiting for fermentation, which was conducive to typhoid.—The PRESIDENT said there were cases of definite monomania which did not last a year, and were curable partly by medical treatment and partly by moral influence before drifting into an asylum, where they were generally incurable. Opium was of great value in soothing the brain when threatened with functional disturbance; while care on the part of friends, and suitable change of scene, often prevented delusions from being stereotyped.

Dystocia caused by Hydrocephalus and Pelvic Tumour.

At the meeting of the Obstetrical Section held on March 4th, Dr. PUREFOY narrated a case of Dystocia caused by Hydrocephalus and Pelvic Tumour seen by him in consultation with Dr. Allen, in which the patient, a multipara, became profoundly prostrate from the suffering due to long-continued but ineffectual labours. The os was found largely dilated, encircling a large mass, which careful examination showed was a hydrocephalic fœtus; below this, posteriorly, was found an oval tumour, very movable and apparently pediculated; this was being driven down before the presenting part during each pain. With considerable difficulty this was pushed up and an opening made in the enormously distended scalp, giving exit to several pints of clear fluid. Even in this collapsed condition the head was so large that it was found necessary to complete delivery with the forceps. When dealing with tumours thus obstructing delivery, if there is reason to believe their contents are fluid, the relative advantages of tapping them through the vagina or through the rectum deserve our particular consideration. — Dr. ATTHILL said he thought the tumour and the hydrocephalic child were mere coincidences. Of course they increased the difficulty of labour, but not the danger of the case. The question was how to deal with a tumour which could not be pushed upwards. His experience was that it was wonderful how these tumours would get out of the way, and how little the patient suffered from their presence. He should have the greatest hesitation in tapping such tumours per vaginam; he thought such treatment extremely risky, because there was a danger of puncturing the vaginal wall.—Dr. LANE asked if the child in Dr. Purefoy's case was alive at the time of the operation. If it were dead, there would have been no difficulty about lessening the size of the head by puncturing it.—Dr. PUREFOY, in reply, said that as to whether the child was alive or not he expressed no opinion; but the likelihood of its being alive might be judged of from the facts that the woman had been for eight or nine hours in a state of horrible suffering before he saw her, and that the child's head contained nearly five pints of fluid. The probability that it was alive was not very great; and it was very unlikely that it would have survived aspiration.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

A MEETING was held on March 3rd, Dr. Cleaver, President, in the chair.

Hypertrophy of Heart.—Dr. MARTIN introduced a boy aged fifteen with enormous hypertrophy of heart. He had had rheumatic fever two years before. During the past two months he had suffered from continued fever. The area of heart dulness, extending from the upper border of the fourth rib, is four inches and a half in the vertical direction and from the right border of the sternum to a point three inches to the left of the nipple. Mitral stenotic murmur; no aortic. Pulse regular, but weak.

Injury of Popliteal Artery.—Mr. GARRARD read notes of three cases of injury to the popliteal artery, each ending in amputation of the thigh, at periods varying from ten days to thirteen months. First case: Subluxation of both knees; posterior crucial ligament torn off; left popliteal vein torn and artery stretched, rupturing inner coats. Dry gangrene com-

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menced on ninth day; amputated on tenth; popliteal artery plugged with firm clot at seat of amputation. Second case: A man had a slight sprain of knee six weeks before. Went on working until a large swelling appeared in the ham. When first seen it was almost impossible to distinguish between abscess, aneurysm, and soft malignant growth, but was shown to be a small popliteal aneurysm the size of a walnut, which had been ruptured. There had never been any pulsation in the tumour. Amputated six weeks after the injury. The third case was a severe fracture and bruising of calf, wounding popliteal artery; a false aneurysm was formed and became consolidated, but the limb was useless, and was amputated thirteen months afterwards.

Hodgkin's Disease.—Dr. PORTER showed enlarged suprarenal capsules from a case of Hodgkin's disease. The patient, a woman aged fifty-one, had suffered from enlarged glands on both sides of the neck, the original enlargement, on the left side, occupying most of the posterior triangle. There was also a large mass of mesenteric glands forming an abdominal tumour, and smaller enlargements of the axillary and inguinal glands. The tumour on the left side of the neck had given rise to great pain from pressure up the side of the neck and face and down the left arm, and the external carotid and radial pulses were barely distinguishable. There was also œdema of the left hand, and the arm became ultimately quite useless. One symptom had been flushing and profuse perspirations, at first more or less limited to the left side of the face, due to pressure on the sympathetic. The patient died of gradual exhaustion. At the post-mortem the tumours were found to be entirely glandular. There was some enlargement of the right lobe of the liver and of the spleen, but no lymphoid nodules or bands apparent in either organ. The suprarenals were very large indeed. No enlargement of the intestinal solitary glands was found.—Remarks were made by the President, Mr. Atkin, Dr. Keeling, and Messrs. Jackson and Garrard.

At the meeting on March 17th, Mr. SNELL introduced a young woman with Conical Cornea. In both eyes it involved chiefly the upper part, and in the left especially the cone was very unusually prominent.

Tumour in the Right Iliac Region.—Dr. MARTIN gave brief notes of a case of tumour in the right iliac region, in the neighbourhood of the ileo-cæcal valve, the subsequent course of which seemed to prove that the case was one of fæcal obstruction. Throughout, the bowels were fairly regular, and acted freely under the influence of aperients. It was a month before the tumour disappeared. The general appearance of the patient—a woman aged forty—was strongly suggestive of malignant disease, giving rise to considerable diagnostic difficulties.

Obstruction of the Bowels.—Dr. KEELING read a paper on "The question of Surgical Interference in Acute Obstruction of the Bowels," in which, after limiting the class of cases to which he wished to draw attention, an attempt was made to show: first, that by the use of the statistical method and the bedside observation of certain symptoms, it was possible to arrive at a tolerably exact diagnosis of the cause of obstruction; secondly, that this cause was frequently very similar to what is found in external strangulated hernias, and therefore, thirdly, that the obstruction could be effectually relieved, as in them, only by surgical methods.

At the meeting on March 31st Dr. HARGREAVES exhibited a Dilated Stomach (chronic) after pyloric constriction.

Mr. KILHAM showed two Surgical Kidneys; they contained several abscess cavities, and were from a patient aged seventy-five, the subject of stricture &c.

Mr. SNELL introduced a woman with small contracted pupils, Argyll-Robertson phenomena, optic atrophy, and symptoms pointing to locomotor ataxia.

Double Ophthalmoplegia.—Dr. W. R. THOMAS related a case of double ophthalmoplegia. On Aug. 17th the patient, aged forty-nine, became dizzy and fell, was unconscious for a short time, and when raised it was found that his sight was affected. When Dr. Thomas first saw him in December both eyes were very prominent from paralysis of ocular muscles. There was decided ptosis on both sides. The right eye was immovable, so also was the left; but on the left side there was a decided internal squint. The pupils were not affected by light or accommodation. Objects at a distance could be seen better than those near. Vision on the left side was much more indistinct than on the right. There was no history of syphilis, rheumatism, or cardiac disease, and no previous history of head symptoms. On the whole, Dr. Thomas thought that, as the attack had come on so suddenly, it was due to hæmorrhage pressing upon the corpora quadrigemina on both sides of the floor of the third ventricle and parts around, and that this might be due to pre-existing disease which had not given rise to any evident head symptoms. The patient was improving.

Acute Dilatation of Stomach.—Dr. DYSON related this case. The patient, aged forty-one, was seven months pregnant. A miscarriage occurred thirty-six hours after the commencement of the illness; but beyond increasing the debility and collapse, this did not contribute to her death, which took place on the fourth day after the seizure. The immediate cause of the attack was a draught of cold milk, which was taken after severe exertion. This brought on acute gastric catarrh, accompanied by the vomiting of large quantities of bile-stained fluid and rapidly increasing distension. The physical signs were those set forth by Dr. Hilton Fagge. No post-mortem was obtained. The treatment consisted in giving nutrient and stimulating enemata, stomachic sedatives, bismuth, morphia, &c., and applying a small blister to the epigastrium. Most relief to the pain and vomiting was obtained by hypodermic injection of morphia. The patient was too feeble to admit of the use of the trocar or stomach-pump.—Messrs. Thorpe, Jackson, Baldwin, and Drs. Keeling, Hargreaves, and Martin took part in the discussion.

MANCHESTER PATHOLOGICAL SOCIETY.

AT the meeting on April 13th, the following specimens were shown:—

Malignant Endocarditis and Nephritis.—Dr. H. ASHBY showed the heart and kidneys of a girl aged thirteen years, who had suffered for several years with chronic mitral disease and rheumatism, acute or verrucous endocarditis supervening. A few weeks before her death she had an attack of subacute rheumatism, a diastolic basic bruit made its appearance in addition to the systolic, and the urine was loaded with albumen. At the post-mortem numerous irregular nodules of fibrin were present on the mitral valve and on the posterior wall of the left auricle, and also along the line of contact of the aortic valves. The kidneys were large and pale; microscopically they showed swollen and fatty epithelium, the tubes choked with blood and fibrinous casts. The glomeruli appeared swollen, but were otherwise unchanged. Many of the capillary vessels were choked with emboli consisting of micrococci. The spleen and liver were enlarged.

Cystic Disease of the Kidney.—Dr. H. ASHBY showed for Dr. Macalister the kidneys of a man aged thirty-four years, who had suffered for upwards of three years from epistaxis, hæmaturia, headache, and attacks of dyspnœa. Uræmic convulsions supervened before death. At the post-mortem there was a hypertrophied heart and recent pericarditis. The kidneys consisted of masses of cysts, numbering many hundreds, and varying in size from a pin's head to a marble, their contents were fluid or gelatinous, consisting of altered blood.

Intra-thoracic Tumour.—Dr. HUTTON exhibited a sarcoma involving all the thoracic organs, of a boy of eight years. There had been no symptoms or loss of health until within four or five months of his death, and urgent symptoms existed only for about eight weeks. The growth, arising in the glands, had infiltrated the pericardium, which was in places more than half an inch in thickness, and spread into the lungs deeply in a radiating manner along the bronchi and vessels. Microscopic sections showed it to consist of a felt work of coarse bundles of fibrous tissue containing lymphoid cells in its meshes, with here and there large masses of lymphoid tissue.

Preparation of Œsophagus from a recent case (the Oldham Poisoning Case) of Corrosive Poisoning.—Dr. T. HARRIS showed this œsophagus, which presented a corroded, charred patch, with absolutely black edges; the patch was circular in shape, an inch in diameter, and involved the mucous and submucous tissues. There could be no doubt as to the case being one of poisoning by some corrosive fluid, probably sulphuric acid.

Polypoid Growth of the Vulva.—Dr. BROOKE showed a drawing and sections of a molluscoid tumour of the vulva,

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involving the clitoris and its folds, both labia majora, and the lower part of the fore-wall of the vagina. The patient, aged twenty-nine, had suffered badly from syphilis for the last eight years in spite of constant treatment. In June, 1885, a "vascular growth" was said to have been removed from the mouth of the meatus urinarius; this, however, recurred and developed into the present condition.

Mr. SOUTHAM and Dr. DRESCHFELD also showed preparations and sections.

Notices of Books.

Food Grains of India. By A. H. CHURCH, M.A.Oxon., F.C.S., F.I.C., Professor of Chemistry in the Royal Academy of Arts, London; sometime Professor of Chemistry in the Royal Agricultural College, Cirencester, &c. Published for the Committee of Council on Education by Chapman and Hall. 1886.—Professor Church, whose claim to attention none will dispute, tells us in his modest preface that his work has been founded on the material collected by the late Dr. Forbes Watson, who for many years worked in this direction. The new analyses contributed by Professor Church are marked by the letter C, but there are so many C's in the book, and many of them are of such interest and importance, that the author might well have claimed a larger share of the honour. The book, a thin quarto, is divided into five parts. Part I. is devoted to the constituents and uses of food. In this part we find clear though succinct descriptions of the carbohydrates, oils and fats, albuminoids, &c., present in all food grains. It was wise to include this description, and it was equally wise to make it short. We notice an unfortunate printer's error on page 5, where the formula for the glucoses is written $C_{12}H_6O_6$, instead of $C_6H_{12}O_6$. Part II. gives a short but very lucid account of the theory of dietaries, in which the heat value and nutrient value are well explained. We especially commend to our readers the figures and arguments on pages 13 and 14, which illustrate, and to some extent explain, the value of "flesh-formers" in muscular work. The curious experiment of Fick and Wislicenus, and the researches which followed from it, caused the real energy value of these compounds to be for a time as much under-rated as they had been before over-rated. The remaining three parts of the book describe respectively the chief cereals, buckwheat, and the allied orders, and the pulses. The seeds of the amaranths possess remarkable food value, the husked seeds of the Bengal amaranth (A. gangeticus) containing 14·5 per cent. of albuminoids and 6·3 of oil, with 2·6 of ash and 61·8 of starch. The high percentage of nitrogenous matter is accounted for by the enormous quantity of nitrates in the tissues of the plant. The dried stem of the well-known "love lies bleeding" will sometimes deflagrate when ignited, and nearly 15 per cent. of nitrates have been found. Throughout the book we find excellent botanical descriptions, and equally excellent illustrative plates. But the most important features are the large collection of original analyses, and the calculations of food value founded on them.

The Diagnosis and Treatment of Syphilis. By TOM ROBINSON, M.D., Physician to St. John's Hospital for Diseases of the Skin. London: J. and A. Churchill. 1886.—The title-page of this little book leads the reader to suppose that he will find the more difficult problems, both of diagnosis and treatment, which arise from time to time in connexion with syphilis carefully dealt with. Such was our expectation in taking up the book; we hoped for some additions to be made to the common stock of knowledge, and we have only to confess to disappointment. The book contains nothing of value that is not found in any good surgical text-book, not to speak of the many excellent works specially devoted to this subject. The history and phenomena of syphilis are dwelt upon with a very light hand, and the rules for treatment are simple—we had almost said crude. The following quotations will show the general style of the work: "I shall abolish the term 'hard chancre,' because its introduction implies that it has some relation to the soft chancre, and I shall use in its place the phrase 'initial lesion of syphilis.' All the symptoms which ensue after the initial lesion I shall include in the terms '*sequelæ of syphilis.*'" Dr. Robinson is physician to a skin hospital, so his views on the cutaneous manifestations of syphilis are especially interesting. Here is one of them: "Does a syphilitic eruption ever assume an eczematous type? Contrary to what we have been taught to believe, I should say—Yes, but only in those individuals who have a skin capable of becoming eczematous." We have only room for two of the therapeutic aphorisms: "I have never seen any reason why Aix-la-Chapelle or any other spa should have any special value in the course of syphilis." "Iodide of potassium to eat up syphilitic manifestations; mercury to prevent their recurrence." We can only add that the style is not improved by the writer changing about between the first person singular, the first person plural, and the third person singular. Such variety is not a literary charm.

De l'Intervention Chirurgicale dans les Affections du Rein. Par AZARIE BRODEUR, M.D. Paris, Ancien Interne en Médecine et en Chirurgie des Hôpitaux en Paris. Paris: G. Masson, 1886.—This is the largest work yet published on the Surgery of the Kidney, and it furnishes the result of an enormous amount of bibliographical labour. Dr. Brodeur has collected from all sources 327 cases of operations performed upon the kidney. The majority of these have been recorded in the medical press, but some of them are new, being taken from the private note-books of Paris surgeons. Not only has Dr. Brodeur collected these cases, but he gives an abstract of each of them. Such forms of statistics have obvious defects; for they show the mortality of the early operations of many surgeons, and of the operations undertaken before experience has clearly indicated the best course to be pursued in individual cases. When full allowance is made for this, however, they are useful, and the author has made up for this defect by the careful and useful abstract of each case he gives. These abstracts, all with full references to the source from which they are derived, will prove to be of very great service to others investigating this branch of surgery, and too much praise cannot be given him for the labour and pains he has taken to make this part of the work complete. The various renal operations are discussed under the heads of the diseases for which they have been undertaken. One fact which has impressed Dr. Brodeur in his study of the matter is the readiness with which nephrectomy has sometimes been resorted to. A study of the work before us will do much to prevent a too frequent practice of the operation.

A Practical Treatise on the Cure of Pulmonary Consumption. By JAMES WEAVER, M.D., L.R.C.P. London: J. & A. Churchill. 1887.—There is no subject in medicine that has been more the sport of credulity than that of the treatment of consumption. The frequent non-success of scientific medicine to arrest the downward progress of the disease has given rise to a host of alleged "cures." Any honest attempt, then, to establish a rational line of treatment is to be welcomed, and so far, in spite of its pretentious title, we are glad to receive the fruits of Dr. Weaver's experience as embodied in this *brochure*. It is, nevertheless, with a sense of disappointment that we find the actual evidence in support of his advocacy of iodide of potassium as the specific for phthisis to be so meagre; and before admitting his conclusions as to the efficacy of this drug we should like to feel persuaded of the share taken in the "cures" by the dietetic and hygienic management on which he [illegible] and rightly lays stress. We are the more sceptic[illegible]

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the value of the iodide of potassium treatment because of the extremely vague notions which its advocate holds upon the pathology of phthisis. He talks loosely of the enlargement of the "tubercle millet-seed bodies" causing "congestion" and breaking down into cavities; he believes in the unity of phthisis, as well as in its being a "constitutional" disease and as being "contagious"; whilst his ideas of the relationship of the bacilli to the morbid process are so remarkable that we must give the passage entire:—"In pulmonary consumption we are able to demonstrate certain bacilli in the sputa, and although we are at present unable to state positively what the abnormal quality of the blood is which generates this condition of things, we know that this fluid is changed very considerably from that of perfect health, and that its red corpuscles are largely decreased, and that certain other constituents, such as fibrin and lime particles, are considerably increased. It has also been demonstrated that if a portion of blood from a phthisical patient be placed for an hour or two in a warm temperature, certain organisms similar to those expectorated in the sputa are generated and move about in the fluid so experimented upon—going, I think, a long way towards proving that these organisms are first formed in impure blood, and, acting in some peculiar manner on certain portions of lung tissue, cause the probably already deposited tubercular speck to grow and take on organic changes, producing, as already shown, actual consumption." (pp. 17 & 18.)

Traité Élémentaire de Pathologie Générale. Par H. HALLOPEAU. Deuxième édition. Paris: J. B. Baillière. 1887.—This work does not claim to be more than a fairly exhaustive review of a wide subject. In it are to be found the results of investigations carried on in all countries, and collated by M. Hallopeau with exemplary diligence. The subject matter is divided into five parts. The first treats of etiology, discussed under the heads of intrinsic and extrinsic causes, the latter including, of course, the subject of micro-organisms, which is treated with considerable fulness. The second part deals with morbid processes, commencing with inflammation and ending with tumours. The third part is concerned with symptoms, each system of organs being taken in turn. In the fourth part, the subject of disease as a whole is discussed, and in the fifth the general principles of therapeutics; but these are comparatively sketchy, and not equal in depth of treatment to the rest of the book. As a whole, the work is one which will be appreciated as giving a faithful account of present knowledge of the processes of disease; and to the student desirous of reading a French work we can heartily recommend it. The systematic method upon which it is planned, and the care which the author has expended on its revision, are worthy of commendation.

A New Clothing Case for the Soldier. By W. THORNTON PARKER, M.D., A.A. Surgeon, U.S. Army. Pp. 15. Newport, R.I.: Davis and Pitman. 1887.—This pamphlet is another attempt to solve the much-vexed question how a soldier on the march can best carry his service kit. Dr. Parker proposes to abolish the knapsack in use in the American Army and to substitute for it a case made of light canvas, rubber cloth, or waterproof cloth, divided into three equal pockets, and to be worn over the left shoulder. It is claimed for this that it will be lighter than the knapsack, and the weight be more equally distributed; but we are by no means sure that, in the summer especially, the soldier would not suffer more from the heat of this case, before and behind, than he would from the slight additional weight of the valise now in use in our service. The pressure of the case, also, on the front of the chest would probably be found to impede the respiration in the same manner, though not in so great a degree as the belts of the old knapsack, now happily abolished in the British Army. These are points, at least, which should be determined by careful experimental trials before any change is taken into consideration.

Causeries Scientifiques. Par HENRI DE PARVILLE. Paris: J. Rothschild.—This is a medium-sized volume, containing an account of recent discoveries and inventions, given in a pleasant, readable form, but of necessity much condensed. There is a mass of interesting material in the book, embracing a wide area. M. de Parville devotes some chapters to public hygiene, physiology, electricity, geological and meteorological discoveries, and other subjects too numerous to specify. Inoculation for cholera by Ferrán is discussed by the author at some length. He is of opinion that the judgment with regard to the efficacy of the treatment passed by the French Committee of Inquiry was too hasty. Although it appeared that Ferrán was unable to cultivate the cholera bacilli virus, there is still no reason, he considers, why the germ of truth contained in the idea of inoculation for this terrible disease should be disregarded. It remains for others to develop this theory, which M. de Parville thinks may be of importance to the human race. Several pages are devoted to hypnotism and other psychical experiments. Suggestion, M. de Parville remarks, would explain more than one miracle and many mysterious recoveries. As a popular or semi-popular year-book of science this work may be regarded as a valuable little book.

Variations of Fortune. Illustrated by Sketches of some of the Old Towns of Italy and of those who influenced them. London: Sampson Low. 1886.—"Everyone," says Goethe, "finds in Rome exactly what he brings to it"; and from Rome the saw might have been extended to Italy. It is to furnish the English-speaking visitor to the antique and mediæval treasures of the Italian peninsula with some preparation for the better appreciation of what he sees that this portable little volume has been written. Already favourably known to the artistic world for her beautiful drawings of the "Seven Ages of Man" from the pavement of Siena Cathedral, the authoress has applied her draughtsmanship to the reproduction of some of the most characteristic scenes and figures of Italian history; and, in conjunction with the skilful letterpress that leads up to and explains them, she brings before the reader, in a vivid and memorable way, a series of most interesting events and achievements, making the realisation of them on the spot at once easy and delightful. Those of the profession who contemplate a holiday in Umbria or the Roman territory could not do better than take this little volume as their companion.

The Medical Annual. 1887. Bristol: John Wright and Co.—The publication of this work has been a little delayed owing to the unavoidable increase of matter and the number of pages found necessary to carry out the work efficiently. Its scope, however, has been so extended as to render it a complete work of reference on the modern treatment of disease. The Dose Index has been much enlarged, and the section "Books of the Year" has been extended by the addition of the more important American works published during 1886. The current volume is a distinct advance upon its predecessors, and can be unreservedly recommended to practitioners who desire a source of ready reference on questions of therapeutics, &c.

Street's Indian and Colonial Mercantile Directory. 1886-87. London: Street and Co.—In addition to the trade returns, tariffs, populations, &c., of the various colonies which are dealt with, this volume contains alphabetical lists of the leading professional men and merchants in the different towns, concise descriptions of each country and town, with the view of showing their commercial capabilities and peculiarities, and particulars of the various railways in operation or in course of construction. The amount of information contained in it is enormous, and the

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work, which contains nineteen maps, will be appreciated by all who take an interest in and desire information respecting our colonies.

Analytical Records.

THE GERMAINS IMPROVED APPARATUS AND POWDER FOR DISINFECTING AND FUMIGATING.

(A. Z. GERMAINS, WINDSOR-ROAD, VICTORIA-PARK, LONDON.)

THE apparatus is a small metal hearth with a false bottom and side holes, to admit air. Over this is a hood with a side pipe near the top, by which fumes can escape. The powder contains sulphur, and burns easily. Mr. Germains has certainly contrived a convenient and safe method for sulphur fumigation, but every such contrivance is liable to be misused, and some of the statements made by the inventor are likely to lead to very dangerous misuse. Our readers know well that serious disinfection cannot be accomplished by the production in a room of a mere smell of sulphurous acid or any other chemical agent. To disinfect with sulphur one pound must be burned to every 1000 cubic feet, and the exposure must last many hours. Real disinfection by this machine in the presence of living creatures would be impossible; and when the inventor talks of the purification of churches he talks nonsense. Such a fumigation would have no real value, and would be dangerous as leading to a false sense of security.

MOUILLA, OR POTASH LIQUID SOAP.

(M. R. EDWARDES, ADAM-STREET, STRAND.)

This interesting soap is the invention of Dr. Duncan of St. Petersburg. We find by analysis that it is, as described, a potash soap containing glycerine, and scented with lemon. It is a clear solution, which mixes easily, and gives a lather with soft water. Opinions may differ as to whether potash is better than soda soap for ordinary use; but if potash soap is wanted it could not be obtained in a more convenient or elegant form. For medical purposes the soap is incorporated with small quantities of carbolic acid, Russian birch tar, and other substances. The carbolic soap, in particular, is a useful and valuable preparation.

BOKÖL, A NORWEGIAN PREPARATION OF MALT.

(DAVIS, BERGENDAHL, & CO., NEWCASTLE-ON-TYNE.)

This is a liquid alcoholic preparation which tastes like sweetened beer. It might, perhaps, be used with advantage instead of stout, but, as it possesses scarcely any diastasic power, we cannot recommend it as a substitute for malt extract.

KENTISH SAUCE.

(BURGOYNE & CO., PERCY-STREET, TOTTENHAM-COURT-ROAD.)

All that we need say of this sauce is that it is pleasant in flavour, and that our analysis shows that it is entirely free from poisonous metals.

LIQ. PODOPHYLLIN (HOCKIN).

(HOCKIN, WILSON, & CO., DUKE-STREET, MANCHESTER-SQUARE.)

This seems an excellent extract. It is faintly alkaline, mixes well with water, alcohol, dilute acids, and small quantities of alkaline carbonates, but is precipitated by alkaline hydrates.

VAN ABBOTT'S BEEF-TEA.

(G. VAN ABBOTT & SON, LONDON.)

This is a stiff jelly easily soluble in warm water. The solution contains no fat or albumen, and may therefore be boiled. In flavour it is excellent, and we have no hesitation in awarding it high praise.

RAPHAEL TANNIN WINE.

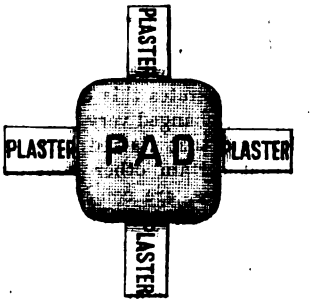
(M. GALLAIS, PICCADILLY.)

A full-coloured, luscious, and agreeable wine, faintly acid and remarkably astringent. The iron and gelatine tests show the presence of a considerable proportion of tannin. We think [illegible] useful in [illegible]

New Inventions.

SELF-FIXING ABSORBENT PADS.

MR. DE ST. DALMAS, of Leicester, has submitted to us one of his "self-fixing absorbent pads." It consists of a pad of absorbent wool enclosed in thin muslin, with four "tails" of St. Dalmas strapping affixed to it. The pads are



made of various sizes, and can of course be easily prepared impregnated with an antiseptic. The woodcut shows at a glance the mode of application.

AUTOMATIC PURIFYING CLOSET.

AN ingenious method of dealing with excreta has recently been patented by Messrs T. Goddard and Co., of Queen Victoria-street, which claims to be an improvement upon the earth-closet. The material used in substitution for earth is called "sanitary carbon," but there is no statement of the source from which this carbon is derived. Its action upon the excreta is that of an effectual deodorant, and it has the advantage of retaining the ammonia, thus producing a manure which must have some value. It is used in connexion with closets and commodes provided with lids which are charged with this material. On shutting down the lid a sufficient quantity of the carbon is scattered over the excreta in the pan beneath, rendering them entirely free from smell; and it is said that the amount of earth or ashes commonly required for this purpose is five times that of the carbon, the cost of the quantity of the latter material sufficient for each time of using being one-eighth of a penny. It is probable there will be some demand for the use of this deodorant in places where the water-carried system is impossible.

MEDICAL ATTENDANCE ON THE POOR.

To the Editors of THE LANCET.

SIRS,—I am obliged by your remarks, and the attention you have given to my pamphlet on Medical Attendance for the Sick Poor not Paupers; but I regret if I have at all led you to infer (and I appear to have done so by your closing remark) "that I said the object sought by Sir Spencer Wells' committee was only for the benefit of the poor and not the industrial classes." Now by the very title I gave my paper it was my desire and intention to show that it was in the hope of providing, as I particularly mentioned in my pamphlet, kind and efficient medical aid for this section of the general practitioner's patients that this committee was now sitting, and I think I specially implied this by mentioning that I advocated that the wage limit should in certain cases be extended (as to men with large families) even to £6 per week by paying 10s. per month when in health. What I did mention was that Sir Spencer Wells' committee was not organised for relieving any class who were well able to pay our usual fees, nor for that upper stratum of the industrial classes "whose annual [illegible] very often was much larger than that of the average clerk and even nearing a not small number of the professional classes." I am, Sirs, your obedient servant,

April 18th, 1887. [illegible]

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THE LANCET.

LONDON: SATURDAY, APRIL 30, 1887.

THE American Public Health Association has made an important contribution to the subject of the danger attaching to rags as disseminators of disease. In a report of a Committee on the Disinfection of Rags, they have embodied a summary of the principal information available as to the possibility of the communication of disease by means of rags, and of the circumstances under which such communication takes place. In this country the two diseases which are most in question in connexion with rags are small-pox and cholera. As regards small-pox, it would be mere waste of time to make any endeavour to prove that the infection is conveyed in old clothing and rags, for the positive evidence on this point is overwhelming. So many outbreaks of small-pox have occurred amongst rag-sorters in paper-mills, that the only point of real importance which remains for discussion is how far this source of infection can be stayed. In an able letter appended to the report, Dr. STERNBERG, of the United States army, who has devoted much attention to the subject, evidently inclines to the view that since we have in vaccination an efficient means of protecting people, whether rag-sorters or not, against small-pox, it would not be justifiable to place any substantial hindrance in the way of a trade involving such large interests as that of paper-making from rags. But he holds that where a health officer has special reason for regarding any bale or consignment of rags as infected he should take the needed precautionary measures. In England even this limited action would be difficult of application, because, unless it can be shown that a definite consignment has actually been exposed to infection, the 126th section of the Public Health Act (1875) becomes practically useless. And even where such exposure can be proved, it is a difficult task effectually to disinfect a bale of rags unless a high-pressure steam apparatus is available. The alternative, indeed, would be the destruction of the bales, with compensation to the owner, under Section 121 of the Act, on the ground that the process had been carried out in the interests of public health.

Turning next to cholera, the report must be taken as setting at rest all doubt as to whether the infection of this disease can be communicated by means of clothing and rags. The number of cases cited in proof of such communication is so large that, even allowing for sources of error which might attach to some of them, there still remains a sufficient body of evidence to answer all reasonable purposes, and to justify the action which is adopted by our Government, and by most other European Governments—namely, the absolute prohibition to import rags from countries where cholera is prevailing. But the instances cited, taken along with the comments of Dr. STERNBERG, go to show that, after all, it is not so much rags, as such, that constitute the source of danger, as small parcels of clothing, over the transit of which our Cholera Orders in all probability exert no influence whatever. Rags, it appears, are gradually collected at the ports whence they are shipped; they are sorted, and put together in bales by local people, and yet it has been most difficult to show that cholera has been distributed through the agency of such establishments. And so slow is the system of accumulation at times that rag-vendors can allow their stores to increase until the prohibition is removed; and, after all, the very rags which it was sought to keep out of the country reach it at a somewhat later date. Here, however, comes in an important question. How long does the infection of cholera retain its vitality in rags and in similar cargoes? Probably for a limited period only, when compared with that for which the small-pox virus remains operative for mischief under similar circumstances. But even with these limitations to absolute certainty as regards the importation of the disease, we agree with the reporters that Governments have no alternative but to prohibit, during cholera epidemics, the importation of rags from ports neighbouring to the districts affected.

Dr. H. B. BAKER, the secretary to the State Board of Health of Michigan, is evidently inclined to suggest such wider action as would deal with rags imported from places where scarlet fever and diphtheria prevail. He begins by pointing out that the mortality occasioned by these diseases is vastly in excess of that from small-pox or cholera; and as regards the former, he says that whereas the small-pox deaths in the United States in 1880 numbered only 874, scarlet fever killed 16,416, and diphtheria 38,398. That the contagia of both these diseases can be communicated by means of rags, which are so largely made up of old clothing, admits of no doubt; although in the case of diphtheria the instances which go to prove it are by no means so numerous as in the case of scarlet fever. But with these diseases so rife as they are both in England and in the United States, and with infection spreading daily through our schools and other agencies, we think it would be most difficult to induce any Legislature to go beyond provisions such as are included in our Public Health Act and which limit preventive action, under such circumstances, to cases in which it can be shown that there has been actual exposure to infection.

Another alternative has been suggested as regards all the more dangerous contagia liable to be communicated through rags, and which, in addition to cholera, small-pox, scarlet fever, and diphtheria, include such affections as typhus, yellow fever, anthrax, and pleuro-pneumonia. It is that at all ports or at all paper-mills the rags should be disinfected. Both Dr. STERNBERG in America and Dr. PARSONS in this country have shown that, so far as the actual process of disinfection is concerned, this can be effected by steam-pressure disinfecting machines; but some of the paper manufacturers declare that the rags are injured by the process, and since vaccination is available against the contagium most commonly in question, it has never yet been regarded as practicable to impose the suggested restriction. In the meantime health officers should exercise the greatest vigilance in the case of the importation of rags, whether by sea or land; and, in the case of cholera, prohibitions to import must evidently be continued.

WHETHER regarded from a public health, or from a political point of view, the paper recently read by Mr. NOEL

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A. HUMPHREYS before the Royal Statistical Society has served a useful purpose in calling attention to the wide variations between the mortality of different social classes.

The necessity for further and more accurate information on the subject is clearly shown, but our present knowledge warrants the conclusion that the future of health progress depends mainly upon the successful application of sanitary reform to the homes and manner of living of the working classes. How far it may be admissible to judge of the effect of class influences upon mortality in England from Dr. GRIMSHAW'S Dublin figures must remain a moot question until similar statistics are prepared for English populations. The fact, however, that the mean duration of life by ANSELL'S Upper Class Life Table is fifty-three years, instead of forty-four years by the most recent national life table, affords conclusive proof of a far wider difference existing between the rate of mortality of the upper and of the working classes. While, however, it is highly important that the excess of mortality in the artisan and labouring class should not be lost sight of, it is fully as necessary to remember the facts and figures set forth by Mr. HUMPHREYS to prove that high death-rates are not the inevitable and necessary fate of this class. In the absence of any trustworthy English working-class mortality statistics we are obliged to fall back upon the Registrar-General's Occupational Mortality Statistics, which certainly do not justify the sensational assertion of an evening contemporary, that the "work of the learned professions conduces to life, and that of the artisans to death." The near approach of the mortality of labourers in agricultural counties and of gardeners to that of the clergy, which between twenty-five years and sixty-five years is represented by 556, as against 1000 for the mortality of all males, was pointed out in the paper. It is necessary, however, to call attention to the fact that the relative mortality figure for lawyers is 842, and for medical practitioners 1122; and also to point out that below or between these figures come wheelwrights, 723; carpenters, 820; ironstone-miners, 834; coal-miners, 891; plasterers and whitewashers, 896; shoemakers, 921; bricklayers masons, and builders, 969; blacksmiths, 973. The mortality figure for each of these groups of artisans is below that for all males, and very considerably lower than that for the medical profession, while the mean mortality of all the groups but slightly exceeds that of the legal profession. Whatever may be the explanation of these apparent anomalies, it is at any rate clear that the work of the medical profession can scarcely be said actually or relatively to conduce to long life. It is quite possible to believe that an artisan's life, with actually shorter hours of work and far less mental worry, may in a large proportion of cases be more conducive to longevity than that of the professional man. It is the general and unskilled labourers in towns who suffer most, and who from their numbers tend to raise the mortality of urban populations.

The most important political, social, and sanitary problem of the day now urgently calling for solution, is to devise means for preventing the accumulation of unskilled labourers in towns in sanitary condition and surroundings not only fatal to themselves, but a source of real danger to the physical, moral, and social health of the nation. There can be no doubt that the manner of living of the poorest classes in certain portions of most of our towns constitutes a source of danger to the public health, while we see its result upon themselves and their children in the statistics given in Mr. HUMPHREYS' paper. It is asserted by owners of house property and by sanitary authorities that they are helpless to control the home surroundings of these classes; but if landlords were held more distinctly responsible for the sanitary condition of their underlet tenements, such a pressure would be put upon the tenants as would teach them the necessity for decent living. In this way a civilising influence would be brought to bear forcibly upon the class, and the benefit to the public health would soon exercise an appreciable influence upon the death-rate. The effect of such pressure upon the mortality from zymotic disease may be estimated from the variations in the death-rates from these diseases in the various social classes derived from Dr. GRIMSHAW'S figures. We learn that in Dublin, after correction for variations of age distribution, measles mortality was during the three years 1881–83 nearly ten times as fatal in the general service class as in the professional and independent class; whooping-cough more than four times as fatal; scarlet fever more than twice as fatal; typhus nearly five times as fatal; and diarrhœa nearly three times as fatal. Experience points to the homes of the working classes as the usual generating ground of most of these zymotic diseases, from which the middle and upper classes derive the infection. With cleaner and healthier homes for the working classes, and with increasing difficulty put in the way of those who are now said to prefer unwholesome surroundings, it would be safe to calculate upon a further rapid decline of zymotic mortality in towns. It is beyond doubt that the decline of zymotic mortality in recent years has been one of the most potent factors in the reduction in the death-rate of children.

Notwithstanding this marked decline of child mortality, the strongest contrasts between the death-rates of different social classes are still found to prevail during the ages of infancy and childhood. Thus, it was pointed out by Mr. HUMPHREYS that the mean annual mortality under five years of age is just five times as great in the general service class (the class of general labourers below the artisan class) as in the professional and independent class; while at the next age period, five to twenty years, the difference between the mortality of these two classes is very nearly as great. It is true that the rates of mortality in adult life are more than twice as high in the general service as in the professional class, but it is fair to assume that some of this excess of mortality in adult life is rather due to the depreciating constitutional effect of insanitary surroundings and hardships in childhood, than to occupation and the other conditions of adult life. How far the conditions which lead to the terrible waste of life and health among the children of the poor are within control cannot be easily decided. When, however, due note is taken of the marked reduction of working-class mortality, especially among infants and children, in the Peabody and other improved dwellings, undeniable proof is supplied of at least one direction in which effective sanitary checks may be applied to the waste of child life, which we are too apt to regard as inevitable and beyond control. Is it necessary to urge the courageous application of this

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form of control, without any cynical dread that decline in the death-rate will only lead to such an increase of population as will add to the social and political difficulties arising from over-population?

In conclusion, it is worth noting that the proportion of children in the several social classes is constantly in inverse ratio to the capacity of the several classes to support their children in a manner to favour their becoming, physically and morally, healthy members of society. It appears from Dr. GRIMSHAW'S classification of the Dublin population that 1000 of his professional and independent class contains only 75 children under five years of age, while the same number of the artisan class contains 121 children of those ages. It should be remembered, too, that these proportions under-state the relative proportion of children born in the artisan class, on account of the far higher death-rate among children in this class compared with that which prevails in the professional and independent class. Who can decide how much of the poverty and its attendant high death-rate and disease is due to the improvident and far too early marriages among the working classes? Let us hope that the recent decline in the national marriage-rate and birth-rate, which has been almost as marked as that of the death-rate, instead of being entirely due to commercial depression, may in part be attributed to a form of national prudence and thrift, which may not be without its effect upon the death-rate of children, and will certainly moderate the rate of increase of population, which, in some quarters, is viewed as a source of political danger.

BETTER explanation has long been needed of the circumstance that in every outbreak of disease due to infected milk some only of the milk drinkers have been attacked, while others, and that often a large proportion, have escaped. This unequal incidence of attack is doubtless due in part to a difference in the susceptibility of individuals, but this has long been seen to be insufficient to account for the facts observed. Quite recently Dr. KLEIN, in his report on the etiology of foot-and-mouth disease, commented on a "very puzzling" point which was observed in the feeding of certain sheep with the streptococcus of this malady—viz., that the process had to be repeated three times before one of them became infected; and he referred his readers to experiments made some years ago by Dr. BURDON SANDERSON and Mr. DUGUID, who found it necessary to rub hay steeped in the saliva of a diseased cow several times over the mucous membrane of the mouths of the animals which were the subjects of his experiments before the infecting process was complete.

Mr. W. H. POWER, in his report on the recent outbreak of diphtheria at Yorktown and Camberley, which the Local Government Board have just issued, has thrown considerable light on the conditions which affect the capability of milk to produce disease. It is necessary to refer briefly to the main facts contained in Mr. POWER'S report to enable his argument to be understood. The inquiry, it will be recollected, resulted from the desire of the inhabitants of the invaded locality to have further investigation of an outbreak which the local medical officer of health had attributed to infected milk—a conclusion which Mr. POWER fully confirms. The possibilities of drainage, water-supply, and deposits of river mud being concerned in its production were fully examined by Mr. Power and set aside, as well as all chance of articles of food other than milk being implicated. The evidence that milk was responsible for the occurrence is to be found in the fact that in a given area containing 176 houses, 94 of which received milk from the infected farm and 82 of which derived their supply from other sources, 48 of the former and but 9 of the latter were invaded by diphtheria or throat illness, and the inmates of some proportion of these 9 houses had either been exposed to infection from other cases of diphtheria, or had, away from home, consumed some of the suspected milk.

The chief interest in Mr. POWER'S story lies in what follows. The milk drinkers did not receive the same quantities of milk. There were, in fact, in this locality two classes, a rich and a poor; the former, who were supplied with larger quantities, suffering from threefold to fourfold as much as the latter, whose use of milk was limited to its consumption in tea. Mr. POWER shows that the number of opportunities for infection in one and the other class were practically forty in the richer to twenty in the poorer; but the difference observed in the incidence of the disease was even greater than could be explained by any consideration of the quantity consumed, and even amongst households alike receiving large quantities of milk there was an unequal incidence of diphtheria in accordance with the manner in which the milk was treated. In certain households it was the custom to "set" milk for cream, and the skim milk which thus came to be subsequently consumed was evidently responsible for an exceptionally large amount of diphtheria amongst its drinkers; cream itself did not appear to give rise to increased illness, for although families receiving cream direct from the dairy suffered heavily, they were, it is noted, those who consumed large quantities of milk, and they did not suffer more severely than other families, also large milk drinkers, who were not supplied with cream. One other point of interest is dwelt upon in the report: the quantity of milk consumed by individuals who were infected does not appear to have had any influence upon the severity of their disease when judged by the number of severe cases which occurred amongst the total number attacked, for two-thirds of the attacks among large consumers of the milk and one-half of the attacks among small consumers were severe—a difference, as Mr. POWER observes, not sufficient to connect intensity of attack with the amount of milk consumed.

The investigation failed to show the manner in which the milk acquired its infective property. There was no opportunity, as at Hendon, for comparing the relative infectiveness of milk from one cowshed and from another, for the milk of all the cows on the farm was intimately mixed before its distribution. That it was infective before leaving the farm is proved by the fact that it was distributed on four milk-walks, and each supply produced the same result. So, again, no explanation could be found for the circumstances under which cessation of infectiveness occurred, for the reason that nearly all the farmer's customers left him when the disease became prevalent.

The best use has undoubtedly been made of the opportunity for inquiry, and some lessons learnt which ought to be turned to practical account by those upon whom devolves

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the duty of dealing with milk, both before and after it is supplied to a household. We fear it will be long before the necessity for boiling milk is generally recognised by those who are still unwilling to adopt this simple precaution; but the teachings of Mr. POWER'S report are worthy of serious consideration—that the amount of risk from drinking infected milk depends upon the manner in which it is treated after its entry into a house.

IT almost seems as if there was a slight abatement in the rush into the medical profession. Whether young men are deterred by fear of the examinations, which have been growing in stringency or of the increasing cost of medical education and examination, or by the prospect of poor pecuniary rewards, we cannot say. But there are some indications in the newly issued "Medical Students' Register" of more caution in entering on medical studies. This annual publication[1] of the Medical Council contains a good deal of interesting information. It gives the list of examining bodies whose examinations meet the requirements of the General Medical Council in Preliminary Education. Another list of great interest is that of the Places of Medical Study whereat students were registered in England, Scotland, and Ireland, and in India and the colonies respectively. On another page the regulations of the Medical Council are given for the examination and registration of medical students. Then there is the Register itself—for medical students have their register as well as medical practitioners.

The chief points of interest to us are the summary of the numbers commencing the study of medicine in each of the three divisions of the kingdom and the list of the chief seats of medical study. On page 12 is a table giving the number of students registered during each year from the commencement of students' registration in 1865 to the end of the year 1886. The number of students registered as commencing their studies last year was 1904—quite enough, it might be thought, to supply an annual waste by death of 600 or 700. As we know, there is a great falling off in these when the examinations are reached, and, roughly speaking, little more than two-thirds ever enter the profession. But what we notice is that if we compare the numbers registered as commencing study in the last five years with the numbers in the preceding five, there is an actual falling off. Of course from year to year the number fluctuates. But we find the number in the five years 1877 to 1881 to be 9669, or an annual average of, say, 1934; whereas, in the five years 1882 to 1886 the number was 9390, or an annual average of 1878. In the first quinquenniad the number exceeded 2000 in three years, the largest number being in 1881, 2171; whereas in none of the last five years did the number reach higher than 1957. There need, however, be no fear of an abundant supply to meet the waste of the profession; for the average mortality of the profession, though larger than it should be, is scarcely found to exceed for the last three years 600, whereas the average actual registration of practitioners on the Medical Register for the same years is 1373. This influx of double the number that are lost to the profession by death affords some explanation of the excessive competition which obtains in many parts, and leads to occasional breaches of those traditions as regards professional conduct which have long regulated medical men in their intercourse with each other, and in their bearing towards the public. An excess of over 700 a year may well lead those who think of entering the profession to pause. If they do so from the love of it, well and good; but those who wish for an easy road to fortune will do well to seek some other way.

The chief seats of medical study come out in the list of schools. The commencement of medical study by *pupilage* to a practitioner obtained in 177 cases—namely, 142 in England, 4 in Scotland, and 31 in Ireland. Besides these instances, many date the commencement of study from a provincial hospital. Of the 1908 students registered in 1886, 915 were registered in England, 626 in Scotland, and 367 in Ireland. The London schools scored 433 of the students, the Edinburgh University 280, and that of Glasgow 137.

A MISUNDERSTANDING, at which no one can wonder, has arisen between the two well-known engineers, Sir JOSEPH BAZALGETTE and Mr. BAILEY DENTON. Considering how diametrically opposed their views on sewage disposal have always been, it would be strange if they did not sometimes mis-read each other's words. Sir JOSEPH, in his evidence before the Select Committee of the House of Commons on the Pollution of the River Lea, advised that the sewage should be treated chemically as at Crossness, but with a considerably larger proportion of chemicals. As the sewage is to be discharged into the Thames at a point about one mile from the Barking outfall, and as therefore it is only the Thames that can be injured, it is certainly difficult to understand why the treatment considered sufficient for Crossness and Barking should not be sufficient for the Lea valley. In Sir JOSEPH'S opinion the more moderate system, which has been tried on a large scale and is about to be adopted at the great outfalls, is not only sufficient but "very satisfactory." He only advised the more expensive system, it appears, in deference to the opinions of others and to "conciliate opposition." Sir JOSEPH evidently thinks now, as he has always thought, that all this talk about river pollution and sewage disinfection is mere nonsense, that raw sewage does not pollute the Thames, and that Mr. DIBDEN'S valuable and carefully executed experiments at Crossness are quite unnecessary. He expressed his opinion that the chemicals used will soon be curtailed in quantity, and perhaps believes that they will before long be dispensed with altogether.

It is needless to say that we dissent entirely from the views to which the Metropolitan Board of Works has most unfortunately committed itself. The Board has done great and good work for London; and the drainage of the metropolis, accomplished by the skill of Sir JOSEPH BAZALGETTE, has been one of the greatest of its labours. But Londoners cannot cease to resent the injury done to their river, or the obstinate and persistent manner in which that injury has been defended. It is true that, tardily, reluctantly, and under compulsion, the Board is preparing at great cost to diminish the evil, but they do so with the worst grace and in the worst way. Their new works, executed in defiance of the unanimous advice of Lord BRAMWELL'S Commission, involve enormous expense, and cannot settle the question. We do not object to the works, which, as far as the limited

[1] To be had of Spottiswoode and Co.

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nformation afforded to the public enable us to judge, appear well designed, but we must once more object most strongly to their site. Everyone except the Board and its immediate supporters is convinced that the sewage of London can only be properly disposed of at a much greater distance from the City than at present. All the expense about to be incurred at the Barking and Crossness outfalls, including the steamers required to carry the sludge to the sea, will, we are certain, be found after a very short time to have been money wasted through mere blind obstinacy.

Annotations.

"Ne quid nimis."

NEW REGULATION OF THE EXAMINING BOARD OF ENGLAND.

AT a meeting of the Committee of Management of the Examining Board in England of the Royal Colleges of Physicians and Surgeons on the 25th inst., it was resolved: 'That to enable students who commenced their professional education before Oct. 1st, 1884, to pass a qualifying examination for the purposes of registration, students who shall have completed four years of medical study to the satisfaction of the Committee of Management, and who shall have passed such first and second examinations as that Committee shall approve, may be admitted to the final examination of the Examining Board in England, which is a 'qualifying examination' for the purposes of registration under the new Act." Students desirous of taking advantage of this resolution of the Committee of Management must make application, in writing, to the secretary of the Examining Board in England, giving full particulars of any examinations passed by them at the two Colleges or elsewhere. This regulation is obviously of the greatest importance to students who have passed the first and second examinations under the old regulations at either of the two examining bodies.

THE SCOTTISH UNIVERSITIES AND REPRESENTATION IN THE GENERAL MEDICAL COUNCIL.

ONE of the warm questions in the Scotch Universities is that of the right to elect representatives in the General Medical Council. Hitherto the Senatus has assumed and exercised the power of electing the representative. But a powerful and somewhat pugnacious party exists now which claims the right and power of electing for the Council of the University. Our readers will remember that this subject was raised by Dr. McVail at the last meeting of the Medical Council, and that he challenged the validity of the election of the Scotch University representatives returned by the Senatus of their Universities. The question has been raised in the Council of the University of Edinburgh, on a motion by Mr. Vary Campbell reflecting on the Senatus for illegal action, and asking for a clause in the University Bill to secure the right of election for the Council. Sir William Turner warmly resented the censure of the Senatus, and insisted that any alteration of the law should be in the shape of an amendment of the Medical Acts, rather than in the University Bill. He carried an amendment asking that the consideration of the interpretation of the Acts bearing on the question be referred to the University Court. Whatever may be the truth in this dispute, we caution reformers against expecting any speedy relief from a reform of the Medical Acts. Statesmen have had enough of Medical Acts lately, and have ended in a very poor legal achievement; they will not, therefore, be likely to meddle with the subject again in a hurry.

RELATIONS BETWEEN THE THYROID AND CEREBRAL CIRCULATION.

THE impetus which the description of the condition known as myxœdema has given to the study of the thyroid gland has received an additional illustration in a note by Professor Waldeyer (*Berl. Klin. Woch.*, No. 14), calling attention to the arterial supply of that organ and its apparent relation to that of the brain. He points out that Stahel recently showed that the superior thyroid artery bore in the degree of its development a constant relation to the "bulbus caroticus internus" (Krause), whereby the amount of blood transmitted through in the internal carotid in its winding course along an osseous channel could be regulated. Now the vertebral artery, in its course to the base of the brain, has a somewhat analogous disposition, both as regards tortuosity and relation to bone, as the carotid, and it is justifiable to infer that a similar relation to the above obtains between the inferior thyroid and the vertebral. This idea implies that the thyroid body can act as a sort of reservoir for blood, protecting the carotids and vertebrals from too great an influx. The great vascular supply of the thyroid is remarkable; in proportion to its size, it receives large arteries and has a plexus of veins which are in close connexion with the great venous trunks. The capillaries of the thyroid are also peculiarly disposed for the rapid removal of blood. Comparative anatomy lends support to the doctrine, the general fact being that in most mammals the brain is chiefly nourished by the internal carotid, and that in these animals both superior and inferior thyroid arteries arise from the common carotid trunk. Professor Waldeyer disputes the statement that the thyroid is exceptionally rich in lymphoid tissue, and refers its abundant nerve-supply to the large number of bloodvessels it contains.

THE STUDY AND TRAINING OF CHILDREN.

IT may appear to some superfluous that we should speak of the great importance of systematic training for young children. A matter of this kind must, we admit, be fairly understood by a great many responsible persons in the present age of the world's history. It is likewise very evident that, if we interfere too much with a process so natural as that of development, the artificial product will hardly realise all that we expect to find in adult manhood. We would strongly deprecate any interference which has this tendency. What is wanted is a plan or plans of school and household discipline which will be regulated, not merely by the maxims of past practice, but by an understanding of the signs of aptitude in children, and a knowledge of their physical, mental, and moral requirements, which cannot but vary with the advance of time and the growth of human experience. It has been sufficiently demonstrated, for example, that our ordinary methods of school education are not perfect, that the rapid cramming system is no more adapted to mind-culture than inordinate feeding accords with good digestion, and must therefore give place to a more deliberate process of instruction. Children must be studied as types and as individuals if we would train them and shape their future course aright. Such a study does not entail any elaborate investigation, and it is one which will repay parents and teachers by the success of its results when applied in practice. In this connexion we may draw attention to a series of six lectures, now being delivered by Dr. Francis Warner at the request of the Froebel Society, on "The Children: How to Study them."

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THE PROPOSED NEW CHARTER OF THE ROYAL COLLEGE OF SURGEONS.

AT a meeting of the committee of the Association of Fellows of the Royal College of Surgeons of England held on April 23rd the following resolutions were passed and ordered to be sent to the Council of the College:—(1) "That the President and the Council of the Royal College of Surgeons be requested to convene a general meeting of Fellows and Members to consider and discuss the proposed draft Charter about to be presented to the Privy Council." (2) "That the Council of the College be requested to sanction the issue of copies of the proposed new Charter to those Fellows and Members who may apply for them." The committee also approved a letter to be sent to the Lord President of the Privy Council begging that the proposed Charter shall not be approved until the Association of Fellows has had an opportunity, by means of a deputation, of stating and explaining its defects.

FLOATING SPLEEN OR KIDNEY (?)

THE diagnostic difficulty that is sometimes encountered in respect to abdominal tumours in the left hypochondrium is well illustrated by an interesting case reported by Dr. Shattuck, of Boston. The case had been related by him in 1878 as one of "floating spleen." The patient was a young man of eighteen, who complained of severe pain in the above region after a sprain received in lifting a barrel, where examination detected a mobile tumour, which was agreed to be splenic rather than renal. Dr. Shattuck now (*Boston Med. and Surg. Journal*) comes forward to state that he was mistaken. Last year the patient was admitted into hospital with cancer of the skull, vertebral column, and ribs, leading to paraplegia from myelitis, and to cystitis and pyelonephritis. The abdominal tumour had remained unchanged. At the necropsy, besides the malignant disease, which also involved the liver and the left kidney, the spleen was found almost in its normal position, and was of usual size. The left kidney, however, was represented by a three-lobed mass of the size of two closed fists, and was provided with a mesonephron, which made it freely movable. It was in great part destroyed by malignant growth. It is an interesting point as to whether the fact of the organ being misplaced had anything to do with its becoming the seat of malignant disease. The patient had been liable to recurrent attacks of hæmaturia for five years before death, which may have been due to temporary strangulation of the ureter.

DRINKING-WATER AND DISEASE.

MR. WILLIAM P. MASON, of the Reusselaer Polytechnic Institute, Troy, N.Y., has contributed to the *Chemical News* an interesting observation on the production of disease by water polluted by normal sewage. About two months ago a family in Albany were, within a few hours, struck down with symptoms varying "from intense nausea to great, if not dangerous, prostration." It is unfortunate that the record of these symptoms is not a little more detailed. They lasted in the worst cases for over a month. On examination, it was found that the cistern which supplied the house had received most serious pollution from the private sewer of the house. When analysed, it was found to contain in grains per gallon—free ammonia, 1·05; albuminoid ammonia, 0·196; and chlorine, 3·22; with traces only of nitrates. Every single member of the household, which appears to have been a large one, and to have included several children who were on a short visit, was attacked, with the exception of one lady, the only person who had not drunk the water. Nothing apparently could be clearer than the evidence, which so far is very similar to much with which we are familiar. But now comes the real point of the story. "Up to the time of the outbreak none of the household had suffered from diarrhœa or kindred troubles, nor could I obtain any history of recent disease of any kind." Of course, as Mr. Mason points out, the sewage, although apparently not old, need not have been quite recent. It seems probable enough that sewage matters in a certain stage of putrescence, and swarming with bacteria, may become acutely poisonous, as meat is known to do under certain conditions. The general lesson is evident. We must not assume that a polluted water is safe because no pathological conditions can be proved to exist in the polluting matter.

THE TOXTETH PARK POISONING CASE.

THE adjourned inquiry into the above case was resumed on April 15th before Mr. Brighouse, county coroner. The deceased, Mary Jane Hamilton, aged eleven years, a child of weak intellect, "died somewhat suddenly after a violent illness." She had for several years been subject to fits. It was proved in evidence that her brother had brought home some sulphate of copper and sulphate of iron for the purpose of making experiments, and it was suggested that deceased had accidentally swallowed some of the mineral salts which had been dropped on the floor. The symptoms which for three or four days preceded death were mainly vomiting and retching, "stiffening of the hands" and "turning in of the feet." Dr. Shaw, who treated the deceased on one occasion during her last sufferings, made a partial post-mortem examination, and found what he believed to be a ragged perforation of the stomach, the result of the action of some irritant poison, and acting on this belief he gave a certificate, but declined to state the cause of death. Subsequently an official necropsy was performed by Dr. Rentoul, by order of the coroner. He discovered some green fluid in the abdominal cavity, and a perforation in the walls of the stomach, but whether this was caused by poison, or by the use of the knife at the former examination, he was not able to determine. The stomach and intestines were "more or less inflamed." From these reports it is absolutely impossible to draw a positive conclusion as to the nature of the perforation of the stomach. No mention is made, in the newspaper accounts of the case, of the facts by means of which one would endeavour to form a differential diagnosis between perforation (1) by incision, (2) by a corrosive agent, and (3) from post-mortem digestion. We lay no stress one way or the other on the absence of corrosion of the œsophagus, because if the sulphate of copper were swallowed in the solid form we should scarcely expect to find marked lesion of the gullet. A chemical analysis of the vomit, of the contents of the stomach, and of the fluid found in the abdominal cavity would certainly have given valuable information, and was indeed imperatively called for, but for some reason unknown to us no such analysis was performed. From the information before us, we can but consider the investigation was singularly faulty, and fully warranted the jury in returning an open verdict. Such a conclusion of the inquiry is to be regretted, especially as the means to render the latter complete were ready to hand. Unfortunately, too, there seems to have been a good deal of misunderstanding between the coroner, the medical men engaged in the case, and the police. Without going into these details, we may safely lay down one or two rules for the future guidance of practitioners called upon to investigate cases similar to that now under discussion. In the first place, we hold that whenever a medical man suspects that death is not due to natural causes, or even when he has no grounds for forming an opinion, he would act wisely in communicating with the coroner, and so shifting the responsibility upon the person the law designs should bear it. Further, a *partial* post-mortem examination is to be deprecated under any circumstances, and doubly so where the death is not

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free from suspicion of "violence." Clearly, too, whenever a post-mortem examination is made by an independent person, the doctor who had charge of the patient should be informed of the fact, and given the opportunity of being present. The coroner for Central Middlesex invariably encloses with his order for the necropsy an intimation to this effect addressed to every medical man concerned in the inquiry.

THIRIAR ON VARICOCELE.

DR. THIRIAR of Brussels, in a clinical lecture on the Surgical Treatment of Varicocele, after mentioning that numerous methods of operation were in former times proposed and practised—such as castration, the section of the vas deferens, and the ligature of the arteries of the cord, which necessarily interfere with the functional activity of the testis,—spoke of the modern or therapeutic method as consisting essentially in the arrest of the circulation in the venous plexuses surrounding the vas deferens. Until quite recently, however, so many accidents—some of them fatal—followed operative procedures of this kind that many surgeons objected to resort to them for an affection which, however trying to the patient, cannot be considered as dangerous to life. Since the adoption of antiseptics the danger of these operations has been reduced almost to *nil*. The operation practised by Dr. Thiriar is the combination (proposed by Guyon) of Sir A. Cooper's plan of excising the skin with the old method of excising the varicose veins themselves; Heurteloup's plan of excising a flap of skin from the posterior surface of the scrotum he does not approve of, following Guyon and other surgeons in believing that the varicose condition is usually in the anterior plexus. His plan is as follows. An elliptical flap of skin is excised from the front of the scrotum and the bundle of veins dissected out and tied in two places, the intermediate portion being excised if the tumour is considerable. The dissecting out of the veins is a somewhat difficult matter, as there are several fibro-cellular layers to divide or tear through; the artery has to be carefully separated from the veins, a proceeding which up to the present time Dr. Thiriar has not found attended with difficulty. The wound is washed with a corrosive sublimate solution, and the lips united by a continuous suture, which is the form Dr. Thiriar prefers as a rule; antiseptic dressings and compress bandages are applied, and in a few days the patient is discharged permanently cured.

DISPOSAL OF REFUSE.

"Dust and Ashes: How to Deal with them," was the subject of an interesting lecture given last week by Mr. Alfred Fryer at the Parkes Museum of Hygiene, in which the lecturer discussed the most economical and effectual way of getting rid of the contents of ashpits. His argument that the use of fire for this purpose was an absolute necessity was well supported by those who took part in the discussion, and he adduced considerable evidence to show that this method could be adopted in large centres of population, quoting among other places Whitechapel, where there is a destructor which belongs to the vestry of that district, and Lett's Wharf, near Waterloo-bridge, where the Corporation of the City of London have erected a similar furnace. He referred to the alarm which had been created by a recent proposal to construct a furnace at Kensington, and to the unfortunate decision of the House of Commons in rejecting the Kensington Bill on its third reading—a Bill which, by the way, we recently inadvertently stated had passed this stage. This decision is the more to be regretted seeing that Londoners have now ample opportunity for correcting any erroneous impressions as to the amount of nuisance which the destructor creates, but evidently the work of education must progress further before the method of destruction by fire is generally accepted. The Council of the Parkes Museum have therefore done well in inviting Mr. Fryer to relate his own experience of the working of the destructor in other towns where it has been in use for many years.

THE PURIFICATION OF WATER.

IT has long been known that water may be clarified by the formation in it of a precipitate which, as it falls, will carry down mechanically the lighter, and of course the more dangerous, portion of the suspended matters, which otherwise are very slow in separating. In Clark's well-known process for softening water a sufficient quantity of lime to combine with the free carbonic acid is mixed with the water. The precipitate of carbonate of lime—if we may still use the familiar old name for the calcium carbonate of modern chemists—carries down with it all suspended matters, including bacteria, and the water remains not only softer but very much purer. Carbonate of soda is an even more powerful precipitant, as it removes permanent as well as temporary hardness. In either case the deposition is, however, somewhat slow, and to avoid the use of depositing tanks a filter press was used in the Porter-Clark process, which was shown in action at the Health Exhibition. An American contemporary, the *Boston Medical and Surgical Journal*, reports that Prof. Dobroslavine of St. Petersburg advises as a good precipitating agent a solution of perchloride of iron followed by a solution of carbonate of soda. Simple and devoid of inherent novelty as the suggestion is, it is very sensible. Translated into English weights and measures, the quantities used are about three grains of perchloride of iron and four grains of soda crystals per gallon of water. The precipitate is said to settle in about forty-five minutes and to leave the water perfectly clear. The quantity of carbonate of soda is not sufficient for the complete decomposition of the iron salt, but would convert it into a heavy, insoluble, basic chloride, which would doubtless settle easily. So simple an experiment is well worth trying. It is noteworthy that by slightly increasing the quantity of carbonate of soda the water could be softened. We have often wondered that the softening of water for domestic uses is not more frequently practised in private houses. The addition of a very small quantity of carbonate of soda to the water in a cistern will remove even excessive hardness in a few hours at an almost inappreciable cost. If the cisterns are used in pairs the white deposit from one may from time to time be removed by flushing with water while the other is in use. The troublesome furring of boilers and hot-water apparatus might in this way be avoided.

THE JUGULAR HUM.

THE unreliability of the well-known "bruit de diable," or jugular hum, as a sign of anæmia, which was pointed out by Weil, whose objections have been disputed by Guttmann, has been again proved by Dr. Reinhold Apetz (Virchow's *Archiv*, Bd. 107, Hft. 3) upon the results of the auscultation of 660 individuals, of whom 115 were anæmic, 161 "barely" anæmic, and 384 "not anæmic." The murmur was detected in the proportion of 51 per cent. of the first class, 46 per cent. of the second, and 39 per cent. of the third. Without following the writer through his analysis, which corresponds fairly closely with the similar observations of Weil, it may be interesting to cite the conclusions at which he arrives. These are to the effect—1st. That venous murmurs detected in the internal jugular vein under all circumstances depend in the first place upon the age of the affected individual, the murmurs becoming less frequent with advancing age. 2nd. That venous murmurs detected by turning the head to the other side are of no value in the diagnosis of anæmia, but have

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only a physiological importance. 3rd. That some pathological importance specially belongs to the true murmurs detectable when the head is kept straight in the upright position, when they occur loud and continuous in individuals at middle age (twenty to sixty years); yet they are generally too insignificant to be of value in the diagnosis of anæmia. 4th. Under no conditions does the venous murmur have any special diagnostic value for chlorosis and other anæmic states.

STOPPAGE OF WATER-SUPPLY FOR NON-PAYMENT.

THERE can be no question as to the serious inconvenience occasioned in a household by the stoppage of its water-supply. A frequent result of continued cold weather, and an occasional but not infrequent consequence of non-payment of dues, it is at any time a source of much annoyance, and, what is more important, of a train of diseases which are bred and fostered by uncleanliness. We need not dwell on the connexion between sewer air and infectious fevers, on the absolute necessity of water, under our present system, for the removal of excreta, and for flushing freely and fully all waste-pipes, on its utility for cooking purposes, and its natural place as a beverage. All these are matters of common information. It is well to note, however, that the consequences of a want of water are not necessarily limited to the house which is primarily affected by it. If, for example, the sewage arrangements of that house be thrown out of working order, those of neighbouring buildings are not unlikely to become indirectly involved. Thus, one focus of disease readily becomes a parent of others. It is with a view to the prevention of such risks as these that certain members of the House of Commons have brought forward a proposal that water companies should be restrained in future from cutting off the water-supply of any house in default of payment of the water-rate, and should be allowed as compensation a preferential claim on the revenue derivable from the said house. The plan, as drafted on paper, seems as if it would work well, though perhaps it might be objected on behalf of the companies that it does not cover a number of cases where houses are let to a very poor class of tenants, whose payment of rent or of any dues whatever is a very precarious possibility. It may well be doubted, however, if their present power of stopping the supply is of much use to the companies in such cases. In so far as it is wont to be applied, the local authorities might perhaps be induced to meet them in the public interest on the question of payment, in order to prevent its application. At all events, the proposal to which we have referred is one worthy of consideration, and if it can be effectively carried out will do something to limit the spread of disease.

ARTIFICIAL AND HYPER-ALIMENTATION IN PHTHISIS.

IN an account of the effects of artificial and hyper-alimentation, as practised in Professor Pel's wards in Amsterdam, Dr. van Eeden states that the meat powder treatment introduced by Débove (which he had had an opportunity of studying in Paris) is always of service in phthisis when the disease is not very far advanced, and when it is not of a "malignant" nature. The cases which do best under this treatment are those in which there is no hereditary taint and where the disease has progressed regularly, with a not very rapid loss of strength, and with only slight hectic, anorexia, anæmia, and emaciation. The chances of successful treatment are slight where the disease has made rapid progress, with a continuous high temperature. The existence of a considerable degree of pyrexia is, however, no contra-indication to the use of the treatment. If diarrhœa and gastric irritation are produced by the artificial alimentation, it is best to discontinue it. In order to accustom the stomach to the meat powder, small quantities only should be given at first—not more than about half a pound during the twenty-four hours; this amount may gradually be increased to one pound and a half. The use of the œsophageal sound for the introduction of the food is considered by Dr. van Eeden as advisable in all cases, and imperatively necessary in hyper-alimentation. Quantities exceeding three pounds of meat powder per diem, however, are not by any means always required, and should only be given when smaller amounts do not succeed, and where the patient bears the treatment well. The method must be diligently and patiently practised, and the weight of the patient accurately noted. Dr. van Eeden remarks that so little is known of the way in which hyper-alimentation controls the development of tubercle, that whoever attempts to practise Débove's treatment must be prepared to meet with many difficulties and disappointments. Notwithstanding this, however, he has witnessed some surprisingly good results from its employment.

EXPLOSIVE SODA-WATER BOTTLES.

THE yearly increasing consumption of temperance drinks, particularly of aerated waters, is on the whole a matter for congratulation. It is also a fact which renders the more necessary some precaution lest the greater demand should itself entail certain public disadvantages which might with some forethought be avoided. With regard to cost, for instance, recent experience has shown that there is in many quarters a tendency to unjustifiable extortion in the retail sale of these very simple drinks. A warning of a different kind has lately been communicated through the daily press with reference to the imperfect filling of soda-water bottles. A fault of this description is little, if at all, less blameworthy than that to which we have already referred. It is necessary for the safe use of aerated waters that the water itself should be in a due proportion to the gas which it is intended to absorb. If it is not, the excess of gas may cause, and repeatedly has caused, an explosion, sometimes with serious consequences. How far in such cases of accident the result was due to some flaw in the bottles themselves is doubtful. The one apparent fact is an excess of the charge of gas. It is easy to understand how in a warm atmosphere this would suffice to cause an explosion, and it is as necessary as it would be profitable to makers that sufficient care should be taken in the preparation of these beverages to minimise the chances of accident in the future.

THE DUSTMAN AND THE WIND.

DURING the late high winds and the general dryness of everything, many Londoners must have suffered from that absurd and dangerous pest of the metropolis, the present system of dust removal. Turning a corner the other day, in the teeth of a strong east wind, we were confronted suddenly with the grim apparition—cart, ladder, basket, and all. Flight was impossible. We had barely time to shut our eyes and mouth when what appeared to be about half the savoury contents of the basket deluged us. The cart was already over-full, and in another moment a foul simoom of dirt was careering down the street. Could anything be more disgusting or more dangerous? Who can tell that infectious disease was not present in the very house from which the last basket was carried? Why do Londoners tolerate the nuisance? There are many known ways of disposing of house refuse; but we are convinced that the very worst, the most stupid and dangerous, is that which seems to be immortal in London—the open cart and the rotten basket.

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DR. BALFOUR, F.R.S., HONORARY PHYSICIAN TO THE QUEEN.

WE were extremely gratified at a late announcement in the *Gazette* to the effect that Surgeon-General Balfour, M.D., F.R.S., late of the Army Medical Department, had been appointed one of the Honorary Physicians to Her Majesty. Dr. Balfour is a man of deservedly high scientific reputation; he is, in addition to this, a Fellow of the Royal Society, and a Vice-President of the Statistical Society of London. He was Secretary to Lord Herbert's Commission after the Crimean War, and did excellent and original work as head of the Statistical Branch of the War Office; in fact, he organised that branch, and laid down the lines of our military statistics on a better basis even than they are at present. Dr. Balfour has the reputation of having been an excellent administrator, and, as principal medical officer at Netley and Gibraltar, he was most popular and successful.

GASEOUS RECTAL MEDICATION.

THE remarks on gaseous rectal injections by Dr. Burney Yeo which appeared in THE LANCET on the 16th inst. will serve to give more prominence and emphasis to a method of treatment which may have "something in it," but which cannot be said to have yet had a fair trial at the hands of English practitioners. At the same time, it is hardly correct to say that the method has been met with derision, if not contempt, for it has been systematically, though not extensively, practised by Dr. Heron at the Victoria Park Chest Hospital, and it is now some time since Sir Andrew Clark invited a number of medical *confrères* to a demonstration of the apparatus employed in the method by M. Bardet. Further, American physicians appear to have taken it up, and apparently with considerable success. With Dr. Burney Yeo, who appears to us in this matter to adopt the attitude most in accord with true therapeutic science, we do not think it necessary to suppose that the sulphuretted or other gas must act after the fashion of a true germicide or antiseptic; using the latter term in its widest sense, as Dr. Yeo would probably employ it. If we admit that the methods of rectal gaseous medication are antiseptic in their action, it does not necessarily follow that the antiseptic agent acts in a germicidal fashion on the causes of septicity, or that the gas neutralises the effects or products of the action of the germs; for it may be that the value of the treatment, supposing it to have any, consists in improving the nutritive powers of the tissues, in increasing their vitality, thereby rendering them more able to cope with deleterious influences, or with the germs, by affording an unsuitable soil for the activity of the latter. It is not, however, with the mode of action and scientific *rationale* of gaseous rectal medication that we are now principally concerned; what we would urge is a more extended trial of the method for which so much has been claimed in France and America. Already the evidence is forthcoming that the treatment has been followed by many signs of improvement, in at least some of the patients, and perhaps chiefly in those whose affections are not of an altogether irremediable nature, such as local affections of the pulmonary tissues and various forms of chronic bronchitis; whilst the rapid forms of phthisis and other acute febrile pulmonary processes do not seem to be benefited by this treatment, which, though it may be tolerated by the system, is certainly not always borne with equanimity by the patient. It is clear that the day has not yet arrived when rapid phthisical processes may be surely arrested by therapeutic and hygienic art. This much must be said, because a notion has been getting abroad through statements circulated in the lay press that rectal injections are certainly curative of consumption. It does not seem to be sufficiently appreciated by the public that cases of genuine consumption are being, have been, and doubtless will be cured by the resources already at the command of the profession. To say that all consumption is curable is to make as untrue a statement as to say that all consumption is incurable. Some cases are amenable to treatment; the bulk, perhaps, are not. To be able to say that the universal affirmative proposition is true is a consummation devoutly to be wished, and it is in this spirit of hope that we would recommend a fair trial of the new method of treatment, the details of which are carefully described by Dr. Yeo in the lecture to which we have referred.

ATTENDANCE BY UNQUALIFIED ASSISTANTS AT CHEAP DISPENSARIES.

A BAD case in point is reported in the *Newcastle Daily Chronicle*—that of John Potter, aged thirty-one, who suffered from pain in his side and a severe cough. The father of the patient sent for "Dr. Hardy of Shields-street, Shieldfield." The person who attended was not Mr. Hardy, but his unqualified assistant, who told the father that his son's heart was much affected. Dr. Arnison was called in the day before death, and pronounced the case one of double pneumonia. When the patient died they went to Mr. Hardy's for a certificate. He had never seen the case, but filled up a certificate, saying that he had attended the case and seen it on April 20th, and that the cause of death, to the best of his belief, was acute nephritis. The coroner reflected severely on Mr. Hardy's action in certifying in a case which he had not seen, and in which the diagnosis of his unqualified assistant seemed to have been as much at variance with the fact as the statements in the certificate. The coroner intimated that he would refer the facts to the Registrar-General. He very properly said that the rectification of such irregularities should not rest with the medical profession. It concerns the public and the Registrar-General. We hope the Registrar-General will investigate the facts, and, if necessary, refer them to the Medical Council.

MOORISH PRISONS.

AN agitation has been raised, chiefly through the instrumentality of Mr. Jose Perdicaris, a wealthy and philanthropic American gentleman residing at Tangier, concerning the brutal treatment of Moors imprisoned for debt. Financial, and to some slight extent political, questions are involved in this movement, and with these, of course, we are not concerned; but we are free and anxious to join in the general protest made against the barbarity prevailing in Moorish prisons. The new consul representing the United States of America recently fitted out an expedition which went to the towns of Alkazar and Laraiche to release seventeen individuals imprisoned on so-called American claims, and they found that no less than three out of this number had died in prison. A correspondent, who has had opportunities of visiting each of these prisons, testifies that the only wonder is that such pest-houses do not prove even more fatal. The stench arising from the want of closet accommodation is simply appalling. Overcrowding is constantly allowed, and when fever breaks out, no precaution whatever is taken to prevent the disease spreading. The prisoners for the most part are covered only by a few dirty and torn rags swarming with vermin. They are also generally put in irons, and no food is provided. The prisoners are allowed, but not compelled, to work at making cords and fancy baskets, which they try to sell, to enable them to buy bread. But this resource is so slender that, unless the prisoner has food brought to him by his friends or relatives outside, he runs every risk of dying of starvation. Several cases of this kind are known to have occurred, and the prisoners were not criminals, but untried

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debtors. Now, so far as American *protégés* are concerned, the movement, successfully conducted by Mr. Perdicaris, assisted by Captain Rolleston, has resulted in the liberation of the prisoners and the abolition of protection. Henceforth men will no longer be incarcerated at the bidding of an American *protégé* who avails himself of his privileged position to refuse his debtor the right of trial. The trade of the usurer will thus become more difficult. But, while applauding the abolition of such abuses, we venture to go a step further. We make bold to claim, even for the hardened criminal, a more humane treatment. There are thirteen foreign legations at Tangier. The Sultan of Morocco knows that he has no army, no material means of resisting the demands of any civilised power. If he has held his own so long, it is not his own strength but the jealousies of the rival powers which have saved Morocco from sharing the fate of Algeria or of Tunis. Nevertheless, these various diplomatic agents might agree to unanimously demand reforms in the condition of the Moorish prisons. This is no political question; it does not affect the delimitation of the frontiers. The rights advocated are the abstract rights of humanity to humane treatment, combined with the necessity of preserving the public health. Moorish gaols are centres of epidemic disease; they are a standing menace, not only to the lives of the prisoners, but to the health of the free men who live without their walls. These latter comprise, in such a town as Tangier, a considerable number of Europeans. Tangier also is becoming yearly a more popular health resort, therefore the foreign diplomatic corps could easily find good reasons to interfere on behalf of the Moorish prisoners and obtain some sanitary improvements in the condition and management of the gaols.

SUDAMINA IN TYPHOID.

THE occurrence of sudamina is fairly common in typhoid fever. Murchison observed them in about one-third of his cases, but attributed no special significance to them. M. Baradat de Lacaze (*Rev. de Méd.*, April, 1887) discusses the subject in some detail, especially from the point of view of prognosis. He concludes that the appearance of such eruptions (sudamina or miliaria) after the third week in a severe case is of favourable omen, and that within a day or two the temperature will fall. But the same meaning does not attach to the like eruptions that appear in some cases before this time—e.g., in the second week. Prognosis in typhoid fever is admittedly very uncertain, and any sound facts to guide in forming it must be received with attention. In addition to these critical eruptions connected with the sweat glands, the writer cites M. Chauffard's opinion that the occurrence of multiple abscesses and of polyuria is also an indication of a favourable termination of the disease.

CONSUMPTION IN AUSTRALIA.

A CORRESPONDENT writes to us from Sydney (New South Wales):—"The propriety of sending consumptive patients to the Australian colonies is a question which the medical profession in England must necessarily take great interest in. I therefore venture to enclose an article from the Melbourne *Age* of March 3rd bearing upon the subject. I am not a medical man, but from my experience of the climate here and in Victoria, especially near the coast, I should say there is not a more treacherous country in the world. It is most common for the thermometer to show variations in the temperature within a couple of hours of from 40° to 50°." The article from the *Age* deals with the proposed consumption hospital for Melbourne, and points out the urgent need for it, owing to the rapid increase of the disease in the colony of Victoria. The above facts are already well known to us. Consumption is common in Australia, and is increasing with rapid strides. The idea that the Australian climate is in general either a sure prophylactic or a certain cure for the disease is a common but baseless error. It is, in point of fact, an unpardonable looseness of speech to deal with the climate of Australia as a definite and invariable entity. There are many climates in Australia—coast, mountain, plain, and desert; and some of them, especially the coast climate—to which, unhappily, for obvious reasons the consumptive too commonly resorts,—are most injurious in chest affections. On the other hand, the reputation won by Australia in the treatment of consumption is not a myth or a mistake. Many parts of the interior have an admirable climate—dry, bright, sunny, exhilarating, and fairly equable; the chief drawback being the hot summer. The other seasons are delightful, and the consumptive who goes inland to one of the sheep "stations," and lives the primitive out-door life which there prevails, stands a good chance of recovery, or at least of a great prolongation of life.

TONSILLITIS AND DIPHTHERIA.

IN a paper on Follicular Amygdalitis (*Medical Record*, Nov. 1886) Dr. A. Jacobi points out that this term is misleading, inasmuch as it covers a variety of conditions—catarrhal, purulent, fibrinous, and diphtheritic; and that the last-named form especially is liable to be mistaken for the other non-contagious varieties. The catarrhal and the diphtheritic are the most frequent. Acute catarrh of the tonsil is not unilateral when produced by cold, and is accompanied by the universal hyperæmia of the larynx. "Whenever there is an acute attack of *unilateral amygdalitis*, the latter *is the result of either trauma or infection*," is the dictum which he proffers. The distinction between the catarrhal and diphtheritic forms of follicular tonsillitis rest mainly in the character of the membranous deposit in the latter form, the small patches of whitish or whitish-grey colour being very adherent, and sometimes becoming confluent. Albuminuria is not necessarily present in the diphtheritic form, and it occurs in the catarrhal when there is high fever. Nor is fever a necessary concomitant of the infectious variety; its occurrence depends rather upon the extension of the morbid process to deeper parts. The whole tenor of Dr. Jacobi's paper is to deny the assertion of Fraenkel that "angina lacunaris" is a perfectly distinct disease from diphtheria, but that many cases of the former are examples of mild diphtheria, capable of transmitting the disease by infection, and therefore to be guarded with as rigid precautions as the well-marked cases of diphtheritic infection.

SANITARY PROGRESS AT LEEK.

IN his last annual report on the sanitary condition of the town of Leek in Staffordshire, Mr. J. J. Ritchie, the medical officer of health, draws attention to some interesting points in connexion with the results of the sanitary progress which has been made. Thus, the statistics compiled show that for the years 1881 to 1885 the mean expectation of after-life from birth of persons in Leek was twenty-two years more than would have been the case had things remained as they were during 1851-60, before any attempt was made to grapple with the unhealthy conditions of the town. Mr. Chadwick, C.B., having made inquiry as to what was the money value to the community during the twenty-five years 1861-85 of the important increase in longevity and freedom from sickness which had been brought about, the following particulars showing the saving effected were collected for him: Maintenance of sick (including medical and other attendance at 5*s.* per week) amounted to £35,560; money saved on productive labour (10*s.* per week for males and 5*s.* per week for females), £25,784; money saved on cost of funerals, at £5 each, £10,320; total money saved, £89,464, which sum is equal to a direct saving of

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£3586 per year. It was further shown that during the same period the deposits in the Savings Bank had increased twentyfold, and the capital of the Friendly Societies threefold; that the receipts in the Leek and Moorland Building Society had risen from £8421 in 1861 to £54,858 in 1885, and those of the Leek United Building Society from £905 in 1863 to £29,898 in 1885; and these sums, it is believed, have been materially influenced by the state of things above referred to. Incidentally, it may be added that the freedom of the town from fatal infectious diseases has been largely brought about by the almost immediate isolation which is secured in the sanitary hospital which has been provided and has been long in use.

MICROBES AND SUPPURATION.

A. ZUCKERMANN (*Centralbl. f. Bacteriologie u. Parasitenkunde*, No. 17) relates his experiments upon suppuration, which have led him to these conclusions: That no chemical, mechanical, or thermic influences can excite suppuration if they are wholly free from microbes; and in cases where these causes apparently act it is probably through some pyogenic microbe. For substances chemically pure may be mycotically impure; thus some disinfectants are not always free from microbes. The varieties of microbe known to cause suppuration are staphylococcus pyogenes aureus, albus, and citreus; streptococcus pyogenes; and in fætid abscesses, bacillus pyogenes fœtidus. Inoculations with staphylococcus and streptococcus produce fatal results if injected in large amount into animals, or lead to suppuration if death do not occur. The pyogenic microbes must have a very general distribution in nature; they may enter the body through the air-passages, the intestinal canal, and especially the skin, and by means of small wounds or the orifices of the cutaneous glands. Staphylococcus is more frequent than the streptococcus pyogenes.

VACCINATION OFFICERS' ASSOCIATION.

WE note with pleasure the continued development of the Association of Vaccination Officers, which has just published its third annual report. Subjects of much interest have been discussed during the year, and a paper by Dr. Cory has been issued. There are probably no officers who can derive more benefit from combination than those engaged in the enforcement of the Vaccination Acts. Their duties are of a nature to require considerable information, and every officer must frequently feel the necessity for consultation with his fellows. Ample opportunity for this purpose is given by the Society, and it would be well if the fullest advantage were taken of it by all. The work of the vaccination officer is of great importance to the public, and everything which tends to create efficiency in its performance deserves sympathy and encouragement.

THE SHARP SPOON IN ABORTION.

DR. A. R. FISHER, assistant in Professor Slavianski's clinic in St. Petersburg, relates, in the March number of the *Russian Obstetrical and Gynæcological Journal*, his experience of an operative procedure recommended by Boeters, Mundé, and Fehling in cases of abortion, where the embryo is not expelled naturally. The patient is placed on the back, the knees being separated by assistants. Anæsthesia is not required. The vagina is well washed out with a disinfecting solution, and then the cavity of the uterus is similarly irrigated by means of a double-current catheter, which is passed after the cervix has been drawn down with forceps. A sharp spoon is then introduced into the os uteri, which it is not necessary to dilate with tents, and the cervical canal scraped out, after which the instrument is made to sweep round the entire cavity of the uterus, scraping off the deciduous mucous membrane close to the muscular layer. When this is reached a peculiar grating feeling is experienced, which is very characteristic, and which serves to denote that the scraping has been carried far enough. If the contents of the uterus are considerable in quantity, the operation is broken off two or three times for disinfectant irrigations through the double-current catheter. At all events, the uterus is well washed out with an antiseptic liquid at the conclusion of the operation. An iodoformized plug is then inserted into the vagina, and a good dose of ergot given. The results of this operation are stated to have been most satisfactory, but the author does not recommend it in cases which have been left too long to themselves, where more or less putrefaction must have taken place. Nine cases are reported, in only one of which was any unfavourable complication observed; this was a slight amount of parametritic effusion, and it was not certain that it was due to the operation.

THE CABINET AND THE PROFESSION.

As it is probable that the action of the Ministry may be required to be influenced by the profession in the matter of some impending legal questions of great importance to medical men, it may be worth while mentioning that three members of the Cabinet are connected through their ancestors with the profession. Lord Cadogan is descended from Sir Hans Sloane, the celebrated physician. The estate the family holds in Chelsea was the produce of the fortune Sir Hans made as a physician. Both Sir Henry Holland's father and grandfather were well-known medical practitioners. Mr. Matthews, the Home Secretary, is descended from a physician both on his father's and mother's side. Dr. Munk in the Roll of the College of Physicians, vol. ii., says—"John Matthews was born in Herefordshire; was M.D. at Oxford in 1782, Fellow of the College of Physicians in 1783, physician to St. George's Hospital in 1781; resigned that office in 1783, when he relinquished the practice of his profession, became colonel of the Herefordshire militia, and died at his seat, Belmont, in that county, in 1826." The Home Secretary's father (the author of a well-known work, "The Diary of an Invalid") married a daughter of Dr. Blount, who practised as a physician for some time in Hereford.

LIGATURE OF THE FEMORAL IN POPLITEAL ANEURYSM.

IN an article on "Popliteal Aneurysm" by Don José A. Esteves, published in the *Revista Argentina de Ciencias Médicas*, it is stated that Dr. Pirovano employs in the Buenos Ayres Clinical Hospital in these cases the ligature of the femoral artery, intermittent compression being practised by means of Broca's compressor for some time previously for the purpose of developing the collateral circulation. The operation itself is carried out with antiseptic precautions and local anæsthesia. Twenty cases, some of them of aneurysms of very considerable dimensions, have been thus treated, with entirely satisfactory results in every instance.

A "JUBILEE" COOKERY BOOK.

THE fiftieth year of Her Majesty's reign is likely to be remembered in time to come, not only because of the interest proper to it, but perhaps equally as having been the parent of innumerable undertakings and productions, great and small, which inherit from it a nominal dignity. Of these, one of the latest and smallest, though, perhaps, not the least useful, is a "Jubilee Penny Cookery-book." This little book, by the authoress of "Cookery for our Sick and Invalid Poor," aims at introducing among the many to whom the cost of food is a serious consideration ready methods of cooking, with hints as to the choice of materials, which, if rightly applied, should furnish a diet as varied

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and palatable as it is simple and inexpensive. We cannot altogether agree with an introductory statement in it, which deals with the relative nutritive value of certain kinds of food: where, for example, herrings are preferred to beef and mutton; and a shilling's worth of cheese, without regard to its digestibility, is said to have more "stay" in it than the same money value of meat. The numerous convenient recipes here collected are not, however, affected by the imperfections of the prefatory notice, and form together a body of information which must be useful to the frugal housekeeper.

A PRACTICAL COURSE OF BACTERIOLOGY IN LONDON.

A COURSE of instruction in Bacteriology will be given this summer at King's College. The object of the class, as set forth in the syllabus, is to afford an opportunity for gaining a practical knowledge of the more important species of micro-organisms, and to give instruction in the methods of cultivation as well as the special histological methods employed for detecting bacteria in the tissues. The work each day will be preceded by a short lecture illustrated with diagrams and typical microscopical preparations. The class will meet on May 16th, and will be taken by Mr. Crookshank, who has just returned from visiting the laboratories at Turin, Rome, and Berlin. This course will supply a felt want, and no doubt medical officers of health and many senior students and practitioners who have been unable to study in the laboratories abroad will avail themselves of this opportunity for learning the new biological methods, and for gaining access to cultivations of micro-organisms and the necessary material and apparatus for following this interesting and valuable line of research.

THE RED CROSS IN ITALY.

THE recent military events in Africa have given a much-needed stimulus to this society for the relief of the sick and wounded in war. Several communes throughout the peninsula which had previously failed to contribute to it have now come forward handsomely, if tardily—Rome subscribing towards it 5000 francs (£200); Milan founding a fund for an annual donation to it of 500 francs (£20); Turin, through one of her societies, giving 1000 francs (£40); and other cities and towns, mainly in Upper Italy, subscribing according to their ability. The Central Committee of the Italian Red Cross, thus reinforced as to means, has lost no time in sending to the front supplies of medicines and comforts, so that the military hospitals in the garrisons westward of Massowah are now much better off as regards these requisites than, to the discredit of the Government, they have yet been since the beginning of the campaign.

"ADDED WATER" IN MILK.

A CASE curiously illustrative of some remarks we made in a recent article is reported. A county analyst reported that a certain sample of "babies'" milk—that is, milk from a single cow—contained 10 per cent. of added water. He was afterwards requested to witness the milking of the cow, and to draw a sample for himself. The second sample, when analysed, was found to contain more "added water" than the first, and was, the analyst believes, the worst sample of genuine milk on record. What, then, is to be done? Is the already low limit of purity to be made still lower, or is the public analyst to continue to report the presence of added water when he knows that possibly no water has been added? Either alternative is undesirable, but perhaps in the public interest the second is the least so. The case, however, confirms our previous opinion, that the difficulty can only be avoided by an alteration of the law. In the next Adulteration Act let the law do for milk and some other articles what it has already done for spirits—viz., provide a definition, and fix a limit below which the vendor must not pass. The limits upon which public analysts, including the chemists of Somerset House, base their calculations are necessarily founded on very poor samples, and in a new Act it is possible that they might be slightly raised without injury to honest traders and with manifest advantage to the public. But even such low limits as 8·5 per cent. solids not fat, 2·5 per cent. fat, and 0·7 per cent. ash, would ensure the public a trustworthy, if not a rich, milk, and would remove all ambiguity from the interpretation of the law. Some important drugs might, and in our opinion certainly should, be treated in a similar manner.

INTER-COLONIAL MEDICAL CONGRESS.

IN accordance with the circular issued last year by the Provisional Committee, to which we drew attention at the time of its publication, a general meeting of subscribers to the fund of this congress, which is to be held at Adelaide, has taken place. Dr. Verco was chosen president, and an influential executive committee was appointed. The governors of seven colonies have expressed their approval of the project, and intimated their wish to become patrons of the meeting. The congress will, as is usual, be carried on in sections, thirteen of which have been defined. The days of meeting will extend from August 30th to September 2nd, both dates included; and, notwithstanding the great distances to be traversed by the majority of intending visitors, and the existence in the same month of a counter attraction in the United States, it is hoped by its promoters—and, so far as we can judge from the reports we have received, justly so—that the federal nature of the gathering and the opportunities it affords for the discussion of subjects common to the interests of practitioners throughout Australasia will combine to secure a large and representative attendance.

THE AFFILIATION OF HOSPITALS AND DISPENSARIES.

THE following resolutions were passed by the committee for organising medical attendance on the working classes at its meeting on Tuesday: "That in the opinion of this committee the out-patient department of hospitals should be brought into consultative relation with the provident dispensaries and medical men of their respective neighbourhoods, and that the governing bodies of hospitals should grant priority to all out-patients who bring recommendations from provident dispensaries or medical men." Sir Spencer Wells presided. The subject of the affiliation of hospitals and dispensaries will be continued at the next meeting, on Tuesday, May 10th.

DEATHS OF EMINENT FOREIGN MEDICAL AND SCIENTIFIC MEN.

THE deaths of the following foreign medical and scientific men are announced:—Dr. Carl E. Miriam, formerly Professor of Physiology at Kieff, at the age of seventy-five.—Dr. Nathaniel Lieberkühn, Medical Privy Councillor and Professor of Anatomy in Marburg University, at the age of sixty-five. The deceased professor was the son of the discoverer of Lieberkühn's follicles, and was a disciple of Johannes Müller, and a fellow-student of Dubois Reymond, Helmholtz, Ludwig, and Virchow. His own researches, which were numerous, were mainly connected with development. He was formerly Prosector of Anatomy in Berlin.—Dr. Joao Silva, Professor of Pathology in Rio de Janeiro, and chief of the Faculty of Medicine in that University.

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SANITARY DEMONSTRATIONS TO MEDICAL MEN.

WE would call the attention of medical practitioners to a series of sanitary demonstrations which have been organised at the Parkes Museum at 5 P.M. on three consecutive Mondays next month, and to which admission is free to all members of the profession. The first demonstration will take place on Monday, May 9th, and will be conducted by Professor Corfield, M.D.; on Monday, May 16th, Mr. Rogers Field, M.Inst.C.E., will give a demonstration; and the last demonstration will be held by Mr. P. Gordon Smith, F.R.I.B.A., of the Local Government Board. In this way the medical, engineering, and architectural aspects of the question of the sanitary arrangements of dwellings will be successively brought under notice; and we expect that the number of medical men who are interested in the subject is such that the Museum authorities will find that the arrangements they have made will secure appreciative attendances.

THE DUKE OF WESTMINSTER ON THE JUBILEE.

THE Duke of Westminster in a letter to *The Times*, says the hospitals of London in this Jubilee Year should certainly not be neglected; our own view is that they should be the chief objects of favour. It seems to be very much feared that many of the ordinary charities will suffer from the Jubilee movement tending to divert funds. Surely no one will do the Jubilee such dishonour as to withdraw any established subscription from a worthy cause! The best way of celebrating it will be to make additions to ordinary subscriptions, especially in favour of the general hospitals.

MEDICAL PRACTITIONERS AND DENTISTS.

A QUESTION is raised by a correspondent of the *Journal of the British Dental Association* as to the propriety or taste of medical practitioners charging full fees where they are asked to attend dentists. Our opinion is strong that medical men who owe so much to dentists will find it highly agreeable to be of any service in return. Who that has had a tooth saved, or even a tooth skilfully extracted, and who knows the extent to which dentists are consulted by medical men and their families, and the unfailing kindness which is experienced in this way at their hands, will have a doubt that in treating dentists as we should treat medical men we are acting on the best instincts of human nature, as well as on the best traditions of the profession? We have, however, always maintained that dentists should hold a surgical as well as a dental qualification, in which case the question need not have been raised.

LONG PEPPER AS AN ADULTERANT.

THE magistrates of Lancaster have properly decided that what is known as long pepper is not what the public understand by the word pepper, and that as it is cheaper than the cheapest pepper, and is, moreover, coarse and disagreeable in smell, its admixture with genuine pepper is an adulteration. It was stated by Dr. Campbell Brown that long pepper, an article of very small commercial importance, was the fruit of a plant which grows wild in the water courses of India, whereas true pepper comes from a perfectly different plant, which is carefully cultivated. Long pepper is chiefly used for pickling purposes.

THE COCCUS OF GRANULAR LIDS.

DR. E. SCHMIDT is stated to have succeeded in finding the micro-organism described by Sattler in granular lids (trachoma), which, he says, is very similar to staphylococcus pyogenes. By cultivating this coccus he succeeded in inducing granular lids in dogs and cats.

THE ANATOMICAL SOCIETY.

THE foundation meeting of the Anatomical Society will be held on Friday, May 6th, at 5 P.M., at the Medical Society's rooms, 11, Chandos-street, Professor Humphry in the chair. All those interested in the movement are invited to attend.

FOREIGN UNIVERSITY INTELLIGENCE.

Florence.—A bronze statue to the great Italian medical jurist, Francesco Puccinotti, has just been unveiled.

Halle.—Professor Kaltenbach, of Giessen, has been offered the vacant chair of Midwifery.

Kazan.—Up till recently Dr. Skalosuboff, the professor of nervous diseases, has been obliged to confine his demonstrations to such patients as could attend at the out-patient department, having no beds assigned to diseases of this nature. Now, however, a small clinical establishment has been allotted to his chair, so that students will enjoy more extended opportunities of study.

Königsberg.—Dr. Carl Brandt, *privat docent*, has been appointed by the Minister of Education to carry on the duties of the vacant chair of Zoology up to the end of the next winter session. Dr. Brandt was formerly assistant in the Zoological Station at Naples.

Leipzig.—The Anatomical Society, which has just held its first meeting here under the presidency of Professor Kölliker of Würzburg, now numbers 190 members, including 78 foreigners.

Würzburg.—Dr. K. Rieger has been appointed Extraordinary Professor of Psychological Medicine, and Senior Physician of the Julius Hospital.

EFFORTS are being made to procure the insertion in the Theatres Bill which is now before Parliament, and which it is expected will be read a second time about the middle of June, of a clause to the effect that all exit notices should be in luminous paint. This would greatly facilitate exit, by pointing out the readiest way, especially in cases of total darkness, as when the gas is turned off at the main, which was the cause of the late catastrophe at the Jewish club in the East-end, when seventeen lives were lost in a few minutes. Herr Stehle, the Government inspector of the Royal Bavarian Court Theatre at Munich, where this system is in force, gives high testimony to its efficiency. The insertion into the Bill of such a clause could only be beneficial, and we wish success in their endeavours to those who are advocating it.

THE vigorous measures recently adopted by the authorities with the view of stamping out the serious epidemic of rabies among the deer in Richmond-park have already produced good results. It has been found necessary to slaughter only four animals during the past week, and it is believed that the disease is gradually dying out.

DR. LLOYD ROBERTS has been elected a vice-president of the Obstetric Section, and Dr. Batty Tuke, of Saughton Hall, Edinburgh, has been nominated one of the vice-presidents of the Psychological Section, at the forthcoming International Medical Congress to be held at Washington.

WE learn that an outbreak of typhus has taken place in Carlisle, and that an inspector from the Medical Department of the Local Government Board has, in consequence, visited the town.

ON the 27th inst. a barque arrived in the Tyne from Mobile Bay, the captain and several of the crew of which had died during the voyage from yellow fever.

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Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Barnsley Urban District.—The Barnsley death-rate presents materials for serious consideration. The general rate was for 1886 as high as 29·14 per 1000; that from the seven principal zymotic diseases was no less than 6·16 per 1000; and the deaths under one year of age were at the rate of 205·9 per 1000 of the registered births. Scarlet fever during the past three years has caused 221 deaths, and during last year fifty-three fatal attacks of diarrhœa occurred. With regard to scarlet fever some difficulty was experienced because one large school remained open when the order to close schools under the Education Code was issued. We assume it was not a school receiving any grant of public money, and if so the mischance could not, in the existing state of the law, be avoided. But if it can be shown that under such circumstances the failure to close voluntarily supported schools defeats the objects for which other schools have been compelled to submit to closure, the time will probably come when it will be necessary to ask for more stringent legislation in this matter. But, apart from this, it is not creditable for the borough of Barnsley to be without any means for isolating scarlet fever, especially after the experience they have had as to small-pox. There were twenty-five small-pox deaths in the three years before the present hospital was built; in the fourteen years that have since elapsed there have only been four such deaths, the hospital having served to check the spread of the disease when imported. Some attempt was made to utilise the hospital two or three years ago for a scarlet fever patient, but the result was that small-pox was contracted; the institution, which only has beds for six acute cases, being adapted for the reception of one disease only. It is curious how authorities, who will readily spend the rates in providing means of isolation for small-pox, against which another means of protection is available, cannot see their way to do the same for scarlet fever, which is even more deadly. Compare, for example, the 14 small-pox deaths in three years which led to the provision of a small-pox hospital, and the 221 scarlet fever deaths in the last three years, which have produced no corresponding result. Dr. Sadler recommends public subscriptions to fill up this serious gap in the sanitary defences of Barnsley. In connexion with the grave diarrhœa mortality, we would urge much more rapid action as regards the present dangerous and filthy ashpit system. Warm weather does not necessarily kill children with diarrhœa, but children inhaling the disgusting emanations from receptacles containing stored refuse, which tends to saturate air and soil, are those, above all others, who are subject to such premature death. Barnsley has made substantial sanitary progress, but this last year's heavy death-rate has indicated the need for further action in more directions than one.

Stafford Urban District.—After a careful estimate of the present population, Dr. Milnes Blumer puts the birth-rate for 1886 at 35·5, and the death-rate at 17·7 per 1000. The deaths under one year were at the rate of 120 to every 1000 births registered. During a measles epidemic the plan of requiring school closure was not followed, the alternative of prohibiting the attendance of children from infected houses having been regarded as better calculated to effect the desired object, and it is stated that when the step was resorted to the disease began to subside. In connexion with the tub system, it had been suggested that in order to deal with the nuisance accompanying the collection of tubs the carts should go round at night instead of in the daytime. We do not believe this is right in principle. Tub collection can be arranged with a minimum of nuisance if proper carts and tub-covers are provided; and under any circumstances nuisance will not be remedied by doing the work under cover of darkness. There is no need to do the work in the busy hours of the day, but it should not be commenced until about sunrise. A good deal of excellent sanitary work is being steadily carried out in the district; substantial progress has been made with the new waterworks, which will shortly be in operation; and such places as bakehouses, common lodging-houses, and slaughter-houses, are both looked after and dealt with when the need for action is shown.

Belper Rural District.—Mr. J. Allen has the satisfaction of reporting a steady diminution in the rate of mortality, which stood at its highest point—namely, 17·5 per 1000—in 1879, and is now 13·8. There are, however, points to which attention is needed in the district. One relates to infant mortality, and Mr. Allen significantly refers to the relation of this mortality with those assurance companies which, by way of a grim joke, are locally known as "Death" clubs, the death so often being associated with neglect. He also urges the need for hospital provision, especially in the interests of the working classes, who, when infectious disease prevails, are unable, like their more wealthy brethren, to leave the district for a time. Holbrook and Kilbourne are still without a system of drainage, and this tells on the death-rate of the former place. One sewage outfall nuisance which had led to bitter feelings between two contending sets has been satisfactorily dealt with through the judicious handling of Major Tulloch of the Local Government Board. The voluntary system of notification of infectious diseases which is in force bids fair to break down. It is hinted that this may be due to the inadequacy of the fee offered. The usual fee in most parts of the country is half-a-crown per certificate granted, and it should not be less in the Belper district.

Crickhowell Rural District.—Powers have been granted for supplying the town of Crickhowell with a water service, and Mr. Philip Hill makes some apt remarks on the principles which should govern the authority in their action in this matter. He has more than once brought under notice the grave state of the sewer outfall, and the greasy, black, and foul mud which results, to which attention was recently drawn by Mr. Spear, of the Local Government Board. Slaughter-houses, cow-houses, and adulterations under the Food and Drugs Act are all receiving attention, and special reference is made to the unhealthiness of many dwellings by reason of dampness, excessive cold from draughts, and impurity of air from closet and other effluvia. The death-rate was high in 1886—namely, 22·7,—even if allowance is made for the fact that the workhouse deaths included several non-residents which it was not possible to allow for with accuracy.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 6428 births and 3825 deaths were registered during the week ending April 23rd. The annual rate of mortality in these towns, which had been 20·5 and 20·9 per 1000 in the preceding two weeks, further rose last week to 21·6. During the first three weeks of the current quarter the death-rate in these towns averaged 21·0 per 1000, and was 2·6 below the mean rate in the corresponding periods of the ten years 1877-86. The lowest rates in these towns last week were 14·9 in Birkenhead, 15·7 in Leicester, 15·8 in Nottingham, and 16·3 in Brighton. The rates in the other towns ranged upwards to 27·7 in Halifax, 27·9 in Cardiff, 28·7 in Liverpool, and 36·4 in Manchester. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had increased in the ten preceding weeks from 340 to 510, further rose last week to 558; they included 291 from measles, 134 from whooping-cough, 47 from scarlet fever, 40 from diarrhœa, 24 from "fever" (principally enteric), 21 from diphtheria, and only 1 from small-pox. These zymotic diseases caused the lowest death-rates last week in Portsmouth, Wolverhampton, and Halifax; and the highest rates in Norwich, Salford, and Manchester. The greatest mortality from measles occurred in Norwich, Huddersfield, Salford, Liverpool, and Manchester; from whooping-cough in Norwich, Birmingham, and Nottingham; and from scarlet fever in Blackburn. The 21 deaths from diphtheria in the twenty-eight towns included 14 in London, 3 in Liverpool, and 2 in Derby. Small-pox caused 1 death in Greater London, but not one in any of the twenty-seven large provincial towns. Only 7 cases of small-pox were under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease; 2 new cases were admitted to these hospitals during the week. The deaths referred to diseases of the respiratory organs in London, which had declined in the preceding four weeks, from 509 to 363, further fell last week to 337, and were 74 below the corrected average. The causes of 22, or

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2·4 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Leeds, Leicester, Portsmouth, and Derby. The largest proportions of uncertified deaths were registered in Preston, Sunderland, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 22·9 and 23·7 per 1000 in the preceding two weeks, declined to 22·0 in the week ending April 23rd; this rate exceeded, however, by 0·4 the mean rate in the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 11·5 and 12·3 in Leith and Greenock, to 25·8 in Glasgow and 29·9 in Paisley. The 550 deaths in the eight towns last week showed a decrease of 43 upon the number in the previous week, and included 36 which were referred to whooping-cough, 30 to measles, 10 to diarrhœa, 9 to scarlet fever, 8 to "fever" (typhus, enteric, or simple), 2 to diphtheria, and not one to small-pox; in all, 95 deaths resulted from these principal zymotic diseases, against numbers declining in the preceding four weeks from 127 to 91. These 95 deaths were equal to an annual rate of 3·8 per 1000, which exceeded by 0·7 the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 31, 33, and 36 in the preceding three weeks, were again 36 last week, of which 14 occurred in Glasgow, 6 in Edinburgh, 5 in Dundee, and 5 in Aberdeen. The 30 deaths from measles showed an increase of 2 upon the number in the previous week, and included 18 in Aberdeen and 11 in Glasgow. The fatal cases of scarlet fever, which had been 11 and 10 in the previous two weeks, further declined last week to 9, of which 4 occurred in Dundee, 3 in Edinburgh, and 2 in Glasgow. The 10 deaths attributed to diarrhœa showed an increase of 3 upon the low number in the previous week, and exceeded the number in the corresponding week of last week by 1; they included 4 in Glasgow and 3 in Aberdeen. The deaths referred to "fever," which had been 8 and 6 in the previous two weeks, rose to 8 last week, and included 3 in Glasgow and 2 in Dundee. The deaths from acute diseases of the respiratory organs in the eight towns, which had been 110 and 126 in the preceding two weeks, were 124 last week, and exceeded by 24 the number in the corresponding week of last year. The causes of 57, or more than 10 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 30·0 and 34·1 per 1000 in the preceding two weeks, declined again to 31·3 in the week ending April 23rd. During the first three weeks of the current quarter the death-rate in the city averaged 31·8 per 1000, the mean rate during the same period being but 18·7 in London and 19·3 in Edinburgh. The 212 deaths in Dublin last week showed a decline of 19 from the number returned in the preceding week; they included 6 which were referred to measles, 4 to "fever" (typhus, enteric, or simple), 3 to diarrhœa, 2 to scarlet fever, 2 to diphtheria, 2 to whooping-cough, and not one to small-pox. Thus 19 deaths resulted from these principal zymotic diseases, against 15 and 22 in the preceding two weeks; they were equal to an annual rate of 2·8 per 1000, the rates from the same diseases being 2·4 in London and 2·0 in Edinburgh. The 6 fatal cases of measles showed a decline of 1 from the number in the previous week, and those of scarlet fever, whooping-cough, and "fever," were also fewer than those returned in the previous week. The deaths from diarrhœa and diphtheria, on the other hand, showed an increase. The deaths of infants showed a marked decline, while those of elderly persons showed an increase upon recent weekly numbers. Five inquest cases and 2 deaths from violence were registered; and 56, or more than a quarter, of the deaths occurred in public institutions. The causes of 39, or 18 per cent., of the deaths registered during the week were not certified.

AT a vestry meeting held at St. Mary's, Reading, on the 19th inst., it was resolved that an address be presented to Mr. Isaac Harrinson, in recognition of his efforts to improve and beautify the town.

THE SERVICES.

Deputy Surgeon-General J. B. C. Read, C.B., has joined the Home District for duty.

Deputy Surgeon-General J. Tulloch, M.D., has assumed the duties of Principal Medical Officer at Woolwich.

Deputy Surgeon-General R. A. Chapple has been appointed Administrative Officer, Mhow Circle.

Surgeon-Major W. Taylor, M.D., has been appointed to the Staff of the Commander-in-Chief in the East Indies, and has been placed on the Supernumerary List.

WAR OFFICE.—Surgeon-General Thomas Graham Balfour, M.D., F.R.S., retired pay, to be Honorary Physician to the Queen, vice Surgeon-General W. Rutherford, M.D., C.B., deceased (dated April 23rd, 1887).

ARMY MEDICAL STAFF.—The undermentioned Surgeons to be Surgeons-Major (dated March 31st, 1887):—Henry Charlesworth, John Cotter Dorman, M.B., George Herbert Le Mottée, M.D., William Litchfield Chester, M.B., and Edward Arthur Mapleton, M.B.

ADMIRALTY.—The Greenwich Hospital pension of £50 a year for fleet and staff surgeons, vacant by the death of Dr. Gerald Yeo, has been awarded to Fleet Surgeon William G. J. Ayre.

Deputy Inspector-General of Hospitals and Fleets John Fisher has been promoted to the rank of Inspector-General of Hospitals and Fleets in Her Majesty's Fleet (dated April 1st, 1887); Fleet Surgeon Henry Frederick Norbury, C.B., has been promoted to the rank of Deputy Inspector-General of Hospitals and Fleets in Her Majesty's Fleet (dated April 1st, 1887).

In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Fleet Surgeon Eugène Victor de Méric has been placed on the Retired List of his rank.

The following appointments have been made:—Surgeon Alfred T. Rimell, to the *Rattlesnake* (to date from 28th inst.) Fleet Surgeon Henry S. Lander, to the *Impregnable*; Staff Surgeon M. Fitzgerald, to the *Triumph*, for Esquimault sick quarters; Staff Surgeon O. P. Browne, to the *Caroline*; and Surgeon C. D. D. E. Chamberlain to the *Rattler*.

ROYAL NAVAL ARTILLERY VOLUNTEERS (London Brigade). Edmund Distin Maddick, Esq., to be Honorary Surgeon (dated April 20th, 1887).

YEOMANRY CAVALRY.—Oxfordshire: Surgeon Frederick Taylor resigns his commission; also is granted the honorary rank of Surgeon-Major, and is permitted to continue to wear the uniform of the Regiment on his retirement (dated April 27th, 1887).

ARTILLERY VOLUNTEERS.—1st Caithness: James Leith Waters, M.B., to be Acting Surgeon (dated April 27th, 1887).—8th Lancashire: Surgeon T. F. Morrish resigns his commission (dated April 27th, 1887).—Newcastle and Sunderland: Henry S. Baumgartner, M.B., M.S., M.R.C.S., L.S.A., to be Acting Surgeon.

RIFLE VOLUNTEERS.—3rd Cheshire: Theodore Fennell, Gent., to be Acting Surgeon (dated April 27th, 1887).—1st Volunteer Battalion, the Duke of Cornwall's Light Infantry: Acting Surgeon E. S. Angove resigns his appointment (dated April 27th, 1887).—6th Lanarkshire: William Brown Moir, M.D., to be Acting Surgeon (dated April 27th, 1887).—1st Renfrewshire: Acting Surgeon T. Philip, M.D., to be Surgeon (dated April 27th, 1887).

THE VOLUNTEER MEDICAL STAFF CORPS.—The London Division: John Adam Watson, Gent., to be Surgeon (dated April 2nd, 1887).

THE VOLUNTEER MEDICAL SERVICE.

To the Editors of THE LANCET.

SIRS,—I regret to be obliged to point out to you an alteration now necessary in regard to a statement in your annotation in THE LANCET of a recent date on my paper on "The Volunteer Medical Service in Peace and War."

I have just been officially informed that the permission granted me last November to join the School of Instruction at the Medical Staff Corps Depôt at Aldershot under the usual regulations as to allowances &c. has been rescinded, and that such permission will not in future be granted to regimental surgeons, but only to surgeons of the Volunteer Medical Staff. I regret the matter the more because it seems to me that one of the difficulties most strongly deprecated by the promoters of the Volunteer Medical Staff Corps is now arising by the drawing of a most invidious distinction between the officers of that corps (and, indeed, all other commissioned officers) and the surgeons carried on the Regimental Lists. I am, Sirs, yours faithfully,

W. P. MEARS, M.D.,
Surgeon, Tynemouth Artillery.

Newcastle-on-Tyne, April 25th, 1887.

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Correspondence.

"Audi alteram partem."

THE MANCHESTER *VERSUS* THE LONDON SCHOOLS OF MEDICINE.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of March 26th there is an editorial annotation dealing with the question of degrees for London medical students, in which the following remark occurs: "It is difficult to understand the position of the Colleges [of Physicians and Surgeons] in putting into the foreground of their claims the advantages and superiority of clinical teaching and clinical opportunities in London, if some residential period is not insisted on." Beyond what appears in this statement in your own columns, I must confess that I am ignorant of any such claim to superiority having been advanced in favour of the London schools. Nor is the precise meaning which the words are intended to convey to be found on the surface. If it be that throughout the length and breadth of London there are to be found clinical teachers and material for clinical instruction which, if they could be focussed and made available for the instruction of all London students, would be superior to any to be found elsewhere, then we of the provinces can afford, with much complacency, to admit that it is so. If, on the other hand, it means that, as the London schools are at present constituted and the teaching at present carried on, this same superiority over provincial schools is to be recognised, then I think it will be admitted that there are good grounds for provincial jealousy being aroused and for a wish to hear something further on the subject.

It happens that a few weeks ago I made some remarks at the close of a clinical lecture which were curiously at variance with any such idea, and your article thus immediately arrested my attention. Of other provincial schools I cannot, of course, speak; but so far as that of Manchester is concerned, as a teacher of clinical surgery in it, I feel strongly disposed to controvert the alleged contention of the Colleges in respect of every individual subject of clinical study. I believe it would be possible to show that, whether in the mere passing the tests of the examining boards, in the competition for prizes, or in general equipment for the responsibilities of practice, the Manchester student holds his own with the Londoner; and, further, in respect of clinical opportunities, that there is scarcely a school in London which can provide such a fullness of material as our own, whether in general medicine and surgery, or in the special departments of fever, insanity, ophthalmology, or the diseases of women and children. It would entail some little trouble, however, to go into this fully, and, after all, I wonder very much whether any such claim on behalf of the London schools as that referred to has ever been seriously made. I can scarcely think it possible that so much ignorance of the resources of Manchester as this would represent really exists in the Councils of the two licensing Colleges. I will therefore content myself at present with a few data which are at once accessible to me, with a view to giving a little information to those concerned, whether that information be really needed or not.

Two allegations are contained in your article: firstly, that the clinical teaching in the London schools is superior to ours; and, secondly, that the clinical opportunities are likewise superior. With regard to the first of these, it is perhaps difficult to adduce direct proof without making references which might appear invidious. A fair test, however, of the quality of the teaching may be found in the achievements of the pupils, and probably the results of competitive examinations would be as good an indication as could be obtained did the students from the schools concerned enter for such examinations in equal proportions to their total numbers. The honours examinations of the University of London would afford an excellent example for our purpose, were it not that it is undoubtedly more a matter of course for a London student to prepare for these than it is for a Manchester student, and therefore a larger proportion of the total number of the former probably enter than of the latter. Still, this is the only examination which seems to give any indication of the required information, and as it has been somewhat fashionable of late years for our men to read for the London degrees, I propose to accept this as the test we are in quest of. For this purpose I asked Dr. Wm. Thorburn, the surgical registrar of the Royal Infirmary, himself one of our most distinguished students, to look out for me the results of the honours division of the pass examinations for the last six years. Unfortunately those for 1886 are not yet published, but he has been good enough to furnish me with those for the previous five years. I need not give the several years separately, but will sum them up, and the result appears as follows:—

Second M.B. Examination (Honours).

MEDICINE.		OBSTETRICS.		FORENSIC MEDICINE.	
Manchester.	All other schools.	Manchester.	All other schools.	Manchester.	All other schools.
11 ...	77	3 ...	54	6 ...	71

At this examination, during the same five years, fifteen scholarships were given, of which Manchester obtained three, and fifteen gold medals were given, of which Manchester obtained six. At the B.S. examination in 1884, the only one of these years in which honours were given in surgery, Manchester obtained two out of six, and also took both the scholarship and gold medal, no other men being in the first division. At the M D. examination Manchester took the gold medal in 1882. When it is borne in mind that the total proportion of students in Manchester to those of London alone is as one to eleven, I think it will be admitted that this record is one that we may be fairly satisfied with. How many of the London schools can equal it?

Then, with regard to the second allegation, that of superiority of the London schools in clinical opportunities, a little trouble in the collection of figures would probably show that very few of the London hospitals can compare with Manchester in richness of material. But knowing so little of the circumstances under which the claim alluded to has been brought forward, and therefore of the importance to be attached to it, I am unwilling to engage in what is always to me an ungrateful task. At the risk of appearing egotistical, I therefore propose to limit myself almost entirely to the work of my own wards, as illustrating the work of the whole surgical department of our infirmary. Probably, without entering into tedious statistics, a fair criterion of the "clinical opportunities" of a surgical hospital is to be found in an examination of the operations performed in it. My house-surgeon, Mr. Seville, has accordingly supplied me with the following information. Since I became full surgeon, or rather since November, 1882—say, four years and a half,—1054 operations have been performed in my wards, about five every week. These were operations such as have usually to be performed in the theatre, as distinguished from small operations done in bed; but as an indication of their nature I will specify particularly those of the past month of March. They were as follows:—Scraping of lupus (2), amputation of leg, ditto of breast, excision of knee (2), ditto of hip, ditto of lymphatic glands (2), ditto of cystic thyroid, ditto of sebaceous cysts, ditto of necrosed bone (2), fistula in ano, Dupuytren's contraction, aspiration of diverticulum of knee-joint, rhinoplasty, cleft palate (2), compression for popliteal aneurysm, extraction of catheter from bladder, division of adherent ulcer, resection of ribs for empyema, suturing wounds of face, reduction of dislocated hip, taxis for strangulated hernia, vesico-vaginal fistula—a good month's work, but, happily, not encountered every month of every year. Yet, at the same time, where there is so much to be seen, one frequently meets with "runs" of cases affording excellent opportunity for teaching purposes. For example, in my last "accident" take-in week we admitted six cases of fracture of the femur, one of dislocation of the hip, and one of bruise of the hip simulating fracture of the neck. Again, some eighteen months ago I had on one operation day five cases of possible amputation in the thigh. Three were so amputated, in one excision of the knee was performed, and one was declined (senile gangrene). Once more, a short time ago one of my colleagues had three cases of lithotomy in one morning.

The above represents less than one-fourth of the in-door surgical work of our infirmary, for besides three colleagues with the same number of beds as myself, the two assistant-surgeons have some beds at their disposal. Then, in addition to all this, there is the vast field of observation in the out-patient and accident rooms, in which no fewer than 14,000 cases were treated during the year ending June, 1886. The former of these departments, under the charge of the

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assistant-surgeons, is, indeed, a mine of instruction and experience to the student, of which the value can scarcely be over-estimated. The simple fact is that in every department of the hospital there is always a plethora of material for teaching purposes, and the veriest glutton, hungering and thirsting after knowledge, can only partake of a portion of what is daily set before him.

So much for surgical work only. Possibly, with your permission, some further information may at another time be given as regards our clinical opportunities in other departments. The present instalment will, however, demonstrate on what substantial grounds we may contest the claim adduced on behalf of the metropolitan schools.

I am, Sirs, yours truly,

Manchester, April, 1887. JAMES HARDIE.

THE MEDICAL STAFF AND RANK.

To the Editors of THE LANCET.

SIRS,—My chief reason for now addressing you is the underlying inference of your recent annotations and the letter of a recent correspondent that the medical staff in asking for rank is departing from its proper status as a professional body; and if you will allow me, I will try to make our views (or, at least, those of a section) plain. The question is admittedly not one of personal likes or dislikes, but rather what is necessary to honestly and efficiently carry out the duties entrusted to us. In itself we care nothing for military rank, and to anyone so inclined it can be reached through the ordinary portal for the combatant officer far easier and with less expenditure of brains and money than through the doubtful and indirect mazes of the medical staff; it is not that we regard our profession as secondary to any other, but rather that, valuing it highly, and seeing how, in developing, its threads ramify through all the segments of the military machine, we desire reasonable freedom and a defined position for our labours. There are many among the older members (and I am myself among the number) who viewed with personal dislike departures ultra-professional taken step by step, until now we have work to do identical with that of the combatant officer; but we cannot but acknowledge that this is the normal sequel of unification, and the logical and necessary outcome of our present duties is *rank*. If anyone suppose that, as at present placed, we are merely medical men charged with care of sick, let him run his eye over the medical regulations of the army detailing also sanitary work, charge of stores, command of Medical Staff Corps, which embraces duties as essentially military as any that a combatant officer can be called upon to do. These are the duties which during peace, and doubly so during war, call for a defined status for the responsible individual; one not liable to disturbance through the jealousies of the combatant ranks, or by personal interpretations of orders and warrants, and whittlings and twistings to meet a given end. It was utter absence of all trust and faith in the acts of the military towards the medical staff which constituted the motive power in the recent outcry over relative rank, and it is this which now makes us look with more than doubtful eyes over the proposed amendment of the paragraph which almost word for word repeats the preceding paragraph on honorary rank, while stopping short of the logical step of granting the latter.

The present disturbance is not our act, it has been thrust upon us; and now that the Secretary of State for War has told us (much to our astonishment) that relative rank is a meaningless phrase, we cannot but see in our present state a condition fraught with misunderstanding and friction with other segments, and with probable failure when next tested in the field. We seem to have come to the parting of the ways; the better we are professionally the less we feel the possibility of contentedness; and what we now ask for is that the War Office should know its own mind and give us fair play. If our work is to be limited to purely professional topics, we can regard our then position as medical men in Government employ with complacency. What suffices for the chaplains will suffice for us, with stripping of our trappings and gaudy uniforms, spurs, swords, and salutes, the complements of different military ranks—all a pure mockery to rankless men and an obstacle in attendance on sick men. If, however, unification is to normally evolve, we cannot but be an integral part of the military machine, and our status must be defined in it on the only recognised method—rank; and experience has now shown that this system carried out to its logical conclusions contains elements of the greatest value to the Army, State, and even also to the medical profession. It entails ultra-professional duties, and necessitates a designation embracing them; but the latter need not disturb our peace of mind, as it already exists in three of our present grades. Moreover, in a department complete in itself, some of us think we see an escape from the blot, which you so forcibly put forward in your issue of the 23rd instant—award of honours for service centred in the military head; and you do us a kindness in giving it prominence. To speak plainly, it is nothing short of a disgrace, it saps all loyal feeling towards our departmental superiors, it stifles the growth of all professional culture and progress. But will not unity, strength, and proper recognition of us as *military* medical officers performing multiform duties carry also proper and due authority and influence of our head among the other heads of the army sections, and a dominant (if not sole) influence in the internal economy of the department, including promotion as well as rewards? and will not division of our present work into professional and ultra-professional, with outside men and officers to carry on the latter, by so much deprive us of weight in the military sphere, and equally reduce the influence of our head on the points mentioned? The present blots are relics of the past, of a time when our duties were more strictly professional than they now are, and when the head possessed a lessened importance; and it seems to some of us that our present position without rank and the misplaced power over awards and promotion await the same solution—emancipation from the unreasonable supremacy in our affairs of the military caste. I am, Sirs, yours truly,

April, 1887. ONE OF THEM.

*** We have much pleasure in inserting the above letter from a distinguished officer of the Medical Department, though we cannot quite agree with the writer on some of the points he advances.—ED. L.

THE LUNACY BILL, 1887.

To the Editors of THE LANCET.

SIRS,—The new clause inserted on Feb. 22nd last into the Lunacy Bill of the present year, at the instance of Lord Monkswell, to the effect that "when any officer is transferred from one county asylum to another his service in all such asylums shall count for the purpose of computing the pension or superannuation allowance," is good so far as it goes. But there are officers who have served a sufficient number of years to earn a pension whose service has not been confined alone to county asylums, who have transferred their services from one of the county asylums to one of the borough or metropolitan district asylums, or *vice versâ*. Those gentlemen will naturally be of opinion that, in fairness, the operation of the clause in question ought to be extended to them. It will not, I venture to say, be contended that the work in the borough or district asylums is less anxious, onerous, and responsible than it is in the county asylums, and, moreover, probably one effect of the exclusion of the officers serving in them from this pension clause would be to deter the best men at present serving in the county asylums from offering themselves for such appointments in future.

I am, Sirs, your obedient servant,

Malling Place, Kent, April 23rd, 1887. JAMES ADAM, M.D.

THE ERASMUS WILSON BEQUEST.

To the Editors of THE LANCET.

SIRS,—I venture to think that the petitions which have been lately presented to the Council of the Royal College of Surgeons by persons desirous of the suppression of experiments on living animals place the question of the disposal of the funds which have accrued to the Royal College of Surgeons in a new aspect. Before these expressions of opinion by a section of the public, any disposition of the funds of the Erasmus Wilson bequest was a matter of interest mainly to the body into whose hands they had fallen, and in a secondary degree to the medical profession in general. The decision must now lie between the opinions of the leaders of the profession, as expressed in the largely

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signed memorial presented to the College of Surgeons in March last, and the opinions of that section of the public which is opposed to experimentation on living animals under any circumstances whatever. I have not any doubt that the verdict which must be pronounced by the Council of the College of Surgeons will be favourable to the interests of suffering humanity, by affording increased opportunity for the research into the origin of disease by properly qualified experimenters. But the question has now come to be the decision of a medical corporation as to the necessity for experimental research; and should the decision be adverse to what is believed by far the majority of medical men to be essential for the advancement of medical science, I cannot but think that a blow of the greatest force will have been struck against the prosecution of experimental physiology throughout the kingdom.

I am, Sirs, yours obediently,

Oxford, April, 1887. W. TYRRELL BROOKS.

PUNCTURING THE ABDOMEN IN PUERPERAL CASES.

To the Editors of THE LANCET.

SIRS,—Dr. Priestley raises the question of puncturing the abdomen for extreme flatulent distension in puerperal diseases. The following case came under my care:—

Mrs. W—— (seen Nov. 6th, 1875) was confined to bed in the seventh month of pregnancy, with vomiting, dropsy, and albuminous urine (nearly one-half on testing). On Oct. 5th she was prematurely confined; labour natural. Vomiting persisted after confinement, and a severe febrile state followed, with flatulent distension of the abdomen as a chief symptom. This increased during the next few days, and on the night of the 12th, the distress being so great. I punctured the bowel (Mr. E. Jackson being with me) with a fine trocar. Flatus and some yellow fluid escaped. Relief was given, and the patient, after some weeks of illness, recovered, the albumen entirely disappearing. No inconvenience of any kind followed the operation, and the patient has enjoyed good health since. The distension returned after the operation; but was not so extreme, and the puncturing was not repeated. I am, Sirs, yours truly,

Manchester, April 25th, 1887. STEPHEN NESFIELD, M.D.

THE CONGRESS OF GERMAN PHYSICIANS.

(*From a Correspondent.*)

THE sixth Congress of German Physicians (Congress für innere Medizin) took place in the splendid rooms of the Kursaal, Wiesbaden, on April 13th, 14th, and 15th. Amongst the celebrities present were Virchow, Leyden, Gerhardt (Berlin), Leube (Würzburg), Curshmann (Hamburg), Binz (Bonn), Filehne (Breslau), Hitzig (Halle), Kopbach (Jena), Nothnagel (Vienna), Liebermeister and Jürgensen (Tübingen), Verstraten (Ghent), Kisch (Prague), and the late assistant of the celebrated Cohnheim, Lichtheim, now professor at Berne.

Leyden, as president, opened the meeting. Remarking on the growing importance of the Society, he urged the necessity of a union of all physicians in view of the increasing tendency towards specialism.

Dettweiler and Penzoldt spoke of the treatment of consumption, and both came to the conclusion that, in spite of the great hopes based on the discovery of Koch's bacillus, we are yet far from having discovered a remedy for the dire disease, and have still to rely on palliative measures. Kuehle laid stress upon the fact that tuberculosis is far more often originated by direct infection from mouth to mouth than is usually believed, and he even went so far as to speak of a "family tuberculosis" in this sense of propagation.

Lichtheim made some very interesting and practically important remarks on the etiology of pernicious anæmia, relating some cases in which there was a coincidence of tabes and this disease and an evident connexion with intestinal worms (bothriocephalus, filaria).

Rindfleisch of Würzburg advanced a new theory with regard to tabes dorsalis, basing it on a very ingenious experiment. According to this observer, the thickening of the pia mater is the primary affection, having for its effects the compression and degeneration of the posterior cords, which are more liable to be compressed than the other parts of the medulla.

Vogel (Munich) and Hagenbach (Basel) spoke of the treatment of whooping-cough, and, reviewing the various belauded remedies, they recommended a larger recourse to morphia as an antispasmodic, besides quinine (as many decigrammes as the child has years), and the local irritation of the nose advocated by Michael of Hamburg according to the experience of Hauck. But they regretted that in statistics connected with the effects of remedies there is not taken into due account the age of the child, the prognosis in no disease being so much influenced by the age as in whooping-cough. So with regard to the mortality, which, according to Vogel, is as follows: under one year 25 per cent.; from two to five 4·8 per cent.; and over five years only 1·1 per cent.

Nothnagel and Naunyn (Königsberg) were the exponents of the difficult question of the localisation of brain diseases, more especially with regard to the cortex. The latter could confirm the observations of Wernicke and Kussmaul concerning aphasia.

Litten (Berlin) laid stress upon the fact that diseases of the stomach are very often associated with malposition of the right kidney (seventeen out of his thirty-two cases), and not exclusively in women. He considers the gastric dilatation as the primary cause, and has obtained excellent results by washing out the stomach.

Adamkiewicz (Cracow) stated that he had cured several acute cases of neuralgia (supra-orbitalis) by employing a combination of chloroform and the galvanic current, and explained its immediate effects by the way of kataphoresis. This experiment is certainly worthy of attention.

Very interesting were the observations of Finkler upon a typhoid fever epidemic in a small town near Bonn, where he could trace most accurately the path of the infection. After this Professor Fraenkel of Berlin drew attention to the long vitality of the typhoid fever bacilli of Gaffky in the intestine, and he explained by this circumstance the occurrence of late infection and of relapses. Rossbach made some observations on chyluria and leucocytosis. He also exhibited a chair for the use of asthmatics and patients suffering from emphysema (*Athmungsstuhl*), invented by a patient of his, by means of which the expiration is aided by an elastic compression very easily manageable.

Cahn, assistant at Strassburg, denied the assertions of Riegel that in the carcinomatous stomach hydrochloric acid does not exist, but proved that in certain cases there is carcinoma with HCl., and yet the reaction of methyl violet, or congo, or tropæolin may be wanting.

Of very far-reaching and undoubtedly also practical importance will prove the experiment of the young professor, von Mehring, of Strassburg, who produced diabetes on fasting dogs by large doses of florhidein, an extract of the roots of the plum-tree, and who expressed his conviction that the sugar is formed solely by decomposition of albumen. These researches and operations seem worthy of special notice, as they are calculated to profoundly modify the views held of this disease. Leube congratulated von Mehring, and gave expression to the hope that we might now succeed in getting animals continuously diabetic.

Franz spoke of a question which is in Germany very much discussed, and has, indeed, become a burning one since the suggestions of Oertel—viz., whether rest or exercise is to be recommended for patients with heart disease. Leyden took part in the discussion, stating that many practitioners go too far in their anxiety for the safety of such patients, and he referred to the reports of Sir Andrew Clark, who has seen in his practice more than 600 cases of heart diseases without any bad symptoms during five years. In conclusion, Leyden expressed the hope that the next Congress, which will meet again in the beautiful queen of German watering-places, may be equally well attended.

Weisbaden, April, 1887.

THE GERMAN HOSPITAL.—On the 27th inst. the forty-second anniversary festival of this institution, which is situated at Dalston, was held at the Hôtel Métropole, the Duke of Cambridge in the chair. During the evening the secretary announced donations and subscriptions amounting to £3409, including £200 from the Emperor of Germany, £50 from the Emperor of Austria, £20 from the Chairman, and £105 from the Corporation of the City of London.

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LIVERPOOL.

(From our own Correspondent.)

HOSPITAL SATURDAY.

SATURDAY, May 7th, is to be our Hospital Saturday this year, and two circumstances combine to give great interest to this year's collections. The first is the steadily growing practice of making weekly collections among large bodies of working men, the aggregate of which is realised on Hospital Saturday. The second is the honest rivalry in this good work which it is believed will be manifested this year among the workmen belonging to the different trades. The two circumstances will be enhanced by the improvement which has been observed in some branches of trade, of which it is hoped that the hospitals may feel the benefit.

THE LOCK HOSPITAL.

The hospital has been closed against all venereal cases, it being required temporarily by the committee of the Royal Infirmary, under whose management it is while the present infirmary is being taken down and a new one erected. Meanwhile many greatly needed repairs and alterations are being effected, and when the new infirmary is completed the surgeons of the hospital will be enabled to return to it with increased comfort to themselves and their patients.

ANOTHER SWING-BOAT FATALITY.

An inquest was held at St. Helens on the 25th inst. on the body of a boy who was killed accidentally by a swing-boat. It appeared that on the previous Saturday (23rd inst.) he, with a large number of other children, were playing on some land where were a number of whirligigs and swing-boats. One of the occupants of a swing-boat which was in motion having dropped his cap, the deceased ran to pick it up, when he was struck on the right side of the head by the boat and picked up insensible with a fractured skull and part of the brain protruding. He was attended by Dr. Reid, but died the following day. The deputy coroner remarked that "accidents of this kind were so common that wherever swing-boats went coroners had to follow." Some of the jury suggested the putting of a rope or fence round the boats, but the deputy coroner thought that the latter should be suppressed altogether, in which opinion the jury concurred.

SAD RESULT OF VIEWING A BODY.

A young man residing in Warrington went on the 24th inst. to view the body of a woman which had been found floating in the Saukey canal, under the impression that it might be that of his mother, who had been from home for a week attending to a sick relative. He was much excited and impressed with what he saw, and, being somewhat weak in mind, he became quite delirious and almost unmanageable. In spite of every precaution, he escaped from the house, and subsequently was found drowned in a clay-pit near.

A FATAL FOOTBALL ACCIDENT.

An inquest was held at Widnes to-day on the body of a boy aged twelve, who died on Saturday last from the effects of a kick on the shin, received while playing football on the 11th inst. He did not complain until the following day, and medical advice was not sought until the 19th inst.

Liverpool, April 26th.

EDINBURGH.

(From our own Correspondent.)

UNIVERSITY GENERAL COUNCIL.

THE statutory half-yearly meeting of the University Council held last week was of a more than ordinarily interesting character. Of late there have been evidences that this body, composed of the graduates of the University, is increasingly anxious to assert its right of forming an integral part of the University polity, and of exercising such powers as legally belong to it in shaping the course of academic development. As it was understood that questions affecting these subjects were to be discussed at the meeting, the attendance was a large one; the professoriate in particular, showing much greater interest than usual in the proceedings, was largely represented. The first business of the meeting was a communication to the Chancellor from the Prince of Wales in regard to the Imperial Institute scheme, placing its advantages before the members of the University, and bespeaking their personal interest in its support. A resolution was unanimously adopted that a loyal address should be presented to the Queen, congratulating Her Majesty on the jubilee of her accession about to be happily celebrated. The next business was the appointment of an assessor to represent the General Council in the University Court, the supreme governing body of the University. This office is now vacant through the lamented death of Dr. Rutherford Haldane. Sir Alexander Christison and Dr. Heron Watson were nominated for the office, and a division was at once taken. There voted for the former 70, and for the latter 63; but the result of the vote was challenged by Dr. Watson's proposer, who requested a poll of the whole constituency. This was agreed to. After a discussion on some proposed changes in the system of arts graduation, an important question touching the representation of the University in the General Medical Council was raised, and very warmly discussed. It was contended, and put in the form of a recommendation to the University Court, that the Court should memorialise the Government that the term "University," as used in the Medical Act in regard to the election of a representative on the General Medical Council, should signify the "Council," including all University graduates, and not the "Senatus," as it has been till now interpreted. A somewhat stormy discussion ensued, in which Sir William Turner appeared as the champion of the interests of the Senatus. In a somewhat melodramatic scene, in the face of considerable dissent and interruption, he iterated and reiterated the statement that "the Senatus Academicus is the administrative body of the University under the Universities Act." By a reference to the mode of representation of other bodies, he showed that all analogy was in favour of the election of the representative by the Senatus. Ultimately his amendment to the original motion recommending to the Court the consideration of the sound interpretation of the Universities and Medical Acts in the point raised was accepted by the Council.

THE COUNCIL ASSESSORSHIP IN THE UNIVERSITY COURT.

Owing to the nomination of two candidates for this important office, an active canvas in behalf of both is now proceeding, and the voting papers have been already issued. The election ends on May 10th, before which date the ballot papers must be returned to the University registrar. Both Sir Alexander Christison and Dr. Heron Watson are so well known and widely esteemed, and each in many points of view is so well qualified for the office, that the contest is fraught with an unusual degree of interest, and public opinion is strongly divided in the matter. The question of general politics fortunately does not enter into the contest, nor is there any element of rivalry as between two of the learned professions, as both candidates are distinguished graduates in medicine; but the issue at stake is for the most part one of the balance of power between two bodies in the University, for Sir Alexander Christison is as closely identified by his antecedents and in his nomination and support with the Senatus and an oligarchical system of university administration, as is Dr. Heron Watson by his position as a successful extra-mural teacher and his advocacy of an expanded system of professional education with the University Council Association and with university reform. This issue is, of course, one that has long been pending, and one in which increased interest has been from time to time developed by passing events; but it is brought into special prominence at the present time by the fact that the new Universities Bill is now being drafted and will shortly be before Parliament, whence the absolute importance to all parties of as strong a representation as possible of their specific requirements at the governing board of the University.

GOVERNMENT AID FOR SCIENTIFIC RESEARCH.

During a recent visit of Lord Lothian, the Secretary for Scotland, to Edinburgh, he was interviewed by a deputation of scientific men representing the Royal Society of Edinburgh in regard to the position of science in this country, and the almost complete absence of Government subsidies for its support. Sir William Thomson introduced the deputation and spoke on the general question of Scottish

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claims, pointing out the extraordinary inequality in the grants under the present system as furnished to Scotland and England. To put the matter practically, he suggested that his lordship should claim an annual grant of £2000 for Scotland, one-tenth of the sum annually administered in London. He was supported by Mr. John Murray and Professor Chrystal, who drew particular attention to the establishment of the Ben Nevis Observatory under the auspices of the Edinburgh Royal Society, and to the unique and valuable work that it has accomplished. Lord Lothian, in reply, admitted the very reasonable nature of the request, and he asked them to prepare a memorandum setting forth their views on the matter, which might be of service to him in approaching the Treasury on their behalf.

UNIVERSITY GRADUATION CEREMONIAL.

The Annual Graduation Ceremonial in the Faculties of Arts, Law, and Divinity took place on April 20th, when, after a number of honorary degrees had been conferred and the new graduates capped by the Vice-Chancellor, Professor Campbell Fraser delivered an address to the graduates on "Recent and Prospective Reform in the Faculty of Arts." His historical sketch of the progress of the University during the last quarter of a century was the tale of one who has studied and largely aided in the unfolding of each stage of the development that he now narrates. In looking to the future, he trusts that the proposed commission will inaugurate an epoch of still further development, and he indicated ways in which this might be aided, in an expansion of the Arts curriculum.

Edinburgh, April 26th.

DUBLIN.

(*From our own Correspondent.*)

DUBLIN HOSPITALS COMMISSION REPORT.

THIS report has at last become public, and is a voluminous one, extending to over fifty pages. It enters fully into the constitution and management of a large number of the Dublin hospitals. The annual Parliamentary grant amounts to £15,850, and of this £7600 is allocated to the Richmond Hospital. This sum was originally granted on the recommendation of a former commission, on account of its great educational advantages, and because a medical school was attached. The latter, however, has been removed, while other hospitals now provide students with means of clinical instruction. The Commissioners consider that there is great urgency for providing additional accommodation for the inmates of the North Dublin Union, and that in the event of their recommendation with reference to the future application of the Parliamentary grant being adopted, the Richmond, which would cease to be a State-supported institution, should be appropriated for the purposes of the Union. They consider Steevens' Hospital to be well managed, and the nursing arrangements to be exceptionally good. As regards the Meath Hospital, the power exercised by the physicians and surgeons to elect to vacancies on the staff was only conferred formerly on the medical staff in consideration of certain rights which were relinquished, and the hospital being a county infirmary, there should be no distinction made between it and other county infirmaries in this important particular of management. They also state that the grant of £600 was fixed by the Select Committee on the condition that it should be devoted to the support of fever beds; and on these grounds they recommend that the grant should be withdrawn. The report speaks of the world-wide reputation of the Rotundo Lying-in Hospital; but states that the subscriptions, which are chiefly from the Protestant portion of the community, might be capable of considerable expansion if a larger proportion of Roman Catholics were on the Board of Governors. They consider the limiting the master's tenure of office to seven years as radically bad; while they disapprove of the practice of exacting a fee from the assistant master, which obliges him to purchase his post. The charter of the Coombe Lying-in Hospital limits the governors to 21, and it appears that several members of the present board do not subscribe anything to the funds of the institution. Here, also, as in the Rotundo, the assistant masters pay the master for the appointment. There is only one assistant, the fact being, they assume, that there are very few willing to pay the fee which the master requires. The Commissioners do not think the grant will be continued to the Westmoreland Lock Hospital, and observe that there are but two ways in which it can be supported by private charity or local rates. They consider that the grant (£2500) to Cork-street Fever Hospital cannot be defended from the point of view from which the institution must be regarded ever since legislation has imposed upon local bodies the responsibility of providing against the spread of infectious disease. The Commissioners also consider that the grant to the Hospital for Incurables cannot be justified, as institutions of the kind have no claim for support at the hands of the general taxpayer. The purchase system for posts on the medical staff which exists in Jervis-street Hospital is condemned, and the nursing arrangements are not satisfactory. In Sir Patrick Dun's the arrangements for the isolation of fever cases are very imperfect, but the general state of the hospital is one of high efficiency. The purchase system which exists at the City of Dublin Hospital is referred to, while the nursing arrangements are stated to be admirable. In reference to Mercer's Hospital, the Commissioners state that the existing corporation has practically been confined to the medical staff, who seem to have regarded the lay governors as merely lay figures. As a result the purchase system in its worst possible form exists in this institution. The Commissioners do not consider in detail the voluminous evidence to which they were obliged to listen, because the replies which had been furnished to their queries had never been considered by the board, and were often upheld by one witness and contradicted by another; while, in the next place, the evidence as a whole presents such a melancholy picture of the relations subsisting between certain members of the medical staff, as well as of the internal organisation of the institution, that no good will result from making them more public than they have been made by the evidence itself. I hope on another occasion to refer to the conclusions of the Commissioners, and the various suggestions put forward by them in distributing the Parliamentary grant on more equitable principles than those at present adopted.

ROYAL COLLEGE OF SURGEONS.

As pointed out on a previous occasion, those candidates going in for the First Professional Examination next July have been very anxious to find out whether they will be classed for examination under the scheme which has up to this been in operation, or by the proposed conjoint scheme between the two Colleges. It is not altogether the subjects but the curriculum that has puzzled candidates, for under the conjoint scheme candidates require courses in practical chemistry, practical pharmacy, and materia medica, none of which are necessary under the ordinary scheme of the College. The Council have seen this difficulty, and last week passed a resolution recommending that students should be admitted to the First Professional Examination next July, on the present curriculum of the College. This must of necessity be ratified by the College of Physicians and the Managing Committee of the two Colleges, but it is expected that it will be carried out. I am informed that Mr. Austin Meldon will be a candidate for the vice-presidency of the College in June, 1888. Mr. C. H. Robinson, at present an examiner in materia medica, has intimated his intention of being a candidate for an examinership in anatomy at the annual election of examiners, which usually takes place on the first Monday in May.

BANQUET BY SIR WILLIAM STOKES.

The banquet given in celebration of Her Majesty's Jubilee, by the President of the Royal College of Surgeons in Ireland, on Saturday evening last, was in every way a decided success. About 120 gentlemen sat down to a sumptuous repast in the Albert Hall of the College, which was handsomely decorated with flags and flowers. The various toasts were given by Sir William Stokes with his usual eloquence and good taste, and all present were charmed with the manner in which he discharged the onerous duties appertaining to the position of host. The *ménu* cards contained a portrait of Her Majesty and the arms of the College, and were in every way appropriate to the occasion.

THE ROYAL UNIVERSITY.

A petition from the graduates and undergraduates to the Senate, to allow this year's Pass in honour of Her Majesty's Jubilee, will shortly be presented. It is, I believe, only intended for Arts students, and as the University of Dublin

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has already granted this concession, it is felt that the Senate of the Royal University may very fittingly agree to the prayer of the memorialists. From the fifth report, which has just been presented to Parliament, I learn that during the past year the total number of persons who presented themselves for examination at the Royal University was 2933, or an increase of 43 over the previous year. Lady students obtained various distinctions, 9 taking degrees and 4 honours. The Senate draw attention to the subject of the maintenance of the buildings which have been partly purchased and partly erected by the State, and which they consider ought not to be chargeable from the endowments which are for certain academic purposes. Owing to failure of revenues, the "Dr. Hutchinson Stewart" Scholarships cannot be awarded this year.

ACADEMY OF MEDICINE IN IRELAND.

A meeting of the Fellows was held on Tuesday last, Dr. McDonnell in the chair. It was resolved, by a majority of fifty-four to three, that the title of the Academy should in future be "The Royal Irish Academy of Medicine"; and it was decided to present an address to Her Majesty congratulating her upon the celebration of her Jubilee.

FRACTURE OF THE SPINE.

At a meeting of the Surgical Section of the Academy of Medicine in Ireland last week, Mr. Edward Hamilton exhibited two cervical vertebræ which presented peculiar characters. A young man had fallen over a wall of about twelve feet into the soft mud of the river Liffey, and died twenty-one hours after removal to hospital. On post-mortem examination the fourth and fifth cervical spines were found fractured, and also the bodies of the same vertebræ in a vertical direction. That such extensive injuries should have occurred by a fall from such a trifling height on to soft, muddy ground appears unaccountable. At the same meeting Sir William Stokes showed a girl who had been operated on by lateral thryoidectomy.

Dublin, April 26th.

PARIS.

(From our own Correspondent.)

ANTIPYRIN AS AN ANODYNE.

AT a recent meeting of the Academy of Sciences, Professor Germain Sée made a communication upon "The Treatment of Pain by Antipyrin." This substance, which was discovered by Knorr in 1884, was first employed, as its name implies, for lowering the temperature, and it was expected that it would prove useful in typhoid fever, articular rheumatism, and other acute affections. It has not, however, been as satisfactory in its action as was anticipated, and if the temperature can be by its use lowered at will, it does not seem to exercise much effect upon the process of disease. But according to M. Germain Sée, antipyrin is the remedy, *par excellence*, for pain, and far superior in every way to antifebrine. In fifteen cases of subacute rheumatism, or hydrarthrosis, treated unsuccessfully by salicylate of soda and ignipuncture, the pain and swelling disappeared in a few days, and, the medicine being continued, there was no relapse. The same effect was observed in cases of acute gout, both primary and secondary to chronic gout with chalky deposits. Antipyrin, to the extent of from 60 grs. to 90 grs. a day, removed both pain and swelling in from two to four days without any bad effect either on the heart or kidneys. But it is, above all, in nervous pain that its action is most remarkable. A first group comprises four cases of facial neuralgia, one of which was inveterate, six of migraine, with one failure, and four headaches. In a second series are classed five cases of sciatica, one of simple neuritis, two of diabetic neuritis, and two of neuritis with zona (one failure). Cases of lumbago and muscular rheumatism make up a total of eighteen. The third category relates to five cases of locomotor ataxia, in four of which the pains were removed by antipyrin. In the fifth instance it failed, as did also antifebrine. The last group comprehends those affections of the heart, aorta, and coronary arteries in which angina is a most painful symptom. In six patients with cardio-aortic disease, and in three others with aneurysm, the painful manifestations disappeared entirely, without any evil effect being caused by the medicine on the strength or regularity of the cardiac pulsations. The dose given by M. Sée is from three to six grammes daily. If too much is given at one time, nausea and giddiness may supervene, but when the whole amount is divided into small repeated doses of half a gramme, no disagreeable effects are observed. Antipyrin may be given and continued for a length of time with but little risk. Antifebrine, on the other hand, is dangerous when administered in doses exceeding one gramme. It causes hæmoglobin to pass into the condition known as metahæmoglobin, and the blood losing part of its oxygen becomes of a chocolate colour, cyanosis and collapse being the consequences. From laboratory experiments it is found that reflex excitability to electricity is diminished by antipyrin, and the sensory perceptivity of the cord is lessened.

TREATMENT OF DIABETES.

A few weeks back M. Martineau created a sensation in the medical world by the publication of the results obtained by him with his "specific" for diabetes, and since then we have all been prescribing arsenicated lithia water. Dr. Le Blond now makes known a rival treatment, which, if not precisely new, is novel in its mode of application, and from which he has obtained some remarkable results. The administration of oxygen in the form of peroxide of hydrogen has often been tried, but, although it would seem theoretically to be the ideal treatment for glycosuria, results have not been sufficiently constant to popularise it. M. Le Blond has reopened the question, and advises the administration of an aerated water which has been manufactured in Paris for the last few years, and which only differs from the familiar *siphon* in that it is gaseous from oxygen instead of carbonic acid. Three cases are reported, in which the treatment caused the total disappearance of sugar from the urine; in a fourth the partial failure was due to imperfect oxidation from chronic bronchial catarrh.

M. PASTEUR'S TREATMENT.

M. Pasteur has returned to Paris in good health, and was warmly welcomed by his colleagues at the last meeting of the Academy of Sciences. On this occasion a communication was made concerning two stablemen in the employ of M. Charles de Lesseps, one of whom had been licked by a mad dog, and cured by anti-rabic inoculation. His fellow-servant was bitten, and having neglected this precaution, died of rabies. In my account of the case of Hamyan the dose of pilocarpine given daily is reported to be fifteen grains. This is a misprint for one-fifth of a grain.

MORPHINOMANIA IN MONKEYS.

Experiments have hitherto tended to show that animals did not acquire the so-called morphia habit. Rabbits to which morphia is administered for months in enormous doses, as much as eight grains per day, bear the sudden suppression without any evidence of discomfort. But it would appear from a memoir sent by Dr. Jammes of Cambodge to the Academy of Sciences that this is not the case with monkeys. When these live with opium-smokers, and have become accustomed to a medicated atmosphere, they acquire a taste for the poison. One monkey, for instance, would wait until its master had laid aside his pipe, and would then take it up and smoke what remained. If not allowed to do so for several days, it would fall into a state of depression and stupor, which disappeared as soon as the stimulant was supplied. I dare say some of your readers will remember a monkey at the Zoological Gardens which had been taught by the keeper to smoke tobacco.

TREATMENT OF GRAVE EPISTAXIS.

M. Verneuil, who, although one of our most eminent surgeons, makes frequent incursions into the domain of pure medicine, read a communication at the Academy of Medicine upon the treatment of certain forms of epistaxis by counter-irritation over the region of the liver. M. Verneuil began by stating that he had at first thought that the method was entirely his own, but from bibliographical research it turned out that he had been anticipated to a certain extent by Galen, who says that large cupping glasses applied to the hypochondria arrest nasal hæmorrhage. In the first case related by M. Verneuil, the epistaxis was probably symptomatic of cirrhosis of the liver. Quinine, ergotine, and digitalis had all been tried in vain. The hæmorrhage continued to recur at intervals. The second patient had suffered from nasal hæmorrhage, which seemed to have been caused by the shock of a kick from a horse. In this

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case plugging had failed. The third was the subject of chronic nephritis, with secondary affections of the heart and liver, and the cavity of the nose had been plugged without effect both with ergotine and perchloride of iron. M. Vernenil's treatment, which was immediately and permanently efficacious, consisted of the application over the region of the liver of a large blister.

Paris, April 27th.

ROYAL COLLEGE OF PHYSICIANS.

A COMITIA of the College was held on Thursday last, the 28th inst., the President, Sir W. Jenner, Bart., in the chair. The chief business was the election of new Fellows. The following were chosen:—George Oliver, M.D. Lond., Harrogate; Robert Cory, M.D. Cantab., Lambeth Palace-road, S.E.; Henry Radcliffe Crocker, M.D. Lond., Welbeck-street, W.; Frank Buszard, M.D. Lond., Northampton; Robert Saundby, M.D. Edin., Birmingham; Charles James Cullingworth, M.D. Durh., Manchester; Wm. Julius Mickle, M.D. Toronto, Bow, E; George Allan Heron, M.D. Glasgow, Harley-street, W.; James Anderson, M.D Aberdeen, Wimpole-street, W.

There were also admitted as Members—D. Burgess, M.B., Jas. Calvert, M.D., Thos. Johnstone, M.D., and T. F. Pearse, M.D.

Licences were granted to the ninety-two candidates who had passed the recent examination.

Communications were read from students of the Westminster Hospital, of Charing-cross Hospital, and the London Hospital, containing resolutions in support of the granting of degrees by the Royal Colleges. These were referred to the Committee of Delegates.

The text of the address to Her Majesty on the occasion of her Jubilee was read and approved.

The Quarterly Finance Committee submitted their report, which contained a recommendation that the stipend of the Registrar be raised to the sum of 500 guineas. The proposal, moved by Sir E. Sieveking, seconded by Dr. Hare, and supported by Dr. Quain and the President, was received with much applause; and the President expressed the sense of the College in stating that neither money nor thanks could repay the debt which the College owes to Sir Henry Pitman. Sir Henry acknowledged the vote in feeling terms, and took occasion to present the College with a volume which he had compiled, to replace the only volume of the College annals (viz., 1771 to 1781) that is missing from the long series.

Obituary.

ALFRED MEADOWS, M.D., F.R.C.P.

WE briefly adverted last week to the death of this well-known obstetrician, which took place at the early age of fifty-five, after a short illness. A familiar figure will be missing from our midst. A name which designated a physician especially esteemed by the public drops from the roll of contemporary practitioners.

Dr. Meadows was born at Ipswich, and received his medical education in King's College, London, where his energy and zeal in the study of his profession were early recognised. He speedily took an advanced place amongst the students of his year, and filled the office of resident obstetrician at the hospital with distinction. He early showed considerable literary ability, and as a student edited the Transactions of the King's College Medical Society. He took the M.B. Lond. in 1857, the M.D. in 1858, and became F.R.C.P. in 1873. The appointments which he held at various periods of his career were numerous, including that of physician-accoucheur to the St. George's and St. James's Dispensary, assistant-physician for diseases of women and children at King's College, physician to the Hospital for Women, Soho-square, and physician-accoucheur to the General Lying-in Hospital. At the time of his decease he held the appointment of physician-accoucheur to St. Mary's Hospital, an office to which he had been elected without competition on the resignation of the late Dr. Tyler Smith. His death has occasioned a profound feeling of regret amongst his colleagues at the hospital, who fully appreciated his ability, and have received a great shock from his sudden and untimely end. Besides being an honorary member of numerous foreign societies, Dr. Meadows obtained a Commandership in the Order of Wasa of Sweden, and in his own country was made a justice of the peace for the county in which he possessed a country house—Poyle Manor, Colnbrook, Bucks.

Dr. Meadows was distinctly a man of exceptional ability. Not only did he achieve a great success in the department of practice which he had chosen whilst yet a student, but in various directions he evinced power of no ordinary kind. Early in his career he published a "Manual of Midwifery," which has been widely read. This was followed by the "Prescriber's Pharmacopœia," a pocket companion of a handy kind. About the year 1860 or 1861 he commenced to edit a monthly journal of medicine called the *London Medical Review*, which enjoyed a considerable success for a few years. It was characterised by a great spirit of fairness, and the articles, which were contributed by many old friends and fellow-students of the editor, were in advance of the more usual examples of critical composition.

Besides enjoying a lucrative practice, Dr. Meadows was also, at least in the more recent part of his career, possessed of good private means. This circumstance, far from interfering with his energy, appeared to intensify his zeal for the profession to which he was passionately attached. With a strong religious bias, he lost no opportunity of endeavouring to forward the interests of the Guild of St. Luke, in the formation of which he took the most prominent part. Dr. Meadows was also well known as an energetic Freemason. He was a past officer of the Grand Lodge of England, and was connected with several private lodges. He took one of the most active parts in founding the University of London Lodge, and it was largely due to his influence that so many members of our profession joined it. After serving in the Wardens' chairs he became the Master of the Lodge, which post he held at the time of his death. At his country house he showed great artistic taste in the decorations and furniture, whilst the completeness which distinguished all his arrangements for comfort and elegance proved the untiring energy which he was accustomed to throw into every subject which engaged his attention.

Dr. Meadows had a good address. He was of kindly nature, hospitable, strongly Conservative in politics, and much attached to his patients. He was a good operator and an ingenious mechanician. Unlike so many members of his profession he was an excellent man of business, and as chairman of a meeting he was unsurpassed by any of his contemporaries in our ranks.

Dr. Meadows leaves a widow and a daughter. He was buried on Saturday last at Colnbrook, his funeral being attended by a very large concourse of friends.

CHARLES JAMES BRACEY, M.B.

WE record with regret the decease of Mr. C. J. Bracey, of Birmingham, which occurred on April 21st at the residence of a relative near London, in the forty-ninth year of his age. Mr. Bracey was the son of an esteemed Birmingham surgeon. He pursued his studies at the Queen's College and General Hospital, Birmingham, and subsequently at King's College, London, and in Paris. He took the M.B. of the London University in 1861, and carried off the University Exhibition and Gold Medal in Surgery, taking in addition high honours in Medicine and Midwifery. Returning to Birmingham, he was medical tutor at the school for two years, and afterwards house-surgeon at the General Hospital. He subsequently became Professor of Anatomy in Queen's College, surgeon to the Children's Hospital, and surgeon to the Hospital for Women. At this time no surgeon in Birmingham stood so well for attaining the first position as a consultant, for which by education, by experience, and by address Mr. Bracey was so eminently fitted. But the state of his health, never very robust, warned him about ten years ago that he must give up public work and the anxieties and responsibilities of operative and consulting practice. Mr. Bracey then devoted himself to his practice, which was of the highest class, and even then he had to recuperate by rest and frequent sea voyages.

The deceased gentleman had for the last eighteen months suffered from retention of urine, due to prostatic disease, and a few weeks ago he decided to go up to London to place himself under the care of his friend Mr. Page of

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Mary's Hospital, who successfully removed a large mber of prostatic calculi. The operation was most isfactory, and for three weeks he seemed to go on ourably, and, the wound having healed, he was removed m town and went to stay at the residence of a relative paratory to taking a voyage to the Canary Islands. He, wever, suffered from increasing vomiting, which had been re or less troublesome since the operation, and sank from haustion nearly a month after its performance.

The charm of Mr. Bracey's disposition and manner, the lture of his mind, and the tenderness of his heart will long held in loving memory by the circle of friends o knew him intimately—a circle limited by the require- nts of his health only, for no professional man in rmingham would have been more welcomed by every se. By his professional brethren and by his patients he s held in the deepest respect and closest affection, and s early death has caused a blank in the profession in rmingham.

THE CHEVALIER FELICE GALLONE.

THE Royal Household of Italy has just lost an old and usted medical adviser in Dr. Gallone, who died in Rome April 21st, in his seventy-third year. He qualified in the Summi in Medicinâ Honores" in the University of Turin, d at once devoted himself to the practice of his profes- on. In 1854, when the cholera epidemic was numbering any victims in the sub-Alpine capital, he exerted himself ith so much courage, skill, and success, that the then King ictor Emanuel decorated him with the Cross of SS. Maurice d Lazarus, while he also received the gold medal for good service in the cause of public health." Following e Royal household to Rome in 1870, he there continued e practice of his profession, winning the esteem of all his lleagues and earning the gratitude of the august *clientèle* which his official connexion with the Court introduced him.

Medical News.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF DINBURGH AND FACULTY OF PHYSICIANS AND SURGEONS F GLASGOW.—At the April sittings of the examiners, held Glasgow, the following candidates passed the final examination for the triple qualification:—

Adie, Alfred A., Glasgow.
Brodie, James, Edinburgh.
Bowker, C. S., Appleby Magna.
Clark, George A., Southsea.
Cooper, W. F., Birmingham.
Davis, George W., Liverpool.
Huntley, Edith Ara, St. Albans.
Kapadia, S. A., London.
M'Lean, Alfred Jos., St. Helens.
Marquis, A. F. C., Glasgow.
Rutherford, V. H., Newcastle-on-Tyne.
Smith, Henry, Glasgow.
Williams, W. A. G., Carmarthen.

SOCIETY OF APOTHECARIES.—The following gentlemen, having satisfied the Court of Examiners as to their knowledge of the Science and Practice of Medicine, Surgery, and Midwifery, received certificates entitling them to practise as Licentiates of the Society on April 21st:—

Hensley, Arthur Egerton, Parkham Rectory, Bideford.
Harris-Liston, Llewellyn, Cambridge House, St. John's.

On the same day eleven others were admitted to examination, of whom three passed in Surgery and seven passed as Assistants.

THE Prince of Wales has intimated his intention of visiting Great Yarmouth on the 18th prox., when the foundation stone of a new hospital is to be laid.

THE annual Hospital Sunday demonstration of the Grantham Friendly and Trade Societies has been fixed for the 15th prox.

WESTMINSTER HOSPITAL MEDICAL SCHOOL.—Dr. Charles Mercier has been appointed to give a course of lectures on "Neurology and Alienism" at this medical school in the winter session.

THE foundation stone of the Merthyr Tydvil General Hospital is to be laid on June 21st, and the Marquis of Bute will be invited to perform the ceremony.

AT the last meeting of the Hospitals Committee of the Manchester City Council, it was resolved to accept a tender for the erection of an infectious diseases hospital for the sum of £13,937.

PRESENTATION.—On the 16th inst. Mr. J. F. Little was presented with an illuminated address and an oak casket on the occasion of his leaving Ilkley for the south of England.

THE City Council of Worcester have adopted, by 30 to 8 votes, a scheme of sewage disposal by means of precipitation works at Digles, prepared by Mr. Thomas Hawkesley. The estimated cost is about £40,000.

LEGACIES AND DONATIONS.—A legacy of £50, bequeathed by the late Mr. Joseph Borman, has been received by the treasurer of the Lincoln County Hospital.—The late Mr. Benjamin Lancaster of Bournemouth, who died on the 16th ult., has bequeathed £1000 each to St. George's Hospital and the Brompton Cancer Hospital, and £500 each to the Middlesex Hospital, King's College Hospital, the Consumption Hospital, Brompton, and the Hospital for Incurables, Putney.—Mr. R. A. Newbon of Islington has given £1050 to the Great Northern Central Hospital, with the object of endowing a bed in the new establishment. In order to complete the building a sum of £45,000 is required; only £10,000 has as yet been subscribed.

AT a meeting of the subscribers to the Dartmouth Jubilee Cottage Hospital scheme on the 22nd inst., regret was expressed at the smallness of the support afforded to the project, but it was ultimately agreed to hire a building and commence operations, the expenses of the hospital being limited to £150 annually.

THE ABUSE OF MEDICAL CHARITIES.—The Glasgow Medical Charities Committee, appointed at the public meeting of practitioners in the Faculty Hall on the 30th ult., met on Friday, the 22nd inst., and, having appointed Professor James Morton, M.D., chairman, and Dr. Edward McMillan vice-chairman, and the other office-bearers and members of the executive, proceeded to consider the initial steps of dealing with the whole question of the abuse of medical charities. Professor Gairdner strongly advised a conference with the Charity Organisation Society, as being in possession of the best possible information regarding the abuse of charitable institutions and the most successful means of dealing with it. He was of opinion that while the out-door cases should be seen for the first time, the services of that Society might be obtained for the purposes of investigation. Dr. Erskine spoke of the importance of introducing the lay element into the committee, and it was proposed to invite the managers of the various medical charities to confer with the committee and become members of it. Other important points were afterwards considered. The Secretary (Dr. Robb, Carlton-place), who was desired to obtain information from other towns in England and Scotland where reform of charitable medical institutions has been effected or is under consideration, will, we understand, thankfully acknowledge all such which may be addressed to him.

THE LEVÉE.—The following members of the medical profession were presented to the Prince of Wales at a *levée* held on the 25th inst. at St. James's Palace by His Royal Highness on behalf of Her Majesty:—Surgeon-Major W. R. Brunton, 1st Surrey Rifles; Dr. T. Vincent Dickinson; Dr. James Ellison, surgeon to Her Majesty's Household at Windsor; Surgeon Alfred Thomas Irvine Lilly, Army Medical Staff; Dr. David Nicolson, superintendent of the State Asylum, Broadmoor; Dr. C. V. Stanford; Sir James Sawyer; Surgeon W. Henderson Starr, Army Medical Staff; Surgeon Walter Tytheridge, 12th Middlesex (Civil Service) R.V. Also the following members of the Naval Medical Service:—Surgeon J. E. Coad, M.B.; Surgeon W. J. Colborne; Surgeon G. F. Collins; Surgeon G. T. Collingwood; Surgeon C. Dickinson; Surgeon E. Griffin, M.D.; Surgeon H. St. D. Griffiths; Surgeon R. Hardie, M.B.; Surgeon J. D. Hughes; Surgeon H. Holyoake; Surgeon J. A. Moon; Surgeon J. D. Menzies, M.B.; Surgeon R. Miller, M.B.; Surgeon J. Moore; Surgeon Charles Strickland; and Surgeon J. W. O. Underhill, M.B. The following members of the medical profession also attended:—Drs. James H. Aveling, Argyll-Robinson, T. B. Christie, C.I.E., Grainger Stewart, C. A. L. Robertson, J. Wickham Legg, D. F. Phillips, P. Heron Watson, and Messrs. Berton (Acting Surgeon) and T. J. Haran (Inspector-General, R.N.). [The above list, though carefully compiled, may possibly not be quite complete. Any names which may have been inadvertently omitted will, however, be published in our next, if intimation be given to us to that effect.]

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THE Prince and Princess of Wales will open the new buildings of the London Hospital at 5 o'clock on the 21st prox.

UNIVERSITY COLLEGE HOSPITAL.—A public dinner in aid of the funds of this charity was held on Wednesday last, the Right Hon. G. J. Goschen, M.P., in the chair. After the usual loyal toasts had been honoured, Mr. B. L. Cohen proposed "The Houses of Parliament," and Mr. R. G. Webster, M.P., responded. Mr. Goschen, in proposing the toast of the evening, was very happy in his comparison between the nation and the institution; both alike had debts and liabilities, and an inelastic revenue. Dr. Russell Reynolds proposed "The Hospital and Medical Committees," which was replied to by Captain Douglas Galton and Dr. G. V. Poore. The dinner was successful, £1885 having been announced by Mr. N. H. Nixon, the secretary, as the amount of subscriptions.

UNIVERSITY OF OXFORD.—The following notice to candidates intending to offer themselves for either of the examinations for the degree of Bachelor of Medicine has just been issued by the Regius Professor of Medicine, Sir Henry W. Acland:—(1) The Final Examination to be holden in Trinity Term next will by statute, and under the Medical Act, 1886, be an examination qualifying successful candidates, first, for the degrees of Bachelor in Medicine and of Bachelor in Surgery; and, secondly, for the registering of a complete qualification in Medicine, in Surgery, and in Midwifery. (2) That the Final Examination for the degrees of Bachelor of Medicine and Bachelor of Surgery will begin in the first week of Trinity Term—i.e., on Tuesday, May 31st. (3) That an examination for the degree of Master in Surgery will be holden during the same week. (4) That the First Examination for the degree of M.B. will begin at a later date during the Trinity Term—viz., on Monday, June 27th. Also the Secretary to the Boards of Faculties has given notice that, in accordance with the statute, names of candidates for the Second or Final Examination for the degree of Bachelor of Medicine must be sent in to him not later than May 14th; and for the First Examination for the same degree not later than June 11th. All candidates, in giving in their names, are required by the statute to pay the fees for admission and to produce the required certificates.

MEDICAL NOTES IN PARLIAMENT.

The Pasteur Treatment.

IN the House of Commons on the 25th inst., Mr. W. M'Laren asked the Secretary of State for the Home Department whether it was a fact that a constable of the Nottinghamshire police, and two constables of the metropolitan police, were sent to M. Pasteur for treatment last year; whether any of them were sent at the public expense; whether, considering the number of deaths that had attended M. Pasteur's treatment, he would use his influence to prevent any more public servants being subjected to it, or public money being spent upon it, until the Buisson Vapour Bath system, which could be obtained in England, had been thoroughly investigated; and whether, as a Committee had been appointed to investigate M. Pasteur's system, he would appoint another Committee to investigate the Buisson Vapour Bath system of preventing hydrophobia.—Mr. Ritchie, in reply, said that the Nottingham constable was sent at the cost of the county rates, and the metropolitan police at a cost to the public of £227. The report of the Committee appointed to inquire into the Pasteur system had not yet been received. It was not proposed to ask the Committee to extend the inquiry to the Buisson system, or to appoint another Committee of Inquiry.

Aberdeen Infirmary and Lunatic Asylum Bill.

On the 27th inst. this Bill was considered and ordered for third reading.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ARMSON, FRANK GREASLEY, M.R.C.S., L.S.A., has been appointed Medical Officer and Public Vaccinator to the Yoxall District of the Lichfield Union, vice George Chapman, M.R.C.S., L.S.A., resigned.

BARLING, A. S., L.R.C.P.Lond., M.R.C.S., has been appointed House-Physician to the General Infirmary, Leeds.

CAREY, BASIL DE B., B.A.Cantab., M.R.C.S., L.S.A., has been appointed Clinical Assistant to the Hospital for Consumption and Diseases of the Chest, Brompton.

CARTER, D'ARCY B., M.R.C.S., L.R.C.P., has been appointed Surgeon to the Shipley and Eccleshill District of the Great Northern Railway.

DONALDSON, DAVID GILBERT, M.B., C.M.Ed., has been appointed Parochial Medical Officer and Medical Officer of Health for Dunning, Perthshire.

ELLIS, WILLIAM HENRY, M.R.C.S., L.S.A., has been appointed Surgeon to the Shipley and Eccleshill District of the Great Northern Railway.

FORSYTH, ROBERT, M.D.Glas., has been reappointed Medical Officer of Health for the Birstal Urban District.

FOX, GEORGE MARTIN, L.R.C.P. Lond., M.R.C.S., L.S.A., has been appointed Resident Medical Assistant to the General Hospital, Birmingham.

GRIMSDALE, THOMAS BABINGTON, B.A., M.B.Cantab., M.R.C.S., has been elected Honorary Assistant Medical Officer to the Shaw-street Hospital for Women, Liverpool.

HOLLOWAY, WILLIAM G., B.A., M.B., M.R.C.S., has been appointed House-Surgeon to the Hastings, St. Leonards, and East Sussex Hospital.

JONES, JOHN J., M.B., C.M.Glas., has been appointed Medical Officer for the Laughton District of the Rotherham Union.

LILLEY, JAMES HARRIS, M.A., M.B. Cantab., M.R.C.S., has been appointed Medical Officer for the Burghill District of the Hereford Union.

MACPHERSON, ALEXANDER, M.D.Aber., has been appointed Medical Officer of Health for Haslingden, Lancashire.

MILNER, E. T., M.A., M.B.Oxon., has been appointed Resident Medical Officer at the Convalescent Hospital in connexion with the Manchester Royal Infirmary.

NEVINS, ARTHUR E., M.R.C.S., L.R.C.P.Ed., has been appointed House-Physician to the Middlesex Hospital, vice Hedley Bartlett, L.R.C.P., M.R.C.S.

OLDHAM, MONTAGUE WILLIAMS, M.R.C.S., L.R.C.P. Lond., L.S.A., has been appointed Ophthalmic and Obstetric House-Surgeon to the Queen's Hospital, Birmingham, vice T. Emery, resigned.

SMART, DAVID, M.B., C.M.Ed., B.Sc., has been elected Honorary Assistant Medical Officer to the Shaw-street Hospital for Women, Liverpool.

TOMLINSON, W. H., M.R.C.S., L.S.A., has been appointed House-Surgeon to the Oldham Infirmary.

WILLIAMS, LIONEL, M.R.C.S., L.S.A., has been appointed Assistant House-Surgeon to the York County Asylum.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

CANCER HOSPITAL, Brompton, S.W. — Assistant House-Surgeon. Appointment for six months. Salary at the rate of £35 per annum, with board and residence.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's-inn-road, W.C. — House-Surgeon. Rooms, gas, and firing.—Assistant Surgeon.

CHELTENHAM GENERAL HOSPITAL.—Assistant House-Surgeon. Salary £40 per annum, with board and apartments.

CITY OF LONDON LUNATIC ASYLUM, Stone, near Dartford, Kent.—Medical Superintendent. Salary £500 per annum, with residence, coals, gas, washing, and garden produce.

COUNTY ASYLUM, Stafford.—Resident Medical Officer and Superintendent. Salary £500 per annum, with unfurnished residence within the Asylum, and £200 in lieu of board.

DORSET COUNTY ASYLUM, near Dorchester.—Assistant Medical Officer. Salary £120 per annum, with board &c.

FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY, Bartlett's-buildings, Holborn, E.C.—Honorary Physician.

GLOUCESTER GENERAL INFIRMARY AND GLOUCESTER EYE INSTITUTION.—House-Surgeon. Salary £100 per annum, with board, lodging, and washing.

GREAT NORTHERN CENTRAL HOSPITAL, Caledonian-road, N. — House-Physician.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT, Margaret-street, Cavendish-square, W. — Honorary Visiting Physician.

LONDON THROAT HOSPITAL, Great Portland-street, W.—Dentist.

MADAGASCAR MEDICAL MISSION. — Superintendent of Hospital, &c. Salary £150 to £200 a year, house, outfit, &c.

MASON SCIENCE COLLEGE, Birmingham.—Professor of Physiology.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen-square, Bloomsbury. — Senior House-Physician. Salary £100 per annum. Junior House-Physician. Salary £50 per annum. In each case board and apartments are supplied in the hospital.

ROYAL ALBERT HOSPITAL, Devonport. — Assistant House-Surgeon. Board and lodging in the hospital, but no salary.

SUSSEX COUNTY HOSPITAL, Brighton.—Assistant Surgeon. Assistant House-Surgeon. Board, lodging, and washing, but no salary.

YORK FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Assistant Medical Officer. Salary £150 per annum; part accouchement fees; £20 for cab hire.

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Births, Marriages, and Deaths.

BIRTHS.

ACKLAND.—On the 20th inst., at Bideford, Devon, the wife of Charles Kingsley Ackland, L.R.C.P.Lond., of a daughter.

BERRY.—On the 21st inst., at Horncastle, the wife of J. B. Berry, M.R.C.S., of a daughter.

CARTER.—On the 21st inst., at Stamford, the wife of T. E. Carter, M.B.Lond., of a daughter.

DUKE.—On the 15th inst., the wife of Maurice Smelt Duke, M.R.C.S., of Kennington-park-road, London, of a son.

FAIRBANK.—On the 26th inst., at Moulsey House, Windsor, the wife of William Fairbank, M.R.C.S.Eng., of a daughter.

FLECK.—On the 26th inst., at Frogmoor Lodge, High Wycombe, the wife of William Fleck, M.D., of a son.

GODDARD.—On the 25th inst., at Wembley, near Harrow, the wife of Charles Ernest Goddard, M.R.C.S., L.R.C.P., of a son.

JONES.—On the 19th inst., at Marylands-road, W., the wife of J. Thoresby Jones, L.R.C.P., M.R.C.S., of a son.

MCCLEMENT.—On the 19th inst., at Holles-street, Merrion-square, Dublin, the wife of F. McClement, M.D., Staff Surgeon, H.M.S. *Active*, of a son.

MCMULLEN.—On the 14th inst., at Brixton-road, the wife of W. McMullen, L.K.Q.C.P.I., L.R.C.S.I., of a daughter.

SCOTT.—On the 14th inst., the wife of Alfred Scott, M.R.C.S., German-place, Brighton, of a daughter.

SCOTT.—On the 21st inst., at Bladud-buildings, Bath, the wife of Richard J. H. Scott, M.R.C.S., of a son.

SMITH.—On the 23rd inst., at St. Austell, the wife of J. Snowden Smith, M.R.C.S., L.R.C.P., of a son.

SYDNEY.—On the 25th inst., at Pownall-gardens, Hounslow, the wife of Henry Sydney, M.D., of a son.

MARRIAGES.

ARNOLD—MUNN.—On Feb. 16th, at the Cathedral, Shanghai, Charles Arthur Arnold, M.B., C.S.Aber., of Nagasaki, Japan, to Mary Isabella, only daughter of the late Captain H. O. Munn, 7th Royal Fusiliers.

BRODIE—PETTIGREW.—On the 19th inst., at 17, Queen's-crescent, by the Rev. John Isda'e, assisted by the Rev. James Douglas, M.A., John Ewan Brodie, M.D., to Mary Stuart, daughter of Matthew Pettigrew.

CHURCHOUSE—KING.—At East Haddon, Wm. Jno. Franklin Churchouse, L.R.C.P.Ed., to Kate Emma, second daughter of George King, Esq., of East Haddon, Northamptonshire.

COURTENAY—AP-JOHN.—On the 20th inst., at St. Philip's Church, Kensington, W., Edward Maziere Courtenay, M.B., Limerick Asylum, to Alice, widow of the late George Atkins, Barrister-at-law, and youngest daughter of the late Rev. M. Lloyd Ap-John, of Linfield, and Rector of Ballybrood, co. Limerick, Ireland.

DAVIES—MCLAREN.—On Feb. 22nd, at All Saints' Church, Dunedin, N.Z., John Morgan Lloyd Davies, M.R.C.S., to Jessie Maud, third daughter of Robert McLaren, Esq., of Dunedin.

FOTHERGILL—WEATHERELL.—On the 21st inst., at the Parish Church of Elton, Notts, Thomas Prince Fothergill, M.D., to Eleanor Jane (Nora), eldest daughter of the late Robert Weatherell, Rector of Elton.

MACPHERSON—TAYLOR.—On the 20th inst., at St. Chrysostom's Church, Everton, Francis Alexander Macpherson, L.R.C.P. and L.R.C.S.E., to Florence, elder daughter of the Rev. W. F. Taylor, D.D., Vicar, Hon. Canon of Liverpool, and Rural Dean of Walton.

PATON—AUSTIN.—On the 27th inst., at 7, Moray-place, Edinburgh, by the Rev. John Stuart, D.D., Frederick Erskine Paton, M.B., C.M., of Abergavenny, Monmouthshire, to Maggie, eldest daughter of the late Rev. John Mein Austin.

POWELL—SANDERS.—On the 20th inst., at Christ Church, Lee, by the Rev. Arthur Stevens, brother-in-law of the bride, assisted by the Rev. L. A. Smith, Vicar, Lewis B. Powell, M.R.C.S.Eng., to Edith, youngest daughter of the late Thomas Sanders, of Wheatley, Oxon.

WOODS—HEATLEY.—On the 20th inst., at St. Andrew's, S.W., Frank Woods, L.R.C.P. Lond., M.R.C.S., L.S.A., to Eva Carlota, youngest daughter of the late John D. Heatley, of Higham Hill, Walthamstow.

DEATHS.

CHATTO.—On the 19th inst., at Chapel-road, Notting-hill, John Chatto, M.R.C.S., Librarian to the Royal College of Surgeons of England, aged 77.

CROFTS.—On the 25th inst., at Church Gresley, near Burton-on-Trent, William Carrick Crofts, M.R.C.S.E., &c., aged 52. No cards.

GUTHRIE.—On the 18th inst., at Brechin, N.B., John Guthrie, M.D., in his 57th year.

HALKET.—On the 17th inst., at sea, on his homeward voyage from Australia, Laurence John Halket, L.R.C.P.Lond., third son of the late David Halket, of Newcastle-on-Tyne, formerly of Perth and London. Australian papers please copy.

HINGESTON.—On the 25th inst., at Lyme Regis, William Hingeston, M.R.C.S.

ILIFF.—On the 25th inst., at Kennington-park-road, S.E., William Tiffin Iliff, M.D. Lond., Medical Officer of Health for St. Mary, Newington, aged 63.

PATER.—On the 24th inst., at Oxford-terrace, Hyde-park, William Thompson Pater, M.R.C.S., late Medical Superintendent of the County Asylum, Stafford, aged 52.

TREVOR.—On the 25th inst., at Beaumaris, N. Wales, Arthur Tudor Humphreys Trevor, M.R.C.S., L.R.C.P.Lond., formerly of Iquique, West Coast of S. America, aged 42.

VARENNE.—On the 22nd inst., at Kelvedon, Essex, Ezekiel George Varenne, M.R.C.S., aged 75.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

Monday, May 2.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.

ROYAL INSTITUTION.—1.30 P.M. Annual Meeting.

SOCIETY OF ARTS.—8 P.M. Mr. J. M. Thomson: The Chemistry of Substances taking part in Putrefaction and Antisepsis.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—8 P.M. Mr. F. Henri Weiss: On the Destruction of a Permanent Tooth Pulp by an Alveolar Abscess attached to a Deciduous Molar.—Dr. St. George Elliott will show a New Hot-air Motor.—Mr. E. Lloyd Williams will exhibit a Hot-air Syringe.—A paper by Mr. Humphreys.—Mr. W. Hern: Cocaine as a Local Anæsthetic in Dental Surgery.—Dr. Geo. Cunningham: The Physiological Action of Cocaine.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Sir William Mac Cormac will deliver the Annual Oration, after which the President will hold a Reception, and a Conversazione will follow. The String Band of the Royal Artillery will be in attendance.

Tuesday, May 3.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 1.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.

ROYAL INSTITUTION.—3 P.M. Prof. W. E. Ayrton: Electricity.

PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Report of Morbid Growths Committee on Dr. Edmunds' Specimen of Horny Papilloma of Hand.—Mr. Hutchinson: Destructive Arthritis of Knee without Suppuration.—Mr. T. Smith: Senile Arthritis.—Mr. Hutchinson, jun.: Sarcoma (?) of Knee.—Dr. Pitt: Carcinoma of Spine and Liver.—Dr. Coupland and Dr. Pasteur: Diffuse Sarcoma of Spinal Pia Mater (two cases).—Dr. Maguire: Interstitial Aneurysm of Inter-auricular Septum.—Mr. R. W. Parker: Cases of Sarcoma in Children.—Mr. Lawson Tait: Tubal Pregnancy.—Dr. Payne: Multiple Neuro-fibromata in connexion with Molluscum Fibrosum.—Mr. Leopold Hudson: Tumour of Prostate. Card Specimens:—Mr. Fenwick: Urinary Tuberculosis with Multiple Calculi.—Dr. Barlow: Renal Sarcoma in a Child.—Mr. Page (for Mr. Raven): Sarcoma of Dorsal Vertebræ.—Mr. Shattock: Tubercular Arthritis (six cases).

Wednesday, May 4.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M. Saturday, 1 P.M.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M. Saturday, same hour.

OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Mr. Doran, Dr. John Phillips, Mr. Barton, Mr. Lawson Tait, and others.—Dr. Matthews Duncan: Hæmorrhagic Parametritis.—Dr. Lewers: On the Frequency of Pathological Conditions of the Fallopian Tubes as determined by Post-mortem Observations at the London Hospital.

Thursday, May 5.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. Dewar: The Chemistry of the Organic World.

HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Mr. Hugh Owen Thomas: The Physical Signs of Disease and Recovery of the Hip-joint, with a Demonstration of the Mechanical Fixation of the Joint.—Dr. Stephen Mackenzie: Some cases of Hysteria.—Mr. A. Q. Silcock: A fatal case of Hysteria.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8.30 P.M. Living and Card Specimens at 8 P.M. Messrs. Critchett and Juler: (1) Guttate appearance of Fundus; (2) Peculiar Pigmentary Degeneration of Choroid.—Mr. Ernest Clarke: Improved Artificial Eyes. Papers:—Mr. W. Lang: (1) A fatal case of Meningitis after Excision of a Suppurating Globe; (2) On the Insertion of Glass Globes into Tenon's Capsule after Excision of the Eyeball.—Mr. Nettleship: (1) Three cases of Night-blindness, with peculiar Retinal Changes; (2) Two cases of Quinine Amblyopia.—Dr. Brailey: Recurrent Choroido-retinitis in region of Macula, probably an early stage of "central guttate choroiditis."—Mr. Mackinlay: Complete Self-enucleation of Eyeball.

Friday, May 6.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—9 P.M. Dr. Brunton: The Element of Truth in Popular Beliefs.

Saturday, May 7.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Mr. R. Von Lendenfeld: Recent Researches on Sponges.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments)

THE LANCET Office, April 28th, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Apl. 22	29·61	S.W.	53	49	96	62	46	...	Cloudy
,, 23	29·36	S.W.	51	48	88	61	47	·02	Cloudy
,, 24	29·36	S.W.	48	45	87	56	42	·17	Raining
,, 25	29·74	S.W.	49	44	80	52	42	·24	Cloudy
,, 26	29·96	W.	47	42	98	55	37	·15	Cloudy
,, 27	29·91	W.	44	40	93	53	38	·14	Cloudy
,, 28	30·01	W.	46	42	100	55	37	·27	Hazy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

ELECTION EXPENSES FUND OF B. W. RICHARDSON, M.D., F.R.S.

Treasurer's Account to April 22nd, 1887.

Dr.

252 Receipts as per Counterfoil Receipt-book		£155 2 1

Cr.

Printing	£68 12 6	
Postage	52 15 1	
Advertisements	32 19 6	
Gratuity to Porter	0 15 0	
		£155 2 1

Audited and found correct.

(Signed) F. H. ALDERSON, M.D., Hon. Treasurer.
ROBT. J. BANNING, M.D., } Hon. Secretaries.
CHAS. WELLS, M.D., }

Quebec Institute, Baker-street, W.

P.S.—The expenditure would have been somewhat larger had not Dr. Richardson defrayed some preliminary expenses and Dr. Danford Thomas kindly given £10 worth of stamps in addition to their subscriptions.

Mr. James Oliver.—The paper, if forwarded, shall have consideration.

M.B.—No.

OBSCURE NERVOUS AFFECTION.

To the Editors of THE LANCET.

SIRS,—Could any of your readers assist me in a case that has resisted all the ordinary forms of treatment for many months, and which is getting worse, in spite of iodide of potass., bicarb. potass., brom. potass., colchicum, Donovan's sol. of arsenic, &c. The patient, a lady over sixty years of age, is of a gouty family, but of active and very temperate habits. Her general health is good. About four years ago she was seized with numbness of the toes, which afterwards extended over the whole sole of one foot. Then the other foot became affected in the same way, and latterly the uppers of both feet as well as the soles. She feels as if walking on soft cushions, not pins and needles. Her walk on rising up is at first rather unsteady, and she kicks one foot against the other. But the knee-jerk is perfect in both, and she can walk or stand quite well with eyes closed. Moderate warmth makes them easier; but cold, or much heat, makes them feel more painful. Any hints as to treatment will be thankfully received by

Yours truly,
April 20th, 1886. PUZZLED.

REGISTRATION AND THE NEW MEDICAL ACT.

IN reply to numerous correspondents we may say that the new Act is not retrospective, and will not therefore affect gentlemen in respect of any qualifications already registered.

Massage is referred to an annoucement in our issue of April 16th, p. 44 of advertisement sheet.

Dr. A. A. Smith.—The instrument lies at our office.

HOSPITALS FOR INFECTIOUS DISEASES.

Mr. E. Turner (Stourbridge).—It has been held that one bed per thousand of the population forms ample accommodation for the permanent wants of a district. But in every case sufficient land should be taken to admit of extensions, whether temporary or permanent, owing to emergencies or to increase of population. This estimate is, of course, only a general one, and the proportion of beds to population would have to be varied according as a large or small number of the inhabitants have such dwelling accommodation as admits of reasonable facilities for isolation. The handbook relating to this subject is the Supplement by the medical officer to the Tenth Annual Report of the Local Government Board—"On the Use and Influence of Hospitals for Infectious Diseases." This can be obtained as a Parliamentary paper. The first forty pages of this Report contain a summary of the whole volume. Another useful paper is one "On the Planning and Construction of Hospitals for Infectious Diseases," by the Architect of the Local Government Board, which is contained in the Transactions of the Epidemiological Society, New Series, vol. ii. (Shaw and Sons, Fetter-lane). A copy of the diagram of an isolation pavilion, recently issued, should also be procured by application to the Local Government Board.

Mr. J. Gowans.—Cassell's Domestic Medicine would probably answer the purpose.

"EXTIRPATION OF RUPTURED UTHRUS."

To the Editors of THE LANCET.

SIRS,—Referring to the very interesting case described in your issue of April 23rd, in which Dr. Andrews performed abdominal section to enable him to deal with a rupture of the uterus and the hæmorrhage consequent thereon, allow me to endorse his comment that "such an operation ..... gives a chance to an otherwise hopeless case, and that it should be undertaken without hesitation under such circumstances." Dr. Andrews opened the abdomen, removed "a very large quantity of blood" from the peritoneal cavity, dealt with the rent in the uterus by removing the organ with its appendages, and completed the operation. But the patient barely survived the procedure, and unquestionably, as Dr. Andrews observes, the "hæmorrhage was the fatal factor in the case." My object in venturing to address you is to assert my belief that the fatal factor in such cases as these may be absolutely obviated by injecting about a pint of warm water (with or without the addition of a saline powder) into the veins. If circumstances permit the transfusion of blood, so much the more favourable will be the prognosis; but the intravenous injection of water or of saline fluid at 100° F. may generally be trusted as an efficient means of combating acute anæmia (the hæmorrhage having been arrested), in proof whereof allow me to refer to my paper on "Transfusion for Hæmorrhage in Military Surgery, published in THE LANCET of Jan. 15th, 1887.—I am, Sirs, your faithful servant,

Upper Brook-street, W., April 23rd, 1887. CHAS. E. JENNINGS.

LANGMORE DEFENCE FUND.

A SUM of about £103 is still required to settle the costs incurred by Dr. J. Wreford Langmore in defending this action, most unjustly brought against him. Further subscriptions are consequently needed, and may be paid to Mr. George Eastes, M.B., 69, Connaught-street, Hyde Park-square, London, W.

Third List.

Subscriptions announced	£118	8	6	Dr. G. F. Blandford ...	£1	1	0
Dr. Wilson Fox	3	3	0	Mr. J. F. Churchill ...	1	1	0
Dr. S. O. Habershon ...	2	2	0	Dr. G. C. Dale	1	1	0
Mr. Henry Morris ...	2	2	0	Dr. Owen Pritchard ...	1	1	0
Sir Edwin Saunders ...	2	2	0	Dr. Harrington Tuke ...	1	1	0
Dr. W. H. Allchin ...	1	1	0	Mr. M. J. Verdon ...	1	1	0
Mr. J. Bisshopp	1	1	0	Dr. H. W. Webster ...	0	10	6

A Very Old Subscriber.—The M.B. of Dublin University is not a licence to practise surgery and midwifery. It is a qualification in medicine only. The University supplements it with licences and degrees in surgery and midwifery.

Inquirer had better apply to some large nurseryman.

Dr. McKee is thanked, but we had already made arrangements for a report.

MALIGNANT PUSTULE AND COMA.

To the Editors of THE LANCET.

SIRS,—I have little doubt that the convulsions and coma in the remarkable case of coma due to malignant pustule, reported by Mr. Reilly in your issue of April 23rd, resulted from cerebral meningeal hæmorrhage. There were at least two amongst the fatal cases of malignant pustule at Guy's, in the year 1884, during the latter part of which I was acting as surgical registrar, in which death was preceded by convulsions and coma. The necropsy in these cases revealed extensive hæmorrhage over the cortex of the cerebrum beneath the arachnoid. Of course, in addition to this, there were other lesions discovered characteristic of death from malignant pustule. I do not think we ought to be surprised when we meet with subarachnoid hæmorrhage in these cases, considering how frequently we meet with extravasations of blood under other serous surfaces, as the pleura, &c.; in fact, I should be inclined to look upon meningeal hæmorrhage, like œdema of the glottis, as not a very unfrequent complication which may directly induce a fatal termination in a case of malignant pustule. I am, Sirs, yours faithfully,

St. Thomas's-street, April 25th, 1887. L. A. DUNN, B.S.

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THE LATE DR. CARRINGTON.

WE are asked to state that Mrs. Carrington and family desire to express their gratitude to the very many friends who have sympathised with them in their recent bereavement, and whom they find it impossible to address individually.

Mr. Charles Williams.—We cannot learn that Schwartze's Aural Surgery has been translated into English.

Mr. Strathearn (Govan).—The address of the Secretary is 25, Wynne-road, Brixton.

"FRIENDLY SOCIETIES' MEDICAL ASSOCIATIONS."

To the Editors of THE LANCET.

SIRS,—Your correspondent, "M.O., F.S.M. Assoc.," who appears so contented with his lot, does not consider the bearing of his position with regard to these monopolies in relation to the profession generally. Our experience in Loughborough is that the abuse of the "medical aid" is most flagrant. It includes professional men, tradespeople, the upper classes of artisans, and, in fact, makes a clean sweep of about 6000 people, out of a population of 18,000 of all classes and conditions. For this reason the medical men of the town have refused from the first to co-operate with the medical officer. An institution which has for its aim to obtain medical services at the cheapest rate, and whose payment of their medical man would compare unfavourably with that for service under the Local Government Board, in many instances, cannot command our support, when we consider for whom it partly, if not mainly, exists, not the poor of the labouring classes, but the thrifty and well-to-do artisans, the prosperous tradesmen (small and large), and professional men, not to mention a large number of the publicans. Your correspondent may, from his commercial point of view, consider that his political economy is good, but I beg to suggest that the lowering of our fees to the rate of 2*d.*, 3*d.*, or 4*d.* for a consultation in the case of people such as I have indicated is not good either for the medical profession or the general public. It is defrauding the really necessitous in the interest of the mean, who in their saving do not consider how they save. Than this no subject, to my mind, is more urgent. We wish for equal titles for medical men, and for conjoint examining boards, but the "battle of the shops" is quite secondary to the question of whether general practice is to be swamped in a co-operative medical store. If the Council would take up the questions of medical charity, provident and otherwise, and friendly societies' associations, and make some effort to prevent the great abuse at present existing, it would be doing more useful work than altering regulations as to preliminary education. And I believe that a commission instituted by THE LANCET to investigate these matters would open the eyes of the profession to the snare which is gradually being thrown around it. If these miserable contracts become general, we shall cease to be a liberal profession, the general practitioner will be merged altogether in the "club doctor," and will become more than ever an over-worked and subservient drudge.

I am, Sirs, your obedient servant,

Loughborough, April 16th, 1887. J. B. PIKE.

To the Editors of THE LANCET.

SIRS,—The medical officer whose letter appeared in your issue of the 16th inst. is to be congratulated on his good fortune. The association I was in contained over 4000 members, and the committee were composed of working men who appeared to have no respect whatever for the surgeons. The work was heavy. The hours at the surgery were 9 to 10 A.M., 1 to 2 and 6 to 8 P.M., and all know how patients rush in at the last and keep one at work long after the time for leaving. Visiting was done between times. One of the worst faults of this system is the liberty people with a morbid faith in medicine have to come and demand a bottle of medicine whenever they like. For advice they care nothing, and the surgeon is reduced to little better than a puppet. If "M.O., F.S.M. Assoc." had his members increased to 4000 and the committee of that peculiar democratic character that tries to raise itself by degrading others, and with no increase of salary, he would form a very different opinion of such places. The life of an assistant with a general practitioner is better, as far as social position goes. In an Association one's social position is sacrificed; but if abuses were cleared out, all fees given to the surgeon instead of to the committee, and patients taught to respect a surgeon and his house, life would be vastly preferable there than in a position where you have to please two parties—viz., the principal and the patients—and be at the mercy of the whims of both. I cannot see sufficient reason why all fees subscribed by members for the surgeon should go to the committee, and only a portion be handed over to the surgeon. The surgeon should receive all fees, supply drugs, and the clubs should pay the expenses of management. The present club system is disagreeable and wrongly based, as members, when once a surgeon is chosen, are bound to go to him, however much they may dislike him, or pay another, and the surgeon is obliged to attend to many who he knows would rather not have him. This makes club work almost unbearable at times, and often leads to such bickerings and quarrels that many surgeons look forward to the day when they can get quit of clubs and others refuse to have them. A much better plan would be for each club to have a list of surgeons willing to take club members, each member to choose for himself. A surgeon would receive from the various clubs his list of members. This would give more freedom to both parties and do away with three-quarters of the present causes for bitterness and complaints.—I am, Sirs, yours sincerely,

April, 1887. M.B.

THE FOOD OF PARIS.

THE last municipal report relating to the sale and consumption of food in Paris contains an estimate showing the average consumption per head of the population, and from this it would appear that each inhabitant eats 169 lb. of meat, 9 lb. of "triperie" (which includes calves' head, tongue, kidneys, &c.), 26 lb. of fish, 25 lb. of poultry, 8 lb. of oysters, 17 lb. of butter, 5 lb. of cheese, and 15 dozen eggs. The report does not give the quantity of bread eaten by the population of Paris, but the average price of it during 1886 was as nearly as possible, allowing for the fractional difference of money, 3½*d.* per lb. The total quantity of meat consumed during last year in Paris was about 150,000 tons weight, this representing 302,894 head of cattle, 188,595 calves, 1,979,526 sheep, and 352,001 pigs, while in addition to this nearly 4000 tons of horse, mule, and donkey flesh were sold in the city, at the average wholesale rate of 3*d.* per lb. The quantity of fish sold was considerably in excess of the total for the previous year, the increase being most marked in the oyster trade, the total weight being greater by 1720 tons.

Sigma (Ostend).—The International Congress of Hygiene will be held between Sept. 26th and Oct. 2nd at Vienna. The first day's sitting will be signalised by a paper on the Mode of Propagation of Abdominal Typhus, by Dr. P. Brouardel, Dean of the Medical Faculty of Paris.

Dr. Bell Taylor.—No.

PROPOSED ARCHITECTS AND ENGINEERS' REGISTRATION ACT.

To the Editors of THE LANCET.

SIRS,—Will you allow us to call the attention of your readers to an important movement contemplated by the architectural profession? At the present time it is open to anyone, however ignorant he may be of sanitary science and construction, to practise as an architect, to the great danger of the general health of the public. In order to put an end to this unsatisfactory state of matters, the Architectural Federation Committee (a body elected for the special purpose at a public conference of architects held in April last) are endeavouring to obtain for the profession an Act of Parliament, such as the Medical Act, for the compulsory registration and proper education and examination hereafter of all desiring to enter its ranks. The proposed Bill is now drafted, and a public meeting is to be held on Wednesday, May 4th, at 4 o'clock, at St. James's Hall, Regent-street, London, W., when the principles of the Bill will be discussed. It must be well known to most of your readers that a vast amount of illness which comes under their notice is caused directly or indirectly by badly-drained, ill-ventilated, damp or otherwise faultily-constructed dwellings. It is hoped, therefore, that all who feel the necessity of architects being properly educated, especially in matters of sanitary science, of which so many are so utterly ignorant, will endeavour to attend.

We are, Sirs, your obedient servants,

HUGH ROUMIEN GOUGH, Chairman.
April 25th, 1887. EDGAR FARMAN, Hon. Secretary.

THE RED CORPUSCLES.

J. G. S. (Barrow-in-Furness).—At the last sitting of the Reale Accademia di Lincei of Rome (the Italian equivalent to our Royal Society) the following were among the "Note" presented for insertion in the "Atti":—(1) Cadaveric Alterations of the Red Corpuscles and the Formation of the Coagulum; (2) Formation of Pus from the Red Corpuscles of the Blood; (3) How Leucocytes are derived from the Red Corpuscles of the Blood; (4) Degeneration of the Red Corpuscles of the Blood. The series of "Note" were all from the pen of Prof. A. Mosso of Turin.

Mr. D. Donald.—The attention of the body from whom the gentleman derives his qualification should be drawn to the matter.

"INHALATION OF COAL-GAS AS A SOURCE OF DISEASE."

To the Editors of THE LANCET.

SIRS.—The action of coal-gas on the throat and head has been underestimated. I have had most unpleasant experience. I live in an old house, and although the gas fittings in the bedrooms were massive and good still the gas escaped. I got a clever workman to come down from London, and he told me that every joint wanted oiling; I found he was quite correct, and the rooms are free from smell. He further said that people expected the joints to remain tight for years without any attention. Another great safeguard against escapes is to have the tap on the fixed end of the bracket and not on the branches, for then the pressure of gas does not act on the joints in the bracket.

I am, Sirs, yours faithfully,

April 25th, 1887. THOS. CHRISTY.

OBESITY.

To the Editors of THE LANCET.

SIRS,—Would any of your readers be so kind as to inform a brother practitioner as to what is practically the best treatment to be adopted in a case of excessive obesity? I have unfortunately had no experience in the treatment of such cases.—I am, Sirs, yours faithfully,

April 25th, 1887. A SUBSCRIBER.

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CIPRIANI THE FORK-SWALLOWER.

FIFTEEN years ago, it may be remembered, Egisto Cipriani, a journeyman printer of Florence, as the result of a bet, introduced a fork down the œsophagus into his stomach. Every method short of surgical interference was tried to extract it, but in vain, Cipriani meanwhile being from time to time so ill as to have to take to bed. Prof. Rosati, the eminent surgeon of Florence, has at length persuaded him to submit to the operation of gastrotomy, the result of which will shortly be made known.

Dr. James G. Robertson.—St. Thomas's Home, in connexion with St. Thomas's Hospital, would probably receive the patient.

Homœopathist should send the documents to a journal devoted to the advocacy of the system.

Dr. Aikman (Guernsey).—The article had been arranged for.

Mr. Stewart.—In an early number.

THE OPEN-AIR TREATMENT OF PHTHISIS.

To the Editors of THE LANCET.

SIRS,—Dr. Burney Yeo, in his most interesting and instructive lecture upon Gaseous Rectal Medication in Pulmonary Affections (THE LANCET, April 16th, p. 761), alludes to a case which I noted in the *British Medical Journal*, Dec. 1886, p. 1098, as illustrating the value of open-air treatment of phthisis, many highly interesting papers and cases of which mode of treatment are quoted in Sections 695: 6 of the Medical Digest and Appendix. Dr. Yeo, by his remarks, seems to infer that the vast benefit derived by the open-air treatment of this case was really due to the use of antiseptics. This I am not at all inclined to admit, for in two other members of the same family antiseptic treatment alone was most carefully carried out, with, alas, unsatisfactory results; whereas my patient, living day and night in the open air, rapidly recovered, his health being at the present time most satisfactory.

I am, Sirs, yours obediently,

RICHARD NEALE, M.D. Lond.

Boundary-road, N.W., April 27th, 1887.

Mr. J. Jackson (Sowerby).—Our correspondent appears to have been rather hardly used.

Dr. Lewers.—The paper, if sent, shall receive attention.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Savage, London; Dr. Horrocks, London; Mr. Blackett, London; Dr. Gale, Guildford; Dr. Blanc, Cannes; Dr. Auld, Wick; Dr. Lavers, Wandsworth; Mr. Nathan; Dr. J. Harris, Norwood; Mr. Prenslau, Liverpool; Dr. N. W. Bourns; London; Dr. Urban Pritchard; London; Mr. J. M. Mason, Glasgow; Dr. Rosenau, Wiesbaden; Mr. Reginald Harrison, Liverpool; Mr. C. H. Robinson, Dublin; Messrs. Gough and Farman, London; Dr. Aikman, Guernsey; Mr. D. Lloyd, Newcastle Emlyn; Dr. P. Hood, London; Mr. J. H. Morgan, London; Mr. J. T. Little, London; Mr. W. J. Nicholls, London; Mr. W. H. R. Stewart, London; Mr. C. E. Jennings, London; Dr. Robb, Glasgow; Mr. T. Christy, London; Mr. Villanueva, London; Mr. Cocks; Mr. Malden, Dorchester; Dr. W. P. Mears; Mr. J. H. Hughes, Droitwich; Mr. J. Knight, Manchester; Mr. W. T. Brooks, Oxford; Dr. Nesfield, Manchester; Miss Boor, Nottingham; Mr. Lenney, Hitchin; Mr. Allen, Dulwich; Dr. Maynard, Erith; Mr. Ford, Devonport; Mr. Young, Glasgow; Dr. Fraser, St. John's, Newfoundland; Messrs. Butterfield and Co., Northampton; Mr. Elliott, Carlisle; Messrs. Burroughs and Co., London; Mr. Gillander, Newcastle-on-Tyne; Messrs. Macmillan and Co., London; Mr. Greenwood, Liverpool; Messrs. Bromley and Co., Lincoln; Mr. Evans, Oswestry; Mr. Kemp, Hull; Messrs. Blake and Co., Leeds; Mr. Hamilton, Monaco; Mr. Stewart; Mr. Marriott, London; Mrs. Brown, Bournemouth; Mrs. Gray, Banff; Mr. Walker, Glasgow; Dr. Macnamara, Dublin; Mr. Das, Calcutta; Messrs. Spring and Co., London; Dr. MacAlister, Cambridge; Mr. Horrocks, Pennsylvania; Miss Aldridge, Rochdale; Mr. Medland, London; Mr. Wright, Romford; Mr. Birchall, Liverpool; Mr. Berthier, Paris; Mr. Elliott, London; Mr. Robertson, Edinburgh; Mr. Rubenstein, Liverpool; Mr. Fairbank, Windsor; Mr. Hilliard, Aylesbury; Mr. Harrison, Port Elizabeth; Mr. Droonold, Carmarthen; Mr. F. W. Clark, Thornton Heath; Mr. J. Milner, Hayes; Mr. Banning, London; Mr. Marcus Gunn, London; Dr. Skelton, Downend; Mr. J. Gowans, Broughty Ferry; Mr. M. Copeman, London; Mr. A. Drysdale; Messrs. King and Co., London; Mr. G. C. Stewart, London; Messrs. Griffin and Co., London; Mr. Jackson, Somerby; Mr. Hope, London; Mr. T. Cook, London; Mr. Chrismas, Hemel Hempstead; Messrs. Lee and Martin, Birmingham; Dr. G. Macdonald, London; Mr. T. Walker, Wakefield; Mr. H. B. Wood, Cranbrook; Mr. L. A. Dunn, London; Mr. D. Donald, Streatham; Miss Butterworth, London; Mr. Mayo, Yarmouth; Mr. Wakefield, Earlswood; Mr. Grant, London; Mr. Amos, Newcastle-on-Tyne; Mr. Howes, Stafford; Mr. Wigglesworth, Ashford; H. S.; Amicus; No Humbug; Surgeon; L. M.; Melbourne; One of Them;

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Churton, Leeds; Sir W. Dalby, London; Mr. Juler, London; Messrs. Smith and Co., London; Mr. Leiterschofen, Homburg; Mr. Manby, Sierra Leone; Mr. Green, Hull; Mr. Smith, St. Austell; Messrs. Macfarlan and Co., London; Mr. James, Chorley; Mr. Davison; Messrs. Lang and Barker, Edinburgh; Mr. Douglas, Middlesbro'; Messrs. Slinger and Son, York; Mr. Webb, Kingsbridge; Mr. Smailes; Messrs. Duncan and Co., Edinburgh; Mr. McMahon, Dartford; Messrs. Richardson and Co., Leicester; Mr. Tresise, Burton-on-Trent; Dr. Adam, West Malling; Mr. Botwood, Ipswich; Mr. Taaffe; Messrs. Loeflund and Co., London; Dr. Williams, Mold; Dr. Kerr, London; Messrs. Clark and Co., York; Mr. Gant, London; Dr. Habershon; Messrs. Oliver and Boyd, Edinburgh; Mr. Brockelbank, Islington; Mr. Mayo, Great Yarmouth; Mr. Lloyd, Lampeter; Mr. Bigg, London; Messrs. Kilner Bros., London; Mr. Whateley, Birmingham; Messrs. Powneeby and Co., London; Dr. Watkins, Newton-le-Willows; Messrs. Deighton and Co., Cambridge; Mr. Burgess, Manchester; Messrs. Isaacs and Co., London; Dr. Keay, Polton; Mr. Cosburn, Newbury; Dr. Tetley, Keighley; Dr. Lindsay, Belfast; Mr. Hamilton, London; Mr. Joslen, Workington; Mr. Curran, Bridgwater; Mr. Graham, Godalming; Mr. Draper, Huddersfield; Mr. Williams, Oxford; Mr. Skrimshire, Holt; Dr. Davies, Bridgend; Dr. Leeson, Bridgend; Mr. Fysh, Limehouse; Mr. Burns, Ipswich; Mr. Morton, Glasgow; Mr. Browning, Manchester; Mr. Brown, York; Mr. Griffiths, Ennis; Mr. Brown, Westgate-on-Sea; Dr. Parslow, Forest-hill; Messrs. E. Smith and Co., London; Miss Townsou, Chester; Messrs. Bowes and Co., Herne Bay; Mr. Mundy, Hampstead; Mr. Rideal, London; Messrs. Hertz and Co., London; Mr. Afflick, Manchester; Messrs. Robbins and Co., London; Dr. Fleck, Wycombe; Miss Landal, Bath; Mr. Holden, Folkestone; Mr. Cook, Lowestoft; Mr. Evans, Oswestry; Mr. Wilson, Rastrick; Messrs. Bennett Bros., Salisbury; Messrs. Beal and Sons, Brighton; Mr. Mawson, Bradford; A. B., Brighton; Medicus; Cantab., Burton-on-Trent; Medicus, Matlock; B., Lewes; South Coast; Surgeon, Minchinhampton; J. E. B., Liverpool; E. A., Ben Rhydding; A. B., Bridgend; M.D., Southsea; H., Ilfracombe; Lady Superintendent, Bath; Matron, Bedford; Dr. H. F.; Medicus, Woodpan; S., London; S. R. B., Brighton; K., London; Medicus, Mile-end; A. Z., Surgeon; C. B.; Matron, Rotherham; P., Hull.

Advocate of India, Guy's Hospital Gazette, Philadelphia Public Ledger, Essex Standard, Reading Mercury, Liverpool Evening Express, Carmarthen Weekly Reporter, Day of Doom, &c., have been received.

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Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

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An Oration
ON
ABDOMINAL SECTION FOR THE TREATMENT OF INTRA-PERITONEAL INJURY.

Delivered to the Medical Society of London, May 2nd, 1887,

BY SIR WILLIAM MACCORMAC,
SURGEON TO ST. THOMAS'S HOSPITAL.

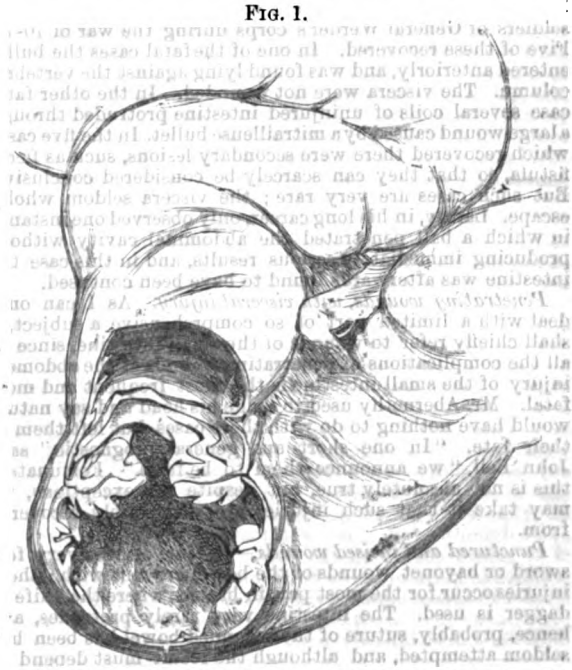
MR. PRESIDENT AND GENTLEMEN,—The subject of abdominal surgery is so wide that it may be said to possess a literature of its own. The condition of the kidneys, intestine, stomach, uterus, and spleen, which indicates surgical intervention has been very fully considered, and lately diseased states of the pancreas and liver. There is one class of cases, however, which has received less consideration than the rest—at any rate, in the light of our newer knowledge and experience, and that is the treatment of penetrating abdominal wounds and visceral injury. My attention has been directed to the subject by the recent occurrence in my own practice of two cases of intra-peritoneal rupture of the bladder produced by external violence. In both of these the abdominal cavity was laid freely open, the rent in the bladder closed by suture, and the peritoneal cavity effectively purified. In each instance the patient completely recovered, and two men, the subjects of a heretofore fatal injury, were restored to perfect health. Another case of the same kind has been since successfully operated upon in a precisely similar manner by Mr. Walsham at St. Bartholomew's Hospital. My colleague, Mr. Croft, has courteously placed at my disposal the record of a case which, if not in itself completely successful, points out how success is to be realised. It is so interesting that I shall give a brief account of it.

G. W——, aged thirty-four, labourer, was admitted into St. Thomas's Hospital on Sunday, March 6th, at 2 o'clock. Seventeen hours previously he had received an injury to the abdomen in a public-house row. He stated that he had been jumped upon. He had no medical advice before reaching the hospital. During the night he was in great pain and was sick two or three times. On admission the patient's temperature was 103°, and he was thought to have peritonitis. Mr. Croft was sent for. He decided at once to explore the abdomen by median laparotomy. The operation was performed eighteen hours and a half after the accident. Three lesions were discovered. The ileum had been ruptured tranversely to the extent of two-thirds of its circumference at the junction of the lower and middle thirds. The lower surface of the mesentery in the same neighbourhood presented a laceration about an inch and a half in diameter, and the omentum, above the level of the umbilicus, had a considerable rent in it. There was fæcal extravasation, and septic peritonitis had spread into the iliac, umbilical, and hypogastric regions. Enteroraphy was debated, but postponed under the circumstances in favour of artificial anus. The peritoneum was very carefully irrigated and rendered aseptic with a warm solution of boracic acid from 15 to 20 per cent. in strength. The edges of the ruptured intestine were closely attached to the parietal wound, and the rest of the incision closed in the usual manner. The operation lasted an hour and a half, and the man was kept during this time under the influence of ether. He became much exhausted. The pulse was very feeble and the hands and feet cold. He recovered satisfactorily. The symptoms of peritonitis disappeared, but a sharp attack of bronchitis ensued. This yielded to treatment, but he did not gain strength or flesh, partly by the irrepressible escape of intestinal contents at the artificial anus and partly by the local irritation established in the abdominal wall by the contact of the intestinal secretion. At the end of four weeks Mr. Croft proceeded to close the artificial anus. The patient was prepared for the operation, which was performed on April 4th by substituting rectal feeding for alimentation by the mouth, and by local irrigation of the intestine and all parts immediately concerned. The bowel was then separated from its parietal attachments, the injured portion resected, and the cut surfaces carefully united by twenty-six sutures of fine silk; twenty of these were in one row, after Lembert's manner of suturing. The operation lasted two hours and a quarter, and the patient was taking ether all that time, with the exception of a quarter of an hour, when his circulation was so feeble that the anæsthetic was discontinued and a brandy enema was administered. The patient died on April 5th, thirteen hours after the operation. The lungs were found very congested and airless. The suturing had been perfect, and the peritoneum was entirely free of any recent exudation or inflammatory products. (Fig. 1.) Had the natural force of the man been a little greater he might have made a good recovery.

Mr. MacKellar, in a case of gunshot injury of the sigmoid flexure, recently opened the abdominal cavity, but found it impracticable to apply Lembert's suture to the intestinal perforations caused by the bullet. The patient was in a state of impending collapse at the time of the operation, and died twelve hours afterwards.

Again, Mr. Croft nearly achieved success in a case of rupture of the spleen. The patient, a young man, had been

FIG. 1.



Appearance of the sutured portion of the bowel after death.

run over by a cab, but no effective assistance was rendered to him, and when brought to the hospital twelve hours afterwards the abdominal cavity was full of blood. Laparotomy was performed and the ruptured spleen removed, the peritoneal cavity being cleared of blood and purified; but the patient never rallied from the state of collapse and died the same evening.

Cases such as these are somewhat closely connected. They suggest many points of interest, and invite consideration to the large question of abdominal injury, more especially in regard to its treatment by operation. I would urge the propriety of a more frequent resort to abdominal section and exploration of the abdominal cavity and contents than has been heretofore adopted in cases of injury in—1. Incised and punctured wounds of the abdomen implicating the intestine or other viscera. 2. Abdominal gunshot wounds, chiefly as they affect the intestine. 3. Traumatic rupture of the intestine and viscera without external wound.

Stab wounds of the abdomen.—These may be either simple penetrating wounds without injury to any of the contained viscera, or accompanied by visceral injury. Simple penetrating wounds of the abdominal cavity are very rarely inflicted either by sharp or blunt weapons or by gunshot. There are upon record many apparent exceptions to this

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statement, but some of them may be explained by the circumstance that the weapon or projectile has evaded the abdominal cavity which it apparently enters, or when traversing the cavity has produced an injury susceptible of repair. A sword thrust may traverse the abdomen, and the bowel, subsequently prolapsed through the wound, be found uninjured. During the American war an Apache Indian prisoner, attempting to escape, was transfixed by a bayonet and pinned with it to the ground. The weapon entered the left hypochondrium, passed directly backwards, and made its exit about two inches from the vertebral column. No bad symptom followed, and the wound had healed on the fourth day. An instance is recorded where an iron-headed arrow entered three inches to the right of the fifth lumbar spine and emerged two inches to the right by the ensiform cartilage. Circumscribed peritonitis ensued, but the patient recovered without other ill consequences. Heusen records the recovery of a soldier shot through the abdomen with a ramrod at Badajos in 1812. During the American war in 1863 a ramrod entered the left groin of Private Manypenny and emerged through the left lumbar region. The surgeon records his diagnosis as "a ramrod driven plump through the guts." There was no serious peritonitis, and the man returned to duty two months later. Beck quotes seven cases of penetration of the abdomen by bullets, without any apparent visceral injury, occurring in soldiers of General Werder's corps during the war of 70-71. Five of these recovered. In one of the fatal cases the bullet entered anteriorly, and was found lying against the vertebral column. The viscera were not wounded. In the other fatal case several coils of uninjured intestine protruded through a large wound caused by a mitrailleuse bullet. In the five cases which recovered there were secondary lesions, such as fæcal fistula, so that they can scarcely be considered conclusive. But such cases are very rare; the viscera seldom wholly escape. Larrey, in his long career, only observed one instance in which a ball penetrated the abdominal cavity without producing immediately serious results, and in this case the intestine was afterwards found to have been contused.

Penetrating wounds, with visceral injury.—As I can only deal with a limited part of so comprehensive a subject, I shall chiefly refer to wounds of the small intestine, since of all the complications of penetrating wounds of the abdomen, injury of the small intestine is the most frequent and most fatal. Mr. Abernethy used to shake his head and say nature would have nothing to do with these cases, but left them to their fate. "In one short and general prognostic," says John Bell, "we announce them to be fatal." Fortunately this is not absolutely true, but despite the exceptions, we may take it that such injuries are very rarely recovered from.

Punctured and incised wounds.—In time of war very few sword or bayonet wounds of the bowel are met with; these injuries occur for the most part in brawls, where the knife or dagger is used. The intestine very rarely protrudes, and hence, probably, suture of the wounded bowel has been but seldom attempted, and although the result must depend to some extent on the empty or collapsed condition of the bowel at the time of injury, unless the puncture be very small, there is no likelihood of recovery without suture. When extravasation occurs, peritonitis almost necessarily follows, although in a few instances a fortunate agglutination of adjacent coils may prevent it and recovery ensue.

Diagnosis.—The diagnosis of wound of the bowel is of primary importance, as upon the speedy determination of this point and prompt consequent action must almost altogether depend the success of our treatment. When the injured intestine is prolapsed through the wound, or the contents of the tube escape externally, the diagnosis is clear; but these occurrences are the exception, and the presence of a wound of the intestine in the early stage must be often mere matter for conjecture. Tympanites and discharge of blood per anum are valuable symptoms when present, but neither may appear directly after the injury. If the blood passed from the bowel be abundant and shows itself soon after the injury, it is a very valuable symptom. Emphysema, when it occurs in the wound neighbourhood, is said to be pathognomic. Shock and pain vary so much in degree as to afford no useful guidance. The amount of shock is very variable, and cannot be relied upon in any degree as diagnostic. It is often described as very trifling; at other times it may be severe. The amount of pain also offers no true criterion. The surgeon who sees the case immediately after the injury must often be in doubt as to whether the intestine be injured or not, and as to the extent of the internal damage. Probing these wounds has been very universally condemned as useless for diagnostic purposes, and harmful to the sufferer, by possibly disturbing the parts and giving rise to fæcal effusion. But this view can scarcely meet with the same consideration now in the light of modern means of treatment. If precautions be taken to exclude septic influences, the thorough examination of the wound by the probe may determine its direction and extent, and if this fail to clearly establish the fact or otherwise of penetration, the wound should be enlarged and explored to its termination, either in the parietes or more deeply. The important point to speedily determine is whether the wound penetrates the abdominal cavity, and this is perhaps the most effective manner of ascertaining it. After a short interval the occurrence of peritonitis will determine our diagnosis; tympanitic distension of the abdomen, agonising pain, ceaseless vomiting, tendency to collapse, thready pulse, and clammy surface make their appearance, and a fatal issue soon follows. When the diagnosis has been established in this way the services of the surgeon are no longer called for. Should the abdominal cavity be penetrated, the question arises as to whether the intestine has been wounded or hæmorrhage has taken place. In that event, the better treatment will be at once to make a median incision in the manner recommended for any other form of abdominal section, and not to trust to enlargement of the existing wound. Of course where the bowel protrudes and no extravasation has taken place in the interior, it will be sufficient to suture the opening in the prolapsed portion, excise after ligature any damaged portion of omentum, and return the parts, if necessary enlarging the external wound for the purpose.

Treatment.—Although the abdominal cavity has been traversed both by a bullet and sword without opening the intestine, which is presumably thrust aside, this condition of things is not to be relied upon to guide our treatment.

Enteroraphy is at the present time admittedly the best method of treatment for all punctured and incised wounds attended by protrusion, unless the parts are so damaged that an artificial anus seems preferable. In cases of stabs and gunshot wound unattended by protruaion, the common practice heretofore has been to arrest the peristaltic movements with opium and enjoin absolute rest, in the hope that adhesions may form to avert extravasation. Experience proves that in the vast majority of instances such hopes are illusory; ninety-nine times in a hundred extravasation occurs, hyper-acute peritonitis follows, and after much suffering death usually takes place within forty-eight hours.

Another practice commonly recommended is the formation of an artificial anus by attaching the margins of the wound in the gut to the skin; but where it is possible to avoid it this course is in the highest degree undesirable, and certainly unnecessary in those cases where the injury does not extend more than half-way around the calibre of the tube, or where the convexity of the bowel is wounded; probably also in all cases where the mesenteric attachment is intact; and the same may be said where the bowel is ruptured by external violence. This practice gives the surgeon a false sense of security; he thinks if his sutures give way the patient may still recover, but the evidence is very strong that the risk of fæcal extravasation is less when the wound in the bowel is completely closed and the gut at once returned to the abdominal cavity. A different practice properly obtains where the bowel is gangrenous in hernial or other forms of strangulation. An artificial anus should then be established in preference to immediate resection of the gangrenous portion of bowel with suture of the divided ends. In such cases the bowel is in an unhealthy condition. We do not exactly know the limits of the gangrenous action or of the zone of inflammatory infiltration beyond it, and therefore cannot precisely determine what amount of damaged bowel it is necessary to remove. In cases of injury, however, we shall have but half accomplished our work if we do not at once attempt to restore the continuity of the intestine. Should the patient recover, a further operation will be required to close the fæcal fistula, and this procedure is often one of great difficulty and serious risk. Besides, should the original damage be in the upper portion of the small intestine, there is a considerable probability of the individual being either starved or so weakened by the escape of nutriment that he becomes unfit to be submitted successfully to any operation whatever.

Intestinal suture.—There are three conditions required to ensure successful suture of the intestine. 1. Two adequately

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broad and sufficiently wide surfaces of peritoneum must be brought into contact. 2. The mucous membrane must be excluded; for when the needle passes through the whole thickness of the gut peritonitis generally ensues from leakage taking place along the line of the thread. 3. Rapidity of execution is of extreme importance, and that form of suture is the best which can be effectively applied in the shortest time.

In 1826 Lembert introduced a method of bringing the two adjacent serous surfaces into contact, avoiding penetration of the mucous coat. It is the preferable one to employ in all wounds of the bowel. Sufficient inversion may be thus easily accomplished without causing obstruction of the lumen of the tube. When the wound is small or incised, the needle may be introduced a line and a half or two lines from the margin and then brought out at the edge of the serous coat, the same being done on the opposite side. This will suffice in clean-cut wounds, but where the edges are bruised it is best to exclude them by entering the needle about three or three and a half lines from the margin, and carrying the suture through the bowel a line distant or more from the edge. The number of stitches must be sufficient to bring the parts everywhere into accurate contact, and care taken not to tie the sutures too tightly, as it may lead to gangrene and consequent failure to procure union. Experimentally this has been found to be the most frequent cause of non-union. The ends of the sutures are cut short and the intestine returned to the abdominal cavity. When drawn together sufficiently to bring the surfaces fairly into contact, the subsequent swelling will hold the parts firmly until the rapidly formed adhesive material securely glues them together. When the omentum is much injured it is probably best to excise the damaged parts after ligature.

The abdominal cavity must be perfectly cleansed of all blood and foreign matter. Irrigation with a 3 per cent. solution of boric acid at a temperature of 100°, made with water previously boiled, is the best and gentlest method. The external wound is closed as after ovariotomy. If the operation be done shortly after the accident drainage may be dispensed with. If some time have elapsed, or if peritoneal inflammation be present, it will be best to drain. The presence of a drainage-tube in the wound certainly enhances the risk run by the patient, and it is best, therefore, to dispense with it in all cases where it appears safe to do so.

Gunshot wounds.—Gunshot wounds of the intestine are injuries of the most fatal description. They are of frequent occurrence in time of war, and far from being rare in civil practice, especially in America, where everyone carries a revolver and often uses it on small provocation. About one-tenth of those slain in battle perish from abdominal injury, but only 3 or 4 per cent. of those who come under treatment are wounded in the abdomen. These wounds are almost invariably concealed, the gut being seldom protruded. Wounds of the duodenum are comparatively rare, and usually associated with other severe injury. The jejunum is more frequently wounded; but the ileum is the most frequent seat of gunshot injury; damage to other parts is generally present, or a multiple wound of the intestine itself. Alexander relates a case occurring in the Crimea where the intestine was wounded in sixteen places by the same bullet. If this were common operative surgery would prove of little avail; but seldom more than two convolutions are perforated, or the intestine wounded in more than four places. In a few instances the bullet may perforate and lodge in the bowel; this is proved by its being voided at stool shortly after, and this happens most frequently in wounds of the large intestine. When discharged per anum at an early period, the bullet has presumably penetrated the gut; when the missile is passed at a late period it probably gained admission to the tube from some adjacent part by secondary ulceration or abscess.

Symptoms and diagnosis.—In gunshot injuries the first question to ascertain is if the bullet have penetrated the abdominal cavity. The external wound should be carefully probed, or it may be enlarged sufficiently to explore its whole length as it passes through the abdominal wall. This adds little to the gravity of the patient's condition, and will positively determine whether the wound is a penetrating one. These injuries are attended with considerable hæmorrhage, great and prolonged shock, lowered temperature, feeble rapid pulse, restlessness, severe pain, great anxiety, and rectal tenesmus, and there is always extravasation of fæces into the peritoneal cavity, although it is very rare for any sign of them to appear externally. The absence of fæcal matter in the parietal wound is no proof that the intestine is not perforated. In none of Professor Parkes' numerous experiments on dogs did any fæcal matter emerge through the external wound, although in many instances large quantities were found in the peritoneal sac, and Gross showed that fæcal extravasation into the peritoneal cavity occurred in every instance. The mucous membrane never blocked the perforation produced by the smallest bullet so as to prevent it—a strong point in favour of active interference. Air in the abdominal cavity, causing tympanites, emphysema around the wound, a larger escape of blood than the injury to the parietes will account for, are among the symptoms which help to indicate intestinal injury. The occurrence of bloody stools is usually a late symptom, and without practical importance in reference to operation. When they appear at an early period they signify intestinal damage. The amount of shock is partly dependent on idiosyncrasy, but prolonged initial shock indicates either general visceral involvement or a great loss of blood; later on the symptoms are those of hyper-acute peritonitis. Shock accompanies all penetrating gunshot wounds to a greater or less extent. When it becomes more and more severe, with increasing exhaustion, jactitation, feeble pulse, and respiration, we may conclude internal hæmorrhage is taking place. This is the most frequent cause of death after gunshot wound of the abdomen, and we usually find the cavity filled with blood quite out of proportion to the size of the vessels injured. Even in the case of small vessels there is but little tendency to spontaneous arrest of hæmorrhage, because of the laxity of the tissues and the absence of atmospheric influence in producing coagulation. As soon as air is freely admitted by abdominal section the bleeding from the lesser arteries is speedily arrested. When a large vessel is injured the bleeding is always excessive, and a fatal result almost directly follows.

Treatment of gunshot perforation of the intestine.—The experiments on dogs prove how futile it is to expect immunity from either intestinal perforation or extravasation of fæces after a bullet has traversed the abdomen; and the same is true of man. The bowel is nearly always perforated, fæces are extravasated, and very frequently there is some other serious injury as well. It will be more reasonable, then, to submit the patient to the less serious risk incurred by abdominal section than to leave him in deadly peril from the consequences of a wounded intestine or a bleeding vessel on the mere assumption that they may possibly have escaped injury. Some degree of doubt must always exist on account of the necessary obscurity of the symptoms, except in the rare event of prolapse of the injured gut, fæcal extravasation appearing externally, or very free hæmorrhage from the wound. But although there may be uncertainty as to the extent of the lesion, it is surely better to solve the doubt by an exploratory abdominal section, which may afford the only possible means of rescue. If we await the outbreak of peritonitis, the patient's chances of recovery after operation will be greatly diminished. Operation is practically useless after twenty-four hours have elapsed, or when general peritonitis and great collapse have set in. A slight amount of peritonitis, however, by no means contra-indicates operation. If we are satisfied that laparotomy is the proper proceeding, and decide to explore the abdomen, the operation should be undertaken as soon as possible after the infliction of the injury, and performed with every antiseptic precaution. When it has been delayed, the condition of shock is so much aggravated by the necessarily prolonged operation that it may be impossible to complete the thorough disinfection of the cavity. The median incision must be sufficiently extensive to allow all parts of the abdomen to be explored; it should be large enough to admit the operator's hand, and none but his should ever be allowed to enter the peritoneal cavity. The mere enlargement of an existing wound is inadequate for the purpose of thorough exploration. The bullet wound in the abdominal wall should be explored when necessary for purposes of diagnosis, otherwise it ought simply to be disinfected and included under the general dressing. Abdominal section enables us to determine the extent of the injury and the treatment which should be adopted. The entire cavity and its contents can be thoroughly examined. An injury is less liable to be overlooked, and the suture of the bowel is more readily accomplished. The operation is incomplete unless the entire intestinal tract be examined as well as the stomach and other viscera, which, of course, entails considerable

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manipulation. The intestines must be withdrawn, carefully examined, and protected as far as possible by warm cloths. The best way is to seek the cæcum first, and then trace the small intestine upwards for its entire length; in this way we shall be least likely to fail to find the injury. All bleeding points must be secured and the clots swept away. When several openings exist close together, it is better to resect the portion of intestine involved. In some instances, when the bowel wall is seriously compromised at one or more distant points, multiple resections have been made. Ingenious clamps, such as those of Rydygier, Treves, and others, have been suggested, but

FIG. 2.

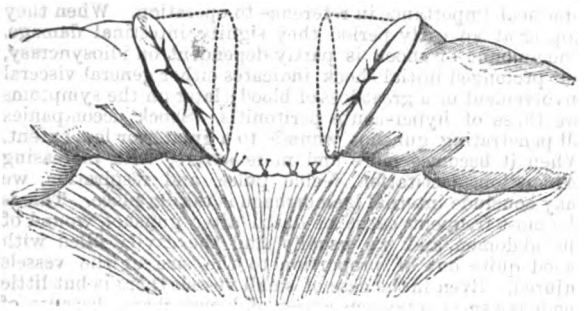
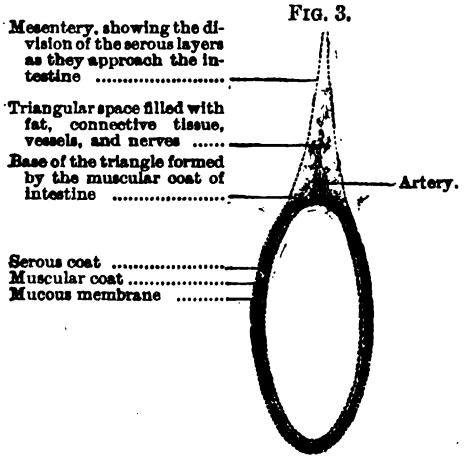


Illustration of the appearance of the resected bowel with its edges much everted previously to the introduction of the sutures. In the margins of the separated portion of mesentery four points of suture have been introduced after the vessels were secured by ligature.

When a complete resection of the bowel is performed, the margins of the opening in the gut should be divided in a slightly radiating or oblique manner, so as to remove rather more on the convex than the concave or mesenteric border. When the Lembert's suture is tied, the channel of the united portion of the bowel will thus be straighter, and there is less liability to interference with the free passage of its contents at the point necessarily narrowed by the suture. The mesentery should be cut through as close as possible to the intestine, and after all bleeding has been arrested, the two cut edges are sutured together.

the fingers are probably the best form of instrument to prevent the escape of the intestinal contents after division of the tube. The mesentery must be detached from the part of the gut to be resected. When a large portion requires removal, a triangular piece of mesentery may have to be excised, taking care to secure separately every bleeding point. The mucous coat becomes much everted (Fig. 2), sometimes seriously interfering with the introduction of the sutures

FIG. 3.



Semi-diagrammatic section of the jejunum (natural size). The muscular layer through which the sutures are passed is comparatively thick,

and the accurate approximation of the surfaces of the bowel. It should not be excised, as it gives support, and supplies blood to the edges of the gut. In all the experiments where it was cut off by scissors the sutures gave way (Parkes). Care must be taken to insert the sutures at the mesenteric border sufficiently deep to ensure complete inversion of the intestine, and to bring the serous surfaces fairly into contact. There is a triangular interval (Figs. 3, 4, 5), filled with connective tissue and bloodvessels, between the layers of the peritoneal coat as it leaves the bowel to form the mesentery. At this place the needle must be passed deeply enough to include the muscular coat as well as the serous, otherwise extravasation will result. Three sutures should be first introduced at the mesenteric border in the manner insisted upon by Parkes. A suture had then better be placed at the convexity of the bowel, then one half-way down on each side, the others following in order in the quadrantal intervals between. Each suture should be introduced not less than a third of an inch from the divided margins, brought out just free of

FIG. 4.

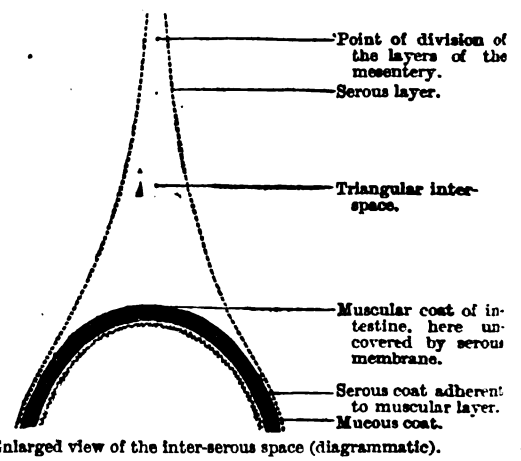


Section of ileum, from the same subject (natural size).

Figs. 3 and 4 illustrate the comparative thickness of the wall of these two portions of the intestine, and show how thin the muscular layer is in the ileum.

the edge on one side, then reintroduced close to the opposite edge, and made to include about the same width of tissue. It should include only the serous and muscular layers. In cases of complete resection of the bowel it is best to include a considerable width of serous membrane. It is more difficult to pass the sutures in succession one after the other all the way round; the mucous membrane is in the way, and the sutures are apt to be uneven. Fine silk is the best material to employ, and a moderately curved needle. Czerny's double row is very tedious to apply, and as it gives no better results than the single row, including a sufficient width of tissue, it had better be abandoned on

FIG. 5.



Enlarged view of the inter-serous space (diagrammatic).

account of the loss of time it entails, or, if used at all, it can only be necessary along the mesenteric border. The condition of the solid viscera must then be examined and any injury found in them dealt with according to circumstances. This will, however, prove a very fatal complication.

Abdominal injury without external wound.—Violent contusion of the abdomen may result in rupture of any of its contained viscera, a condition for which laparotomy has been very rarely performed.

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Rupture of the intestine.—In these cases an exact diagnosis must always be very difficult, oftentimes quite impossible to arrive at, as the symptoms are obscure and common to several degrees and kind of injury. Serious hesitation must always occur when we are called upon to decide in the presence of each particular case what is the best line of treatment to adopt. One has seen many cases of severe abdominal injury recover, while many very speedily die. The most serious injury is sometimes unaccompanied by any definite diagnostic symptoms.

Symptoms and indications for operation.—The chief indications for operative interference are afforded by the mode of action and severity of the violence, the presence of prolonged and profound shock. The duration of the shock is of greater importance than its intensity. A small and quick pulse and hurried respiration, while the temperature remains either normal or subnormal, associated with acutely severe, persistent, and localised pain, increased on pressure, indicate the serious nature of the injury. Bloody vomit or stool, rapid tympany, the evidence of percussion, are inconstant signs, and help us but little. The jejunum and ileum are the portions of intestine most frequently ruptured, and the rent will generally be found just behind the part of the abdomen which has been struck—a fact which can easily be verified by experiment. In about 15 per cent. of the cases more than one loop of intestine is damaged, and in that case the injury generally occurs in super-imposed coils. It is difficult at first to distinguish the syncope induced by hæmorrhage from the shock caused by a ruptured intestine. In the early period we shall have to arrive at a diagnosis from the nature and violence of the injury and the general condition of the patient. When peritonitis is declared, an exploratory operation is urgently indicated, as collapse comes on very quickly, sometimes very suddenly, and a few hours' delay may negative all prospect of recovery.

Treatment.—Absolute rest has hitherto been the chief indication for treatment. But cases do arise in which abdominal section should be practised, and an attempt made to discover and deal with the visceral wound, arrest the bleeding, and clear away the clots and extravasated blood. We should interfere when we possess a reasonable belief that the intestine is ruptured. We may in some cases properly propose laparotomy as a means of diagnosis, and, indeed, when intestinal rupture is suspected, the operation should be performed at once to afford a good prospect of success. Exploratory laparotomy has no very serious inconvenience, and should be adopted in those cases where there are reasonable grounds for believing the intestine has been damaged, as in no other way can effective assistance be rendered to the patient. At a later period we have not only the ruptured intestine to deal with, but a septic peritonitis, which produces the most profound depression, and often necessitates an undue curtailment of some essential step in the operation, or occasions the death of the patient before its completion. Extreme collapse, a long interval from the time of the injury, or severe coexisting damage to the spleen, liver, or pancreas, of course contra-indicate operation. The incision should be made in the middle line in all cases, and at the level which will afford readiest access to the seat of the injury. It is desirable to make it long enough to permit the surgeon to reach without difficulty every part of the interior. According to circumstances, we may then decide to suture the intestinal wound, resect the injured portion of the bowel, or make an artificial anus. The same objections hold in regard to the latter that obtain in respect of artificial anus after gunshot injury. Where it is at all practicable, I believe it best to finally close the opening in the intestine and also the external wound.

THE SEWAGE OF MANCHESTER.—The Rivers Committee of the Manchester Town Council have prepared a report containing particulars of a scheme for dealing with the sewage of the city. The scheme, which is that of the city surveyor, comprises an extensive system of main drains which will carry the sewage of the entire city to Davihulme, where it will be dealt with by precipitation works on the principle of those now in successful operation at Leeds. The effluent water will pass into the river Irwell, which stream, by the means to be adopted, will be relieved of much of its impurity. The maximum expenditure to be incurred to cover works, land, easements, and all other contingencies is set down at £500,000.

A Clinical Lecture

ON THE

PATHOLOGY AND TREATMENT OF LARYNGISMUS, TETANY, AND CONVULSIONS,

ILLUSTRATED BY CASES OF THESE DISORDERS IN CHILDHOOD, AND ALSO BY A CASE OF THE TETANY OF ADULT LIFE.

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LARYNGISMUS, tetany, and convulsions are different expressions of the same constitutional morbid state, are associated especially with the first two years of life, with the period of rickets, and with the period of dentition. They are all distinguished by the occurrence of muscular spasms. In the first by a transient spasm of the laryngeal muscles, lasting only for a few seconds, and then ceasing absolutely during an indefinite period of rest. In the second by a persistent tonic spasm of the flexors and adductors of the hands and feet, varying in degree, liable to exacerbations, but never relaxing absolutely. When this is at its worst the cramps are painful. There is also twitching and fibrillar contraction to be obtained of the orbicularis and levator anguli oris on stimulating the skin by scratching over the pes anserinus[1] In the third the whole of the voluntary muscles are usually involved, and there is loss of consciousness. There may be complete relaxation between the attacks, or more or less continued rigidity of certain groups—as the flexors of the hands and feet, for example.

Laryngismus, tetany, and general convulsions are the positive, comparative, and superlative of the convulsive state in children. Convulsions no doubt occur in special circumstances apart altogether from laryngismus and tetany, and the peculiar constitutional state with which they are, as a rule, associated—as, for example, as a result of the irritation of round worms in the intestine, of undigested food, of irritation of the dental nerves; and in uræmia and in meningitis. But in the vast majority of cases there exists as a predisposing cause a special constitutional state, in which the nervous system is in an extreme state of hyper-excitability or mobility—a state of "erethism," as it is called; and in this state slight causes of irritation which would be innocuous in a condition of stability set up the muscular motor spasm of laryngismus, tetany, or general convulsions. It is my object in this lecture to demonstrate as clearly as I can in what the essence of this predisposing constitutional state consists, in order that the principles upon which these affections must be treated may be fully recognised and understood; that I may warn you against the erroneous practice which widely prevails, and enforce safe and wise treatment of these common and serious disorders, with which in the course of your career you will be frequently called upon to deal.

Let me illustrate the clinical features of the three phases of spasmodic motor disturbance by one or two examples, and first a case of simple laryngismus stridulus.

Mrs. L——'s child, a boy of one year and seven months, was brought to me in December 1883, suffering from frequently recurring attacks of spasm of the glottis, from which it had suffered for the past six months. At first the seizures were merely occasional crowing inspirations, then after a time more severe; the breath stopped until the child became black in the face and was almost suffocated. Sometimes these attacks recurred every half-hour, the child waking up in the night with them; there was always a severe one on first waking in the morning, but the most alarming seizures oc-

[1] Tetany must be distinguished from idiopathic tetanus; indeed, there is little difficulty in the diagnosis. The fact that in the one case—tetanus—the contractions commence in the jaws and the muscles of expression, extend to the trunk, and only slowly and at last to the extremities, while in the other—tetany—the contractions commence in the extremities, and only extend to the trunk in rare cases afterwards, and seldom occur in the extremities and trunk simultaneously, serves to distinguish the two; moreover, the peculiar form of the contraction of the hands and feet is in itself pathognomonic—i.e., tetanoid contractions as distinguished from tetanic.

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curred during the day, when the child was excited by laughter or vexation or crying. The child was extremely rickety, the forehead prominent, the fontanelle widely opened, the ribs beaded, and the wrists enlarged, but the long bones were not curved. It had great perspiration of the head at night; frequent diarrhœa; the muscles were soft and flabby; it could not walk; it had two teeth only, whereas at this age it should have had at least ten or twelve. There was no tetany or spasm; the thumbs were not drawn in, nor the toes flexed. The child had frequent attacks of crowing inspiration as I examined it. The explanation of the rickety condition was given by the history. It was kept at the breast until thirteen months old; latterly the mother had very little milk for it, and could give it the breast twice a day only. In addition to this it had nothing but nursery biscuits—no cows' milk, no beef-tea. After it was weaned, at thirteen months, it had a pint of cows' milk, Osborne biscuits, bread, and gravy. It had frequent diarrhœa. Here was a child, then, brought up on insufficient animal food; the imperfect nutrition was aggravated by frequent diarrhœa, hence nervous instability. A source of irritation increasing the motor nerve excitability was partly the intestinal catarrh, partly perhaps the irritation of teeth slowly making their way through the gums. The immediate cause of each spasm was the emotional excitement of laughter, or crying, or a breath of cold air. The invariable attack on waking was probably set up by the crying a child indulges in so often then, or the greater activity of the reflex function on the waking state. The treatment consisted in giving four grains of bromide of potassium with one grain of chloral every six hours, to relieve the spasm. During the attack cold water was directed to be dashed in the face, or a hot sponge to be applied to the throat. To improve nutrition and remove the predisposing cause of the convulsive seizures, two ounces of raw meat pulp and wheat flour with milk; this to be the sole diet. The baby was to be kept quiet—not played with, crossed, excited, or exposed to a stream of cold air. The child took the food well; the attacks at once grew fewer and less severe, coming on only on waking or under special excitement. The treatment by chloral and bromide was omitted for a time by the parents, with the result of a return of laryngismus and two severe general convulsions. After this warning the treatment was steadily continued, and the child got well without further relapse.

In the case I have related there was no tetany, but larnygismus with general convulsions. In the next case the laryngismus was accompanied by the tetanoid condition, but there were no general convulsions.

In December, 1883, I saw in consultation with Dr. —— a child of eleven months—a thin, miserable, white-faced child, with flabby muscles, projecting forehead, widely open fontanelle, pigeon breast, beaded ribs, and enlarged ends of the long bones. It had no teeth; at this age it should have had four or five at least. It had, in fact, all the signs of well-marked rickets. It had had repeated attacks of sickness and constant diarrhœa, no food seeming to agree with it. It was anæmic, chill, its temperature subnormal. I was asked to see it, however, chiefly on account of attacks of spasm of the glottis. These were occasionally so severe and prolonged as to bring the child to the verge of suffocation. They were brought on by the smallest excitement, but were most intense on first waking in the morning, or when induced by angry crying or by laughter—a feature of the preceding case, and I think universal in this disorder. On examining the child more minutely, the thumbs were seen to be tightly drawn in to the palm, which was arched longitudinally, the fingers adducted and overlapping each other—the typical so-called "accoucheur's hand" of tetany. The feet were arched and the toes flexed. The dorsum of the foot was much swollen, as if dropsical, but there was no actual œdema, the swelling being due probably to pressure of contracting muscles, not sufficient to produce effusion, acting just as a tight bandage does. The child was constantly crying with the pain of this cramp when the spasm was most intense. Twitching of the orbicularis and levator anguli oris could be induced by scratching the skin over the pes anserinus. The attacks of laryngismus had been increasing in intensity. The family history of the patient was remarkable and highly significant. There had been five children born alive, all strong, plump, and apparently healthy; yet of these five three died. The first had general convulsions at three months, and died in an attack of laryngismus at six months. The second died at six months and a half of diarrhœa and wasting; no laryngismus or convulsions. The third is still alive and fairly well, but she was weakly as an infant, and had two convulsions when teething. The fourth had "croup" when four months old, and died at the age of a year and ten months from general convulsions. The fifth was the youngest, who came under my observation in the condition I have described. So that four out of the five children had convulsive seizures, and the one who escaped convulsions had diarrhœa and atrophy. What is the explanation of this remarkable predisposition to convulsions. Was it an inherited tendency? a congenital nervous hyper-excitability? I think not. The tendency had been acquired—developed by defective nutrition. The explanation lay in the fact that all these children had been brought up by hand. The mother, closely engaged in business, could not give time to suckle her children. They were fed chiefly on corn flour, infants' food made without milk, and arrowroot, with hardly any milk, for cows' milk disagreed with all and caused vomiting and diarrhœa. No other animal food was given to make up for this. The only exception was the little patient. The parents rising in circumstances, the mother was able to give time to nurse the youngest baby, but she found she had little milk to give. So this, too, had corn flour and all kinds of things in the shape of bread-and-butter and farinaceous food. Its appetite was ravenous. The bowels were always loose, and it often had sickness. I advised that for the immediate relief of the laryngeal spasm half a grain of chloral and four grains of bromide should be given every four hours, and that the diet should be changed to one of animal food chiefly, with abundant nitrogenous matter; two ounces of raw meat, boiled milk diluted with one-third water, and thickened with entire wheat flour thoroughly boiled; with this, half a teaspoonful of brandy in a tablespoonful of food every four hours—a valuable assistance to circulation in these chilled, feeble children, and, moreover, a most useful nervous sedative in early life. The fits at once declined both in frequency and severity, and the tetanoid spasm of the hands and feet gradually relaxed. When I saw the patient again, in a week's time, the thumbs and toes were flexed, but the palms of the hands and soles of the feet were no longer arched or rigid. She improved steadily, and escaped convulsions; the attacks of laryngismus declined to two or three a week, and then not severe, instead of ten or twelve a day as at first. Then there was a relapse, when the bromide and chloral were stopped, but the laryngismus quickly subsided, and there were no more seizures. Cod-liver oil and lacto-phosphate of lime were given; and when seen six months afterwards, the child was stout, hard-fleshed, and robust in health, and had got five teeth (at one year and five months).

It is very curious and instructive to compare tetany in a child with what is called tetany in an adult. A case of this latter kind came under my care at St. Mary's Hospital in the spring of 1884. The patient was a thin, ill-nourished, anæmic girl of seventeen years of age. Her condition was briefly this. Both wrists were flexed, the hand being drawn towards the ulnar side, the thumbs firmly adducted and drawn across the palm of the hand; the fingers were partly flexed at the metacarpo-phalangeal joints, and slightly flexed at the phalangeal joints. Thus the hand became narrowed into the characteristic conical form.[2] Both hands were affected, the left being rather worse than the right. There was pain in the wrists and over the metacarpo-phalangeal joints. The skin over them was exquisitely tender and red. There was hyperæsthesia generally of the back of the hand and the ulnar side of the forearm. Any attempt to forcibly extend the fingers caused intense suffering. The lower limbs were free from contractions, yet as the patient sat up in bed to have her chest examined cramp came on suddenly in the right leg. The foot was forcibly extended by the spasmodic contraction of the calf muscles, the pain causing her to cry out sharply. When the patient resumed the recumbent posture the cramp instantly ceased. It was found, moreover, that no spasm was brought on if the patient kept her legs hanging down over the side of the bed when she sat up, or by walking a step or two. So that the spasm was clearly produced, not by the calf muscles being brought into active contraction, but by passive stretching of them.

[2] This form of contraction of the hand appears to be due to (1) the action of the adductor pollicis and flexor brevis pollicis, (2) palmar interossei hollowing the palm, (3) dorsal interossei causing separation of the fingers as attack passes off. All supplied by ulnar nerve. (Abercrombie: Tetany in Children, p. 16.)

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Generally there was observed to be hyperæmia wherever there had been pressure—as over the patella where the bedclothes rested, over the spines of the scapulæ, and at the tops of the elbows. The tache cérébrale was readily produced. No fibrillar contractions of the orbicularis palpebrarum, or levator alæ nasi, or levator anguli oris could be induced by scratching the skin over the pes anserinus, as observed in severe cases in children. We made out that the contractions had commenced two days before, when the right hand began to feel stiff. On the next morning when she woke it was rigid, with the thumb drawn in as described, and great pain localised about the styloid process of the ulna. The left hand remained unaffected until the following morning, and soon became in the same state as the right. But although the tetanoid spasms had arisen two days before, they were by no means the commencement of the illness. The cramps were merely the sequel and outcome of previous disorder. The girl had been ill three weeks. She had had pyrexia and constant diarrhœa. An elder sister had just recovered from typhoid fever; another sister was down with it. The patient's temperature was 100·5°; pulse 120; tongue red; spleen enlarged and tender; no spots; stools not distinctive. But there was no doubt the girl was just recovering from a moderate attack of typhoid fever. In her history the following noteworthy facts appeared: In infancy she had convulsions when teething, and had been especially liable to croup and bronchitis. When twelve years old she had chorea. At twenty she was a surgical in-patient at St. Mary's Hospital with abscess in the side from necrosis of a rib, and had contraction of the muscles of the left arm, with pain lasting only twenty-four hours. Six other children, her brothers and sisters, had died, four of consumption, one of infantile convulsions, and one of bronchitis. Ten grains of chloral were ordered every four hours. In three days the tonic spasm had disappeared, stiffness and numbness alone remaining for a fortnight longer. For six weeks, however, cramps could be produced in the legs by forcible flexion of the ankle-joints. But the spasm could never even at first be produced by pressure on the brachial artery severe enough to blanch the limb, which Trousseau affirmed to be a distinctive feature of tetany. At the end of the six weeks she was well.

I think it is clear that the tetany in this case was identical with the tetany in the child. The spasm of the extremities in each was the typical contraction of tetany. The chief difference lay in the absence of facial irritability and of laryngeal spasm in the young woman—features of the disorder so characteristic in a young child. The presence of these special signs in infancy is probably due to the greater reflex nervous excitability notable in young children. If you toss a perfectly healthy baby into the air it crows, catches its breath—i.e., has slight laryngismus or spasm of the glottis. Some children, too, who are strong and healthy in every way apparently, get spasm of the glottis when in a violent fit of passion. The comparison of these cases of tetanoid spasm is interesting, and the question of their identity important, because it throws light upon the causation. I lay stress upon it on account of the bearing it has upon the pathology and treatment of the disease, as I shall show shortly, and also because it has been suggested that the tetany of children is a different affection from that described by Trousseau and others who had followed his lead in this matter.[3] Trousseau appears to have drawn his description of the disease chiefly from adults, although he mentions tetany as occurring frequently in infancy. Now the disorder as we see it in this country so commonly in children undoubtedly does not correspond absolutely with the original description. Trousseau laid stress upon the intermittent character of the spasms, and upon their being excited afresh, at will, by pressure "over principal nerve trunks, or over bloodvessels so as to impede the venous or arterial circulation." But in the case of the young woman these special characters were wanting. The spasms were not intermittent, and could not be reinduced at will by pressure over nerve or vessels; corresponding thus exactly with the case of the child, and agreeable to the observations of Henoch and Abercrombie in children. I have never seen a case in which the intermission of the contractions was complete. There is always variation in the degree and intensity of contraction, partial remissions, and exacerbations, but no absolute cessation, often for weeks. So that in all cases of children, and in the only adult which I have examined with regard to these points, these two symptoms, so prominent in Trousseau's picture—viz., the intermittent character of the spasm and its reinduction at will by pressure on nerve trunks or vessels,—have been altogether wanting. You will remember, however, that in the case of the young woman spasm of the calf muscles was at once produced by stretching, and it is significant that in children Dr. Abercrombie noted that muscles became more rigid on handling. It is possible, I think, that this phenomenon of hyper-excitability on pressure of muscle or stretching of it may have given rise to the impression that the spasm was excited by pressure on nerve or vessels, when it was in reality due to the stimulation of rough handling or stretching of muscle.

Another curious point with regard to the history of tetany is the fact before mentioned, that it has been described chiefly in relation to its occurrence in adults, whereas it is far more common in children. Of the seven cases given by Trousseau six were in adults, one only in a child. Of twelve cases I find in the medical journals (chiefly about 1870, when the subject cropped up, I suppose in consequence of the publication of Trousseau's Lectures by the Sydenham Society), two only were in children. Yet my friend and colleague Dr. Abercrombie, who has given the most complete account of the disorder in children in one year, met with no less than fourteen cases in children in this hospital. I have seen a very large number of cases in children, and only three or four in adults in the whole of my experience in this hospital, in a large general hospital, and in private. The fact is that, in children, this condition, when not extreme enough to be painful or obtrusive, is constantly disregarded because it occurs in connexion with laryngismus stridulus and convulsions. The minor is overshadowed by the major symptom, whereas in adults tetanoid contraction is the most prominent feature. Yet the peculiar spasm of hands and feet has been frequently described by authors, under the name of carpo-pedal contractions, as one of the symptoms accompanying laryngismus. Dr. Ley, Dr. West, Dr. Hillier, Meigs, and Pepper so describe it. The first person to identify these carpo-pedal contractions with tetany was Dr. Abercrombie, to whose excellent paper on the subject I refer you for much useful information.[4]

(To be concluded.)

[3] Henoch, for example, speaking of this condition, which he terms the idiopathic contractures of childhood, says: "This affection is classed with tetany by many, but in my opinion it is well to separate the two diseases entirely. I have never been able to detect the symptoms regarded by Trousseau as characteristic—viz., production of the contractures by pressure on the artery supplying the affected limb—in idiopathic contractures of children." Dr. Abercrombie, for similar reasons, expresses doubts as to the identity of the tetany of children with Trousseau's disease.

[4] Tetany in Young Children. Thesis for the degree of M.D. at Cambridge; Baillière and Co., King William-street, Strand.

Lectures ON INJURIES OF NERVES.

Delivered at the Royal College of Surgeons,

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LECTURE I.

(Concluded from page 865.)

Union by first intention.—I have already said that the usual result of nerve section is degeneration of the entire peripheral end, and the question at once arises whether such a degeneration is invariable, or whether union by first intention, independently of such degeneration, can occur. As regards the fowl, Glück has very clearly shown that if the cut ends of a divided nerve are carefully sutured, degeneration may be entirely prevented; and although other experimenters disagree with him, in my opinion his conclusions are warranted. It is of course quite another question whether union by first intention occurs in man, for it must be clearly kept in mind that the results of experiments on the nerves of animals cannot be directly

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transferred to man. The subject is one on which there has been much controversy, but I may say at once that from clinical observations I have no doubt of the possibility of primary union, although I think it is certainly very rare, and in support of my opinions will quote the following two cases.

H. H——, aged twenty-three, was admitted into St. Bartholomew's Hospital on Nov. 20th, 1881. He had fallen with outstretched hands on to some sheets of loose glass a few minutes before arriving at the hospital. On examination I found a large lacerated wound about an inch above the palmar surface of the right wrist, a flap of skin and muscle being turned downwards towards the palm of the hand. The whole of the flexor tendons of the wrist and fingers, except the flexor carpi ulnaris and the innermost tendon of the flexor sublimis digitorum, were divided. A small piece of bone was cut out of the radius, and the pronator quadratus was torn. The radial and interosseous arteries bled freely, and were tied; the arteria comes nervi mediani, which was very large, was similarly treated. The median nerve had been divided in two places, and the intervening portion of it, nearly an inch in length, lay loose in the wound, and was accordingly removed. I then drew down and stretched the upper end as forcibly as possible, and sutured it to the lower portion with carbolised catgut, the cut surfaces being brought into contact with some difficulty after extreme flexion of the wrist. As many tendons as possible were similarly fixed, and the wound dressed with carbolised oil, the hand being steadied in a position of flexion by means of a splint.—Nov. 21st: Much pain in the hand; no sensation whatever in the parts supplied by the median. Temperature 103°.—22nd: The edges of the skin have sloughed, but the deeper parts look healthy.—Dec. 1st: Sensation has been tested daily, but this morning, for the first time, he can tell which finger is pricked with a pin. No pain. A good deal of the wound has healed, and the part is granulating healthily.—3rd: With his eyes blindfolded he can now tell with certainty which finger is touched with the handle of a pen; the prick of a pin causes pain.—7th: Sensation in the thumb, index, and middle fingers is nearly perfect. He can feel the slightest touch, and can localise it accurately. Is fully sensitive to the prick of a pin, and can move the fingers slightly.—16th: Has much improved in the power of flexion; can thoroughly oppose the thumb and pick up a pin; says he has still a slight sensation of numbness; the fingers are all quite warm and fully sensitive to all stimuli.—24th: The wound has healed except for a very slight ulceration opposite the seat of injury to the radius; he says that, except for some stiffness in the fingers, one hand feels much the same as the other. Has increased power of movement in the fingers and thumb.—Eight months later this patient came to show himself at the hospital. He could not quite bend the fingers into the palm, owing to the adhesions of the tendons to the scar; otherwise there was no difference between the two hands, and the man said he could work and feel as well with one as the other.

I am indebted to Mr. Menzies for the details of the following case, which appears to me to be of unusual interest, alike from the care with which it is recorded and the rapidity with which the functions of the injured nerve were restored.

Primary suture of the median nerve, with union by first intention.—Jas. W——, aged fifteen, was admitted to the West London Hospital on Nov. 29th, 1884, having fallen on a glass bottle and cut his wrist. On examination there was found to be an incised wound an inch and a half long on the anterior aspect of the right wrist. The tendon of the palmaris longus was seen to be divided. The median nerve was completely divided. There was hæmorrhage from the arteria comes nervi mediani, and the patient had complete anæsthesia over the part supplied by the median nerve. The ends of the nerve were exposed and sutured with three catgut stitches passing through the trunk itself.—Nov. 30th: Patient had a good night, but complains of pain.—Dec. 1st: Wound dressed. He has tactile sensation, and localises accurately in the parts which were previously anæsthetic, with the exception of the last two phalanges of the index finger. The prick of a pin causes pain. He can distinguish the points of two pins one inch apart. Sense of temperature is uncertain, especially that of cold.—6th: Wound healing by granulation. Sensation is fully established to all forms of stimuli. He can appreciate the points of two pins half an inch apart, except on the index finger.—8th: Sensation returned in the index finger.—20th: The wound has healed. Sensation is equal to that of the other hand to all stimuli.—Jan. 20th, 1885: He uses the hand quite well; he says it is as good as it was before the injury.—July 20th, 1885: The hand differs in no way from that of the other side; the muscles are quite natural, but they do not react to either faradism or galvanism.

As to the actual lesion, and the rapidity of the subsequent recovery in the first case, there can be no room for doubt, for the patient was seen both at the time of the accident and during his convalescence by many competent observers, and the conditions I have described were frequently verified. The case under the care of Mr. Menzies is, again, in my opinion, quite undoubtedly one in which primary union occurred. In no other way than by actual union of the previously divided fibres is it possible to explain the preservation of such perfect sense of touch, pain, and temperature, and above all of muscular power. As to the completeness and rapidity of the cure the patient himself bore the strongest testimony, insisting that his hand was not numbed for more than about a day, and that it was "quite as good as the other in three weeks," notwithstanding that there had been a considerable wound. In other cases that I have observed there has been noticed a rapid restoration of function after primary suture of various nerves, leading one to believe that some fibres at least had undergone primary union; but the cases already quoted are sufficient for my present purpose—namely, to establish the fact that "primary union" of recently divided nerves, without any antecedent degeneration, is quite possible in man. For although up to the present no case has been recorded in which a microscopic examination could be made of the nerve during the process of repair, yet the complete return of sensation and of motion is a sufficient proof of the reality of primary union. Supposing that in any given case primary union does not occur, the length of time required for the restoration of the continuity of the nerve trunk is very variable. Paget considers that a year or more is requisite. Létiévant observed cases at the end of the nineteenth and fourteenth months respectively. The time required will necessarily depend on many circumstances. If the ends are far apart, if the wound sloughs, if a large quantity of dense cicatricial tissue intervenes, and if the cut nerve contracts adhesions to the surrounding muscles and tendons, union will be long delayed. In connexion with this question the following two cases are of interest: the first being an example of failure of primary union, due probably to separation of the cut ends, followed by subsequent regeneration; the second showing very plainly that, even when the best contact is maintained, primary union may be interfered with by erysipelas and sloughing.

Mary Ann P——, aged nine years, was admitted into St. Bartholomew's Hospital in October, 1879, having sustained a deep cut above the wrist-joint on the palmar surface. There was complete loss of sensation and motion in the parts supplied by the median nerve, but the cut ends could not be found. A few weeks later the patient was discharged unimproved and with some wasting of the muscles of the ball of the thumb. On July 24th, 1882, I had an opportunity of examining the hand and found it in the following condition:—Scar neither painful nor tender. Hand well nourished and plump, not at all atrophied. Fingers straight; can bend them well, but does not make a very good fist. Movements of thumb quite normal. Sensation perfect. No trophic changes. Suffers slight pain in the hand in cold weather. Her mother says that feeling did not begin to return till a year after the child left the hospital, but that since then motion and sensation have steadily improved.

R. W——, aged forty-four, was admitted into St. Bartholomew's Hospital on July 6th, 1882, on account of a wound on the inner side of the upper arm, which divided the biceps and a part of the median nerve. As the divided portions of the nerve tended to separate from each other, catgut sutures were inserted and the ends drawn together; the muscle was treated in a similar manner. On the 11th I found the wound suppurating, and the patient complaining of a sensation of numbness in all his fingers. The sensory condition was as follows:—Thumb: Tactile sensation impaired over the distal phalanx, both front and back; also sensations of pain and temperature; no place, however, is quite anæsthetic. Proximal phalanx normal. Index finger: No sensation of touch, pain, or temperature over the whole palmar surface,

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or the dorsal surface of the last phalanx and half the second. Middle finger: No sensation of touch or temperature, but firm pressure with a pin at the tip causes pain, the seat of which he cannot localise; this statement refers to the palmar surface, the back of the finger being in a similar condition to that of the index. The fourth and fifth fingers have their normal sensibilities both back and front, also the entire palm and back of the hand. The movements of all the fingers are unimpaired, but the power to oppose the thumb is very deficient. On July 15th erysipelas of the arm supervened; there was no improvement in the nervous symptoms; no trophic disturbances. The erysipelas lasted some time, and no improvement was present until Aug. 19th, at which time he was able to distinguish two points of a pair of compasses a quarter of an inch apart on the dorsal surface of the second phalanges, and could localise the touch of a pencil except at the tips of the fingers on the palmar surface. At the time I made this note I had not seen the patient for ten days, so am unable to fix the exact date at which sensation commenced to return. A few days later the patient left the hospital, and did not show himself again till October 27th, when he exhibited the following condition: Forearm slightly wasted, and feels firm and hard; the range of supination is limited, apparently by the contraction of the pronator radii teres. Movements of fingers good; ball of thumb much wasted. He has now no power of opposition, the movements of the thumb having deteriorated since he was last seen. Trophic: No other trophic disturbances, but the fingers are cold and blue. Sensation—Thumb: Tactile, thermic, and pain sensations all present, and but little, if at all, impaired. Index: Can localise well all over, but sensation is impaired at the tip; sensation of temperature good. Middle: In much the same condition as index, but the skin over the third phalanx is more anæsthetic. He was now ordered to be galvanised twice a week, and to employ friction to the whole forearm and hand, with a mixture of equal parts of lin. saponis and lin. camph., also to use the forearm as much as possible, and to keep it warm.—Dec. 8th: Further improvement in both motion and sensation. Has returned to his work as a lamp-cleaner on the railway.—Aug. 9th, 1883: Sensation quite perfect everywhere, except in the index and middle fingers at the tips. Even here it is scarcely at all impaired, merely amounting to a slight loss of acuteness. Still some wasting of thumb muscles, but he has fair voluntary power in them. No reaction to electricity. Nails, skin, &c., normal.—March 26th, 1884: Sensation perfect. Muscles quite regenerated, being as large and strong as those of the other hand. All the muscles supplied by the median react to faradism, though as yet only feebly.

In the foregoing case it will be seen that although only part of the nerve was divided and good apposition maintained, yet a year and nine months elapsed before function was completely restored, and there can be little doubt that this delay must be attributed to the erysipelas, which prevented healing by first intention. I may also take the present opportunity of expressing my very firm opinion that the commonly accepted doctrine that partial section or wound of a nerve trunk is more dangerous, and more likely to lead to complications than complete section is quite erroneous. I have no doubt at all that, on the other hand, the amount of trouble is directly proportionate to the amount of nerve fibres divided, and have arrived at this conclusion after a clinical experience of many cases, both of partial and complete section.

The influence that the amount of nerve removed exercises on the length of time requisite for repair is well instanced by experiments on animals recorded by Létiévant. "After a simple section, the reunion of the ends by a cicatrix and the re-establishment of the functions requires three or four months, and this ought to be considered a good result. After resection of a centimetre, the same time is necessary. If more than a centimetre, five, six, twelve months, or more. After resection of more than three centimetres, the ends are only united by fibrous tissue, if at all."

Hill[1] gives the following as a result of experiments on dogs and rabbits:—Simple section: restoration in two, three, or four weeks. Excision of one-eighth of an inch: restoration in two, three, or four months. Excision of half an inch of the sciatic in a dog: restoration in four months. Considering the favourable results obtained by Glück by suture of the two ends after resection of a portion of nerve and the rapid repair in one of the cases I have related above, it is most probable that it is the distance of the divided ends from each other rather than the actual loss of nerve that influences the time required for reunion.

That the cut ends of a divided nerve can unite, even after excision of a considerable portion, is sufficiently proved by the case I have already described. That partial reunion may occur when the ends are widely separated has been shown by Mitchell. Three such cases are recorded by this author and Bertolet in the *American Journal of Medical Science* for 1876. In the first, both the musculo-spiral and median nerves united after excision of about an inch of each. In the second, after removal of an inch of one of the digital nerves, complete union was found in eighteen months. In the third, the radial nerve was repaired within ten months of excision of two inches of its trunk.

But although the preceding cases may fairly be adduced in evidence of the contention that it is possible for restoration of nerve continuity to occur after resection of portions of nerve trunks, it would be the gravest error to draw from such cases the conclusion that reunion occurs as a rule. And it is to be noticed that even in the instances above quoted the restoration of function was most imperfect. In very many cases, even of simple section, which are not treated, no union occurs in man—in far more, I think, than is generally believed; and I cannot agree with Mitchell that "the capacity of nerves to re-make their lost parts is almost invincible."[2] The records of surgery tell a very different tale, and one which is, unfortunately, much more unfavourable for the sufferers from nerve injury. The conclusion that repair of nerves is inevitable has been drawn from a return of pain in cases of neuralgia which have been treated with temporary success by the operation of neurotomy or neurectomy. Such conclusions are not warranted. Pain may return, and so may sensation, independently of nerve regeneration. The real truth is to be found in a study of cases of accidental nerve section which have not been treated, and in such, even where no bulk of nerve has been excised, my own experience and that of many other surgeons is entirely opposed to the conclusion that nerves whose ends are separated show any irresistible tendency to unite. If they unite at all, they do so in a most imperfect manner, and frequently there is no sign of repair. Although, as I have already said, the lower end of the nerve undergoes regeneration even though separated from the proximal portion, it seems probable that, after union by first intention has failed, the bringing together of the divided ends materially hastens the regenerative processes. For, as will subsequently be shown, a suturing together of nerve ends, which have been separated four, five, or six months, is sometimes followed by a very immediate and rapid return of function; in other cases, however, the process is slower, and in some it fails. In the cases which succeed it is evident that the otherwise very tardy process of regeneration is considerably accelerated by a union of the nerve with its centres of nutrition; and this, indeed, is rather what might be expected. Some French surgeons and physiologists have been unable to reconcile the plain facts taught by the results of secondary nerve suture with their theories as to how the injured nerves ought to behave. They argue that because in a given case of secondary suture no nerve fibres or axis cylinders can be found in the distal end at the time of operation, therefore any return of sensation which immediately or in the course of a few days follows operation and suture cannot be due to a re-establishment of the continuity of the injured trunk. Such objections as these will have no weight with anyone who is not hopelessly wedded to theory, for the facts in many of the cases which I shall mention in speaking of "treatment" are too plain to need any further advocacy on my part, and to them I would refer for confirmation of the statement that suture of nerves after many months separation may, and frequently does, result in a rapid restoration of function through a restoration of continuity of the divided axis cylinders.

[1] Medical Times and Gazette, April 22nd, 1868.

[2] Brain, vol. i.

PROVIDENT SURGICAL APPLIANCE SOCIETY.—The fifteenth annual festival in aid of the funds of this Society for the relief of the crippled poor was held on the 23rd ult., Sir Julian Goldsmid, M.P., presiding. During last year 4300 persons were relieved, at a cost of £2200. The secretary during the evening announced subscriptions amounting to about £900.

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THE PSYCHIC AND NERVOUS INFLUENCES IN DISEASES OF WOMEN.

BY HORATIO R. BIGELOW, M.D.

I WISH to emphasise with some force the distinction between the psychic or super-cerebral force and the chemico-molecular action, which is the expression of nervous energy, in the causation of many of the ills called gynæcological. The nervous energy may be directly objective, as alone concerned, without appealing to a higher agency; or it may be subjective, acting simply as a common carrier, transmitting its message of woe, and waiting for the ultimate order. The psychic exaltation or depression, generally speaking, merely calls forth a perversion of function; while the disturbed nervous energy, including trophic and vaso-motor changes, may occasion organic lesion. To regard the female pelvic organs as isolated points, without direct connexion with the whole bodily economy, is not a common heresy, but it is a danger that threatens, and gains ground the faster that gynæcologists absorb themselves with one branch of scientific medicine to the exclusion of all the others. He would be a poor physician who should forget the relationship of liver and stomach to cardiac disease, and he an equally unscientific gynæcologist who would castrate every hysterical woman. Surely the indefinable super-physical expression of a force that makes the physical weakling a hero in the battle of life; that radiates from itself a will so iron that even the strongest have been known to quail before it; that from a bed of suffering can create and originate; that can control a household or a community—surely such a power as this demands recognition in all of the processes concerning it. It makes no difference in the ultimate purpose of this paper whether we look upon the will as the *final* action of many separate cerebral departments—a desire or aversion sufficiently strong to generate action; or whether we look upon it as a material entity whose freedom is assured by the divine fingers that attune it,—the fact still remains that the psychic force, however manifested, must always demand consideration from the specialist. The autocracy of such a monarch cannot be disputed, and his messages, borne on the wings of his fleet-footed messengers—the nerves,—will set many an intelligent physician to patient thinking. All specialism is dangerous in proportion as it becomes exclusive or seeks to narrow a wide and general field of intelligence. No one can hope for success in any specialty unless he is intelligently instructed upon the salient features of other specialties. And perhaps in no other calling so largely as in gynæcology is it necessary to be acquainted with the subjective life of woman. What are her thoughts, her hopes, her aspirations? How largely is she given to introspection? How firmly and in what manner is her ideal building? Then we must know of her objective necessities in æsthetics and social graces, and train ourselves in the many little things that go largely into the make-up of womanly comfort, and which will gain the patient's confidence in the proportion in which we embody them in our actions. So much by way of preface. We now come to something practical, although after that has been said the necessities of the subject must drift us back again to theoretical reasoning.

The nerves with which the gynæcologist must concern himself are—the plexus solaris or cœliacus; the plexus mesentericus, superior and inferior; the plexus aorticus abdominalis; the plexus hypogastricus superior; the plexus spermaticus; and the plexus hypogastricus inferior, between the floor of the bladder and the rectum. From the cord (from the plexus lumbalis) we have the nervi ilio-hypogastrici, ilio-inguinales, genito-crurales (a favourite seat of neuralgic pain); the plexus and ganglion at the cervix (described by Frankenhauser and Jastrebow); the nuclei terminations in the unstriped muscle of the uterus (Frankenhauser); the ganglionic terminations in the mucous membrane, and the end bulbs in the clitoris and vagina. The vagina, uterus, Fallopian tube, and ovary are supplied by filaments from the inferior hypogastric plexuses. The muscles receive supply as follows: the levator ani and sphincter ani by the inferior hæmorrhoidal branch of the pudic, fourth and fifth sacral, and coccygeal nerves; the coccygeus by the fourth and fifth sacral and coccygeal nerves; the muscles of the perineum and clitoris by branches of the pudic nerve. These are they, then, which give rise to those immediate reflex neuroses with which the gynæcologist has to do. Other nerves there are, of equal importance, giving origin to reflex symptoms equally distressing, and with which he should make himself acquainted; for palpitation of the heart, nervous dyspepsia, spasmodic contraction of the gall-bladder, or migraine, will not disappear coincidently with the righting of a dislocated uterus, with the sewing up of a lacerated cervix, with the extirpation of an offending ovary, or with the healing of an endometritis.

In losing sight of constitutional causes as factors of local disease all special erudition and all clever handiwork will be in vain. Many ills to which women are liable are merely *symptoms*, and they will never cease their direful work until intelligence looks deeper and attacks the exciting cause. It will not be one particle of service to attack a retroverted uterus with pessaries (a refinement of torture and of unscientific deduction of this nineteenth century) in a highly nervous woman, whose trouble rests not with her womb, but with her "run down" condition generally. I will go a step further, and assert that rest, good diet and regular, electricity, massage, and Turkish bathing (when indicated), with wholesome psychic surroundings, will, in very many instances which receive nowadays only local attention, accomplish more permanent and real good than any special interference. Vastly more harm than good has resulted from the happy-go-lucky way of applying pessaries, and quite as much evil comes from the brusque way we have of relegating all womanly suffering to pelvic derangement, and then rushing blindly at that, irrespective of the shock we may occasion to a highly modest and sensitive woman. Liebermeister asserts that this *nervosität* is due to a disease of the grey substance of the brain which depends upon a derangement of the lower brain function, as contra-distinguished from the true disease of the brain, which is due to a disturbance of the higher psychic function. Convinced in my own mind that Liebermeister is right, I should seek to improve every detail of the woman's environment, subjective and objective, before resorting to local interference; of course I mean in those instances in which the local trouble is purely secondary. "Run down" women, women with all sorts of anomalous aches and pains, women given to morbid introspection although they *may* have some pelvic pathological condition, demand first constitutional handling, and we simply intensify every bad symptom by ambitious specialism. Rheinstaedter[1] says: "I have never yet done a castration for *nervosität*, and I intend never doing so in the future. How can we hope to cure a brain disease through castration? Why do we not castrate men for nervousness?" The radical operation of oöphorectomy in case of neurasthenic hysteria (and I mean by this an hysteria which is clearly due to nerve exhaustion) is *never* indicated, neither can it ever be indicated in pure neurasthenia. In pure hysteria it is only justifiable when the exciting cause can be clearly and absolutely located in the ovary beyond all question of a reasonable doubt, and even then it should never be thought of until we have exhausted all the means of conservative treatment which recent investigation has placed within our reach. It seems to me that the clear indications for so dangerous an operation are so very small as to be almost *nil*, and I am convinced that many cases on record so operated upon would have gone on to a wholesome recovery under strict conservative treatment, as we realise and recognise it to-day—a treatment that requires boundless patience both from patient and physician, but which accomplishes its purpose surely and almost insensibly to the woman, until she finds herself carrying out the daily duties of life as most women do, and with the same measure of comfort. A woman's mind has much to do with her general condition, and herein lies the secret of the rest treatment. With a mind at absolute rest, with no thought of the morrow to conjure up the fiend of ways and means, with a complete realisation of the *dolce far niente*, we have at hand a more potent medicine than any sent out from drug stores. And I know, because what I have seen I believe, that under such rational handling many gynæcological cases go on to recovery without any local interference. Of very especial value is rest treatment, because it enables the physician to discipline the disorganised will, and to bring it into harmonious relationship with the other bodily functions. Hysteria disappears at once under an organised, well-sustained moral discipline. The nervous condition,

[1] Praktische Grundzüge der Gynækologie. Berlin, 1886.

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which is the underlying cause, is one of exaggeration, congestion, and exhaustion, and these all disappear upon proper hygienic observances, conjoined to will training. The weakened will itself is but part and parcel of the whole nervous disorganisation, and will regain its normal standard as soon as the other functions return to a physiological basis. The nerve-supply of the female pelvis is not a distinct and isolated department, but intimately connected with the whole nervous system. So that disorganised function anywhere, but the more especially in the brain and spinal cord, may transmit its influence to the ovary. If we admit the possibility of "maternal impressions" stamping themselves upon the fœtus in utero, we must also admit that certain states of consciousness can impress themselves upon and be felt within the uterus. This premiss seems reasonable by virtue of the direct connexion between the mucous membrane of the uterus and the chief mucous centres. Clinical evidence of the influence of the brain upon the uterus is ample. A prolonged unhealthy nervous influence would set up a correspondingly unhealthy action in the organ reached and affected by it. Not only directly through the filaments and ganglions, but also by its effect upon blood-supply, will any derangement of nervous function be sensibly appreciated by other and remote organs. Either congestion or anæmia may result from prolonged states of cerebral excitement or exhaustion. Arterial tension hinges largely upon states of consciousness, and menstruation, which is one of its expressions, is always regulated by the nervous condition of the woman. I am not at all sure but that many of the changes in the endometrium that occasion thickening, hyperplastic proliferation, tumour growths, and malignant hyperplasia of the uterine glands are due first to nervous influences, subsequent congestion, and generally altered blood-supply. If this be so, we should address ourselves first to a normal rehabilitation of nerve and bloodvessel, and then seek to eradicate any local condition which would interfere with such treatment. Gynæcology has handicapped itself with excess of detail, and, like all specialties, its field of vision is limited. The success of a few, who do little or nothing else, has created a surgical epidemic, and whole communities rush headlong into a *strom*, where experience is partially learned at the cost of hundreds of lives sacrificed. These habits of thought and medical crazes revolve in certain well-known cycles. Already there is the faint flutter that precedes the coming storm. We are on the eve of a change in gynæcological practice, in which the scalpel will be the bar sinister and conservatism the crest and crown of our special coat of arms. Define the limits of abdominal surgery to its narrowest confines, and then let those only practise it who are educated to it and who devote their lives to it; no others have the right to place a human life in jeopardy. I have said that there are countless instances on record, where special surgery has failed to relieve general symptoms, and of these ailments none is more common than neuralgia of the trigeminus nerve, or so-called migraine.[2] The cry of the trigeminus is the echo perhaps of the uterine wail, they both ache synchronously with the pathological pain of the central system, which is labouring to carry out its daily routine under unnatural effort. The migraine and the "pain in the side" (ovarian) are merely symptoms, and can be best reached, and only reached, so far as I know, by constitutional treatment. You will not cure the migraine by extirpating the ovary, and you will not cure the ovary-ache by resecting the trigeminus, even were one bold enough to attempt it. One operation is about as sensible as the other. Take the complex symptomatology of oöphoritis (a most vague term, rather a cloak of ignorance than the expression of scientific pathology), with its pain in the side, leg-ache, dyspepsia, intra-menstrual peritoneal pains, and spasmodic action of the gall-duct setting up an appearance of icterus. What are we going to do about it? The ovary is suffering no more as a primary cause than does the aching tooth of a pregnant woman act primarily. The tooth does not ache from the presence of a cavity, but from sympathy. Now, shall we turn the woman's stomach into an apothecary's shop, dosing her specifically for each disordered function, combining this with the routine local treatment; or shall we go to work and find out what makes the ovary ache, and then treat the cause? In a rare percentage of cases I will admit that the terminal filaments from the inferior hypogastric plexus within the ovary, have, for some reason unknown to us, taken on diseased action, and have so transmitted their plaint. But such instances are rare, and when they do occur there must be some reason for the nervous and vascular changes. That reason cannot rest within the ovary itself, but it does rest in the chemico-molecular changes in the vessels sustaining its life. It may be objected that the train of symptoms that I have cited belongs to catarrhal salpingitis, with enlargement of the ovary, but I only say that which I know, and that which I have seen I take as evidence of anything that I adduce. Simple tubal disease, non-specific in the nature of its discharge, *does not call for the operation of Hegar*. Gonorrhœal salpingitis, when recognised, can be treated first by dilating the tube with a catheter. If that fail, and the woman's condition is so unbearable that she demands it, then Hegar's operation is justifiable, but not until the full line of treatment which I have often suggested is first given a fair trial. There are a certain number of gynæcological cases which will always demand the skilled hand and clever brain of the surgeon; but the number is not as large as is generally supposed, while the surgeons multiply with wonderful rapidity. I am sure that before long our whole process of combating diseases of the endometrium will undergo radical change, for there cannot be inherent potentiality in the mucous membrane of the uterus to originate so many complex conditions. When we have once found out the true nature of this mucous membrane, when we know surely the *rôle* it plays in menstruation, we shall then arrive at a knowledge of the prophylaxis, pathoanatomy, and etiology of uterine myoma. Even now we are finding out that many uterine myomata will yield to conservative treatment which gynæcology until very lately maintained should be cut out.

Leipzig.

[2] See Möbius, Berl. Klin. Wochenschr., 1884, Nos. 16, 17, 18.

EXCISION OF THE LARYNX.

By W. GARDNER, M.D., C.M. GLAS.,
SURGEON TO THE ADELAIDE HOSPITAL, AND LECTURER ON SURGERY IN THE ADELAIDE UNIVERSITY.

JAMES M——, aged sixty, shoemaker, living in a small suburb of Adelaide, was sent to me by my friend Mr. Corbin as a probable case of malignant disease of the larynx, with a request that I would examine him, and do what I could to rid him of his trouble. On Oct. 9th, 1886, I admitted him to the Private Hospital. For the following notes of his previous history and present illness I am indebted to my assistant-surgeon in the Adelaide Hospital (Dr. Ainstey Giles).

"The patient has been a healthy man all his life, and has never suffered in any way except from an occasional cold. He has always been engaged in the same trade, and has not suffered from syphilis or been exposed to hardships of any kind. His father died at the age of eighty, and his mother at forty. He does not know the cause of death in either case. His grandmother (paternal) died at the age of ninety. There has been no disease of an hereditary nature in the family. Two years ago he lost his voice entirely, and it has never returned. Previously to losing his voice he suffered from no throat affection of any kind. The voice gradually became weaker, till at the end of about four months he could not speak above a whisper. He continued in this state until four months ago, when he began to experience a sharp gnawing pain over the larynx, for which he was treated in various ways, but without the least improvement in the conditions. He has had a long course of iodide of potassium, with no result. With the increase of pain he has been rapidly losing flesh, feeling very weak, and during the whole period (four months) has been unable to rest at night on account of the pain, which wakes him up continually. He never had any night sweats. He can take food fairly well, but has no appetite, and swallowing causes slight pain. There is no absolute aphonia."

On laryngoscopic examination both true vocal cords were found to be ulcerated away in nearly their entire length. Irregular white papillomatous nodules were projecting into the centre of the larynx from the sides immediately below the glottis. The false cords and the mucous membrane above were very much inflamed and bulged out by a solid growth underneath, more marked on the right side than on

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the left. Arytenoid cartilages not swollen or abnormally red; posterior commissure not thickened. The epiglottis was quite free from the growth, and there was no sign of any disease above the larynx. There was nothing abnormal to be felt externally in the neck, and the glands were not enlarged. The larynx was quite free and movable, but some pain was caused when it was pressed between the fingers. A small piece of the growth was removed with laryngeal forceps and sent to Professor Watson, who very kindly examined it and pronounced it to be a "cornifying epithelioma." On examining the lungs the chest was seen to be barrel-shaped. All over the front and back of the right lung the percussion note was fairly resonant. Over the left lung hyper-resonance was observed. No increase in the vocal fremitus. Respiration harsher than normal all over the chest, and expiration prolonged—more marked on the right side than on the left. No râles, rhonchi, or accompanying sounds of any kind to be heard. Vocal resonance normal. Heart sounds normal. Pulse slow, full, and regular. Arteries not atheromatous. The urine contained neither sugar nor albumen.

On Oct. 12th, at 3.30 P.M., the following operation was performed. The patient having been put under the influence of chloroform, the whole anterior part of the larynx was exposed by making a free incision from the thyroid bone to a point immediately below the second ring of the trachea. The anterior jugular veins were tied in two places and divided between the ligatures, as they interfered with a free dissection. The muscles attached to the side of the thyroid cartilage were thoroughly separated as far back as possible, and the fascia attached to its upper edge was set free without dividing the thyro-hyoid membrane. The hæmorrhage was troublesome and very free, the bleeding from the crico-thyroid artery being very difficult to arrest. Every bleeding point was carefully ligatured, and pressure with hot sponges gradually reduced the oozing. I opened the trachea between the cricoid cartilage and its first ring and at once inserted a well-fitting tube, made of lead, which effectually prevented blood from entering the lung. A flexible rubber tube, about ten inches long, was attached to this, and the administration of chloroform was continued through it. Then, principally with the handle of my knife, I separated the larynx from the œsophagus, divided the superior cornu of the thyroid cartilage, cut through the thyro-hyoid membrane, and finally divided the superior and posterior attachments of the larynx, as close to the cartilages as possible, with a pair of scissors, the epiglottis being cut through at its base. The superior thyroid arteries bled profusely, but were at once caught and ligatured. The patient took the anæsthetic easily, bore the operation well, and showed no signs of collapse. As far as possible throughout the operation the parts were separated by working with the handle of the knife. All bleeding points were ligatured with chromicised Wallaby tendons, which make most excellent ligatures, being strong, safe, and easy to apply. The wound was dusted over with iodoform and covered with absorbent cotton-wool. The tube was securely tied in with tapes passed round the neck and under the axilla.—6.30 P.M.: Slight oozing of blood-stained saliva took place from above the tube.—8 P.M.: An enema of beef-tea and brandy administered, and carbolic acid spray used for five minutes in the room. Temperature 98°.—9.40 P.M.: one-sixth of a grain of morphia injected hypodermically.—12 P.M.: Enema of beef-tea and brandy given. Carbolic acid spray used in the room.

Oct. 13th.—Ordered an enema of beef-tea and brandy every four hours; carbolic spray also used in the room. Temperature 98·6°. Slept well through the night. Slight cough. Pulse 88; respiration 28. Some blood-stained saliva. Wound dressed with absorbent cotton-wool sprinkled with iodoform laid above and below the tube. A piece of carbolised gauze was placed over the orifice of the tube, and the patient raised to a sitting posture. No oozing from the wound. Chest sounds over bases of lungs normal. At 4 P.M. a small red rubber catheter was passed down the œsophagus from the wound in the throat, and through a glass funnel about a pint of milk and lime-water was allowed to flow into the stomach.—9.30 P.M.: Temperature 98·6°; pulse 84; respiration 28.

14th.—Feeding by the œsophageal tube was continued, and also enemata of beef-tea and brandy. The tube was not kept *in situ*, but was easily introduced each time that it was considered necessary to feed the patient. Temperature 98·4°; respiration 21; pulse 92. Skin cool and moist; no pain. Lungs resonant all over back and front; breath-sounds normal. Great quantities of saliva running from the wound. Wound dressed with iodoform and absorbent cotton-wool. Tube keeps in good position and causes no irritation.—3 P.M.: A pint of milk with brandy and lime-water passed into the stomach through the œsophageal tube, causing slight vomiting and some feeling of discomfort. Half the quantity was ordered to be given at a time for the future. Cough troublesome.—9 P.M.: Temperature 98·4°; pulse 84; respiration 22.

15th.—Slept well throughout the night; cough easier. Temperature 98°; pulse 80; respiration 24.—2.45 P.M.: Leaden tube replaced by a silver one of similar shape but rather larger calibre.—9 P.M.: Complains of thirst. Lemon-water given to rinse out the mouth.

16th.—Slept fairly well. Cough rather troublesome. A quantity of thick phlegm was expectorated. Temperature 98°; pulse 80; respiration 18. Wound almost healed above. Copious flow of saliva.

From this date to the 19th the treatment was just the same, and the temperature continued normal, with diminished cough and lessened expectoration of phlegm. The little finger was passed every other day upwards as far as the base of the epiglottis to keep the way open for the insertion of the upper tube of the artificial larynx afterwards. On Dec. 3rd the patient was discharged, and returned to his own home, wearing only the lower tube of an artificial apparatus which had been made for me from the woodcut in THE LANCET, as used by the late Dr. Foulis of Glasgow, and modified from Gussenbauer's original apparatus by Dr. Irvine. In this case, however, the straight tube could not be inserted, and I had the upper one altered so as to assimilate it to Gussenbauer's original apparatus.

On Jan. 17th, 1887, the man re-entered the Private Hospital, and, under chloroform, the upper wound was reopened sufficiently to admit the upper tube, and then the lower tube was passed through it, and the whole tied in with tapes round the neck. The reed used was made of platinum, and, although the note was rather trumpet-like, his words could be distinctly understood on his awakening from the anæsthetic. After the insertion of the upper tube liquids were found to run down whenever he drank, and recourse was had to the soft rubber tube, which was passed down the œsophagus several times a day for feeding purposes. Examination with the laryngoscope showed the silver tube appearing just below the epiglottis, which was very œdematous. Tannic acid spray was ordered, and no examination was made until the end of the month, when it was discovered that there was a small new growth on the anterior pillar of the fauces low down, with a small amount of glandular enlargement of the neck on the same side. As it was evident that the disease had returned, it was decided to remove the upper tube to prevent any irritation, and, as the epiglottis was not acting, to enable him to take food again by the mouth by allowing the upper wound to heal, which it did very rapidly, and on Feb. 5th, being able to take both liquids and solids well, he was sent home again. On the morning of Feb. 11th I again saw the patient, and the growth had increased markedly. He was wearing a tube which I had constructed of silver, like a tracheotomy tube, but with a more abrupt dip into the trachea. This he found exceedingly comfortable, and all he complained of was pain in the right ear. He seemed thoroughly well nourished, and expressed gratitude for the temporary relief afforded him.

Remarks.—This case is interesting as being only the third operated on in the British dominions in which the patient has lived more than four months. The others were operated on by the late Dr. Foulis and Dr. Newman, both of Glasgow. It is not encouraging to find recurrence so rapid after recovery from so formidable an operation, especially as there was nothing to suggest that the disease had passed beyond the confines of the larynx. Of the eighty-three cases which Dr. J. Baratoux has collected, death occurred in half of them before the fourth month. I would draw attention (1) to the ease with which the blood can be kept out of the trachea by the rectangular tube made the full diameter of the normal larynx, and inserted immediately after the division of the trachea, thus lessening greatly the risk of septic pneumonia; (2) that the "hanging head" position is also of immense advantage; and (3) that it is probable, in the great majority of cases, that Gussenbauer's original artificial larynx is the best, although the straight upper tube seems to have suited the late Dr. Foulis' case. In the method of operating I am indebted to the papers of Dr. Foulis and Dr. Newman, and

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after consideration I decided to adopt the method of the latter, as being probably the easier and better plan. The interesting discussion at the Clinical Society has induced me to forward my case as a contribution to the subject. If Mr. Butlin's opinion that "complete excision of the larynx for carcinoma should be practised only in very rare instances, as the mortality from the operation is large and the prospect of cure small," is ever to be altered, it must be by attempts to ensure an earlier diagnosis, and in the meantime I indulge the hope that this may be accomplished.

Adelaide, South Australia.

ON THE

ADMINISTRATION OF CARBONATE OF LIME AS A MEANS OF ARRESTING THE GROWTH OF CANCEROUS TUMOURS.

BY PETER HOOD, M.D.

NEARLY twenty years ago THE LANCET published a communication from me on the value of carbonate of lime in the form of calcined oyster-shells as a means of arresting the growth of cancerous tumours, and I am anxious once more to call attention to the subject, and to urge upon those who possess the necessary facilities that a more extended trial should be given to this agent than it appears yet to have received. My own opportunities of employing it in suitable cases have not been large, but the results which I have witnessed have been sufficiently remarkable to justify me in seeking for them a more extended publicity.

In the paper referred to I related in detail the case of a lady nearly eighty years of age who was the subject of schirrus of the breast, and in whom the growth sloughed away and left a healthy surface after a course of carbonate of lime, administered in accordance with a recipe which was current in her family. She manufactured her carbonate of lime by baking oyster-shells in an oven and then scraping off the calcined white lining of the concave shell. The substance thus obtained was reduced to powder, and as much as would lie on a shilling was taken once or twice a day in a little warm water or tea. It was said that perseverance for at least three months was necessary before any good result was to be expected. I presume that the powder would be almost pure carbonate of lime, but it might possibly contain a small admixture of iodine.

The immediate cause of the publication of my paper was a conversation with Mr. (now Sir) Spencer Wells, to whom I related the particulars of the case above mentioned, and of one or two others which had fallen under my notice, and who suggested that the beneficial action of the powder might be due to the lime which it contained. He told me that he had used lime largely in the treatment of uterine fibroids and other tumours, and that he was convinced that processes of atrophy and calcification resembling the spontaneous change or degeneration sometimes observed in them were often produced or promoted by its action. He added that he believed the change commenced in the coats of the arteries by which the tumours were supplied with blood, and that these coats underwent first an atheromatous and subsequently a calcareous degeneration, in either case with a diminution of the calibre of the vessel and a lessened capacity for the conveyance of blood.

After the appearance of my paper I was applied to by several persons with an inquiry as to whether their cases were suitable for the employment of the remedy; but in most of these instances I subsequently found that it had been taken for only a few weeks, and then abandoned because no result was apparent. I should not hope for manifest benefit in any instance under three months of persistent treatment. A notable exception to the ordinary want of perseverance was furnished by the wife of a physician practising at Reading. This lady was the subject of a well-marked schirrus of the breast, which I had myself an opportunity of examining. After a fair and persistent trial of the calcined shell powder for three months, her husband reported to me that "the tumour had ceased growing and that she suffered no pain." She continued to take the powder for several months longer, and for several years her husband paid me an annual visit, always giving the same account, "that his wife never suffered any inconvenience or pain from her disease, the progress of which had been stopped."

The ordinary history of true cancer is such a dismal record of failure, that I think even a few instances in which benefit has been derived from a harmless remedy should encourage the profession to make trial of it in all suitable cases. It would probably be inexpedient, generally speaking, to disclose the nature of the medicine, and the public mind is by degrees becoming permeated by the knowledge that many important medical actions can only be gradually produced. We have no difficulty in inducing patients to submit to prolonged courses of mercury in the treatment of syphilis, and there is no reason why they should not do the same in a malady which, if possible, is even more formidable. Up to the present time the narratives of cures of cancer have been chiefly suggestive of errors of diagnosis, and no assurance of the value of any proposed remedy can be obtained until it has been used in a sufficient number of instances to exclude the possibility of such errors having been committed in the majority of them. Although the experience of Sir Spencer Wells with fibroids points to the probability of a beneficial action upon soft and vascular growths, those which I should myself select for the purpose of further investigation would be typical examples of breast schirrus, adherent tumours of stony hardness, attended by retraction of the nipple and lancinating pain. About the nature of such it would seldom be possible to entertain a doubt.

As an example of the uncertainty which may overhang the true characters of growths which do not present the symptoms above described, I may mention that I was once consulted by a lady living in the north of England, who had a swelling in her breast which had been pronounced to be cancer by her family medical attendant, and also by two consultants called in from the neighbouring county town. She was urged to submit to an operation, but, before consenting, she came to London for further advice. She paid separate visits to Sir James Paget, to the late Mr. Skey, and to me. I was the first whom she visited, and I gave an opinion that the tumour was a harmless one and might be let alone. Her second visit was to Mr. Skey, who said without hesitation that it was a cancer, and advised removal. Her third visit was to Sir James Paget, who said that the growth was innocent. It was let alone, and the patient has had no further trouble from it for twenty years.

Again, I was lately consulted about the case of a well-known nobleman, who had a soft growth in the front of his chest over the upper part of the sternum, which quickly attained a considerable size, and was pronounced to be malignant by eminent authorities. It disappeared entirely under a course of small doses of the perchloride of mercury.

It is therefore not in cases which admit of any reasonable doubt of their nature that I would desire to urge a trial of the lime powder upon the profession. There are hundreds of instances of unmistakable cancer in which an operation, if performed, may perhaps for a time diminish suffering or may prolong life, but in which it cannot afford any well-grounded hope of restoration to health. For all such I would say that the lime ought to be persistently and fairly tried. It can do no possible harm, it need not interfere with any remedies for the present relief of pain, its action can be referred to a perfectly intelligible and probable hypothesis, and it has been of unquestionable utility in a sufficient number of cases to warrant us in reposing some confidence in its use. We have a great hospital devoted to cancer, and cancer wards in others also; and I think the time has come when this simple means should be fairly tested by the profession. It is not long since we witnessed an extraordinary eagerness to try the Chian turpentine, which was so much extolled by Dr. Clay, and in support of which the *primâ-facie* case was nothing like so strong as that in favour of the remedy to which I desire once more to call attention.

Seymour-street, W.

ASSOCIATION OF SANITARY INSPECTORS. — On the 23rd ult., at a well-attended meeting of public sanitary inspectors at Liverpool, it was decided to form an association for the north-western district. A provisional committee was formed to give effect to this resolution, and Mr. A. Taylor, inspector of Wallasey, was appointed temporary secretary and treasurer.

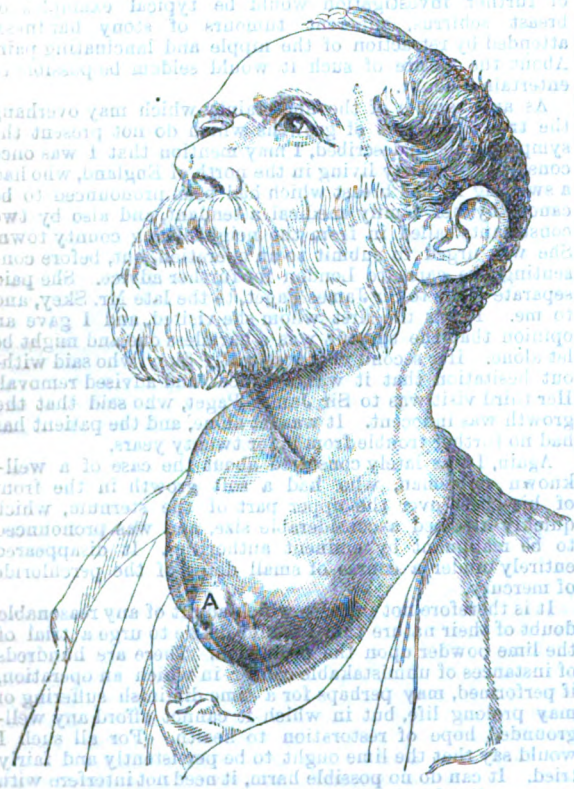
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DIFFUSED INNOMINATE ANEURYSM.

BY J. G. BLACKMAN, M.D. BRUX., M.R.C.S., &c.

THE great interest and importance attaching to aneurysmal disease of the innominate artery, and its comparative rarity, induce me to record the following case, which I think particularly shows the impossibility of diagnosing the actual limits of the disease in this class of cases, and the risk in operating lest the available vessels be atheromatous.

William W——, aged sixty, shipwright, first came under my care four years ago, suffering from hæmorrhoids. As he was losing a rather large quantity of blood after each stool, and was much weakened in consequence, I proposed their removal to him, to which procedure he assented. Upon examining his heart preliminary to the administration of an anæsthetic, a somewhat loud systolic bruit was heard over the aortic area. To be on the safe side it was decided to operate without anæsthesia, which was accordingly done, and the patient made a quick recovery.



He, however, shortly afterwards again consulted me, complaining of obscure pains in the chest and back, which he said quite unfitted him for his work; and in accordance with his wish the authorities of the dockyard granted his superannuation. On examining his chest again, I could discover nothing abnormal except the bruit previously mentioned, and the subjective symptoms seemed quite out of proportion to the objective. I was, however, able to afford him some relief by the administration of anodyne drugs, and after a time I quite lost sight of him. This respite was, however, not destined to last long, for in November, 1885, he once more came to me, this time complaining of a swelling in the neck in addition to his other troubles. On examination, I discovered a pulsating tumour, the size of a large walnut, situated immediately behind the right sterno-clavicular joint. He did not complain of much pain. The right radial pulse was full and strong, while the left was small and weak. The right carotid pulse was weakened. In spite of the anomalous condition of the radial pulses, I felt sure I had to deal with an innominate aneurysm, probably complicated with aortic disease. I saw him in consultation with several medical friends, who, with myself, deemed operative interference unadvisable, considering the probable general diseased condition of his arteries, and also the possibility of its being aortic. I prescribed a spare diet with absolute rest, and gave a mixture containing iodide of potassium with morphine. The second injunction he refused to obey, and persisted, in spite of repeated warnings, in taking long walks and occasionally doing a little gardening. Under these adverse circumstances the tumour steadily increased until about three months before his death, at which period it began suddenly to enlarge very rapidly, and at each visit I noticed a decided difference. The dimensions it attained are well shown in the accompanying woodcut, which is from a photograph taken a month before death by Mr. Newby, F.R.C.S. Eng. It will be noticed that the surface is very uneven, and appears, as it were, "pointing" in several places, one of which (marked A) became very thin and developed a black crust on its summit, which eventually came off leaving an ulcer, the base of which seemed to be entirely composed of cellular tissue. This condition caused me great anxiety, as it gave one the idea that the next pulsation must burst the apparently thin tissue. Fortunately this event did not happen, for although the ulcer spread to the size of a florin and bled to a trifling extent, it gradually became drier, and the poor fellow died from exhaustion, and in part possibly from suffocation, on Dec. 7th, 1886, having only taken to his bed during the last week of his long illness.

Necropsy.—The wall of the sac was of varying thickness, being at the most not more than from three-eighths to half an inch, and in some places was extremely thin. The arterial coats could not be distinguished, and there was scarcely any attempt at lamination. A small clot of fibrine was found in the interior, surrounded with dark, semi-coagulated blood. On tracing the sac, it was found to pass in all directions. To the outer side, it communicated with the right subclavian artery, and upwards with the carotid artery of the same side; whilst to the inner side it passed across the trachea, œsophagus, left carotid, and subclavian arteries. Downwards, it had passed over the clavicles and sternum, eroding the sternal ends of the former bones and the upper part of the first piece of the latter bone. Backwards, it had pressed upon and displaced both the trachea and the œsophagus. The aorta was found to be considerably dilated and atheromatous, the disease involving the whole of the arch and the commencement of the thoracic portion. On passing the finger along the interior of this vessel, one discovered the opening corresponding to the innominate artery, which communicated directly with the aneurysmal sac; the atheroma here appeared to be less marked. Passing the finger along still further, the openings of the left carotid and subclavian arteries could be made out, the former being a mere chink, whilst the latter was of natural size. Both openings were, however, rigid, and surrounded by atheromatous calcification, and gave the impression of being foramina in bone. The coats of both carotids and subclavians were more or less diseased. A further inspection was not permitted by the friends.

Portsmouth.

MALIGNANT DISEASE OF RIGHT LUNG AND POSTERIOR MEDIASTINUM, PRODUCING COMPLETE PARAPLEGIA.

BY FREDERICK J. SMITH, M.R.C.P., M.B. OXON.,
MEDICAL REGISTRAR TO THE LONDON HOSPITAL.

BY the kindness of Dr. H. G. Sutton, under whose care the patient was in hospital, I am enabled to publish the following case, which presents somewhat rare and peculiar features.

B. C——, aged forty-five, was admitted into the London Hospital on June 1st, 1886, complaining of pain in the right side and numbness of the legs. Family history very good. He has been engaged as stevedore and coal-porter all his life, and until three years ago had always enjoyed good health. Is a moderate drinker, never exceeding three pints of beer a day. Three years ago he had severe pain in the chest and slight cough, and is said to have been treated for pleuro-pneumonia. Ever since then he has had pain in the

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right side, and latterly, he says, the lower part of the abdomen and lower extremities have felt numbed.

Condition on admission.—Looks well, but is of a melancholy disposition, and cannot sleep on account of the pain. He states that he perspires freely, but not on the right side. Digestive system fairly good. Respiratory system: Has a slight cough; physical signs normal, except at right base, where there is dulness, deficient breath sounds, increased vocal fremitus, and pain on movement. Vascular system healthy. Nervous system: Knee jerks equal, and not remarkable; plantar and other superficial reflexes present, and about normal in freedom. The patient does not seem fully cognisant of sensations of heat, cold, and pain. Able to walk, but not well.

The following is a short abstract of the daily notes from the date of the patient's admission until his death:—June 7th: Unable to pass urine; when drawn, found to be alkaline; complains of much pain in the bladder; cannot stand without support.—16th: Passed a motion involuntarily; knee jerks exaggerated; unable to move either leg.—21st: Entirely unconscious of lower extremities.—30th: Legs contracted; commencing gangrene of right heel.—July 19th: Since last note, pain in right side and also pain referred to legs have been the chief symptoms.—22nd: Gland projects at inner end of right clavicle; a bedsore has formed, and is extending rapidly; right leg very sensitive; temperature very variable.—Nov. 1st: In this interval the chief notes are a progressive loss of strength, and complaints of pain in chest, together with a most distressing cough.—29th: Pain of a girdle character and in left side very distressing.—Dec. 14th: Troubled with "fits" and fainting.—Jan. 12th, 1887: Continued to get weaker, and died quietly without any further definite symptoms.

Necropsy.—Body much wasted. On opening the thorax, a large mass was at once apparent, occupying the right upper part of the posterior mediastinum. On further exploration it was found that the new growth had extended into the base of the right lung in a downward direction; upwards, it had infiltrated the glands of the posterior mediastinum, thus producing the bulging above the right clavicle; backwards, it was found to have softened and infiltrated the bodies of two or three of the upper dorsal vertebræ, and to have compressed the spinal cord to such an extent as to have almost obliterated it opposite the fourth dorsal vertebra, with complete softening above and below this point for some little distance. The growth had apparently begun in the neighbourhood of the right bronchus, as here it had softened down into a mass of cheesy, purulent material. The kidney showed acute pyelitis, and the bladder evidence of cystitis. The other organs presented only such changes as might fairly be attributed to the mode of death. The naked-eye appearances of the growth showed that it was an encephaloid, or soft cancer, with much juice and very little fibrous stroma.

Remarks.—The above case is interesting from one or two points of view. Primary cancer of the lung (be it remembered that so careful an observer as Dr. H. Sutton performed the post-mortem examination, and found no other cancerous deposit) is in itself a somewhat rare affection, and it must be rarer still to find examples of a soft cancer in such an important organ as the lung which took three years to kill. I say three years, for unless we take the illness of three years ago to have been the commencement of the growth we have no other possible explanation of its origin. Clinically, the case was one of extreme interest, owing to the difficulty of diagnosis. On admission the signs in the lungs were such as to give one no clue whatever as to the dangerous nature of the case, nor did the nervous phenomena lend us much aid, for, though the paraplegia was somewhat marked, the signs of spinal cord disease were absent or ill-defined. After a week's stay in hospital, however, the signs of acute myelitis rapidly developed, and then, indeed, the case assumed a most serious aspect. But still the diagnosis was anything but absolutely certain, and not till the end of July, when the enlarged gland appeared above the clavicle, could an almost positive conclusion be drawn as to the nature of the case. I can find no mention in ordinary text-books of this particular cause of paraplegia and myelitis—i.e., growth from the lung. I presume the reason is that such growths usually kill before spreading in that direction. The growth appeared not to have infiltrated the cord at all, but merely to have compressed it. I regret to say that a microscopical examination has not been made.

West-street, Finsbury-circus.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET.

CASE OF SUPRA-PUBIC LITHOTOMY; HÆMORRHAGE INTO THE BLADDER; RECOVERY; REMARKS.

(Under the care of Mr. J. H. MORGAN.)

NUMEROUS instances of successful operation for the removal of calculus by incision into the bladder above the pubes have been recorded during the last few months. The following case, however, is one in which an unusual complication occurred during treatment, and the account of it, with the remarks of Mr. Morgan, and his explanation of the mode of occurrence of the hæmorrhage, will be read with interest. For the notes of the case we are indebted to Dr. Penrose.

W. G——, a boy, aged six years and a quarter, of healthy aspect, and with no history of previous illness, was brought to the hospital on account of passing blood with his urine, and of pain in micturating. This had existed for two years. Eight months previously he had been circumcised at another hospital. The boy had always lived in London. The mother's family was gouty. The pain and blood followed micturition, and both were worse after exercise. The patient had to rise at night to pass urine. The urine after admission was slightly alkaline, without any albumen. A stone was detected on sounding, which it was decided to remove by the supra-pubic operation.

The patient having been placed under chloroform, a small gum catheter was passed and the bladder emptied of urine; it was then filled with a moderate quantity of boracic lotion, the catheter plugged, and an indiarubber band placed round the penis to avoid leakage by the side of the catheter. A tampon was passed into the rectum and distended with air until the bladder could be seen in outline upon the abdominal surface projecting with moderate prominence. An incision about an inch and a half from just above the symphysis was made in the middle line and the dissection carried down to the fat overlying the bladder, in which one vessel was tied before division. The wall of the bladder being exposed, it was incised, the finger passed in, and the stone immediately detected. This was of moderate size, and was extracted with the aid of forceps. The muscular coat of the bladder was then sewn up by inserting a number of separate fine catgut sutures, the mucous coat being avoided. The wound in the abdominal wall was then united by silk sutures and a small horsehair drain inserted at the lower angle. The stone was composed of uric acid. The catheter was allowed to remain in the bladder.

On the following day the wound, which was dressed antiseptically, looked perfectly quiet. The boy was well, and the temperature normal. Urine, slightly blood-stained, passed through catheter. On the second day the catheter was removed, as it was causing some urethritis, and urine was passed per urethram. The drain from the wound was also removed. On the third day the patient was restless, and complained of pain. The quantity of urine passed was small, and was slightly stained with blood. More was drawn off by catheter. There was a good deal of straining, and, thinking that this might be due to constipation, an enema was administered by the house-surgeon. Pain increased; no sleep. Ordered two minims of tincture of opium. Temperature normal. On the fourth day after the operation, the patient was pale, and the surface cold. The bladder was seen and felt distended up to the umbilicus, hard and tense, but not tender. To relieve this, which was evidently due to the presence of blood, a catheter was passed, and some warm boracic lotion injected. This was repeated several times, the instrument when withdrawn being filled with clotted blood, the fluid dribbling away mixed with blood. The boy slept between three and four hours.

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During the following night several ounces of blood-stained fluid were passed, and the bladder became softer and less distended. The injections were repeated, with the result of bringing away much more fluid and some clots. The swelling of the bladder was much diminished. On the sixth day the bladder swelling had disappeared, and a good quantity of blood-stained urine was passed naturally. The wound, which up to this time had looked firm and healthy, now showed some oozing, and there was marked tenderness in the right inguinal region. Three stitches were removed, and later in the day urine passed from the aperture. On the seventh day almost all the urine, which was slightly blood-stained came through the wound. The tenderness in the inguinal region was less marked, but there was observed a dark-coloured defined area of skin over the right pelvic region and extending a short way below Poupart's ligament, which was evidently caused by extravasation into the tissues of blood-stained urine. Boy improving. In a few days this staining disappeared, and the amount of urine passing from the wound began to gradually diminish as that flowing from the urethra increased. Healing was complete in the course of another four weeks, and the boy was discharged, but on coming to see Mr. Morgan a short time afterwards he was reported again to have passed some blood with the urine. This, however, has not recurred, and he is now perfectly well.

Remarks.—Any *contretemps* in the progress of a case which follows an operation which may be said to be still on its trial deserves to be recorded, and the above case illustrates two points to which attention has already been drawn. In the first place, it is not desirable, at all events in the case of children, to retain a catheter in the bladder after the suprapubic operation. Although for the first forty-eight hours the urine passed through the catheter, and was therefore not allowed to remain in and thus distend the bladder walls, the urethritis excited by the presence of the catheter was probably the cause of the bladder subsequently becoming distended, and so tearing apart the freshly united edges of the incision and giving rise to the hæmorrhage into the bladder which produced so much tension. It was this also which caused the stitches in the bladder to give way, and had they not been inserted the hæmorrhage might have made its way out by the wound in the abdominal walls and the distress which followed the distension of the bladder avoided. The staining of the tissues about Poupart's ligament on the right side is an interesting feature, and shows that a small amount of extravasation need not lead to any bad results.

NEWCASTLE-ON-TYNE INFIRMARY.

JAW CASES.

(Under the care of Mr. PAGE.)

THE cases were reported by Mr. J. P. Maynard, house-surgeon.

CASE 1. *Epithelioma of the lower jaw.*—Rebecca E——, aged fifty-two, a woman with marked cachexia and much run down, was admitted on May 22nd, 1886, with epithelioma involving the floor of the mouth. Three months previously she had noticed a painful ulcer on the frænum linguæ, which gradually spread rather rapidly over the tongue and floor of the month, with much pain and salivation. Shortly afterwards a swelling appeared beneath the chin.

On admission the floor of the mouth and under surface of the tongue were found to be occupied by an irregular ulceration, with uneven sloughy floor, indurated margins, and binding the tongue down all round as far as the first molar tooth on either side. It involved the lower jaw to a similar extent. All the submaxillary glands were much enlarged, but not adherent to the skin.

As the woman was suffering terrible pain, shooting along both sides of the head, was emaciating rapidly from inability to eat, and was willing to have anything done, Mr. Page, under chloroform, split the chin to the hyoid bone, reflexed the flaps, sawed through the lower jaw on either side by the first molar tooth, and, after passing a silk ligature through the base of the tongue, removed the whole tongue with scissors and dissected the glands out. The linguals were easily secured, and the skin brought together with a fine continuous catgut suture, the ends of the silk ligature, used to hold the stump of the tongue, being brought out through the bottom end of the wound and secured on the chest by strapping; this kept the stump from falling back upon the glottis, and was found useful more than once when that accident threatened.

The woman recovered well from the shock of so severe an operation, and the wound was kept sweet by washing it out frequently with weak Condy. She was fed by enemata the first three days, and by the mouth afterwards. Her recovery was complete; the pain left her, and by degrees the divided ends of the jaw came into apposition, so that she looked like a person with a small retreating chin. She was kept under observation, and on Nov. 1st the following note was made:—"Pain recommenced lately, shooting up left side of face, and swelling appeared below the chin on the left side; mouth healthy.—20th: Ulceration commencing on gum of left half of jaw. Stump of tongue healthy; glands increasing. Some cough.—Dec. 10th: Woman bed-fast; sinking."

CASE 2. *Encephaloid cancer involving lower jaw.*—John H——, aged fifty-six years, married, admitted Nov. 9th; a hard drinker and smoker; no history of syphilis. Twice had toothache ten years ago on the right side, accompanied by swelling. Four months ago he found a small tumour growing from the gum on the right side, with a pedicle. This he removed frequently as it recurred, and then swelling began below the right jaw, without pain, and has increased gradually since. Losing flesh.

On admission the right cheek was found prominent, and the swelling extending into the neck. Surrounding and adhering to the right lower jaw, reaching from the lateral incisor anteriorly as far back as the wisdom tooth, and bulging up on the inner and outer sides of the intermediate carious and loose teeth, was a mass of growth composed of hard, lobulated, elastic material, looking like bunches of large ripe cherries, bright-red in colour, smooth on the surface, and superficially ulcerated in a few places. Occupying the submaxillary space were three large hard glands, adherent to each other, but not to surrounding structures, and passing beneath the sterno-mastoid muscle. The cheek was free, so was the tongue and its movements, though the growth invaded the floor of the mouth.

Mr. Page performed a preliminary laryngotomy, plugged the pharynx with a sponge, and then making an incision along the lower border of the jaw as far as the ear, and in front not quite dividing the lip, he sawed through the jaw by the lateral incisor tooth and turned the jaw upwards and removed it at the joint, afterwards easily shelling out the glands. Hæmorrhage was easily arrested, and the wound stitched with continuous suture of catgut, drainage being allowed for at the angle of the jaw where bagging seemed likely to occur. The wound healed well, some facial paralysis that occurred passing off, as also slight cellulitis of the face that followed. The laryngotomy tube was removed the next day, and the wound healed well. It was intended to keep the tube in and to plug the pharynx, but the sponge excited vomiting and had to be stopped. The growth proved to be encephaloid cancer.

Jan. 20th.—Patient stationary. The recurring attacks of cellulitis (?) have left an "elephantoid" thickening of the cheek.

March 10th.—Growth returning.

CASE 3. *Epithelioma.*—James C——, aged fifty-three, admitted on Oct. 30th, 1886. He suffered from epithelioma of the cheek in August, 1885, which was excised. Ten weeks previously to admission it returned, and has increased.

On admission, the growth involved the whole thickness of the cheek at the angle of the lower jaw and the jaw itself. It had recurred inside the cheek, and was making its way to the skin, which was reddened. The mouth could only be opened half an inch in front, when the inside of the cheek at the angle of the jaw was seen to be ulcerated. No enlarged glands in the neck. On Nov. 17th the skin burst, after which the growth seemed to diminish somewhat in size.

On Nov. 27th, at the patient's urgent request, Mr. Page operated, making a double elliptical incision extending from the angle of the mouth nearly to the lobule of the ear, and including the ulcerated surface. He sawed through the jaw outside the canine tooth and across the ascending ramus, removing the intermediate portion. In order to bring the edges together without the tension there must otherwise have been, a curved incision was made about three-quarters of an inch below, and parallel to the lower one previously made, as in the principle of cheilo-plasty, and then the two incisions sutured, three hare-lip pins being used. The man did well, and, though two of the pins cut partly through, the wound healed up.

Jan. 26th.—There is no return of the disease.

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Feb. 16th.—Since going out the cheek has gradually becombe œdematous and indurated (as in Case 2).

April 6th.—The growth is recommencing inside the mouth at the old seat. The cheek still remains elephantoid. No pain, and still eats well.

CASE 4. *Sarcoma involving the upper jaw.* — James S——, aged fifty-nine, young for his age and healthy, was admitted on Oct. 1st, 1886. Six months ago he noticed a swelling on the right cheek close to the nostril, the size of a pea. It grew slowly without pain. Never had any discharge from the nose.

On admission the angle between the nose and cheek on either side was occupied by a swelling as large as two walnuts, fixed, elastic, and attached to the superior maxilla on the right side, not adherent to the skin or encroaching on the orbit. On raising the lip it appeared as an elastic red swelling, distorting neither alveolus nor palate. It fills up the right nostril, and its nasal surface is superficially ulcerated, bleeding when touched. There are no enlarged glands in the neck. On puncture a drop of blood escaped.

On Oct. 19th Mr. Page operated, raising the upper lip by cutting through it into the right nostril. Sawing through the upper jaw on either side beyond the lateral incisor tooth, he forcibly removed the inter-maxillary bones with the growth. The growth proved to be a round-celled sarcoma. The case did well, and the deformity was *nil*, his voice having a nasal twang, and occasionally fluids returning through the nostrils while drinking.

On Jan. 31st, 1887, he returned with a recurrence at the seat of removal and in what remained of the right upper jaw. On Feb. 1st the upper jaw was removed, and the antrum was found to be filled with the growth. The man had erysipelas of the face and a mild attack of pneumonia (no preliminary laryngotomy had been performed), and an abscess formed subcutaneously in the left arm. He also had a purulent discharge from both middle ears. These abscesses gradually healed, but his recovery was retarded by a fresh attack of erysipelas lasting some days, and leaving behind it a thickened state of the cheek, as in Cases 2 and 3. On March 26th he was discharged, with evidence of a return of the growth.

CASE 5. *Encephaloid cancer, involving the upper jaw.*—Mary H——, aged fifty-nine, widow, was admitted on Oct. 28th, 1886. Seven months ago she felt pain followed by swelling over the right malar bone. It increased slowly, spreading towards the orbit. No pain in mastication (teeth all lost some years ago), and no discharge from nose and mouth.

When admitted the right face was very prominent; skin reddened and partially adherent. The upper jaw, malar, and half of zygoma were covered by a hard growth, soft in places, which displaced the eyeball upwards, filled the temporal fossa (anterior half), and covered the masseter muscle (upper half), bulging into the mouth between the upper teeth and cheek. No glands enlarged, and the patient had been losing flesh.

On Nov. 6th, on the patient's urgent solicitation, Mr. Page raised the skin by the incision recommended by Mr. C. Heath, and, after dividing the zygoma and nasal process of the upper jaw with bone forceps, sawed through the alveolus from the nostril and avulsed the upper jaw and mass entire, dissecting up the orbital structures from the floor of the orbit. The large chasm bled profusely, but soon stopped with pressure, and the skin flap was brought down with a continuous catgut suture. It healed well, and the woman went home early in December. Her face, which previously had a very anxious and pinched expression, assumed quite a cheerful look. The growth proved to be encephaloid cancer. She came up on January 15th, when there was no sign of any recurrence, though the eyeball appeared in danger of disorganisation. In the beginning of April the growth recommenced at the seat of removal.

CASE 6. *Myxoma involving the upper jaw.*—James M'K——, aged seventy-five, was admitted on Oct. 30th, 1886. Six years ago he noticed a small growth like a raspberry protruding from the socket of one of the left upper molar teeth. He used to remove it with his finger-nail, but it gradually grew too firm and extensive for this. He is a hale and hearty man, looking about fifty-five. There is a growth about the size of a hen's egg attached to the left upper alveolus, red, elastic, and fairly soft. It consists of two parts, the interval between them leading through the tooth socket into the antrum. Under chloroform the growth with a portion of the alveolus was removed. It proved to be a myxoma.

Jan. 20th.—There is a small piece of the growth projecting through into the mouth the size of a pea. He had no pain, and it is uncertain whether it is returning.

March 20th.—The projecting portion is not increasing, and he suffers no inconvenience from it.

CASE 7.—*Sarcoma of the upper jaw.*—J. R——, aged sixty-eight, was admitted on Feb. 24th, 1887. Eighteen years ago he had mucous polypi removed from the nostrils. Last December he felt pain and swelling over the right cheek, which had increased pretty rapidly. Has lost flesh. He is a hearty, strong old man. The interval between the nose and the right cheek is filled up with a swelling, which encroaches upon the floor of the orbit above, passing over, not through, the bone, pushing the eyeball upwards. Below, it bulges in the angle between the cheek and the gum; and inside, it presents in the nose as a red vascular surface. It is elastic and tender; a needle draws off blood only. There are no enlarged glands in the neck. The finger detects a hard lobulated growth projecting through the posterior nares. All organs healthy.

On March 1st Mr. Page removed the entire upper jaw. The growth proved to be soft sarcoma, filling the antrum and the right half of the nose. The patient did well after the operation, and on the 31st went home perfectly well.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Destructive Arthritis of Knee without Suppuration.—Senile Arthritis.—(?) Sarcoma of Knee.—Carcinoma of Spine and Liver.—Diffuse Sarcoma of Spinal Pia Mater.—Interstitial Aneurysm of Inter-auricular Septum.—Tubal Pregnancy.

AN ordinary meeting of this Society was held on Tuesday last, Sir James Paget, Bart., President, in the chair.

Mr. S. G. SHATTOCK read the report of the Morbid Growths Committee on Dr. Edmunds specimen of Horny Papilloma of the Hand, from which it appeared that there was no evidence of genuine malignancy. The necrosis had extended over a period of two years; there were no lymphatic enlargements, and although the operation had been performed twelve months ago, there were no signs of recurrence.

Mr. HUTCHINSON showed a specimen of Dry Arthritis in which there had been an unusual amount of absorption. It came from the limb of a head mistress of a large school, aged forty-five, who had suffered from extreme pain for some time. The tibia was displaced backwards and outwards, but there was no real periosteal thickening. The leg was amputated. The whole of the cartilage was absorbed, and there was much wasting of the femur and tibia without any suppuration, necrosis, or material softening of bone, or, indeed, any fluid effusion. It was not a case of Charcot's disease; there was no evidence of locomotor ataxy; rheumatism was out of the question.

Mr. THOMAS SMITH showed specimens of Acute Senile Arthritis of Tubercular Nature. The first came from a lady aged sixty-seven. She had suffered much from pain in the ankles and knees. Last November she was suddenly seized with severe pain in one knee, which rapidly filled with fluid and the limb became deeply ecchymosed; the body temperature fluctuated between 100° and 103°, and the pulse between 150 and 160. The patient was most unmanageable. In March amputation was performed and recovery followed. The amputation was through the lower third of the thigh. Over the joint surface subject to pressure the cartilage was absorbed; the synovial membranes were thickened and thrown into processes and fimbriæ; there was no sign of ulceration or suppuration. Mr. D'Arcy Power made a microscopical examination, and found miliary tubercle, but not bacilli. The family history showed a marked degree of tubercle in many relatives. A second case occurred in a man aged seventy. The wrist-joint had been affected for two or three months with great swelling; open sinuses had formed, and necrosed bone could be detected through them. The end of the ulna was laid bare and dead. A profuse discharge of pus flowed from the joint. Albuminuria (one-fourth) was present. Amputation through the forearm was followed one month afterwards by death from the effects of chronic heart

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disease. The joint was much destroyed; the ligaments had given away; the bone was much necrosed. The cases were illustrations of senile struma as recognised by Sir James Paget some years ago, though he gave no evidence as to the microscopical presence of tubercle.—Mr. R. J. GODLEE mentioned the case of an old man with extensive disorganisation of the wrist-joint, in which caseous material was discovered.—Mr. F. S. EVE said that Dr. Lediard had shown a specimen closely resembling Mr. Hutchinson's case.—Mr. MACNAMARA thought there was clear evidence of the existence of degenerative changes due to trophic nerve influence, and yet not a genuine case of Charcot's disease. He had published a case of distinct and definite tubercular disease of the joint, but there were no bacilli.—In reply to Mr. Smith, Mr. HUTCHINSON said that the chronic disease had lasted many years, but the acute destructive disease only three or four months; a microscopical examination had not been made, but there was no evidence of tubercle. He had seen many cases of what he diagnosed as struma in people above the middle age since the publication of Sir James Paget's.

Mr. HUTCHINSON showed a specimen of Tumour of (?) Syphilitic nature. A swelling appeared on the inner side of the left knee-joint of an officer in the Indian army. There was a history of chancre, but no conclusive proof of syphilis. Iodide of potassium failed to effect real improvement. The skin over the tumour was healthy; no nocturnal pain. Mr. Hutchinson thought it most probably was a syphilitic gumma, and iodides of sodium, potassium, and ammonium were given in large doses, and afterwards mercury to full ptyalism, but all without effect. Consultation with Sir James Paget was followed by exploration, and finally amputation of the limb. A soft opaque whitish structure like a sarcoma was found beneath the vastus, and then much grumous fluid was discovered and a bare patch of bone, but there was no ossification of the tumour. The knee-joint was involved. The growth, the size of a fist, was attached above the inner condyle; a central cavity contained glairy fluid and extensive erosion of bone over a surface of about three inches in diameter. Several weeks' treatment with iodide and mercury had previously failed to reduce the swelling. The growth was well defined by fibrous tissue, and to a large extent was made up of this, with collections of round cells at various points. Great numbers of vessels were present, many of which were more or less obliterated by thickening of their walls. Some new formation of cartilage and bone had occurred at the margin. The thickening of the vessel walls by cellular infiltration, together with the erosion of bone, pointed to a specific origin; but the failure of treatment, the absence of any marked gummatous deposit (though some parts were degenerated) were against this hypothesis. Mr. Hutchinson said that two cousins and an uncle had died of cancer. He had never seen a gumma having the naked-eye characters of the tumour in question, nor one which so persistently refused to be cured by specific treatment.—Sir JAMES PAGET said that he had had no serious doubt during life that the growth was a sarcoma, even whilst bearing in mind that mistakes had been made. He thought that tumours expressed themselves as surely in shape and naked-eye characters as they did to the microscope.—Mr. D'ARCY POWER had dissected a similar specimen in a well-marked case of syphilis.

Dr. G. N. PITT showed a specimen of Primary Carcinoma of the Liver, taken from a man aged forty-eight, who had incontinence of urine for two years, and died with paraplegia. There was a large liver weighing 120 ounces, and section of it showed a large white growth of elastic consistence, with forty or fifty secondary growths around. Deposits were found in the kidneys, lungs, and suprarenals. As a unique occurrence, it was found that the eighth dorsal vertebra was entirely replaced by carcinoma. It was probably of scirrhous nature, and primary in the liver, perhaps originating in the bile ducts. Several similar cases have been recorded in the Pathological Transactions. Numerous prostatic calculi were found, and possibly this was related to the enuresis. There was also a mass of growth in Douglas's pouch.—Mr. GODLEE said that Mr. Kesteven had recorded a case of sarcoma, in which one vertebra was completely replaced.—Dr. NORMAN MOORE had never seen a vertebra so completely substituted.—Mr. LAWSON TAIT related a case of papillomatous disease of the peritoneum, from which recovery took place.—Dr. W. S. A. GRIFFITHS said that Mr. Thornton and Mr. Doran had recorded similar cases.

Dr. PASTEUR (on behalf of himself and Dr. COUPLAND) read a paper on two cases of diffuse sarcoma of the spinal pia mater. Case 1 was that of a female aged twenty-two, whose illness began in June, 1885, with headaches and pain in the right shoulder and arm. In September there was severe pain along the spine. On admission to the Middlesex Hospital, on October 7th, 1885, there was impaired memory, paresis of arms and legs, without loss of sensibility, abolition of knee-jerks, and severe pain along the spine and in the occipital region. There was intense double optic neuritis, impairment of vision, and complete paralysis of both external rectus muscles, with simple diplopia. The patient died comatose on the second day after admission. The spinal cord was found ensheathed in its whole extent by a softish grey mass of new growth, most developed on the posterior and lateral aspects. It was situated beneath the arachnoid and was inseparably united to the pia mater. In an upward direction it spread over the pons and medulla, completely investing the sixth pair of cranial nerves, and had extended in the form of isolated nodules to the parietes arachnoid in several places. Downwards the growth had invested the nerves of the cauda equina with thin translucent sheaths, which at intervals expanded into small tumours. The nervous tissues presented normal naked-eye appearances. Microscopically, the growth consisted of closely aggregated small round cells with a small nucleus embedded in a stroma for the most part obscured by the luxuriance of the cell growth. The growth invaded the white matter of the cord at several points, mostly along the lines of the normal trabeculæ. The nerve tissue of the cord showed no pathological changes. Case 2: A girl, aged four years and a half, under the care of Dr. H. C. Bastian. Her symptoms dated from a fall down a flight of steps two months before admission to University College Hospital. The chief symptoms were strabismus, paresis of the legs and arms, and blindness of sudden onset, fourteen days before admission. There was also severe pain in the back and marked weakness of the trunk and muscles. Sensibility was unaffected. Death took place by asphyxia seventeen days after admission, without convulsion. The spinal cord was surrounded by a thickish layer of new growth, especially developed on the posterior aspect. The growth reached upwards to the under surface of the cerebellum, which it invested and infiltrated to the depth of about half an inch. The middle lobe of the cerebellum was almost entirely replaced by new growth. Microscopically, the growth presented appearances almost identical with the previous case, which were rare, and seemed to form a group apart from other kinds of growth in the spinal membranes. Only three cases in which the growth might be presumed to be primary in the spinal pia mater were on record. The notable points in the group of cases were: The extreme diffusion of the new growth, which involved the whole spinal pia mater; the type of tissue, approximating closely to inflammatory tissue, but distinguished by the absence of any tendency to become organised or to undergo retrogressive changes; the limitation of the growth to the spinal pia mater; the age of the patients—four and a half, sixteen, and twenty-two years respectively; the brief duration of the symptoms—about three months in each case; the absence or impairment of knee-jerk and other reflexes in connexion with the involvement of nerve roots; the absence of convulsions; the presence of constipation; the presence of fundus changes in the two cases in which the disease reached the brain. The cause of death in all the cases was interference with respiration.—Dr. J. A. ORMEROD said that a somewhat similar case had been recorded by Dr. Long Fox in the *Bristol Medico-Chirurgical Journal*.—Dr. HADDEN referred to some cases of a similar kind published as chronic meningitis in the last volume of the Pathological Transactions.

Dr. MAGUIRE showed a specimen of Interstitial Aneurysm of the Inter-auricular Septum. The aortic valve was stenosed, and the cusps much thickened by inflammatory growth and covered with fibrin, in which no micrococci could be found. Anterior to and below the foramen ovale a cyst filled with partly disorganised clot was found, which turned out to be really an aneurysm. There was some ulceration below the aortic valve, which communicated by a narrow fissure with the cavity of the aneurysm. The precise mode of origin was doubtful. As affecting a part of the body rarely the seat of morbid changes, the specimen was of much interest.

Mr. LAWSON TAIT communicated an additional note on the Pathology of Extra-uterine Pregnancy. The theory of extra-uterine pregnancy which he advanced in 1873 has

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met with only one objection. His theory, based on the belief that the rupture of the tube was caused by the placenta, it was urged, could not be accepted because the placenta was not differentiated until after the third month, whereas these ruptures generally occurred between the tenth and twelfth weeks. Carpenter said that "the formation of the placenta commences in the latter part of the second month, and during the third the organ acquires its proper character." In fact, according to Goodsir, the changes upon which depend, in Mr. Tait's belief, the ultimate rupture of the tube begins before the end of the first month. He meant the immersion of the fœtal tips in the maternal tissue and the formation of new vessels and the great increment in size of those in previous existence. The ultimate localisation of this immersion for the subsequent differentiation of the placenta is evident long before the completion of the eighth week. All the facts are completely proved by two preparations of the Pathological Series of the College of Surgeons Museum (4691 and 4691*a*). In a post-mortem examination made in 1874, in which he succeeded in perfectly injecting the uterus, ovaries, and tubes, the enlarged maternal vessels at the edge of the placental site were clearly the reason of rupture, and the source of the fatal hæmorrhage. The difference in the uterus and the Fallopian tube in the matter of a contained fertilised ovum is that the uterus has the power of indefinitely increasing the thickness of its walls, whereas the tube has no such power, or has it to a very limited extent. The site of the placenta as a seat of active nutrition, wherever it may be, becomes extremely vascular, as is proved by preparations now exhibited. If the tissue in which this change is effected is also infiltrated by soft villi, naturally of a kind easily torn, and if it does not increase proportionately in strength, it must offer a feeble resistance to the pressure of the rapid growth of the ovum. There are many other preparations illustrating and confirming these points. Dr. Heywood Smith's specimen was removed from the living abdomen as a pediculated tumour, and the conditions were such that it seemed that at last a case had been found that unhinged completely Mr. Tait's theory of extra-uterine pregnancy. This preparation was submitted to a committee for report, which read as follows: "The specimen consists of a fœtus and placenta corresponding to the fifth month of gestation. Also the Fallopian tubes, with the ovaries. The sac containing the fœtus and placenta is made up of involuntary muscle fibre, and resembles in structure the Fallopian tube, portions of which from the same case were cut and prepared for the microscope, and compared with the sac wall. Sections were also taken from an undoubted case of tubal pregnancy which had advanced to the fourth month of gestation. The sections from the two cases were identical. The outer wall of the sac presents pieces of omentum, showing that fairly strong adhesions had arisen between the dilated tubes and the omentum. The Fallopian tube corresponding to the sac, &c., was scarcely represented except by fimbriæ. The corresponding ovary contains a large corpus luteum. There is no evidence of rupture of the tube, and there can be no doubt that the specimen is one of tubal gestation." What, then, is wanted now for the modification or destruction of the author's theory is a preparation of extra-uterine pregnancy which is inconsistent with a tubal origin, or a case of tubal pregnancy which has not ruptured either into the peritoneum or into the broad ligament at or before the twelfth week of ovum life. Dr. Berry Hart dissected a specimen of extra-uterine pregnancy, and subjected it to the process of freezing and longitudinal slicing. It is a case of tubal pregnancy ruptured into the broad ligament, and developed there until at least the eighth month—perhaps longer. Unfortunately, nothing is known of the history, but the fortunate sections cut by Dr. Hart absolutely prove beyond all criticism what he (Mr. Tait) had convinced himself of by the facts observed by him in operating upon these cases—that they are originally tubal, and that they develop in the broad ligament, pushing its layers and those of the peritoneum upwards and backwards and towards the centre. In operating on these cases, sometimes he opened the peritoneum and sometimes not. The reason is made plain by Dr. Berry Hart's sections, where the uterus is central. The growth of the pregnancy has stripped the tubal and peritoneal layers and carried them upwards, but a moment's consideration will make one conclude that the peritoneum could be stripped off the posterior wall by the uterus only; it could not be shifted from the anterior wall of the uterus and bladder, though these were pulled well up. But immediately on each side of the uterus the peritoneum has been shifted off the transversalis fascia as far up as the umbilicus, leaving a long conical tube of the peritoneal cavity reaching down over the median line of the fœtal mass as far as, and corresponding in diameter to, the uterus. In some cases the uterus was central, but in the majority it was not. Dr. Berry's Hart's drawings showed why it was that sometimes the peritoneum was opened and sometimes not. When this peritoneal tube was central, it was opened; when it was not, Mr. Tait missed it: so that these operations were sometimes to be ranked as abdominal sections and sometimes not. He submitted also sections of the tube in early tubal pregnancy, showing the immersion of the fœtal villiin to the tissue of the Fallopian tube, and the consequent enlargement of the tubal vessels.

The following card specimens were exhibited:—Mr. E. H. Fenwick: Urinary Tuberculosis with Multiple Calculi. Dr. Barlow: Renal Sarcoma in a Child. Mr. Page for Mr. Raven: Sarcoma of Dorsal Vertebræ. Mr. Shattock: Tubercular Arthritis. Mr. R. J. Godlee: Bones of Limbs, Skulls, and Sternum, infiltrated with Sarcoma.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

The Presence of Mould Fungi in connexion with Diphtheria.

AT the meeting on April 13th (Surgeon-General John Murray, M.D., Vice-President, in the chair), Dr. MICHAEL W. TAYLOR read a paper on the Presence of Mould Fungi in connexion with Diphtheria. He gave the whole evidence he possessed, which he had collected from many years' experience of outbreaks of diphtheria, in support of views he had formerly expressed in the *British Medical Journal*, July, 1881, on the fungoid origin of diphtheria. He had ventured on a deduction from these observations, which he laid down as a proposition to be worked out—viz., that some common mould fungi growing under certain conditions may originate or transmit diphtheria. The first set of cases comprised three children in one house, who took diphtheria within a few days of each other; no exposure to infection; absence of all evil extrinsic conditions, except the state of the bedroom they slept in. The walls, in consequence of leakage, had become sodden with wet on July 12th. On July 22nd a fungus appeared on wet plaster. On August 1st appeared the first case of diphtheria, rapidly followed by two others, in the children who occupied the room. At this time the surface of the wall was covered with aspergillus mould, besides which there was a surprising development of a pileate fungus, a coprinus, growing on the wet plaster. Second case: Child with diphtheritic exudation on fauces, extending to larynx, and death in three days. Leakage through walls of house some time previously, from storms of wind and rain; great development of penicillium moulds in the apartment; a large quantity of recent skins of cats, covered with mould, stored in an adjoining chamber. Third case: A young man, who had diphtheria severely four days after having been engaged for a whole day in cleaning out a loft in which a number of pigeons were kept, which was full of mould growing on the exuviæ and débris and rotten wood-work. Fourth series: A rapid series of cases in four children in the same family, in which the only insanitary condition known to have existed was the presence of a quantity of fleeces of sheep's wool, which had been stored for two years within the house in an adjoining room. Fifth series: Three outbreaks of diphtheria in a farmhouse, one case in 1879, four cases in 1880, two cases in 1881. Here also wool had been stored within the house, until there had been an accumulation of six years' clippings, and it was kept in a room which had been successively used by these children as a sleeping apartment. The author regarded the evidence in these cases as pointing strongly to the storage of wool, and to the mould spores and dust proceeding from it, as being the exciting causes of three successive outbreaks of diphtheria. After citing the observed phenomena, the author proceeded to work out the probabilities of common moulds being connected in some way as agents in originating the diphtheritic growths. The presence of fungoid organisms, found in the exudations of diphtheria, were of pathogenic import. It was shown by researches of Oertel, Nasiloff, Ebert, and others, that diphtheria is a true mycosis, and that we are warranted in believing that it depends on the implantation of fungoid material endued with virulent power. Evidence was sought from analogy of what obtained

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in other fungoid parasitic affections infecting man and animals; it was shown that many of these fungal productions were but conversions of elementary states of penicillium and oïdium. As maintained by Zopf, there may be a pleomorphism amid pathogenic micro-organisms, and that there are stages of intermediate forms resulting from the nature of the nutrient media. Common moulds are capable of artificial growth in the bodies of animals; the spores of aspergillus glaucus have been made to germinate in the eyes of rabbits; and there is a ready-made experiment in the Madura foot disease, which arises from inoculation with the spores of a mucor, growing in the hot season in India. The innocent bacterium and aspergillus may by special cultivation become pathogenic, according to Grawitz and Fepinger; the experiments in this direction by Nägele and Büchner were referred to; and also Lichtein's experimental inquiry on pathogenous mould fungi. So the author claimed that this speculation from bedside experience was sustained by the experiments of the laboratory. He regarded the primary elements of zymotic disease as dependent not on individual forms of germs, but an affair of soil; and inferred that common moulds, both by spores and mycelium, might originate diphtheria by growing on noxious media.—In the discussion which followed Surgeon-General Murray, Sir William Smart, Drs. Thorne and Burns, and Messrs. Shirley Murphy and Paget took part.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.

A MEETING of this Society was held on April 1st.

Mr. JOHN POLAND showed a patient after amputation at the knee-joint by Bryant's method, leaving the inter-articular fibro-cartilages and their fascial surroundings intact. The stump was an excellent example of the result of this form of amputation.

Mr. JOHN POLAND then read a paper on the Diagnosis of Traumatic Separation of the Epiphyses. The chief points in the diagnosis of these injuries were fully discussed. Special importance was attached to the particular period of age in which it occurred in particular bones. At this time the separation was found to be of a simple character and complete—that is, completely through the epiphysiary line of cartilage. Above and below this age the detachment was frequently incomplete or partial, and often very complicated, defying the most skilled surgeon to give an accurate account of the precise anatomical condition of the lesion. Separation of the epiphyses without displacement was described as a most important practical point to be constantly borne in mind, otherwise a number of these injuries would be overlooked. Stripping up of the periosteum, and its subsequent inflammation, were found to take place in this, as well as in the case of a complete separation, but to a much less extent. The question of prognosis, especially as regards the partial separation, was mentioned, as well as the various dangers likely to be met with. Acute joint disease, as in the hip, was often the result of a separated epiphysis. The paper was illustrated by cases that had been under the author's treatment and by specimens from Guy's Hospital museum.

Reviews and Notices of Books.

The Treatment of Spina Bifida by a New Method. By JAMES MORTON, M.D., L.R.C.S. Ed., Professor of Materia Medica in Anderson's College, lately Surgeon and Clinical Lecturer on Surgery in the Glasgow Royal Infirmary, &c. With a paper on the Pathology of Spina Bifida by Dr. JOHN CLELAND, Professor of Anatomy in the University of Glasgow. London: J. and A. Churchill. 1887.

DR. MORTON has considerably enlarged his book in this edition, and by the accumulated experience of the results of his treatment of spina bifida is enabled now to speak of it more confidently than before. The interest that would otherwise have attached to the republication of this *brochure* has been greatly lessened by the issue of the report of the Committee of the Clinical Society of London on the whole subject of the treatment of spina bifida. Not only was this committee a strong one, but its investigations into the clinical side of the subject and into the pathology of the deformity, so far as they went, were so extensive and careful, and their conclusions so well considered, that it would seem as if but little were left in this field for any other investigators just at present; and Dr. Morton relies to a very large extent indeed upon the committee's report for the general facts in this essay. Of course he adopts the committee's view that his treatment is the best at present known, and he supplements it in three particulars—1st, that the percentage of recoveries under it is larger than that found by the committee; 2nd, that he would not exclude from its application even the cases considered desperate; and 3rd, that he would employ it at an earlier date than the committee recommend. A large part of the volume consists of the detailed records of cases under the care of Dr. Morton and other surgeons, and we wish a good table of all the cases known to the author had been appended, for in its present form the book is not well suited for reference. Considerable interest attaches to the short chapter on the Pathology of Spina Bifida, contributed by Professor Cleland. Premising that "it cannot be said that the committee has placed the pathology of spina bifida in a satisfactory position," he points out that "open spina bifida without tumour" must be studied together with the commoner variety of the deformity. Dr. Cleland argues that the essence of spina bifida is a dropsical effusion into the central canal of the spinal cord. The non-tumescent form is not only often associated with but is allied to anencephalus, in that each is due to rupture of a dropsical sac. Tumescent spina bifida he groups into metaneural and perineural varieties—in the former the effusion being behind, and in the latter surrounding, the nerve roots. The metaneural effusion Dr. Cleland believes to be syringocele, or dropsy of the central canal of the cord, or an effusion secondary to this—basing this contention on the frequency of syringocele (three out of five specimens in William Hunter's Museum), and on the fact that in all cases the cord extends down to the sac and does not undergo the usual developmental retraction. Similarly, perineural effusion is based on a burst syringocele in some instances, and in others is associated with an unburst syringocele. The conclusion drawn is that "spina bifida, in all its varieties, implicates in the first instance the interior of the cord."

Rest and Pain. By the late JOHN HILTON, F.R.S., F.R.C.S. Edited by H. A. JACOBSON, B.A., M.B. Oxon., F.R.C.S., Assistant-Surgeon to Guy's Hospital. Fourth Edition. London: George Bell and Sons. Pp. 514. 1887.

THE profession will welcome a new edition of this classical work, which has lost none of the popularity and appreciation bestowed upon it when it first appeared in print under the personal supervision of its learned author. In his editorial preface Mr. Jacobson states that he has made very few alterations in the present edition, on the grounds that since "the author's death renders his name less and less familiar to the generations that are rising, it has seemed more right to leave his book without further changes." We entirely subscribe to this explanation. Mr. Hilton's work is *facile princeps* of its kind in our own or any other language. Its pages teem with facts—dry perhaps in themselves—but rendered palatable, instructive, and interesting by reason of the clinical and physiological interpretations that have embellished them. No one can rise from a perusal of its pages without admiring the ingenuity of the reasoner and the practised skill of the surgeon who, alas! is now lost to science and humanity. Some of the arguments adduced in support of preconceived opinions may seem fanciful and far-fetched when scrutinised by strict logical laws, but, for all that, none can doubt the sincerity and enthusiasm of the writer who gave an affirmative answer to the interrogation contained in Divine writ, "Can these dry bones live?"

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It may be safely said that the late Mr. Hilton touched no subject which he did not adorn; and his pages now under review will stand as his lasting monument. In Mr. Jacobson the author of the work found a worthy disciple, and one well fitted to take the responsibility of editorship. Wherever Mr. Jacobson has altered the original text, or amplified it, it has been done with the purpose of rendering it more accurate and complete, and no one can deny that his task has been successfully accomplished. The additions to the work are chiefly in the form of foot-notes, so that the primary plan and substance remain much as they were in previous editions—a procedure far preferable to that which more commonly obtains in excising and substituting, until by mutilation recognition of the author's handiwork is all but impossible.

Practical Pathology: an Introduction to the Practical Study of Morbid Anatomy and Histology. By JOHN LINDSAY STEVEN, M.D. Glasgow: Jas. Maclehose and Sons. 1887.

THE thoroughness with which pathology is pursued in the great schools beyond the Border is reflected in the manuals that have been issued of late from two of the University towns. Dr. Steven's book is the less ambitious of the two, but not less useful, and we can congratulate him upon the manner and style of its production. In the present day our pathological departments ought to be so equipped and conducted that no post-mortem examination should be considered complete unless it included records of histological as well as of gross anatomical appearances. This will not be possible until a more generous recognition is given by the responsible authorities to the pursuit of this subject, for it would necessitate a greatly increased staff and outlay. Yet it has always seemed to us that every effort should be made to perfect our means of pathological investigation and instruction. Much has been done of late years to facilitate such studies, but their value will not become appreciated until examining boards take more cognisance of real practical knowledge. To the earnest student bent on seeing for himself the facts of which he reads, such a manual as that of Dr. Steven will be invaluable. It is not too diffuse or too technical; and although it lacks illustrations, they are not absolutely needed, for the best illustration is that afforded by the specimen itself.

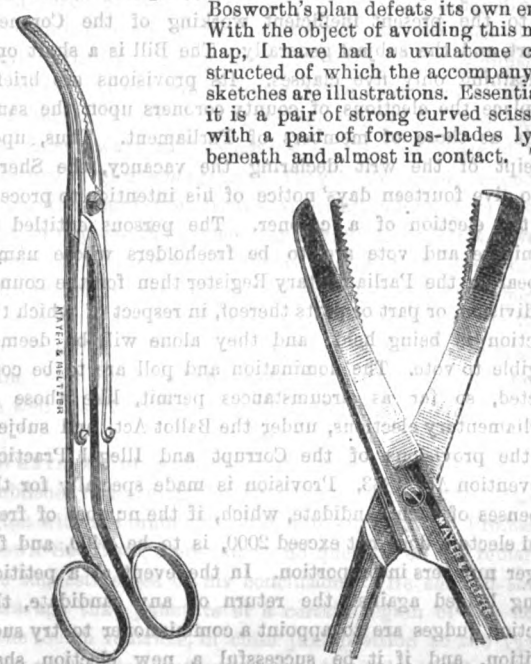
New Inventions.

A NEW SEWAGE PRECIPITANT.

MR. KINGZETT, the well-known inventor, or we might perhaps more correctly say the discoverer of "Sanitas," has patented a very simple agent for the precipitation and utilisation of sewege. This agent is powdered coke. The great value of gas coke as a filtering agent for water was demonstrated, we believe, for the first time by Dr. Percy Frankland, but Mr. Kingzett is doubtless original in suggesting its use in the clarification of sewage. The powdered coke is first mixed with a certain proportion of clay, to increase the density of the precipitant, and is then well mixed with the sewage. It is said that the deposit can most readily be pressed, and that the cake has a certain, although not great, manurial value. What is even more important, the cake can be air-dried and used without nuisance as fuel, or may be carbonised by heat and used again as a precipitant. The suggestion is an interesting one, for every gasworks turns out a quantity of breeze or coke dust, which is sold at a very low rate, and is often hard to sell at all. It certainly seems possible that this breeze, more finely powdered, may prove an economical sewage precipitant. We can express no decided opinion as to its sanitary value, but it promises well, and we shall be glad to hear that it has been properly tried. Mr. Kingzett, in his circular, does not tell us how much of his material would be required. Indeed, he does not seem to have gone beyond laboratory experiments.

A NEW UVULATOME.

UVULATOMY gives very various results in the subsequent degree of discomfort during cicatrisation, according to the method and skill of the operator. It was Bosworth of New York who first pointed out the advisability of cutting in a direction upwards and backwards, so that during deglutition the bolus of food should not come in contact with the raw surface. In order to effect this, he directs that the uvula be seized with forceps, drawn forwards and cut in the direction indicated, with ordinary scissors. That the subsequent discomfort when this is satisfactorily accomplished is infinitely less than when the wound is horizontal I can assert from comparison of the two methods. But the means he advocates are neither simple nor efficient. The chief objection is the drawing forwards of the uvula with forceps; for the loose union subsisting between the mucous membrane and the muscular structures enables the former to be drawn off the latter, and the operation inevitably leaves the stump denuded of its coverings. And thus Bosworth's plan defeats its own ends. With the object of avoiding this mishap, I have had a uvulatome constructed of which the accompanying sketches are illustrations. Essentially it is a pair of strong curved scissors, with a pair of forceps-blades lying beneath and almost in contact. The



latter, while the scissors are still wide open, grasp the uvula. The projecting arm at the end of one blade, which the artist should have represented half as long again, prevents the uvula from slipping back during cutting. With the mouth wide open and the tongue depressed, the patient is instructed to breathe in and out gently through his nose, whereby the velum is relaxed and the uvula brought into a vertical position. This is the more easily effected, since an elongated uvula is generally accompanied by a semi-paretic condition of the soft palate, both being probably dependent upon a chronic congestion of muscular tissue as well as mucous membrane. The instrument is then opened wide, and that portion of the uvula which it is desirable to remove is carefully included in the forceps-blades and rapidly cut through. If the operation has been efficiently performed, we should be unable to see the cut surface. It is scarcely necessary to add that no more than the redundant mucous membrane should be removed.

The instrument has been made for me by Messrs. Mayer and Meltzer, who have shown great ingenuity in securing simultaneous action in the two parts of the mechanism.

Upper Wimpole-street. GRENVILLE MACDONALD, M.D. Lond.

OPAQUE GLASS DRAINAGE-TUBES.

MESSRS. WOOD of Manchester have made for Mr. W. R. Dambrill-Davies some drainage-tubes of opaque white glass. The advantages of the glass tube are its rigidity and its cleanliness; its disadvantages are its brittleness and the difficulty of exact adjustment. The special merit of the opaque tubes is that their position in a wound is at once apparent. They are made of three sizes as to calibre, and of various lengths.

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THE LANCET.

LONDON: SATURDAY, MAY 7, 1887.

A BILL to Amend the Law relating to the Election of Coroners has been brought in the House of Commons by Mr. WOOTTON ISAACSON. It also bears the names of Mr. E. T. GOURLEY, Mr. W. AMBROSE, Q.C., and Colonel HUGHES. The opportunity is a favourable one for considering it, together with the report (a condensed notice of which appeared in THE LANCET for March 12th last) issued by the Manchester Medico-Ethical Association as to the present inefficient working of the Coroner's Court, and the subject generally. The Bill is a short one, containing only five clauses. Its provisions are briefly to place the elections of county coroners upon the same basis as those of members of Parliament. Thus, upon receipt of the writ declaring the vacancy, the Sheriff is to give fourteen days' notice of his intention to proceed to the election of a coroner. The persons entitled to nominate and vote are to be freeholders whose names appear on the Parliamentary Register then for the county or division, or part or parts thereof, in respect of which the election is being held; and they alone will be deemed eligible to vote. The nomination and poll are to be conducted, so far as circumstances permit, like those at Parliamentary elections, under the Ballot Act, and subject to the provisions of the Corrupt and Illegal Practices Prevention Act, 1883. Provision is made specially for the expenses of each candidate, which, if the number of freehold electors does not exceed 2000, is to be £400, and for larger numbers in proportion. In the event of a petition being lodged against the return of any candidate, the election judges are to appoint a commissioner to try such petition, and if it be successful a new election shall take place. The Bill is well designed to remedy most of the evils of the present system, and deserves every support.

It is to be regretted that the Manchester Medico-Ethical Association made no allusion to medical coroners, but merely expressed an opinion "that the qualification and position of a coroner should be those of a stipendiary judge, who should devote the whole of his time to the duties of his office, and that his salary should in no case be dependent upon the number of inquests." Even if there had been an overwhelming majority in favour of legal coroners, it would have been just to have paid some tribute to the many medical men who have filled the offices both of borough and county coroners with credit to themselves and to the best interests of the public. This would have been more apparent to the latter than it is if medical coroners had more fair play, and had been appointed in anything like a just proportion to their legal brethren. But out of 286 coroners in the Medical Directory whose qualifications are stated, only 49 are medical, while 237 are legal coroners. And the experience of Lancashire is negative, medical coroners being altogether unknown there, which fact may be a possible explanation of their being so ignored in a report issuing from Manchester. There is, however, a still more weighty argument in favour of medical coroners at the present day than there has hitherto been. Judges have strongly condemned the committal of prisoners on the coroner's warrant alone, urging that there should be for every criminal charge an inquiry before the magistrates and a bill of indictment to lay before the grand jury. This would imply what has always been contended for in THE LANCET, that the duty of the coroner is solely to inquire into the cause of death, and this is obviously more the function of a medical than a legal coroner. The more legal duties and egal questions are eliminated from the office the better. Such verdicts as "Found dead," "Found drowned," "Died by the visitation of GOD," are more suggestive of antiquated formalities than modern records of the cause of death, and they are verdicts generally recorded at "legal" coroners' inquests.

The Manchester report, which is of a somewhat sweeping character so far as its reforms go, further suggests "that the coroner should have no discretion but to hold an inquest in every case of death, sudden or otherwise, in which the cause of death cannot be certified by a legally qualified medical man." This is scarcely practical, even with the qualifying addendum: "It is not implied that the coroner should be necessarily debarred from holding an inquiry, provided there exists reasonable grounds for suspicion, because a death has been certified by a legally qualified practitioner." It is undoubtedly true that the discretionary powers of coroners are at present far too great, and that they have often been used very unwisely, especially by legal coroners. But to give coroners no discretion whatever would be only adding to the useless and formal inquests which are already far too numerous. Many cases must be referred to the coroner in which the want of a medical certificate is more or less accidental, and yet where an inquest is wholly unnecessary; it is these preliminary inquiries, indeed, which constitute a very important part of a coroner's duties. This discretion to be used wisely, and the conduct of these preliminary inquiries require a medical training, and can only be properly left to a medical coroner. The report proposes to continue the coroner's jury, but that it should be a properly constituted one, of an improved social status; it deprecates the present custom of "viewing the body" as objectionable and unnecessary; it advocates the providing of mortuaries with proper appliances in every coroner's district. It also suggests that registrars of deaths "should have no option but to report to the coroner every case of death brought for registration the cause of which has not been duly certified by a legally qualified medical man"; and proposes an amendment to the present form of certificate giving "the period of attendance of the medical man." It also raises again the importance of registering still-births, urging "that the registration should be made, as in other cases, only under a medical certificate, which should state that the certifier had attended the mother during her confinement or had inspected the body of the child within a few hours after birth. Failing this that a coroner's inquiry should be necessary." To meet objections on the ground of expense to the poor, it is suggested that the payment of the medical inspection might be charged upon the local authorities. All these suggestions are very good, and though

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somewhat in advance of the time, they are practicable and must sooner or later be adopted. The remaining portion of the report we must reserve for consideration until next week.

SIR WILLIAM MAC CORMAC is certainly to be congratulated upon his choice of the subject of his Oration at the Medical Society on Monday last. "Abdominal Surgery" is fast losing the charm of novelty, and the marvellous results attained in this branch of the surgeon's art are familiar to all, and cease to excite the wonder with which they were first received. Sir WILLIAM MAC CORMAC wisely devoted himself to a consideration of one branch of this great subject, which has been the last to receive its meed of notice at the hands of surgeons, and has indeed only been opened up by the large experience now gained in the removal of abdominal tumours, and of the many contingencies attending it. The treatment of Injuries of the Intestine was the theme of the Oration, and it is one well worthy of the attention of English surgeons. Our American brethren at present bear the palm in this region of operative surgery, and it is to BULL, DENNIS, and SENN, among many others, that we are indebted for the best recent papers on this subject, and the best cases illustrating the line of practice they advocate.

Intra-peritoneal wounds of the intestine are certain to lead to fæcal extravasation, which is nearly always fatal from intense septic peritonitis. Experience has shown that wounds of the intestine can be safely sutured, and that prompt and thorough cleansing of the peritoneum may avert septic peritonitis. We are able now to follow out the practice inculcated by BENJAMIN BELL, and Sir WILLIAM MAC CORMAC'S Oration was but the enforcement and exemplification of that great surgeon's teaching. Intestinal injuries may be easily classed into stab wounds, gunshot wounds, and ruptures. The first great difficulty that besets the surgeon in their management is that of diagnosis. We doubt if there is anyone of large experience in surgery who cannot from his own practice cite striking examples of the misleading appearance of harmlessness these lesions often present. As these lesions are so extremely fatal, the very difficulty of diagnosis imposes the duty upon the surgeon of clearing up the doubt and of determining with certainty whether or not they are present. This is the first point that needs to be made plain. To wait until the diagnosis is certain is to miss the golden opportunity for treatment, and to allow the onset of septic peritonitis to rob the patient of nearly every chance of life. Hence, when the doubt exists, it should be cleared up by a careful aseptic exploration, first of the wound in the parietes, to see whether it is perforating or not, and next of the abdominal viscera, to ascertain whether and where they are injured. This may be a difficult task, and, if undertaken at all, must be done systematically and with the utmost precision. But it is also the step at which some, perhaps many, surgeons will pause. While quite ready to admit that when a wounded intestine is known to exist it may be best to suture the wound, cleanse the peritoneum, and close its cavity, they will hesitate before they adopt the bolder step of seeking out the injury when the symptoms do not indubitably point to it. To some extent their scruples will be just. While such an exploration may be urgently needed when the intestine is wounded, it should not be practised when only a suspicion of such an injury exists, and the surgeon must weigh most carefully all the circumstances of the case before adopting so grave a procedure as the systematic inspection of all the abdominal viscera. Such a case is just the one to test the mettle of a surgeon, and the practice advocated, while good in the hands of the wise, may be fraught with evil in the hands of the careless.

An intestinal wound having been discovered, the proper line of treatment undoubtedly is to close it with the utmost care by the Lembert suture, and, having cleansed the peritoneum, to close the external wound. Such a line of practice is not good in theory only. Already its results in practice are encouraging, and likely to become more so when surgeons are more familiar with such proceedings. Of eighteen stab wounds so treated, success has been obtained in ten. Among thirty cases of penetrating gunshot wounds of the abdominal cavity, seven have been saved by this means. There is, however, one feature in these cases that must always militate against success. They are of the nature of surgical emergencies. They do not permit of special preparation, and the circumstances attending them often tend to depress the patients and unfit them for a severe operation. But in spite of all this, and of all the grave difficulties attending the subject both in diagnosis and treatment, it cannot be doubted that the facts contained in Sir WM. MAC CORMAC'S address are evidence of another advance gained by surgery, and the arguments deduced from the facts are well deserving the careful consideration of surgeons.

WHATEVER of scientific truth may eventually become established concerning the reflex relationship of the cervical region with the brain and bulb, now set forth by Professor BROWN-SÉQUARD, there can be no question of the remarkable suggestiveness of his conclusions. He showed some years ago that puncture of a certain region of the floor of the fourth ventricle, in close juxtaposition to the vaso-motor and cardiac centres, but not identical with them, has the effect of reducing to the lowest possible ebb the nutritional changes of the organism, so that the blood in the veins runs red as that in the arteries; for the protoplasmic tissues neither absorb oxygen nor disengage carbonic acid, being, in fact, in a state of suspended animation. But this is not the only cessation of activity that may be brought about as the effect of puncture of the floor of the fourth ventricle. The activity of the cerebral cortex may also be suspended by a similar operation; and actual death may also occur. To sum up in a few words the latest conclusions of the distinguished experimental pathologist, we may state that the skin of the neck covering the larynx has, like stimulation of the larynx, though in a less degree, the power of inhibiting the sensibility of the body, and, further, that mechanical irritation of the larynx, trachea, and perhaps of their superjacent skin, possesses the power of causing death, in the same way as though the bulb or medulla oblongata were irritated. These are extremely important conclusions, and it will be well to examine the evidence on which they are founded. The following is the gist of Professor BROWN-SÉQUARD'S communication to the Académie des Sciences.

It has often excited surprise that suicide by cutting the

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throat should be carried out with such determination, and apparently at the cost of enormous suffering, indicating an almost superhuman courage. The surprise, however, would be considerably lessened if it were true, as is now asserted, that mechanical irritation of the skin covering the larynx, as well as of the larynx itself, causes total analgesia, as seems possible from the remarkable experiments Professor BROWN-SÉQUARD made some four years ago. After having made a longitudinal incision through the skin of the middle line, or transversely from one side to the other, in the anterior cervical region, the Professor observed in a great number of experiments, especially in dogs and monkeys, that he could lay bare, cut, bruise, galvanise, and even burn the various structures in the anterior two-thirds of the neck without causing any great pain, and sometimes without appearing to cause any pain whatever. Such facts—verified hundreds of times during the last five or six years—prove that these structures have the inhibitory property of causing general analgesia, though in a varying degree, according to the precise structure stimulated—viz.: (1) The maximum effect is produced by stimulation of the mucous membrane of the larynx—i.e., of the parts supplied by the terminal ramifications of the superior laryngeal nerves. (2) In a less degree irritation of the trunks of these nerves, and in a still less degree of the trunks of the vagi above the point of emission of the superior laryngeal nerves, causes the same result to appear. (3) A transient analgesia of variable completeness may be caused by ligature of the trachea. (4) The minimum effect is caused by the irritation of the skin covering the throat, and especially of that over the larynx proper. Although incision of the various structures is the most effective in bringing about the analgesic effects, it is not the only irritation that possesses this property. The trigeminal and other sensory cranial or spinal nerves in their trunks or ramifications do not appear to be endowed with the special power that the vagus nerves and the nerves of the cervical region possess. Surgeons performing tracheotomy during the asphyxia of a patient may be incorrect in supposing that the asphyxia confers immunity from pain, for doubtless the analgesia is partly owing to the very incision of the skin of the front of the neck. Other experiments on animals seem to show that stimulation of the anterior cervical region, especially the larynx, but also the trachea, and probably the superjacent skin, has the power of stopping the heart, inhibiting the respiration, and suspending consciousness. When Professor BROWN-SÉQUARD has killed dogs by cutting their throats, he has found that nearly always, if not always, death occurred without convulsions, without agony, in a state of perfect syncope, permitting the protoplasmic tissues of the body to preserve for a long time their special properties: the blood running red from the arteries to the veins, and thus presenting an absolute contrast to death due to asphysia, where the arteries are filled with black blood.

AN article descriptive of the morbid conditions in twenty-five cases of tubal disease operated upon by Prof MARTIN, is contributed to the current issue of VIRCHOW'S *Archiv* by Dr. E. G. ORTHMANN. It should be read with interest at this time, when so much is being said regarding the clinical aspect of the chronic inflammatory changes to which the uterine appendages are prone. Dr. ORTHMANN describes in detail the histological characters of his specimens, and in the first place draws attention to the normal structure of the Fallopian tube. The wall of the tube is composed of three layers—the mucous membrane, which, covered with ciliated epithelium, is disposed in longitudinal folds, which towards the free extremity become branched and divided, ultimately forming the so-called fimbriæ; the muscular layer, greatly developed in the uterine segment of the tube, and diminishing in thickness towards the abdominal extremity; and the outermost connective-tissue layer. The morbid conditions described fall under five heads, and each case is related in full. Of *catarrhal salpingitis* there were nine cases, six being unilateral. The disease is not limited to the mucous membrane, nor does the ciliated epithelium at first suffer, the change commencing with thickening of the mucous membrane, and consequent irregular swelling of its folds. The swollen folds coming into contact, the cells are compressed, degenerate, and disappear. More or less cystic cavities form between the thickened folds of mucous membrane; and bloodvessels in the infiltrated submucosa may rupture, giving rise to hæmorrhage into the cavity of the diseased tube. Such hæmatosalpinx may result from a closure of the fimbriæ. The muscular and fibrous coats of the wall of the tube may also be thickened, often with atrophy of the muscular fibres themselves. In five cases the "ostium abdominale" was occluded, partly by hypertrophy of the mucous folds, partly by adhesive peritonitis. The following varieties of catarrhal salpingitis are enumerated, the term "catarrhal" being obviously used in a wide sense:—(1) Salpingitis cat. simplex or endosalpingitis; (2) S. diffusa or interstitialis, which comprises (*a*) S. hæmorrhagica and (*b*) S. follicularis. Of *purulent salpingitis* eight cases are described. In seven of these the most careful examination failed to detect any bacterial organisms—a negative result which suggests either that the organisms were remarkably scanty (as usual in chronic suppuration), or else that they could not be manifested by the methods used; reference, however, is made to the discovery by other observers of tubercle bacilli and of gonococci in tubercular and gonorrhœal salpingitis, and Dr. ORTHMANN himself has quite recently recorded an instance of the last-named variety.[1] In purulent salpingitis only traces of the ciliated epithelium remain where protected by the folds which are now converted into wide septa between cavities filled with pus; whilst the mucous membrane is more or less replaced by the granulation cells of the inflammatory process. In places the muscular coat may be laid bare by the destructive process. This coat may also be thickened by infiltration of round cells, and the vessels will be increased. In six cases the ostium abdominale was occluded, and of the others one had a fistulous communication with an ovarian abscess. There were two cases of *hæmatosalpinx*, in one of which there was atresia of the ostium abdominale, the mucous folds were stretched, and the wall somewhat atrophied. In the other case the tube was occluded by a kink. Four cases of *hydrosalpinx* are described, three of which were unilateral. In all the superficial epithelium was not much altered; in one case the mucous folds were hypertrophied, but in the

[1] Vide Berl. Klin. Woch., No. 14, 1887.

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rest they were dwindled, and the muscular coat was also atrophied. Lastly, there were two cases of *pyosalpinx*, a condition generally dependent upon atresia of the tube. The walls were thickened and their vascular supply increased. No microbes could be found in the purulent contents. Dr. ORTHMANN also gives a summary of these cases, from which we gather that in the twenty-five operations there were three deaths—one from collapse and two from peritonitis. Of these cases twenty-one were simple salpingotomies (two deaths). In two instances the patient underwent a second laparotomy. In one a right hydrosalpinx was removed seven months after the extirpation of the left appendages; in the other, a large hæmatoma of the right ovary had been removed thirteen years before. The majority of the patients had presented no disturbance of menstruation; in five cases it had been of late somewhat profuse, in five there was severe dysmenorrhœa, and in three menstruation was irregular. The chief and universal symptom was pain in the abdomen and groin, whilst in ten cases there occurred hæmorrhage and in seven marked uterine discharge. As to the etiology of the cases, ten were ascribed to gonorrhœa, these including six purulent cases, two catarrhal, and the two cases of hydrosalpinx. Four were post-puerperal, but in the remainder no definite cause could be assigned. Two cases were associated with cancer of the uterus, one with myoma, and one with an ovarian cyst. The ovary was found diseased in all but two of the cases. In eight there was chronic ovaritis, two being further complicated with hæmatoma of the ovary and one with hydrops folliculorum. In four other cases there was ovarian hæmatoma, and in three others hydrops folliculorum, without other lesions. There were five cases of ovarian abscess, which in two cases communicated with the tube by small openings, and in one the tube and ovary were conjoined in a common abscess sac. One case of catarrhal salpingitis was associated with an ovarian cyst of the size of the fist. Atrophy of the ovary occurred three times, and parovarian cysts in four cases; in three cases there was hæmatoma between the ligaments, and in one an abscess. We have called attention to this contribution because it seems to us that the pathology of these conditions has yet to be worked out, whilst the material is rapidly accumulating for a thorough study of the subject.

DURING next week the General Medical Council will have to decide whether the Apothecaries' Society shall cease to exist as an examining body, or whether, by the appointment of assistant examiners in surgery, the special powers which they possess for protecting the public against unqualified practitioners shall be maintained. Of the issue there can be little doubt, however greatly we must deplore the multiplication of licensing bodies. There has not been from the first any question that the failure of the Colleges to unite with the Society is due to the action of the former alone; but if further argument were wanting, it is to be found in the rebuff which the Medical Council have themselves received at the hands of the Colleges, who have refused to comply not only with the request of the Council, but also with that of the greater number of their licentiates. We have no hesitation in saying that the governing bodies of the two Colleges have by their action lost the confidence of many of the profession, and we anticipate that evidence will not long be wanting of a determination to bring about the change which has hitherto been sought in vain. Until this is accomplished the Apothecaries' Society will continue to grant a separate licence to practise. By the appointment of assistant examiners the Medical Council will themselves be practically engaged in the duty of examining. A further business, moreover, which will occupy their attention is the appointment of inspectors of examination, and this will bring them still more closely into relation with this function of the corporations. Indeed, it is not impossible that in the future their powers in this direction may be increased until they have placed upon them a greater responsibility than that of acting as the critics of other people's work. Already they have adopted a resolution that the visitations and inspections shall systematically cover within stated periods of time the pass examinations in all branches of knowledge which the Council deem essential as qualifications for licence. Their intention is, therefore, to perform this duty in no perfunctory way, and although during the present year they will not go beyond the appointment of three inspectors, one each for medicine, surgery, and midwifery, it may be anticipated that it will not be long before every branch of medical examination is represented. The work of each inspector will be to attend the examinations of all the licensing bodies in the United Kingdom, so as to enable him to form an opinion upon and report to the Council as to their sufficiency or insufficiency. Evidence obtained in this manner will be the groundwork upon which future changes will be based, and it may be accepted that failure to protect the public from the entrance into the profession of unskilled practitioners will lead to the loss of powers to exercise this function. The selection of inspectors is therefore a matter of the greatest moment to the profession, and the Council may be trusted to exercise a wise judgment in their choice.

Annotations.

"Ne quid nimis."

THE LATE DR. WILSON FOX.

THE announcement of the death of Dr. Wilson Fox will cause widespread grief in the profession. A physician has passed away in the prime of working life whose knowledge, judgment, and skill had won for him a degree of confidence which few secure, and whose loss creates a void which cannot be easily filled. But this is not all. A man has passed away who was far more than a skilled physician. Dr. Fox combined in a degree rare in any calling moral elevation and moral courage, spiritual ardour and self-devotion. No consideration for his own interests warped his action from the straight line of right and honour, or dimmed the clearness of his mental vision. His intense energy has been a motive force in the profession of far wider influence than appeared on the surface, for he was ever ready to efface himself when the movement he had started had gained inherent strength. He will be deeply mourned, not only in the profession, but in a wide and ever-widening circle of those who knew him, and, knowing him, could not help entertaining towards him a feeling deeper than mere esteem, and warmer than mere gratitude. We hope next week to give some account of his life—a life of hard and earnest work, a

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life of devotion and self-sacrifice, ending with the final sacrifice of himself, where so many have laid down their lives, on the altar of beneficence. To-day we give an account of his last illness.

On Saturday, April 23rd, Dr. Wilson Fox was in his usual health in London, and intending to proceed to his home in Westmoreland in the afternoon. His doing so was prevented by a telegram informing him of the serious illness of his eldest brother. He went into Somersetshire to see him, and found him suffering from acute double pneumonia and his case almost hopeless. He remained until his brother died on the following Wednesday, April 27th. During this time he had suffered from lumbago and some slight feeling of cold, but left for the north, stopping at Preston on his way. He was quite well when in Birmingham, and walked about there. At Preston he ate a simple dinner with thorough relish, and retired apparently quite well. Early in the morning he was disturbed, and sustained some chill amounting to a slight rigor. His temperature was raised, and he was seen by Dr. Brown of Preston, who found him suffering from pneumonia, with extreme cardiac weakness. During the day he was visited by Sir William Roberts, an old college and intimate friend, who took a very grave view of the case owing to the extreme cardiac weakness and his depression, the result of the death of his brother. He rallied in the after-part of the day. The temperature was never high. His cough was troublesome, and expectoration characteristic, not excessive. But very frequently there were recurrences of extreme cardiac dyspnœa, which were relieved by treatment. On Friday afternoon he was seen by Sir William Jenner in consultation with Sir W. Roberts, and the former remained with him during the night. His condition on Saturday morning was that which might be expected of pneumonia running its ordinary and natural course, but about 10 A.M. serious prostration (cardiac) reappeared, causing great alarm. Dr. Russell Reynolds was telegraphed for to come down immediately, which he did, and found that he had made some slight rally. The night of Saturday was passed with more comfort, and on Sunday morning, although suffering from some pleurodynia and lumbago pains and rapid breathing, he appeared better. About midday, after some intestinal disturbance, Dr. Fox became excessively prostrate. He was perfectly aware of the danger of his condition and took leave of his family. During two hours and a half death seemed imminent, but he occasionally rallied for a few minutes under subcutaneous injections of ether and the administration of stimulants and nourishment, which he took easily. During all this time there was considerable cyanosis. Later in the day he was better and passed a fair night, with some tranquil sleep, and on the morning of Monday the improvement was maintained. About midday, without apparent cause, his dyspnœa became most urgent, and it was found that he had mucous râles in the small bronchial tubes of both sides of the chest, with extension of lung congestion on the left side. From this, although from time to time there were periods of some relief, he did not rally, but occasionally, when dyspnœa was urgent, found great comfort from the hypodermic use of ether. His breathing did not trouble him, but cyanosis increased; he was perfectly clear in intellect, capable of understanding his own condition; but he became weaker and weaker every hour in spite of all that was done to aid him, and exactly at 4 A.M. on Tuesday he breathed his last, without any struggle or sigh. He had spoken with clear intelligence three minutes previously to Dr. Reynolds. Eleven years ago Dr. Wilson Fox had an attack of extremely acute pneumonia, and this was obviously of a rheumatic character, and extended to the pleura, pericardium, and endocardium. His life was then in grave danger during two or three days, and unfortunately both aortic and mitral valves were affected, but after a certain time of rest his recovery to all except those who knew the physical condition of his heart was complete. In the spring of 1886 another attack of pneumonia occurred after an accidental chill, when much depressed by the death of his mother, but the cardiac condition was again a source of extreme danger. From this he recovered, and was able to attend to his professional duties, and to exhibit, as all those who met him knew, an extraordinary amount of energy in work, mental and physical, professional and social.

The Court Circular of Wednesday contains the following: "The Queen was much grieved to receive yesterday the news of the death, after a few days' illness, of Dr. Wilson Fox, one of Her Majesty's Physicians in Ordinary. Dr. W. Fox had formerly been in frequent attendance on the Queen in Scotland, and Her Majesty had a great regard for him. The medical profession loses in him one of its most distinguished members."

THE ACTION OF THE DIAPHRAGM.

IN a memoir published in the just-completed volume of Braune's *Archiv für Anatomie und Physiologie*, Hasse gives the results of his observations and experiments upon this subject. He finds that the contraction of the muscular fibres of the diaphragm causes a flattening and descent of the diaphragmatic domes. The tendinous centre also descends, and becomes flattened by the traction exerted upon it from every side by the muscular fibres. In deep inspiration the descent of the diaphragmatic domes is always more considerable than that of the tendinous centre. The contraction of the muscular fibres of the diaphragm causes, as was maintained by Duchenne, an expansion of the lower aperture of the chest, owing to elevation of the ribs and of the sternum. When contraction of the muscular fibres of the diaphragm takes place, the muscular plane they form separates from the long walls of the thorax, and consequently cause an enlargement of the complemental space of the pleural sac; and to so much the greater extent the greater the coincident elevation of the thoracic cage. The descent of the diaphragm augments the normal positive intra-abdominal pressure, whilst its ascent diminishes the pressure, though never to zero. The changes of position which occur in the descent of the diaphragm cause a corresponding change in the position of the viscera lying subjacent to it—as the liver, stomach, and spleen. The liver is consequently by no means a rigid, fixed organ, but varies both in form and position. When the diaphragm contracts, the resistances to the flow of blood through the liver and spleen are overcome, and the passage of blood through them is rendered easier in proportion to the freedom of the respiratory acts. Lastly, the movements of the diaphragm are essential for the discharge of the bile, and further the movement of the contents of the stomach and intestines.

VACCINATION UNDER DIFFICULTIES.

THE Sultan of Turkey, it is said, has just had the ladies of the seraglio vaccinated, and we are told that the operation was attended with difficulties which fortunately are unknown in this country. An Italian physician who was employed to vaccinate the ladies of the harem was not permitted to see the faces of his patients, from whom he was separated by a screen. The operation, it is stated, was performed on the patients' arms, which were in turn thrust through a hole in the screen; and on every occasion of one arm being replaced by another, the physician was obliged to submit to his head being enveloped in a shawl, to prevent any chance of his seeing the subjects of his operation. The circumstances which permit the entrance of a man into a harem must be of rare occurrence, and probably there are none under which he is more welcome than when he comes to preserve the beauty of the inmates. Whether the Sultan has learnt by experience the necessity for vaccination, or

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whether he is guided only by others, the fact remains that female beauty is more indebted to Jenner's discovery than to any art to which the sex can have resort. It has often been remarked that the portraits of ladies who were the English Court beauties of former times give no very exalted idea of the personal appearances which in those days merited approbation, and that the originals only excited admiration from the fact that they were among the few who escaped the disfigurement which attends an attack of unmodified small-pox. However this may be, we trust that the example which the Sultan has set will have its effect in leading to the more general vaccination of his subjects. There is nothing which more strongly impresses the traveller in the East than the large proportion of inhabitants who are scarred with small-pox.

THE DISTRIBUTION OF MICRO-ORGANISMS IN THE ATMOSPHERE.

THE interesting paper read by Dr. Percy Frankland at the Society of Arts on March 22nd will be found in the *Journal of the Society of Arts* of March 25th. In it he reviewed the history of the subject of atmospheric micro-organisms, by reference to the experiments of Pasteur, Tyndall, Miquel, and Freeudenreich. The introduction by Koch of solid cultivating media had, he pointed out, greatly assisted these investigations, and Hesse's method by the use of a glass tube coated internally with sterile gelatine peptone, through which a given quantity of air can be drawn by aspiration, had been largely used by Dr. Frankland. He pointed out, however, that the accuracy of this method depends somewhat upon the strength and direction of the air currents, and he had therefore devised a modification consisting in the introduction of glass porous plugs to retain the micro-organisms, the plugs being transferred to flasks containing liquid gelatine, in which, after cooling, the colonies resulting from the microbes later develop. The estimation of the abundance of microbes in the air is made by enumerating the number of colonies obtained in a given quantity (ten litres) of air thus filtered. Amongst the results stated may be selected the fact that from observation on the roof of the Science Schools at South Kensington the average number of colonies per ten litres of air varied from four in the month of January to 105 in August. On the top of Primrose-hill on May 19th, 1886, the average number of colonies was nine; at the foot of the hill it was twenty-four; at St. Paul's Cathedral the number in the air in the Golden Gallery was eleven, in the Churchyard seventy. In country places the air contained much fewer microbes than in towns, especially in crowded thoroughfares—there being, for instance, as many as 554 per ten litres in Exhibition-road on June 8th, 1886. Fischer's observations upon the gradually diminishing number of microbes in sea air in proportion to distance from land were shown to depend upon the direction of the wind, with the general conclusion that the maximum distance to which, under ordinary circumstances, micro-organisms can be transported across the sea, "lies between 70 and 120 sea miles, and that beyond this distance they are almost invariably absent." Records were also given of observations on the air of buildings, and upon the number of micro-organisms falling upon one square foot of horizontal surface in one minute. As to the nature of the aerial micro-organisms, the moulds were found to be most universally prevalent, being found generally in greater proportion to other forms at high altitudes in the open country. Numerous forms of micrococci and bacilli, especially chromogenous species, have been identified in the air; but, as regards pathogenic microbes, Dr. Frankland stated that their detection in presence of the overwhelming number of saprophytic organisms was almost hopeless. The air in a hospital ward, provided it be undisturbed, contains very few organisms, and the investigation points to practical hints in the prevention of any aerial commotion during surgical operations, and the great importance of removal of dust in a moist condition.

THE MEDICAL REGISTER.

THE Medical Register for 1887 has just been published. Its appearance this year has been delayed by the adoption, just before its final issue, of a suggested improvement, according to which initial headings at the top of each page enable the contents of each to be more readily seen. During the past year the work has been subjected to more thorough revision than in any previous year, circular letters of inquiry having early in 1886 been sent out to all practitioners, and in November voting-papers in connexion with the election of direct representatives to the General Medical Council. As the result of these inquiries, a very large number of corrections have been introduced. The statistical information contained in the volume will be found very complete, and in addition to the numbers being given of practitioners registered in the different divisions of the United Kingdom, the information is now supplied as to how many are resident in the three divisions. In the introductory part of the work the new Medical Act of 1886 has been printed, together with the older Acts, for the information of the profession, and a table of the qualifications in sanitary science that become registrable under the new Act is also inserted. Copies of the volume may be had, as in previous years, either at the office of the Medical Council or at the accredited publishers, Messrs. Spottiswoode and Co., 54, Gracechurch-street, E.C. The Medical Students' Register and the Dentists' Register for the current year have also been issued, and may be obtained at the same place.

MORTALITY AMONG RAILWAY SERVANTS.

NEARLY seven hundred millions of passengers travelled on railways in Great Britain last year, and of these eight were killed and 615 were injured in what are commonly called railway accidents. Many other persons not in the employ of the railway companies were killed or injured by accidents connected with the railway service, such as falling between carriages and platforms and the like; but, excluding servants of the companies, the total number of deaths from causes incident to railway travelling were only a trifle over 500, and of injuries only about 1500. Considering that these numbers include a great many casualties due to neglect of well-known precautions, we may conclude that, as regards passengers and the public, railway travelling is the safest mode of locomotion. But when we turn to the servants of the railway companies, the picture is not only less satisfactory, but almost appalling. We are not informed of the actual number of hands employed in the more dangerous kinds of railway work; but we are told that, including the railway carriers as well as the ordinary servants, there were last year 459 fatal and 5490 non-fatal accidents. Five men are killed on an average in four days, and sixty injured more or less severely. Whatever the number of workmen may be, this represents a very grave amount of injury to life and health, and the statistics prepared by the Board of Trade deserve the most serious consideration. Doubtless a large number of the casualties are due to the carelessness of the men. Familiarity with danger breeds indifference, if not contempt, and we all know by our daily railway experience how wilful platelayers, porters, and pointsmen are in running totally unnecessary risks. If a porter has to cross the line he seems to delight in waiting until the very last moment before the express dashes through the station, and in the same way the carman seems to choose by

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preference a place exactly below the heavy weight which is being raised by a crane. A party of plate-layers, apparently with no one on guard, will continue their work with scarcely a glance up or down the line until a whistle reminds them that a train is close upon them, when they gather their tools and move out of the way quite leisurely. These things we have all watched with a feeling of irritable nervousness, and have, perhaps, from time to time admitted in our hearts that railway companies cannot be held morally responsible for the suicidal recklessness and stupidity of some of their *employés*. But, recognising all this, we fear that much real blame still attaches to the railway companies for the loose supervision which they exercise over the lives and limbs of their servants. Men constantly exposed to danger, even when, as often happens, they are not excessively overworked, are sure to become careless, and it is universally admitted that it is a part of the duty of employers to enforce due care upon their servants, as well as to diminish, as far as possible, the unavoidable risk they run. The protection of machinery in motion, the regulation of coal mines, and the inspection of ships, are all examples of the care which the State now bestows upon those engaged in dangerous industries. Economy of labour is probably, next to individual carelessness, the chief cause of the so-called accidents. It would surely be possible, without any great increase of expense, to arrange that in every party of men engaged in any particularly dangerous work, such as the shunting of trains or the repairs of the permanent way, one man, experienced and worthy of trust, should have some responsibility for the safety of the rest. He would be a foreman, and if any disaster due to negligence happened to one of his gang, a greater or less degree of blame would attach to him. No doubt he would individually do less manual work, but probably the work would be better done, and at any rate, if sufficient authority were committed to him, he would in many cases save the men under him from the results of their own ignorance or indiscretion. When Parliament finds time for domestic legislation, we hope it will endeavour to minimise the risks run by a useful body of public servants.

FUNCTIONAL DYSPEPSIA AND ITS RESULTS.

DR. JAWORSKI has investigated, chiefly with respect to the relative amount of hydrochloric acid secreted, the composition of the gastric juice in 222 individuals who presented symptoms of gastric disturbance, yet in whom there was no evidence at all of organic disease of the stomach. His observations have led him to differentiate five groups, or rather stages, of functional derangement (*Wien. Med. Woch.*, 1886, Separatabdruck). In the first, under the influence of repeated irritation of the gastric mucous membrane, as by brandy or condiments, the sensibility is increased to a degree that during digestion there is developed an abnormal secretion of hydrochloric acid, which may give rise to subjective gastric disorder as well as remote nervous symptoms. The condition, he says, is readily recognised, and is declared to be nervous dyspepsia, but it actually forms a prodromal stage of more permanent derangement, for in the next stage he finds that the acid is secreted continuously and spontaneously even in the empty stomach, the quantity increasing during digestion. These cases are marked by gastralgia and vomiting, and the mucous membrane is, one may say, subinflamed. This condition may, under continued irritation, pass into a third stage, when the acid secretion is extremely abundant, being as high in the intervals of digestion as during the process. Often bile finds an entrance into the stomach, and under the action of the acid is converted into the characteristic greenish-yellow flakes. The gastric epithelium is acted on, being shed in masses and in layers. The condition leads, as may well be imagined, to dilatation of the stomach, partly from weakening of the walls, and partly from incomplete evacuation, with fermentation of the food débris. The symptoms are those of intense gastric discomfort after taking food, with retention of appetite. The excessive thirst can only be allayed by warm drinks. Ultimately an anæmic state is developed. The condition may be termed "hypersecretio hyperacida continua," or "gastrorrhœa acida," or, anatomically, acid catarrh of the stomach. It seems to accompany most cases of gastric ulcer. After this extreme condition of irritation has lasted a certain time, there occurs a diminution of the secretion of hydrochloric acid, and the mucous membrane gradually loses its sensibility to stimuli. This the fourth stage (or type) of functional disorder is characterised by feebly acid or even alkaline reaction of the gastric juice, and, anatomically, it is marked by gastric dilatation. It is the condition which patients style "a weak digestion," and it is attempted to be corrected or arrested by stimulating foods and drinks; but these efforts often cause the case to pass over into the fifth or last stage of the series. Here we have a total incapacity of the stomach to secrete acid, and in great part also a loss of pepsine-forming power. No stimulus can excite the acid secretion. The stomach contains a small quantity of mucoid, cloudy, mostly alkaline fluid, of no peptonising power. Yet the patients may be well nourished and not always anæmic, intestinal digestion still being in action. The condition, "mucous catarrh," is that which accompanies most cases of gastric carcinoma.

SMALL-POX AT CARDIFF.

OUR attention is drawn to the prevalence of small-pox at Cardiff, and to the action which is being taken in consequence. According to the *Western Mail*, arrangements have been made that the public vaccinators shall attend at their own residences every evening at a certain hour, so that the working classes may have an opportunity of securing revaccination, and that on receiving notice of the existence of small-pox in any house, the public vaccinator for the district shall proceed to that house, and there offer vaccination or revaccination, as the case may be, to all the inmates. On the part of some it is thought that further action should be taken, and that a house-to-house inquiry should first be made, this being followed by the offer of vaccination at their homes to all who need additional protection. The house-to-house inspection suggested is of the utmost value, and it has on several occasions brought about the best results—as, for example, in the St. Pancras outbreak of 1884. But as regards the expediency of taking vaccination away from the stations where a proper supply of lymph from infants is alone obtainable, except under such special emergencies as the existence of small-pox in a house, grave doubts may be entertained. That some immediate good would result we do not doubt, but, after all, it is the full protection of the general population by efficient vaccination that must be the main aim of the guardians, and not the spasmodic gift of an inferior vaccination on a large scale at moments of panic. House-to-house vaccination must necessarily be largely performed otherwise than from arm to arm, and it is notorious that vaccination so done is, as a rule, less efficient than when the lymph is taken direct from an infant's arm, and that it tends in the end to bring vaccination into disrepute. It therefore becomes a question whether the main gain would come from a large increase in the amount of vaccination irrespective of quality, or from a limited amount having true protective qualities. We have looked at the memorandum issued by the Local Government Board on this subject, and we find it entirely supports the view that the current work from arm to arm at the stations should, even in moments of emergency, not be sacrificed to sudden demands arising out of a previous neglect to secure efficient protection.

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REGINA v. BAXTER AND POTTS.

ON April 28th and 29th the trial of Mr. Baxter, an unqualified medical assistant, and Mrs. Potts, described as a midwife and ladies' nurse, for having procured illegal abortion on Elizabeth Culling, aged twenty-two, took place at the Old Bailey before Mr. Justice Stephen. The jury convicted the prisoners, who were sentenced each to fifteen years' penal servitude. There was a committal by the coroner on the capital charge, but this was abandoned by the prosecution, and the prisoners were indicted only on the minor count of felonious assault, as it was considered doubtful if the evidence would suffice to warrant a conviction on the charge of murder. The facts of the case are already known, so that it is not necessary to give them in detail. The deceased, a single woman, ostensibly an assistant in a confectioner's shop, but who appears to have led a "gay life," resided at a private hotel in London-street, Paddington. As alleged by the prosecution, she went to reside with the female prisoner for the purpose of having an abortion procured. The evidence went to show that she was attended by Baxter, who was known as "the doctor" and as the husband of Mrs. Potts, but, as a matter of fact, he was neither one nor the other. Some days after the abortion took place, finding deceased in an apparently hopeless condition, one or both of them took her to the Paddington Infirmary, where she died the day after her admission. The acting medical officer of the infirmary, together with his colleague, made an unofficial post-mortem examination. From this they learned that deceased died from acute peritonitis and blood poisoning consequent on a recent abortion. They also detected two deep grooves or puckerings in the neck of the womb. Subsequently, by order of the coroner, a further examination of the body was made by Mr. Pepper, assisted by Dr. Smith. These gentlemen ascertained that the so-called puckering in the cervix were two deep lacerated wounds half an inch deep extending for the whole length of the cervix. They were further of opinion that the rents had been made some days before death. A portion of the placenta corresponding to a four months' pregnancy was still firmly adherent to the fundus uteri. There were no injuries to the body of the womb, nor to the vagina or external genitals. No natural cause of abortion was discovered. At the fourchette and for some distance up the vagina were some "gonorrhœal warts," but no signs of syphilis were to be seen. A few days before her death deceased had been treated at the Lock Hospital for vaginitis. The theory set forth in the prisoner's defence was that the abortion was a consequence of the death of the fœtus, and that this was due either to syphilis or to inflammation having spread from the vagina to the uterus, or to blood poisoning from absorption of the vaginal discharge. The medical men who gave evidence for the Crown admitted that these were all possible causes of abortion, and that syphilis was a very frequent cause. They further admitted that natural abortion is a not unfrequent event from causes other than those above enumerated, but they declined to subscribe to any definite percentage of abortions in a given number of conceptions. In this they were undoubtedly right, as authorities on the subject differ very widely in their estimates. Mr. Justice Stephen, who was of the same mind, told the jury that, medicine being an inexact science, it was difficult to obtain absolutely trustworthy statistics on account of the difficulty in obtaining all the facts in the inquiry. A point of some importance was raised concerning the post-mortem evidence of syphilis. Mr. Pepper admitted that it was just possible that a person might have been the subject of the constitutional affection, and yet that at a necropsy no conclusion of the existence of the disease might be found. Mr. Bloxam deposed that, in his opinion, if syphilis were present it would be discovered, since the lymphatic glands remain enlarged so long as the patient suffers from the disease. The latter statement is no doubt quite correct; but would one be justified, upon finding enlarged glands apart from other signs of syphilis, in concluding that the deceased was the subject of syphilis? Whatever may be the surgical interpretation of the question, it was obviously safer to give the prisoners the benefit of the doubt implied by the difference of opinion expressed at the trial. Apart, however, from the medical evidence, the collateral testimony—circumstantial and direct—told strongly in favour of the guilt of the accused. Before Justice Stephen passed sentence Mr. Poland informed him that the Treasury were in possession of information that the convicts had illegally procured abortion in other cases.

CARBOLATE OF MERCURY IN SYPHILIS.

DR. KARL SHADEK of Kieff, being anxious to try the effects of carbolate of mercury, which has been strongly recommended in syphilis by Professor Gamberini, requested M. H. Brandt, a pharmacist in Kieff, to prepare some for clinical use. This he did by precipitating a very dilute solution of bichloride of mercury with a concentrated alcoholic solution of carbolate of potassium. A yellowish precipitate was obtained, which, after being frequently agitated with the liquid for twenty-four hours, assumed a whitish appearance. It was filtered and washed with distilled water till the washings showed no traces of chloride. It was then transferred to a fresh filter paper and dried under a bell jar. In this way a nearly white tasteless amorphous substance was obtained, which was scarcely acted upon or dissolved by cold, but was readily soluble in boiling, hydrochloric acid. The name given to it by Dr. Shadek is "hydrargyrum carbolicum oxydatum," and he has been using it in his private practice for several months. At first he gave it in the form of pills, one of which, containing about an eighth of a grain, was ordered three, or occasionally four, times a day. It was well borne, and did not interfere with the digestion. In some cases the treatment was continued for six or eight weeks, without producing colic or other disagreeable symptoms. The total number of syphilitic cases in which it was given internally was thirty-five (twenty-six men, six women, and three young children). In five of these there was swelling of the gums and salivation. Mercury was found in the urine after the third dose. Its therapeutic value was especially remarkable in macular and tubercular syphilides and in syphilitic psoriasis of the palm and the sole. Syphilitic rash and slight relapsing forms yielded to the treatment in from two to four weeks; in syphilitic affections of the mucous membrane, and in papular and pustular eruptions, from four to six weeks were required. Multiple enlargements of glands were but little affected by it. In the case of children of from two to four years old, doses of about the fifteenth of a grain were well borne twice daily.

THE DECAY OF BODILY STRENGTH IN TOWNS.

OTHERS besides Lord Brabazon must have remarked the steady flow of population which has set in, especially of late years, from the country districts to the towns, and must have asked themselves, as they reflected on the changed conditions, the high working pressure with intermissions of enforced idleness, and the unwholesome home life which awaited many of those immigrants, how far in the end the nation would be a gainer by the interminable process. So long as our manufacturing and shipping industries continue to maintain a fair measure of prosperity there is little likelihood that the influx into the towns will be seriously checked. Its influence for good or evil on the physical state of our

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people must therefore greatly depend upon our securing for them in their changed mode of life the surroundings necessary for healthy development. It would be difficult to show by precise statistics how far the work of degeneration has progressed among our poorer urban population. For our own part, we are not disposed to accept, without due scrutiny, any random alarmist rumours as to a progressive shortcoming in the national vigour. It must, however, be generally allowed that until a recent date little care has been taken to protect the poorer inhabitants of our cities against the evils of overwork, overcrowding, mismanagement in household arrangements and in food and drink, and other insanitary conditions to which they are almost necessarily subject; and if this negligence be allowed to continue, the logic of facts will not fail to convince us of a suicidal error. There is therefore good reason why schemes now on foot for the better housing of the poor, the better allotment of working time, and plans which like these tend to healthy living should not want substantial support. We would also draw attention to the great importance of care in the physical training of children, by rendering gymnastic exercises a compulsory part of education, and we are reminded by another article in the *Nineteenth Century* that sufficient attention has not been paid to the necessity for leaving here and there in districts extensively built upon open spaces for public recreation. Where common land is not available, it might well become the Legislature to order the allotment of certain portions of enclosed land for this purpose.

THE MEDICAL ACT, 1886.

FROM the frequent inquiries that have been addressed to us, there appears to be some doubt as to the effect the new Act will have on practitioners whose names are now registered. It may therefore be as well to point out that gentlemen whose names are now upon the Medical Register will not have to re-register. Existing single diplomas not yet registered—as, for example, the M.R.C.S.—can be registered up to Tuesday, May 31st, after which date degrees and diplomas cannot be registered, unless they have been conferred after a qualifying examination in medicine, surgery, and midwifery, held expressly for the purposes of, and under the conditions stated in, the Medical Act of 1886. The Act, however, gives power to the Privy Council to postpone "the appointed day" to any day not later than the end of June—a power on the exercise of which, we have reason to believe, the Medical Council is likely to be consulted at their meeting next week.

ANTISEPTIC MIDWIFERY.

IN a report by Dr. K. Inoieffs of the work done in the Lying-in Institution in connexion with the Golitsinski Hospital in Moscow for the year 1886, the advantage of antiseptic midwifery, which is strictly carried out there, is evident, as out of 541 cases there were but 2 deaths. Some of the statistics, which are very carefully kept, may be of interest. The largest number of births occurred, as it is popularly believed they do, at night, 145 taking place between midnight and 6 A.M.; the numbers corresponding to the remaining three-quarters of the twenty-four hours being 131 from 6 A.M. to noon, 107 from noon to 6 P.M., and 144 from 6 P.M. to midnight. There were 14 abortions and 9 cases of twins; three births took place in the street. Of the remaining 501, 478 were vertex presentations, 15 breach, and 8 transverse. In 9 of the 14 cases of abortion the ovum was removed mechanically. When there was considerable hæmorrhage and the os was not dilated, a hot vaginal injection of carbolised water was given which was, as a rule, successful. Twice, a plug consisting of a long strip of cotton-wool moistened with glycerine and iodoform was introduced by means of the speculum, as much as possible being inserted into the cervical canal, and subsequently, when the os was sufficiently patent, the finger was introduced and the uterine contents removed. In one case there was a slight amount of perimetritis and in two a single rise of temperature. In one case a spatula was cautiously used to assist the irrigation, and once the contents were removed with the help of a sharp hook. Apart from cases of placenta prævia and abortion, there were 29 cases of hæmorrhage, 6 of these occurring in primiparæ; six took place during the first and second stages of labour, the rest in the third stage and post-partum. The treatment adopted was, during the first stage, to plug, and when the os was sufficiently dilated to rupture the membranes. If there was rigidity of the os, narcotics were given. When uterine atony was the cause, massage, the application of ether to the abdomen, hot injections, and (after the birth of the placenta) ergot were resorted to. As to operations, episiotomy, or a double V-shaped incision of the perineum was performed five times, no sutures being inserted afterwards. Twice the os uteri was incised; twice the prolapsed cord was replaced; perineal sutures were required in 20 cases. In the performance of the operation the most careful antiseptic precautions were taken; in 16 cases the union was complete. Retention of membranes required the introduction of the hand into the uterus once, but in 14 cases the placenta had to be artificially extracted, being completely adherent once, and partially so thirteen times. Labour was induced prematurely for contracted pelvis three times, twice by the injection of water at 28° R. (95° F.) through a tube passed into the cavity of the uterus, between the uterine wall and the fœtal membranes; in the third case it was induced by the introduction of an elastic sound into the uterus. Podalic version was performed eleven times, and the forceps applied fifteen times. Craniotomy was performed twice.

REPORT ON FACTORIES AND WORKSHOPS.

THE annual report of the Chief Inspector of Factories and Workshops is, as usual, of considerable interest. We are pleased to note that it speaks encouragingly of a revival of trade in nearly all branches of industry, which was particularly noticeable towards the end of the year. Of the many industries in which an improvement is noted, we are glad to find the linen trade is in a flourishing condition, as likely to encourage the growth of flax in this country, a matter of considerable importance to agriculturists in these depressed times. The invention, too, of a new scutching machine, by which 30 per cent. of fibre may be secured from the straw instead of about 20, will also aid in this direction. But the chief interest in the report, so far as we are concerned, is contained in the information it affords respecting the precautions taken in various industries to protect the workpeople from injury or loss of life or health. The total number of accidents last year arising from machinery alone amounted to no less than 6656, of which 316 were fatal—a formidable return, but one which, we are pleased to find, is gradually diminishing owing to precautions enforced and by improvements in the construction of the machinery employed. Thus many accidents occur from unfenced hoists, and these are generally serious; Mr. Meade King in the report deals at length with this, and introduces us to several kinds of hoists which, whilst simple and inexpensive, protect the employed from accident and the employer from liability. Mr. Lakeman, another inspector, has devised a saw guard, which is calculated to prevent those serious accidents that so frequently occur from the use of the circular saw. Mr. Lakeman has also induced Mr. Rockhill

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to perfect a system for stopping shafting and machinery instantly, so that a person caught by machinery can immediately be released. The ventilation of factories and workshops receives considerable attention, and several effective and simple methods suitable to small factories are described. We regret to find that the enactments of the Truck Act are still evaded in some districts. One of the inspectors, Mr. Hoare, states the following as of recent occurrence. "A chain-maker informed me this week that he paid his master 15*s.* for gleeds which he could buy for 7*s.*" The enormous profits made by the employers by selling gleeds enables them to sell common chains at cost price, to the great injury of the workman, who, in addition to his loss on the transaction, is fined if any of the links are the least faulty. One wonders that the workmen, in their own interests, allow such a system to continue. But it is, in reality, a question of work or no work, and any complaint on their part leads not only to their present discharge, but prevents their getting employment in the future. It is satisfactory to note that the prosecutions for offences against the Factories and Workshops Act are not for very grave breaches of the law. Still, they are numerous enough to show that in the absence of constant supervision very grave abuses would speedily spring up. Fortunately, the character of this report assures us that the inspectors are keenly vigilant, and, moreover, are themselves interested in the work and ready to receive and to suggest anything that will improve the conditions of health and add to the security of life and limb in our workshops and factories.

THE MEDICAL SOCIETY OF LONDON.

THE annual Oration (which we publish in another part of our present issue) was delivered by Sir Wm. Mac Cormac at the commencement of the conversazione on Monday last, Dr. Hughlings Jackson, F.R.S., President, in the chair. Sir Joseph Fayrer proposed, and Mr. Croft seconded, the vote of thanks to the orator for his interesting address on Abdominal Surgery. The conversazione was, as usual, a great success, the music being provided by the string band of the Royal Artillery. Specimens of art pottery, by Messrs. Martin Brothers; recent etchings and mezzotints, by Mr. R. Dunthorne; photographs of landscapes, by Mr. Vernon Heath; Japanese screens, by Mr. W. Anderson, F.R.C.S.; oil paintings and water-colour sketches, by Mr. G. E. Cook; book of engravings after Rubens and Vandyck, by Mr. Walter Pye, F.R.C.S.; the Remington Standard Type-writer, by Messrs. Wyckoff, Seamans, and Benedict; together with some old books, including the MS. of the Rev. John Ward, which contains the only authentic account of the cause of Shakespeare's death, besides other objects of interest, were provided for the delectation of the Fellows and their friends. We may add that the entrance hall, staircase, and rooms were lighted by the patent safety lamps of Messrs. Defries, which had been lent for the occasion.

PYORRHŒA ALVEOLARIS.

MR. NEWLAND PEDLEY, F.R.C.S., read a paper at the Odontological Society upon the above subject. Pyorrhœa alveolaris is characterised by conditions as follows:—The mucous membrane, especially that adjacent to the teeth, is deeply congested, tumid and thickened, and detached from the necks of the teeth and from the roots. A thick fetid discharge may often be pressed up between the teeth and mucous membrane, which gives to the breath a very repulsive odour. Later, the alveoli become absorbed, and at times more or less denuded, whilst the fangs of the teeth become coated with a layer of thin, hard, green-brown tartar. Ultimately, the disease progressing, the teeth, one after another, drop out. The pathological changes which take place are hypertrophy of the muco-periosteal fold around the teeth, accompanied by dilatation of capillary loops, enlargement of the papillæ, and rapid proliferation of epithelial cells. Later the gum becomes firm and contracted, and displays increase of fibrous tissue. The changes which go on in the socket have not been yet satisfactorily worked out, but the examination of the jaws of some carnivora which were apparently affected with pyorrhœa alveolaris would lead to the supposition that there is osteitis of the alveolar process spreading towards the apex of the socket. There are many differences of opinion as to the causes: some maintaining that it is of parasitic origin and due to a specific bacillus, but there is no good proof of this; others that it is catarrhal, and an extension of inflammation of the mucous membrane; others that it is due to the irritation of small deposits of hard tartar under the edge of the gum, but this is plainly not the case, for the disease may be far in advance of the deposit, and in some cases there is not any to be found. It is probably due to some constitutional condition, and the fact that it is often symmetrical, and frequently hereditary, gives support to this view. It occurs in the mouths of patients whose health has been undermined by debilitating influences and injudicious habits of living; it is a common sequel of malarial fever in America; young persons recovering from eruptive fevers are sometimes subjects of pyorrhœa alveolaris; and frequent pregnancies are a fruitful source of the disorder. Attention has been lately drawn to the shedding of the teeth in tabes dorsalis, but it does not by any means seem to be a constant symptom. Mr. Bland Sutton has found that premature loss of the teeth is a very common feature in cases of rheumatoid arthritis in animals, and has also met with it in mollities ossium and other wasting diseases. Magitot, who views the alveolar-dental periosteum as a ligament, and not of the same nature as osseous periosteum, calls the disease symptomatic alveolo-arthritis, and mentions especially as causes chronic Bright's disease and glycosuria, in which latter, he says, the phenomenon is absolutely constant.

THE POPE ON ALCOHOLISM.

LEO XIII., even more than his predecessor Pius IX., has made the social amelioration of the masses an object of Catholic concern, mobilising the forces of the Church and even calling on public hygiene to assist in the philanthropic crusade. The ravages of intemperance, particularly in the United States of America, have just evoked from him a strenuous charge to the clergy in that part of the world to continue their efforts for the removal of the scourge, and to make their flocks an example of moderation and sobriety to all outside the fold. In a Brief addressed the other day to Monsignor John Ireland, Bishop of S. Paul, Minnesota, he congratulates him on the success which has followed the organising of the Catholic Union for the observance of total abstinence (*Unio Catholica perfectæ abstinentiæ sequendæ*), and adds that too much praise cannot be given to those pastors in the United States who in the late plenary council at Baltimore have formulated a "plan of campaign" against the abuse of alcohol, with its bequest of disease and misery to generations yet unborn. He commends the Bishop and his clergy for themselves reinforcing their precept by personal practice, and charges them zealously to save their Church and their native land from the innumerable calamities with which both are menaced by the vice of alcoholic excess (*ut tot calamitates ex eo vitio Ecclesiæ ipsique patriæ impendentes strenue avertere contendant*). The Catholic Union, to which the Pope alludes, now numbers over one hundred thousand members, while it is at the same time gratifying to hear that the co-operation of the medical profession in what is nothing less than a great movement, sanitary as well as social, is also noted with commendation

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at the Vatican. The Church, whether Catholic or Protestant, in a cause so humanitarian, may always count upon medicine and its practitioners for loyal and effective support.

MEDICAL OFFICERS OF HEALTH.

THE Sanitary Authority of West Ham had last week under consideration the question whether they should appoint a medical officer of health who should devote the whole of his time to the district, or whether they should elect a medical man who had other means of adding to his income. The Sanitary Committee had recommended that the former course should be adopted; but the Town Council sitting in committee had not approved this recommendation, and the corporation have now by a small majority rejected an amendment that an officer be appointed who should give the whole of his time to his duties. This decision is distinctly unfortunate. In a district of the size and population of West Ham there is abundant material for the work of one man, and in engaging a partial service the corporation are by no means doing the best for their borough. There is only one reason for satisfaction to be found in this decision. If the feeling of the corporation is to be judged from the statements of its members, the inadequate remuneration of £300 a year would be given to the officer, who would be expected to devote a special knowledge of preventive medicine and the whole of his time to the health duties of West Ham. It is needless to add that this sum ought to be, and would be, insufficient to procure for the corporation the services of anyone fully competent to perform this important duty. West Ham should have learnt by its own experience the necessity for active sanitary administration, and it is to be regretted that the corporation should now be prepared to leave the borough without the aid of an officer of the best professional standing.

THE INFLUENCE OF TEA, COFFEE, AND COCOA ON DIGESTION.

DR. JAMES W. FRASER, in the recent number of the *Journal of Anatomy and Physiology*, has recorded the results of an interesting series of experiments on the action of our common beverages on stomachic and intestinal digestion. The experiments have been most carefully arranged from a physical standpoint, and give us some valuable hints on the digestion of the chief alimentary principles, but they have no bearing, it should be mentioned, on individual variations of human digestion, or on the influence of the various glands in preparing the gastric or intestinal juices. They are, however, of much value in showing how standard preparations of the peptic and pancreatic ferments are modified in action when our ordinary daily beverages are allowed their free action on the digestion of various articles of food. The digestive processes were carefully investigated, and absorption was imitated by a proper dialysing arrangement. An artificial peptic juice, and afterwards an artificial pancreatic juice, were employed, and the amount of nitrogenous matter dialysed was most carefully estimated. The food stuffs experimented on were raw and cooked serum and egg albumens, raw and cooked myosin, syntonin, alkali albumen, casein, gluten, starch, and oleine. The results obtained from an exhaustive series of experiments and analyses show that all the three typical infused beverages—tea, coffee, and cocoa—retard the digestion and absorption of all the nitrogenised proximate principles of dietetic substances when peptic and pancreatic digestion are taken together, and that they uniformly retard peptic digestion, although tea may assist the diffusion of peptones from the stomach. Pancreatic digestion is also uniformly retarded, and diffusion thereafter is but rarely assisted, so that neither of them compare advantageously with water as a standard beverage for experimental investigations. A summary of dietetic advice is added to Dr. Fraser's observations, which will, in the main, agree with that which is now given by our best authorities in cases of dyspepsia; and we are glad that experimental inquiries afford so strong a basis of support to empirical clinical observations:—

"1. That it is better not to eat most albuminoid food stuffs at the same time as infused beverages are taken, for it has been shown that their digestion will in most cases be retarded, though there are possibly exceptions. Absorption may be rendered more rapid, but there is a loss of nutritive substance. On the other hand, the digestion of starchy food appears to be assisted by tea and coffee; and gluten, the albuminoid of flour, has been seen to be the principle least retarded in digestion by tea, and it only comes third with cocoa, while coffee has apparently a much greater retarding action on it. From this it appears that bread is the natural accompaniment of tea and cocoa when used as the beverages at a meal. Perhaps the action of coffee is the reason why, in this country, it is usually drunk alone or at breakfast, a meal which consists much of meat, and of meats (eggs and salt meats) which are not much retarded in digestion by coffee. 2. That eggs are the best form of animal food to be taken along with infused beverages, and that apparently they are best lightly boiled if tea, hard boiled if coffee or cocoa, is the beverage. 3. That the casein of the milk and cream taken with the beverages is probably absorbed in a large degree from the stomach. 4. That the butter used with bread undergoes digestion more slowly in presence of tea, but more quickly in presence of coffee or cocoa; that is, if the fats of butter are influenced in a similar way to oleine. 5. That the use of coffee or cocoa as excipients for cod-liver oil &c. appears not only to depend on their pronounced tastes, but also on their action in assisting the digestion of fats."

A JUBILEE SUGGESTION!

MR. T. W. RHYS DAVIDS has written to the *Academy* to suggest that the Jubilee of the Queen and the Jubilee of the University of London may best be celebrated by changing the present title of the University to that of the "Imperial University," because it is an "Imperial Examining Board." And yet we are supposed to believe that the *Academy* is a serious and severely critical paper, and that its correspondents are really in earnest, even when they make such an audacious proposal as this must seem to the authorities that be. Surely the writer must be intent on indirectly advocating a Teaching University for London, although we do not find his name among those who support the movement.

BURIAL DURING A TRANCE.

THE reading public have lately been startled by the shocking details of a reported case of burial during a state of trance. The history of this occurrence—which relates how a Russian officer was interred in his family vault forty hours after his supposed death, and how his body was found a fortnight later turned with the back upwards in his coffin, the lid of which had been partly forced open, with face torn, and hands gnawed and still bleeding—appears too horrible to be true. Instances of living burial have at various times been reported. The authenticity of some such has been vouched for on good authority, though even these, it may be, have not reached us without the spectral halo of an oft-repeated horror. Some others, which owe their apparent credibility to the signs of movement due to cramp-like spasms occurring after death, may probably be dismissed at once as fictitious. We would fain hope that the most recent and appalling case, to which we have referred, is one of those to which excited popular imagination has added, as it is wont to do, particulars as dreadful as unfounded.

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It is certainly somewhat difficult to understand how a human being could live for a fortnight, shrouded, and in the confined space of a coffin, without nourishment of any kind, without fresh air, in a state of trance, and awake at the end of that time possessed of sufficient strength to struggle desperately and to lacerate himself as this unfortunate officer is said to have done. As a matter of fact, moreover, it is hardly conceivable that the eye of a careful and educated observer should mistake the true meaning of the collective signs of death or fail to note their absence in a case of stupor, however death-like to the ordinary onlooker.

ON THE VALUE OF THE HÆMORRHAGE IN THE TREATMENT OF WOUNDS.

PROFESSOR TURAZZA, in the *Gazzetta degli Ospitali* of April 13th publishes a note showing that hæmorrhage from wounds, when not due to the lesion of large vessels or carried to excess, is of small importance and does not interfere with primary union. He believes that the rule generally laid down regarding the first dressing of a wound—viz., to secure complete arrest of hæmorrhage and to apply firm compression—though excellent, is not important. Professor Turazza relies on perfect disinfection of the bleeding surface, as far as within reach, by means of weak solutions of phenic acid or corrosive sublimate. He then leaves the cavity of the wound full of blood, without any doubt as to primary union, the edges of the wound being very accurately sutured. As the result of his experience he formulates a new rule in surgery—"that in wounds perfectly disinfected and free from foreign substances the effusion of blood is not a source of danger, but the reverse, for the extravasated blood fills up the cavity of the wound perfectly, preventing the formation of empty spaces and rendering both compression and drainage superfluous, and, further, the organisation of the clot favours healing." Professor Turazza also expresses himself decidedly averse to the use of the drainage-tube, because it increases septic risks, and may remove from the cavity into which it is inserted fluids which in an aseptic condition may be useful by reabsorption. He advises the restriction within the narrowest limits of the drainage-tube, and would deprecate its use in even ovariotomy, hysterectomy, and amputation of the breast, thinking it more dangerous than useful.

THE INCOME OF DOCTORS.

OUR contemporary the *Graphic*, accepting the estimate of Dr. Thurstan in our columns, that the average income of medical men does not much exceed £300, or, including house-surgeons, ship surgeons, and assistants, even £200, recommends as a—if not the only—remedy, combination. This remedy is one that medical men are not fond of. There is something in the very nature and property of the profession which deters its members from combining to decline help to those in need. But it may be tempted to try the ways of less sensitive classes. There is so much shabbiness in the remuneration of medical services. In many people, and in some classes of the community, there is such a determination to treat medical services ungenerously that it would do good to combine. It would lead to a more wholesome estimate of the value of medical service and advice. It would correct the vulgar impression that people have a sort of natural claim on doctors at any hour of the day or night. No doubt it would cause some surprise, not to say scandal, if the whole profession were to unite to decline to answer the call of those who see no necessity to pay doctors, but think doctors bound to attend them. But a little reflection on the part of reasonable people would soon lead them to a more correct judgment. The difficulty is, as our contemporary says, in getting combination among medical men. There is so little organisation and so much competition that the patient who owes a medical bill to one doctor is only too sure of being able to secure the services of another, and, when he fails to be reckoned with, of a third medical man.

THE COMPULSORY ISOLATION OF INFECTIOUS PATIENTS.

A CASE has just arisen at Gosport which illustrates a difficulty that has more than once occurred in the administration of the clauses of the Public Health Act which deal with the spread of infectious diseases. Under Section 124 of that statute it is enacted that, where a sanitary authority have provided an infectious hospital, they may, by order of a justice who acts under a medical certificate, remove to that hospital any person who is suffering from any dangerous infectious disorder. But amongst the conditions necessary to the procuring of the order it must be shown that the person in question is "without proper lodging and accommodation"; and it is the precise meaning of this condition that gives rise to difficulty. On the one hand, it has been contended that since the statute deals with public rather than individual health, and since the intention of the section in question is clearly indicated by the heading "Provisions against Infection," under which it is placed, the quality of the accommodation referred to has to do not so much with the welfare of the patient as with the risk of danger to others. But, on the other hand, it is held that since the section admits of the compulsory removal, quite apart from the question as to the quality of the accommodation in so far as this may affect others, in cases where the patient is in a room occupied by more than one family, or is on board any ship or vessel, the reference to proper lodging and accommodation has to do with the welfare of the patient, and not of the public, apart from the two exceptional conditions specified. The latter has generally been the customary ruling of magistrates, and it was so in the case which has just arisen. A young woman, who was a tailoress and who lived with her mother, was found to be suffering from small-pox at Gosport, and in the house were twelve pairs of trousers she had made for the Marines. The danger to others was obvious, both owing to the locality and circumstances under which the patient was placed and owing to the special nature of her calling. But the magistrates, ascertaining that the quality of the accommodation, especially as to cubic space, which was available for the sick woman in her own house was sufficient for her own proper treatment, decided that they had no power to order her compulsory isolation in the hospital tents provided by the sanitary authority. This case indicates the legal aspect of this compulsory removal clause; and, as far as we are aware, there has been no appeal against the position which the magistrates have taken up, either on this or on other similar occasions. Fortunately, the isolation of the infectious sick is but rarely dependent on the exercise of compulsory powers. Where a really proper hospital, of a reasonable attractive character and with good administration, is provided, hundreds of persons are every year only too willing to avail themselves of the advantages thus afforded to them.

THE MORTON LECTURES ON CANCER AND CANCEROUS DISEASES.

SIR JAMES PAGET, at the unanimous request of the Council of the Royal College of Surgeons, has consented to give the first lecture on Cancer and Cancerous Diseases at a date to be announced later (in all probability towards the close of the year). The lecture will be the first given on the above subject in compliance with Mr. Morton's donation.

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THE UNIVERSITY OF LONDON.

THE annual meeting of Convocation of the University of London will take place on the 10th inst., when the report of the Annual Committee will be presented. Although the scheme for the reconstitution of the University proposed by the Special Committee of the Senate has been circulated as an appendix to the report of the Annual Committee, there is no resolution on the agenda in reference to it. It remains to be seen whether the subject will be discussed at this meeting. Probably some notice may be taken of the matter on the motion to receive the report; but there is no doubt that Convocation will have to be specially convened to consider so important a question. The chief resolutions on the agenda relate to the initiation of local examinations by the University. The election of graduates to serve on the Annual Committee will take place at this meeting.

THE SANITARY CONDITION OF CLERKENWELL.

AT a meeting of the Clerkenwell vestry last week orders were given for the removal of twenty-five Greek gipsies who had gained admission into a small house in the parish, which the medical officer of health stated had long since been condemned as unfit for human habitation. It may well be asked how such a house, which we presume has been reported under Torrens' Act, has for a long time remained in this condition. The vestry have ample powers to cause the demolition or repair of such premises, and the neglect to utilise them is a distinct reflection upon their sanitary administration. A member of the vestry present at the meeting drew attention to the generally bad condition of the courts of the parish, as being small, ill-lighted, and ill-ventilated, whilst the houses were dilapidated, with inefficient water and other sanitary appliances; he stated that he thought all the courts should be abolished. The medical officer added that there were twenty-six courts that should be condemned, while another vestryman expressed the opinion that all the courts of the parish were a disgrace. The Mansion House Council would be doing good service if they were to ascertain the dates at which these courts have been reported by the medical officer, and the steps which have been taken since. It is now nearly two years since this parish was the subject of inquiry by a commissioner appointed by the Home Secretary, and it would be interesting to know if his report contains the information which is wanted, and which would be useful to those who desire to see the sanitary condition of London improved.

DEATHS OF EMINENT FOREIGN MEDICAL AND SCIENTIFIC MEN.

THE deaths of the following foreign medical and scientific men are announced:—Dr. W. Hack, Professor of Laryngology and Dermatology in the University of Freiburg in Baden, was last week found dead, apparently from heart disease, upon his tricycle, which was standing still in the middle of the road near Staufen in the Untermunsterthal.—Dr. Max Geminger, Conservator of the Munich Zoological Museum, and a well-known entomologist.—Dr. Joseph Lerch, Extraordinary Professor of Zoology and Director of the Zoo-chemical Institute in the German University of Prague.—Dr. Vladimir T. Hörschelmann, Privy Councillor, and late holder of a high position in the St. Petersburg district, Military Medical Staff. At the time of the Crimean war he was senior surgeon of the Preobrashenski Regiment.—Dr. Edward Meyer, who is described as the Nestor of Livonian practitioners, being at the time of his death eighty-two years of age, and having taken the M.D. degree at Dorpat in 1827.—Dr. Hellinger, one of the oldest and most respected medical officials in the Rhine provinces.

PARALYSIS OF THE SENSE OF TASTE.

MANY observations point to the conclusion that any function of the living body may be annulled by the action of some specific agent. The selective action of drugs is one scientific reason for their employment in the rational and the empiric treatment of disease. Some arguments could be found to sustain the hypothesis that the treatment of symptoms is a real way of treating the disease, that suppression of all symptoms by the employment of various agents would be equivalent to the suppression of the causes of the disease. Doubtless this might hold good in some cases, but probably not in all, and the present state of knowledge gives us no warrant for asserting anything absolute on the matter. It is known that the leaf of Gymnema sylvestre, an asclepiad, has the property of abolishing the functions of tasting bitter and sweet things, of paralysing certain fibres or nerve endings of the gustatory nerves; for there is much evidence leading to the belief that there exist different sets of fibres subserving the various sensory functions, not only in the sphere of taste, but in the department of any other general or special sense.

POISONOUS BISCUITS.

Two children were recently successfully treated at the Melbourne Hospital for symptoms of poisoning, and from inquiries which were made it was supposed that their illness arose through eating some biscuits, the colouring matter of which was of a poisonous character. Similar biscuits to those which the children had eaten were obtained and forwarded to the Government analyst for report. The analysis showed that the green colouring matter on the biscuits submitted for examination was arseniate of copper. By the direction of the President of the Central Board of Health, the police in the various suburbs visited without delay the various establishments where biscuits are sold, and seized all tins containing any biscuits with green colouring matter on them. In all, over eighty tins were confiscated, and by the praiseworthy promptitude of the authorities a fertile source of danger to the infant population of the colony has been removed.

MEDICATED WINES.

WE think the Board of Inland revenue are right to place some restriction on the sale of medicated wines. Many of these preparations consist of ordinary foreign wine, often Marsala or sherry, to which some medicinal substance has been added. It is to be feared that in some cases they have been used in undue quantities for the sake of their alcohol, while in others the consumers have not known that they were drinking strong wine. In future a wine licence will be required by every person who sells them.

THE TREATMENT OF MORPHINOMANIA.

WE have recently received two publications on the treatment of this important and increasingly prevalent complaint. The first, by Dr. Oscar Jennings of Paris, is "Sur un Nouveau Mode du Traitement de la Morphinomanie," and is illustrated by nearly thirty sphygmographic tracings. The other and smaller work, covering much the same ground, is entitled "Considérations sur la Traitement de la Morphinomanie," and has been prepared by Dr. Jennings in conjunction with Professor Benjamin Ball, the well-known alienist. The drugs chiefly relied on for the cure of these patients are nitro-glycerine and sulphate of sparteine. The former is given in tabloids or as a 1 per cent. alcoholic solution, whilst the latter is administered hypodermically usually in doses of from two to four centigrammes. Sparteine has hitherto been but little used in medicine, but its action on the cardiac inhibitory ganglia is so marked that

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it seems not improbable that it has a brilliant future before it. The effects on the pulse are admirably illustrated by the sphygmographic tracings, and the success attending the new method of treatment is especially gratifying.

TEA AMBLYOPIA.

WE read in a contemporary that M. Molchanoff, a Russian, who is reputed to be the wealthiest tea merchant in the world, has arrived at Paris from Hankoy with the intention of placing himself under the treatment of Dr. Charcot and an experienced French ophthalmic surgeon. The great tea magnate is suffering from amblyopia, which, it is said, is the result of the prolonged practice of tea-tasting. It is not unlikely that tea taken in excess might produce amblyopia similar in character to those toxic amauroses which result from the abuse of alcohol, tobacco, opium, and quinine; but we are not aware that this form of amblyopia has been particularly described. Wecker does not mention it in the last volume of his large work just completed, and it is not mentioned in the Real Encyclopedie, nor in the Gräfe Sämisch Handbuch. Tea is hardly indulged in in this country to a sufficient extent to produce any marked effects upon the nervous system, but it is undoubtedly a sedative and acts powerfully upon the heart.

THE HEALTH OF THE HOME SECRETARY.

WE learn that the absence from the House of the Right Hon. H. Matthews has been caused by his suffering from slight ulceration of the cornea of one eye, which necessitates some temporary rest, but involves no serious consequences. He is under the care of Mr. Brudenell Carter.

FOREIGN UNIVERSITY INTELLIGENCE.

Brussels. — The students have presented M. Ernest Rousseau, the pro-Rector, with his bust.

Cracow.—Dr. Anton Rosner, Extraordinary Professor, has been elevated to the position of Ordinary Professor of Dermatology and Syphilis.

Giessen.—Professor Schwarz is expected to succeed Professor Kaltenbach, who has gone to Halle.

Königsberg.—Dr. A. Vossius has been appointed Extraordinary Professor.

Munich.—Professor Gietl is resigning his hospital appointment, after fifty years of service.

Trieste.—The local legislative body has commenced to take steps for the establishment of a university in which Italian will be the language in which instruction is to be given.

THE efforts which are being made by the authorities with the view of stamping out rabies among the deer in Richmond Park have not produced the results which were anticipated. On the 4th inst., the official veterinary inspector reported at the Richmond Petty Sessions the slaughter of six more animals since the last sitting of the bench. Of 1500 deer in the Park over 130 have now been killed, and it is expected that many more will have to be slaughtered before the epidemic comes to an end.

MR. J. S. MORGAN has withdrawn the condition attached to his promise of £10,000 in aid of the funds of Guy's Hospital, and has made it an absolute gift. The fund now amounts to £72,000.

A VIENNA firm has received a telegram from Buenos Ayres, stating that cholera has broken out afresh there. There have been, it is reported, twelve cases in Tucuman, in the interior, and several in the city of Buenos Ayres itself.

WE understand that Messrs. Henderson Bros., managing owners of the Anchor Line of steamships from Glasgow to New York, have decided to offer to members of the medical profession desirous of attending the International Medical Congress to assemble at Washington in September next return tickets to New York for £20, giving the best accommodation at this low rate.

MR. C. R. THOMPSON of Westerham, Kent, was thrown out of his carriage on the 28th ult., and sustained such injuries that he died on the 29th, never having recovered consciousness. At an inquest held on the 30th the jury returned a verdict to the effect that death was due to a fracture of the base of the skull and concussion of the brain.

WE regret to record the death at Chenawan, in the Punjaub, of Dr. G. J. Shand, of the Indian Medical Service. The deceased entered the service in 1881, and at the time of his death, which occurred on the 1st ult. from typhus fever, held the appointment of superintendent of the Chenawan Central Gaol.

PROFESSOR VICTOR HORSLEY, F.R.S., will read a paper "On the Operation of Trephining during the Neolithic Period in Europe, and on the probable method and object of its performance," at the Anthropological Institute, 3, Hanover-square, on Tuesday, May 10th, at 8.30 P.M.

MR. H. R. BARRAUD of Oxford-street has submitted to us an excellent cabinet photograph of the late Dr. Alfred Meadows.

DR. HUGHLINGS JACKSON has received the honorary degree of LL.D. Glasgow.

ABSTRACT OF

LECTURES ON MALARIAL FEVERS.[1]

BY W. NORTH, B.A., F.C.S.,
LATE RESEARCH SCHOLAR OF THE GROCERS' COMPANY.

LECTURE II.

LOCAL CONDITIONS AFFECTING THEIR DISTRIBUTION AS STUDIED IN THE PROVINCE OF ROME.

IN the previous lecture the general relations of malaria to latitude, altitude, water, and climate have been shown to hold good for a continent, for an individual country, and for a province of that country. It remains to show how far they hold good for much smaller areas. This involves consideration in detail of localities, and with regard to each the following points demand especial attention:—1. Local conformation of the soil. 2. Constitution of the soil. 3. Water. 4. Altitude. 5. Cultivation. 6. Population. 7. Drinking-water. 8. Meteorology.

Local conformation of the soil.—The peculiar nature of the Roman Campagna, and the fact that it is by no means a plain in the generally accepted sense of the word, may be illustrated by the following examples. The neighbourhood of the Isola Farnese is exceedingly broken up by streams running in valleys with almost precipitous walls, often fifty metres and more in height. Of more undulating country, but still very broken, the neighbourhood of Tre Fontane, to the south of Rome, affords a good example. Here there are valleys whose bottoms are not more than from 12 to 16 metres, and whose sides may rise to 50 or even 60 metres above sea level. The streams which flow through these valleys are, for reasons to be considered later, liable to frequent flood, and deposit an enormous amount of mud and silt. Of true plain, the valley of the Tiber, the Pontine

[1] Delivered at the London Institution, April 25th, 1887.

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region, and the low land on the coast line may be cited as the best examples.

Constitution of the soil.—It has been shown repeatedly that geology has little to do with malaria, except in so far as it affects the physical nature of the soil. The fact that the greater part of the Roman Campagna is volcanic is of material importance to the subject, inasmuch as it has a great influence on the distribution of the water underlying the surface soil. There is frequently an almost impervious layer of lithoid tufa, full of saucer-like depressions, which hold water and render the soil with which they are filled and hidden wet and boggy. In some cases these depressions are crater-like and of large size, having once been, to all appearance, volcanic lakes. These larger depressions are found chiefly round the base of the extinct volcanoes of Albano and Bracciano. The best example, perhaps, is that of the Val d'Ariccia, below Albano, which is nearly a mile across, exceedingly fertile, and very unhealthy. After heavy rain the whole valley becomes a bog, there being apparently no adequate means of escape for the water. This valley is known to have been a lake, and to have been drained in order that the alluvium which almost filled it might be cultivated. The volcanic soil holds water like a sponge, and only when it is saturated does the water issue from the hill-sides as springs, and then chiefly because it has met a layer of hard tufa which stops its downward course. Good examples of this are to be seen near Tre Fontane. Some idea of the water-holding capacity of this volcanic soil may be gathered from the following facts. In 1876 the water in the torrents in the district of Velletri began to show an increase about Oct. 20th. The total amount of water which had fallen over the drainage area since the first rains of September was equal to a depth of 25 centimetres, and represented a total of 34,000,000 cubic metres of water. In 1877 the flow did not begin till even later—viz., in the first fortnight of November, after a rainfall of 17 centimetres or a total volume of 23,000,000 cubic metres of water. The Travertine area below Tivoli is very interesting as an example of an exceedingly malarious district covered to a varying depth with a calcareous stone excellent for building purposes, and on the top of which the soil is often so thin as to render cultivation impossible.

Altitude.—The general fact that malaria diminishes and finally disappears as we ascend is undisputed. The remarkable fact about it is that a very small elevation above a malarious soil affords a very efficient protection to the inhabitants. The practice in such countries of building the houses on poles, on the tops of tombs, and similar places, is evidence of this; but it would also appear that there is an undoubted difference, as far as the risk of acquiring the disease is concerned, between a house at the bottom of one of the valleys already described and one built on the top of the hills which bound them—a difference in altitude often not more than thirty metres. The neighbourhood of the Basilica of San Paolo fuori le mura, to the south of Rome, affords a very curious example of this.

Cultivation.—The ancient cultivation and the present state of the Roman Campagna have been already discussed. The relation of malaria to trees is of great interest, though but little understood. The case of Cisterna will serve as an illustration. In 1714 it was proposed to cut down a large area of macchia which lay between the town of Cisterna and the Pontine marshes. Lancisi, the Papal sanitary adviser at the time, resisted it, and successfully, on the ground that these trees opposed a barrier or filter to the malarial emanations from the Pontine region, this idea constituting what is known as the *prejudizio palustre*. Cisterna at the time was very unhealthy, and had a rapidly diminishing population. About a hundred years later these woods were cut down, and since that time the health of the place has improved and the population almost trebled. The attempts made at Tre Fontane to improve the locality by planting eucalypti hardly admit of discussion. The plantations are too young and too small to enable any decided opinion to be formed; still, there is considerable evidence that good has been done. It may be stated generally that the effect of plantations well kept and of suitable trees is to drain the soil and distribute the water, whilst the macchia before mentioned near Cisterna, consisting of stunted brushwood, undrained and boggy, was rather a means of collecting stagnant water near the town, and its removal exposed the soil to the light and air, and so without artificial drainage what was practically a bog was got rid of.

Population.—The condition of the moving population of the Roman Campagna is a very serious question. They are ill fed, ill clothed, and worse housed, and generally are placed in circumstances which render successful resistance to the violence of the climate almost an impossibility. Density of population undoubtedly drives away malaria, and we need go no further than Rome itself for a conclusive example. Since the entry of the Italians in 1870 the city has extended enormously, and parts which at that time were something more than unhealthy are now built over and fast becoming the fashionable quarter. The areas within the walls, particularly on the south, near the Porta San Sebastiano, which are still unbuilt on, have a very evil reputation.

Drinking-water.—Is the malarial infection capable of being carried by water? This is a question which is naturally of the very first importance. The evidence, such as it is, would seem to point to an emphatic negative as the answer. The healthiest parts of the city of Rome are supplied with water admittedly the best in the world, and which rises—to take the Acqua di Trevi or Acqua Vergine as an example—on unenclosed land in springs, which bubble up and cover the surface in a locality so unhealthy that to pass several nights there in August might involve risk to life, and certainly to health. There seems to be but little doubt that a supply of good drinking-water is of importance in malarious localities, but it has yet to be shown that in exchanging pond and ditch water for that of springs the inhabitants cease to take a poison into their bodies. The evidence rather points to the fact that by so doing they raise their general health and so become less liable to the disease. At all events, proof that the malarial infection can be conveyed by water is wanting, though very largely credited by the natives of countries where the disease prevails.

Meteorology will be considered in the next lecture in connexion with the circumstances under which the disease is acquired.

It may be concluded from the above facts, and numberless similar ones which might be quoted did space permit, that the malarial infection is neither wind nor water borne, that it is extraordinarily local and dependent upon local conditions for its intensity to an extent not readily believed, and that the conditions which appear to favour its development are precisely those which affect local climate.

Pharmacology and Therapeutics.

METHYLAL.

METHYLAL, which was last year investigated from a physiological and therapeutical point of view by Personali (see THE LANCET, Nov. 6th, 1886), has since been experimented upon by Nicot, and more recently by two Russian physicians—Professor V. K. Anrep and Dr. M. Motrokhin. The results obtained by the latter of these observers are described in a "preliminary communication" in the *Vrach*. In frogs hypodermic injections of from 0·2 per cent. to 0·3 per cent. of the animal's weight produced more or less profound anæsthesia, which, however, quickly passed away. The lethal dose for frogs was found to be 0·8 gramme. Reflexes were weakened, and with large doses temporarily abolished. Thus, after giving a frog 0·3 gramme of methylal, irritation of the central end of the sciatic nerve during the period of complete narcosis produced no effect, but when the animal was aroused some reflex activity returned. Irritation of the peripheral extremity of the nerve showed that the drug had produced no effect upon its reflex action. Warm-blooded animals are more susceptible to the effects of methylal than frogs, a quantity equal to 0·25 per cent. of a rabbit's weight throwing it into a deep sleep lasting from one to two hours; with larger doses, loss of coördination in the movements was first observed, then the animal fell on its side, and remained in a state of narcosis for from three to four hours, after which it quickly recovered. The lethal dose was 0·45 or 0·5 per cent. of the animal's weight. The irritability of the cortex of the cerebral hemispheres was lowered both by hypodermic injections and by the inhalation of the vapour. Convulsions due to strychnine and picrotoxine in animals subjected to the action of a moderate dose of methylal were diminished in violence, but when the strychnine or picrotoxine was given in lethal doses death was actually accelerated by methylal. Methylal

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an be employed in the form of vapour for inhalation, r as a liquid for internal administration. When given ypodermically in an aqueous solution of the strength of in 3, it is very painful, and the skin is apt to slough near he puncture. Dr. Motrokhin does not think methylal is ikely to be of use in poisoning by strychnine and picro-oxine, except when only small quantities of these poisons ave been introduced into the system. Regarding inhalations, wo ounces may be inhaled, and only produce in addition to næsthesia slight headache and dizziness. No experiments eem to have been made with a view to ascertaining the alue of methylal as a surgical anæsthetic, but it does not eem to affect the heart's action perceptibly. Prof. Anrep oticed especially that the anæsthesia was more marked on he upper part of the body.

FLUID EXTRACT OF VERATRUM VIRIDE.

Dr. N. Chistovich, chief of Professor Botkin's clinic in St. Petersburg, has just published an elaborate research on the physiological and therapeutical properties of the fluid extract of veratrum viride root. He found that in warm-blooded animals the cardiac contractions were at first distinctly diminished, but subsequently they were accelerated, the primary slowing of the pulse depending chiefly on the action of the drug on the centres of the vagus, causing an increase in the irritability of its peripheral extremities. The action on the inhibitory cardiac apparatus was manifested when the accelerator nerves and the sympathetics of the vagi were divided. The secondary acceleration of the pulse was due to a paralysing effect on the central and peripheral cardiac inhibitory apparatus, as well as to a stimulating action on the central and peripheral accelerator apparatus, this stimulation being partly accounted for by the direct action of the drug and partly by the rise of arterial pressure, which was itself due both to the increased force of the cardiac beats and to contraction of the small arteries. The number of clinical observations was much smaller than those conducted in the laboratory. The doses given were usually from ten to twenty drops of the 1 per cent. liquid extract. The cases which were found to be benefited by this treatment were those of cardiac disease when compensatory hypertrophy had not been established. In these there was almost immediate improvement in the dyspnœa and anasarca, the secretion of urine augmenting considerably and the patients feeling a great deal better. In two cases where the cardiac disease was complicated by nephritis and in one where there was pleurisy with effusion the veratrum did not seem to produce any satisfactory improvement, but it was only tried for a very short time, and no attempt was made to increase the doses.

SULPHATE OF SPARTEINE.

M. Masius of Brussels, having been engaged in investigating the physiological effects of sulphate of sparteine, has come to the following conclusions:—1. In small doses it does not modify the carotid pulsations in dogs. 2. In moderate doses it diminishes the irritability of the pneumogastric, accelerates the pulsations, which decrease in amplitude, and at the same time suppresses the periodical respiratory variations. 3. In poisonous doses it induces paralysis of the pneumogastric, also asphyxia, and, as a consequence of asphyxia, a change in the pulsations, which become larger and less rapid, and then quickly smaller and smaller, till they take on the characters of "alternate pulse," and finally cease. 4. The blood pressure decreases only a short time before death. 5. It exerts in the healthy subject no effect on the urinary secretion. 6. In disease its effect on the heart is uncertain, as well as its effects on the urinary function and on the subjective condition of the patient.

COMMON SALT IN MIGRAINE.

Dr. Rabow, of Berlin, finds that half a teaspoonful or more of common salt, taken as soon as the premonitory symptoms of an attack of migraine begin to show themselves, will frequently cut it short in about half an hour; similar treatment has also proved of service in epilepsy, as was remarked some years ago by Nothnagel: the explanation being probably in both cases that a violent reflex action is set up.

ON the 9th inst. an afternoon concert, conducted by Mr. Henry Leslie, will take place at Grosvenor House, by the permission of the Duke of Westminster, in aid of the funds of the Hospital for Women, Soho-square.

THE ROYAL ACADEMY OF ARTS.

IT is significant of the wealth of artistic talent in this country that, although the present exhibition contains no works by such masters of the craft as Watts, Vicat Cole, Burne Jones, Calderon, Poynter, G. Richmond, and Woolner, it is nevertheless one of extraordinary merit and interest. It would seem as though the financial depression, which is naturally felt most keenly by the sensitive profession of Art—a profession which is an appendage of the luxuries, not the necessities, of life,—has incidentally served to stimulate the energies of the painters to exertion, which were not displayed, because possibly they were unnecessary, in the piping days of commercial prosperity which prevailed some fifteen to ten years since. Notwithstanding that we have passed through—if we have passed it—a winter of exceptional cheerlessness and want of light, the keen competition which the present position of Art in England renders necessary has served to produce an exhibition abounding in works of merit. Our readers will find no small recreation in a visit to this, the most popular of all the exhibitions of the metropolis.

From a purely medical and professional standpoint, we have not so much to point out as in many former years. There are perhaps fewer than usual great notabilities of our ranks who are immortalised on canvas or in marble, and incidents of the works calling for criticism from the anatomical or physiological side do not appear to be numerous. We may, by the way, remark that there is a picture of extraordinary power by S. J. Solomon called "Nature," No. 503, Gallery No. 7., that should not on any account be missed. It is a huge canvas, and the story of the hero when dispossessed of his locks by the crafty Delilah falling a victim to the bonds of the Philistines is admirably told—so admirably, that it may appear captious to point out that the Philistine in front, whose leg is half-flexed upon the thigh, would not in this position have the vasti muscles (the extensors of the leg) standing out prominent and rigidly contracted. It is not so very uncommon to find that painters who have studied the muscular system have failed to seize a correct idea of the conditions under which the muscles are contracted or relaxed, and, in their anxiety to give as much anatomy as they can, portray a contraction where it should not be found.

Amongst the portraits of medical interest is that of Dr. Walter Fergus, by Wirgman, and Sir Rutherford Alcock, K.C.B., by Arthur J. Foster. This latter, although placed too high to be perfectly examined, is conspicuous by its truth and power; it is an admirable likeness, and we would especially note the dexterity and, at the same time, the conscientiousness of the painter in his treatment of the sitter's hands. A landscape by the same painter hung on the line in Gallery No. 8, called "A Harbour at Low Tide," is an admirable bit of seaside painting, and a proof of the artist's versatility. Mr. Luke Fildes strikes new ground in two portraits of great power; and Mr. Sargent's portrait of Mrs. William Playfair will interest especially those possessed of artistic sensibility. In Gallery No. 4 Surgeon-General Maclean looks down upon us with his well-known amiable physiognomy; and in Gallery No. 5 we find Dr. Edward Waters immortalised by Frank Holl. In the lecture-room there are good busts of Sir Henry Acland, by J. E. Boehm, and of Dr. Cholmeley, by C. B. Birch.

THE GROSVENOR GALLERY.

The Grosvenor Gallery has been open for eleven years, and has suffered no falling off and no important defections. The President of the Royal Academy does not often contribute, and this year admirers of Mr. Alma Tadema must content themselves here with works by his wife and his daughter. Mr. Whistler has found a home of his own at the "British Artists," but most of those who have made the reputation of the Gallery are faithful to Sir Coutts Lindsay, to whom newer men also are not wanting. Portraiture and landscape are undoubtedly the strong points of English art at the present time, but it is on ideal work that the Grosvenor Gallery especially relies. This year Mr. Watts sends a "Judgment of Paris," a vision of the three goddesses bathed in a glory of light, which he has never surpassed. Perseus shows to Andromeda the reflection of the head of Medusa in Mr. Burne Jones's chief picture, the

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other being a landscape with three figures—the garden of Pan. Both are mediævally conceived and treated, but in landscape this is surely a retrogression, while the mystical truth of the old Greek legend is finely presented, with delicate colour and consummate drawing. Mr. W. Richmond's Fiammetta is a beautiful ideal study of a girl, much influenced by Leonardo and the Lombard School. Mr. Hacker, however, has produced the picture which will probably draw most attention, as the striking work of a rising artist—"Philammon watching Pelagia asleep in the Desert," from C. Kingsley's "Hypatia," a book which furnished Mr. Mitchell with the subject for a painting which made a sensation here two years ago. The large work by the last-named painter in the east gallery, of the "Resurrection of a Saint at the Crucifixion," shows a great falling off, except in the fine figure of the mother. In landscape the exhibition is not very strong, but we must mention the "Loch Awe" of Mr. Keeley Halswelle, the works of Mr. Alfred Parsons and Mr. J. W. North, the sea of Mr. Henry Moore, and the sea *genre* pieces of Messrs. Bartlett and Napier Henry. But in portraits there is full compensation. Mr. Frank Holl sends three, notably one of Lord Harlech; Mr. Herkomer also three, of which that of the late Professor Fawcett is the best; Sir John Millais two, one of his daughter, the other of Lord Esher, Master of the Rolls, in his robes, the latter being especially warm and harmonious. Mr. Burne Jones's finest work is the portrait of a lady in blue, seated with her back to a convex mirror, in which the influence of the late D. G. Rossetti is very strong; the subdued power and beautiful execution of this picture will appeal to many to whom the painter's allegories are unintelligible. Mr. W. B. Richmond contributes four portraits of both sexes and various ages, in his refined eclectic style and rich colour. Of less known artists, we would draw attention to Mr. W. Carter's picture of Mrs. C. A. Fyffe.

WATER COLOURS.

The Royal Institute of Painters in Water Colours has filled its rooms with pictures to the ceiling, but has not made a very interesting exhibition in consequence. Several leading members send no contributions, but the best work belongs, nevertheless, to old members, who do not depart from their established lines. There is plenty of work of a high quality, though nothing of exceptional originality or importance. The third room is perhaps rendered the most striking by Mr. Langley's "Betrayed," and "The Miser's Death," by Mr. Joseph Nash.

THE ART JOKE.

Mr. Harry Furniss, the versatile and amusing artist so well known in the pages of *Punch*, has opened a "Royal Academy" of his own at the Gainsborough Gallery, 25, Old Bond-street. This consists of a room full of large monochrome drawings, burlesquing the mannerisms of the leading artists and the artistic fashions of the day, not without some cuts at the Academy itself, and popularity-hunting and "pot-boiling." We have no space to mention more than the severely close rendering of "Cinderella," and the humour of the "Modern Lady Godiva," which disposes of the question of the prude and the nude. Altogether the exhibition must delight everyone who knows the originals, and can do no harm even to its victims.

SANITARY REGISTRATION OF BUILDINGS.—On the 2nd inst. the second meeting of the Conference convened by the Council of the Sanitary Assurance Association was held for the purpose of considering the details of the Sanitary Registration of Buildings Bill (down for second reading on the 22nd prox.), the principle having been assented to at the first sitting. Sir Joseph Fayrer, M.D., presided. The bodies represented, besides the Sanitary Assurance Association, were the Royal Institute of British Architects, Public Health Medical Society, London Sanitary Protection Association of Municipal and Sanitary Engineers and Surveyors, and Royal Institute of Architects of Ireland. The exclusion of places of less than 2000 population from the Bill was amended by the insertion of a declaration that the Act should next year apply throughout the United Kingdom. A proposal to make the measure compulsory on all buildings was rejected. The further consideration of the matter was deferred for a fortnight.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Kendal Urban District.—Mr. Charles E. Paget records the death-rate of this borough during 1886 as 16·5 per 1000—namely, 2·4 less than the mean for the quinquennium 1881-85, and it is held that this satisfactory result has been greatly brought about by the influence of the borough sanitorium in controlling the spread of infectious diseases. In 1884 the authority saw the advisability of erecting a second ward-pavilion, and on two occasions during the present year the coexistence of two separate diseases needing hospital isolation has shown the wisdom of this course. Interesting details are given as to several branches of the sanitary work carried out; and it is noted that the defective sewer ventilation which, associated with a curious combination of meteorological circumstances, led to an outbreak of enteric fever in the early part of 1884, has been largely remedied, some sixty to seventy new ventilators having been put in. But Mr. Paget gives cautionary advice as to the need for constant watchfulness for evidences of such over-pressure of sewer air as calls for legitimate relief through ventilators in all extensions of borough sewers.

Hanley Urban District.—The mortality of infants under one year of age has for the past four years averaged some 19·9 per cent. of the births registered. In 1886 it was at that rate, whereas the corresponding rate for the twenty-eight large English towns did not exceed 16·9 per cent. Neglect of infants by exposing them to cold, improper feeding, and the use of narcotics and other deleterious drugs are, in the opinion of Dr. S. Walker, responsible for this needless waste of infant life—a waste which is unfortunately on the increase. In some towns Ladies' Associations have—as, for example, by the aid of the tracts issued by the National Health Society—succeeded in educating their fellow towns-women as to the proper precautions to be taken with infants, and some such work would not be out of place in Hanley. In regard of phthisis, it is most satisfactory to note how steadily the death-rate from this disease has become reduced since the completion of the sewerage system, until it stands at 1·4 per 1000, as opposed to 2·0 in London. The report, which deals mainly with statistics and actual causes of disease, does not point out the sanitary advice given, or the work needed in the future, or the circumstances under which the people are living, and which tend to affect health. But the inspector of nuisances supplies a table of current nuisances dealt with.

Newcastle-upon-Tyne Urban District.—Mr. Henry Armstrong's annual report for 1886 shows that the general mortality was at the rate of 22·2 per 1000. Under the Improvement Act of 1882, 1348 cases of infectious diseases were notified, and of these 1004 were scarlet fever, 205 enteric fever, and 73 diphtheria; the report sets forth in detail the circumstances under which the diseases occurred and the remedial measures adopted. Amongst the latter we find that in 108 cases removal to either the fever or the small-pox hospitals was effected, and in 19 cases orders of justices were obtained as to burial of corpses. The construction of new dwellings during 1886 has made provision for 1158 families, at the rate of 5 persons to a family; and plans for 837 new dwellings, of which 638 consisted of flats, were examined by the medical officer of health. Amongst the details of sanitary work carried out, we find that the bakehouses, dairies, cowsheds, milk-shops, and slaughter-houses have been inspected, and that the licensing of the latter is not granted except after such works as tend to ensure wholesome conditions for the storage of human food.

Aylesbury Rural District.—Dr. Hilliard takes occasion in his annual report for 1886 to point out how, on several occasions, early information as to occurrences of measles and scarlatina has enabled him to prevent the spread of those diseases. In some parts of the district the continuance of defective sanitary conditions shows itself by outbreaks of preventable disease. Thus, in the village of Westcott, which is of all others worst off for water, there were twelve fatal cases of diarrhœa; and at Aston Clinton, where faults of water still prevail, typhoid fever continues

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recur. The death-rate for the district was 18·6 per 000. A good deal of current sanitary work is carried out, he notices relating to such work numbering many hundreds nder several separate headings.

Tunbridge Wells Urban District.—During 1882-86 the ean death-rate for this district was only 15·1 per 1000 per nnum, and in 1886 it was 14·4. The only noticeable mor-ality was that of nine infants from diarrhœal affections, nd Mr. Wm. Stamford is induced to attribute this mainly o fermentative or putrefactive changes in the milk with vhich infants are fed. Some scarlatina was checked by the se of the infectious hospital provided by the sanitary uthority; and amongst a good record of sanitary work arried out during the year we note that the water-service vas laid on to 142 houses.

Eccleshill Urban District.—Measles has been very preva-ent in this district, and this, together with some diphtheria nd diarrhœa, raised the death-rate for 1886 to 17 per 1000. Measles was found to be difficult of control, especially on account of many of the attacks being so mild that no medical attendance was sought. Hence Dr. Byles only eard of the cases when serious complications supervened.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5816 births and 3647 deaths were registered during the week ending April 30th. The annual rate of mortality in these towns, which had been 20·5, 20·9, and 21·6 per 1000 in the preceding three weeks, declined again last week to 20·6. During the first four weeks of the current quarter the death-rate in these towns averaged 20·9 per 1000, and was 2·5 below the mean rate in the corresponding periods of the ten years 1877-86. The lowest rates in these towns last week were 10·5 in Derby, 14·6 in Brighton, 15·7 in Leicester, 16·3 in Portsmouth, and 16·3 in Bradford. The rates in the other towns ranged upwards to 28·2 in Bristol, 30·8 in Blackburn, 31·3 in Huddersfield, and 35·4 in Cardiff. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had steadily increased in the eleven preceding weeks from 340 to 558, declined again last week to 529; they included 261 from measles, 132 from whooping-cough, 51 from scarlet fever, 43 from diarrhœa, 25 from diphtheria, 15 from "fever" (principally enteric), and only 2 from small-pox. No death from any of these zymotic diseases was registered during the week in Preston, whereas they caused the highest death-rates in Sheffield, Norwich, and Oldham. The greatest mortality from measles occurred in Manchester, Sheffield, Sunderland, Liverpool, Salford, Oldham, and Norwich; from whooping-cough in Newcastle-upon-Tyne, Cardiff, and Blackburn; and from scarlet fever in Blackburn, Sheffield, and Oldham. The 25 deaths from diphtheria in the twenty-eight towns included 16 in London and 5 in Liverpool. Small-pox caused 1 death in Sheffield and 1 in Cardiff, but not one in Greater London or in any of the twenty-five other large provincial towns. Only 6 cases of small-pox were under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease; no new case was admitted to these hospitals during the week. The deaths referred to diseases of the respiratory organs in London, which had declined in the preceding five weeks, from 509 to 337, were last week 338, and 49 below the corrected average. The causes of 75, or 2·1 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Nottingham, Portsmouth, and in four other smaller towns. The largest proportions of uncertified deaths were registered in Sunderland, Leicester, Preston, and Bradford.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 23·7 and 22·0 per 1000 in the preceding two weeks, rose again to 22·5 in the week ending April 30th; this rate exceeded by 1·9 the mean rate in the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 9·7 and 15·1 in Perth and Leith, to 24·8 in Glasgow and 26·5 in Paisley. The 563 deaths in the eight towns last week showed an increase of 13 upon the number in the previous week, and included 36 which were referred to whooping-cough, 27 to measles, 8 to scarlet fever, 8 to diarrhœa, 6 to diphtheria, 4 to "fever" (typhus, enteric, or simple), and not one to small-pox; in all, 89 deaths resulted from these principal zymotic diseases, against 91 and 95 in the preceding two weeks. These 89 deaths were equal to an annual rate of 3·6 per 1000, which exceeded by 0·6 the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 36 in each of the previous two weeks, were again 36 last week, of which 16 occurred in Glasgow, 7 in Edinburgh, and 6 in Dundee. The 28 deaths from measles were within 3 of the number in the previous week, and included 13 in Aberdeen, 12 in Glasgow, and 2 in Greenock. The 8 fatal cases of scarlet fever showed a further slight decline from recent weekly numbers; 4 occurred in Edinburgh and 2 in Greenock. Of the 8 deaths attributed to diarrhœa, 3 were returned in Dundee and 2 in Edinburgh. Four of the 6 fatal cases of diphtheria, and 2 of the 4 from "fever," occurred in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 126 and 124 in the preceding two weeks, further declined last week to 111, and were 12 below the number in the corresponding week of last year. The causes of 70, or more than 12 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 30·0 34·1, and 31·3 per 1000 in the preceding three weeks, was again 31·3 in the week ending April 30th. During the first four weeks of the current quarter the death-rate in the city averaged 32·2 per 1000, the mean rate during the same period being but 18·6 in London and 19·5 in Edinburgh. The 212 deaths in Dublin last week corresponded with the number returned in the preceding week; they included 11 which were referred to measles, 4 to whooping-cough, 3 to "fever" (typhus, enteric, or simple), 3 to diarrhœa, 2 to diphtheria, 1 to scarlet fever, and not one to small-pox. Thus 24 deaths resulted from these principal zymotic diseases, against 22 and 19 in the preceding two weeks; they were equal to an annual rate of 3·5 per 1000, the rates from the same diseases being 2·6 both in London and in Edinburgh. The 11 fatal cases of measles showed a further considerable increase upon recent weekly numbers, while the deaths from the other zymotic diseases did not show any material variations. The deaths both of infants and of elderly persons showed an increase upon those returned in the previous week, while those of persons aged between one and sixty years had declined. Five inquest cases and 5 deaths from violence were registered; and 50, or more than a quarter, of the deaths occurred in public institutions. The causes of 34, or more than 16 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

WAR OFFICE.—Army Medical Staff: Surgeon-Major William James Wilson, M.D., to be Brigade Surgeon, vice William Cherry, granted retired pay (dated March 28th, 1887); Surgeon-Major John Croker is granted retired pay (dated April 30th, 1887).

INDIA OFFICE.—The Queen has approved of the retirement from the Service of the following Officers of the Indian Military Forces:—Brigade Surgeon Henry Cayley, of the Bengal Medical Establishment (dated April 29th, 1887); Brigade Surgeon Cameron Joseph Francis MacDowall, of the Bombay Medical Establishment (dated April 1st, 1887); Brigade Surgeon Henri Jules Blanc, M.D., of the Bombay Medical Establishment (dated April 2nd, 1887); Surgeon-Major Warwick Jackson, of the Bengal Medical Establishment (dated April 8th, 1887); and Surgeon-Major Robert Reid, of the Bengal Medical Establishment (dated April 25th, 1887).

The under-mentioned Officers have been granted a step of honorary rank on retirement:—Brigade Surgeon Cameron Joseph Francis MacDowall, of the Bombay Medical Establishment (dated April 1st, 1887), and Brigade Surgeon Henri Jules Blanc, M.D., of the Bombay Medical Establishment (dated April 2nd, 1887), to be Deputy Surgeons-General.

ADMIRALTY.—The following appointments have been made:—Fleet Surgeon Fleetwood Buckle, to the *Unicorn*;

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Surgeon Hamilton E. L. Earle, to the *Duncan*, additional, for disposal; Surgeon George A. Dreaper, to the *Triton*, additional; and Surgeon Henry B. Beatty, to the *Duncan*, additional.

ARTILLERY VOLUNTEERS.—3rd Durham: Jas. Drummond, M.D., to be Acting Surgeon (dated May 4th, 1887).—1st Kent: William Lindsay Chubb, Gent., to be Acting Surgeon (dated May 4th, 1887).—1st Newcastle-on-Tyne: Surgeon R. Young, M.D., resigns his commission (dated May 4th, 1887).

RIFLE VOLUNTEERS.—2nd Ayrshire: Surgeon and Honorary Surgeon-Major R. Dobbie, M.D., resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the corps on his retirement (dated May 4th, 1887).

THE VOLUNTEER MEDICAL STAFF CORPS.—The Maidstone Division: Surgeon and Honorary Surgeon-Major David Henry Monckton, from the 2nd Volunteer Battalion, the Prince of Wales's (North Staffordshire Regiment), to be Surgeon (dated May 4th, 1887).

Correspondence.

"Audi alteram partem."

THE PENGE CASE.

To the Editors of THE LANCET.

SIRS,—Many of your readers will recollect that about eleven years ago four persons were found guilty of murdering Harriett Staunton by starving her, and were condemned to death; but that to a large proportion of the public, and to a larger proportion of the medical profession, the evidence that was adduced did not seem to justify the verdict of the jury or the sentence of the judge; and that subsequently the prisoners' punishment was commuted to penal servitude for life, a result which was largely due to the action of THE LANCET, through whose agency a petition signed by over 700 members of the profession was presented to the Home Secretary. Shortly afterwards one of the female prisoners had a free pardon accorded to her; some five or six years ago one of the brothers Staunton died in prison of consumption; and about three years ago Sir W. Harcourt set at liberty the wife of the deceased brother. One only of the party still remains a prisoner. For my own part, I believe the accused were innocent of intentional wrong. But even granting what many of those who helped to save them from death believed that they had been guilty of gross, and even criminal, negligence, eleven years of penal servitude is a heavy and surely sufficient penalty to exact. Considering, however, that two have already been pardoned, it is certainly hard that the same grace should after so many years of punishment be withheld from the last of the number. Will you allow me to mention that a petition to the Home Secretary praying for the release of Louis Staunton is now in process of signature, and to invite some of those who signed the former memorial to attach their names to this?

I am, Sirs, yours faithfully,

Old Burlington-street W., May 4th, 1887. J. S. BRISTOWE.

THE TREATMENT OF EPISTAXIS BY COUNTER-IRRITATION OVER THE HEPATIC REGION.

To the Editors of THE LANCET.

SIRS,—I was much pleased to observe in a letter from your Paris correspondent, dated April 27th, that at a recent meeting of the Academy of Medicine M. Verneuil read a communication upon the treatment of certain forms of epistaxis by counter-irritation over the region of the liver. In the first case related by M. Verneuil, quinine, ergotine, and digitalis had all been tried in vain. In the second, plugging had failed. The third had been the subject of chronic nephritis, with secondary affections of the heart and liver, and the cavity of the nose had been plugged without effect both with ergotine and the perchloride of iron. M. Verneuil's treatment, which was immediately and permanently effective, consisted in the application over the region of the liver of a large blister. M. Verneuil had at first thought that the method was entirely his own, but from bibliographical research it turned out that it had been anticipated to a certain extent by Galen, who says that large cupping glasses applied to the hypochondriac region arrest nasal hæmorrhage. To me it is very satisfactory to learn that a mode of treatment practised by myself successfully for many years, and reported in THE LANCET of Oct. 30th, 1886, with cases in illustration, has also been advocated by so eminent an authority in continental medicine, and, as far as he was concerned, independently of any suggestion from another. I am quite sure that, in his case any more than my own, the dictum of Galen had nothing to do with its origination. It is of more importance that the remedy, which is undoubtedly of the utmost value, should be more generally adopted, especially when its application is urged not upon merely empirical grounds, but in accordance with accepted pathological teaching. That your correspondent did not appear to be aware of my previous pronouncement on the subject arose possibly from the fact that my publication did not take the form of a monograph with specific heading, but as portion of a paper treating of congestion of the liver, and protesting against the impolitic interference of modern surgery with the sanitary efforts of Nature when through the medium of hæmorrhage from the hæmorrhoidal veins or the mucous lining of the nostrils she endeavours to lessen the turgescence of an important viscus. In illustration of my views, I gave the particulars of a case of vicarious bleeding from the under lip, which arose immediately after the deligation of hæmorrhoidal tumours with excessive bleeding, ultimately cured by blistering over the liver; of a second example, in which dangerous and profuse hæmorrhage from piles was immediately cured by a similar remedy; and then, in pursuance of my theme, appended the cases of three young men suffering from epistaxis, who were instantly relieved by blistering over the hepatic region. A remarkable case, which occurred during the recent riots in Belfast will further illustrate the subject: While paying my morning visit to a straw lodge, a temporary barracks improvised for the members of the Royal Irish Constabulary, and accompanied by one of the officers, I found one of the men in bed with a handkerchief saturated with blood, which had flowed from his nose during the greater part of the previous night. On satisfying myself of the nature of the illness, I painted the man freely with the liquor epispasticus over the region of the liver, prescribing no other remedy but rest in bed. On our revisiting the man next day, he informed us that from the moment the blister began to pain him the hæmorrhage declined, and left him altogether a short time after. To quote from my paper: "The frequent occurrence of epistaxis in youth is evidently due to the excitement and hyperæmic condition of the liver and digestive organs during the period of active growth and the constant demands upon its functional activity. The liver at this stage closely approximates to the condition in after-life, which is the causal factor in the development of piles, and as such is equally amenable to treatment in accordance with etiological principles; the derivative that cures the hæmorrhoidal flux as certainly puts an end to the epistaxis, the outcome of hepatic congestion."—I am, Sirs, yours very truly,

Belfast, May, 1887. ALEXANDER HARKIN, M.D., F.R.C.S.

ON THE NECESSITY OF OBTAINING POWERS TO DETAIN IN WORKHOUSES AND INFIRMARIES PATIENTS AFFECTED WITH VENEREAL DISEASES.

To the Editors of THE LANCET.

SIRS,—A few years ago our Government, swayed by the twaddle of sentimental politicians and by a misguided and ill-informed public, had the rashness to repeal the Contagious Diseases Act, and thus has engendered the spread of venereal diseases not only amongst our sailors and soldiers, but throughout the community. I now wish to call attention to the pressing necessity of acquiring powers to detain patients suffering from these diseases in our Poor-law and other institutions until well. In some of our workhouses and infirmaries patients are found suffering from the most fearful ravages of syphilis and from the most virulent forms of gonorrhœa, and many of them insist on taking their discharge before they are cured. Now, for such patients to have it in their power to leave the infirmary or workhouse before recovery is not only most unsatisfactory as regards the treatment of them, but is simply

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spreading disease broadcast, and is likewise a grave injustice to the ratepayers, upon whom is thrown the cost of their maintenance when ill. It is not my intention to discuss the merits of the Contagious Diseases Act, but I will say that its repeal, in addition to facilitating the spread of venereal diseases, has a tendency to encourage seduction and prostitution amongst a large class of girls and young women who support themselves in an honest and respectable way. It appears to me to be the duty of medical men who are members of Parliament, or otherwise possess considerable influence, to try to introduce another Contagious Diseases Bill, or, failing that, some measure giving powers for the detention of these cases in our Poor-law institutions until they can be discharged cured.

I am, Sirs, yours faithfully,

April, 1887. ARTHUR FFLINTOFF MICKLE, M.B.

TANGIER AS A HEALTH-RESORT.

(*From a Correspondent.*)

As a winter station and a pleasure resort Tangier is rapidly acquiring considerable popularity. Many circumstances combine to bring about this favourable result. Politically, the range of modern artillery has rendered Tangier a military position second only to the Suez Canal. Without attempting to discuss here all the complications that arise from the necessity of keeping open the Straits of Gibraltar and the efforts of English diplomacy to prevent any powerful nation becoming master in Morocco, it is nevertheless necessary to mention the existence of these grave political questions in order to account for the importance now attached to all that concerns the town of Tangier. Already the Sultan of Morocco has been termed "the new sick man," and it is evident to all politicians that the Eastern question is travelling westwards, and may have to be fought out in the Straits of Gibraltar as well as at the Dardanelles or the Red Sea. Conjointly with these considerations, the development of trade at Tangier has been most marked. The increase of exports and imports in 1885 was nearly equal to a third more than the average of the previous five years. Thus, either politically or commercially, Morocco is daily becoming better known. Though within three hours' sail of the high degree of civilisation prevailing at Gibraltar, Tangier still maintains primitive Oriental customs and appearance. To those who thirst for a complete change, who are tired of the ordinary resorts of the invalid or the tourist, Morocco may be confidently recommended. The need of such change is very generally recognised, especially when dealing with those nervous diseases that are more prevalent as the strain of our highly wrought civilisation becomes greater. But the health stations of the Continent grow more and more like each other; there is a wearisome sameness about the hotels, the society, and surroundings, which many would like to avoid. On the other hand, a thorough change is generally thought to involve a long journey, a sojourn in a country far removed from the resources of civilisation, where some personal risks must be incurred. Tangier, however, can be reached from London in five or six days by the Forward line of steamers, and from Marseilles in three days and a half by the Pacquet line. The overland journey to Cadiz, Malaga, or Gibraltar brings the traveller within a few hours' sail of Tangier; and, when once here, he can benefit by the wildest scenery, the most complete change, while enjoying perfect personal security. In spite of the barbarous aspect of the country, the European is safer from robbery and aggression than in the streets of London or Paris. The dread of the Moorish authorities lest any complaint made by a European should lead to an invasion of their country has brought about the application of the severest and the most cruel measures of repression. Quite recently a man was flogged to death because he was supposed to have robbed a foreigner. Others are left to die of starvation in prison when they are accused of owing money to persons under foreign protection. Whole districts have been most cruelly oppressed, taxed, and half ruined to supply compensation for some slight robbery committed in the neighbourhood. Yet all this, heinous as it is, has, on the other hand, the result of terrifying those who otherwise might be guilty of acts likely to alarm intending visitors. Thus it is possible to live without fear or risk in a country of easy access from England, and yet where there are no regular roads, no carriages, no railways, no police, no inland post, no municipalities, no rates or taxes for Europeans to pay, no standing army or drilled troops, no daily newspaper, no public opinion, where, under the capitulations, there are thirteen Christian and one Mahomedan constitutions having the force of law, and where, in spite of all this, a sufficient amount of material comfort may be enjoyed conjointly with the benefits of a most genial climate. If it is change of life, scenery, and climate that have been prescribed for the patient, it would be impossible to find nearer home anything more thorough in this respect than Tangier. Even if there were nothing else to say in its favour, this is enough in itself to show that it may render much service.

From time immemorial, however, Tangier has been renowned for its equable and salubrious climate. It was much esteemed by the ancient Romans, who built here a commercial town on the east and a military fortress on the west side of the bay. Long before their time, before Rome itself sprang into life, the exceptional position occupied by Tangier had attracted various races and tribes, and it is said that there are only two other towns in the world whose existence can be traced so far back. A glance at the map will show that Tangier is situated on a promontory running northward from the mainland of the African continent. It is nearer to the Atlantic than to the Mediterranean. The north-west, west, and south-west winds are all Atlantic winds. The north-east blows down the straits from the Mediterranean, and the east and south-east also blow from the Mediterranean over the Reaf Mountains and across the Bay of Tangier. Thus nearly all the winds that reach Tangier are sea winds, and therefore supply an atmosphere of exceptional purity. Even the north wind, which comes direct from Spain, is refreshed and purified by crossing the Straits of Gibraltar. The due south is alone a land wind, and, coming from the desert, might be extremely unpleasant. Fortunately, this wind must first pass over the eternal snow of the Atlas Mountains before it can reach Tangier. Thus even in summer the climate is comparatively cool, while in winter it is exceptionally warm. The better-known winter stations on the French or Italian Riviera receive as many land as sea winds. Those winds that do come over the water blow from the Mediterranean, and this sea does not seem to agree with English constitutions so well as the Atlantic. Again, comparing Tangier with the Riviera, it will generally be admitted that there is not the same and dangerous difference between night and day temperature. At sunset the thermometer falls much more than in England, but less than on the Riviera. Frosts are extremely rare. This winter, which has been so exceptionally cold throughout the west of Europe, brought only a few flakes of snow, that melted as soon as they touched the ground. On the other hand, Tangier is not so dry as the Riviera resorts. While the record of the thermometer is most favourable, the individual may nevertheless feel chilly because of the dampness that arises at night. Extra clothing, and perhaps a little fire in the evening during the depth of the winter, amply suffice to cope with this disadvantage; but it is essential to take this local peculiarity into account, or the patient will be unpleasantly surprised to find that his personal sensations do not harmonise with the temperature marked on his thermometer. Unfortunately, there is no regular meteorological station at Tangier. Observations have been taken here and there; the best are those of the German Legation, but these statistics are not compiled, and the summary of the results have not been made public. Dr. Arthur Leared, in his interesting work on "Morocco and the Moors," gives statistics taken in a *patio* or courtyard, showing that during the year 1872 the maximum (reached in June) did not exceed 83° F., and the minimum (attained in December) was not lower than 50° F. During the six winter months the thermometer ranged from 66° F. to 50° F. But these statistics are not sufficiently extensive to warrant the formation of any definite opinion.

Perhaps, under these circumstances, it would be safer to rely on the vegetation as the surest evidence of climatic advantages. There are, it is true, comparatively few gardens at Tangier; but if the necessary money were forthcoming almost any plant could be grown here. The tropical and semi-tropical plants to be seen on the Riviera may also be found in the neighbourhood of this town; but many of these have grown with more vigour and attained larger dimensions. This is especially the case with respect to the Egyptian and Mexican bamboos in the garden of the Belgian

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Legation and the *Dracæna drago* at the German Legation. This latter tree is one of the curiosities of Tangier. It is probably more than 300 years old, and is considered the finest specimen in the world. At the Canary Islands there is one tree of this sort which is larger, but it is not so high or so handsome. Close at hand the *Datura* shrub, which is killed by 2° to 3° F. of frost, may be seen growing to a height of more than twelve feet. Wild oleanders abound in great luxuriance throughout the country. The *Belas ombré*, with its giant roots, and the *Chamærops humilis*, the date palm, grow naturally—that is, in a wild state and without cultivation. The cedars of Lebanon, the *Laurus*, both *tenus* and *nobilis*, the banana, the *Strecia*, the *Magnolia grandiflora*, and many other plants that are only known in the hot-houses of England, prosper here in the open air, even when little care is taken to preserve them. But perhaps the best illustration of the equable nature of the climate is that of the *Araucariæ excelsa;* for, while this fir can stand but little heat, it is killed at once by the frost. If the heat continued for a few days consecutively at 75° F. the leaves would turn yellow; and it is extremely difficult to find any place where this tree will grow. Yet at Tangier several specimens have been successfully reared, notably under the able surveillance of a German horticulturist, Herr Ferdinand Neureuter, who is in charge of the gardens belonging to Mr. Perdicaris.

The salubrious character of the climate is further demonstrated by the observations of medical men who have practised for some time in this country. Dr. Miguères, who has resided at Tangier some sixteen years, acting in the capacity of consulting physician to the French Embassy and to the French Hospital, and who has had a most extensive practice among the native and foreign population, declares that many diseases which in other countries last from fifteen to twenty-one days reach the convalescent state at Tangier in from ten to twelve days. This is, of course, more particularly the case with the natives or those foreigners who are thoroughly acclimatised. Among the diseases that rarely attain a malignant form may be mentioned typhoid and scarlet fever, measles, and diphtheria. Though in England there is such good reason to dread any outbreak of scarlet fever, its occurrence here is very rare, and of remarkably mild character. A fever, however, which in many respects bears a close resemblance to typhoid is of somewhat frequent occurrence. Infantile diarrhœa is also very prevalent, and one of the principal causes of mortality. It is doubtful whether the climate would be of any use in the more advanced stages of phthisis. But the results attained during the earlier development of the disease are most encouraging. These facts are confirmed by the records kept at the hospital and by the local practitioners.

In spite of this favourable record, it must be acknowledged, however, that the sanitary state of Tangier is most deplorable. Nevertheless, the Moors are, in one respect, more advanced than the French and the municipalities of many Spanish and Italian towns. They, at least, admit direct drainage into sewers, and believe in the practibility of small sewers. At Tangier there are two main sewers, both sufficiently large for a man to enter. The principal sewer passes through the ravine—that is, the lowest portion of the town—and empties itself under the small landing stage in the bay. It is about a yard wide and a yard and a half high; the roof is domed, and the invert but slightly concave. This sewer runs a distance of a thousand yards, and during heavy rains is often completely filled. It is said to have been originally built by the Romans, but was probably in part rebuilt during the English or the Portuguese occupation. The other main sewer crosses the town more to the east, at a somewhat higher level, and passes under the British Legation. From all the neighbouring small streets, innumerable small sewers converge to these two main drains. These little sewers are very badly constructed of rough masonry and tiles. They are often stopped up, and burst. They invariably leak, and contaminate the surrounding soil. They are not deep enough in the earth, and fall into the top [illegible] of the lower portion of the main sewer. Thus they convey back to the houses the gases accumulated in the main as well as in the branch drains. Nor have the Moors any idea of making traps, or of ventilating or systematically flushing the sewers. On the other hand, their ploughmen as [illegible]

street. Also all the water used in Tangier goes into the house drain, and is not, as in France, wasted by being thrown into the gutter. All the water used helps to flush both the house drain and the public sewer. The Moors, to their credit be it said, use a great deal of water. If they could only be induced to trap their closets, the drainage of Tangier might compare favourably with many continental towns, and would be preferable to Marseilles or Toulon. Some of the worst houses in Tangier are those built for Europeans, especially for the Spaniards. The closets of these have been carried further within the houses, and are not trapped. Other drains are opened in the [illegible] the kitchen; thus the sewer poisoning is more complete and more thoroughly distributed over the entire house.

Anyone, however, who settles in this country may to a great extent protect himself efficaciously against the surrounding bad sanitation. He will not be harassed by police regulations that are opposed to the laws of hygiene. In France, for instance, there is a police ordinance to the effect that soil pipes must measure nine inches in diameter, though experience has proved that the size should not exceed three or four inches if the pipe is to be self-cleansing. Then a cesspool or a *tinette* is imposed, and, as often as not, the cesspool is built immediately under the house, so that anything like effective interception is impossible. As a rule the whole of the drainage is sent to the sewer. There is an English plumber in the town, with all the necessary sanitary appliances, and for a small cost the house drains may be trapped and ventilated according to the most approved system. If the interior of the houses is in a bad condition, this is entirely the fault of the owners or occupiers. Half the difficulty can be overcome. Nor would it be impossible to obtain permission from the Sultan to substitute good earthenware pipes, properly laid, for the miserable little tile-built drains, which so often burst and poison the atmosphere of the by-streets. Unfortunately, the Diplomatic Corps are not a body of sanitary reformers, nor does it seem possible for them to act in unison with respect to any matter whatsoever. The Moorish authorities, on the other hand, will not move except under pressure, and united pressure, from without. Anything like precaution or forethought is opposed to Moorish customs and beliefs. It is quite useless expostulating on the danger of epidemics. If such a scourge arrives, it is the will of Allah, and it is neither right nor possible to attempt any resistance. But even if the sewers of Tangier cannot be rebuilt, the town is small, and it is easy to find villa accommodation beyond its walls. So far as the hotels are concerned, [illegible] proprietor of the Continental Hotel, for instance, has not only installed good English closets, but has caused the whole of the sewer passing along the street in front of his premises to be rebuilt. Thus, if the Moorish authorities will not act themselves, they do not oppose others taking the matter in hand. Villas outside the town must of course drain into cesspools, as the sewers do not go beyond the city walls. But land is still cheap, the villas are generally surrounded by good-sized gardens, so that the cesspools may be, and generally are, built at some distance from the dwelling. All the ordinary methods of trapping, ventilation, and interception can therefore be applied, and every precaution taken against the ingress of sewer gas. There are beautiful sites within a few hundred yards of the town where clusters of villas and hotels could be built on the best sanitary principles. No Government interference would prevent the creation of a small Hygiea, where perfect sanitation would unite with an almost perfect climate to constitute an ideal health-resort.

In the meanwhile, the town remains in a [illegible] and, to some extent, dangerous condition. While there is free access of sewer gas into the interior of the houses, the streets outside are in a filthy state for want of proper scavenging. The water-supply, at one time exceptionally good, is becoming more and more exposed to contamination. To the east of the town, the district known as the Ras-el-Ma (the head of water) is composed of a layer of sand some seven to ten yards deep. Beneath the sand [illegible] a very broad stratum of shistose clay. The rain [illegible] through the sand, is checked in its downward course by the clay, and then flows by gravitation to the [illegible] plateau, which is sixty-four metres [illegible] Romans built a great number of small [illegible] with tiles placed a little apart from each other, so that the water might run in between them [illegible] all [illegible] aqueduct which passes [illegible]

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to the Marina after travelling a distance of 1400 metres. This large canal or collector must have been most admirably built to have resisted so many centuries of ill-usage. On reaching the town there are two derivatives from the main aqueduct; one goes to the Sultan's mills, the other to the Fuente Nueva; but both these are now stopped up, and there only remains in working order the principal canal, which, passing under the large *soko* (or market) down the main street, supplies the fountains of this street and the Mosque at the further end. In its course through the town, the water may be contaminated by the leaking sewers that pass under it, over it, and by its side. Also the land at Ras-el-Ma, formerly uninhabited, is now dotted over by villas and a cluster of huts occupied by natives. Not only do these people to some extent contaminate the soil, but the land which is not built upon is being brought under cultivation—that is to say, covered with manure. It is true that a sample of the water taken and analysed in 1882 still proved exceptionally pure, and was compared for its excellence with the water brought to Seville by the English company; still it is evident that, as the population increases on this spot, the quality of the water gathered from the soil will be impaired. Herr Meis Barger, an Austrian engineer resident at Tangier, with the authority of the Government, investigated the whole condition of the water-supply, and states that half the small drains which bring the water from the soil to the aqueduct are now broken and useless. These he proposes to lay bare and reconstruct, and calculates that the whole work of restoration would only cost £6000. Further, he would constitute a large reservoir containing 10,000 cubic metres of water to be delivered in the town through iron pipes. Thus, in dry seasons a reserve supply could be drawn upon, and the iron pipes would prevent contamination from the proximity of the street sewers. By these means the water-supply could be doubled, and give each inhabitant of Tangier twenty-five litres per day. Instead, however, of relying on the surface supply derived from the sand, it would be preferable, as there are no springs at hand, to dig artesian wells, and then there would be no longer any reason to apprehend that the growth of the town will endanger the purity of the water. At present many persons drink only rain-water obtained from the roofs of their houses. This is stored in large tanks under the houses, which are seldom cleaned with sufficient care, and which occasion a dampness injurious to health. Others, in their ignorance, avail themselves of the numerous wells in and about the town, though the water is often highly charged with organic matter. This is especially the case with respect to some wells at a lower level than the cemeteries to the west. Under these circumstances, it is necessary for all visitors to boil and filter their drinking-water, and to make it a duty to complain as lustily as possible, so that the long promised waterworks may at last be taken in hand; in fact, the European population, by united action, have it in their power to make Tangier one of the most enviable pleasure and health resorts within comparatively easy access.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

THE NEWCASTLE JUBILEE EXHIBITION.

On the 11th of this month our exhibition is to be opened by his Royal Highness the Duke of Cambridge, who is to be the guest of our eminent citizen, Sir W. G. Armstrong, at Cragside, Rothbury. The full title of the exhibition is the Newcastle-on-Tyne Royal Mining Engineering and Industrial Exhibition. I give it here, and hope it will not be necessary to repeat it often. The exhibition will include a very great number of objects of general interest, but it will also cover many subjects of medical or sanitary interest, and of these, so far as they are likely to prove welcome to your readers, it will be my duty to write about from time to time in this correspondence. I have (as your representative) received an invitation from the Executive Council to join the private inspection of the exhibition which is to take place on Saturday next, the 7th; but as it is requested that no notice of the exhibition is to appear in any paper until Monday next, the 9th, I must reserve my remarks until then. We are to have another great exhibition here during the coming summer—namely, the Royal Agricultural—at which his Royal Highness the Prince of Wales has promised to be present, so that our northern city is likely to attract a large number of visitors this coming summer.

AN OUTBREAK OF TYPHUS IN NEWCASTLE.

There has been an outbreak of typhus fever in the east end of Newcastle, confined to two or three of the poorer streets, and densely inhabited by not the best class of working people. Already about eighteen cases have been admitted to the Fever Hospital. It is the opinion of our medical officer of health, Mr. H. E. Armstrong, that the disease has been imported into our city by some strangers. I am happy to report that there has been no fresh case since the 25th of last month. While on the subject of fever, I may here allude to the facilities for its study which will be afforded to students at the new and very complete hospital just erected for the city at Heaton. Seeing that the study of fever is not at all attended to by students in England as in Ireland, it is now recommended to be taken up by candidates for the licence in Sanitary Science of the University of Durham and for the M.B.

THE HARDY NORTHMEN.

All this spring, so far, we have experienced a good deal of the dull grey weather which is said by the poet to make "strong Englishmen." This has been accompanied by cold east and north-easterly winds, very trying to all but the very strongest constitutions. Nothing daunted, however, "the bathing season," we are told, set in yesterday, when the Tynemouth Amateur Swimming Club had its first "outing," or first "inning" perhaps I should say, as it is stated that yesterday, after an appropriate speech by the mayor to an assembly of about sixty, "a rush" was made by most of those present into the sea, where they appeared to thoroughly enjoy themselves. Scarcely much behind us on the other side of the Tyne, the swimming folk of Shields took the water to-day, and before doing so they were addressed by the president, the worthy Alderman Nelson, J.P., who stated that he had bathed in the sea 105 times this year already. Comment on this is needless.

SUNDERLAND.

It is very pleasing to hear that the Sunderland Workmen's Exhibition during the month it was open made a profit of about £500. This will be handed over to the funds of the infirmary there, which is free and also well supported by Sunderland artisans.

The vacancy in the staff for an honorary physician at the Newcastle Dispensary is likely to be filled up by the appointment of Dr. Beatley, of this city, who is the selected candidate, and who previously held the office of resident medical officer with much satisfaction.

Newcastle-on-Tyne, May 3rd.

DUBLIN.

(From our own Correspondent.)

ROYAL COLLEGE OF SURGEONS.

THE annual election of office-bearers will take place on the first Monday in June, and canvassing for the Council has already commenced. I have four names before me who seek election at the hands of the Fellows—viz., Messrs. Kendal Franks, Heuston, Norman, and Ward. Mr. Franks made such a satisfactory attempt last year, being defeated by only four votes, that I regard his success on this occasion as assured. This will be Mr. Heuston's first application, and although it is extremely unusual for a gentleman to obtain a seat on the Council on his first candidature, yet I think he will be well supported, and deservedly so. As regards Mr. Norman, who is resident medical superintendent to the Richmond Lunatic Asylum, he will, I am informed, if elected, devote special attention to matters affecting psychical medicine. Mr. A. H. Corley, vice-president, will succeed Sir William Stokes as president, and the office he vacates will be contested by Mr. Henry Fitzgibbon and Mr. H. Gray Croly. Both these gentlemen will be well supported, and the contest, I am convinced, will be a very close one.

THE VICTORIA JUBILEE HOSPITAL.

A committee was appointed last February for the purpose of taking steps to commemorate Her Majesty's Jubilee in a manner which would include the inauguration of some

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work of public utility, and which would especially benefit the working classes of the county and city of Dublin. After due consideration, it was decided that the foundation of a hospital for consumption and diseases of the chest would be the most fitting memorial. The committee state that they were aware that persons suffering from consumption and other similar forms of lung disease cannot be treated with a fair prospect of success in town hospitals, and that in many cases it is inadvisable to admit such to the general hospitals of the city. By the establishment of a hospital of the kind proposed adjacent to Dublin, many patients may be successfully treated who at present end their days in the Hospital for Incurables, and many others, not absolutely curable, may be so alleviated as to enable the sufferers to lead comparatively healthy and useful lives. From the mortality returns of Ireland, it appears that over one-tenth of the deaths are caused by consumption, and about one-sixth by other diseases of the lungs; while in the city of Dublin and its immediate suburbs the annual average deaths from consumption number a little over 1000, from other diseases of the respiratory organs over 1800, the two groups forming about one-third of all the deaths which take place in Dublin. It is gratifying to state that the subscriptions towards the proposed hospital have already reached a sum of £6640.

DUBLIN HOSPITALS COMMISSION.

In addition to the remarks made in last week's issue relative to this report, there are a few others to which attention may now be directed. The commissioners, having reviewed the circumstances of each institution, make some suggestions which they consider will render them more effective institutions for the advancement of medical knowledge. They refer to the large number of small hospitals in Dublin, which add largely to the "establishment charges," and by frittering away the number of beds among so many hospitals, thus diminish the opportunities for clinical instruction. They recommend a reduction in the number of general hospitals, and believe that the total income of the various hospitals, taken at an average of £65,000, would suffice to support 1249 beds, the number maintained in 1884–5, if judiciously distributed among a few large institutions; but under the present circumstances the withdrawal of the Parliamentary grant would be attended with disastrous consequences. They suggest that the annual grants be commuted for a capital sum to be invested in the hands of trustees, and that the interest be paid periodically to a central board, to be distributed by them among such hospitals as shall fulfil certain specified conditions. In my opinion, it is extremely unlikely that these recommendations of the commissioners will be carried out; and, indeed, if they were in their entirety, it might prove injurious to some institutions which thoroughly deserve the grants they at present receive.

ACADEMY OF MEDICINE.

By a clerical error it was stated last week that the title of the Academy was intended to be "The Royal Irish Academy of Medicine"; it should have been stated that it was resolved to apply for permission to use the prefix "Royal," so that it shall be called "The Royal Academy of Medicine in Ireland."

THE "KENNEDY DEFENCE FUND."

Allusion has already been made in these columns to the groundless accusations brought against Dr. Kennedy, the resident surgeon of Mercer's Hospital. A committee has been formed, who invite subscriptions from the profession so as to express their determination to support one another when called on to meet charges arising out of the conscientious discharge of their duties, and also to indemnify the member of the profession so charged against law costs.

Dublin, May 3rd.

BELFAST.

(From our own Correspondent.)

THE BELFAST DISTRICT LUNATIC ASYLUM.

IN the fifty-seventh annual report of this asylum, just issued, Dr. Merrick, the able and courteous superintendent, states that there have been 196 admissions during the year, which, with those already in the asylum at the end of 1885, makes the total number under treatment 766; 130 have been discharged, and 35 have died, leaving a total of 601 in residence at the end of the year 1886. Of those discharged, seven were unimproved or harmless, forty-two were improved, and eighty-one recovered. One death occurred from suicide. The general sanitary condition of the house has been most satisfactory, and no case of infectious disease occurred. The gross expenditure for the year amounts to £12,837, which gives the cost per head at £21 14*s.* 4¾*d.*, and is a decrease of £1 4*s.* 4¼*d.* on comparison with the cost of the preceding year. Considerable changes in the *personnel* of the medical staff have taken place. Dr. Purdon has been appointed visiting and consulting physician, in place of Dr. Henry MacCormac deceased. Dr. W. Graham, assistant to Dr. Merrick, has been appointed medical superintendent of the Armagh Asylum, and Dr. Samuel Graham has been appointed in his place.

THE ROYAL HOSPITAL.

The summer session commenced on Tuesday, and the medical classes have also started at Queen's College. At the Royal Hospital Mr. John Campbell has gained the Coulter Exhibition, while the Malcolm Prize has been awarded to Mr. Quarry. Mr. Campbell has also won the Gold Medal at the Belfast Hospital for Sick Children.

MEETING OF SOCIETIES.

At the last meeting of the Ulster Medical Society, instead of the reading and discussing of papers, the evening was devoted to the exhibition of patients, instruments, and specimens. A large number of members of the Society were present, and among the contributors were Dr. Whitla, Dr. Esler, Dr. Dill, Dr. Sinclair, Dr. M'Caw, Dr. Browne, and Mr. Fagan. At the meeting of the North of Ireland Branch of the British Medical Association, held last week in Belfast, papers were read by Dr. Burden, Dr. Byers, Dr. O'Neill, and cases shown by the last-named gentleman and Dr. Esler.

AUSTRALIAN NOTES.

(From our own Correspondent.)

SANITATION (?) IN BRISBANE.

THIS town is in a very discreditable state, as far as health matters are concerned. There is a Central Board of Health, the members of which are Government nominees, who (with the notable exception of Dr. Taylor, who not long ago furnished the Government with a full report on the relative merits of different sewage systems, and who does all he can to stir the Board up) are content to do little but meet and take their guinea a sitting each. Certainly they have no powers entrusted to carry out any improvement, and have recently failed even in getting the Arcade cesspits removed, which are an acknowledged nuisance to the neighbourhood, and have to be emptied fortnightly by men going down into them and baling the excreta out in buckets. There is no permanent medical officer of health to the corporation, and the water supplied to the town by the Board of Waterworks was so filthy recently that one of the reservoirs had to be shut off on account of the general popular outcry against it.

HORRIBLE ABORTION CASES IN NEW ZEALAND.

Dr. Russell of Christchurch (a coloured American practitioner), who has been in practice in that town for some years, is now on his trial for abortion in three cases. The evidence goes to prove that he has been making a systematic practice of this, and he seems to have kept a sort of abortion hospital at a small boarding-house in the town, where he regularly attended. One woman who had been aborted by him acknowledged to having been twice operated on by him, and that on the former occasion the fœtus was put on the fire alive to destroy it. Another woman gave evidence that she had been aborted twice by him, had had criminal intimacy with him, and that the second pregnancy was by him. Ten pounds seems to have been his customary fee for the business. When arrested he endeavoured to commit suicide by taking tincture of aconite, but a dose of apomorphia administered hypodermically defeated his intention.

MEDICAL MEMBERS OF PARLIAMENT IN NEW SOUTH WALES.

There has been a dissolution of Parliament in New South Wales recently, and several medical men have obtained seats in the new House; I will give you their names in my next, as the

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elections are not all concluded. Charles Kinnaird McKellar, M.B., one of the ablest medical men in Australia, was given a portfolio in the late Ministry as Postmaster-General, and was also Minister of Mines. He was chief medical adviser to the late Government, and I do not know where the present Government will find one to replace him if he goes out with the Ministry from that capacity.

SYDNEY AND ADELAIDE HOSPITALS.

The annual report of the Sydney Hospital shows that 2808 cases were admitted during the past year, 1091 being accident cases. The directors are £10,000 overdrawn at the bank, and a new building, estimated to cost £60,000, is considered essential. The report of the Adelaide Hospital shows 1878 admissions during the year, with a daily average of 174; deaths 164. Expenditure for the year £9679. The Government will expend £3000 in improvements and alterations.

MEDICAL PRACTICE IN QUEENSLAND.

I see that a correspondent (a "poitrinaire") asks what are the prospects of practice in Queensland. Queensland, like all the other Australian colonies, is pretty well as much overdone as England with respect to the supply of medical men, and their ratio to the population is even more than the English average. Thirty-one new men have started practice in Brisbane in the last five years. Of course, a good man does well in any town in Australia, but not better, I should say, than elsewhere.

MELBOURNE UNIVERSITY APPOINTMENTS.

At a meeting of the University Council in January, Mr. Baldwin Spencer was appointed to the chair of Biology; Dr. Springthorpe to that of Therapeutics, Dietetics, and Hygiene; J. B. Kirkland, Demonstrator of Chemistry; and J. W. Barrett, Demonstrator of Histology. At the February meeting the principle of admitting women to degrees in Medicine was adopted and referred to the Faculty of Medicine.

POISONING BY ANTIMONY IN NEW ZEALAND.

A man has just been condemned to death for poisoning his father-in-law by antimony early in 1886. He was sentenced to penal servitude for life for the attempted murder of his wife, by tartar emetic long administered in her food, and suspicions having arisen after his conviction for that offence, the body of his father-in-law was exhumed, and ample evidence was obtained by analysis that all the viscera were saturated with tartar emetic.

TYPHOID.

This is very prevalent in Victoria at present, but Queensland usually tops the list for the mortality from this disease, though with a much smaller population. Brisbane contributes largely to the sum total of that colony. As writers in the papers here freely point out, typhoid was almost unknown in Brisbane. Now typhoid is the third largest cause of fatality in Queensland. Last year a great many horses suffered from it in Brisbane.

COOKTOWN (QUEENSLAND) HOSPITAL.

This hospital is now over-full, crowded out mostly with fever and other patients from the Bloomfield Tin Mines, and as most of these patients do not belong to the district they are a serious strain on the finances of the hospital, which is in very straitened circumstances.

RAILWAY AMBULANCE CORPS IN NEW SOUTH WALES.

This movement is being carefully and energetically carried out under medical officers appointed by the Railway (State) Medical Board, and at a recent meeting of the corps, medals and certificates were presented to railway employés for proficiency in "first aid."

SALE OF POISONS ACT IN TASMANIA.

A new Act has just been passed in Tasmania to regulate the sale of poisons, which contains a sensible and practical regulation, taken, I believe, from the Canadian Act. Every poison sold is to have a written or printed label containing particulars of the antidote for such poison.

CONSUMPTION HOSPITAL IN MELBOURNE.

A movement is on foot to start an institution of this nature for Victoria, and undoubtedly it would be a boon on account alone of the number of cases ordered out from England to be cured by the Australian climate.

A steamer from China (the *Chingtu*) has landed a small-pox patient at Port Darwin in the northern territory. He is now convalescent, and the cargo, after being fumigated, was released.

The Intercolonial Medical Congress is progressing well. Dr. Verco having been appointed president and Dr. B. Poulton honorary secretary.

March 1st, 1887.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT an extraordinary meeting of the Council held on Thursday, the 5th inst., the minutes of the last meeting were confirmed.

It was referred to the Library Committee to report on the filling of the vacancy caused by the decease of Mr. Chatto, librarian.

The President reported that Sir James Paget had consented to deliver the first lecture on Cancer and Cancerous Diseases.

It was agreed that diplomas be forwarded to those candidates who passed the recent examination in Surgery.

A report, dated April 2nd, 1887, from the committee of delegates of the Royal College of Physicians of London and of the Royal College of Surgeons of England, on the question of the grant by the two Colleges of degrees in Medicine and Surgery, was read, and, after discussion, was referred for further consideration.

A report, dated April 27th, 1887, from the President, senior Vice-President, and Mr. Marshall, on the purposes to which the unoccupied ground on the Embankment belonging to the two Colleges can be applied, was read, and referred to the Committee on the Extension of the College Premises to report thereon.

It was resolved that the Secretary be instructed to prepare an official abstract of the petition for the new Charter, and that the same, when completed, be issued to any Fellow or Member applying for the same. *Notice will be given when this is ready.* The Council do not think it expedient to convene a general meeting of the Fellows and Members of the College to consider and discuss the proposed draft of the Charter, the subjects to which it relates having already been submitted to previous meetings of Fellows and Members.

The picture of the Council in 1884-5, by Mr. H. J. Brooks, was presented by Sir T. Spencer Wells, on behalf of the subscribers to it, and accepted by the Council with thanks.

A letter of the 18th ult., signed, on behalf of the students of the London Hospital, by Mr. F. Howard Taylor, and forwarding a resolution adopted by the students in favour of the grant by the two Colleges of the degree of "M.D. Westminster," was read and referred to the Committee of the two Colleges.

A letter of the 30th ult. was read from the Secretary to the Science and Art Department, South Kensington, offering, through the Secretary of State for Foreign Affairs, to furnish to the Austro-Hungarian Government the name of any delegate whom the Council may wish to nominate to attend the International Congress on Hygiene to be held in Vienna in September next; and Sir T. Spencer Wells was nominated by the Council accordingly.

Obituary.

LEON GOSSELIN.

BY the death of Professor Gosselin, which occurred on the 29th ult., after a long and painful illness, French surgery has lost one of its most eminent representatives. M. Gosselin took his degree at the age of twenty-eight; the following year he was successful at the *concours de l'agrégation*, and in 1846 became Director of Practical Anatomy at the School of Medicine. Twelve months before he had gained the position of Surgeon to the Paris Hospitals, in which capacity he was successively attached to the Lourcine, Cochin, Beaujon, La Pitié, and La Charité. In 1858 he was named to the chair of Surgical Pathology, which he occupied until the death of Velpeau, whom he succeeded in 1867 as Professor of Clinical Surgery. Elected a member of the Academy of Medicine in 1860, and of the Academy of Sciences in 1874, in the place of Nélaton,

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Gosselin had attained all the distinction which French science has in its gift. But a crowning honour was reserved for the close of his life, and a few months before his death he was called by the Academy of Sciences to its presidency. Professor Gosselin leaves a number of works upon medical and surgical science. Amongst these may be mentioned "L'Ostéite Epiphysaire des Adolescents," "Leçons sur les Hernies Abdominales," the "Compendium de Chirurgie," different memoirs on Septicæmia, Purulent Infection and Urinary Fever, V-Fractures of the Tibia, Tarsalgia of the Young, &c., but his *chef-d'œuvre* is his "Clinique de l'Hôpital de la Charité," a work which ranks justly with Trousseau's "Clinique de l'Hôtel Dieu."

JOHN MOORE, M.D.

IT was with deep regret that the Belfast public learned on Tuesday of the death of Dr. John Moore. The sad event occurred on Monday, May 2nd, at the Strathearn Hydropathic Establishment, Crieff, Perthshire, under exceedingly melancholy circumstances. For some months past the deceased gentleman had been in very poor health, suffering from mental depression; indeed, he seems never to have recovered the shock of his son's death, which took place about a year back. A week since, acting under medical advice, he left town for a complete change to Crieff. On Sunday evening, it seems, he retired to his room at his usual time, and in the morning was found dead in bed. The unfortunate gentleman had evidently committed suicide, the instrument used being a penknife, which was found beside him. During his brief stay at Crieff Dr. Moore had become known to several of the other visitors in the establishment, but, in spite of his very depressed condition, no danger was apprehended. Dr. Moore took his medical degree in 1851, being one of the first to graduate in the Queen's University. After this he was appointed dispensary medical officer in Glenarm, co. Antrim, and after residing there for several years he removed to Belfast, and was ppointed one of the surgeons to the Royal Hospital, a post he held for sixteen years; and since that he had been a consulting surgeon to the charity. He was also a life governor. He was surgeon to the co. Antrim Gaol, a post which is now at the disposal of the Government. Dr. Moore was the founder and first secretary of the North of Ireland Branch of the British Medical Association, and, also, a few years ago was president. He afterwards became the secretary, a post he held at the time of his death. When, in 1884, the British Medical Association visited Belfast, Dr. Moore was one of the local secretaries. He was also an active member of the Ulster Medical Society, of which at one time he was president, and for a long time he was medical officer to the Tyrone Fusiliers. He was among those who established a centre in Belfast for the St. John Ambulance Association, and for a time acted as secretary. The deceased took an interest in all charitable and philanthropic movements. He was one of the members of the Throne Hospital Committee, and was closely connected with the Young Men's Christian Association (of which he was one of the oldest vice-presidents) and the Prison Gate Mission. He was also local and honorary secretary to the British and Foreign Sailors' Society. Dr. Moore leaves a widow, three daughters, and a son, with all of whom sincere and deep sympathy is felt in their very sad bereavement, and especially with one of his daughters, who accompanied him to Crieff, and who was placed in a most sad and painful situation among those who were comparative strangers.

W. TIFFIN ILIFF, M.D. LOND.

WE record with much regret the death of Dr. William Tiffin Iliff, who was in practice for more than forty years—succeeding his father, Dr. W. T. Iliff, in 1863—at Newington-butts, South London. He was appointed medical officer of health for Newington in the year 1856, and retained the office with perfect satisfaction to the authorities until his death (a period of thirty-one years). Born at Newington in January, 1824, his education was commenced at Shrewsbury, whence he proceeded to Guildford, and afterwards to King's College, London. He entered at Guy's Hospital about 1841, passed successfully through his career, taking medals &c., became a Member of the College of Surgeons and Licentiate of the Apothecaries' Society in 1845, M.B. Lond. in 1855, and M.D. in 1856. He was hon. surgeon to the 7th Surrey R. V., and surgeon to the Royal South London Dispensary. His death took place on April 25th, after six weeks' illness, from extensive disease affecting the pylorus. He was a skilful practitioner, and esteemed as the kind friend of his patients as well as their medical attendant; and the poor of his district have lost a trusted and sympathetic helper, who was always ready to aid them in their time of need.

At the meeting of the Newington vestry on the 27th ult. an intimation was received of the death of Dr. Iliff. A resolution was unanimously adopted recording the vestry's appreciation of the deceased gentleman's services during thirty-one years as medical officer, and expressing sympathy with his family.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen having passed all the necessary examinations were at an extraordinary meeting of the Council on the 5th inst. admitted Members of the College:

Andrews, Frederick William.
Arnison, W. Drewett, M.B. Dur.
Bacot, W. Rickward, L.S.A.
Baldwin, Harry.
Ballance, J. Descarrieres, L.R.C.P.
Barker, Alleyne, H., L.R.C.P.L.
Barr, Horace Carlos, L.R.C.P.L.
Barrett, Edward Ernest.
Barton, Francis A., L.R.C.P.L.
Batchelor, Charles, L.R.C.P.L.
Bishop, Charles Rosser, L.S.A.
Blurton, John Frederick.
Bowden, Ernest Edward, L.S.A.
Bower, William G., L.R.C.P.L.
Brackenbury, H. B., L.R.C.P.L.
Brook, William F., L.S.A.
Brooke, Charles Edward.
Browne, Robley Henry John.
Burke, H. Morton, L.R.C.P.L.
Burt, Cyril Cecil Barron.
Carter, Robert James, L.S.A.
Caudwell, Eber, L.R.C.P.L.
Chilcott, Arthur E., L.R.C.P.L.
Clarke, A. E., L.K.Q.C.P.I.
Cockill, W. Baron, L.R.C.P.L.
Connolly, F. Glynn, L.R.C.P.L.
Cox, A. H. Lissant, L.R.C.P.L.
Coy, W. Filmer, M.D. Kingston.
Dalgliesh, John W., L.R.C.P.L.
Dane, Robert, L.S.A.
Davenport, Cecil J., L.R.C.P.L.
Davies, Hughes Reid.
Ellison, E. Henry, M.A., L.S.A.
Farrar, Reginald Anstruther.
Fox, George Martin.
Fox, S. C. Gundry, L.R.C.P.L.
Gardner, Ernest F., L.R.C.P.L.
Garman, E. C., L.R.C.P.L.
Giddings, George Thomas.
*Goodman, Roger N., L.R.C.P.L.
Goodwin, F. C., L.R.C.P.L.
Gowan, Bowie Campbell, L.S.A.
*Green, Conrad T., L.R.C.P.L.
Greig, Duncan McBean.
Hallilay, Richard Percy, L.S.A.
Hamel-Smith, Lionel.
Harris-Liston, Llewellyn, L.S.A.
Harrison, Henry Leeds.
Hensley, Arthur Egerton, L.S.A.
Hinnell, Joseph Squier, L.S.A.
Hosegood, Samuel Price, L.S.A.
Hudson, Henry, L.R.C.P.L.
Hutton, John, L.R.C.P.L.
Iddon, Thomas Whittaker.
*James, Arthur William, L.R.C.P.
Jaques, John Warren, L.R.C.P.
Joseph, Arthur Hill.
Kerans, Felix.
King, Preston, L.S.A.
Labey, Julius, L.R.C.P.L.
Lankester, Francis J., L.R.C.P.L.
Lawrence, Thomas Wm. Pelham.
Lumley, Charles Armstrong.
McLean, W. W. Laroche, L.S.A.
McLurg, John, M.D. Toronto.
McVety, A. F., M.D. Kingston.
Marston, Henry John, L.R.C.P.
Megginson, Mowbray.
Metzgar, Charles, L.R.C.P.L.
*Miley, Miles, L.R.C.P.L.
Mould, William T., L.R.C.P.L.
Naumann, John C. F., L.S.A.
Osmond, Edward B., L.R.C.P.L.
Parry, Wm. T., M.D. Toronto.
Parsons, Charles O., L.R.C.P.L.
Paul, Arthur E., L.R.C.P.L.
*Peake, W. Pemberton, L.R.C.P.L.
Penno, Francis F. L., L.S.A.
Pitcairn, John James, L.R.C.P.L.
Pratt, William Sutton, L.S.A.
Pullan, H. N., L.K.Q.C.P.I.
Pye, Thomas, L.R.C.P.L.
Rees, John Morgan.
Roberts, Shirley, L.K.Q.C.P.I.
Robson, R. Barker, M.B. Durh.
Rutherford, John V. Walton.
Sharman, J. S. W. R., L.R.C.P.L.
Short, James Joseph, L.S.A.
Shute, G. Sidney, L.R.C.P.L.
Sidebotham, E. J., M.B. Cantab.
Skill, James Maurice.
Smith, Arthur H., L.R.C.P.L.
Smith, E. S., L.R.C.P.L.
Somerset, Edward, L.S.A.
Stokes, F. Wm., L.K.Q.C.P.I.
Stuart, Thomas E., L.R.C.P.L.
Swyer, Robert, L.S.A.
Thompson, W. H., M.D., Q.U.I.
Todd, H. B., L.R.C.P.L.
Travers, A. Lindsay, L.R.C.P.L.
Turnbull, George Lindsay.
Turner, Ernest Blaker.
Tweed, E. R., L.R.C.P.L.
Venis, Walter, L.S.A.
Vincent, H. E., L.R.C.P.L.
Vinter, S. Garratt, L.R.C.P.L.
Waites, R. F., L.R.C.P.L.
Walker, Benjamin, L.S.A.
Wallis, Maurice B. Arnold.
Ward, John Alfred, L.S.A.
Wedgwood, Wm. B., L.S.A.
Wheeler, James Atkin.
Whiston, Philip H., L.R.C.P.L.
Wigglesworth, V., L.R.C.P.L.
Wight, John Cam, M.B. Melb.
Williams, William, L.S.A.
Woods, Ninian Wildridge.

* Candidates under the Regulations of the Examining Board in England.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on the 30th ult., the following degrees were conferred:—

BACHELOR OF MEDICINE.—Frank Edward Nichol, Gonville and Caius; William John Hill, Jesus.

BACHELOR OF SURGERY.—Frank Edward Nichol, Gonville and Caius.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—At the April Examination the following candidate was admitted a Licentiate:—

Barnes, Ernest W., L.K.Q.C.P.I., Liverpool.

The following candidate obtained the qualification in Public Health:—

Kiddle, Walter, M.B. Dub., Surgeon, Medical Staff.

The following candidate having passed the full Exami-

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nations for the Fellowship, was admitted a Fellow on the 2nd inst.:—

Dalziel, Thomas Kennedy, M.B., C.M. Edin., Regent-terrace, Glasgow.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At recent examinations the following were admitted Fellows of the College:—

Curran, Francis G. Adye, A.M.S. | Sawyer, R. H. Stewart, A.M.S.

COLLEGE OF PHYSICIANS IN IRELAND.—At the April examinations the following obtained licences in Medicine and Midwifery of the College:—

MEDICINE.—Patrick Hallon Fox, Bartley Hynes Hopkins, Edward Stewart Lewer, Joseph Maguire, A. Kennedy Forbes McCutcheon, Samuel McKee, Thomas Alexander Murray, Humphreys Robert Peare, Michael Riordan, Shirley Roberts, Nelson Cameron Sclater, William Thomas Steele, James St. Johnston, Jabez Davenport Wardle.

MIDWIFERY.—Edward Stewart Lewer, Joseph Maguire, Samuel McKee, Humphreys Robert Peare, Shirley Roberts, William Thomas Steele, and Jabez D. Wardle.

The under-named have been admitted Fellows:—

W. Beatty. | E. McDowel Cosgrave.
Alexander Duke.

SOCIETY OF APOTHECARIES.—The following gentlemen, having satisfied the Court of Examiners as to their knowledge of the Science and Practice of Medicine, Surgery, and Midwifery, received certificates entitling them to practise as Licentiates of the Society on April 28th:—

Bowden, Ernest Edward, Gorsefield, Patricroft.
King, Preston, Barton-place, Bury St. Edmunds.
Rees, John Morgan, Machynlleth.
Short, J. J., Shortlands, Spencer Park, Wandsworth Common.
Somerset, Edward, Newbury, Berks.
Stephens, Richard John, Woodlands, Old Charlton.

OXFORD UNIVERSITY. — Dr. Brooks has been appointed Lichfield Clinical Lecturer in Medicine, and Mr. Horatio Symonds Lichfield Clinical Lecturer in Surgery, each for two years.

THE LEVEE.—John Sherburn, Esq., M.B., C.M., in his capacity of Sheriff of Kingston-upon-Hull, was present at the *levée* held at St. James's Palace on the 25th ult.

THE ROYAL SOCIETY.—Amongst the candidates selected by the Council to be recommended for election into the Royal Society are Dr. W. R. Gowers and Dr. J. T. Cash.

THE proceeds of the recent ball at the Brighton Royal Pavilion, in aid of the funds of the local Hospital for Women and Children, amount to £31.

NATIONAL HEALTH SOCIETY.—The annual general meeting of the Society was held at 44, Berners-street, on the 2nd inst. The report showed a great increase in the number of health lectures given in poor districts in London during the past year.

MEDICAL MAGISTRATE.—The Lord Chancellor, upon the unanimous recommendation of the Town Council and the Borough Bench of Magistrates, has placed the name of Mr. Vincent Jackson upon the Commission of the Peace for Wolverhampton.

PRESENTATIONS. — On the 23rd ult. Mr. O. B. Shelswell was presented by the officers of the Holborn Union Infirmary with an electro-plate tea and coffee service, on the occasion of his resigning his post as assistant medical officer at that institution, to take an appointment under the same Board of Guardians, at their new workhouse at Mitcham.——On the 26th ult., Mr. E. T. Ash was presented by his colleagues on the staff of the Brighton Dental Hospital with an illuminated address, on the occasion of his leaving England for South America.——In recognition of Mr. H. B. Vincent's services as a lecturer, the East Dereham members of the various classes in connexion with the St. John Ambulance Association have presented him with a hall clock and some volumes of medical literature, and the ladies of the Gressenhall class have also presented him with a handsome ivory paper knife.——At a meeting of students of the Charing-cross Hospital, held on Thursday last, in the Board-room, a testimonial was presented to H. Montague Murray, M.D., M.R.C.P., on the occasion of his marriage and in recognition of his services as medical registrar during the last five years. The testimonial was presented by Mr. C. P. Oliver, and took the form of a clock of the time of Henry II., being copied from the catalogue of the Archæological collection of Prince Soltykoff.

DR. EDWARD PALMER, the medical superintendent of the Lincoln County Asylum, having, after thirty-nine years' services, sent in his resignation, the Visiting Committee have submitted a recommendation to the Quarter Sessions of Lindsey, Kesteven, Holland, and the Town Councils of Lincoln, Stamford, and Grantham, to award him a superannuation allowance of £600 per year.

ANNIVERSARIES OF BELGIAN MEDICAL SOCIETIES.—The Antwerp Medical Society has recently held a grand meeting in honour of the fiftieth anniversary of the Society's foundation. The mayor of Antwerp and Professors Lefebvre, Van Beneden, Dumoulin, Boilée, and Thiry were present at the banquet.—The Belgian Society of Public Medicine has just celebrated its tenth anniversary, under the presidency of M. Kuborn. There was a theatrical entertainment and meetings of various sections. At the grand final meeting the King and his suite and the Minister of the Interior were present.

UNIVERSITY OF LONDON.—The following Examiners for 1887-88 were elected at a meeting of the Senate on the 27th ult.:—Chemistry: Prof. J. Emerson Reynolds, M.D., F.R.S., and Prof. W. A. Tilden, D.Sc., F.R.S. Botany and Vegetable Physiology: Prof. Bayley Balfour, M.D., D.Sc., F.R.S., and Prof. F. Orpen Bower, M.A. Comparative Anatomy and Zoology: Prof. E. Ray Lankester, M.A., F.R.S., and Adam Sedgwick, M.A., F.R.S. Practice of Medicine: William Cayley, M.D., and Prof. F. T. Roberts, M.D., B.Sc. Surgery: W. Morrant Baker, Esq., and Prof. Christopher Heath. Anatomy: Prof. D. J. Cunningham, M.D., C.M., F.R.S.E., and Prof. John Curnow, M.D. Physiology: Prof. E. A. Schäfer, F.R.S., and Prof. Gerald F. Yeo, M.D. Obstetric Medicine: F. H. Champneys, M.A., M.B., and John Williams, M.D. Materia Medica and Pharmaceutical Chemistry: J. Mitchell Bruce, M.D., M.A., and T. Lauder Brunton, M.D., D.Sc., F.R.S. Forensic Medicine: Prof. G. V. Poore, M.D., B.S., and Thomas Stevenson, M.D.

QUEEN'S COLLEGE, BELFAST.—The following is the official list of the results of the medical examinations in April:—Anatomy and Physiology: Third Year—J. M. Hall. Second Year—S. A. Powell, B.A.; H. L. Atkinson, B.A.; James Fulton; Robert Forsyth. First Year—John Jamison; Douglas Maconachie. Practical Anatomy: Third Year—J. M. Hall; R. C. McCullagh, B.A., and D. C. Smiley, equal; James Buchanan; C. E. Shaw, M.A.; James Hunter. Second Year—James Fulton; S. H. Withers; James M'Connell and Nathaniel Morton, equal. First Year—(J. S. B. M'Murray, non. mat.); K. B. Barnett; James Adrian; (W. A. Collier, non. mat.). Medicine: Second Year—John Campbell, M.A.; R. C. M'Cullagh, B.A. First Year—Robert Wilson and M. H. Quarry, equal; Robert Thomson. Surgery: Senior—John Campbell, M.A., and James Hunter, equal; R. C. M'Cullagh, B.A.; C. E. Shaw, M.A. Junior—J. M. Hall; Robert Wilson; M. H. Quarry. Materia Medica; Nathaniel Morton; W. H. Cox; H. J. Anderson; James Fulton. Midwifery: D. C. Smiley; Robert Thomson; Robert Wilson and C. E. Shaw, M.A., equal. Practical Chemistry: John Jamison and E. W. M'Bride, equal; Nathaniel Morton. Zoology: G. S. Hart; Andrew Fullerton; Thomas Jackson.

SCHOLARSHIPS AND PRIZES.—At the *London Hospital Medical College*, the hospital scholarship, value £20, for proficiency and zeal in clinical medicine, has been awarded to Mr. C. R. Killick, and an honorary certificate to Mr. Benjamin Walker; the hospital scholarship, of the value of £20, for proficiency and zeal in clinical surgery, to Mr. Evelyn Oliver Ashe, and honorary certificates to Mr. Owen Meredith Jones and Mr. Benjamin Walker; and the Duckworth-Nelson prize in practical medicine and surgery, value £10, to Mr. Benjamin Walker, and an honorary certificate to Mr. Owen Meredith Jones. — At the *Middlesex Hospital Medical School*, the Broderip scholarships, of the value of £30 per annum and tenable for two years, has been awarded to Mr. W. H. Vickery, and that of £20 per annum, tenable for two years, to Mr. E. E. Lewis.—At *St. Thomas's Hospital Medical School*, the William Tite scholarship of £30 has been awarded to Mr. Henry Burden; the Musgrove scholarship, of £42 per annum, tenable for two years, to Mr. Arthur Francis Stabb; the second tenure of the Peacock scholarship to Mr. Francis Charles Abbott; the Mead medal to Mr. W. W. Ord; and the Cheselden medal and the Treasurer's gold medal for general proficiency and good conduct to Mr. Frank Fawssett.

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OPHTHALMOLOGICAL SOCIETY.—A special meeting of this Society is to be held on June 23rd for the purpose of collecting facts in reference to toxic amblyopia. Communications, whether written or *vivâ voce*, which bear on the subject will be acceptable. Facts in elucidation of the following points are particularly desirable:—1. Cases of true alcoholic amblyopia—i.e., failure of central vision in drinkers who do not use tobacco in any form. 2. Cases of recovery from any form of toxic amblyopia—e.g., from tobacco, bisulphide of carbon, &c.—without complete discontinuance of the toxic agent. 3. Cases of complete persistent pallor of the optic disc consequent on a long-continued exposure to any of these forms of poisoning. 4. Do second attacks of central amblyopia ever occur, whether induced by the original agent or by any other?

HOSPITAL FOR EPILEPSY AND PARALYSIS, REGENT'S-PARK.—The annual meeting of this institution was held on Wednesday at the Eyre Arms Assembly-rooms. The report, the adoption of which was moved from the chair by General Maclagan, R.E., laid stress on the great need of funds generally prevailing among the London hospitals, and congratulated the supporters that the debt had only increased £60 during the past year. He expressed the hope that the "jubilee" which marked among the Jews a time for "setting free" from bondage would be characterised by a similar liberation of the hospitals from the "bondage of debt." The Right Rev. Bishop Perry seconded the motion. The reappointment of the retiring members of the committee was moved by Sir W. Magnay, Bart., who said that the administration by his colleagues of the funds at their disposal was a far easier task than the collection of funds to administer. Mr. R. B. Chapman alluded, as a regular visitor to the wards, to the distressing nature of the diseases treated in the hospital, and to the great need of such an institution.

MEDICAL NOTES IN PARLIAMENT.

The Prevention of Rabies and Hydrophobia.

IN the House of Lords on the 29th ult., Lord Mount-Temple called attention to the regulations for the prevention of rabies and hydrophobia. He considered the present method of muzzling both injurious to the dogs and inefficient for the purpose of preventing the spread of the disease. The principle upon which he had proceeded in framing his Bill was to place a responsibility upon the owner of the dog, who should have presented to him such a statement of the premonitory symptoms of rabies as were set forth in one of the Orders issued by the Agricultural Department of the Council. In addition to the present register of persons who had paid the dog tax and obtained a licence, there ought to be a register of the dogs themselves as well as of the owners. When the tax was paid, he proposed that there should be given to the owner of the dog a badge bearing a number, which should be placed on the collar of the animal. This number being registered, could always be seen; and if a dog was found wandering about in the streets or roads without a collar, it would be *primâ-facie* evidence that the animal was ownerless, when it might be taken up by the police. The Bill did not propose to interfere with any of the existing regulations, but placed it within the power of the authorities to add the method of registration he had described and placing responsibility upon the dog owner as an alternative for the muzzle.—Lord Cranbrook thought the ordinary powers only required to be put in force to stamp out rabies. In 1885 there were not less than seventy-five cases of rabies in the metropolitan area, and besides that twenty-eight people died of hydrophobia in and close to London. Muzzling was enforced, and the number of cases immediately fell. The best authorities were of opinion that the disease might be stamped out altogether by a universal system of muzzling.—The Earl of Kimberley hoped the authorities in the metropolis and throughout the country would not be deterred by any outcry that might be raised against the muzzling of dogs from doing what was possible to stamp out the disease.—The Bill was read a first time.

The Cold Bath for Lunatics.

In the House of Commons, on the 3rd inst., Dr. Kenny asked the Chief Secretary, with reference to the case of "Lamb *v.* Ashe," tried recently before the Recorder of Dublin, under what rule of Privy Council or order of Lunacy Department the use of the cold plunge bath was permitted as a punishment for lunatics.—Colonel King-Harman said the use of the cold plunge bath for curative purposes had been sanctioned under a rule of the Dundrum Asylum, but the Irish Government had now given orders for its discontinuance.

Impure Water-supply.

In reply to Mr. Norton, Mr. Forwood stated that a long report had been received with reference to the supply of impure water to Her Majesty's ships at Malta, resulting in a serious outbreak of enteric fever, and that the tanks were periodically tested and cleansed.

Public Sanitation.

Mr. F. Powell gave notice that on an early date he would introduce a Bill to amend and extend the Public Health Act of 1875, and to consolidate the statutes relating to the public health which had been passed since that year.

Leave to introduce the Temporary Dwellings Bill was obtained on Wednesday. It has for its objects the education of gipsy and van children and the bringing of sanitation into their homes.

BOOKS ETC. RECEIVED.

BAILLIÈRE, TINDALL, & COX, King William-street, Strand, London.
Brief Statement of the so-called "Salisbury Plans" of Treating, by Alimentation. By J. H. Salisbury, M.D. pp 64.
A Manual of Veterinary Hygiene. By Fred. Smith, M.R.C.V.S. pp. 475, Illustrated.

CHURCHILL, J. & A., New Burlington-street, London.
The Treatment of Spina Bifida by a New Method. By James Morton, M.D., L.R.C.S.Ed. pp. 228, with 3 plates.

GRIFFIN, C., & Co., Exeter-street, Strand, London.
Year-book of the Scientific and Learned Societies of Great Britain and Ireland. Compiled from Official Sources. Fourth Annual Issue. pp. 223.

HUGHES, JOHN, Pilgrim-street, Ludgate-hill, London.
The Principles and Practice of School Hygiene. By Alfred Carpenter, M.D.Lond. pp. 368, with Illustrations.

KEGAN PAUL, TRENCH, & Co., Paternoster-square, London.
The Prevention of Consumption: a Mode of Prevention founded upon a new Theory of the nature of the Tubercle Bacillus. By C. Candler, Melbourne. pp. 240.

LEWIS, H. K., Gower-street, London.
Photography of Bacteria. By Edgar M. Crookshank, M.B.Lond., F.R.M.S. pp. 64, with 86 Photographs, reproduced in autotype.
Treatment of Disease in Children, including the outline of Diagnosis and the chief Pathological Differences between Children and Adults. By Angel Money, M.D., M.R.C.P. pp. 285.
The Officinal Materia Medica. By F. T. Roberts, M.D., B.Sc., F.R.C.P. Second Edition. pp. 543.
The Essentials of Bandaging. By Berkeley Hill, M.D.Lond., F.R.C.S. Sixth Edition, revised and enlarged. pp. 366, with Illustrations.
Congenital Club-foot, its Nature and Treatment. By R. W. Parker. pp. 105, with Illustrations.
Syllabus of Materia Medica. By Alexander Harvey, M.D., and A. D. Davidson, M.D. Eighth Edition. pp. 64.

LIVINGSTONE, E. & S., Edinburgh.
Anatomy of the Brain and Spinal Cord. By J. R. Whittaker. pp. 135, with Engravings, some coloured.

LONGMANS, GREEN, & Co., Paternoster-row, London.
A Text-book of Organic Materia Medica. By Robert Bentley, M.R.C.S., F.L.S. pp. 415, with many Illustrations.

MACLACHLAN & STEWART, Edinburgh. SIMPKIN & MARSHALL, London.
The Dissector's Guide: a Manual for the use of Students. By D. J. Cunningham, M.D., &c. Head and Neck. pp. 492, with 57 Illustrations.

MACMILLAN & Co., London and New York.
A Text-book of Pharmacology, Therapeutics, and Materia Medica. By T. Lauder Brunton, M.D., D.Sc., F.R.S. Adapted to the United States Pharmacopœia by F. H. Williams, M.D.Boston. Third Edition. pp. 1261, with Illustrations.

NEW SYDENHAM SOCIETY, London.
Lexicon of Medicine and the Allied Sciences. By Henry Power, M.B., and Leonard Sedgwick, M.D. Part 13. Her—Ilm.

REMINGTON & Co., Henrietta-street, Covent-garden, London.
The Misuse of Marriage, or Hymen Profaned. A Voice. pp. 224.

SMITH, ELDER, & Co., Waterloo-place, London.
Post-mortem Handbook, or How to Conduct P.M. Examinations for Clinical and for Medico-legal Purposes. By Thomas Harris, M.D.Lond., M.R.C.P. pp. 78, with Illustrations.
Neurectasy, or Nerve-stretching for the Relief or Cure of Pain. Bradshawe Lecture. With Appendix. By John Marshall, F.R.S., &c. pp. 53, with Illustrations.

VIZETELLY & Co., Catherine-street, London.
Dr. Phillips: a Maida-vale Idyll. By Frank Danby. Second Edition. pp. 342.

WARD & DOWNEY, York-street, Covent-garden, London.
Travels in the Interior; or the Wonderful Adventures of Luke and Belinda. By L. T. Courteney. Edited by a London Physician. pp. 316, with Illustrations.

L'Enseignement actuel de l'Hygiène dans les Facultés de Médecine en Europe; par le Dr. W. Loewenthal (Soudier, Paris).—How to Appeal against your Rates; by A. D. Wilson, M.A. (H. Wilson, London).—The Imperial Review, April (Melbourne).—The Jubilee Penny Cookery Book (Simpkin and Marshall).—Index Medicus (Index to Vol. VIII.).—England as a Petroleum Power; by C. Marion (Andersen, Cockspur-street).—Journal of the College of Science, Imperial University, Japan, Vol. I., Part 1.—Bibliographie des Sciences Médicales (Baillière et Fils, Paris).—Botany Notes, Parts I. and II.; by Alex. Johnstone, F.G.S., 2*s*.—The Defence of Insanity in Criminal Cases; by L. F. Everest, M.A., LL.D. (Stevens and Sons). 1*s*. 6*d*.—Scheme of Case-reporting; arranged by W. H. Allchin, M.B. &c. (Lewis). 1*s*.—L'Enucléation ou Extirpation Intraglandulaire du Goitre Parenchymateux; par le Dr. S. Kesser (Schiller, Paris).—Notes on Chinese Materia Medica; by Chas. Ford, F.L.S.—Transactions of the Medical and Physical Society of Bombay, No. IX.—Paracelsus-Forschungen; von Drs. E. Schubert und K. Ludhoff; erstes Heft.—The London Hospitals and the Jubilee; by H. Nelson Hardy, F.R.C.S.Ed.—Index Medicus, Vol. IX., No. 3.—Magazines for May: Good Words, Sunday Magazine, Leisure Hour, Sunday at Home, Boys' Own Paper, Girls' Own Paper, Scribner's Monthly.—Die Diagnose der Blasen-und Nierenkrankheiten mittelst der Harnleiterpincette; von Dr. M. Tuchmann (Hirschwald, Berlin).

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Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BELL, THEODORE, B.A., M.B., B.Ch.Dub., has been appointed Medical Officer to the Morchard Bishop District of the Crediton Union.

CARPENTER, G. ALFRED, M.B. Lond., has been appointed Resident Medical Officer to the Evelina Hospital for Children, vice Albert Martin, M.D.Lond., resigned.

COOK, THOMAS D., M.S., C.M.Glas., has been appointed Medical Officer for the Torquay District of the Newton Abbot Union.

DYER, BERNARD, B.Sc., F.C.S., has been appointed Public Analyst for the City of Truro.

ESSOR, HENRY C., M.R.C.S., L.S.A., has been appointed Surgeon to the Cardiff Eye and Ear Hospital.

FOX, E. L., M.A., M.B., B.C.Cantab., M.R.C.S., has been appointed Senior House-Surgeon to the Liverpool Children's Infirmary, vice Francis Johnston, resigned.

GOODALL, JOHN K., L.R.C.S., L.R.C.P.Ed., has been reappointed Medical Officer of Health for the Bolsover District of the Chesterfield Union.

GRANT, DAVID, M.A., M.B.Edin., has been appointed Lecturer on Materia Medica, Medical Botany, and Elementary Therapeutics in the University of Melbourne.

GREEN, R. W., M.R.C.S., has been appointed House-Surgeon to the Leeds General Infirmary.

HARTLEY, HORACE, M.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer for the Workhouse and for the Stone District of the Stone Union.

NICHOLSON, C., M.R.C.S., has been appointed House-Surgeon to the Leeds Infirmary.

PARRY, JOHN WILLIAM, L.R.C.P., L.R.C.S.Ed., L.F.P.S.Glas., has been appointed Surgeon to the Bettisfield and Coleshill Collieries, Bagillt.

PEAKE, JOSEPH, L.F.P.S.Glas., L.S.A., has been appointed Medical Officer for the Parish of Falkirk, vice Hadden, deceased.

PEARCEY, JAMES J. W., L.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer for the Howden District of the Auckland Union.

PRICE, ARTHUR, M.R.C.S., L.S.A., has been appointed Surgeon to Her Majesty's Prison at Winson-green, Birmingham, vice Waterton, deceased.

PRIMROSE, ALEXANDER, M.B., C.M.Edin., has been appointed House-Surgeon to the Paddington-green Children's Hospital, vice Leonard G. Guthrie, M.A., M.R.C.S., L.S.A., whose appointment has expired.

ROBERTS, WILLIAM LAKE, M.R.C.S., L.M., L.S.A., has been appointed Surgeon to the Bradford District of the Great Northern Railway.

TRAVERS, WILLIAM, M.D., F.R.C.S., late Senior Assistant Physician to the Chelsea Hospital for Women, Fulham-road, S.W., has been appointed Physician to that institution.

WARNER, F. A., M.R.C.S., L.R.C.P., L.S.A., has been appointed Surgeon to St. Gabriel's Hospital for Infants, Chelsea, vice J. Cantlie, F.R.C.S., resigned; also Assistant Medical Officer to St. John's Lying-in Home, Gunter-grove, S.W.

WILSON, FRANCIS, L.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer for the North Keighley District of the Keighley Union.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

BLACKBURN AND EAST LANCASHIRE INFIRMARY. — House-Surgeon. Salary £100 per annum, with board, washing, and lodging.

CHARING-CROSS HOSPITAL, Strand, W.C.—Assistant Surgeon. Medical Registrar.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Hampstead.—Two Clinical Clerks for the out-patient department.

HOSPITAL FOR WOMEN, Soho-square, W.—Clinical Assistants. Fee for course of three months, £5 5s.

LINCOLNSHIRE COUNTY LUNATIC ASYLUM, Bracebridge. — Medical Superintendent. Salary and emoluments £400 per annum, with furnished house, coals, gas, milk, vegetables, and washing.

LIVERPOOL INFIRMARY FOR CHILDREN. — Assistant House-Surgeon. Board and lodging in lieu of salary.

LIVERPOOL STANLEY HOSPITAL.—Senior House-Surgeon. Salary £80, with board, &c.

MADAGASCAR MEDICAL MISSION. — Superintendent of Hospital &c. Salary £150 to £200 a year, house, outfit, &c.

MASON SCIENCE COLLEGE, Birmingham.—Professor of Physiology.

NATIONAL DENTAL HOSPITAL, Great Portland-street, W. — Assistant Dental Surgeon:

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen-square, Bloomsbury. — Senior House-Physician. Salary £100 per annum. Junior House-Physician. Salary £50 per annum. In each case board and apartments are supplied in the hospital.

ROCHDALE INFIRMARY AND DISPENSARY.—Resident Medical Officer. Salary £80 per annum, board, &c.

ROYAL ALBERT HOSPITAL, Devonport. — Assistant House-Surgeon. Board and lodging in the hospital, but no salary.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford. — Assistant House-Surgeon. Board and lodging, but no salary.

ST. MARY'S HOSPITAL, Paddington, W.—Physician in charge of out-patients.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.—Lecturer on Systematic Physiology.

TEIGNMOUTH, DAWLISH, AND NEWTON INFIRMARY AND CONVALESCENT HOME.—House-Surgeon and Dispenser. Salary £71 per annum, with board (beer excepted), lodging, and washing.

WEST SUSSEX, EAST HANTS, AND CHICHESTER GENERAL INFIRMARY AND DISPENSARY.—House-Surgeon and Assistant Secretary. Salary £100 a year, with board and rooms.

Births, Marriages, and Deaths.

BIRTHS.

BROWN.—On the 16th ult., at Penang, the wife of Wm. Carnegie Brown, M.D., of a son.

CHIPPERFIELD.—On the 21st ult., at Bloxam, the wife of Pearse Chipperfield, L.R.C.P., M.R.C.S., of a daughter.

GREENWOOD.—On the 1st inst., at High-street, Clapham, the wife of C. D. Greenwood, M.R.C.S., of a son.

HABERSHON.—On the 1st inst., at Upper Wimpole-street, W., the wife of S. Herbert Habershon, M.B.Cantab., M.R.C.P.Lond., M.R.C.S., of a son.

MILNE.—On the 26th ult., at Accrington, the wife of Thomas Milne, M.A., M.D., of a son.

PENFOLD.—On March 17th, at Sandhurst, Victoria, the wife of O. Penfold, M.R.C.S., L.S.A., of a daughter.

MARRIAGES.

CARTER—JONES.—On the 27th ult., at St. Peter's Church, Bournemouth, W. Fitzwilliam Carter, L.R.C.S.I., L.R.C.P.Ed., to Florence Archer, daughter of John Averay Jones, Esq., J.P., of Vale House, Clifton.

COTES—ALLINGHAM.—On the 30th ult., at St. George's, Hanover-square, Charles E. Cotes, M.B.Cantab., to Elizabeth Christiana (Lily), elder daughter of Wm. Allingham, of Grosvenor-street, W.

DAVENPORT—SIEVWRIGHT.—On the 28th ult., at Holy Trinity Church, Hobart, Tasmania, Arthur Frederick Davenport, M.B.Lond., M.R.C.S., of St. Kilda, Melbourne, to Alline, daughter of the late Major Allan Sievwright, Royal Artillery.

FRITH—FARNCOMB.—On the 28th ult., at Hollington Church, Baptist Gamble Frith, B.A., M.B., B.Ch., to Georgina Anne, eldest daughter of Edward Farncomb, Esq., of Ashbrooke-park, Hollington.

GARSON.—ASPINALL.—On the 20th ult., at Bebington Parish Church, W. R. J. Garson, M.B., to Emmeline, fifth daughter of Clarke Aspinall, Esq., J.P., and Coroner of Liverpool.

MILES—KING.—On the 28th ult., at Melbourne, Victoria, Geo. H. Miles, M.R.C.S., L.R.C.P.Lond., to Ada Louise, youngest daughter of the Rev. Richard King, formerly of Prestwich.

PARSLOE—RAY.—On the 28th ult., at Holy Trinity Church, Worthing, Henry Heath Parsloe, M.R.C.S., L.R.C.P., to Emily Ann, daughter of Henry R. Ray, Heine-terrace, Worthing.

SNOW—JARRETT.—On the 20th ult., at St. Matthew's Church, City-road, London, Lionel Mason Snow, M.R.C.S., L.R.C.P. Lond., to Jennie, eldest daughter of Evan Jarrett, Esq., of Barnsbury-park, N.

WEST—JACOB.—On the 4th inst., at St. Peter's Church, Dublin, by the Rev. John Alexander Jacob, Rector of St. Saviour's, Bath, uncle of the bride, assisted by the Rev. Canon Jellett, and by the Rev. H. H. Noyes, M.A., Francis Robert Leighton, second son of the Rev. William West, Rector of Randalstown, Suffolk, to Florence Alice, eldest surviving daughter of Archibald Hamilton Jacob, M.D., F.R.C.S., of 23, Ely-place, and "Lucerne," Sandycove.

DEATHS.

FOX.—On the 3rd inst., at the Park Hotel, Preston, Wilson Fox, M.D.

HALKET.—On the 17th ult., at sea, on his homeward voyage from Australia, Laurence John Halket, L.R.C.P.Lond.

NOLLOTH.—On the 29th ult., at 13, North-terrace, Camberwell, Edward Nolloth, retired Fleet Surgeon, R.N., M.R.C.P., F.R.C.S., sixth son of the late John Nolloth, Esq., of 1, North-terrace, Camberwell, aged 73.

THOMPSON.—On the 29th ult., at Winterton House, Westerham, Kent, Charles Robert Thompson, M.R.C.S., aged 57.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

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Medical Diary for the ensuing Week.

Monday, May 9.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.
ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.
SOCIETY OF ARTS.—8 P.M. Mr. J. M. Thomson: The Chemistry of Substances taking part in Putrefaction and Antisepsis.

Tuesday, May 10.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 1.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.
ROYAL INSTITUTION.—3 P.M. Prof. W. E. Ayrton: Electricity.
MEDICO-PSYCHOLOGICAL ASSOCIATION.—4 P.M. Quarterly Meeting. Meeting of Council at 2.30. Discussion on the proposed Lunacy Law Amendment Bill.
SOCIETY OF ARTS.—8 P.M. Mr. E. J. Tarver: The Architecture of London Streets.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. Arthur E. Barker: A case of Intussusception of the Upper End of the Rectum due to Obstruction by a New Growth, Excision of the Intussusception, Suture of the Cut Ends of the Bowel, Complete Recovery.—Mr. Stanmore Bishop: Results of an Experimental Inquiry as to the Best Method of Restoring the Canal after Removing Portions of the Small Intestine (communicated by Sir Spencer Wells).

Wednesday, May 11.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M. Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M. Saturday, same hour.
SOCIETY OF ARTS.—8 P.M. Mrs. Ernest Hart: Cottage Industries in Ireland.
ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Dr. Maddox: On the Different Tissues found in the Muscle of a Mummy.
EPIDEMIOLOGICAL SOCIETY OF LONDON.—8 P.M. Dr. Arthur Ransome: Some Evidence respecting Tubercular Infective Areas.
BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens will be shown by Drs. Granville Bantock, Fancourt Barnes, Grigg, and others.—Dr. Routh: On the Various Modes of Treatment to be adopted for the Worst Cases of Uterine Flexions.

Thursday, May 12.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Dewar: The Chemistry of the Organic World.

Friday, May 13.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CLINICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Godlee: Some cases of Abdominal Cyst following Injury.—Dr. Vivian Poore: A case of Spasmodic Torticollis, probably due to Cerebral Lesion.—Mr. Stephen Paget: A case of Suppuration in a Chronic Gouty Knee-joint.—Mr. Spencer Watson: A case of Intra-capsular Impacted Fracture of the Neck of the Femur, with specimen. Living Specimens:—Mr. Clinton: Case of Osteitis Deformans in a Female, with Lengthening of some of the Bones.—Dr. Percy Kidd: Case of Rheumatic Nodules in an Old Woman.—Mr. Sydney Jones: (1) Case of Extirpation of Uterus for Fibroid, recovery (and the specimen); (2) A case of Tumour of the Bladder removed by Supra-pubic Operation (and the tumour).
ROYAL INSTITUTION.—9 P.M. Prof. J. S. Burdon Sanderson: Some Electrical Fishes.

Saturday, May 14.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Prof John W. Hales: Victorian literature.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, May 5th, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Apl. 29	29·90	N.	42	40	73	49	39	·25	Overcast
,, 30	29·10	N.E.	46	42	97	55	41	...	Cloudy
May 1	30·14	N.E.	49	44	99	55	38	...	Cloudy
,, 2	29·75	E.	44	43	...	49	42	·11	Raining
,, 3	29·60	E.	49	49	71	57	42	·06	Raining
,, 4	29·69	W.	56	47	76	54	45	·29	Cloudy
,, 5	29·77	N.W.	51	48	74	59	47	·02	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

RAVAGES OF WILD ANIMALS AND SNAKES IN BENGAL.

THE total number of persons killed by wild animals and venomous snakes in the ten divisions of Bengal during the official year 1885-86 was the highest in the last five years, and amounted to 11,823. As is usual, nine-tenths of these deaths were caused by snakes. But of 12,223 buffaloes, oxen, horses, and ponies destroyed in this manner, only 371 were killed by snakes. These annual returns do not take account of sheep, goats, pigs, and monkeys, the destruction of which is very large. Passing over the most formidable wild animals, it appears that 548 persons were killed by jackals, 291 by crocodiles or alligators, 84 by pigs, and 22 by elephants—whether wild or domesticated is not stated,—12 by buffaloes and oxen, 1 by a horse, 1 by a deer, and 2 by musk rats, the bite of the latter having been followed by mortification. Only 18 deaths were put down to mad dogs, which is regarded as a manifest understatement. Not a single death was caused by wild animals in the town and suburbs of Calcutta, but 13 persons died from snake-bite. The total amount of 29,884 rupees was paid for the destruction of wild animals and venomous snakes, as compared with 42,374 rupees in the preceding year.

H. M.—Our correspondent should consult the Medical Register; but we doubt in any event if he has a legal remedy.

Mr. J. H. Sykes is referred to a general notice at the head of this column.

STROPHANTHUS.

To the Editors of THE LANCET.

SIRS,—At this time, when Professor Fraser's elaborate experiments with strophanthus are bringing it to the fore in therapeutics, it is interesting to note that Dr. Livingstone, in the account of his 1863 expedition up the Shiré branch of the Zambesi river, mentions that Dr. Kirk, who accompanied the expedition, owing to carrying his tooth-brush in the same pocket with some of the kombi, or arrow poison used by the Ajawa and Manganja tribes, accidentally experimented on himself, and "though the quantity was small, it immediately showed its power by lowering the pulse, which at the time had been raised by a cold, and next day he was perfectly restored," and remarks that "it is possible that the kombi may turn out a valuable remedy." This case points to its value as a febrifuge. I am, Sirs, yours faithfully,

Clifton, May 2nd, 1887. CLEMENTS HAILES, M.D., C.M.

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KENNEDY DEFENCE FUND.

THE honorary secretaries beg to acknowledge the following contributions to the above fund, which is being raised to pay the legal expenses incurred in refuting a cruel and groundless charge, particulars of which will be found in an advertisement in the present number of THE LANCET. The committee invite the co-operation of all members of the profession in promoting the defence fund, and request that subscriptions be forwarded to the honorary treasurer, Dr. M'Veagh, 1, Rutland-square East, Dublin.

Sir Prescott G. Hewett, Bt.	£5	5	0	William Bruce, M.D. ...	£1	1	0
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Mr. J. de Courcy Young (Bruthen).—We do not see how we can help our correspondent.

Beta.—The course of action is quite legal, but very unwise.

"INHALATION OF COAL-GAS AS A SOURCE OF DISEASE."

To the Editors of THE LANCET.

SIRS,—Attention has been lately called to the deleterious effects produced on the human body by the inhalations of coal-gas in small quantities. The public, equally with the medical profession, are aware of the dangers to health resulting from the presence in respired air of this gas in sufficient volume to be appreciated by the sense of smell. How great is the sum of ill-health produced by this necessity of our civilisation is perhaps hardly realised, both on account of the insidiousness of the symptoms and the association of them often to causes other than the right one. In an introduction to "Our Homes," entitled "Health in the Home," written by Dr. Richardson, he tells how he himself suffered from symptoms due to the adulteration of the air of his library by carbonic oxide derived from the escape of coal-gas from faulty pipes in minute but toxic quantity. Nausea, giddiness, coldness of the body, and inaptitude for work led him at first to suspect stomach derangement. Noting, however, the similarity of the symptoms with those produced previously on himself while experimenting with carbonic oxide, he was led at last to the real source of the mischief. I remember soon after this article was published meeting a medical man who complained to me of drowsiness and giddiness, combined with coldness of the extremities and this same inaptitude for exertion. His digestion was excellent, his frame robust, and he was becoming seriously alarmed at what he thought might be indications of cerebral mischief. I told him that I felt sure he was suffering from carbonic oxide poisoning, and, to add weight to my words, gave him Dr. Richardson's article to read. Then the secret came out. His symptoms were always aggravated during the evening, after he had been sitting for some time in his dining-room, and his wife had also of late shown a drowsiness which was foreign to her habit. In this room a short time previously an indiarubber pipe had been fitted to the gaselier, to bring the gas down to a water-heating apparatus on the table, which was always used at this time of the day. The symptoms dated from the time of this fixture, and the connexion in my mind between the two things was complete. The diagnosis was rendered certain by my friend, who at once did away with the apparatus, telling me a few days afterwards that all unpleasant symptoms had passed away, and that he had never felt better in his life. This pertinent incident may help to call the attention of your readers still more to a source of danger to health which I have long felt to be as common as it is often unsuspected.—I am, Sirs, yours faithfully,

H. M. ELLIS, Staff Surgeon, R.N.

H.M.S. *Valorous*, Devonport, May 2nd, 1887.

Juvenis should write to the Secretary of the College, who will doubtless afford the information required.

BROWN DEFENCE FUND.

To the Editors of THE LANCET.

SIRS,—Kindly permit me to acknowledge the following:—Amounts previously received, £13 1s. 6d. Dr. J. Broward Neal, 10s. 6d.; Dr. M. A. Ward (Dublin), £1 1s.; R. H. A. Hunter, Esq., £1 1s.; Messrs. Roby and Roby, £1 1s. I am, Sirs, yours faithfully,

G. STANLEY MURRAY.

Meadow Side, 23, Upper Richmond-road, Putney, May 4th.

THE CLIMATE OF COLORADO.

IN reference to an inquiry recently inserted in our columns, Mr. T. Laffan of Cashel sends us a letter, from which we make the following extract:—"I must say, from experience and a long residence in Colorado and the adjoining territories, that the climate is unsurpassed. To those suffering from incipient consumption, by proper attention to exercise, such as hunting, fishing, &c., there is no question but in a short time all traces of the disease will disappear. I have known young men who went there eight or nine years ago as hopeless invalids, and after a few months' sojourn returned to their eastern homes rugged and robust men. Those far advanced in consumption will have a hard time of it as regards breathing, owing to the extreme lightness of the atmosphere. For such the equable temperature of New Mexico is more suitable. As a resort I would recommend the San Louis Park; it is a beautiful valley, extending several hundred miles, running north and south from Del Norte Col to Santa Fé, New Mexico, and over twenty miles wide, between the Sangré De Christo and Conejos ranges of the Rockies, with an average of about 4000 ft. elevation by sea-level. Game abounds, and fishing in the Rio Grande river, which runs through the valley, is excellent. The winters are not quite so rigorous as in the mountains. I have seen men in that country who were so emaciated physically that their life was not worth a cent. Profuse expectoration appeared to trouble them most. In a short time they became hale and hearty. Persons in an advanced state or period of the disease suffer much; they even bleed from the nose and mouth on the least exertion. This is owing to the high altitude and light air. But the Mexican people say that by drinking tea made from the mild mountain sage all traces of the disease are eradicated; and no Mexican is troubled with consumption that is to be attributed to climatic influences."

Cyclops.—We consider the charges very reasonable. The legal profession would not consider itself remunerated on any such terms. Our correspondent would do well, however, to base his charges entirely on professional attendance, throwing medicine in, or charging little more than cost price.

Q.—A very full exposition of the subject of coma was published in the number of *Brain* for January last, from the pen of Dr. Mercier—an article which is well worthy of perusal.

P. W. should consult his medical attendant. We do not prescribe.

"SIMILIA SIMILIBUS CURANTUR."

To the Editors of THE LANCET.

SIRS,—Sin that I han ben ylogged in Hades mo than four hundred yeres, I pray you to be patient wid me, thanne wol I tell ye sikerly that which doth wirry me moche. Certes, ther is a very parfite practisour, ycleped Doctour Lauder Brunton, wel versed in ye causes of everich maladie and the werking of dragges. Eke hath he shewed you that ye conseils of Homœopathy be alway ful of errour, inasmuchel as they weren enforced willoin by the auctoritee of a persone, hight Hahnemanne. Douteles ther ne hath ben naught neue under the Sonne; but I n'am not desirous for to teche yonge men of hir practike. I wold only say that phisiciens at my daye wer used to sayn, "right as maladies ben cured by hir contraries, right so shal man warisbe werre," the which wordes I han writ in ye Tale of Melibee, as you mote se fer yourselven, if it so be that ye han gotten my werkes. Touching my letter, I beseke you of youre good will, for iche n'am not mochel used to dite letters sin I han ben here; and the postes gon selden time here abouten.

Youre servant in alle humblesse,

GEOFFREY CHAUCER
His Gost.

C. T.—The answer must be uncertain. The body named will only be able to grant a registrable qualification, *after the date mentioned*, in the event of other bodies combining with it, or the Medical Council appointing examiners in surgery.

Mr. T. B. Gibbs will find the method described in THE LANCET of April 16th last.

A. R. W.—The book mentioned is perhaps the best for the purpose.

OBSCURE NERVOUS AFFECTION.—OBESITY.

To the Editors of THE LANCET.

SIRS,—In reply to two correspondents in your last issue, one signing himself "Puzzled" and the other "Subscriber," I would suggest a trial of massage in both the cases to which they respectively refer. The neuropathic condition developed by the patient of the former would, in my opinion, judging especially from the history of the case, be much benefited, if not entirely cured, by such a process; and with regard to obesity, as referred to by the latter, one case has lately been brought under my notice in which under a course of massage the patient lost seven inches round the hips and five inches and a half round the waist in three weeks.—I am, Sirs, yours faithfully,

R. A. DOUGLAS LITHGOW, M.D., M.R.C.P. Ed., &c.

Lowndes-street, S.W., May 3rd, 1887.

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A GIANT AMONG GIANTS.

THERE are giants and giants. There are even giants among giants; and we venture to say that the Austrian giant now to be seen in London is one of these. He is most phenomenally tall. Though twenty-two years old he is thought to be still growing, and has certainly grown an inch or more in the last nine months. He has three sisters and one brother. Neither in them nor in his family has there been any instance of undue height. It is said that he was not unusually tall until the age of fourteen, when he began to shoot upwards.

Etiquette.—The rule mentioned cannot be always applied. The special circumstances of the case must be taken into consideration, or injustice may unwittingly be inflicted.

M. W.—Only graduates of universities are entitled to the prefix.

"DANGERS OF SWING-BOATS."

To the Editors of THE LANCET.

SIRS,—In Leicestershire a similar case to that recorded in your last issue came under my care last autumn, a young child having been struck on the left side of the forehead by an iron screw-nut on the bottom of a swing-boat. A portion of the frontal bone, about an inch long, was firmly fixed into the base of the skull, and two portions of convolutions were mingled with the débris. Unsuccessful efforts under chloroform were made to extract the bone, and the whole treated with a weak solution of perchloride of mercury. The child lived fifty hours, and until two hours before death, in spite of the gravity of the injury, there was neither severe hæmorrhage, paralysis, unnatural pupil, loss of speech, nor vomiting. Death was preceded by strabismus, convulsions, and syncope. I am, Sirs, yours obediently,

Skipton-in-Craven, May 2nd, 1887. C. W. SESSIONS BARRETT, M.B.

ERRATUM.—In Dr. Nesfield's letter published last week, page 904, the date of the premature labour was inaccurately given as Oct. 5th. It should have been Dec. 5th.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Harkin, Belfast; Dr. De Watteville, London; Dr. Bristowe; Sir W. Mac Cormac, London; Dr. Hollis, Brighton; Dr. Fothergill, London; Mr. Lawson Tait, Birmingham; Dr. G. Macdonald, London; Mr. Edmund Owen, London; Dr. Cheadle, London; Mr. J. Startin, London; Mr. Simeon Snell, Sheffield; Mr. Tempest Anderson, York; Dr. Weaver, Southport; Mr. J. Oliver, London; Mr. Graham, London; Mr. Marmaduke Sheild, London; Dr. Sadler, Barnsley; Mr. C. B. Lockwood, London; Dr. C. E. Saunders; Mr. S. L. Bapty, Manchester; Mr. J. de Courcy Young, Gipp's Land; Dr. L. W. Marshall, Nottingham; Dr. Peter Hood, London; Dr. D. Drummond, Newcastle-on-Tyne; Mr. Mayo Collier, London; Mr. H. W. Roberts, Lewisham; Messrs. Brady and Martin, Newcastle-on-Tyne; Mr. A. F. Mickle, London; Mr. Walker, Spondon; Mr. Barraud, London; Mr. Ellison; Mr. C. H. Robinson, Dublin; Mr. T. D. Fryce, Nottingham; Mr. Waugh; Dr. Blackman, Portsmouth; Dr. Moll, Berlin; Mr. Page, London; Dr. R. P. Harris, Philadelphia; Mr. Tyzer, London; Mr. Murray; Messrs. Shelley and Co., London; Mr. P. D'E. Wheeler, Jerusalem; Mr. Manby, East Rudham; Mr. Laffan, Cashel; Mr. Best, Cheltenham; Mr. Stretton, Kidderminster; Mr. Kelly, Enniscorthy; Mr. J. B. Clarkson, Boston, U.S.A.; Dr. C. F. Knight, Dublin; Mr. Lynd, London; Mr. C. B. Lockwood, London; Mr. T. G. Horder, Cardiff; Messrs. Hopkinson and Co., Notts; Mr. W. North, London; Mr. Todd, Dublin; Mr. A. S. Morton, London; Dr. Lithgow, London; Messrs. Oppenheimer and Co., London; Dr. McBride, Philadelphia; Mr. Wilkinson, Melton Mowbray; Dr. T. S. Smith, Sittingbourne; Messrs. Maclachlan and Co., Edinburgh; Mr. Leiterschofen, Homburg; Miss Barlow, Colwyn Bay; Mr. Matthews, Bickley; Dr. C. Hailes, Clifton; Mr. Hall, New York; Mr. East, Lincoln; Mr. Blake, Dublin; Messrs. Reid and Co., Bristol; Mrs. Brebner, Kensington; Mr. Dawson, Forest Gate; Dr. McGregor, Aberdeen; Mr. Bourne, Coventry; Mr. Firkins, Redwich; Mr. Woodhead, Huddersfield; Dr. Hassell; Messrs. Cowan and Co., Perth; Messrs. Johnstone, Edinburgh; Mr. McCarthy, Liverpool; Mr. Bottwood, Ipswich; Mr. Forster, Leicester; Mr. Ashenden, London; Mr. Christison, Stonehaven; Dr. B. Squire, London; Mr. T. Cooke, London; Mr. Hume, Edinburgh; Dr. Read; Messrs. Lumley, Piccadilly; Mr. Moullin, London; Mr. Aston, Barnetty; Mr. Owen, Teignmouth; Mr. Eastwood, Blackburn; Dr. Thurnan, Highgate; Dr. Wood, Pontypridd; Mr. Cornish, Manchester; Dr. Duggan, Castle Eden; Dr. Knight, Dublin; Dr. Colley, London; Dr. Macdonald, Cork; Mr. Sacker, London; Mr. Hill, London; Mr. Marks; Dr. Jacobs, Dublin; Mr. Burnett, Liverpool; Dr. Bahadhurp, Berlin; Mr. Steat, London; Mr. Stewart, London; Mr. Carter, Liverpool; Miss Meyer, Holloway; Mr. Hunter, Lowestoft; Mr. Sessions Barrett, Skipton; Mr. C. J. Bond, Leicester; Alpha, Birmingham; A Reader; C. T.; H. M.; A. R. W.; Secretary, Liverpool; Medicus, Kensington; Superintendent; C. X., London; M.A. Cantab.; M. R. E.; H. A. C.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Seaton, Sunbury; Miss Garrett, Winchester; Mr. Allen, Dulwich; Mr. Todd, Carlisle; Mr. Bottomley, Ashton-under-Lyne; Messrs. Bromley and Co., Lincoln; Mr. Godfrey, Northampton; Mr. Davison; Mr. Marsh, Wigan; Mr. Macadam, Glasgow; Mr. Moring, London; Mr. Dawson, Leeds; Mr. Walker, Durham; Mr. Hughes, Barry; Mr. Huish, Forest Hill; Dr. Milne, Accrington; Mr. Müller, London; Mr. Jessop, Great Grimsby; Dr. Webber, Crewkerne; Mr. Ryan, London; Messrs. Gale and Co., London; Mr. Beaman, Newton-le-Willows; Messrs. Wyley and Co., Coventry; Mr. Rubenstein, Liverpool; Mr. Nuttman, Great Yarmouth; Mr. Worsley, Ryde; Mr. Parry, Bagillt; Messrs. Wilson and Co., Ipswich; Mr. Dumville, St. Albans; Mr. Crasweller, Highbury; Mr. Hodgson, London; Mr. Mills, Rochdale; Messrs. Giles and Co., Clifton; Mr. Branthwaite, Twickenham; Dr. Mayo, Great Yarmouth; Mr. Reid, Seacombe; Mr. Taylor, Leicester; Mr. Beach, London; Mr. Beddoe, Hereford; Mr. Lindsay, Belfast; Mr. Leeman, Inverness; Mr. Whittaker, Derby; Mr. Telford, Bury; Mr. Grimsley, St. Asaph; Mr. Lang, London; Mr. Allen, Dulwich; Messrs. Bullock and Co., London; Mr. Woodward, Highbury; Messrs. Mottershead and Co., Manchester; Mr. St. Dalmas, Leicester; Mr. Ware, South Kensington; Mr. Stallard, Worcester; Mr. Baird, Bradford; Mr. Davis, Worcester; Mr. Hine, Kennington; Mr. Linney, Hitchin; Mr. Joslen, Workington; Miss Harrison, Stafford; Mr. Wharry, Scarborough; Mr. Hendry, Eastbourne; Mr. Hume, Edinburgh; Messrs. Bell and Bradfute, Edinburgh; Mr. Marquis, Dundee; Mrs. Turrell, Hertford; Mrs. Spreat, London; Mr. Leggatt, Woodgreen; J., Brixton; Alpha, Manchester; Secretary, Glasgow; Alpha, Stratford; M.D., Hornsastle; Meredith, York; D. M.; Medicus, Uppingham; Alpha, Manchester; H. C. S., Beverley; P.; Medicus, West Kensington; D., Edgbaston; G. B., Hampstead; Z. Y. X.; M. Z.; Ozone; Alpha, Bourne; K., Camden-town; Immediate, Hanwell.

Midland Times, East London Courier, Stratford Express, Imperial Federation, Caslon's Circular, Essex Telegraph, Western Mail, Daily Ipswich Journal, Eastern Daily Press, Exeter Evening Post, Oswestry Advertiser, Southport Visitor, South Wales Daily News, &c., have been received.

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Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

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Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

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A Clinical Lecture

ON THE

PATHOLOGY AND TREATMENT OF LARYNGISMUS, TETANY, AND CONVULSIONS,

ILLUSTRATED BY CASES OF THESE DISORDERS IN CHILDHOOD, AND ALSO BY A CASE OF THE TETANY OF ADULT LIFE.

BY W. B. CHEADLE, M.D., F.R.C.P.,

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(Concluded from page 981.)

THE next point of importance, and one of the first moment to us as physicians, is the cause. What gives rise to tetany and the allied conditions, laryngismus and convulsions? Let us take the case of adults first. Trousseau styled the affection the rheumatic contraction of nursing women. This arose from the fact that the first few cases which he saw were all in women who were suckling; and he deemed the affection rheumatic probably because of the pain and swelling of the extremities, really due to the pressure of muscular cramps, and because exposure to cold appeared to be the exciting cause. Subsequent experience led him to modify this view, and he acknowledged many conditions as predisposing. Another antecedent supposed to be almost invariable was diarrhœa. In Trousseau's cases diarrhœa was almost invariably present. He gives one case, however, in which the bowels were obstinately constipated. In ten cases of adults I have found recorded elsewhere, diarrhœa was noted in two only, as absent in four, and in the remaining four not noted. Then another point. In all nineteen cases together—Trousseau's and others—twelve were in women. Of these twelve, seven were suckling, two were pregnant, and one had had several miscarriages recently. Four of these had diarrhœa, and two menstruated while suckling. Tetany comes on in adults also as a sequel to acute specific fevers, especially in cholera and typhoid fever, in which diarrhœa is a prominent symptom. In the vast majority of cases, then, if not in all, tetany supervenes in patients whose nutrition is impaired by drain or flux—that of lactation or pregnancy, or diarrhœa or hæmorrhage.

Let us take now the case of children, and see whether the conditions which favour the occurrence of the disorder in them are in any degree similar. In the first place, the affection in nearly every instance occurs in children under three years of age—the period of rickets, the period of dentition. In the second, in every instance which I have seen the child has also had well-marked rickets. In every one of the fourteen cases collected by Dr. Abercrombie there was marked rickets. Further, in every instance which I have seen the tetany was associated with the first spasmodic disorder—viz., laryngismus. In all Dr. Abercrombie's cases there was likewise accompanying laryngismus. Now, according to my observations, laryngismus is invariably associated with rickets.[1] Again, the third spasmodic disorder is associated with rickets—viz., general convulsions[2]; and a considerable proportion of these cases of tetany and laryngismus suffer from convulsions. Therefore in children spasmodic disorder in these three forms—viz., laryngismus, carpo-pedal contractions or tetany, and general eclampsia—are essentially associated with the rachitic condition. This is, indeed, the key to the subject. The constitutional state in rickets in children, fruitful of tetany and all kinds of convulsion, is closely analogous to the constitutional state in which tetany is apt to occur in adults. Rickets, remember, is not mere defective nutrition of bone, but defective nutrition of *all* structures—of muscle and nerve, as well as of bone. It arises largely on a diet of starchy food—i.e., not by the evil effects of starch and sugar, but because the diet is deficient in animal albuminates and animal fats. It arises frequently, too, where nutriment is drained off by frequent and long-continued vomiting and diarrhœa. Sometimes, again, in a condition closely allied to it, as the result of the cachexia of congenital syphilis. In the child, then, as in the adult, the constitutional state which predisposes to spasmodic disorder is subnormal nutrition. This state is, however, brought about in a different way in the two cases. Children get into the state which favours laryngismus, tetany, or convulsions when the nutrient milk is not given, or its equivalent of animal albuminates and fat. The nursing mothers get into the state which produces tetany from loss of the same nutriment in the milk they yield. In the case of children the fault of insufficient supply is constantly aggravated by the drain of diarrhœa or vomiting. In the case of adults the fault of drain by flux of milk or diarrhœa is frequently aggravated by insufficient supply. The condition of nervous system which renders it so unstable, this hyper-excitability, would appear to be due to defective nutrition of motor cells. Their protoplasm is as ill-nourished as we know the nitrogenous element of muscle to be in like cases. Look at the myoidema of wasting diseases. Muscle is hyper-excitable in this condition; nerve centre is hyper-excitable likewise. There is no affection of the governing cerebrum, for there is no affection of the sensorium, but an undue excitability of the motor ganglia of the cord; probably no permanent organic change.[3] This is perhaps not all. There is an immediate exciting cause; the reflex irritation of diarrhœa, or teething, or exposure to cold, or indigestible food. But the constitutional defect is the essential antecedent, the predisposing cause underlying all, rendering the nervous organism morbidly sensitive to slight irritation. As in the strychnia-poisoned frog, tetanic symptoms may not be developed if it remains quiescent, but the stimulus of a shake or jar brings on a convulsive seizure. Now, gentlemen, I lay stress upon these points of etiology and pathology, because they bear so strongly upon treatment, and this is of vast importance. The disease, indeed, involves little risk to life in the case of adults. I know of two cases only on record in which the disease proved fatal.[4] With children, however, the case is otherwise. They do not die of the tetany, but they do die of laryngismus and convulsions, sometimes of concurrent exhausting diarrhœa, or bronchitis, or catarrhal croup. The majority get well, but now and again death occurs. So long as the condition of excessive irritability of the motor nervous system evidenced by the carpo-pedal contraction and attacks of laryngismus remains, so long is the child in danger from spasm of the glottis, fatally prolonged, or the supervention of general convulsions.

Treatment.—In the olden time treatment was chiefly divided towards relieving a supposed congestion of the brain and cord. Trousseau relied upon bleeding for this purpose in tetany, and claims great success for it. He also gave quinine, opium, belladonna, and chloroform inhalations. Yet his claim to success seems hardly borne out by the evidence. In the case of one woman who died, bleeding aggravated the symptoms, the muscles of respiration became affected, and asphyxia appeared imminent. Twelve leeches were then applied behind the ears, but before they had fairly taken the patient succumbed. In the case of a man also who had tetany in the most severe form, bleeding from the arm, repeated several times, was followed on every occasion by increased contractions involving the muscles of respiration and threatening asphyxia. Cupping along the spine, however, appeared to give decided relief, and the patient recovered, possibly in spite of the treatment rather than in consequence of it. But, indeed, bleeding, in persons already exhausted by drain or deficient nutriment as these patients are, would seem to be the very worst therapeutic measure possible. We know, moreover, that loss of blood in quantity tends to produce the convulsive state. Animals bled to death die convulsed; animals starved to death sometimes die convulsed. In the case of these poor debilitated, rickety children, bloodletting, even in the mild form of

[1] Dr. Gee found this fault—viz., rickets—in 48 out of 50.

[2] Dr. Gee noted general convulsions in 19 out of 50 cases of laryngismus.

[3] In a fatal case of mine (examined by Dr. Abercrombie) the brain and membranes were healthy, the medulla and cord seemed rather firmer than usual, and the grey matter, if anything, too pale. No other change in any organ. Langhaus (quoted by Abercrombie), in a fatal case in a man aged forty, found some changes, especially in the anterior white commissure of the cervical enlargement—viz., thickening of the tunica adventitia of small arteries and veins, due to the presence of lymphoid cells in the reticulated stroma. (Is this the result of congestion set up by convulsion?) The affection is transient; it is not *a priori* likely that it depends on permanent organic changes.

[4] Trousseau's case, and that of Langhaus noted by Abercrombie.

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leeching or cupping, is out of the question. The practice is based upon a pathological error.[5] The condition of the nerve centres is really one of anæmia already, not of congestion.

The objects to be sought in the treatment of tetanoid laryngismal convulsive disorder of childhood are threefold—(1) to relieve dangerous convulsive seizures when they occur, (2) to ward off these attacks from recurring, and (3) to remove the constitutional rickety state which predisposes to them. For the first purpose:—In laryngismus, a dash of cold water in the face, a hot sponge to the larynx, a finger in the throat to induce the act of vomiting, are approved methods to unlock the dangerous spasms. In general convulsions, the vapour of chloroform may be given between the seizures, or ten grains of chloral and twenty grains of bromide may be given by injections into the rectum, or from one to three grains of chloral in solution injected hypodermically in an urgent case. The latter I have tried once only, but with an excellent effect. It is often impossible to give medicine by the mouth, and a hypodermic injection acts more quickly and more certainly than one into the rectum. For the second purpose (i.e., to ward off attacks) give chloral and bromide. Each good, but best both together. They have a marvellous power, chloral especially, in averting tetany and laryngismus, and probably in preventing general convulsions. They must be given in fairly full doses and at regular intervals of sufficient frequency, so that the system is kept constantly under their influence. For a child of six months, half a grain of chloral to one or two grains with three of bromide every four hours. For one a year old, from one to three grains of chloral with five grains of bromide every four or six hours, and so on in proportion. Children bear chloral well. Dr. Wilks gave to a boy three years old with tetany ten grains of chloral three times a day with the best effect. Bouchut gave thirty grains to children of two to five years, sixty grains to children of seven years, to produce anæsthesia for operation. I should not hesitate to give much larger doses than those I have indicated should urgent symptoms arise. In one case of severe tetany in a boy of two years, in which chloral (two grains) and bromide (five grains) given every four hours failed to produce improvement, I gave one-twelfth to one-fifth of a grain of Calabar bean with good effect. With larger experience I should try much larger doses of chloral in a similar case before resorting to Calabar bean. Let me give, however, this warning with regard to the free use of bromide and chloral. Bromide in five-grain doses every four hours for some days occasionally produces severe pustular rupial eruption. Chloral at most induces drowsiness, therefore rather push chloral than bromide in case of necessity. This treatment by sedatives may have to be continued in greater or less degree for weeks and weeks, until the tendency to spasm permanently declines. Thus gaining time by keeping the nervous system in safe quiescence, you proceed to treat the rickety state, the evil condition which underlies and is the prime source of all. For this purpose give milk, cream, or raw meat if milk cannot be borne, with the best kinds of infants' food, or entire wheat flour (rich in phosphates and nitrogenous matter); later, cod-liver oil and syrup of lacto-phosphate of lime or of lime and iron. Another useful adjunct in increasing nutrition and aid in increasing blood flow to the anæmic nerve centres in these cases is brandy, half a drachm to a drachm, given in half an ounce to an ounce of food every four or six hours. It has also another advantage: it acts on children chiefly as a sedative and narcotic, and produces no excitement. And I must enforce the paramount importance of this full nutrient treatment, because there is a common and grave error pervading practice in these cases—viz., that of adopting a spare and lowering diet, such as barley-water, weak broths, and arrowroot. Such had been the medical advice given in the second case which I related: a most pernicious plan, against which I wish to protest as strongly as possible—the remnant of the old idea that the morbid condition at the root of the disease was one of plethora and active congestion, instead of debility and anæmia. Moreover, many confound a full nutritious diet with an indigestible irritating diet. Raw meat, for instance, is not indigestible; it is most digestible as well as most nutritious—i.e., the soft pulp scraped free from the fibre; and so with cream. A spare, thin diet, such as veal broth, barley-water, and arrowroot, is no more digestible, and infinitely less nutritious. Let me repeat, then, that the food should be as digestible and nutritious as possible, with a high proportion of animal albuminates and fats. Then, again, this evil of low diet in these cases is constantly heightened by the over-use of strong purgatives and depressant drugs: aiding artificially the very condition of draining off of nutriment and deficient vitality we know to be the prime fault of the disorder. If the immediate exciting cause of convulsion be the irritation of undigested food, a dose of castor oil should of course be given at once; or if there be obstinate constipation, sufficient doses of some simple laxative, such as magnesia, may be given to relieve it, or a single dose of calomel may be useful on occasion. But the free and frequent use of strong purgatives does nothing but harm. Lastly, if diarrhœa be present—and you will remember that it is an almost constant accompaniment of the rickety and tetanoid state—it must be controlled. For it is injurious in two ways: (1) by draining off nutriment from the alimentary canal before there is time for it to be absorbed, and (2) by the reflex irritation it sets up. For the relief of diarrhœa bismuth is one of the best remedies. It should be given in the form of the insoluble trisnitrate, and in full doses; the doses usually given are far too small to be really effective: four or five grains every four hours to a child six months old, and more in proportion to age, and with it a quarter of a drop of laudanum, or the castor-oil mixture of the Hospital Pharmacopœia, one, two, or three drachms every four hours, with a quarter to one drop of laudanum according to age; or, if there be sickness with the diarrhœa, from half to one grain of grey powder, with from a quarter to half a grain of Dover's powder, according to age, may be given every four hours; or a mixture of chalk and catechu with hæmatoxylum and small doses of tincture of opium, if the alvine discharges are watery and profuse. But astringents are less valuable than drugs like bismuth, chalk, and the sedative opium.

[5] Experiments show that convulsive seizures and spasm (apart from organic disease, such as meningitis, tumour, &c., or poisoning) are produced by two causes chiefly: (1) carbon products in blood—venosity; (2) anæmia of nerve centres. Kussmaul and Tenner (see Stirling and Landois, vol. ii., p. 901) found the spasm centre in the medulla could be excited by (*a*) suddenly producing a highly venous state of blood, either by asphyxia or by compressing the veins coming from the head, or (*b*) by sudden anæmia of the medulla, either in consequence of hæmorrhage or ligature of the carotids and subclavians. In all these cases the stimulation of the centre is due to the sudden interruption of the normal interchange of gases.

Lectures ON INJURIES OF NERVES.

Delivered at the Royal College of Surgeons,

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LECTURE II.

TROPHIC CHANGES CAUSED BY NERVE INJURY.

MR. PRESIDENT AND GENTLEMEN,—In addition to the partial or entire loss of sensation and motion in the parts supplied by the divided nerve, the various tissues are liable to undergo changes which are chiefly of a degenerative nature, though sometimes combined with inflammatory conditions. The extent to which these changes are dependent on a want of nerve force will be left for future consideration, and for the present it will be sufficient to study the morbid processes themselves. The first authors to draw attention to the altered nutrition of the parts supplied by a divided nerve were Hilton in his lectures on Rest and Pain (p. 199), and Paget in the *Medical Times and Gazette* of March, 1864; but since then they have widely occupied the interest of surgeons, and it would be impossible to allude here to all the writers on this subject, amongst whom the names of Charcot, Weir Mitchell, and Hutchinson occupy the foremost places. It must first of all be premised that many of the changes to be described, which will be known once for all as "trophic changes," are not by any means the invariable sequel of nerve section, but rather that, instead of such conditions being the rule, some of them are the exception.

The skin.—The condition of the skin most characteristic of nerve lesion is a smooth shiny-red appearance, generally known by the name of "glossy skin." The description of Paget in the *Medical Times and Gazette*, already alluded

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to, yet remains the most graphic. He says: "In well-marked cases the fingers which are affected (for this appearance may be confined to one or two of them) are usually tapering, smooth, hairless, almost void of wrinkles, glossy, pink or ruddy, or blotched as if with permanent chilblains. They are commonly also very painful, especially on motion, and pain often extends from them up the arm. In most of the cases this condition of the fingers is attended with very distinct neuralgia, both in them and in the whole arm; and its relation to disturbances of the nervous condition of the part is, moreover, indicated by its occasional occurrence in cases where neuralgia continues after an attack of shingles affecting the arm. In two such cases I have seen this same condition of the fingers well marked and only very slowly subsiding, and seeming unaffected by the ordinary treatment of neuralgia."

Weir Mitchell,[1] while agreeing with Paget's description, also remarks that the epithelium is partially lost, and that the cutis is exposed in places, while the subcuticular tissues are wasted. The same author notes that "where a single nerve, as the ulnar, had been attacked, the described state of the skin was seen only in its ultimate distribution; but in other instances of more extensive nerve injury the central palm suffered, or a single finger, or the pulps of all of them. In others the palm or fingers were dotted with islets of thin, red, and glossy skin. The dorsum of the hand, as a rule, was in that member the part least subject to the alteration, while the dorsum of the foot was in that region the part most liable to suffer..... The state of the skin to which I refer is never present without burning pain, and commonly the earlier presence of this form of neuralgia enabled us to predict the coming of the skin disease. In no case did it become visible short of two weeks, but usually it preceded the healing of the wound, and not rarely was to be traced to an outbreak of inflammation involving the wound. The duration of the malady varied from a few weeks to years, but in all the cases I have been able to follow it has either been cured or gradually disappeared."

The foregoing descriptions mainly agree with my own observations. Weir Mitchell's statement, however, that this glossy skin is "never present without burning pain," admits, I think, of some doubt, and I question if the same condition is not sometimes permanent, despite his opinion to the contrary. Both of these points are illustrated by the following case.

W. H——, aged forty-two, divided his median nerve two inches above the wrist in August, 1870. On July 19th, 1882, I found the skin over the back and front of the two last phalanges of the index and middle fingers red, glazed, and tightly stretched, so that it could not be pinched up in the least; there was no appearance of any papillæ or of hair; the fingers as a whole were very thin and tapering. He had no pain of any kind except in very cold weather, when he said the affected parts caused a tingling sensation of "pins-and-needles." In this man, then, the glossy skin had existed twelve years, and as the patient assured me it showed no sign of improvement, we may fairly conclude that the condition was likely to remain permanent. In another case of an old man who had divided his ulnar nerve ten years previously, the skin over the little finger and part of the ulnar side of the palm remained glossy, yet without pain, except, as in the previous case, in cold weather.

In addition to the glossy condition just described, the skin is liable to various forms of eruptions, which may or may not occur coincidently with the above affection. Of these, undoubtedly the most common form is a vesicular rash, sometimes presenting an appearance very similar to herpes, but frequently occurring as large bullæ, such as are seen in pemphigus. As in the case of glossy skin, it is chiefly the parts at the extreme periphery of the nerve which are affected, and these in a most irregular manner. For instance, after division of the median nerve it is common to find any one of the three digits supplied by it the seat of a bulla, while the others are healthy. The earliest date after nerve section at which I have found the appearance of vesicles recorded is the second day. The case is detailed by Mr. I'Anson in the *Medical Times and Gazette* for Dec. 30th, 1871. Weir Mitchell saw the thumb rapidly covered on the fourth day by a large bulla, and "looking as if blistered." These eruptions are very common for some months after the primary lesion, but in cases where the section has occurred some years previously I have not met with them, nor do I find mention of them by other writers under similar circumstances.

In addition to the vesicular eruptions, Weir Mitchell describes an eczematous condition of the skin which he thinks is more frequently found than true herpes; and, indeed, it often becomes very difficult to give a name to a rash which is not quite like any that occurs under other circumstances. In some cases the inflammation of the skin is more intense, and results in the production of abscesses or ulcers. The former, which have been particularly described by Hutchinson under the name of "subcuticular whitlow," are most common, as their name implies, at the tips of the fingers; the pus in them is only covered by the upper layers of the skin, and the nail is sometimes destroyed; the course of the whole inflammation is, however, painless. The ulcers which are found at the tips of the fingers are frequently the result of a subcuticular whitlow, which has burst, and thus exposed the delicate papillæ, which, being free of all tactile sense, are constantly liable to irritation by surrounding objects. The ulcers thus formed sometimes proceed to the destruction of a considerable amount of tissue, and I have seen one case in which nearly the entire tip of the index finger and part of the middle were so eroded within five months of the accident. It must, nevertheless be borne in mind that many of the ulcers which follow nerve section owe their primary origin to some traumatism, and more especially to the effect of heat and cold acting on an anæsthetic part. In one case that came under my notice the man had burnt the end of his finger with a lighted pipe; in another, by carrying very hot plates; in a third, by touching one of the bars of a fireplace; and such instances could be indefinitely multiplied. In many patients, as pointed out by various authors, the ulcers heal with great readiness; but such is not always the case, more especially, I am inclined to think, where no traumatic origin was present as an exciting cause. In the case above mentioned of destruction of the tip of the index, the ulcer, after healing, again broke down, while the hand was completely protected from injury; and in another the ulceration was still present ten months after the division of the nerve, and slow to heal. In a few rare cases a whole finger or fingers become completely gangrenous. Hilton describes such a case in his work on "Rest and Pain," in which the two last phalanges of the fifth and the tip of the fourth finger were completely separated by a line of demarcation. The cause of this was an exostosis pressing on the ulnar nerve in the subclavian triangle and also causing occlusion of the subclavian artery. There can be no doubt that this plugging of the vessel would act as a predisposing cause, but, as Hilton justly points out, the whole of the hand was subjected to the same influence, though only those fingers supplied by the ulnar nerve suffered. A less equivocal case is that recorded by Mr. I'Anson, already alluded to. Here the median nerve was divided at the wrist in a man aged twenty-four on June 8th. Two days later vesicles and black patches appeared on the fingers, but improved under galvanism. On Aug. 11th bullæ again appeared, and were followed by gangrene of the whole index finger.

In the following case gangrene of a part of the hand followed on division of the ulnar nerve.[2] On Nov. 29th, 1881, N. P——, aged forty-seven, received a severe lacerated wound from a circular saw on the inner side of the forearm, dividing, together with other structures, the ulnar artery and nerve. The artery was tied, and the wound dressed with carbolised oil. The wound healed by December 24th. The patient was then discharged as cured, but returned on January 6th, 1882, with gangrene of the ulnar side of the hand extending into the little finger. The whole hand was œdematous. Finally, a slough about half an inch deep came away and the gangrene ceased to extend.

The nails and hair.—The nails and hair, as might be expected, share in the changes affecting the skin. While speaking of subcuticular whitlow, I have mentioned that the nail of the affected finger sometimes perishes, but the nails occasionally undergo other changes in shape and texture of a kind peculiar to nervous lesions. Judging from a considerable number of cases of such injuries that have come under my own notice, I should be inclined to consider characteristic changes in the nails as not very rare, although this opinion is unsupported by the almost complete absence of any mention of such diseased nails by other authors. Thus, of seven cases recorded by Hutchinson of divided

[1] Injuries of Nerves, p. 157.

[2] Root. New York Medical Record, 1882, p. 560.

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nerves, in only one were the nails found to be "stumpy, broken, and uneven on the surface"; while other English surgeons have passed over the question in silence. Weir Mitchell, Morehouse, and Keen, however, in some patients noticed very considerable lesions. They say: "The alteration in the nail consists of a curve in its long axis, an extreme lateral arching, and sometimes a thickening of the cutis beneath its extremity. In other cases a change takes place which is quite peculiar, and which to us at least was new. The skin at that end of the nail next to the third finger-joint becomes retracted, leaving the sensitive matrix partly exposed. At the same time the upper line of union of skin and nail retreats into or under the latter part, and in place of a smooth edge is seen through the nail a ragged and notched border. The patient who presented these changes in the most striking form had also lateral arching of the nail, but no longitudinal curving. It was a case of most terrible suffering from a combination of burning pain in the hand and neuralgic pain in the forearm. No deformity of nails in tubercle at all approaches that which nerve wounds occasion. Indeed, we think it would be possible for one familiar with these cases to diagnose the existence of a nerve lesion from the form of these protuberant and oddly curved nails. When the nails of the toes have been attacked, and they are very rarely so, the curving is less marked; but a distressing ulceration is apt to occur at their angles, and to break out again and again, despite of every care and attention. In many cases of nerve wounds, where there is only ordinary neuralgia, and not glossy skin and causalgia, I have seen the nails clubbed in some places, and in others dry, scaly, cracked, and fragile. Occasionally they are very thin, so as to be tender—atrophied, in fact. ..... Even complete nerve section does not prevent lost nails from being re-formed."

In the above graphic description, however, the authors do not mention in what proportion of cases they observed such lesions, or whether they occurred as a rule in recent divisions or in those of later date. It has appeared to me that after nerve section there may be simply a diminution in the rapidity of growth of the nail, combined with a stunted and fibrous appearance, or else that changes of a more special nature such as those described above may be observed. Of eleven cases of old injury which I examined consecutively, in only one was there any stunted and fibrous appearance of the nails. The other ten patients exhibited no morbid changes whatever, and for the most part expressed their opinions that the nails of the one hand grew as rapidly as did those of the other. In ten consecutive cases of more recent nerve section, within a year of the accident eight patients showed no change in the nails, but in the two others the latter presented a very strange and characteristic appearance, in many respects resembling the description by Weir Mitchell.

The first patient was a boy aged fourteen, who had sustained a division of the median and ulnar nerves nearly a year previously. The nails of all the fingers were short, stumpy, and broken, excessively arched both longitudinally and transversely, with transverse furrows and ridges running across them, the latter being marked with a delicate longitudinal striation, giving them a "toothed" appearance. The nails were thick and not tender, and the surrounding skin was not retracted from their bases. The patient said that they had been in this condition ever since a few weeks after the accident; he thought they grew as rapidly as those on the opposite hand.

The second patient was a lad, aged seventeen, who had divided the median nerve five months previously, and in whom partial union had resulted, and was still progressing. The nails of *all* the fingers and thumb presented conditions very similar to those just described, except that the nails were very long—a condition, combined with their extreme curvature, which gave them a talon-like appearance. In this respect the thumb nail differed from its fellow, being short and only half grown; this was accounted for by the fact that the nail had been painlessly shed from this digit a month previously, and had not yet grown. The patient said that all the nails grew rapidly, and their appearance certainly warranted the statement.

These cases, and others that I have since seen, would tend to the belief that trophic changes in the nails appear soon after the nerve injury, as might be expected from the time at which similar lesions are found in other parts. Each patient had lost one nail entirely, a loss which may fairly be attributed to a more complete cutting off of trophic influences from this digit than from the others. In addition to the curvature, the most characteristic appearance was found in the peculiar striated or toothed condition of the transverse ridges, which was quite different to anything I had seen. In the last patient perhaps the most surprising fact was that, although it was quite certain that only the median nerve had been divided, the nails on the fourth and fifth fingers were quite as much affected as those of other digits. This peculiarity I have seen in other cases.

Changes in the hair growing in parts deprived of their nerve supply have appeared to me to be very common. In most of the cases I have examined, the hair, when any has been present, has appeared short, stumpy, and brittle. In some patients it was altogether absent, and, as has been remarked by Paget and Weir Mitchell, especially in cases of glossy skin. I have only once been able to obtain any portion of skin for microscopical examination, so as to see the exact conditions of the hair follicles, and found in it that the absence of the hair was accompanied by a corresponding degeneration of the follicle. In some rare exceptions, the growth of hair after nerve wounds has been very excessive. Weir Mitchell quotes several examples, but does not appear to have seen cases himself, and none have come under my own notice. Hamilton, however,[3] records a case in which a nerve appears to have been wounded in the operation of venesection, and in which symptoms of chronic neuritis ensued, the arm being subsequently covered by a rich growth of hair. The patient was a young lady.

The *connective tissues* deprived of their nerve supply usually undergo atrophy, and the palmar fascia sometimes shrinks and becomes indurated in a very noticeable manner. In some patients there is developed a great tendency to œdema, a condition which is probably due to section of some of the vaso-motor nerves. Weir Mitchell has described, in addition, cases where hypertrophy of the connective tissues was very marked, apparently the result of chronic œdema.

The *secretion of sweat* is in most cases more or less affected. By most of the patients I have seen in whom the injury was of some standing there was a tolerable certainty expressed that the parts deprived of their nerve supply were always dry. I examined some of them on very hot summer days, and in most of them the parts affected remained dry, while the rest of the hand was moist, and this despite energetic friction. In some cases, apparently those of partial division complicated by neuritis, the secretion of sweat has been described as excessive, and Weir Mitchell records cases in which it was very acid and foul-smelling.

Considering these facts by the light of recent researches in physiology, it might almost be said that such conditions would be only just what we might expect from nerve section or irritation; but it is interesting to note that they were observed before experiments had proved the dependence of the secretion on nerve supply.

The *temperature* of the paralysed parts often differs considerably from that of the opposite side of the body, of contiguous digits, &c. Immediately after section of a nerve—e.g., the median—the distal parts become suffused with blood, and appreciably hotter to the touch. Waller and Weir Mitchell have both shown that a similar rise of temperature follows on freezing the ulnar nerve at the elbow, and the latter observer has also demonstrated that this elevation does not occur if a tourniquet has previously been placed on the brachial artery,[4] thus showing the dependence on the vaso-motor system. This increased heat is well instanced in the following two cases:—

A man, aged thirty, divided his ulnar nerve on May 8th, 1885, and came at once to St. Bartholomew's Hospital, where the cut ends were sutured by the house surgeon, Mr. Murray. Eight hours after the accident the temperature taken between the fourth and fifth fingers was 100·2°, between the first and second, 99°.

	Between 4th and 5th fingers.	Between 1st and 2nd fingers.
May 10th	99·0°	98·0°
„ 11th	99·6	98·2
„ 14th	98·0	97·4
„ 15th	98·2	98·2
„ 16th	101·6	101·6
„ 18th	100·6	99·6
„ 19th	99·4	98·8
„ 20th	98·0	97·6
„ 21st	99·0	98·0

Speaking generally, the temperature of the paralysed fingers averaged about 1° higher than that of the others.

[3] Dublin Journal of Medical Science, 1838.
[4] Archiv of Sci. and Prac. Med., New York, 1872.

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and this variation remained constant despite alterations in the general body temperature.

In the next case a woman, aged twenty-seven, divided her median nerve at the wrist. The following day the temperature between the index and middle fingers was 99°, whilst that between the ring and little finger was 96·6°; the day after, the temperature between the index and middle fingers was 98·8°, that between the ring and little fingers 97°.

The following case by Richelot[5] is a very remarkable instance of the rise of temperature that may follow on separation of peripheral parts from the nervous centres:—

Fracture of humerus followed by neuroma of median nerve; resection of nerve followed by rise of temperature in hand.—A man aged twenty-six was admitted to the hospital of La Pitié on Dec. 30th, 1882, on account of severe pains in the right forearm. His history was that at the age of seven years he had sustained a compound fracture of the lower end of the right humerus, and that the arm had always been in a weak condition and the elbow had been stiff. On admission there was found to be on a level with the site of fracture a small oval swelling the size of an almond, situated apparently on the median nerve. Pressure on the swelling caused pain referred to the thumb, index and middle fingers. In these fingers also sensation was much impaired. The muscles of the forearm and of the ball of the thumb were much wasted, but were not completely paralysed. The temperature of the hand on the affected side was 4·5° below that on the opposite side. On January 15th, 1883, Mr. Verneuil removed the tumour by operation, completely cutting out the portion of median nerve from which it grew, and not stitching the cut ends, but leaving them widely separated. The tumour itself was found to be a fibroma, separating the nerve tubules, and by its pressure destroying some of the nerve bundles. After the operation the temperature of the hand on the side on which the operation had been performed—i.e., the right—was 34°, of the left 30°. The day after the operation the temperature of the right hand was 35°, and of the left 25°. Sensation was still further lost, but was *nowhere entirely absent*. The further history of the patient is not given.

But although immediately after injury and for a varying number of days there is an increase of temperature in the peripheral parts supplied by the damaged nerve, yet in the course of about three weeks there is a decided fall of temperature, so that in by far the larger number of old nerve wounds the peripheral parts are cold and livid. The amount of loss of heat varies much. In one of Hutchinson's cases it was as much as 16° compared with the fingers of the opposite side, in two others 10°; and, indeed, it may vary between these and the normal temperature in a manner which admits of no rule being formulated. In a case brought before the Pathological Society,[6] the gradual restoration of heat, coinciding apparently with nerve repair, is well instanced. The patient was a boy aged six years and a half, who suffered division of his ulnar nerve in August 1861. In October of the same year the temperature of the fingers supplied by it was 10° lower than that of the others which derived their supply from the median and radial. On November 28th the difference was 5°. In July, 1862, the same. In February, 1866, there was only a difference of half a degree, and the muscles had resumed their normal bulk. Sometimes, however, even in cases of old injury, instead of any loss being discoverable, there is a distinct increase of heat, and Weir Mitchell found the temperature raised one or two degrees in cases of what he calls "causalgia." These cases seem comparable with those of increased sweating.

The *muscles* in connexion with a divided nerve undergo a rapid atrophy and degeneration, of a character which is completely different to the simple decrease in size which follows upon non-use. The final result of this process is a transformation of the muscle into a mass of fibrous tissue, firm and dense, neither contractile nor elastic, usually mingled with a little fat. For some time after the nerve lesion the muscle feels limp and flabby, the patient can exercise no control over it, and the tendon into which it is inserted no longer stands in relief under the skin; the muscle has, in fact, lost tone. This condition is gradually followed by wasting in bulk, and frequently by shortening of the muscle in its long axis. Vulpian describes a reduction in the diameter of the primitive muscle bundles, with granulo-fatty changes and complete disappearance of certain fibres: "In the early stage of alteration, the primitive fibres appear to be segmented, the muscular substance persisting in some places and being absent in others. At the same time we observe the formation of a more or less considerable quantity of fat-vesicles in the connective tissue which separates the secondary bundles of fibres, and much more rarely between the primitive fibres." Multiplication of the nuclei of the connective tissue of the muscle is also observed, while the vessels suffer only a loss of calibre, without other changes. The faradaic and galvanic excitability of the muscles is soon lost, but at present I shall not further allude to the changes in the electrical reactions, as I propose to treat of them at greater length in the section on Symptoms of Nerve Injuries.

(To be concluded.)

[5] Bull. et Mém. de la Soc. de Chir. de Paris, 1883, p. 438.
[6] Path. Soc. Reports, vol. vii.

Address

Delivered on May 6th, 1887, at the Meeting held for the formation of an

ANATOMICAL SOCIETY.

By PROFESSOR HUMPHRY, F.R.S.

GENTLEMEN,—I fully appreciate the honour you have done me in voting me to the chair on this occasion. The reason for your doing so may be found in the fact that my commencement of the study of anatomy dates from more than half a century ago, during much of which time I have been a teacher of anatomy, and it is therefore pretty certain that I am the senior anatomical student as well as the senior anatomical teacher here present; and though I have now to a great extent relinquished the study and teaching of anatomy, yet it may be supposed that I still cast lingering looks behind upon that field in which I for so many years worked happily and earnestly, and, I hope, not altogether unprofitably. I appreciate the honour, however, more especially because I feel that this is an important occasion—an epoch, it may perhaps be regarded, in the history of anatomy, and an occasion of much importance to the study of medicine generally. We are met together for the purpose of elevating the study of human anatomy, and placing, or endeavouring to place, the science of human anatomy on a level with, and in that proper relation to, the other branches of natural science which I think it has not for some time held, and which relative decadence is greatly to be attributed to the fact that it has not advanced *pari passu* with them. Since the time of Hunter, Cruikshank, Astley Cooper, and the Bells, human anatomy has lacked its proper interest, and has not held its own with the other quickly progressing branches of natural science. Hence it has come to be regarded as a merely practical subject, and its study to be merely a process of piling fact upon fact without due regard to the purport of the facts and the suggestions to which they should give rise. Far be it from me to disparage the value of anatomy as a practical subject, seeing that in this way it confers the greatest benefits upon humanity, and has, and ever must have, the first and chief claim to our regard. Nor would I disparage the educational benefits resulting from the acquisition of a clear and accurate knowledge of the structure of the body and the mental training derived thereby, which is of so much value to those who are entering upon the pursuit of medicine. But I feel that the study of anatomy should not be regarded from this point alone, but that a wider and higher view should be taken of it. The human body is undoubtedly the highest and most perfect of created works, the last and most perfect outcome of nature's laboratory, the central one around which all the rest of the animal world is grouped, to which all point, and which all are calculated to elucidate. It is provided with a surpassing mechanism, great results being produced by slight modifications from the forms of other animals, and the resultant being such acuteness of perception, and such variety, nicety, and precision of movement, as to give man the mastery over all others, and enable him to bend all

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nature to his purpose. Moreover, its proportions, the outlines of its form, and the power of expression of its several parts in both sexes and at all periods of life, are such, and present so much beauty and variety, that it has formed subjects for the highest efforts of the greatest artists of all times, from Phidias and Raphael to Leighton and Millais. Further, in it the physical is worked up into that complex and mysterious elaboration and process which enables it to become the organ or agent of the mental and intellectual, the seat of the soul, the abode of Deity. The problems and conceptions, physical, artistic, and psychical, arising out of and associated with this material frame of ours, infinitely surpass in number and interest those of all other existing forms. It may be regarded therefore as one of the marvels connected with it, that the study of it should come to be regarded as dull and uninteresting, and profitable only for its direct practical relations with medicine and surgery. Surely it needs only the proper impulses, such as we trust will in part be furnished by the proposed Society, to obtain for it a due appreciation and position among the higher and educational sciences. It was this feeling which urged me to contend strongly, and I am glad to say successfully, for a place for human anatomy among the natural sciences at Cambridge; and I am convinced that it would be a benefit vibrating along the whole line of medical education if at the early stage of that education the student were accustomed to reflect upon what he sees and reads of in his anatomical course, and to associate thoughts respecting the mechanical and other relations of the structures which he dissects. One of the greatest, perhaps the greatest, defect in medical education—I might say in all education more or less, but in medical education especially—is the heaping upon and oppressing the student's mind with a load of facts which he neither digests nor appropriates, and which he therefore does not retain. His mind is like a sack crammed with grain which there is little power to fertilise or utilise. Far better would it be to lessen the load and to substitute the habit and the ability to reflect and really digest and appropriate the remainder—to give some opportunity for mental elasticity, and for that enjoyment of study which results from a real knowledge and appreciation of what is learned. As a general rule, we remember only — at any rate, we remember best — that information the bearings of which we have well understood, and which has consequently most interested and impressed us, and which we have most enjoyed. To make anatomy better remembered and a better mental training, it must be made more interesting, more attractive, and more thought-inspiring; and this is to be done by giving to it its proper scope as a medium of information, and by imparting to its details, which are now too cold and dry and sterile, the warmth and life and thought-budding energy which should belong to them. I have spoken chiefly of human anatomy because to it these remarks especially apply, and because the human body is the subject of the most serious and arduous study, and the manner in which it is prosecuted is the most important and the most relevant to our purpose. Not that the scope of the proposed Society is to be limited to it, but that our greatest opportunities for good will be in relation to it. Anatomy—the anatomy more particularly of the human body—is a very ancient and dignified science; indeed, a royal science. It was studied ages and ages ago by the people on the banks of the Nile, from whom we have derived so much; and we were told the other day at Cambridge by my learned successor in the chair of Anatomy that the earliest writing upon it of which we have any cognisance was by an Egyptian king who had passed away long before the exodus took place. It is for us to make it a royal science in a higher sense, and to give to the human body its proper royalty of position in the animal world, not merely by having regard to the paramount practical importance of its study, but by considering it also in relation to its mechanism or physical physiology, in its relation to embryology, in its relation to the anatomy of other animals, and also in its relation to the special structural features which may be associated with the occurrence of certain diseases. The attendance this afternoon shows a general interest in this movement, and augurs well for the formation and prosperity of the Society, which, I trust, will prove long-lived and useful. I will occupy your time no longer, for the relation between the brevity of life and the length of art, and the value of brevity in word as well as in action, are becoming daily more manifest in the quickly shifting scenes of this singularly mobile age.

TWO CASES OF THOMSEN'S DISEASE.[1]

BY THOMAS BUZZARD, M.D.,

PHYSICIAN TO THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

So far as I am aware, no case of the remarkable condition to which the name of "Thomsen's disease" has been applied has yet been described as having been observed in this country. Examples have been reported from Germany, France, Russia, Italy, Sweden, and the United States, whilst the description given by Dr. Thomsen, of Kappeln, Schleswig, himself a sufferer and a member of a family largely affected with the disease, is well known as the source of the name which has been bestowed on the affection. I would refer those interested in the literature of the subject to a digest of it published by Dr. Paul Chapman in *Brain* (April, 1883), which has been continued up to date by Dr. Hale White in the same journal (April, 1886). These two articles contain an admirable summary of existing knowledge upon the subject.

The patient, E. C. F——, aged twenty, engaged in a commercial pursuit, was sent to me by Dr. Izod, of Esher, on account of a peculiar difficulty in the movements of his limbs. As long as he could remember he had always suffered more or less from this trouble, but it had been noticed especially of late when he began to enter upon the duties of his business. In his own words, "before doing anything he feels that he must get his muscles ready." If he has been at rest for a short time and goes to make a movement the muscles not only contract but remain contracted, so that a very strong effort on his part is required to make a fresh movement. He cannot run upstairs; after taking one step he is not ready to follow it up with another. On seating himself he is often unable to flex the knees, so that his legs remain for a time rigidly extended. And so, again, on wishing to rise the muscles appear to be "set," and it is only by strong exertion that he can effect the necessary movement. He has often fallen down upon a railway platform on alighting from a carriage, because he has been unready to take the second step necessary to preserve his equilibrium.

It is characteristic of his condition that the difficulty described is only temporary. After a few flexion and extension movements of the knee the tendency to stiffness ceases, and does not return until after he has rested for a few seconds. Thanks to this peculiarity, he can ride a tricycle very well after overcoming the stiffness which results from the first attempts to move the treadles; but if an impediment on the road should compel him to cease "paddling" he encounters the old difficulty in recommencing. So, likewise, he can play lawn tennis very fairly when he has overcome the stiffness which obstructs his movements at the beginning. In skating recently, he observed that if he were stopped suddenly, as in a collision, he could not go on again for a few seconds; and if he fell, he lay "like a log," unable at first to move a limb. He feels difficulty in beginning to run, but after a little while goes on very well. He can stop easily enough, but his limbs then grow stiff, and he cannot start again for a few seconds. The difficulty in beginning to move after rest, or in changing one movement for another, is intensified by anything producing "nervousness." If, for instance, he is called sharply, he finds his muscles more than ever unfit to obey the orders of his will.

The patient is a sturdy-looking young man of middle height, whose general health has always been excellent. When stripped the thighs are found to be extraordinarily developed, so that one is reminded, as he stands, of the sculpture of Michael Angelo, the muscles being sharply mapped out, and standing forth when in action in bold relief. When contracted they feel firm and hard, but in a quiescent state are perhaps inclined to be somewhat flabby. The actual muscular force, as tested by the power of resisting passive movements, is distinctly less than might be expected from the bulk of muscle displayed; and the patient himself says that he is not very strong, and somewhat easily tired. When seated and asked to extend the leg upon the thigh, it is only after an interval of several seconds that he can do so. And

[1] The substance of a communication made to the Neurological Society of London at the meeting held on Jan. 27th, 1887, when the elder of the two patients was exhibited.

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in like manner, the leg being extended, he is unable until after a similar pause to place his foot upon the floor. The extensor cruris muscular mass is felt contracted, and relaxes only by slow degrees. During the relaxation the patient feels pain of cramp-like character in the muscle. Except for this there is not the slightest sensory disturbance—no cutaneous anæsthesia, numbness, or loss of muscular sense; and the muscles are not tender when handled. If he lies upon the floor, the difficulty experienced in rising to his feet reminds one to a certain extent of that shown by a patient suffering from Duchenne's myosclerosis (pseudo-hypertrophic muscular paralysis), and the hypertrophy of his muscles lends aid to this general resemblance; but, as will presently appear, the electrical reactions are completely opposed to those which characterise that disease. The act of rising is laborious, and the help of the arms is much called upon. The knee phenomenon is entirely absent in each limb, even when the Jendrassik method is employed for testing it. The cremaster reflex is present, but weak; the plantar so imperfectly elicited as to leave some doubt as to its presence. Although the tendency to a tetanoid condition upon voluntary movement is by far the most strongly expressed in the muscles of the lower extremities, it is not absolutely confined to these. The patient describes some unreadiness and stiffness in the use of his arms. His articulation is peculiar, recalling to a slight extent that of a patient with trismus; and the lower half of the face is a little suggestive of the sardonic expression to be noticed in a case of tetanus. Occasionally his eyelids will become partly fixed in a half-open position, so that for an instant he can neither open them further nor shut them.

Examination elicits no signs of increased excitability to mechanical stimulation in the anterior crural nerve. A galvanic current of one milliampère applied to this nerve produced no muscular contraction; with two milliampères there was evident contraction in the vastus internus and externus and KSZ < ASZ; but on a second trial with the same strength of current, the condition was reversed—KSZ > ASZ. The inference was that the excitability of the *nerve* to galvanism is not heightened.

As regards the *muscle*, a push with a finger-point upon the vastus internus causes a lumpy wave of contraction to rise, which lasts for many seconds after the finger has been removed. If this be repeated, however, several times in rapid succession, a normal condition is brought about, so that the contractions following percussion subside with ordinary quickness. If after this the muscle be left quiet for fifteen or twenty seconds and the finger then again thrust into it, the phenomenon described is reproduced. It is evident that, unlike that of the *nerve*, the mechanical excitability of the *muscle* is greatly heightened. The muscles respond to a normal strength of faradaic current, and there is contraction of the vastus internus to a galvanic current of two milliampères, and KSZ = ASZ.



In the extensor communis digitorum of the left forearm the interruption of a galvanic current from four milliampères is necessary to cause contraction, and KSZ > ASZ. The excitability to galvanism of the thigh muscle is therefore apparently considerably greater than that of the muscle of the forearm. The peculiar condition of the muscular system gives rise to a remarkable phenomenon. The contraction of the vastus internus muscle following electric stimulation can be seen to persist long after the rheophore has been removed, and on several occasions of examination an interval of twenty-five seconds was required for the gradual return of the muscle to a state of relaxation.

The above figure has been engraved from a photograph taken for me by Dr. Wilson, resident medical officer, National Hospital, Queen-square. It is intended to exhibit the contraction of the vastus internus remaining long enough after removal of the rheophore to be photographed.

A similar condition was noted in the sural muscles, and was also well seen in those of the thenar and hypothenar eminences of the hand. The muscles of the arm and forearm scarcely showed the peculiarity, and those of the face not at all. There was but little marked persisting contraction in the muscles of the front of the leg, which thus presented a considerable contrast to those of the calf, but it must be noted that the latter were considerably hypertrophied. When the rheophore—strong galvanic current—was drawn over the skin covering the vastus internus, the wave of contraction produced under it had not subsided ere another arose, and the appearance thus presented was very remarkable. This phenomenon, with the others described, has been noted by Erb and other observers.

The effect of mechanical and electrical stimulation upon the muscle is the same as that which accompanies volition, and it is to the persistence of induced contraction that the patient's embarrassment of movement is due. In strict correspondence, again, with what takes place as a result of repeated voluntary action, the exaggerated tonicity of the muscles passes off after a few repetitions of the application of electric currents, and then the contractions are observed to relax in normal fashion and in the usual time. After a rest of ten seconds only the phenomenon can be reproduced. The patient has no complaint to make as regards the action of the sphincters or of the muscles of respiration, except that he rather easily gets out of breath, but this he attributes to being out of practice in exercise. The heart sounds are quite normal.

E. C. F—— is one of a family of sixteen children, his father having married twice, and he being the second child of the second family, which numbered seven. The first child, a sister, has no trace of the affection, but a younger brother, W. F——, aged sixteen, is affected like himself. His muscles present the same remarkable development, and his symptoms generally are so precisely similar to those of the patient first described that it is unnecessary to enlarge upon them. But in two respects there is an important distinction. In the younger brother the vasti muscles show an increase of excitability to induced currents, and the knee phenomenon is preserved to a normal extent. No other children of either family (except these two) present, as I am informed, any trace of the disease. The father is described as being of somewhat anxious temperament, and so, it is thought, is the mother; but the size of their family must be remembered. The father has suffered from gout in the toe; the mother's father also suffered from gout, but died at the age of seventy-three. Nothing in the nature of this peculiar affection is remembered as regards any member of the mother's family.

It has been reported that persons affected with this disorder betray irritability of temper, suspiciousness, and reserve. This does not appear to be the case in the patients described. Indeed, the elder has been singularly liberal in affording opportunities for the observation of his symptoms, and has evinced a most intelligent interest in the requisite examinations; and the younger has cheerfully assented to investigation of his condition.

The symptoms presented by the two brothers are very characteristic of the disease, which has acquired its best known designation from the physician whose description of it in his own person and family first drew any particular attention to it. The term applied to it by Strümpell, "congenital myotonia," conveniently suggests the exalted muscular tonicity which is apparently the immediate cause of the symptoms; whilst "myotonic contractions," which has also been suggested, has the advantage of avoiding prejudice of the question whether the condition is always congenital, about which some doubt has been expressed. Allan M'Lane Hamilton of New York, in an interesting article (referred to by Dr. Hale White in his critical digest), is disposed to doubt whether the so-called Thomsen's disease is a distinct malady, and suggests that the muscle stiffness on contraction is a frequent symptom in a variety of maladies. But the microscopical examinations made by Erb and G. Fischer would appear to show distinct anatomical changes in the muscular fibres—hardness and want of suppleness in the muscular bundles, with marked thickening of the fibres and changes in their transverse striation, together with increase in the number of nuclei of the sarcolemma.

I have never seen in any case of disease of the spinal cord or peripheral nerves the peculiar condition observable in

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these patients, who, it must be remembered, are, with the exception of the exalted muscular tonicity, in perfect health. There are no doubt remarkable tendencies to rigidity in certain organic and functional diseases of the nervous system, but they differ, according to my experience, from the state observed in Thomsen's disease, which is quite *sui generis*. In view of the fact that rapid repetitions of voluntary or mechanically induced muscle contractions will cause the abnormal tonicity of the muscle to disappear, at least for the time, it seems to me difficult to refer the peculiarity to the anatomical changes as a cause. One would perhaps feel more disposed to conjecture that these might be a result of a functional abnormality. But much extended observation will be required ere we can usefully discuss this point. I would refer incidentally to a circumstance of peculiar interest. In the view of some authorities the knee phenomenon depends upon locally induced contraction of a muscle, the tonicity of which it is essential should be well preserved. It would appear that the chief characteristic of the disease under discussion is an exaggerated tonicity of muscular fibres, and *cæteris paribus*, if the "tonus" theory of the knee phenomenon were correct, one would expect to find the response to a blow on the ligamentum patellæ more than usually well marked in such cases as I am describing. But instead of this the knee phenomenon is entirely absent in the elder of the two brothers. At the same time the cremasteric reflex is very weak, and the plantar only doubtfully present. In the younger patient, as I have remarked, the knee phenomenon is present. According to the summary derived by Dr. White from a consideration of the various recorded cases, it is the rule that the reflexes are normal. It does not seem that they are ever exaggerated.

It is scarcely necessary to remark that in the absence of any definite information as to the pathology of this affection nothing satisfactory can be said in reference to its treatment. As it is seen that exercise of the muscles, either by voluntary use or electric stimulation, conquers for a time the tendency to persistent contraction, trial is being made of the galvanic current, and regular exercise is recommended to the patients.

Grosvenor-street, W.

CASES OF TREPANATION OF THE MASTOID PROCESS.[1]

BY CHARLES WILLIAMS, F.R.C.S. EDIN.,
SURGEON TO THE NORFOLK AND NORWICH HOSPITAL.

CARIES and necrosis are more common in the mastoid than in any other part of the temporal bone. They are more frequently met with in childhood than in adult life, on account of the anatomical relations of the bone, which are highly favourable to the retention and consequent inspissation and putrefaction of the pus formed in suppurative inflammation of the mucous periosteal lining of the mastoid cells. If during the inflammation ulceration takes place, the bone, deprived of its periosteum, is very soon involved in the molecular necrosis of the tissues, and caries is the result. With caries of the mastoid process the posterior wall of the meatus is almost always deprived of its periosteum and perforated. This condition was well marked in two of the cases about to be related, as well as in a specimen removed from a boy who died of abscess of the brain. The specimen is interesting from the fact that the mastoid abscess perforated the bone in three places.

The first case is that of William K——, aged forty-nine, a coachman, who was admitted into the Norfolk and Norwich Hospital under my care in May, 1883, suffering from severe pains over the right side of his face and head; it generally commenced behind the ear and shot upwards, and was of a boring, grinding character; it made him feel very ill, and he looked as if he were in great suffering. Occasionally he had cold shivering fits, alternating with hot feverish attacks. He had a furred tongue and a temperature of 101°. He carried his head on one side, and drawn to the right shoulder. Behind the right ear the parts were red and œdematous; very tender when touched. Pus was being discharged from the meatus; it was seen to issue from a small opening behind the cartilaginous portions of the auditory canal on its posterior and upper side; a small granulation marked the spot. Hearing was most imperfect; the membrana tympani dull and convex. The man stated that his affection began four months before admission, after driving through a severe snowstorm, in which snow was driven into the right meatus. The same night he experienced pain in the ear. This increased in severity, and a month later the skin behind had become swollen, tender, and inflamed. This state of affairs gradually increased in intensity, besides extending down the neck, until the day of his admission. Ten days later he was placed under the influence of ether, and a straight incision made downwards over the mastoid process. As the tissues were infiltrated with inflammatory products, the incision was carried to a considerable depth before the bone was fully exposed, the condition of which was softer than usual. A small gouge soon penetrated it, and thick pus immediately oozed up. The opening was now carefully enlarged, and its connexion with the auditory tube followed up and also enlarged. The parts were well syringed out with carbolic water, a drainage-tube placed in the wound and drawn out through the meatus, and cotton-wool placed over all. A few days later an abscess, which had been forming deeply in the neck, opened into the wound and discharged very freely. A month after the operation the wound had healed, the membrana tympani was in a healthy state, and his hearing almost perfect. He was then sent to Yarmouth. In less than a fortnight he returned to the hospital suffering from an attack of erysipelas of the face and head, which rendered him delirious for a week. Eventually he got quite well, and I have seen him many times since. Even so lately as last week he expressed himself as being in excellent health, and his hearing good.

The second case was that of a young woman from whose right ear thin fetid pus was constantly discharging itself. There was a fistulous opening in the upper and posterior wall of the auditory canal, and another over the mastoid process. A probe could be made to pass from one to the other. She came under my care in this hospital with the hope of being relieved. She could give no account of the origin of her trouble. The membrana tympani was absent. Whilst under the influence of ether an incision was made over the mastoid, which was softer than it is naturally. All the carious bone was freely gouged away, and the opening extended into the auditory canal, through which a drainage-tube was placed. She recovered well, but had lost her hearing from disorganisation of the tympanum.

The third case was that of a schoolmaster in this city, who, when I first visited him, was suffering great pain and uneasiness over the left mastoid; it was severe enough to keep him in bed. No inflammation could be made out; no œdema over the mastoid. The membrana tympani was healthy, and hearing fairly perfect. For three months he tried every known remedy, both externally and internally, and failed to obtain the least relief; and, although there was no external sign of an abscess, I proposed as a last resource to cut down upon and open the mastoid process. The patient readily assented to this. The periosteum was found to be thickened, but not otherwise altered. This was freely incised, and I now attempted to perforate the mastoid with Hunter's trephine. So dense and hard was it that I utterly failed to make the smallest impression on it. Nor was I more fortunate with Marshall's necrotome. I was reluctantly obliged to close the wound from that day. My patient suffered no more pain; the wound healed rapidly, and at the present time—four years from the date of the operation—he is in perfect health, and free from any auditory annoyance.

Remarks.—Dr. Voltilini is the only authority who has directed attention to this peculiar affection, which he represented as a "form of mastoid periostitis undescribed by otological authorities." To him is due the credit of having given a clear and detailed description of this disease. "The ear," he observes, "may remain intact, but may sometimes in the course of the affection participate in the inflammation. The disease begins with severe tearing pains on one or both sides of the head, which extend to the side of the face and teeth." In three cases reported by Dr. Voltilini all were the result of cold and exposure. In one case, after the use of leeches, which did not diminish the symptoms, a long and deep incision was made over the mastoid. The pain was almost immediately relieved, the patient slept well, and made a good recovery. Dr. Turnbull[2] remarks:

[1] A paper read before the Norwich Medico-Chirurgical Society.

[2] Imperfect Hearing. Philadelphia, 1881.

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"A study of these cases (one by Dr. Blake of Boston, one by Dr. H. Knapp of New York, and my own) shows the disease to be neither one of the auricle, the external auditory canal, the tympanic cavity, nor the mastoid cells, but one that originates without, and not within, the ear, and one that might progress inwards, but would hardly penetrate deeply.

The next case was that of a boy aged seven years, under my care in the Norwich Hospital, and very kindly transferred to me by Mr. Cadge in December, 1885. He had an attack of scarlet fever five years ago, and from that time has suffered from otorrhœa of the left ear. Three weeks before admission he complained of severe pain in the head, especially about the vertex; he had a peculiar way of looking upwards, and generally carried his head on one side (the right); he used to walk against things as if he had lost his sight, and had occasional attacks of vomiting. He is fairly well nourished, of light complexion; has a vacant expression; was able to read and write, but can do neither now, the sight being so imperfect, so much so that he cannot distinguish letters. The pupils are widely dilated and act feebly. In walking he proceeds very cautiously and slowly. Is dull and stupid. Has no paralysis, either facial or lateral. There is a free offensive discharge from the left ear, and a tender swelling behind. The membrana tympani and ossicles absent. On Jan. 8th, 1886, he was etherised, and a long deep incision made over the mastoid process. A good deal of pus was found to be lying under the periosteum. The surface of the bone was rough and carious. This was chiseled away, the mastoid cells freely opened, and a communication made into the auditory canal. A drainage-tube was passed into the wound and out through the meatus. The wound was well syringed with boracic lotion, and the ear covered over with carbolised dressing. Two months later the wound had healed, the discharge had ceased, the boy was less dull, could see well, and run about without fear.

Remarks.—Of all cases within the domain of surgery no case is so likely to terminate fatally if left to itself as that of inflammation of the tympanum, whether it be acute or chronic; and no case is so likely to end well as such a one if operative proceedings are adopted early. An abscess in the immediate vicinity of the brain carries with it grave danger, and the early opening of that abscess is the only protection against the destructive effect of pent-up matter. Surgeons, as a rule, hesitate too long in dealing with abscess of the mastoid process; precious time is thus lost, irreparable mischief is sustained by the structures of the tympanum, and a fatal termination from abscess of the brain, meningitis, or pyæmia is too frequently the result. On this point Hinton observes: "I have never regretted making the incision, and scarcely ever decided against making it without regretting that I did not." Sir William Dalby says: "No time should ever be lost in providing an escape for pus. Pain and tenderness over the mastoid process should always demand immediate attention, and especially when the tympanic membrane is perforated. If, in addition, there should be any redness or pitting upon pressure, it may be assumed with great confidence that there is pus in the mastoid cells." At the same time, a word of caution on one or two points in connexion with this operation may be useful. It is well to remember how near the lateral sinus is; it lies immediately behind the mastoid process; and if this process has become softened from the long retention of pus within its cells, a condition results named by some "caseous degeneration." The trephine or chisel may readily slip through this into the sinus. As a precautionary measure the finger-nail or the point of the scalpel should be pressed against the bone; and if it does not yield we must proceed to operate with the gouge or trephine. The form of trephine I like best is that used in America, and known as Dr. Buck's. It is a more manageable instrument than Hinton's, and more under control. I have had fitted to mine a small conical-shaped necrotome, which will be found of great use. Having perforated the bone with the trephine, the necrotome can be used to enlarge the opening; but should the bone be soft, Volkmann's scoop is unquestionably the safest and best instrument with which to scoop away all carious bone.

AT the annual meeting in connexion with the Association of Public Sanitary Inspectors, on the 7th inst., the President (Mr. Edwin Chadwick, C.B.) delivered an address on the Financial Value of Sanitary Science.

PARALYSIS OF THE DIAPHRAGM AFTER DIPHTHERIA, WITH EXTENSIVE PULMONARY COLLAPSE; RECOVERY.

BY W. PASTEUR, M.D. LOND., M.R.C.P.,
PHYSICIAN TO THE NORTH-EASTERN HOSPITAL FOR CHILDREN, ETC.

J. H——, five years of age, came to the out-patient department of the North-Eastern Hospital on May 3rd, 1886, with the following history. During convalescence from chicken-pox in March his mother noticed a swelling (probably glandular) on the right side of his neck, but the child did not complain of pain or difficulty in swallowing, and there was no regurgitation of liquids through the nose. On April 26th the boy was in perfect health, but shortly after this he began to languish and became rapidly weaker. It was also noticed at this time that he began to walk in a very peculiar manner. He reeled into the out-patient room like a drunkard; his gait was markedly ataxic and unsteady. No obvious paralysis of the soft palate could be made out, but the voice had a nasal "timbre." The heart was acting strongly, the pulse being full and regular. The knee-jerk was absent on both sides.

The child was taken into the hospital a week later in the following condition. A fairly nourished, somewhat frail-looking boy, with a dry, cool skin, healthy lungs, and good pulse. Nervous system. The intelligence is good, the expression rather listless. There is no facial paralysis. The pupils are equal and active, and the ocular muscles healthy. The tongue is protruded in the median line. The child swallows slowly, but there is no regurgitation of food. The voice is weak and nasal in quality. The movements of the soft palate are very limited, but equal on the two sides. There is marked paresis of the muscles of the trunk and extremities. The child is unable to sit up in bed without assistance; the grasp of both hands is very feeble, and when put upon his feet he begins to sway to and fro, and would fall if not supported. Tactile sensibility, as far as can be ascertained, is intact. The knee jerk is absent on both sides, but the superficial reflexes are all readily elicited, and with one exception (the plantar) remained present throughout the illness. There is no ankle clonus. Since the beginning of this illness the patient has been troubled with rather obstinate constipation. There is incontinence of urine, which, however, existed previously. The child has a slight dry cough, but examination of the lungs does not reveal any abnormal physical signs.

Progress and termination.—The first sign of heart failure appeared on May 13th, when the pulse became irregular and increased in frequency. On the following day paralysis of both legs was absolute. The plantar reflex was a little delayed, and tactile sensibility in the legs appeared to be blunted. The patient was still able to take his food and stimulants by the mouth, though with some difficulty, and an odour of sour milk was perceptible in the breath. During the next few days there was a gradual increase of the paralysis of the trunk and arms. The movements of the ribs seemed to grow less day by day; the head rolled helplessly to one side or other when unsupported; the child had lost all power of movement over both shoulder-joints, but was still able to move the forearms and hands, though even here muscular power was almost in abeyance. The voice meantime had sunk to a whisper, and the cough was aphonic and ineffectual, having almost entirely lost its explosive character. Up to this time the treatment had been of the simplest. The child was placed in a curtained cot in a warm corner of the ward, and strict orders were given that he should be moved as little and as gently as possible. Constipation was relieved by simple enemas as often as necessary, and small doses of liquor strychniæ were administered every four hours. The diet consisted entirely of milk and beef-tea, with an ounce and a half of brandy in the twenty-four hours. At this period of the illness the most serious factor was the great difficulty experienced in getting the child to take a sufficient quantity of nourishment. Owing to the very slow and imperfect manner in which the act of swallowing was performed, it was found impossible to give more than two or three teaspoonfuls of food at a time, and this made the total quantity for the twenty-four hours far below what one would have wished the patient to take. During the last forty-eight hours, too, the ingurgitation of food had given

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rise to one or two severe paroxysms of coughing, which greatly exhausted the child. It was accordingly decided to make up the deficiency by giving nutrient enemata. On the following morning (May 20th) an alarming train of symptoms suddenly developed. Respiration became greatly embarrassed and the lips and extremities cold and bluish. Examination of the chest showed that the right side was practically immobile, with the exception of the two or three upper ribs. The percussion note was much impaired over the right front and right base. At the right apex in front the breathing was loud and tubular in the upper spaces, weak over the middle lobe, and almost inaudible at the base. Behind, above the level of the scapular angle, the breath sounds were fairly loud and bronchial. No crepitations or râles could be discovered. (Morning temperature 99·4°; evening 99°.) The quantity of stimulants was increased to three ounces per diem.

On May 21st the child was much weaker. The front of the chest was alone examined. There was weak tubular breathing without râles and impaired resonance all over the right front, with exaggerated breath sounds on the left side. The heart was not displaced; its action was rapid and feeble (144). The movement of the right half of the chest in respiration was just appreciable, and it was observed that the epigastrium receded during each inspiration, whilst it bulged very slightly during expiration and more distinctly so during cough, an indication of partial if not of complete paralysis of the diaphragm. The cough was ineffectual, very frequent, and much aggravated by giving food, owing no doubt to a certain amount of leakage into the air passages. The temperature was rising (100°), and the pulse (144) becoming thready. The condition of the child was critical; indeed, there seemed but little hope of recovery. The chest was wrapped in cotton-wool, and food by the mouth entirely withheld, nutrient enemas of pancreatised milk or beef-tea with brandy, three ounces every four hours, being substituted. Further, the house-surgeon was directed to give hypodermics of brandy and ether (half a drachm of each) at intervals of a few hours, if necessary. Some half-dozen injections were given in the course of the following two or three days. The next day there was no improvement in the patient's condition. The temperature was 102°, and the pulse, in spite of free stimulation (brandy, four ounces), was weaker and more thready (156), and only just perceptible at the wrist. On May 23rd the temperature reached 102·4°, and the case appeared quite hopeless. During the night, however, the severity of the symptoms abated somewhat, and there was a very slight but appreciable improvement on the morning of the 24th. The return of movement in the right side of the chest and a rapid disappearance of the signs of diaphragmatic paralysis were amongst the most favourable signs. Examination of the backs (first time) revealed the existence of bronchial and tubular breathing at the right apex and posterior apex of the lower lobe. At the extreme base there was distant weak breathing, probably due to collapse. Over the left back there was exaggerated breathing. The child now continued to improve slowly. Swallowing soon became easier, so that on the 26th he was able to take seventeen ounces of liquids by the mouth. (Nutrient enemas reduced to three in the twenty-four hours.) On the 28th every sign of diaphragmatic paralysis had disappeared, and the two sides of the chest moved almost equally. The physical signs at the right apex continued much the same (dulness, tubular breathing, bronchophony, &c.). There were a few coarse crepitations of doubtful nature in the right axilla, which rapidly disappeared. The cough was still troublesome, but had to some extent regained its explosive character. The pulse rate had fallen to 108; the pulse was of fair strength and regular. Temperature normal. On May 31st the patient had regained some power over the shoulder-joints, and there was evidence of a general, if slight, recovery of muscular power. The knee jerk was still completely in abeyance. Swallowing had so far improved that the nutrient enemata were discontinued. A few days later the last sign of imperfect deglutition—the sour milk odour of the breath—had disappeared. There was now harsh breathing, without râles, at the right apex, with a little dulness at the angle of the scapula and weak breathing at the base. On June 11th the child was allowed to sit up in bed for the first time. The voice had returned, but was still "reedy." The movements of the soft palate were normal. (Takes food and stimulants well.) There was considerable power in both legs, with marked incoördination of movements. The plantar reflex was not obtained on either side; the other superficial reflexes were normal. Physical signs in chest quite healthy. Heart strong and regular. From this date convalescence was uninterrupted. The plantar reflex returned towards the end of June. In the first week of July the child began to walk with assistance. For some time his gait was very ataxic as well as feeble. He was discharged cured on July 24th, but the return of the knee jerk was delayed for several weeks longer.

Remarks.—The features of this case which call for comment are (1) the paralysis of the diaphragm; (2) the nature of the lung affection, and its relation to the diaphragmatic palsy. Paralysis of the diaphragm after diphtheria is of sufficient rarity to deserve mention, and, as far as I can ascertain, recovery from this complication is very rare indeed. Under any circumstances paralysis of this muscle is attended with very grave danger, and when it is borne in mind that in the present instance it occurred in a child with all four limbs paralysed, with great enfeeblement of the muscles of the neck and trunk, and with unmistakable evidence of severe heart disturbance, the recovery of the patient furnishes a striking example of the extraordinary recuperative power possessed by children, and of the paramount importance of leaving nothing undone in the way of treatment on the plea that a case is hopeless. The extreme feebleness of the respiratory movements rendered the signs of the paralysis less obvious than usual. But the superior costal type of the breathing, the complete loss of inspiratory protrusion at the epigastrium, with protrusion during, but not before, attempts to cough, were sufficiently marked to make the diagnosis a matter of certainty. And if confirmation had been needed, it was furnished by the rapid return of normal physical signs and respiratory movements, coincident with the disappearance of the clinical signs of diaphragmatic paralysis.

Of the exact nature of the lung condition it is not easy to speak with certainty, but it is important to note in this connexion that for two or three days previously there had been evidence of slight leakage of fluids into the air passages, and that the cough was powerless to clear the bronchi of any obnoxious material—a condition of things favourable to the production of collapse or bronchial irritation. It is just possible too that some temporary arrest or disturbance of function in the right vagus nerve was a factor in the causation of the changes observed. The physical signs were those of collapse of the base (there was no pleural effusion), with pneumonia or broncho-pneumonia and collapse of the remainder of the lung. The onset was unlike that of croupous pneumonia. There was no rigor; the temperature rose gradually, reaching the highest point (102·4°) on the fourth day, with a morning remission each day. The respirations increased from 24 to 48, and the pulse rose to 144. There was a rapid fall of temperature and amelioration of symptoms on the fourth day, which coincided with the return of diaphragmatic movements. The speedy disappearance of the abnormal physical signs at the apex and the almost complete absence of crepitation or râles from first to last in every part of the affected lung would seem to show that simple collapse preponderated largely over the pneumonic element—if, indeed, this was ever present to an appreciable extent. The limitation of the lung condition to one side admits of two explanations: either the right half of the diaphragm was more paralysed than the left, of which there was no other evidence; or, which is more probable, there was a temporary paresis of the right intercostal muscles, especially in the lower interspaces. In conclusion, I would draw attention to the powerful stimulating action of the hypodermic injections of brandy and ether, without which I doubt whether the child's life would have been saved.

Queen-street, Mayfair, W.

VICTORIA HOSPITAL FOR CHILDREN.—A festival in commemoration of the twentieth anniversary of this charity was held on the 6th inst., the Duke of Cambridge presiding. The main object of the festival was to provide funds for a large addition to the hospital buildings which were opened by the Prince and Princess of Wales in June, 1886. Last year the number of in-patients was 561, and of out-patients 37,566; the aggregate number attended to since the foundation of the charity being 364,164. During the evening subscriptions and donations amounting to over £1200 were announced by the Secretary.

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CANCER AND PHTHISIS AS CORRELATED DISEASES.

BY W. ROGER WILLIAMS, F.R.C.S.,
SURGEON TO THE WESTERN GENERAL DISPENSARY; SURGICAL REGISTRAR TO THE MIDDLESEX HOSPITAL.

IN consequence of the unity of nutrition existing among all the parts of every living thing possessed of any organic solidarity, changes of nutrition affecting an individual part necessarily react on other parts. This relation, which is known as correlation, was first clearly pointed out by Cuvier with regard to normal states, and it is equally applicable to morbid conditions. Such correlations are, indeed, very numerous. They may be regarded as the outcome of a powerful synthetic tendency, which causes the individual whole to be as much conditioned by its parts as each part is conditioned by others. But why changes in this or that part should be linked with this or that particular correlation, whilst variations in other parts, apparently equally important, excite no such correlated changes, is for the most part beyond our ken. In some instances the developmental history of the correlated parts gives us a clue, as in the case of homologous structures, such as teeth and hair, which are particularly liable to vary together. But very often no such indication can be discovered. We cannot say whether one part governs the others, or whether all are governed by some earlier synthetic tendency. Why, for instance, should colour and constitutional peculiarities go together? What connexion is there between deficiency in pigment and such changes in the muscular and osseous systems and in the general constitutional condition as albinoes exhibit? Why should such individuals be weaker in body, more delicate, and more feebly developed than others with pigment of their own species? Why, too, should the degree of development of pigment in the epidermis so greatly influence the susceptibility to certain diseases and drugs? How is it that red-haired persons are more liable than others to melanosis? Why are white cats with blue eyes nearly always deaf, and why are white horses distinguished from their coloured congeners by special liability to sarcomatous tumours? A similar question might be asked with regard to the curious correlations seen between quite distinct parts in many cases of monstrosity. In all of these instances no explanation is possible in the present state of our knowledge. Indeed, the subject has been but little investigated. In this wide uncultivated field rich harvests may be gathered.

I now propose to point out, in the briefest manner possible, the correlation between cancer and phthisis. For detailed treatment of the subject I must refer the reader to the Middlesex Hospital Surgical Report for 1885. The following facts show that there is the most intimate connexion between the two diseases. The widespread belief as to the incompatibility of phthisis and cancer is attributable to the erroneous teaching of Rokitansky. That such a grossly inaccurate statement should ever have obtained credence shows the folly of blind submission to authority in such matters. The chief evidence to be cited may be arranged under two heads:—

1. As to *family history*.—(*a*) Of 134 families subject to *breast* cancer, one or more relatives, among the adults, were known to have died of, or were subject to, phthisis in 74, or 55·2 per cent. (*b*) Of 129 families subject to *uterine* cancer, one or more relatives, among the adults, were known to have died of, or were subject to, phthisis in 60, or 46·5 per cent. (*c*) Similarly, of 53 families subject to cancer of the *tongue* and *mouth*, phthisis prevailed, among the adults, in 17, or 32 per cent. Thus in these 316 cancerous families there was a history of phthisis in 151, or 47·7 per cent. There was a history of both phthisis and cancer in the same family in 18 cases out of 134 families subject to *breast* cancer, and in 14 cases out of 129 families subject to *uterine* cancer. In a large proportion of the foregoing cases the causes of death were unknown. If these had been eliminated, the amount of phthisis would have appeared much greater, as may be judged from the following statements in which this has been done. Thus, 40·9 per cent. of the fathers of patients with *breast* cancer were of phthisical families, and 33·9 per cent. of the mothers. Of the fathers of patients with *uterine* cancer, 40 per cent. were of phthisical families; and of the mothers, 30·3 per cent. Of the fathers of patients with cancer of the *tongue* and *mouth*, 29·4 per cent. were of phthisical families; and of the mothers, 5·8 per cent. With regard to the prevalence of phthisis among these patients' *brothers* and *sisters*, in 88 families subject to *breast* cancer there were one or more deaths from phthisis, among the adults, in 40; in 81 families subject to *uterine* cancer, in 41; and in 52 families subject to cancer of the *tongue* and *mouth*, in 14.

2. As to the *necropsies*.—(*a*) Of 44 necropsies for breast cancer, old arrested phthisical lesions were found in 4 instances; and in 2 other cases the patients had died with phthisis in active progress. (*b*) Of 88 necropsies for uterine cancer, old arrested phthisical lesions were found in 12 instances. (*c*) Of 34 necropsies for cancer of the tongue and mouth, in 5 cases old arrested phthisical lesions were found; and 4 other cases had died with phthisis in active progress. Thus in these 166 necropsies cancer and phthisis were found associated in 27 cases, or 16·2 per cent.

PNEUMONIA.

BY REGINALD G. ALEXANDER, M.A., M.D.,
CONSULTING PHYSICIAN TO THE BRADFORD INFIRMARY, AND PHYSICIAN TO THE HALIFAX INFIRMARY.

THE subject of pneumonia, at all times interesting, has been specially brought before my notice during the last week, having seen a number of cases, brief notes of three of which, occurring under different forms, by way of illustration I extract from my note-book. By the perfection of our modern diagnosis the physical signs of pneumonia are perhaps more defined and certain than in any other disease. Conditions of weather and climate are no doubt chief factors in its production, especially a climate which is variable and damp; but all debilitating conditions of the system specially predispose to the disease. The symptoms are too well known to require enumeration. The prognosis is grave in proportion to the implication of both lungs, the number of respirations, temperature, state of pulse, and nervous system. In protracted cases the possibility of indurative consolidation must not be overlooked, as in Case 2. In considering treatment, we must recognise the fact that it is a general and not a local affection with which we have to deal. The heroic methods of the past, which caused great mortality—venesection, large doses of tartar emetic, &c.—had for its aim the cutting short of a local affection. The great danger in pneumonia is cardiac failure, and it is necessary to husband the strength until the disease subsides. If hyperpyrexia is the prominent symptom, the treatment by baths adopted abroad is certainly justifiable, with the object of diminishing the injury to the heart by the pyrexia, and it is occasionally useful when, with a high temperature, great dyspnœa threatens life. There is always a danger of falling into routine treatment. Every case should be treated on its own merits, as the disease requires different management under different conditions. Pneumonia neither requires nor will it endure the active measures which were formerly practised. We should have clearly before us what we intend to acomplish by any particular line of treatment, and in this way, and in no other, will our success in the great majority of cases be complete and satisfactory.

CASE 1.—I saw with Dr. Windle at Ovenden on Sunday night, Feb. 13th, a young man, previously healthy, suffering from acute croupous pneumonia. His dyspnœa caused him to concentrate all his efforts on breath-getting. Respiration 72; pulse 130; temperature 104°. Sputa bright-red blood; absolute dulness of left lung, anteriorly and posteriorly; bronchial breathing and bronchophony well marked. Diagnosis: Pure pneumonia, second stage. Prognosis hopeful.

CASE 2.—On Feb. 12th, and again on the 14th, I saw at Southport a case, with Mr. Heath, of very different character. A young lady at school, aged eleven, had been under Mr. Heath's care suffering from catarrhal pneumonia of the left lung for three weeks. All had gone well, the only unusual symptom being a temperature lower at night than in the morning (evening temperature 101°; morning 102·5°). The lung had cleared up, with the exception of the lower third of the base posteriorly, which was consolidated, and at the line of healthy and solidified lung marked bronchial breathing and bronchophony existed. Tongue furred. Pulse 108, somewhat sharp; respiration only 18. Lung expansion elsewhere very good. The diagnosis was uncertain

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on account of the family history: chronic interstitial pneumonia or tubercular deposit.—May 8th: The patient has steadily improved, is still under Mr. Heath's care at Southport, and able to walk and drive out daily.

CASE 3.—On Feb. 9th and subsequent days I attended a lady aged thirty-seven, married, with children, who for ten months had suffered in consequence of domestic bereavements from complete anorexia, want of sleep, dyspnœa, and general debility. The day previously to the attack she had exposed herself to inclement weather, and developed acute croupous pneumonia of both lungs. There was also mitral insufficiency and excited loud bruit, with great cardiac impulse. Respiration 76; pulse 150; temperature 105°, intermittent and flickering; clammy sweat. She was apparently sinking. She was ordered mustard and linseed poultices, eggs and brandy, alternating with port wine and stimulants generally; drachm doses of steel wine and dilute hydrobromic acid, with compound conium and morphia pill (¼ gr.). The patient would have died during the night but for the unsparing use of stimulants, which were continued for several hours until the pneumonic symptoms had subsided. On the 16th her condition had greatly improved, sleeping and eating well.

In simple cases of pneumonia, however, no stimulants may be required, and an expectant plan of treatment which does not interfere with nature's efforts at a cure is the plan most desirable and efficacious.

Halifax.

ON A CASE OF PERSISTENT PRIAPISM.

BY J. MACKENZIE BOOTH, M.A., M.D.,
PHYSICIAN TO THE ABERDEEN GENERAL DISPENSARY.

CASES of persistent priapism crop up in practice from time to time, but their occurrence is rare enough and their causation sufficiently obscure to merit a passing notice. Several cases of this nature lasting from one to four months are recorded in THE LANCET in 1845, 1867, and 1873, in most of which excessive coitus was the exciting cause. In a case lasting for six weeks, which recently came under my observation, no such cause was present, nor was there any coexisting injury or disease of the spinal cord or nerve centres to account for the condition.

The patient, W. S——, a seaman, aged fifty-five years, was a married man with twelve children, most of whom were grown up. Save for a dysenteric attack thirty years before, which prostrated him for six weeks, he had always enjoyed good health. He had always been of temperate habits, and had never suffered from venereal disease. While at sea on June 27th last, he awoke in the morning with the penis erect and very painful, especially at the root. He said that the day before he had been exposed to cold and wet. Two days later, during which he was unable to sleep for the pain, he came under my care. I found him lying in bed with his knees drawn up so as to prevent the bedclothes from touching the affected parts. The penis was erect, hard, painful to touch, and bent backwards along the abdomen in the middle line, and the scrotum was much relaxed. The pain was most severely felt on either side of the crus, and the parts there were found to be hard, swollen, and exceedingly painful to touch. Otherwise he was quite well and had been in robust health up to the time of this seizure. There was no other disease of the urinary apparatus or rectum discoverable, and the urine was normal and easily passed. A purgative was administered, and half-drachm doses of the bromide of potash ordered to be taken twice daily. This was continued steadily for four days without the slightest change in the affected organ. On the second night an enema of a drachm of laudanum in two drachms of starch was given, after which the patient had a few hours' sleep. On the fourth day ice was applied to the penis and continued for over a week. Small doses of tartar emetic combined with morphia were also administered at intervals, nausea being occasionally induced. Still, the penis remained as turgid as ever, and exceedingly painful to touch. During the next four weeks, after consultation with the late Professor Dyce Davidson, everything that we could suggest to relieve the painful condition was tried. Oleate of morphia and other anodynes rubbed into the penis and perineum, and morphia suppositories, gave only temporary relief to the pain. Blisters were applied over the perineum, and free leeching both over the perineum and the penis itself, were resorted to, but without appreciable effect. The amount of turgescence varied slightly from time to time, but was not materially reduced at the end of the fifth week. During all this time, too, the hardness, swelling, and pain were most marked over the muscles at the root of the penis, and there was total absence of sexual desire throughout. In the beginning of the sixth week he was ordered five-grain doses of the iodide of potash in mixture, to be taken four times daily. From that time there was a steady improvement, till in a fortnight's time—i.e., at the end of the seventh week—the penis had wellnigh regained its wonted condition, and the patient was able to don his nether garments and walk about without pain. He shortly afterwards resumed his seafaring life, and since then he has had no recurrence of his troublesome malady.

In the above case the causation was different from that of most of those previously recorded. In these the history of injury of nerve centres or excessive coitus generally pointed to distant or reflex nervous irritation as the main cause of the priapism, but here it was evidently due to local inflammation about the muscles constricting the bulb of the penis. The marked swelling, hardness, and pain over these muscles, coming on a few hours after exposure to cold and wet, and continuing while the turgescence of the penis lasted, indicated continued obstruction to the venous efflux as the chief factor in its causation. The exhibition of the iodide of potassium seemed to have a beneficial effect in hastening the recovery, as up to the date of its administration the symptoms had shown no sign of abatement, while immediately thereafter gradual improvement took place, terminating in complete relief in fourteen days. The perusal of a closely analogous case reported by Dr. Mitchell Bruce in THE LANCET (vol. i. 1873, p. 90) led to its adoption. In that case also the patient was a man of fifty-five years, the priapism lasted six weeks, and it subsided in twelve days during the exhibition of the iodide of potassium.

Aberdeen.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

WESTMINSTER HOSPITAL.

PUNCTURED WOUND OF BRACHIAL ARTERY; ARREST OF HÆMORRHAGE BY PRESSURE; SECONDARY BLEEDING ON TWENTIETH DAY, WITH FORMATION OF DIFFUSE ANEURYSM; LIGATURE OF VESSEL; REMARKS.

(Under the care of Mr. A. MARMADUKE SHRILD.)

WOUNDS in the neighbourhood of the larger arteries are always of importance, and cause much anxiety to the surgeon until the danger of secondary hæmorrhage is over and the wound healed. It is often difficult to say from the character of the hæmorrhage and the colour of the blood whether the loss is from artery or vein, and if free pulsation is felt in the artery below the region of the wound the difficulty is increased. The following is a case in which the more serious symptoms in connexion with the artery were developed twenty days after the wound, probably from the sudden giving way of the cicatrix in the vessel wall, due to the severe strain received in falling.

A stout muscular man of intemperate habits, aged twenty-seven, was stabbed on the front aspect of the right arm, near its lower third, by a penknife. He also sustained a deep cut above the nose. These injuries were inflicted during a drunken brawl on Dec. 14th, 1886.

On admission there was free bleeding of an arterial nature from the wound, but the pulse at the wrist was not altered in force and volume. The hæmorrhage was readily arrested by bandage and compress. The man was intolerant of treatment or confinement, and left the hospital on Dec. 18th at his own request. There had been no marked return of

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the bleeding. He attended irregularly as an out-patient, the wounds on the head and arm healed, and the hæmorrhage seemed to be permanently arrested. On Jan. 2nd the patient resumed his avocation of grinding knives and scissors, but his arm became so swollen and painful that he had to desist. The next day, twenty days since the infliction of the wound, he fell down while skating. Profuse bleeding occurred from the wound again, and he was brought in haste to the hospital and admitted under the care of Mr. Cowell, who kindly transferred the case to Mr. Sheild for treatment. The patient, who had been leading during Christmas-time a life of continuous debauchery, was ill and feverish. His tongue was coated and tremulous, his limbs shaky, and he appeared to be on the verge of delirium tremens. The right arm was enormously swollen, hard, tense, and somewhat discoloured. No pulsation or bruit could be detected over the swollen parts. The hand was œdematous and cold, the radial pulse completely absent. The patient complained of terrible pain in the limb, and said the hand felt "numbified." On removing the temporary compress, a jet of blood the size of a small quill issued in a continuous flow from the punctured wound. This blood was venous in colour, and pressure on the artery above lessened but did not check its discharge. The patient being anæsthetised and Esmarch's apparatus lightly applied, the opening was enlarged, and the finger passed into a large irregular cavity, full of soft, warm clot. This was freely laid open by an incision some four inches in length along the inner side of the biceps muscle, and a quantity of clot sponged away. The parts were so disintegrated that the source of the bleeding or the position of the main vessel could not be accurately determined. A bent probe was employed as a searcher, and this device was soon successful, the end of the instrument passing into an opening in what was evidently the brachial artery. The aperture was transverse and clean cut, and would have admitted the end of a No. 8 catheter. It was situated at the upper part of the middle third of the vessel. The median nerve was clearly seen, and held away, while the artery was tied with carbolised silk above and below the wounded part. The large cavity was then dusted with iodoform, and lightly packed with gauze, being left quite open. The whole limb was wrapped in wool and bandaged evenly.

The after progress of the case was satisfactory, and can be briefly related. A large amount of sero-sanguineous discharge poured from the wound. The limb rapidly diminished in size, and the constitutional symptoms of fever and pain soon subsided. The day after the operation the patient repeatedly expressed his relief from its performance. On the third day after the operation, when the wound was being dressed, smart bleeding occurred. The source of this was a small arterial twig obviously enlarged by the collateral circulation. A ligature was easily applied in the open wound, and no further bleeding occurred. The hand felt numb and powerless for several days, but the circulation was active, and a radial pulse was established on the tenth day. The ligatures separated on the sixth and fourteenth days. The wound was practically healed on the thirtieth day after operation, being gradually brought together by bandaging. The incision, which seemed so extensive in the swollen condition of the parts, was not more than two inches and a half long when the arm had resumed its normal dimensions.

Remarks.—The first point of interest in this case is the fact that the radial pulse remained unaffected, though the brachial artery was badly cut. Most surgeons are familiar with similar instances. Provided that an artery be not completely divided, a small portion of it seems sufficient to guide the blood into the distal part of the injured vessel. The sequence of events observed here not uncommonly occurs in wounds of the main vessels treated by pressure. The orifice in the vessel is temporarily sealed by clot and the pressure of surrounding tissues; some accidental movement displaces these frail barriers, and fresh bleeding takes place externally or into the tissues of the limb. The latter variety is much to be feared, for, in addition to the loss of blood, the patient has to combat the danger of gangrene caused by the pressure of the extravasation, and the surgeon may be misled by the absence of external bleeding. This variety of hæmorrhage reminds one of the concealed or "occult" bleeding spoken of by obstetricians. Still, the fact must not be lost sight of that a considerable number of cases of punctured wounds of the main vessels can be perfectly treated by pressure. But the surgeon who undertakes this must be careful that the pressure is applied properly, and he must be assisted by quietude and tolerance on the part of the patient. The colour of the blood when the hæmorrhage recurred was venous rather than arterial. The plan of searching for the orifice into the artery, after laying open an aneurysm or hæmorrhagic cavity by a probe or catheter, was very successful in the present instance. The great use of Esmarch's apparatus and the importance of making a very free incision in these cases are well exemplified. The course adopted in leaving this deep wound quite open was justified by the free drainage of serum which took place from its extensive cavity. Had the margins of the wound been united, retention of inflammatory products and tension, with its attendant evils, must have resulted. It is an important consideration that in punctured wounds of a limb the main vessels may be injured, and yet the wound caused by the entrance of the instrument be far removed from the known course of the vessels. Thus a stab on the front of the lower third of the thigh may wound the femoral artery near the adductor opening. In the present case the knife had passed obliquely from without upwards and inwards through the biceps muscle, and its point had notched the brachial artery in its middle third.

NORTH-WEST LONDON HOSPITAL.

STRICTURE OF THE URETHRA PRESENTING UNUSUAL DIFFICULTIES; REMARKS.

(Under the care of Mr. MAYO COLLIER.)

FOR the notes of this case we are indebted to Mr. Cecil Christopherson.

Edward S——, aged thirty-one, railway porter, was admitted on the morning of September 5th suffering from retention of urine. He had come from Leeds the day previously, and since then a few drops of urine only had passed. Four years ago he had a similar attack, and was admitted into the Leeds Infirmary, under Mr. Jessop, who with great difficulty passed an instrument. Since then he had suffered from more or less inability to micturate. Fifteen years ago he had gonorrhœa. The patient is a big, burly, muscular fellow, of fair complexion and nervous temperament.

Mr. Collier was not able to see the case until twelve hours after admission. In the meantime hot baths and opium had been administered freely, but without effect, by the house-surgeon, and an attempt had been made with the catheter, but unsuccessfully. Owing to the delay the bladder was extremely distended, and the patient was suffering much from pain and nervous anxiety. He was now removed to the operating theatre, and a careful and prolonged attempt made with fine soft metal instruments, still without success. Judging that further delay was unwise, the bladder was aspirated with a long fine needle, the precaution being taken to pass the instrument well into the bladder in the direction backwards and downwards before removing the stylet. By these means some fifty ounces of urine were drawn off, with great relief to the patient. A dose of opium was followed by a good night and no pain or discomfort in the site of puncture. The temperature was normal. Next morning, no urine passing and the feeling of discomfort recurring, a hot bath, chloroform, and a second attempt with fine metal instruments was made. Catheterism having failed, it was decided to again aspirate and to relieve the bladder entirely by aspiration for the next few days, leaving the stricture absolutely alone. During five successive days the aspiration was repeated six times in all, very little urine during this time escaping by the urethra. On the fifth day chloroform was again administered, and after considerable delay and trouble a No. 1 metal catheter was passed into the bladder, and twenty-five ounces of fluid removed. The catheter was very tightly grasped, and required considerable traction or pressure to move it either in or out. The instrument was tied in and left *in situ* for four days. Afterwards an attempt was made to replace the No. 1 by a No. 2. The No. 2 would enter the stricture, but could not by any ordinary pressure be made to enter the bladder. No. 1 was now reinstated and left *in situ* for a week. The patient was comfortable during this time, and the temperature remained normal.

Sept. 14th.—The patient's temperature this morning at 8 A.M. was 100·6°. He seemed poorly. At 10·30 A.M. he had a severe rigor, and the temperature rose to 104·4°. Mr. Harper, the house-surgeon, attributing the rigor to the presence of the catheter, removed it, and administered ten grains of quinine.

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15th.—The patient can pass some urine with much straining. Feels very uncomfortable. Temperature 102·6°.

16th.—Some pain and hardening was discovered in the floor of the urethra, two inches from the meatus.

17th.—The patient is very uncomfortable and the bladder full. Temperature 101·6°. After a hot bath and opium the distension of the bladder was relieved naturally.

18th.—The swelling under the penis, which was very painful and tender, was opened; pus came from the wound and also from the meatus.

9th.—Temperature normal. Great straining to pass a small quantity of urine; it mostly passes through the fistula; the bladder, however, does not fill.

The patient was now left completely alone to Oct. 1st, when a No. 1 silver instrument was passed with the same difficulty as on the first introduction. At 11 P.M., eight hours after the introduction, the patient had a rigor lasting an hour and a half, the temperature reaching 105·2°. Acting on instructions, the catheter was not removed by the house-surgeon, but large doses of quinine and hot drinks were administered.

Oct. 2nd.—At 10 A.M. the patient had another severe rigor; temperature 105·2°. At 4 P.M. there was another severe rigor, temperature reaching 105°. Mr. Collier removed the catheter.

3rd.—No further rigor; temperature normal; patient comfortable; urine passed frequently, but in small quantities.

4th.—Just one month after correct, careful, and assiduous treatment the stricture would only admit No. 1 instrument with difficulty, the introduction being invariably followed by severe rigor. The stricture was now also complicated by a penile fistula, through which most of the urine passed.

Mr. Collier now decided and explained to the patient that further attempts to dilate with the catheter were inadmissible and dangerous; that the proper course was to divide the stricture if possible from the inside, and, failing that, to cut through it from the outside. He fully understood the gravity of his case, but refused an operation, and was discharged on Oct. 14th and returned home. On Oct. 16th he returned and requested an operation.

On Oct. 21st Mr. Krohne procured a very small urethrotome of the Civiale pattern. After injecting the urethra with a 20 per cent. solution of cocaine, and subsequently with olive oil, Mr. Collier introduced his left forefinger into the rectum to the point of constriction, which could be easily made out in the membranous portion of the canal. With this finger the stricture was steadied. The urethrotome was next introduced, and an endeavour made to insinuate it into the stricture. By firm pressure, assisted by a peeling action of the left middle finger, the urethrotome was passed. The knife was now unsheathed, and the stricture completely divided in a direction upwards. The blade was again sheathed, reinserted, and again drawn through any opposing bands. There was free hæmorrhage. A No. 10 soft catheter was at once introduced without the slightest opposition, retained, and a suppository of half a grain of morphia placed in the rectum. No rigor or elevation of temperature followed the operation.

The subsequent progress of the case was most satisfactory. The fistula healed rapidly, and the patient left the hospital on Nov. 6th, just two months after his admission, with the calibre of the urethra completely restored, and feeling, as he expressed himself, "quite well, but weak."

Remarks by Mr. COLLIER.—This case is replete with points of interest, but two stand out more prominently than the rest. In the first place, six aspirations on five successive days were the whole and sole means of emptying the bladder of its contents. These tappings were not followed by the slightest pain or bad result. Aspiration of the bladder, if properly performed, is seldom dangerous. I have resorted to it on several occasions without the slightest bad effect. In the second place, although the presence of a No. 1 catheter in the urethra caused an intense rigor, the free division of the stricture was not followed by the smallest bad result.

MANCHESTER ROYAL INFIRMARY.

PERINEAL AND SUPRAPUBIC CYSTOTOMY COMBINED; REMARKS.

(Under the care of Mr. WHITEHEAD.)

J. C——, aged fifty-seven, engineer, was brought by Dr. Spearing, of Shaw, on Feb. 16th, 1887, and admitted on the following day suffering from severe pain in the region of the bladder, profuse hæmaturia, and incessant desire to micturate. The first indication of his present illness occurred ten months ago, when, without any warning or pain, "he passed three pints of what appeared to him pure blood." From that time the urine had almost constantly contained quantities of blood. He gradually became thinner and more feeble, and at the time of his admission he appeared in the advanced stage of malignant disease. The urine, on standing, gave a thick reddish-brown deposit, which on microscopic examination showed transitional epithelium, numerous fat-globules, red blood-corpuscles, leucocytes, crystals of uric acid, and oxalate of lime.

On Feb. 18th, an attempt was made, in the first instance, to explore the bladder by a lateral perineal cystotomy, but owing to the depth of the perineum the index finger only reached the entrance, but not the interior, of the bladder. Bidigital counter-pressure—one finger in the wound and the other hand above the pubes—demonstrated a solid growth associated with the right wall of the bladder. Suprapubic cystotomy was then performed, and the diagnosis which had previously been made of a malignant growth confirmed. No attempt was made to remove the tumour. The patient died on Feb. 24th, the sixth day after the operation.

At the necropsy a tumour was found which occupied the right half of the bladder and deeply infiltrated the surrounding tissues. The surface of the tumour was extensively ulcerated. The right kidney was atrophied, its parenchyma had almost entirely disappeared, whilst the pelvis was very much dilated. The corresponding ureter was much dilated, and its opening into the bladder impeded by the growth. The left kidney was considerably enlarged, but appeared healthy on section.

Remarks by Mr. WHITEHEAD.—Sir Henry Thompson has expressed his opinion that pain, and not hæmorrhage, is the usual premonitory symptom of malignant disease of the bladder; in this case, and in every other instance of malignant disease of the bladder coming under my personal observation, the reverse has been the case. The difficulty found in introducing the finger into the bladder through a deep perineum is unfortunately a condition not unfrequently met with. The obstructed ureter and atrophied kidney are an unusual result in malignant disease of the bladder, it being generally found that the growth does not encroach upon the ureters to the extent of total obstruction. The pain was considerably in excess of that generally met with in malignant disease of the bladder, but was no doubt due to the bladder being adherent on the right side to adjacent structures, thus preventing the muscles from exercising their contractile power, and causing the neighbouring parts to be dragged upon in the constantly recurring efforts to micturate. The fixed condition of the bladder was also responsible for another feature. The bladder was moderately distended previous to the operation, but none of the fluid came away when the perineal incision was made, nor even after the finger had passed through the prostate; but directly the bladder was opened above the pubes the fluid in the bladder rushed out of the perineal wound, as well as through the wound above the pubes, illustrating in a graphic manner the necessity and great advantage of counter openings when free drainage is the object desired.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Rectal Intussusception, due to a new growth; Excision of Intussusception; Enteroraphy; complete recovery.—Experimental Inquiry as to the best method of Enteroraphy.

AN ordinary meeting of this Society was held on Tuesday last, Mr. G. D. Pollock, F.R.C.S., President, in the chair.

Mr. A. E. BARKER communicated a case of Intussusception of the Upper End of the Rectum due to obstruction by a new growth, in which complete recovery ensued, after excision of the intussusception and suture of the cut ends of the bowel. The case narrated is that of a married woman aged twenty-eight, who for sixteen months had noticed streaks of blood with her motions, and for eight months had been conscious of a foreign body in her rectum. Two or three months before operation the latter

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had begun to prolapse at each stool with copious bleeding. There was much constipation, but there had never been any diarrhœa. On examination of the rectum in June, 1886, a mass of new growth was found surrounding nearly the whole of the apex of an intussusception of the rectum. The reflexion of the rectal wall could be felt about three inches from the anus, so that the apex of the mass belonged to a spot about six or seven inches from the latter. On June 9th Mr. Barker drew down the intussusception and operated as follows:—The left index finger was passed well into the intussusception and the two layers of bowel were pinched together beyond the growth between the finger and thumb. An ordinary sewing needle, carrying stout carbolised silk, was then passed through the two layers from the intussuscipient into the lumen of the intussusception and returned, including about one-sixth of an inch of bowel tissue. This loop was tied firmly, and another stitch was similarly introduced, about one-sixth of an inch from the first, and tied in the same way. By repeating this the whole bowel was encircled with a row of stitches well above the growth. When this had been done, a second row was similarly introduced about half an inch higher up. The whole intussusception was then cut away *en masse* immediately below the lowest row of stitches. Only one small vessel bled, and was tied; the rest of the cut surface was dry. The mass cut away consisted of a nodular mass of adenoid epithelioma, taking up about two inches of the bowel, and with a margin of healthy tissue above it. The patient's recovery was rapid and uninterrupted. A large motion was passed on the sixth day. The patient left the hospital about four weeks after operation feeling quite well. The rarity of intussusception of the rectum is discussed and some statistics are given. The rarity also of intussusception of the lower bowel produced by cancerous growths is alluded to, the author having only been able to collect eleven such cases. These are briefly described, six of them being either purely rectal or in the sigmoid flexure. Of these six, only four were operated on; the first two by Verneuil, but both with a fatal result. The next excision was performed by Kulenkampff with an ultimately good result, but a loop of small intestine had been opened in excising the intussusception and a provisional colotomy had to be done. The case now related is the fourth.

Mr. STANMORE BISHOP'S paper on the Results of an Experimental Inquiry as to the best method of restoring the Canal after removing Portions of the Small Intestine was communicated by Sir Spencer Wells, Bart. The question was discussed as to what an ideal suture should be, and reference made to all those now in use; the suture devised by the author was described. The results of some experiments on animals were detailed. A perfect method of enteroraphy requires: Absolute and perfect apposition. Restoration of the *status quo ante* of the calibre of the bowel. The surgeon must not leave any unnecessary sign of his interference behind him. The two serous surfaces must be brought face to face together. The various methods of enteroraphy were described and figured in a paper by Mr. S. Bishop in the *Medical Chronicle* of 1886.—Mr. T. HOLMES mentioned a case of intussusception in an infant which was constantly recurring and being reduced. The child died, and many polypoid tumours were found in the intestine besides the one that caused the intussusception.—Mr. HARRISON CRIPPS rather agreed with Mr. Holmes that cases of intussusception of the kind in question were not rare. Perhaps one case in six of annular malignant disease of the bowel was attended with an intussusception, which, however, did not advance and could not be pulled further down. Reference was made to the case of a lady in which the growth was with difficulty reached, the posterior part of the rectum having to be divided, and then, after some dissection, the whole growth, the size of a two shilling piece, was removed with both layers of the muscular coat, leaving only the peritoneum. He thought Mr. Barker's operation was one of extreme interest.—Mr. CHRISTOPHER HEATH was quite sure that any operation than that done by Mr. Barker would not have been successful. Neither the suggestion of Mr. Holmes nor of Mr. Cripps would have been sufficient, for the growth was a large, ragged, sessile tumour, nearly the size of the palm of the hand. He was agreeably surprised to find what an excellent recovery had followed the operation. Such an operation seemed to show that greater liberties might be taken with the mucous membrane of this part than had hitherto been supposed. Mr. Whitehead's method of treating piles also pointed to the same conclusion. How would Mr. Barker deal with a case which could not be drawn out of the anus? With a growth higher, up would laparotomy or what operation be best?—Mr. A. E. BARKER said the growth infiltrated the coats of the bowel, rendering a mere excision of the growth impossible. To dissect off the growth would be an unsatisfactory method in the case of a malignant neoplasm. It would be preferable to remove the whole of the intussusception. In reply to Mr. Heath, he said he should certainly perform laparotomy and excise the whole mass of the intussusception. He would search for the upper part of the intussusception and employ Czerny's suture for a row of stitches, and afterwards cut off the intussusception, thus imitating nature's method of sloughing. He thought that there was a good deal in Mr. Bishop's method of suture.—Mr. F. TREVES said that Mr. Barker's case was the most deliberate, complete, and successful operation of the kind on record. He made three classes of cases in which intussusception and cancer become combined. The first was an annular cylindroma forming an obstructing ring, and this forms a commencing intussusception. The second kind was made up of cases of chronic intussusception which develops into an epithelioma. The third class was composed of cases where an ordinary polypus, having produced an intussusception, becomes a cancerous growth. Mention was made of the case of a woman, aged forty, with chronic intussusception, in which unsuccessful attempts to draw it down to the anus were followed by removal with a galvanic wire; the lumen was restored, and the patient remained comfortable for a while. The return of obstruction was relieved by a lumbar colotomy, and no less than eleven polypi were removed at the operation.—Sir SPENCER WELLS thought that as Mr. Bishop's knots and suture did not irritate the peritoneum, and when separated the stitches fell into the cavity of the bowel, a great advance was made in abdominal surgery. He considered that the result of Mr. Bishop's experiments was a complete argument to those who objected to the funds of the Royal College of Surgeons being employed for legitimate vivisection.—Mr. CROFT compared the suture recommended by Mr. Bishop with that of Lembert, and thought that it might have disadvantages, for the stitches were so close together that the suture might amount to a circular stricture of the bowel, and possible cutting off of the blood supply. He would be sorry if everyone set this suture down as an absolutely unobjectionable one. The tissues operated upon were those of healthy dogs, whereas in diseased men and women the tissues might prove less tolerant of the suture. Whether the latter fell away into or outside the intestinal canal he considered was a matter of small moment. He admitted that the suture had some advantages.—Mr. TREVES had tried every suture on dogs some years ago, and came to the conclusion that the Czerny-Lembert suture was the most suitable. Time was a great element in enteroraphy, and the old suture was readily manipulated. The bowel of the dog was hard and tough, unlike the thin delicate bowel of the human being. If the stitches were applied tightly enough to bring the bowel well together, the danger certainly would exist of sloughing of the margin of the bowel. Travers' experiments were performed with string and coarse dressings, which sufficiently explained his disasters. — Mr. KNOWSLEY THORNTON said that Mr. Bishop's suture did not favourably compare with Lembert's, for the knots within the bowel were favourable to the absorption of septic material, abundance of opportunity for which would exist, especially in the case of a diseased bowel. He agreed with the remarks of Mr. Treves as to the constriction of the bowel.—Mr. R. BARWELL had employed Lembert's suture in a boy aged seven. The whole of the suture was neatly enveloped in lymph.—Mr. BARKER asked how long the thread was which filled the needle. Passing so many times through the mucous membrane, the thread must become very septic.—Mr. T. BRYANT asked how Mr. Bishop tied the last knots.—Mr. CHARLES JENNINGS did not understand Mr. Treves's objections to experiments on living animals. He (Mr. Jennings) had used cylinders of cocoa butter and gelatine, so as to maintain the lumen of the bowel whilst the suture was being inserted.—Mr. BISHOP, in reply, thought the time of exposure of the bowel far more important than the mere duration of the operation. Experiments could only be satisfactory if performed on living animals. He did not use one thread for the whole operation, but as many as might be necessary, and by reef-knotting the fresh thread on to one end of the single threads of the suture.

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OBSTETRICAL SOCIETY OF LONDON.

A MEETING of this Society was held on Wednesday, May 4th, Dr. John Williams, President, in the chair.

Uterine Appendages.—Mr. LAWSON TAIT showed a series of specimens removed on account of inflammatory disease.

Malformation of the Fallopian Tubes.—Mr. ALBAN DORAN exhibited this specimen, in which there was an accessory ostium surrounded with fimbriæ.

Spinal Meningocele.—Dr. JOHN PHILLIPS showed, for Mr. Reginald Clarke, the head of a seven months fœtus, in which there was dystocia, owing to a meningocele between the axis and occipital bone. The child presented by the breech.

Fibro-myoma of the Ovary.—Dr. CARTER said that this tumour, which weighed 10¾ lb., had only been noticed for six months. The patient had made a good recovery.

A pair of Midwifery Forceps were shown by Dr. PARAMORE, for Dr. Haslam, with a lateral hinge in the handle of the upper blade.

A Speculum was exhibited by Mr. BUTLER-SMYTHE which folded like a tongue depressor.

Hæmorrhagic Parametritis.—Dr. MATTHEWS DUNCAN related three cases of severe bleeding in patients with Parametritic Abscess. In the first case the bleeding occurred on opening the abscess, and was easily restrained; the woman recovered. The bleeding was probably only a profuse oozing. The second case he did not see; the bleeding was rapidly fatal and flowed through the bladder, the abscess having spontaneously opened into that viscus. In the third case, also fatal, the bleeding occurred in repeated flows through the bladder, along with pus and sloughs. The bleeding arose from gangrene laying largely open the external and internal iliac veins at their junction. This case he regards as one, not of ordinary parametric abscess, but of progressive gangrene of cellular tissue. Of this latter disease he has recorded a case in an appendix to his work on "Perimetritis and Parametritis."—Dr. GRAILY HEWITT referred to the particulars of a case he had published, and which Dr. Matthews Duncan had mentioned in his paper. It was entirely due to physical injury, and was not at all analogous to the cases of Dr. Matthews Duncan.—Dr. WILLIAM DUNCAN had seen two cases in which, after bursting of the abscess, there was oozing of blood for several days from the pyogenic membrane lining the abscess cavity. He thought that it would have been more correct if Dr. Matthews Duncan had given the cases as hæmorrhage into the sac of a parametric abscess, and deprecated the use of the title "hæmorrhagic parametritis."—Dr. GALABIN had met with a case in which fatal hæmorrhage into a pelvic abscess occurred. The case was originally diagnosed as one of retro-uterine hæmatocele. Suppuration occurred, and discharge through both bladder and rectum. After three months, erysipelas occurred about the vulva, and fatal hæmorrhage into the abscess cavity. Extensive burrowing and sloughing in the pelvic cellular tissue were found at the necropsy.—Mr. LAWSON TAIT had never met with any such cases as those described by Dr. Matthews Duncan, and thought that they ought to be dealt with by abdominal section before such disasters occurred. Mr. Tait thought the title of the paper should have been "Parametritis ending fatally by Hæmorrhage."—Dr. MATTHEWS DUNCAN thought that the title was of no moment, whether hæmorrhagic parametritis or parametritis with hæmorrhage. He knew no reason to regard extravasation of urine as the cause of sloughing, and in a very large number of cases of these abscesses discharging through the bladder he had never met with any evidence of extravasation of urine into the abscess cavity. It might occur, but he knew no evidence of it.

The Frequency of Pathological Conditions of the Fallopian Tubes formed the subject of a paper by Dr. ARTHUR H. N. LEWERS, and was the outcome of observations on the pelvic organs in a series of a hundred cases in the post-mortem room of the London Hospital, made with the view of assisting in the determination of the frequency with which dilatation of the Fallopian tubes—hydrosalpinx, pyosalpinx, and hæmatosalpinx—occurs among the general population. Recently Dr. Henry Coe, in his paper, "Is Disease of the Uterine Appendages as frequent as it has been represented [illegible] *of Obstetrics*, June, 1886) said: [illegible] tubes is far less frequent than is [illegible]. Others, on the contrary, believed these conditions to be of frequent occurrence. Cases where the contents of the dilated tubes were not distinctly purulent, or were not composed of blood, were classed by Dr. Lewers as hydrosalpinx. Disease of the Fallopian tubes, restricting the expression to pyosalpinx, hæmatosalpinx, and hydrosalpinx, was met with in seventeen cases out of one hundred examined. A detailed description of each specimen was given in the paper, which included also a table classifying the chief points of interest in these seventeen cases.—Dr. GALABIN thought this communication was of very great value as an addition to the evidence on the subject by Dr. Kingston Fowler. He wished to ask whether the 100 cases recorded were consecutive or selected, as he thought that 17 per cent. was a large proportion of cases of distension of the Fallopian tubes. In 302 necropsies of women above the age of puberty at Guy's Hospital the pathologists had only found twelve cases of distension of tubes, and two of these were very trivial. This was a proportion of only 4 per cent. There was only one case of pyosalpinx and a doubtful case, the pathologist being uncertain whether two suppurating sacs were tubes or ovaries; the ovaries could not be found. There were fourteen cases of chronic inflammatory disease about the Fallopian tubes without distension. Of the whole twenty-six cases, it was probable that in seven pelvic inflammation was indirectly the cause of death through the medium of general peritonitis, intestinal obstruction, or in other ways. These included the two cases of pyosalpinx, one of hydrosalpinx, and four of chronic inflammation without distension. Thus, in 302 cases there were of chronic inflammatory disease about the tubes 9 per cent., distension of tubes 4 per cent., death indirectly in about 2 or 3 per cent.—Mr. LAWSON TAIT spoke in eulogy of Dr. Lewers' paper. He found the conclusions drawn from the post-mortem room as regards causation, progress, prognosis, and treatment identical with those which he had been preaching for about ten years on the basis of clinical experience. He confessed that it was somewhat a staggering thing to find 17 per cent. of the women who died in the London Hospital suffering from tubal disease, and this did not include those cases which suffered the most, in which there were adhesions between the ovaries and tubes to the surrounding viscera, more particularly the peritoneal layer lining Douglas's pouch, resulting ultimately in complete retroversion of the uterus with its appendages, and forming one of the most dreadful conditions which the gynæcologist had to deal with. When removed, it was difficult for an unskilled pathologist to see anything the matter with them. Dr. Lewers had not included such cases, and they must have been numerous. He thought the explanation of the higher percentage at the London Hospital and the small group at Guy's must be due to locality, and that gonorrhœa was more common amongst the poor at the East-end than on the south side of the river. At the out-patient department at Birmingham 10 per cent. of the women who applied for relief suffered from chronic inflammatory disease of the uterine appendages. All these did not require operation. The most staggering conclusion to be derived from Dr. Lewers paper was the enormous fatality of these diseases. At the London Hospital the death-rate was 24 per cent., while at Guy's it would appear to be 25 per cent. For years Mr. Tait had been arguing in favour of operation in order to relieve suffering, but when the pathologists at the London, Guy's, and Middlesex Hospitals showed a death-rate between 24 and 50 per cent., the cry for relief by operation was one which could not be gainsaid. His own results showed that these cases could be relieved by operation, with a mortality not exceeding 2 or 3 per cent. The question as to the sterility caused by these diseases might be settled by ascertaining the period between the occurrence of death and the birth of the last child. Mr. Tait agreed with Dr. Lewers that hydrosalpinx seems to precede pyosalpinx.—Dr. HORROCKS was surprised at the large percentage of disease of the Fallopian tubes shown in Dr. Lewers' table of cases. He found that in many cases the disease began in the ovary and glued the fimbriated extremity to itself, which led to pathological changes in the tubes. In some cases the affection spread from the vagina to the uterus and from the latter to the tubes. In all his cases there was peritonitis, but in nearly every instance it was [illegible] process indicated only by old [illegible]. Mr. [illegible] noted that [illegible] [illegible] disease [illegible] [illegible] through the uterus so as not to [illegible]

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not likely that it escaped through the ostium into the peritoneal cavity, else hydroperitoneum would be more frequent, as he had pointed out in his paper on Papilloma of the Tube. The severe forms of tubal disease with local peritonitis showed how the tubes were a highway from the exterior into the peritoneum. Their frequency amongst the East-end women suggested that they arose more from extension of neglected leucorrhœa and gonorrhœa than from sounding or syringing. Disease of the tubal mucous membrane was more probably caused by the passage of fluids upwards than by extension of inflammation. Extension might occur, but mucous inflammations were generally localised in the genital as in the respiratory tract.—Dr. IMLACH regarded Dr. Lewers' paper as important, and trusted the investigation would be continued, and that pathologists would scrutinise the ovaries and tubes as carefully as they did other organs. The gonorrhœal origin of these diseases was often assumed. He had examined a large number of women in the lock hospitals, but had not found a single example of pyosalpinx amongst them. The question of etiology was important, and could only be settled by clinical investigation of a large series of gonorrhœal patients.—Dr. MATTHEWS DUNCAN expressed his sense of the great value of Dr. Lewers' paper, but felt the want of further information regarding the cases. He wished for information as to the symptoms, if any, caused by the pathological conditions. It was probable that these pathological conditions were obsolete and evidence only of long past disease. This view was confirmed by the ages of the patients. Mr. Tait had said that in his practice the average was twenty-seven to thirty, and Dr. Lewers' cases were above forty on an average, and many quite old. Dr. Matthews Duncan was not astonished at there being evidence of disease in 17 per cent. of the post-mortems, for he had long known that evidence of past or present disease in the region of the uterine appendages was a very frequent occurrence.—Dr. WILLIAM DUNCAN thought it most important that out of the seventeen cases reported, fourteen were over forty years of age, and in only one case were definite symptoms of pelvic mischief given, while almost all died from diseases not attributed to tubal mischief, showing the fallacy of the view that most cases require laparatomy.—Dr. LEWERS, in reply, said that the cases were as nearly as possible consecutive, and that the inquiry lasted thirteen months. There were many cases showing more or less extensive old adhesions not included in his list. He did not think gonorrhœa was more common at the East-end than elsewhere in London, and many of the cases at the London Hospital came from the adjoining districts. He thought hydrosalpinx and pyosalpinx were stages of the same disease, and the cases in his table confirmed this to a great extent. If further investigation should establish this view, and that pyosalpinx has a mortality of 40 per cent., we shall not be able to resist the conclusion that dilated tubes should be removed. None of the seventeen cases of dilated tubes came from the obstetric wards, though some of the 100 cases examined came from those wards.

OPHTHALMOLOGICAL SOCIETY.

Franklin's Spectacles.—Fatal Meningitis after Excision of Suppurating Globe.—Insertion of Artificial Globes into Tenon's Capsule after Excising the Eye.—Night-blindness.—Complete Self-enucleation of Eyeball.

AN ordinary meeting of this Society was held on the 5th inst., Mr. J. Whitaker Hulke, F.R.S., President, in the chair. The President announced that Dr. Samelson of Manchester, had presented a volume of letters of von Graefe to the Society.

Mr. BRUDENELL CARTER showed a pair of Franklin's Spectacles for use after Cataract Extraction. They were made by cementing two small semicircular plano-convex lenses upon an oval of plane glass. Thus, both near and distant vision was afforded, and the spectacles were not heavier than ordinary spectacles. Messrs. Baker, of 244, High Holborn, were the makers.

Messrs. CRITCHETT and JULER showed a case of Peculiar Dotted Appearance of the Fundus of the Right Eye, whether choroidal or retinal they could not say, nor whether it was congenital or acquired; syphilis was probably not operative. There was haziness of the vitreous of the other eye. They also showed a case of a young woman with a rare form of Pigmentary Change in the Retina.—Mr. NETTLESHIP asked how long the condition had probably lasted in the first case?—Mr. JULER said there was slight myopia, but no history of special failure of vision.—Dr. HILL GRIFFITHS mentioned a case of minute dotted appearance of the fundus about the macula in a woman whose sight was defective from abuse of tobacco, but as her sister had a similar change in the fundus he regarded the lesions as of congenital origin.—Mr. W. H. JESSOP said there was pigment in front of the large vessels in the second case, and therefore in the retina.—Mr. JULER admitted that the pigmentary layer was much affected in places.

Mr. ADAMS FROST showed a case of Cystic Tumour in the Orbit of a woman aged thirty-five. It was of two years' duration, the eyeball being merely prominent till six months ago, when a soft swelling appeared at the upper and inner angle of the orbit beneath the skin of the upper lid; the cyst was punctured but yielded nothing.

Mr. ERNEST CLARKE showed a set of Artificial Eyes made by Maw, Son, and Thompson, at the inexpensive cost of 3*s.* each.

Mr. W. J. COLLINS showed a case of Cholesterin in the Vitreous in a man aged sixty-six, probably primary, the right eye being alone affected. Such a condition might disappear according to von Graefe.

Mr. W. J. COLLINS also exhibited a living specimen of Exophthalmos with Opacities of the Lens in a young woman, with marked palpitation but no goitre, though a small one had been present a year ago. Von Graefe's and Stellwag's signs were absent.—Mr. NETTLESHIP said there was slight ptosis of right side, in which the disease began, the reverse of what was usually seen.—Mr. COLLINS thought the ptosis might be due to congestion, for it was variable in degree.

Mr. LANG read notes of a case of Fatal Meningitis following excision of a suppurating globe, and causing death in forty-eight hours. The necropsy revealed extensive suppurative meningitis.

Mr. LANG also read a paper on the Insertion of Artificial Globes into Tenon's Capsule after Excising the Eye. He had employed this plan after finding that Dr. Mules's operation for evisceration and an artificial vitreous was unsatisfactory. The operation consisted in inserting a hollow globe of glass, celluloid, or silver into Tenon's capsule, and then closing the capsule by a set of deep sutures, and the conjunctiva by a superficial set, both of silk; the deep ones were not removed. A horse-hair drain placed under the deep sutures and an iced pad to the lids prevented pain and swelling of the lids and conjunctiva. In sixteen cases not one had suppurated; this was probably due to the antiseptic precautions which were taken—namely, to irrigate the conjunctival sac before excising the eye, again after the excision (and this brought Tenon's capsule plainly into view), and finally when the operation was completed. He advocated the operation, as it had all the advantages of Dr. Mules's operation without any of its disadvantages.—The PRESIDENT had never met with a fatal case after excision of a suppurating globe. Was extension of the inflammation brought about by the application of a too firm compress? Fluids in the orbit might conceivably in this way be driven back. Would it not be better to treat such a case as in an ordinary wound, and leave the orbit quite free from pressure?—Mr. NETTLESHIP remarked that the meningitis might have preceded or accompanied the suppuration of the eyeball, and he therefore asked whether there was any fever before the operation or other indications of a similar significance.—Mr. BRUDENELL CARTER said that Sir Wm. Bowman had thirty years ago condemned the extraction of the capsule of the lens from the eye as a certain cause of cyclitis &c. In operation on the eye he always soaked his instruments in alcohol, a useful precaution against septic infection, he believed. Following von Graefe, he never excised an eye in a case of suppuration.—Dr. BRAILEY was of opinion that evisceration was the best method of treatment of suppurating eyeball. The occurrence of suppuration was, perhaps, not often due to inoculation with germs on instruments, but had more to do with the general condition of the patient. He thought it was more reasonable to suppose that a more beneficial effect and less chance of spread of the suppuration to the meninges would be obtained if the sclerotic were left, than if the capsule of Tenon was the only barrier.—Mr. ADAMS FROST confirmed all Mr. Lang had said in favour of his operation as compared with that of Dr. Mules. His own operation had not been so successful as Mr. Lang's.

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His plan was to unite the muscles with Tenon's capsule and the conjunctiva over the globe; the hæmorrhage was sometimes very troublesome. He thought that removal of the sclerotic was an additional safeguard.—Dr. MULES had had upwards of one hundred cases of evisceration without any cause for anxiety; the cases were kept in about twelve days. There had been no sympathetic disease, nor had there been any difficulty in cleaning out the interior of the globe.—Mr. JESSOP thought that the capsule of Tenon would get worn away by the foreign body; the sclerotic (as in Dr. Mules's operation) was the only tissue in the body of sufficiently low vascularity to withstand the irritation of a foreign body.—Dr. LITTLE said that he sometimes enucleated and sometimes eviscerated; the latter when he had good reason to believe that the back part of the eye was not involved in the disease. He did not use or advise the employment of an artificial vitreous for fear of irritation resulting.—Mr. F. R. CROSS said that evisceration was a not altogether successful operation, for it was uncertain whether a sinus or fistula might appear after the introduction of the artificial vitreous; and the thin conjunctival membrane between the artificial vitreous and the glass eye would be sorely tried. He concluded that the old operation was the best still, especially if some means could be devised to keep the lower eyelid firmly against the glass eye.—Mr. BRUDENELL CARTER had performed Dr. Mules's operation about twenty-five times. He had seen difficulty arise from the wound not uniting properly. He thought it an excellent and safe operation. — Mr. NETTLESHIP had performed Mr. Frost's operation five times; twice successfully, but in one of these the globe had become displaced.—Mr. LANG, in reply, said the lens capsule was very tough and quite loose, and required no force in its extraction. He did not believe in the absorption of soft tissue by a foreign body. Gaping of the wound was due to the use of too large a globe.

Mr. NETTLESHIP narrated four cases (in two families) of Night-blindness of long standing, and apparently at present not increasing, in which a number of very small, scattered, white spots were present at and behind the equator of the fundus, evidently caused by deposit, not by atrophy. In none of them were there any of the appearances of common retinitis pigmentosa, though there was pigment disturbance of a somewhat different kind towards the periphery in some of them. The patients were grown-up girls.

Mr. MACKINLAY narrated a case in which a woman had wrenched out her left eye with a meat-hook. She was thirty-nine years of age at the time, and had had several children in rapid succession. She was suckling a baby three months old, and had been much depressed for three or four days before the occurrence. The optic nerve had been snapped off close to the commissure. She made a rapid recovery. The only case he knew of was one recorded by Mr. M'Hardy in the last volume of the Society's Transactions.

THE GENERAL COUNCIL OF MEDICAL EDUCATION & REGISTRATION.

TUESDAY, MAY 10TH.

SIR HENRY ACLAND, PRESIDENT, IN THE CHAIR.

AT the meeting of the General Medical Council on Tuesday last, the PRESIDENT delivered the following opening address:—

At the close of the last session the Council did me the honour of desiring that I should retain office until we could with advantage meet to further consider the relation of the Apothecaries' Societies to the Royal Colleges of Physicians and Surgeons in England and Ireland, and the consequences which would arise should they fail respectively to combine for examination purposes. I find myself, therefore, once more called upon by your favour to open another session of the Council. In the discharge of that duty I shall state very shortly the chief business which is before the Council. I shall offer a summary of the proceedings which relate to the action of the Colleges and the Apothecaries respectively, and then, before I retire, shall request you to permit me, as my last act, to join you in recording the sense we all have of the blessings this country has enjoyed during the eventful reign of the Queen and Empress of this united empire. First, then, and briefly, as to the business, exclusive of the combination question. This is already for the most part set forth in the programme now on the table. Through the activity of your committees, their reports afford ample scope for prolonged attention, but also through the carefulness of the reports each subject can be rapidly, as well as clearly, dealt with. It would be an improper employment of time were I to give any account of the several reports on procedure, income and expenditure, or practical education, in the consideration of which I shall be unable to share. The Council will doubtless desire that I shall pass at once to the question of the combination of the three licensing corporations in England and Ireland respectively. First, I would ask that the several communications from the four Colleges and the Societies of Apothecaries, which are upon the programme, may be received and entered upon the Minutes. I will offer such short commentary upon them as may lay the whole case, as I understand it, clearly before you. I will then report the little that it has been in my power to do in furtherance of the Council's wishes. First, as to the case of England. The letter which was read to you at the last meeting was forwarded to the four Colleges on February 25th. Replies were received from the Royal College of Physicians of London on March 23rd, and from the Royal College of Surgeons of England on April 2nd. No desire was expressed by either of the Colleges for an interview. It was clear from semi-official information which I received that if an interview were obtained with the College of Surgeons it would be useless for the object of the Council. I did not therefore press it. With respect to the College of Physicians the case was different. Having been for nearly forty years a Fellow of that body, I was, in my judgment, bound in that capacity to attend the meeting when the subject would be discussed. Accordingly, on March 21st this was done. What passed I am not at liberty to relate. Discussions are held to be *secreta collegii*. But I may just say that it seemed to be a duty to endeavour to disabuse the College of a charge which had been privately made to me, that, in the judgment of many Fellows, the Medical Council had gravely outstepped its duties by addressing the College on the subject. As a Fellow, I do not hold that opinion; whether it was largely entertained, I cannot say. That it was held, by whomsoever held, on an imperfect conception of the position of affairs, cannot reasonably be doubted. Since the time when the Colleges declined to admit the Apothecaries' Society, that body had applied to the Medical Council for examiners under the Medical Act, 1886. The Council, as well as the Colleges, had at various times declared in favour of union between the licensing bodies in England, inclusive of the Apothecaries' Society. If there was any chance still left of union, the Council was clearly bound not to appoint the examiners and thus erect the Apothecaries at once, and *de novo*, into an independent licensing corporation. It was a case in which precipitancy was to be with the utmost care avoided. We were deciding upon a momentous education question of the future. The answer which you have now received must be accounted as final. A simple question therefore remains. The Apothecaries apply again to you through a new motion (Programme, No 12) for examiners. To this application a reply must now be given. An endeavour will be made to traverse the direct answer by means of a motion by Professor Struthers. This motion makes it my duty to make certain statements for the information of the Council. Very opposite opinions have been pressed upon me since we last met—as, for instance: (1) That the Council should certainly refrain from appointing the examiners, and should leave the onus of the decision to the Privy Council. (2) That the Council is bound, both in honour and by the principles of law, to carry out the alleged intention of the Legislature by the Act of 1886 and to appoint examiners. (3) That it will be injurious to the public interest that the Apothecaries should continue to exist as an examining body. (4) That it will be a real advantage to retain them side by side with the two corporations and the Universities, in order that excessive and unnecessary scientific examinations may not be imposed on every medical student. I have noted that some who used to wish the Apothecaries to be "extinguished" now hold the opposite opinion. (5) That if the Medical Council do not grant the examiners, the Privy Council will certainly not override your decision. And, lastly, (6) that the Privy Council will certainly, in the case of your refusal, direct you to appoint examiners, and, if you then decline, will

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appoint them against your judgment. If this be so, the Privy Council will be acting in the unquestioned exercise of its powers under Clause 19 of the Act of 1886. In what proportion these opinions, and others which have been pressed upon me, weighed with the English Colleges cannot be stated, since they do not assign their reasons for not consenting to form one Corporation Examining Board for England, and in this simple way bring to a close a long and tedious discussion. To you, therefore, or to the Privy Council, is left the decision whether to perpetuate or to extinquish an examining body which for seventy years has rendered the State acknowledged services. I should not have ventured to trouble you with these divergent and hearsay statements but as an introduction to what follows. Since we parted, it appeared to me to be a duty to learn, as far as I could, the legal view of our position—subject, of course, to the uncertainty of all opinion not resting on judicial decisions in a court of law. I gather that the Council would probably be advised that they will fail in a statutory duty if they refuse to appoint the examiners. It is true that under the Act of 1886 the Council has power to refuse. "It shall be lawful for the General Council, if they think fit, on the application of (a) corporation, to appoint any number of examiners to assist at the examinations" (Clause 5). But then, by Clause 19, "*if it appears to the Privy Council*" that "occasion has arisen for the General Council to appoint assistant examiners," "the Privy Council may notify their opinion to the General Council"; and if the General Council fail to comply with any "directions of the Privy Council" relating to such notification, the Privy Council may themselves give effect to such directions." The Medical Council is therefore powerless to prevent the appointment of examiners. Its decision must rest, not on the question whether the new examining board of the Apothecaries would be adequate or inadequate, but on the general question of policy or vested interests in respect to an old corporation. It is clear that the Legislature has carefully guarded these interests by giving a right of final appeal to the Privy Council. By refusing examiners, the Medical Council would propose a policy, but that only provisionally. If it grant examiners, it becomes the complete guardian of the examinations, because it would both appoint the examiners and send its inspectors. It cannot therefore be alleged that the Apothecaries' examinations will be inadequate, if they continue to exist. It may be said they are unnecessary. The Legislature has implied that the Apothecaries have rights. If we refuse these, they appeal to the Privy Council. That body will, on a review of the whole case, interpret, as it sees fit, the intentions of Parliament by the Act of 1886. As regards the Apothecaries in Ireland, the case may be more shortly stated. A direct legal issue has been raised by the College of Physicians. You have before you the statement of the College of Physicians of Ireland (March 19th and 21st), the letter of the College of Surgeons (March 24th), and recently a further letter from the College of Physicians, dated April 26th, and opinions of counsel forwarded by the Apothecaries' Society of Ireland, dated May 5th. From these documents three special conclusions may be drawn:—1st, that it (the College of Physicians) uncompromisingly decides against any combination, alleging that the Apothecaries cannot grant a licence in medicine, and therefore no body can combine with the Apothecaries; 2nd, that they therefore dispute the power of the Medical Council to grant supplemental examiners to the Apothecaries; and 3rdly, that the College of Surgeons, in its judgment, propose to incorporate the Apothecaries with themselves for examination purposes, without the Physicians, rather than that the Council should give the Apothecaries a permanent and independent position by granting the examiners. It is here necessary to observe that the Council has before it the opinion of the Attorney-General, the Solicitor-General, and Mr. Muir Mackenzie, that under the Medical Act of 1886 the licensing bodies can combine without the sanction of the Medical Council, and not, as heretofore, under conditions to be approved by you. By this opinion the Surgeons and Apothecaries of Ireland can combine, if the Apothecaries can combine at all, without your consent or that of the College of Physicians. I cannot conclude this sketch of an important subject without thanking the Irish members of the Council for much assistance in this matter. I need not longer detain the Council. There is much to be considered during this session, and my medical advisers forbid me to share it. Indeed, I feel assured that, in your interest, I should, for the last time and with deep regret, bid you farewell. This I do with an earnest prayer for the steady progress of the scientific, humane, and national work which Parliament has laid upon you. I trust, however, you will allow me, before I quit the chair, to propose for your consideration a humble address to the Queen. The two surviving members of the original Council may thus join you in discharging a welcome and touching duty to a Sovereign who is full of sympathy for the sufferings we have to prevent and to alleviate, and greatly beloved by all her loyal people. (Applause.)

Mr. MARSHALL, in moving that the President's address be entered on the Minutes, said he was sure the members would desire to express to him their extreme pride and gratification as to the manner in which he had discharged the duties of his office for so many years, and their deep regret that his physical health should compel him to relinquish his post. The address which he had just delivered would be an excellent guide to the Council through the labyrinth of questions which seemed to be pressing urgently for solution.

Sir WILLIAM GULL claimed the privilege of seconding the motion. He had known the President forty-eight years, and he had never met with anyone who had so thoroughly devoted himself to duty—to which, indeed, he had sacrificed every other consideration.

The motion was unanimously agreed to.

Mr. SIMON moved that the following address be engrossed and presented to Her Majesty:—

To Her Most Gracious Majesty Queen Victoria, Queen of Great Britain and Ireland, Empress of India.

May it please your Majesty,—We, the General Medical Council of Education and Registration of Great Britain and Ireland, humbly tender our loyal congratulations to your Most Gracious Majesty on the approaching completion of the fiftieth year of your Majesty's reign. Having been appointed by Act of Parliament to take steps for enabling your Majesty's subjects to distinguish between those who are, and those who are not, qualified by education and character to practise medicine in your dominions, we have had the opportunity of noting the progress which has been made during your Majesty's reign in the science of medicine, especially in its bearings on the health of the nation. The progress of education and the improvements in the practice of all branches of medicine, civil and military, have been great during the last fifty years. Towns have been rendered more healthy; rural dwellings have been improved; dangerous occupations supervised; medical officers of health and public analysts appointed; excessive hours of labour regulated; the treatment of the sick poor in our workhouses amended; and asylums for mental diseases carefully organised. In all these improvements medicine and medical education have had a large share. To these subjects the lamented and illustrious Prince Consort gave earnest attention, as evinced by the interest he took both in the erection and administration of model dwellings and hospitals—institutions which have also been the objects of your Majesty's solicitude and sympathy. We desire further to express our sense of the obligation under which the nation lies to all the members of your Royal House, who, treading in the steps of their Royal parents, have constantly shown, by numerous acts, their desire to promote the sound progress—scientific, educational, and practical—of every department of rational medicine. For these, amongst other reasons, bearing on the general welfare, we have special cause to join our fellow-subjects throughout the empire in thankfulness to the Almighty for the blessings of your Majesty's reign. We fervently pray for your Majesty's continued peace, well-being, and happiness.

We have the honour to be your Majesty's dutiful and loyal subjects.

Dr. H. WATSON seconded the motion.

Sir WILLIAM GULL, in supporting the motion, said that Her Majesty not only deserved the respect and affection of her subjects, but she had special claims on the medical profession, to which she had ever been thoroughly loyal, never countenancing quackery or anything leaning towards irregular practice.

The motion was agreed to.

The PRESIDENT then retired from the chair, expressing his earnest desire for the progress and well-being of the Council as long as it and England lasted.

Dr. QUAIN was requested to occupy the chair during the discussion on the election of the President. He said he was sure that the Council would desire to pass a hearty vote of thanks to the retiring President for his long and valued services.

Sir WILLIAM TURNER seconded the motion. The late President, he said, had always performed his duties in the spirit of a kindly gentleman, never once losing his temper.

Mr. MACNAMARA desired, as one who had perhaps tried the President's temper sorely, to support the motion, and suggested that an address should be drawn up and presented to him on his retirement.

This was agreed to, and a committee was appointed to draw up the address.

Dr. QUAIN said that the duty now devolved upon the Council of electing a president from among themselves, as

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required by the Act of Parliament. There were no rules given for the election, and the Council would have to decide whether it should be by ballot or otherwise. A precedent would thus be established to regulate future elections.

Strangers were then requested to withdraw, and the Council deliberated in private on the subject of the election.

On the readmission of strangers, Dr. QUAIN intimated that Mr. Marshall had been unanimously elected as President of the Council.

Mr. MARSHALL, in taking the chair, expressed his thanks for the distinguished honour conferred upon him. When he remembered the names of his predecessors he felt the serious responsibility of his office. He was now in the peculiar position of being one of themselves, and it might be supposd that, as the representative of a particular body, he might be liable to swerve from the line of duty. He was quite sure, however, that that body would feel itself disgraced if he allowed himself to have his conduct influenced or modified in the least degree by the circumstance of his connexion with it. His duties would have relation chiefly to the mode in which the business of the Council was conducted, and the object of the president of any public body should be, on the one hand, to protect individual members, and, on the other, to maintain his own authority in the chair. It was quite possible that those two conditions might be excellently maintained; and it would be his endeavour not only to throw his whole soul into the affairs of the Council, but to conduct the business (according to the Celsian maxim with regard to a surgical operation) *cito, tuto, et jucunde.*

Sir Wm. Turner was then appointed a member of the Executive Committee in the place of Dr. Haldane, and Mr. Wheelhouse in the place of Mr. Marshall.

On a motion for entering on the Minutes the usual statement of the degrees, diplomas, and licences of the candidates for commissions in the medical staff of the army, who on February 14th and following days presented themselves for examination,

Dr. MCVAIL pointed out that the holders of English diplomas appeared to have been much more fortunate than the holders of Scotch and Irish diplomas, and suggested that the circumstance might perhaps be accounted for by differences in the examinations in the different bodies. He thought it was desirable to ascertain from the Directors-General of the Army and Navy Medical Departments what conditions regulated the numbers in the column "qualified, but not successful." Last year, he said, it appeared that out of six licentiates of the University of Edinburgh two were appointed to vacancies and four were actually rejected

Dr. QUAIN said that any body that considered itself aggrieved could make application to the Directors-General, but that it was not the duty of the Council to interfere in the matter.

Sir DYCE DUCKWORTH said that the holders of the qualifications referred to must also have had other qualifications, and that no definite conclusions could be drawn from the figures given, unless they were carefully read. The matter might be referred to the Executive Committee for inquiry.

Sir WM. TURNER said that, as representing the University of Edinburgh, he would bring the matter before that body, but it was not a subject to be taken up by the Council. It was satisfactory to observe that out of seventy-three candidates only three were rejected.

Mr. B. CARTER said that Sir Thomas Crawford had told him that the examinations of candidates for examination during the present year had been exceptionally good, and that many more vacancies were filled in consequence.

Dr. DUNCAN said he sympathised with Dr. McVail's views, and thought it desirable to know what were the conditions regulating the position of candidates who were passed as qualified but not successful. He would move that application be made to the Directors-General for the desired information.

Dr. MCVAIL seconded the motion, which, after some remarks by Mr. Simon, Mr. Wheelhouse, Dr. Bruce, and Dr. H. Watson, was put and negatived.

A communication was received from the Lord President of the Privy Council enclosing an application from the Society of Apothecaries for a postponement of the "appointed day" mentioned in the Medical Act, and asking the opinion of the Council on the subject.

Dr. HAUGHTON moved that the matter be deferred till after the consideration of the motion by Mr. B. Carter for the appointment of assistant examiners to the Society of Apothecaries.

It was pointed out by Mr. Simon, Dr. Quain, Sir W. Gull, and others, that when the matter was mentioned at the last meeting of the Council it was understood that if the extension of time was required it should be allowed.

Dr. Haughton's motion was not seconded, and it fell to the ground. A motion for the required extension of time was then agreed to.

Mr. B. CARTER then moved: "That, in pursuance of the application made to the General Medical Council by the Society of Apothecaries of London, by letter dated April 12th, 1887, for the appointment of Messrs. W. J. Walsham, G. H. Makins, and Andrew Clark, to be assistant examiners to the Society, under the provisions of the Medical Act of 1886, the Council hereby appoint Messrs. Walsham, Makins, and Clark to be assistant examiners accordingly." He said that at the last meeting of the Council in February the decision on the question was postponed in order that a representation might be made on the part of the Council to the Royal College of Physicians and the Royal College of Surgeons, in the hope that the objections entertained by those bodies to a combination with the Society of Apothecaries might be overcome. That representation had been made, but unsuccessfully. During the interval the Society of Apothecaries had in some degree modified the terms of their application. They now asked for the appointment of the three named gentlemen as assistant examiners. The privileges of the Society of Apothecaries with regard to the licensing of medical practitioners dated originally from a charter conferred by King James I., but for the purposes of the discussion he would be content to trace them to various Acts of Parliament, some of them specially obtained by the Society and others affecting the Society in common with other medical bodies. The first and most important of the special Acts was that which came into operation in the year 1815. The College of Physicians absolutely refused to undertake the supervision and control of the medical education of the general practitioners, and the work was therefore committed to the Society of Apothecaries, which had ever since carried it on in what he believed was admitted to be an admirable manner. During the seventy years that had elapsed the licence had been conferred upon more than 22,000 practitioners, and the number of licentiates was at this moment about one-half of the whole medical practitioners of England. Of the thirteen gentlemen of English birth and English medical education sitting around that Council table, he believed seven held the licence of the Society of Apothecaries. The estimation in which the Society was held by Parliament was sufficiently shown by the fact that it was retained in the Act of 1886 as one of the bodies entitled to send a representative to the Council; but the Act, while requiring that no one should be admitted to the Register except as the result of an examination in medicine, surgery, and midwifery, did not give the Society any statutory right to confer a surgical qualification. It could not therefore grant to its licentiates the right of entrance to the Register unless it could combine with some other licensing body by which its deficiency in respect to surgery could be made good. It could hardly be expected that the Society of Apothecaries would be able to combine with any of the universities, because those universities already possessed the power of giving licences in medicine, surgery, and midwifery. The only bodies with which the Society could combine practically were the College of Physicians and the College of Surgeons, and some years ago such a combination was very carefully considered, and was at one time looked upon as being practically settled. Lately, however, the Royal Colleges had refused to carry out the arrangement which they once made. It was under these circumstances that the Society now appealed to the Council to carry out the intentions of the Act of Parliament. He held that the Council had a certain amount of discretion in the matter, but that discretion must be exercised in a just and reasonable manner, having due regard to the legal rights of the Society. Whatever their decision was, the Privy Council had absolute power to review, confirm, or reverse it, and he was strongly of opinion that the action of the Privy Council would be almost entirely guided in the matter by the grounds upon which the decision of the Council was arrived at. If it appeared that it rested upon grave, weighty reasons of public policy, there could be very little doubt that an adverse decision on the part of the

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Council would be supported by the Privy Council; but if, on the other hand, they were influenced by sentiment, by corporation rivalries or jealousies, the Privy Council would reverse the decision. If any members of the Council were opposed to the granting the Society examiners, he respectfully invited them to formulate the reasons by which their views might be supported. His mind was perfectly clear on the question that if he were not the representative of the Society he should still vote in favour of the application. The only assertion that he had heard as to the mischief or evil that might arise from granting the assistant examiners was, first, that those examiners would enable the Society of Apothecaries to remain in competition with other licensing bodies, and that such competition would be likely to be disadvantageous. It could not surely be disadvantageous to the public, because the special function of the Council was to exercise a supervision over examinations, to see that they were adequate for the protection of the public, and not unduly severe in their claims on the medical student; and for the Council to say that the existence of one or more examining bodies would tend to lower the standard of examination was to admit at once their own inability to discharge the functions which the Act imposed upon them. His own feeling was that the action of competition would be precisely the reverse, and that nothing but good was likely to come from it. If there was room for useful work for both the bodies, they would survive and do the work; but if there was not room, the fittest only would survive; and if the time came for the Society of Apothecaries to be extinguished, it would extinguish itself by a process of natural decay, of which, however, he at present failed to see even the very earliest indications. The idea that the Society would be likely to use what had been called competition downwards was one which had appeared to him no gentleman was justified in gravely putting forward, because it was totally opposed to the whole past history of the Society. He could quote in defence of his position the professional authority of the Royal College of Physicians of London, which was so much impressed with the necessity or the desirableness of some competition in London that in the year 1861 or 1862 it established an organisation, and went out of its way to set up competition where none before existed, and by recent decisions the College had shown how thoroughly it adhered to what it had done. He asked the Council not to deprive the public of the benefits of that system of competition which the College of Physicians had made sacrifices to establish, and which even within the last week it had declared it would not abandon. The reason why three examiners had been named was because the Act stated that they should have the power to appoint on the application of the corporation, and it was doubtful, therefore, whether the Council would have any power to appoint either more or fewer examiners than those that were applied for. The gentlemen named were appointed examiners by the Society of Apothecaries in 1884; they were gentlemen of the highest surgical attainments and of great practical experience. The Society put forward their names without any shadow of hesitation as to their fitness for the work.

Mr. SIMON seconded the motion. He said he did not agree in the view that it was desirable to have competition among examining boards, but the Council was now in this dilemma that they must either have the two examining boards in London, or must disobey the intentions of the law. It was on that ground that he seconded the motion. The Act of Parliament was obligatory upon the Council unless they had strong and definite reasons to the contrary. They might refuse, but they could not do so unless they had some reason which was not before Parliament at the time of the passing of the Act. If Parliament had meant to extinguish the Society of Apothecaries, it would have done so itself. That proposal was before Parliament, but was withdrawn. Such a thing was never dreamed of in Parliament as to give power to the Council to extinguish a body with vested rights against whom no complaint had been levelled. If they had been at the present moment before the Privy Council with an accusation against the Apothecaries' Company for having unfitly discharged its duties, then without doubt they might refuse to entertain the application, and probably the Privy Council would support them. If there had been anything wrong in the examination, it was the duty of the Council to represent it to the Privy Council, but in the absence of any such representation the examination of the Apothecaries' Company was supposed to be as good as that of the University of Cambridge for all purposes of the law. If without any justification of that kind they would refuse to do what the Company asked them, they would place themselves in an extremely embarrassing position. What wrong had the Apothecaries' Society done that they should be at the mercy of the General Medical Council? The Council was not established on the Kilkenny cat principle, that some bodies should be able to eat up others. He extremely regretted the necessity of the vote, but he had not the least hesitation as to what was his duty, and therefore he seconded the motion.

Mr. TEALE said that the motion involved two separate things: first, the granting of examiners; and, secondly, the appointment of special persons.

Mr. CARTER said he was quite willing to alter the resolution so that it should read: "That in pursuance of the application made to the General Medical Council by the Society of Apothecaries of London, by letter dated April 12th, 1887, for the appointment of assistant examiners to the Society under the provisions of the Medical Act of 1886, the Council hereby consent to appoint assistant examiners accordingly."

Mr. TEALE regretted that it was necessary to establish a second competing Board of Examiners in London, but he agreed with Mr. Simon that they really had little option or discretion in the matter. If Parliament had intended that they should have the power to put an end to the Apothecaries' Society, Parliament would have done it itself. He therefore did not see how they could avoid coming to the conclusion to grant the request of the Society.

Permission was then given to Mr. Carter to amend his resolution, and Sir DYCE DUCKWORTH moved the adjournment of the debate.

The Council then adjourned.

WEDNESDAY, MAY 11TH.

MR. MARSHALL, PRESIDENT, IN THE CHAIR.

Adjourned Debate on Mr. Carter's Motion.

A proposal by Dr. AQUILLA SMITH, seconded by Mr. WHELHOUSE, to resolve the Council into a committee for the purpose of considering the application from the Apothecaries' Society was negatived, and the debate was then resumed.

Sir DYCE DUCKWORTH said that at the meeting of the Royal College of Physicians he was requested to state to the Council what the policy was that led the College to act as it had done. When the courteous letter from Sir Henry Acland was received it was accompanied by no fresh arguments, and as the whole question had been fully and maturely considered, both in committee and by the whole College, the first decision was reaffirmed *nem. con.* The College saw that it would receive no accession of strength by union with the Apothecaries' Society, that the examination established by the Conjoint Board would in no way be improved by the addition of such examiners as the Apothecaries' Society could send to it from its own body, and that such being the case no possible good could accrue to the public at large from conjunction with that body. If the Apothecaries' Society took part in conducting the examinations of the Conjoint Board, they would have to find their examiners from without, and they would cease to issue diplomas upon their own account, so that, in fact, they would be nothing more than a trading company in the City. One point that had been lost sight of was that the College of Physicians of London had power to give a complete qualification in medicine, surgery, and midwifery; so that it was really not incumbent upon the College to seek an alliance anywhere. For the general benefit, however, it was thought well that the College of Surgeons should be allied with it. At the time when there were negotiations for an alliance with the Apothecaries' Society all the universities of England negotiated too, but a very different state of things prevailed now. The action which the College took in 1861 in establishing a new order of licentiates had been of great benefit to the profession, and had improved the educational standard of general practitioners. If that was to be regarded as competition, it was at all events a competition upwards, but he was quite sure that it was in no way intended to compete with the examinations held every week in the Apothecaries' Hall. To those who knew the circumstances of the case it was simply ridiculous to talk of rivalry or jealousy. Speak-

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ing simply as a member of the Council, and not as a representative of the College of Physicians, he considered that the Apothecaries were no longer wanted in this country. They had done their work well, but the need for them had passed away. That which they had done at one time was now much better done by the trained and examined members of the Pharmaceutical Society. The only reason why the pupils at the schools wanted to take a licence of the Apothecaries was because in some provincial hospitals, and in the bye-laws of various boards of guardians, it was required that, whatever diploma any candidate might possess, he must produce the licence of the Apothecaries' Society. It therefore happened that men who were eminently qualified and held the diploma of the College of Physicians and degrees of the universities, had, perforce, to go to Blackfriars and obtain the licence of the Society. The Apothecaries' system had been a great drawback to the profession of the general practitioner. It had been the means of spreading many mischievous ideas among the public, and the nonsense of homœopathy in this country was little more than a Nemesis following the apothecary. It was not for one moment to be doubted that the requirements of the two Royal Colleges were distinctly in excess of those of the Apothecaries' Society, and those who were interested in the levelling up of the profession must look askance at the reinstatement of the Apothecaries' Company. They had been threatened with an appeal to the Privy Council; but was the Medical Council to be muzzled and to be afraid to utter its opinions at a time like the present, and to defer to the opinions of a body of laymen who, however exalted and eminent, did not at present contain a single member of the medical profession, and who therefore were not qualified to form an opinion for themselves unguided by the Medical Council as to what was best for the highest interests of the profession. It was the duty of the Council to go forward boldly without any fear to do what it thought best and right for the profession and for the highest interests of the public.

Dr. STRUTHERS moved as an amendment: "With reference to the application made to the Council by the Society of Apothecaries of London, of date February 12th, 1887, received and entered in the Minutes of February 18th (p. 127), and to the further application by the Society to the Council, of date April 12th, 1887, that, in the opinion of the Council, it would be contrary to the interest of the public that the Society of Apothecaries should, through Section 5 of the Medical Act (1886), be enabled to grant a diploma qualifying for admission to the medical profession." At the last meeting of the Council he had proposed a resolution in favour of the Society of Apothecaries being admitted to the Conjoint Board, as he considered that the best way of getting rid of the difficulty which then existed was by process of absorption. The present proposal, however, was to revivify the Apothecaries' Society of London and put it in a position it had never before occupied—namely, that of being empowered to give a complete qualification. He opposed that proposal, feeling that the matter should be left with the Privy Council. His amendment was not designed to put an end to the Apothecaries' Society, which under the Act would in some respects come to an end in June, unless the Medical Council gave it a new life. But it had other functions to fulfil, and would still continue to supply medicines to the profession or to anybody else, and to prosecute quacks. Even if it ceased to do that, it could still confer the distinction of L.A.C. on those who chose to take it. In his opinion, it would be contrary to the interests of the public that the Society should be enabled to grant a diploma qualifying for admission to the medical profession. That the Apothecaries' Society should cease to be a licensing body was no new idea, for in the reports of the Select Committee in 1879-80 the opinion was sometimes expressed. By the Bill introduced by the Government of the day into Parliament in 1883, the Apothecaries' Society was only to have one representative on the Council, while the College of Physicians was to have three and the College of Surgeons three. When the Bill went into committee the Irish Apothecaries disappeared, and afterwards the London Apothecaries' Society was deleted from the Bill. Then, again, in the Bill of 1884 the Apothecaries' Society was left out. All those who were engaged on the Bill of 1886 knew very well that the Vice-President, Sir Lyon Playfair, was very anxious to pass what was passable, and to steer clear of all rocks ahead. He got quit of the difficulty of the Apothecaries very cleverly by putting it upon the Medical Council, and, if they did not settle it, leaving it to the Privy Council. If the application of the Apothecaries' Society were granted, the qualification which they gave must be an inferior one, and would lead to an inferior order of practitioners. At the last meeting of Council he was challenged by Mr. Carter when he spoke of the licentiates of the Society as apothecaries, but he found in the well-known Act of Parliament of 1815 there were constant allusions, not to a licence, but to a certificate to practise as an apothecary, and the examiners were required to examine a man "as to his fitness or qualification to act as an apothecary or assistant to an apothecary." If Mr. Carter's motion were agreed to, what kind of students would go to the examination? The men about whom there was something wrong might try for the certificate, but others would not. He did not think that any qualification should be attempted below the diploma of the Royal College of Surgeons. The profession was overstocked, and it was the duty of the Council to elevate it, and not to lower it—not to make apothecaries out of them, but to raise the members more and more. If the application were granted, the Council would perpetuate the system of supplying drugs. The competition of the universities was good, but the competition of the Apothecaries' Society would not be good. It was continually said that the Society ought not to be extinguished because it had done good work in the past. No doubt the Society put on an examination in medicine in 1815, but they obtained a monopoly along with it, and got the whole of the practice in England into their hands. An English apothecary was a thing that was not understood in Scotland or anywhere else in the world. The Apothecaries' Society used their power against the Scotch and against the Irish. The best educated man from Scotland or from Trinity College, Dublin, was regarded as an illegal practitioner in England. Formerly, if a Stokes or a Christison ordered a dose of rhubarb, he would have got a lawyer's letter, and have been mulcted in £20. No English Star Chamber ever used its powers more constantly than the Apothecaries' Society did.

Dr. QUAIN said Scotchmen were not allowed to cross the border to practise as apothecaries. The restriction did not apply to surgeons or physicians.

Dr. STRUTHERS said that the Apothecaries' Society became a trades union, giving the Englishmen the monopoly and keeping enterprising Scotchmen and Irishmen off the soil. An outburst of homœopathy took place in Edinburgh, but it was like the seed that fell on stony ground, and there was not now a pure homœopath in Scotland; but owing to the Apothecaries' Society homœopathy flourished in England, and, by teaching people to rely on nature and not trust so much to drugs, had done more good for the science of medicine than the Apothecaries' Society ever did. Mr. Carter had not referred to it, but outside a good deal had been said about the power of prosecuting quacks. On this matter, however, the report of the Medical Acts Commission said: "We consider it undesirable to attempt to prevent unregistered persons from practising, but at the same time we think that they should be prevented from representing themselves as being registered or assuming titles which would lead the public to believe that they are regular medical men." It was not creditable to any body of men at the present time to combine with another on the ground of the power to prosecute quacks. There were some things about the constitution of the English Apothecaries' Society which were not understood even in England. The Master of the Society, when giving evidence before the Medical Acts Commission in July, 1881, said that the Society touched none of the money that was paid for the examinations, the fees going into a fund entirely separate from the corporation, and being applied towards the expenses, the twelve examiners receiving £1000 a year between them, and the secretary of the Court of Examiners a salary of £200 a year. The Royal Colleges and universities had grand museums and magnificent libraries, but the Apothecaries' Society had no such things. It was an antiquated body, having its livery and its yeomanry, and using old phrases which dated back to the time when the surgeons were in alliance with the barbers. The Society was also a trading company, manufacturing and selling drugs and chemicals, not only by wholesale, but by retail, and dealing likewise in goods which it bought from other traders.

Dr. QUAIN said the Apothecaries' Hall was a distinct body from the Apothecaries' Society, and he protested against the

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time of the Council being wasted upon hearing an argument which had no bearing upon the subject before them.

Dr. STRUTHERS caused some amusement by handing to the President a tincture, a powder, and a bottle of eau de Cologne which he had bought at the Apothecaries' Hall.

Sir WM. GULL seconded the motion.

Sir WALTER FOSTER said he was glad that Dr. Struthers had recalled the minds of the Council to the humbler branches of the profession, which were doing good and useful work. He had, however, endeavoured to appeal to sentiment not of the highest kind, and to revive recollections and grudges against the Apothecaries' Society. There was nothing disgraceful in shopkeeping when carried on in an honest spirit. They were now placed in a position of great gravity, being called upon to decide whether the competition between the licensing bodies of London should continue on those lines which the profession generally had condemned. If they refused to grant assistant examiners to the Apothecaries' Society it would appeal to the Privy Council, and it was generally thought that the Privy Council would concede them the right to continue by ordering the appointment of examiners. He did not think that the Council should have the power to destroy the Apothecaries' Society under the present condition of matters, unless they had a good reason of their own for it; but in that event they would not be acting in the interest of the public, but from a narrower professional ground. If they refused to allow the Apothecaries' Society to have examiners and were backed up by the Privy Council, they would have growing up in the profession a new kind of practitioner. A Bill was now before Parliament called the "Pharmacy Act Amendment Bill," which established for the Pharmaceutical Society a curriculum of which materia medica formed a part, which meant that pharmacists of the future would enter upon a course of study embracing part of the medical curriculum. The course of materia medica lectures would include a good deal more than a knowledge of the physical and chemical properties of drugs. It could not be denied that in hundreds and thousands of cases patients were prescribed for by chemists over the counter, and that practice would continue until they supplied properly qualified aid to the poor people. If the public were denied the opportunity of consulting those practitioners who were useful to them, they would soon ask for parliamentary powers authorising those practitioners to prescribe for them, and he consequently believed that, in the interests both of the public and of the profession, it would be wrong to remove the power from the Apothecaries' Society of giving qualifications for the practice of medicine. If the Apothecaries' Society failed to sustain its standard of proficiency the Council would have power to control the granting of its licences. He regretted that the matter had come to its present position, and he laid the blame on those Colleges which had refused their sanction to the proposal that had been made. For himself, he was willing to give his vote according to his convictions, which were that the Council should declare that the Society should have examiners, and, in the interest of the public, they should appoint examiners to assist the Apothecaries' Society in giving a qualifying diploma for entrance on the Medical Register.

Mr. WHEELHOUSE said he thought the apothecary was a necessity in England. He did not know how the poor in many isolated localities could obtain medicine if the general practitioner were not permitted to supply it. He had been very anxious that the Apothecaries' Society should be absorbed by the two Colleges, and that there should be one portal by which to enter the profession. If that could not be brought about, there should be some means by which competition could be kept up to a certain extent. He was himself a licentiate of the Apothecaries' Society, and he felt that he should be turning his back upon it if he were now to say that it ought not to have the powers which it sought. The Council would be able to keep up the standard of the Society's examinations, and he therefore hoped that the application would be granted.

Mr. MITCHELL BANKS said he believed that there was a strong desire on the part of the Council that an amalgamation should take place between the Society of Apothecaries and the other bodies, but those bodies had declined, and the Council ought not to have its judgment warped by that consideration. The fear of threatened consequences ought not to weigh on them for a moment. No valid argument had been brought forward to prove that the request made ought to be granted. It had been urged that it was necessary to have a low class of practitioners, but he did not believe that such a class was required. The question at issue was one of vested interests, but whatever respect they might have for such interests, they ought not to be allowed to override the public good.

Dr. LEISHMAN concurred in the interpretation given by Mr. Simon to the words "if they think fit," and said that he was able to vote for Mr. Carter's resolution, which left it open to the Council to consider what number of examiners should be appointed. He had no sympathy with the Society of Apothecaries, but he was bound to recognise its legal claims.

Dr. HAUGHTON said that he was now a complete convert to Mr. Carter's proposal, for which he intended to vote.

Mr. SIMON said that the question of the fitness of the Society of Apothecaries had been decided by Parliament, and it was not for the Council to attempt to override that decision. The Council had a legal duty to fulfil towards the Apothecaries' Society, and if they did not do it the Privy Council would. If Dr. Struthers' amendment were defeated, as he hoped it would be, he believed that in two years there would be a conjoint board in London which would include the Apothecaries' Society.

Dr. DUNCAN said he could not accept the law as laid down by Mr. Simon. When the Act used the words "if they think fit," it did not mean nonsense, but it meant what it said. The prophecy of a one-portal system in two years he considered a ridiculous one, and he believed that if the profession were polled the general feeling would be expressed that the system was the abomination of abominations. He had great respect for the Apothecaries' Society, and regretted to have to vote for a proposal that might lead to its extinction. Mr. Simon's statement about the intention of the Legislature in passing the Act was mere idle talk. That intention could only be gathered from the Bill itself. He had learned from the highest authorities in the College of Physicians with which he was connected that the intention was that the Society of Apothecaries should be extinguished if the Medical Council thought fit.

Dr. BRUCE said that he thought Mr. Simon's argument in reference to the words in Clause 14 was unanswerable. Although he had at one time been an advocate for the one-portal system, he believed that if that system were carried out it would lead to a dull uniformity, and that the best thing was free open competition. If it had been the intention of the College of Physicians when the Act was being passed to extinguish the Society of Apothecaries, that view ought to have been frankly declared.

The debate was adjourned.

(*For continuation of Report see p. 1003.*)

JERUSALEM HOSPITAL FOR JEWS.

THE English Hospital for Jews in Jerusalem, in connexion with the London Jews' Society, has been established for over forty years for the gratuitous relief of the sick. It was the first hospital founded in Jerusalem, though many similar institutions have been established since then by the different nationalities. The work of the institution lies amongst the Jews, of whom there are about 25,000 now in Jerusalem; but Arabs are also occasionally seen. The hospital has twenty-six beds. There appears to be some difficulty in respect of the nursing, for which the managers of the charity have to depend entirely on such aid as can be procured in the place. Mr. Percy D'Erf Wheeler, M.R.C.S., L.R.C.P. Lond., is both physician and surgeon, and he is assisted by a proselyte educated for the medical profession in Hungary. A dispensary is connected with the hospital, and all the drugs and instruments are from London houses. Every kind of case is admitted, and patients arrive from Persia, Armenia, Circassia, Tunis, &c., many of them suffering from diseases of the eyes. They say they prefer coming to an English hospital. The sanitary condition of the city is stated to be deplorable, and the services of the medical staff of the hospital are found to be necessary not only in treating disease, but in directing the minds of the people to the paramount importance of cleanliness and sanitation. Malarial fever heads the list of diseases for which relief is sought. During the year 1886 the in-patients numbered 6052, and the total consultations amounted to 37,018—a figure which speaks eloquently of the good work done in connexion with the institution.

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THE LANCET.

LONDON: SATURDAY, MAY 14, 1887.

THAT there is something radically wrong in the present state of medical education is a proposition which at the first blush seems almost preposterous. That, with all our boasted improvements in the art of teaching, with a large body of teachers, never more zealous and devoted than at present, the results of the Final Examinations should be so deplorable as they confessedly are, surely evinces an error in method somewhere. Dr. GLOVER, it may be remembered, urged the point as evidence of a lack of practical knowledge, and thought that a return more or less to the old apprenticeship system would prove a remedy. That in 1885, according to the official returns, no fewer than 56 per cent. of the candidates were rejected at the Final Examinations of the Edinburgh Colleges, 48·2 per cent. at the Royal University of Ireland, and 44·1 per cent. at the College of Surgeons of England, are results which, to use Dr. GLOVER'S words, may well be styled "appalling" and "very painful." For it must be remembered that the candidates are all men who have completed the prescribed curriculum under all the advantages now offered for a complete training, and it is shocking to find so poor a result after so much labour. It is hardly possible to attribute this solely to the causes assigned by Dr. GLOVER, and it may be worth while to inquire whether there may not be other and less remote reasons for the high percentage of rejections.

The experience of the last few weeks of the examination held by the College of Surgeons supplies an answer to this inquiry, and clearly demonstrates that a large share must be laid at the door of the examination itself. For the number of rejections among the candidates at this Final Surgical Examination has been considerably in excess even of that given for the year 1885. There must be something wrong in system and in method to permit of such a large percentage of rejections, and we call upon the London teachers, who are all interested in this question, to spare no effort in determining the real cause of this regrettable state of things.

Much praise has been bestowed upon the examinations of the College of Surgeons for their stringency; but an equal amount of blame is due for their uncertainty. The personal equation plays a prominent part, for owing to the system that prevails, whereby the results of the written and those of the oral examinations are kept apart, and the comparatively high value set upon the few minutes' oral examination, it is obvious that the chances of success or failure must lie largely in the demeanour of the candidate and in the fitness of the examiner for his work. The rough-and-ready methods of old days have their survival in the present, and the student, who knows often as well as his teachers, and certainly better than his examiners, the standard of his fellows' knowledge, comes to regard the passing of an examination where the strong sometimes fail and the weak succeed as a game of chance, and trusts that he may have the luck to meet with a leniency which he may not merit. It is this uncertainty, due almost entirely to deficiency in the "art of examining," that is doing a great deal to bring into contempt examinations which we have perhaps been too apt to praise for their practical and searching character. That this is no new discovery may be gathered from the outspoken evidence of Mr. CHRISTOPHER HEATH, given before the Medical Acts Commission. Speaking of the examinations at the College of Surgeons, he says:—

"4065. One man may be lucky. He may go to a man at one table who is an easy examiner, and he will get through; and his friend, who has got a more difficult examiner at a table the other side of the room, does not get through. I do not know, human nature being as it is, how it is to be avoided."

Again, a little later Mr. HEATH makes the following remarkable admissions:—

"4069. (Prof. Turner.) I have heard complaints as to the examination of the Royal College of Surgeons of England, as to its being so uncertain an examination. Do you think there is any foundation for such a complaint?—It is uncertain.

"4070. What you have said with regard to the different standards at the different tables bears out the statement of its uncertainty?—Quite so.

"4071. So that I suppose you would not put forward the examination of the College of Surgeons of England as a model examination?—No, I think it might be modified with advantage in some way.

"4072. And perhaps in some respects in the way of diminished stringency and of less uncertainty?—Yes."

Further comment is needless. The statements of 1881 hold good for 1887; and we maintain that the credit of the College of Surgeons (ay, and the College of Physicians, too, since it has become a partner in the Examining Board) is at stake, for its reputation depends on the maintenance of a just uniformity in the performance of its duties as a qualifying body.

IN continuation of our remarks on the report of the Manchester Medico-Ethical Association on the question of the defects in the constitution of the Coroner's Court, we proceed to deal with the most important part of the whole document. We allude to paragraph 1 at the bottom of page 16: "The examination of the body upon which an inquest is to be held should be made by a medical man specially skilled in such matters, who should be designated the Public Pathologist, and that for every coroner's district there should be one or more such pathologists appointed to conduct the examination of the body previous to the inquest." The second paragraph advises that the appointment of the pathologist should be made by the Crown. This, it may be remarked, is quite impracticable; the pathologist should be not an officer appointed by the Crown, but an expert witness called by the coroner. The third paragraph provides for the calling in of further scientific experts for analysis, &c. The fourth paragraph is very important, and is this: "The duties of the public pathologist should not preclude the medical attendant in the case from giving evidence as a skilled witness where necessary." At present coroners are compelled by the Medical Witnesses Act to summon the medical attendant in the last illness, or, failing this, "any legally qualified practitioner in actual practice in or near the place where the death happened." The majority of

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jurymen at such inquest may also call for the evidence of such other medical witnesses as they may desire. From this it will be seen that the present law is sufficiently elastic to provide the requisite evidence without so sweeping a change as would be involved by the appointment of public pathologists by the Crown. The employment of the medical attendant or local practitioners by the coroner has been the subject of ceaseless attacks, and it is somewhat lamentable to read in the report under consideration that the medical attendant is not to be precluded from giving evidence as a skilled witness when necessary! A large proportion of the cases forming the subjects of inquests are those of sudden illness, poisoning, and violence of all kinds, in which the assistance of the nearest practitioner must be sought. Should death occur and an inquest follow, he is the only witness who can give evidence as to symptoms, appearances, &c., and his evidence must, as a matter of course, be necessary. Moreover, should a post-mortem examination be requisite, and the medical attendant be willing and desirous to undertake it, why should he be requested to stand aside and give place to a pathologist? THE LANCET has always appeared as the champion of the rights of general practitioners, and in continuance of this course we must protest against the proposed shutting out of the medical attendant as utterly unwarrantable. For not only is it, as we have seen, unworkable so far as the giving of evidence is involved, but it wholly ignores the fact shown by past history, that the average general practitioner in town and country has frequently shown himself to be as competent to make a post-mortem examination and to face with credit to himself a severe cross-examination in the witness-box, as to attend a difficult midwifery case, to set a fracture, or to perform any of the other numerous and multifarious duties which fall to a general practitioner's lot. In 1845 occurred the case known as the TAWELL murder, in which the deceased woman, SARAH HART, died from poisoning by hydrocyanic acid. The three local practitioners of the rural district where the death took place (Messrs. CHAMPNEYS, PICKERING, and NORBLAD) conducted the necropsy; and those who will refer to THE LANCET of that year will find that their report leaves little to be desired. Moreover, so carefully were the stomach and its contents removed, handled, and forwarded for analysis, that, though the nature of the poison was not known, the analyst (COOPER) was enabled to distil from the contents of the stomach one grain of pure anhydrous hydrocyanic acid. Could a skilled pathologist have done better? Again, when the Rugeley poisonings occurred in 1855, the late Dr. MONCKTON, then of Rugeley (subsequently of Maidstone), was entrusted with the examination of the exhumed bodies of ANN and WALTER PALMER. He published minutes of these in THE LANCET of 1856, and they may be profitably referred to now as models of how to proceed in future inquiries of the kind. And numbers of similar cases might be given. What is required is, not to shut out the medical attendants or local practitioners, but to encourage amongst them the careful and practical study of forensic medicine.

But though anxious to guard the interests of the general practitioner, it is not to be inferred that the present mode of conducting necropsies for coroners is in our opinion satisfactory. Very far from it. In every case involving a criminal charge against a suspected person there ought to be a second medical examiner without waiting for this to be asked for by the coroner's jury. It is obviously undesirable that all the important evidence afforded by a post-mortem examination should be the solitary possession of one medical witness, who might subsequently be unable to attend the trial from illness or even death. This has not infrequently happened, and the prisoner has thus been deprived of the advantage which might have followed a cross-examination of the only medical witness. On this account alone the presence of a second medical witness is most desirable, and this being admitted, it follows naturally that he should be one well experienced in necropsies and thoroughly acquainted with all the appearances of the internal organs, both morbid and healthy. The evidence of a skilled pathologist is very valuable, but it is also desirable that the second examiner should possess a competent knowledge of legal medicine. In a leading article published in THE LANCET of March 7th, 1885, it was remarked that the position of forensic medicine in this country was not what it ought to be. It has not kept pace with physic, surgery, ophthalmic surgery, obstetrics, or the other branches of medical study. The cause is not far to seek. Though for many years past attendance on one course of lectures on medical jurisprudence and toxicology has been compulsory upon every medical student, the lectures, with few exceptions, have not been of a nature to render the subject attractive; in most provincial and some metropolitan schools the lectureship has been too often regarded as a mere stepping-stone to some other more lucrative chair —a condition of things disastrous both to lecturer and students. Those who have attended the lectures of the late Professor SWAYNE TAYLOR, his successor Dr. THOMAS STEVENSON, Dr. TIDY, Dr. OGSTON of Aberdeen, or Dr. LITTLEJOHN of Edinburgh, will know how deeply interesting and practically useful this course of lectures can be made. In future care should be taken that the lecturer on forensic medicine in every medical school should be able to teach his subject practically as well as theoretically; and, as a means towards securing this, he should be an experienced pathologist. His aid should be sought by coroners and medical practitioners in all necropsies of a medico-legal character, the medical attendant and he making the examination jointly. By this simple arrangement, which could be brought about quietly, voluntarily, and without any alteration of the law, the rights of general practitioners would be respected, the latter would be afforded valuable help at a time when it is much needed, a considerable saving would be effected of scientific material now wasted, and a great impetus would be given to the better cultivation of forensic medicine. The various classes of this branch of medical study commenced this month, and we would call the serious attention both of teachers and students to recent trials, especially those of the Oldham poisoning case and the Hoxton murder. The first shows how important it is for every medical practitioner to have his wits always ready for any emergency, even in his most routine duties. Poisoners generally work insidiously, and take full advantage of every circumstance likely to remove suspicion from them. The Hoxton murder emphasises the excellent advice given by Lord DEAS at a trial in Aberdeen in

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1855: "A medical man, when he sees a dead body, should notice everything." The same case also shows the importance of making careful notes of all the post-mortem appearances for the purpose of refreshing the memory at the trial. What made the lectures of the eminent medical jurists to whom we have referred so valuable and interesting was the number of cases which they were able to give from their own experience. It is this which made CASPAR'S work so valuable a book of reference. But London, Edinburgh, and Berlin do not possess a monopoly of all that is valuable in forensic medicine. Every coroner's district may furnish its quota, and it is the duty of all practitioners throughout the kingdom, while standing up for their undoubted rights as afforded them by the Medical Witnesses Acts, to give every assistance towards the practical study and cultivation of forensic medicine and toxicology.

OF all the means which medical men possess for the saving of human life there is none so potent for good as vaccination. The amount of sickness and death which is prevented by this operation is almost incalculable, yet it is no exaggeration to state that there are few subjects of which the teaching is so lamentably neglected in our medical schools. The fact that vaccination is regarded as a trifling operation which can be performed by anyone leads to large numbers of men who engage in practice having the most elementary knowledge of its nature. The result is that vaccination is considered by many to be the mere inoculation of vaccine lymph, without any relation to the effects which will be produced in protecting the patient against so fatal and disfiguring a malady as small-pox. There is no question that comparatively few realise the full importance of the duty they are undertaking when they vaccinate, or understand that upon their method of operation depends the probability of their patient being protected for a long or short time against attack or even death from this disease.

A recent discussion by the Society of Medical Officers of Health was the occasion of statements being made which show that the want of knowledge of parents is often allowed to influence the action of the operator to the distinct detriment of the child, and, as a result, vaccination is credited with failure to sufficiently protect against small-pox, simply because it has been inefficiently performed. So far as relates to public vaccination, the Local Government Board have endeavoured to raise its standard, and have, by the issue of instructions for vaccinators under contract, pointed out the proper method of the performance of the operation and the means of guarding against all risk of injury. It would be well if the profession would understand that the instructions are not less applicable to private than to public vaccinators, and that it is their duty to protect as completely as possible their patients against attack by small-pox. These instructions state definitely that at least four separate good-sized vesicles, or groups of vesicles, should be made, so that the total area of vesiculation on the same day of the week following the vaccination should be not less than half a square inch. This recommendation is based upon an experience of many years, and upon the evidence which every small-pox hospital affords, that the severity of attack by small-pox subsequent to vaccination is inversely proportionate to the number of cicatrices. It should therefore be clearly understood that any medical man vaccinating less efficiently than is here indicated is guilty of an act of injustice to the individual who has placed himself under his care for the purpose of being protected against small-pox. It cannot be pleaded that vaccination of this sort exposes the patient to greater risk than a less complete performance, and everyone who neglects to comply to the fullest extent with this requirement incurs a serious responsibility, which it is impossible to evade.

There are reasons for the postponement of vaccination; there are none which can justify its ill-performance. Of the reasons for postponement may be mentioned those which are specifically stated in the instructions. The patient should, at the time of vaccination, be in good health, and, if an infant, should not be in any febrile state, or suffer from any irritation of the bowels or any unhealthy state of the skin, nor should he have been recently exposed to the infection of measles or scarlet fever, or any chance of risk from erysipelas which may happen to prevail in or about the place of residence. There is only one circumstance under which this advice can be set aside—that is, where there is definite exposure to small-pox, when the risk of death from this disease will justify the infraction of these rules.

As to the subjects from which lymph may be taken, the instructions are equally specific. They must essentially be healthy children, of whom preferably the family history is known, and they must be absolutely free from skin disease, from any sort of sore at or about the anus, or other sign of hereditary syphilis. Lymph must only be taken from children vaccinated for the first time, and never from cases of revaccination; and, again, only perfect vesicles without conspicuous areola should be permitted to supply it, and lymph contaminated with blood or by running over the skin must be rejected, as well as that which is thin and watery or not clear and transparent.

The precautions against septic injury are based upon the maintenance of absolute cleanliness of instruments, of subsequent dressings, and upon, as already said, freedom from exposure to septic disease. The need for the instructions as to cleanliness has unfortunately been strongly emphasised by accidents due to neglect. Lancets, it has to be remembered, are not the only instruments which are capable of inflicting injury in this manner. Our readers will not have forgotten the calamity at Norwich which led to the instruction that ivory points and capillary tubes should not be used a second time; we are induced to dwell especially upon this recommendation for the reason that the Local Government Board have just issued a report by Dr. AIRY on a death from erysipelatous disease after vaccination, the operator having omitted to exercise the precaution which is here enjoined.

By the loyal adoption of these recommendations, the few accidents which now occur from vaccination would be materially reduced in number, and an operation which saves yearly thousands of lives would meet with less opposition from those whose very existence is often dependent upon its performance. It may be hoped that in the future the General Medical Council may recognise the necessity for students being better taught in a branch

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of practice in which they will all more or less have to engage; but the absence of this teaching, which we lament, makes it the more necessary that the instructions of the Local Government Board should be carefully studied by private as well as public vaccinators.

WE had hoped that the question of the military status of the medical officers of the army would have been settled by the assurances given by the Secretary of State for War and the alteration in the Royal Warrant which he intimated. But this, it would appear, is not to be the case. An outcry has been raised for the grant of *honorary* rank to the medical officers, in the same manner as it is now given to the officers of other departments of the army. We cannot but think that this is a retrograde step. The wording of the Warrant as proposed to be now issued appears to us, as we have already pointed out (see THE LANCET for April 23rd, p. 836), to carry with it *substantive* military rank, for we are unable to conceive of any more clear definition of substantive rank to a medical officer than that his position and powers are the same as those of the corresponding grade in the combatant ranks, within the specified limits which clearly mark out their several and respective spheres of action. And for this substantive rank it is now proposed to make a fight for *honorary* rank. It is certainly rather amusing to find those who profess to be indignant at being placed in the same category with the officers whose duty is the supply and pay of the troops claiming to be classed with these very officers by having honorary rank given them. It is asserted that the abolition of the term "relative rank" has left only two descriptions of rank in the army, substantive and honorary. Surely of these two substantive is the more to be desired, and if Her Majesty decrees that medical officers shall rank *as* the corresponding grades of military officers, this manifestly constitutes substantive rank. The movement, then, would appear to involve a protest against the more desirable rank, with a view to obtain in lieu of it that which will associate the medical officers with those departments whose duties are such as not to expose them to the same dangers on field service as the so-called combatant and as the medical officers. But we are afraid that below the surface there is a desire on the part of a section of the Department to have military instead of professional titles. In our opinion the latter are the more honourable of the two, and when, as it is now proposed, all the privileges of substantive military rank, so far as they can be enjoyed by medical officers, are conferred on them, it would be indeed "an undignified and false position" to lead the public to believe that "they need the support of purely military titles, indicative of and appertaining to a profession to which they do not rightfully belong." If our view be correct—and we firmly believe it to be so—that the Royal Warrant confers substantive rank, the medical officers will be in a much better position than if they were to obtain honorary rank.

IN his opening address the President of the General Medical Council placed clearly before its members the steps which had been taken since the last session to prevent the continued existence of separate licensing bodies in the metropolis. Sir HENRY ACLAND'S action could not be criticised by those who are most jealous of the dignity of the Council, and the profession will remember with gratitude the part he has played in proceedings which have unfortunately been unsuccessful in their result. The satisfaction will always remain that the Council have used their best efforts to carry out the intention of the Act of 1886, and the responsibility of failure must henceforth rest alone upon the Royal Colleges of Physicians and Surgeons.

The arguments in favour of amalgamation have so frequently been discussed in these columns that it is unnecessary to repeat them; it is sufficient to state that the position of the Apothecaries' Society and their right to continued existence were represented by Mr. BRUDENELL CARTER, who again urged the Council to consent to the application of the Society of Apothecaries of London for the appointment of assistant examiners to the Society under the provisions of the Medical Act of 1886.

Sir DYCE DUCKWORTH has certainly failed to make clear the grounds upon which the Royal College of Physicians have refused to accept the advice of the Medical Council. The College, he argued, had power to give a complete qualification in Medicine, Surgery, and Midwifery; it could receive no accession of strength by union with the Apothecaries' Society and, such being the case, no possible good could accrue to the public at large from conjunction with that body. Notwithstanding the possession of this power to give a complete qualification, the College of Physicians have thought it well to combine with the College of Surgeons "for the general benefit." If we have comprehended rightly the intention of the Act of last year, the general benefit was its ostensible aim, and it is difficult to understand that regard for the public interests should, under these circumstances, have indicated the desirability of combination with one body and not with the other. The question has, however, passed this stage, and it only remains for the Council to decide whether they will grant or refuse the appeal of the Apothecaries' Society.

In taking farewell of the Council, Sir HENRY ACLAND commended to their consideration the address which it was proposed should be submitted to the QUEEN on the conclusion of the fiftieth year of her reign. The address properly refers to the great advance which has been made in the health conditions of the people, the appointment of a public health administration, and the good results which have accrued therefrom, as well as the progress which has been made in every department of rational medicine; and it bears witness to the support which the QUEEN has always given to subjects which thus intimately promote the happiness of those over whom she rules. In this last act of his official life, the President will have the warm approval of every member of the profession.

The appointment of Mr. JOHN MARSHALL to the presidential chair was unanimously agreed to by the Council, and will give general satisfaction. It is right that the body engaged in the control of medical education should be presided over by a representative of the highest scientific attainments, and no one is better fitted to undertake the responsible duties of the office than the newly-elected President. The admirable service which Mr. MARSHALL has already rendered to the Council directly indicated him as the successor to Sir HENRY ACLAND, and gives the best promise that its increasing powers will be utilized for the continued advancement of the profession.

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Annotations.

"Ne quid nimis."

QUALIFICATIONS UNDER THE NEW ACT.

THE new Medical Act recites:—"A qualifying examination shall be an examination in medicine, surgery, and midwifery held for the purpose of granting a diploma or diplomas, conferring the right of registration under the Medical Acts, by any of the following bodies—that is to say: (*a*) Any university in the United Kingdom or any medical corporation, legally qualified at the passing of this Act to grant such diploma or diplomas in respect of medicine and surgery; or (*b*) any combination of two or more medical corporations in the same part of the United Kingdom who may agree to hold a joint examination in medicine, surgery, and midwifery, and of whom one at least is capable of granting such diploma as aforesaid in respect of medicine, and one at least is capable of granting such diploma in respect of surgery; or (*c*) any combination of any such university as aforesaid with any other such university or universities, or of any such university or universities with a medical corporation or corporations, the bodies forming such combination being in the same part of the United Kingdom." With regard to the above-named clause, we understand that the authorities of the University of London consider that the M.B. degree will be registrable apart from the B.S., because the examination for the former includes the three subjects required by the Act. The wording of the clause, however, seems to be very ambiguous and difficult of interpretation; and it is not easy to see how far "qualifying examinations" will entitle "the following bodies" to place upon the Medical Register such higher diplomas and degrees as the F.R.C.S., M.R.C.P., B.S., M.S., and M.D., which, although nearly invariably granted after "qualifying examinations" have been passed, do not in themselves fulfil the requirements of the Act. It certainly seems not improbable that this unfortunate piece of medical legislation may afford more benefit to the legal than to our own profession. We trust the Medical Council will take steps to inform the profession what is really the true status, as far as registration is concerned, of the various degrees and diplomas. They are, it is true, an executive body, but they can hardly carry out their duties without knowing what is definitely required by the Act. The L.R.C.P. Lond., although single, is a complete qualification under the Act, but, owing to the combination of the Colleges of Physicians and Surgeons, is only applicable to persons commencing medical studies before October, 1884. Colonial M.B.'s requiring a registrable English surgical qualification must now take the L.R.C.P. conjointly with the M.R.C.S.

THE NEW CHARTER OF THE ROYAL COLLEGE OF SURGEONS.

WE may not unfairly claim to have secured at least one crumb of concession from the magnates in Lincoln's-inn, who rule so absolutely and so despotically in all matters concerning the College of Surgeons. The concession, it is true, concerns a matter of comparatively trifling importance. As we pointed out in a recent article, notwithstanding repeated and emphatic expressions of opinion by large numbers of Fellows and of Members, the Council persists in its determination to apply for a new Charter which ignores the Members of the College and leaves them unrepresented on the Council, although they form nearly nine-tenths of the entire constituency and contribute very largely to the College funds. The concession we allude to is this: The Council have decided that an official abstract of the petition for the new Charter shall be prepared and issued to any Fellow or Member applying for the same. They do not think it expedient to have another general meeting to discuss the prepared draft of the Charter, as the subjects to which it relates have already been submitted to previous meetings of the Fellows and Members. We presume that an "official abstract of the petition" will include the new parts of the proposed Charter; for, after all, that is what is really wanted, and that is what the Association of Fellows asked for in the resolutions which they addressed to the Council some time last month. The Association of Fellows at the same time ordered a letter to be sent to the Lord President of the Council begging that the proposed Charter about to be applied for by the College be not approved until the Association of Fellows has had an opportunity, by means of a deputation, of stating and explaining its defects. The Association of Members would do well to address a similar request to the Lord President. It is hardly necessary for us to urge on them also the presentation of their petition. When this is done they must be careful in the selection of speakers. It would be invidious to name some in preference to others; nevertheless, it should not be a difficult task to select the very best men for the purpose, if the memory is allowed to go back to the general meetings of the Fellows and Members that have been held at the College. We shall be very much mistaken and disappointed in our estimate of the Lord President of the Council if the representations of two such deputations—the one representing the Fellows, the other the Members of the College of Surgeons—are entirely without effect. In other words, we much doubt whether the Lord President will sanction a new Charter, which is promoted only, and not even unanimously, by the present Council, and to which a very large proportion of the rest of the body corporate is strenuously opposed. But we shall soon see. We cannot but regret this continued antagonism of the Council to the natural aspiration of the Fellows and Members. So long as it continues, energy and thought are being wasted, of which the corporation has need for purposes of its development. A house divided against itself cannot stand: the College of Surgeons will prove no exception to the rule. The feeling of the Fellows and Members is so widespread, so well founded, and so reasonable, that sooner or later they will succeed in carrying their points, provided only they do not weary of the struggle, but continue to fight in a legitimate manner until their demands are satisfied.

METASTASIS IN ERYSIPELAS.

AN interesting contribution has been lately made to the pathology of erysipelas by Dr. von Noorden (Abstr. by Weichselbaum, *Centralblatt f. Bacteriologie*, No. 18). It is based upon a fatal case of facial erysipelas, in which there was also suppuration in the sheaths of the extensor tendons of the right hand, parenchymatous nephritis, acute oöphoritis of the left side, and acute swelling of the spleen. It was concluded that this was an instance of secondary or metastatic infection of erysipelas. The blood in the cardiac cavities and the pus from the inflamed hand were found to contain large quantities of a streptococcus, which neither microscopically nor by cultivations could be distinguished from S. erysipelatis or from S. pyogenes. Inoculations of the cultures obtained from the blood were made in the ear of rabbits. In three instances only redness, without swelling or suppuration, occurred; in one of these cases only isolated chains of cocci were found in the lymphatics of the ear. In a fourth rabbit there was no local effect, but death followed in two days, and the blood was found to contain numerous streptococci; whilst in the fifth rabbit redness of the ear appeared on the sixth day, and numerous chains of cocci were detected in the lymphatics of the amputated ear;

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yet on the twelfth day, when the animal died, no cocci were found in the blood. These variable results led Noorden to conclude that animal experimentation was an insufficient test of the species of streptococcus; and further that, contrary to general opinion, the erysipelas-coccus may under certain conditions gain entrance into the blood. This infection may, he thinks, explain the occasional occurrence of secondary pneumonia; but Weichselbaum states that in such cases the pneumonia is not due to the erysipelas-coccus, but to the diplococcus pneumoniæ, and that it is incorrect to speak of an erysipelatous pneumonia. The case related by Noorden was probably one of pyæmia, due to infection by the streptococcus pyogenes.

MEDICAL JURISPRUDENCE AT KIMBERLEY.

ON Nov. 21st, 1886, a man named Grattan was found dead. He had been attended some time previously by a medical man, who diagnosed "mitral disease of the heart." The brother of the medical man, also a doctor, was called to see the deceased after he had been dead "apparently for some hours." Finding nothing in the history of the case or in the surroundings of the body to cause him to suspect poisoning, he, with the permission of a relative of the deceased, opened the abdomen and examined the stomach, and, feeling satisfied with the negative evidence it afforded, certified that death arose from natural causes. As in all hot climates it is desirable for interment to take place without unnecessary delay, Grattan was buried on the day following his death. According to Dr. Croghan, Mr. Robinson (Grattan's relative before referred to) informed the police of the death within a quarter of an hour of the finding of the body. Subsequently, on information received, the assistant resident magistrate ordered an exhumation, and a second and more complete necropsy was made by Drs. Harris Grimmer, and Cumming. These gentlemen failed to detect heart disease in any form, but discovered old tubercular affection of one lung. Suspecting that poison had been taken or administered, they placed portions of the body in spirits of wine, with a view to preserving them for future analysis. In a letter to the Kimberley *Daily Independent*, Dr. Croghan complains that a preservative was added to the parts to be analysed, but on what grounds we fail to see, as not only was the measure a justifiable one, but it was pursuant to official instruction. The analyst at Cape Town detected prussic acid in the body. This seems a remarkable fact, for Dr. Croghan states that there was no odour of that poison in the room in which deceased was found, either before or after the body was opened. Had prussic acid caused the death—and in the face of the report of the official analyst we are not in a position to dispute it,—undoubtedly it ought to have been discovered at the first necropsy, either by the smell or by the glass plate test, which might have been then and there applied. We have known cases in which this test has succeeded when applied to blood taken from the heart two or three days after death. We have many times expressed the opinion that whenever a person is found dead, the coroner or his representative should be informed of the fact. In this way the medical man frees himself from all responsibility, and shifts it on to the person designed by the law to bear it. It was, of course, injudicious on Dr. Croghan's part to open the body without an official order, but having done so why did he not complete the examination, or at least satisfy himself of the existence of the heart disease that his brother had discovered during life? Negative evidence as to the cause of death is all very well as far as it goes, but it should not be accepted where there is the possibility of getting positive testimony. A wound was found on the wrist of the deceased, which Dr. Croghan asserts was caused by the bite of a dog, but which Dr. Harris says was inflicted by a bullet. Surely such a discrepancy is discreditable to the cause of surgery and of medical jurisprudence. A skilled observer could not fail to settle the point with certainty. There are other matters in this controversy which are rather of personal than of public interest, and therefore we decline to discuss them; but we may say that Dr. Croghan received scant courtesy when he was not requested to attend the official necropsy or informed of the time and place of its performance.

PRESENTATION DAY AT THE UNIVERSITY OF LONDON.

THE most interesting part of Lord Granville's speech on Wednesday last referred to the new scheme which is now ripe for consultation between the Senate and Convocation, and which will be laid before the latter body at an early special meeting. We have already given an outline of these changes, the chief effect of which will bring into the University representatives of associated colleges and of faculties as constituent elements. The maintenance of the high character of the University degrees and the Imperial nature of its work were strongly insisted upon by the Chancellor, his remarks being received with much applause by those present. It is to be observed that Lord Granville failed to refer to the real difficulty before the University. The time of the authorities is already so occupied with the numerous examinations at home and abroad, and the machinery of the University is so entirely devoted to this object, that a suitable constitution for a local teaching university cannot be framed, such as is wanted in London, as well as an Imperial examining board. It must surely be seen that the functions of the two bodies are quite different, and that they require separate and distinct organisations. The proposed scheme only touches the fringe of the great educational question in London which so urgently presses for a full and proper solution.

VIVISECTION IN 1886.

FROM the Home Office report, just issued, it appears that the experiments on living animals made last year under the provisions of the Cruelty to Animals Act numbered 1035. The total number of persons holding licences is sixty-four (forty-eight in England and sixteen in Scotland), and of these fifty-four have performed such operations in twenty-one separate buildings, of which eight are in London, eight in the provinces, and five in Scotland. Notwithstanding that these experiments come under the term "vivisection," as commonly used, a comparatively small proportion only were attended with pain to the animals experimented upon. In 458 cases the use of anæsthetics was dispensed with, on the ground chiefly that, the operation consisting merely in the slight puncturing necessary for inoculation, more distress and annoyance would be occasioned to the subject of the experiment by the administration of a narcotic than by the operation itself. Of the remainder, 213 cases were subject to the condition that the animal should be killed before recovering consciousness, in which cases, therefore, no pain at all was inflicted; while forty are reported as being painful in character. Even in these instances, however, the amount of pain inflicted was generally but small. Upon the whole, the official record warrants the belief that the demands of science have within the past year been reconciled with the infliction of a very small total of pain and inconvenience upon its victims. When our business and our sport come to be conducted with equal consideration for the brute interests involved, we shall be able to congratulate ourselves on having deserved well indeed of the lower creation. One passage in Mr. Erichsen's report suggests a doubt whether the Home Office is wise in the latest addition to its code of

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vivisection rules. "It has been decided," we read, "that in future, if after the main result of the experiment has been attained pain be occasioned, the animal must be killed under the influence of an anæsthetic." Surely this is a most ill-judged regulation. If all that remains is to kill the animal, the most expeditious must usually be the most merciful method of procedure. To prolong a needless agony which a single stroke might terminate, while narcotics are administered only for the purpose of killing under the influence of an anæsthetic, seems to be the very pedantry of humanitarianism. The fact is that rules cannot be framed to supersede in every detail the head and heart of the operator.

THE METROPOLITAN ASYLUMS BOARD.

AGAIN another week has passed without a single case of small-pox being removed to the metropolitan hospitals, and again at the last meeting of the managers was the cry raised that the hospital ships ought to be closed. The managers have, however, a very distinct duty to perform—the removal from London of all cases of small-pox that can be removed; and the hospital ships essentially give opportunity for this to be done. Later, when the managers have learned how small-pox hospitals may be built which will not act as centres of infection, the natural course will be to utilise those in London, but at present there is no alternative but to adopt the course they have determined upon. The guardians of Islington, who have no public health functions, have protested against the expense of keeping open the hospital ships. The managers have, however, become (not of their own seeking, but because of the neglect of other bodies) the hospital providing authority for public health purposes; they must do more than house sick people—they must keep in readiness the machinery for isolating cases of infectious disease, and thus aid in the prevention of epidemic prevalence. The money spent in maintaining their hospitals in a state of preparedness better serves the public interest than the larger sum which would be required for providing accommodation for numerous cases which would result if small-pox were treated in London. The statement which was made by the Islington representative, that every small-pox patient costs £800, simply conveys to the minds of those conversant with hospital administration the smallness of the number of cases under treatment. The letter of the Islington guardians has now been referred to the Ambulance Committee for consideration and report; their decision will be freely accepted by the ratepayers, for no member of the board more thoroughly possesses the public confidence than the chairman of this committee.

RABIES IN DEER.

THE recent outbreak of rabies among the deer in Richmond Park will perhaps direct attention to the hitherto almost entirely overlooked destruction caused by this disease in other than the human and canine species, and afford an additional reason for strenuous efforts to rid the country of it once and for ever. Almost daily we receive reports of heavy losses sustained among horses, sheep, and cattle, through their being inoculated by rabid dogs; and this incident in Richmond Park is far from being a novel one. In Fleming's "Animal Plagues" and in his "Rabies and Hydrophobia" allusion is frequently made to the occurrence of the malady in deer, as well as in foxes, wolves, and other *feræ naturæ*. It is well known that of all the animals in India the one most liable to rabies is the jackal, and that it generally is the medium of infection; as when rabid it has no fear, and becomes extremely aggressive. It appears that in last October, when rabies was prevalent in the suburbs of London, a rabid dog was seen in Richmond Park, and it was noticed that some of the deer were bitten by it. In the course of time one or two of these creatures showed the disease, the symptoms, however, being more of the paralytic than the furious form, and were therefore at first misleading, the presence of rabies not being suspected. Soon others became affected, however, and both forms of the disease were manifested, those which were furious biting and butting their fellows. Whether the bites of the rabid deer were productive of rabies in those bitten by them, or whether all had been infected by the dog, cannot be clearly ascertained; certain it is, however, that a large number of them have died, or been killed because of being affected. Some accounts report considerably over a hundred lost in this way, and measures of isolation and segregation have probably prevented further mischief. That the disease was rabies there is no reason to doubt, as inoculation with portions of the brain and spinal cord of deer which had perished from it has produced the malady in rabbits. These experiments were carried out at the Brown Institution. It is to be hoped that adequate prophylactic measures, and notably the systematic adoption of muzzling of dogs, to which we advert in another column, may be enforced, so that in the course of a year or two we may hear no more of such a terrifying scourge, which has been allowed free play far too long. It now exists in at least six counties in England.

SMALL-POX AND VACCINATION.

THE determined opposition to the Vaccination Acts at Leicester has led to a sad exhibition of violence in that town. According to reports in the daily press, an auctioneer was assaulted and driven into the police-station because he had attempted to sell the goods of a man who had refused to pay a penalty inflicted by a magistrate for non-compliance with the Vaccination Act. Leicester will one day have serious cause to regret the reckless wilfulness with which it refuses to learn that vaccination, and vaccination alone, will protect against small-pox. Not long since we pointed out that the system of isolation which is rigorously practised in Leicester is dependent for its efficacy upon the vaccination and revaccination of the hospital attendants. Leicester, therefore, is obliged to rely upon vaccination; but the time will certainly come when even the method of removing to hospital, not only the sick but also those who are exposed to them, as practised in that town, will fail to protect sufficiently the population. The story that comes from Marseilles might be studied with advantage. This town resembles Leicester in so far that there is no compulsory enforcement of vaccination. It is now stated that the mortality from small-pox among the Marseillaise was last year greater than that assigned to any other cause except diseases of the respiratory organs, which but slightly exceeded it. The total mortality from small-pox was said to be over 2000 in a population of 375,000.

HEREDITY.

WE read in a contemporary that at the request of the Crown Prince of Germany, Professor Virchow has endeavoured to trace in the long line of the Hohenzollern Princes persistent physiognomic peculiarities such as have been observed in the Stuarts, Bourbons, Hapsberg, St. Albans family, and many others; and he is said to have found that the physiognomic characteristics of the Hohenzollerns seem to have split up into several types, which are in some cases strikingly apparent, and then disappear for some generations. Evidence of a like kind might, we imagine, be obtained readily from any family that has long been settled in the same place, though in these days of change of locality it is not always easy to trace family peculiarities for more than a generation or two.

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THE CONJOINT COLLEGES AND A DEGREE IN MEDICINE.

A PETITION has been sent in to the authorities of the Royal Colleges of Physicians and Surgeons of London by the teachers in the metropolitan medical schools praying that earnest endeavours may be made to obtain the power of granting a degree in medicine. There are four qualifications or conditions in the petition, to one or more of which each signer has testified his assent—viz., (1) that the degree should be granted only to those who have received some portion of their medical education in London; (2) that some addition should be made to the present examinations in arts; (3) that some additions should be made to the present examinations in science; and (4) that some addition should be made to the present examinations in professional subjects. The first of these conditions finds great favour with the signers of the petition, and the other three are also well supported.

ALMÉN'S TEST FOR SUGAR.

Of all tests for sugar in urine, Fehling's is undoubtedly the most satisfactory. The only objection that can be urged against it is the difficulty of preserving it a sufficient length of time, so that unless recently prepared it may lead to fallacious results, owing to stale solutions having a tendency to throw down the suboxide of copper spontaneously when heated. This of course is a great disadvantage to practitioners, who may be seldom called upon to use the test, and are at a distance from manufacturing chemists from whom they may procure a fresh supply. To remedy this Professor Alméu of Upsala has improved the old bismuth test for sugar, and has prepared a solution which has the advantage of keeping unchanged for years, and being at the same time an extremely delicate test for sugar in urine. It consists of a solution of bismuth subnitrate, with caustic soda and potassio-sodium tartrate. In testing for sugar, the albumen, if present, must be first removed by precipitation by heat and acid, and one part of the solution treated with ten of the urine, when if sugar is present the bismuth will be deposited in a metallic state. The test is sufficiently delicate to detect sugar in the proportion of only ·05 per cent. This test, as we have already said, is chiefly valuable on account of its preservative qualities, keeping well on board ship and in hot climates, though we doubt if it will supersede the use of Fehling's solution, especially as the latter is now supplied in hermetically sealed capsules which preserve the test for a considerable time.

DENTAL DISEASE IN SAVAGES.

DR. WHITNEY writing from Honolulu, describes in the *British Journal of Dental Science* the bleached skeletons of Kauai, and points out that it is a great mistake to believe the "noble savage" enjoys an immunity from suffering due to disease affecting his teeth; in spite of the simple nature of his food and his out-door life, he still has toothache. Dr. Whitney found both superior and inferior maxillaries, but none had complete dentures. This does not take into account the loss of the anterior lower and, less frequently, upper teeth, which were knocked out to express their grief at the death of a favourite chief, as was their universal custom in those times. Some had lost but one or two teeth, others the greater portion of the molars; while not infrequently the anteriors showed decay upon their surfaces, or had left the traces of alveolar abscess. In several cases traces existed of much suffering, caused by the eruption of the inferior third molars, and in several by the superior. One specimen showed the ravages of salivary calculi, but, as a general rule, there was but little tartar upon the teeth. No instances of erosion were met with, but many of the teeth were much worn by use. There was one case of ankylosis of the jaw. Several had exostosis. The effects of alveolar abscess were very frequently seen, sometimes leaving but a small opening through the outer plate of the jaw, in others the whole outer plate being gone. Dr. Whitney found the antrum to vary greatly in size. On the whole, the teeth were set in a regular arch, but there were a few instances of irregularity. In uncovering two skeletons lying side by side, it was seen that both were females, one much older than the other, and in them the peculiar dental irregularity of the one was exactly repeated in the other.

CHOLERA IN SOUTH AMERICA.

CHOLERA is believed to have ceased as an epidemic in the various parts of South America that have been attacked. Its ravages in some districts have been very severe. Thus, according to local information, there had been in Santiago, up to about the end of February, a cholera death-rate equal to 10,000 per million living, as compared with a rate of 2422 and 913 per million during the epidemics of 1848-9 and 1854 respectively in England and Wales. The city stands upon an alluvial soil largely saturated with sewage matter, which courses about in open drains, and its sanitary condition generally is such as to serve as a strong predisposing cause to the spread of such a disease as cholera. Having regard to the wide extent of the infected area, and to the fact that the conditions so largely favour the propagation of the infection, there are strong grounds for fearing that with the return of summer weather a recrudescence of cholera may take place, and that the present abatement is due rather to the winter period than to the adoption of proper precautions in favour of improved healthiness. In Santiago, especially, there is urgent need for a proper system of sewerage and drainage, and it is to be hoped that the authorities will not defer providing it until they have had another fatal lesson in the form of a renewed cholera epidemic.

THE CIVIL WAR, 1643.

HISTORIANS have advanced from time to time many conjectures to account for the slow conduct of the war between Parliament and the Crown during its earlier stages. Some have thought that the leaders on both sides equally feared a decided success; others have attributed the delays and failures in strategy to the incompetency of the generals or the undisciplined state of the troops. None, however, seem to have hit the real reason, which, nevertheless, is graphically described by an eye-witness, the celebrated Dr. Thomas Willis, who was with the King at Oxford. According to Dr. Willis, neither party after the siege of Reading were able to take the field for many months, owing to the great mortality in both camps, which "grew so grievous that in a short time after, either side left off, and from that time for many months fought, not with the enemy, but with the disease; as if there had not been leisure to turn aside to another kind of death, this deadly disease increasing, they being already overthrown by fate, and as it were falling down before this one death." It is strange that this statement should so long have escaped the notice of historians, especially in these days of minute research; but, now that attention is drawn to it, there can be little doubt that many circumstances will be explained that have hitherto looked suspicious in the conduct and action of some of the commanders. Thus, how could the Earl of Essex make a vigorous campaign when the London apprentices, who formed the bulk of his regiments, were dying so fast that, as Willis distinctly says, he lost the great part of his men, and had to remain pitched in camp on the banks of the Thames. The excessive mortality also accounts for

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the surrender of Reading by the King's officer, who has been generally credited with treason; yet it was during the siege that the camp fever first broke out, and the garrison on their surrender carried the disease with them to the main body of the King's army, who suffered "not much less" than Essex's camp on the Thames, which again accounts for the supineness of the Royalists and their hesitancy in not taking advantage of the condition of the enemy. For, as Willis describes it, the foot soldiers (which it chiefly invaded) being packed together in close houses in the villages, "they filled all things with filthiness and unwholesome nastiness and stinking odours, they fell sick by troops, and as it were by squadrons." Willis is particular to tell us that this great mortality was due to typhus—a true camp fever, and not of the nature of the plague; and that the epidemic did not spread beyond ten miles of the infected camps, the surrounding counties being healthy.

EPITHELIOMA OF THE KIDNEY.

THE proceedings of the Paris Anatomical Society (*Progrès Médical*, April 23rd) make mention of the histological examination by M. Cornil of a rare tumour of the kidney removed during life by Dr. Pean. The portion examined included a cyst filled with blood. This cyst had a wall of new growth, surrounded by the capsule of the kidney, beneath which atrophied anatomical elements of the organ were seen. In the new growth were seen hæmorrhagic areas and calcified fibrous tracts; and budding into the cyst were grey, semi-transparent vegetations containing small ovoidal cavities, lined by a single layer of clear epithelial cells, with nuclei near their base. The lumen of the cavities was empty, and their wall contained capillaries arising from vessels running mostly longitudinally. The resemblance to uriniferous tubules was striking. In places there were cavities of larger size filled with red corpuscles, suggestive of intertubular hæmorrhage. Some of the cells were filled with fat-globules, others with fat-crystals; and the intermediate tissue contained fat or calcareous material. The case is recorded as "hæmorrhagic epithelioma"; and M. Cornil pointed out that it belonged to the class described by Sabourin under the head of "adenoma," growths which, although structurally simple, were clinically to be regarded as cancers. Nevertheless, they generally remain confined within the capsule of the kidney and undergo calcareous transformation.

THE ADULTERATION OF PEPPER.

THE study of pepper adulteration has progressed considerably of late. Dr. Campbell Brown of Liverpool has described an adulterant which has hitherto been little known. This is the great millet (*Sorghum vulgare*), one of the most important of the Indian cereals. In Professor Church's recent and valuable book it is described as "joár," but several synonyms are given as well as excellent illustrations. Dr. Campbell Brown describes it as "dhoura," which is perhaps the name by which it is known in the English market. Of course, its addition to pepper is a mere common fraudulent adulteration. Another valuable contribution to our knowledge is contained in some articles which appeared last month in our new contemporary, *The Produce Markets Review*. In these articles the fashionable adulterant miscalled *poivrette* is described, and its influence on the trade discussed. Poivrette is obtained by grinding waste olive-stones, and is totally useless as a substitute for pepper. The author concludes from a study of trade statistics that some 600 tons a year of adulterants have been used in the pepper for the last year or two. The actual adulteration has, the author argues from good evidence, been effected by the wholesale grinders, and not by retailers, who were probably ignorant of it. The adulterant used was poivrette, the annual profit which has accrued to a presumably small number of dishonest seed grinders, has on the above [illegible] amounted to £67,000. This ought to stimulate public analysts to increased exertions. The subject of long pepper, to which we lately alluded, is also discussed in these articles. Long pepper, it appears, sells for 6½*d.* a pound, while white pepper costs 11½*d.* As we before pointed out, long pepper is more or less similar, though greatly inferior, to true pepper. The temptation to use it for fraudulent purposes is obvious.

DR. PEACAN'S TREATMENT OF CHOLERA.

DR. L. PEACAN of Buenos Ayres warmly recommends a plan which he has for many years past pursued with much success in the management of cholera. When a typical case with vomiting and diarrhœa comes before him, he immediately applies a cautery behind the right ear over the condyle of the lower jaw, with the object of stimulating the pneumogastric, and thus paralysing the action of the sympathetic on the abdomen. He then administers six centigrammes (sixth-sevenths of a grain) of calomel, which dose is repeated every five hours. Half an hour after taking the first of these powders a mixture is commenced consisting of phosphoric acid, carbolic acid, tincture of opium, tincture of ginger, chloric ether, and mint-water, which is supposed to arrest vomiting and diarrhœa, to allay thirst, and to calm spasm—being, indeed, he states, sufficient to cure mild cases by itself. When the cramps are severe, ten drops of Battley's sedative solution of opium is added; and when there is marked prostration of the nervous system, tincture of coca. If the diarrhœa continues, three grammes (forty-six grains) of glycerole of tannin are given in coffee three or four times a day, and forty centigrammes (six grains) of Dover's powder for three or four nights in succession. The patients are allowed to have as much sulphuric acid lemonade as they care for. In addition to internal medication, warm frictions and sinapisms are applied, especially over the epigastrium.

THE ANATOMICAL SOCIETY.

THE inaugural meeting of this Society was held on the 6th inst. Professor Humphry was elected to the chair, and letters expressing approval were read. It was then proposed "That an Anatomical Society be formed, and that it be called the Anatomical Society of Great Britain and Ireland." This resolution was carried. Next, it was carried *nem. con.* "That the scope and object of the Society be the anatomy, embryology, and histology of man and of animals, in so far as they throw light upon the structure of man." Professor Humphry was then elected president, and delivered an address, which will be found in another part of our present issue. Mr. C. B. Lockwood was elected hon. secretary, and a committee was appointed to report upon the constitution of the Society. The first meeting will be held at an early date and duly announced.

DANGERS OF AIR-GUNS.

AIR-GUNS are dangerous playthings. Last week one of the gentlemen cadets at Woolwich aimed one of these weapons at a boy who was carrying a basket near the academy, not thinking that the air-gun could carry fifty yards, which was about the distance at which the boy was. However, the little bullet, which was about the size of a swan-shot, hit the boy on the cheek and embedded itself in the masseter, where it will probably do no great harm. Had it entered the eyeball, the accident would have been fraught with much more serious consequences. It is to be hoped that this will prove a warning to all persons who indulge in such dangerous toys not to point them except at a target.

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...MORTALITY AT WILLESDEN.

DR. ...ANTHW...TE, in his annual report on the health of the Willesden Local Board District, draws attention to a matter of grave importance. He has on more than one occasion directed ...tice to a large infantile mortality. During 1886 the nu...ber of deaths under one year of age amounted to 16·7 on every hundred births, and in view of this special inquiry was made into the matter. The result has been to show that some very decided action is needed under the provisions of the Infant Protection Act, and that this fatality is in large amount brought about in the case of infants born in a metropolitan lying-in hospital where single as well as married women are received. During 1886 there occurred six deaths under two years of age in one house, two deaths under three months in a second, two deaths under one month in a third, and in each of seven other houses a single death occurred. In all these instances the children were in some way or other connected with the lying-in hospital referred to. In seven other cases of infantile deaths the children came from elsewhere. There is, of course, no suggestion that any hospital or other authorities are in any way responsible for this fatality; but it seems very obvious that a large number of so-called "nurse" children are sent into the Willesden district, and that a very undue proportion of them die there. Dr. Branthwaite very properly advises that the legal adviser to the local authority should at once take such action as may be possible in order to bring the many houses involved under such control as can be brought to bear upon them. We hope, in the next report, to see that some very decided action has been taken in the matter.

EFFECTS OF HOT-AIR BATHS ON ASSIMILATION.

IN a paper by Dr. Garin of St. Petersburg on the effects of hot-air baths on healthy subjects, and on those suffering from kidney disease, it is stated, as the result of his researches, that the sudorific action of hot air produces an increase in the quantity of the nitrogenous elements of food assimilated. In healthy subjects it was found that after a course of hot-air baths lasting for five days the nitrogen assimilated was greater than before the baths, though less than during their continuance. This, however, did not appear to be always the case with patients suffering from nephritis. Again, the ratio of the urinary nitrogen to the nitrogen assimilated—that is to say, the nitrogenous metabolism—was decidedly increased both during and after the baths, the subsequent effect being more marked in the case of nephritic patients than in that of persons in good health, though not in either case so great as the effect observed while the baths were in progress.

THE REPUTED SUICIDE OF SCORPIONS.

A MEMOIR upon this subject, of much interest and value, has just appeared in the Proceedings of the Royal Society. A statement has long passed current in works on zoology that a scorpion when placed under such circumstances as to preclude the possibility of escaping with life—such, for example, as surrounding it with a ring of red-hot embers—will deliberately sting itself upon its own back, and put an end to its sufferings by destroying its own life. This legend, which is believed to emanate from Spain, though denied by some, has received the countenance of several respectable authorities. It has now been put to the proof and ascertained to be incorrect by the scientific investigation of Dr. A. Bourne, the Professor of Biology in the Presidency College, Madras. It may be noted, in the first place, that there are several species of scorpions, and, as Professor Ray Lankester (who has himself made some experiments upon the point) remarks, it is important that the species should be determined, since one species may act in this way whilst others may not. The first question Dr. Bourne set himself to solve was the power of the scorpion to sting itself at all, and he found that the movements of the sting are remarkably free—so much so, indeed, that if a dead but still limp scorpion be taken, the last four segments of the tail are about the only portions of the body where the scorpion is incapable of stinging itself. Further, when a scorpion is placed in very unpleasant circumstances it not unfrequently lashes its tail about and causes actual penetration of its own integument. But numerous experiments performed, both by stimulating scorpions to fight and by artificially injecting the poison, which is easily obtained from the gland by pressure into the bodies of these animals, show that the poison of a scorpion is quite powerless to kill the same individual of the same or even of another species. Experiments made in the same way with other animals show that the poison is very rapidly fatal to a thelyphonus, which is an animal closely allied in form and poisonous faculty to a scorpion, less rapidly to a spider, and much less rapidly to an insect. On injecting the poison into the leg of a cockroach or of a cricket the injured leg became paralysed, but no pain appeared to be produced. The slow and comparatively feeble action of the poison on insects Dr. Bourne attributes, with great probability, to the very inefficient circulation of the blood in that class as compared with arachnida. When two scorpions fight, they may repeatedly be observed to sting one another with little or no effect, and the stronger kills the weaker by actually pulling it to pieces with its chelicerae, and then proceeds to feast upon its victim. On making experiments with heat, as by concentrating the sun's rays with a burning-glass upon the animal's back or elsewhere, the animal lashes out with its sting and endeavours to strike away the source of irritation. If placed in water at 43° C., scorpions quickly die; and they do not appear to be able to stand a dry heat much above 50° C., falling into a kind of heat coma and becoming very sluggish.

"THE SPECTACLE MISSION."

A PROVINCIAL contemporary contains an account of a new missionary enterprise—one for distributing spectacles among the poor. This may seem at first sight a very prosaic thing to do, but we recognise in it the very genius of kindness. "I was eyes to the blind" was one of the most excusable boasts of Job in his moments of pardonable complacency. Such may be the satisfaction of Dr. Edward Waring of Maida Vale, who is credited with initiating this piece of benevolence among the inmates of St. Giles's workhouse and the Cleveland-street Sick Asylum years ago. Such a service implies much trouble and time. It is of little use to supply spectacles to the poor without much personal trouble to suit the glasses to sight. We can only hope that Dr. Waring's example will be fruitful, and that the intolerable irksomeness of life in those who have the disposition to work without the means of doing so will be extensively mitigated.

MASSAGE IN CATARRH OF THE BILE-DUCT.

DR. GOPADZE publishes in the Proceedings of the Caucasian Medical Society an account of fourteen cases of catarrh of the bile-duct in which massage proved of great service. The symptoms were loss of weight, malnutrition, eructations, tympanites, diarrhœa or constipation, admixture of blood with the stools, loss of appetite, &c. In a week's time from the commencement of systematic massage a marked improvement invariably took place. The author complains that massage is as yet but very little practised in Russia, and that its use is chiefly confined to surgical clinics. Professor Manassein, the editor of the *Vrach*, replies, however, that massage has been for some time past largely practised

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in his own and many other medical clinics, and that the three graduation dissertations which have treated of the subject, one of them from the pen of Dr. Gopadze himself, were all founded on work done in the physicians' wards. Indeed, though Dr. Gopadze may be inclined to underrate the attention bestowed on massage in Russia, the back numbers of the *Vrach* and THE LANCET would show him that the observations of himself and his countrymen on its value in many different affections are recognised both in Russia and abroad as worthy of attention.

THE CENTENARY OF COLUMBIA COLLEGE, NEW YORK.

LAST month Columbia College celebrated with appropriate ceremonies the one hundredth anniversary of its revival after the Revolution. In 1787 it was reorganised by an Act of the State Legislature, which confirmed the Royal Charter granted in 1754 for the establishment of a College in New York, and also changed the name of the institution from King's College to Columbia College. The medical school was first established in 1767, and strengthened in 1787 by the appointment of a dean of the Faculty and several professors. In the beginning of the present century Dr. David Hosack was professor of botany and materia medica. In 1813 the school was consolidated with the New York College of Physicians, which remained entirely distinct from Columbia College until 1860, when it became formally recognised as the medical department of the institution. The number of medical students at present in attendance is 604, and the munificent Vanderbilt benefactions will without doubt eventually, if not sunk in bricks and mortar, make the school the most completely equipped and extensively appointed centre of medical teaching in the United States.

INTELLECTUAL EVOLUTION.

"INTELLECTUAL EVOLUTION, as represented by modern civilisation, will, by overcrowding, the unequal distribution of wealth, and social changes incidental to these two factors, lead to an increase of the tendencies to disease, and therefore to physiological dissolution," writes Dr. F. W. Mott in the *Edinburgh Medical Journal* of April, 1887. The writer has tried to bring together facts tending to prove that a "racial" existence, like that of the units of which the race is composed, has periods of infancy, youth, maturity, old age, and decay; and that the same factors which lead to early decay and dissolution in individual organisms also tend to the same result in the race. Dr. Mott throughout lays stress on the necessary and simultaneous inter-action and inter-relation, or mutual tension, between evolution and dissolution, growth and decay, rise and fall, development and degradation.

PROPOSED SYSTEMATIC MUZZLING.

THERE seems now to be a more general recognition of the advisability of the adoption in a systematic manner of the muzzling order, and doubtless ere long we may expect the re-issue of the edict from Sir Charles Warren's official centre; but this time the order should apply to the whole of Great Britain, and should be put in force in a thorough and rigid manner for a period of at least six months. The necessity for the adoption of this measure is based on the ground of an increase of rabies and allied disorders, together with its consequences to human beings, as proved by the published statistics; and the increasing confidence on the part of the public in the efficacy of the muzzle, as well as in its real kindliness, will serve to facilitate the administration of the police order. The rare immunity from rabies and hydrophobia enjoyed by Berlin for a period of nine years, owing to [illegible] with which the canine code is carried out [illegible] irrefragable proof of the general mode of origin [illegible] spread of rabies, but is in itself a complete [illegible]ument in favour of the adoption of a similar code.

THE DELICACY OF SPECTROSCOPIC REACTION IN GASES.

AT the suggestion of Sir Henry Roscoe, Mr. T. W. Best has made an interesting series of experiments on this subject which has recently been communicated to the Manchester Literary and Philosophical Society. The author mixed the pure and perfectly dry gases in eudiometers provided with aluminium electrodes, which were connected with an induction coil and Leyden jar. The light of the discharge was then focussed upon the slit of a one-prism spectroscope. The only gases experimented upon were hydrogen, nitrogen, and oxygen, but it may be hoped that others will shortly be examined. When nitrogen is added to hydrogen at ordinary atmospheric pressure, the least quantity of the former element that can be detected is 1·1 per cent. At the same pressure as little as 0·25 per cent. of hydrogen can be detected in nitrogen. This curious difference is also observed with mixtures of nitrogen and oxygen. As little as 0·8 per cent. of nitrogen can be detected in oxygen, whereas no less than 4·5 per cent of oxygen gives a visible spectrum in nitrogen. At lower pressures the results are somewhat different, the least quantity of nitrogen perceptible in hydrogen being at ten inches and a half 3·6, and at three inches and a half 2·5. The experiments are well worth extending. The limits of delicacy with gases containing carbon would be very interesting.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.

OWING to the considerable increase in numbers of the students attending the above school, it has been found necessary to enlarge the new laboratory in which the course of practical physiology is conducted. Accommodation has been provided for thirty additional students, and the lighting of the laboratory has been greatly improved. Two rooms have been fitted up, one as a lecturer's room and the other as a workroom for the demonstrator and assistants. These alterations, with those made when the anatomical department was enlarged and improved some eighteen months ago, have involved large expenditure on the part of the Medical School.

UNDER ETHER.

THE effects of ether and other drugs when administered as anæsthetics have been often and carefully studied by the usual methods of scientific observation, but we do not remember ever having seen such a detailed description of the subjective impressions thus produced as that which has been recorded recently by an American practitioner, Dr. G. E. Shoemaker. In his case the anæsthetic used was ether, and it is curious to notice how the stage of stupor seemed to form, as it were, a prolongation of the earlier stage of excitement, and how some trace of the latter seemed always to persist as a partial wakefulness of intellect, though without the sense of pain, till at last it drew him through a play of intoxicated fancy out of his torpor and back to the daylight of clear intelligence. His description does, indeed, suggest a doubt whether the degree of anæsthesia attained in this instance was as deep as usual. He remarks that, though there was no pain, a most disagreeable sensation never left him. He seems also to have been dimly aware that something was being done to him which was neither right nor pleasant. A confused whizzing sound and a visual sense of oscillation were perceived,

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nd he could register mentally the beginning of the ›turn to consciousness. It may be doubted whether ich a degree of intelligent, even though drowsy, per- ›ption is consistent with really deep etherisation. Had ıloroform been employed, it is still less probable that ıe stimulant property possessed by the drug should so ır have survived in the narcotism which it initiates as › awaken or maintain any such distinct mental impres- ons. Ether, as is well known, possesses this property in greater degree than chloroform. It is this which consti- ıtes at once its chief disadvantage as an effectual anæs- ıetic and its chief recommendation on the ground of safety. robably the method of producing anæsthesia most likely › satisfy its claim to acceptance as compared with that f its more powerful rival is its use in combination with hloroform, a practice now far from uncommon.

THE COURT PHYSICIANS.

SIR WILLIAM GULL, being the senior Physician Extra- rdinary to the Queen, succeeds the late lamented Dr. Vilson Fox as one of the Physicians in Ordinary. Dr. Reid, rho has been for some years Her Majesty's Resident ledical Attendant, has been appointed one of the Physicians :xtraordinary. A contemporary society journal states that ir William Jenner only attends the Queen when "Her lajesty is really unwell." As a matter of fact, Sir William leeps at the Castle almost every Saturday night when the ›ourt is at Windsor.

MPORTANT DECISION AS TO SCHOOL CLOSING.

IN commenting in a recent issue on the annual report of he medical officer of health for Barnsley, we drew attention o the circumstance that one large elementary school had ailed to comply with the notice to close which was ssued by the sanitary authority on account of the pre- ralence of scarlet fever. We have since then received nformation from Dr. Sadler to the effect that the school, hough a voluntarily supported one, received an annual rant from the Education Department, and that the failure o comply with the request of the sanitary authority was rought under the notice of that department and also of he Local Government Board. Some little time was allowed o elapse before the sanitary authority heard again, but they ıave now been informed that the managers of the school ıave been communicated with, and that in consequence of heir neglect the Education Department decline to make any rant to the school this year. In the case of such a school, his amounts to the imposition of a very substantial ›ecuniary fine, and it is well that both sanitary authorities ınd school managers should know that the clause of the Education Code which deals with this subject is intended to ›e acted upon, and that any failure to comply with the ıuthorised notice of the authority will be met by the loss ›f the Government grant.

TUBERCLE IN THE COW.

THE cowkeepers and farmers of Hull have had their ıttention drawn to the dangers of tuberculosis among their ›attle by Dr. J. W. Mason, medical officer of health, who lelivered an interesting lecture on the subject at a meeting ›f dairymen last week. Dr. Mason urged upon them the importance of slaughtering all animals affected with this lisease, and stated that while in the early stage the meat ›ould be eaten, in the later it was only fit to be destroyed. He discussed the risks to milk drinkers, and pointed out that Hull received 40,000 pints of milk per day from cows living n the town, and an equal amount from cows outside, over whom the corporation had no authority, and he supported the view of Dr. Hime and the Bradford Corporation that authorities ought to be able to exercise control over neighbouring areas supplying the town population with milk. Members of the Association who joined in the dis- cussion expressed their desire for legislation which would enable infected animals to be seized and slaughtered, and would add tuberculosis to the list of diseases dealt with under the Contagious Diseases (Animals) Act. The subject is obviously one of great importance, for although there is much reason for thinking that human and bovine tubercle are not identical, Dr. Creighton has adduced considerable evidence to show that man may suffer from the bovine variety. Certainly the milk of tuberculous cows ought not to be sold, and the only safe course is to slaughter all animals infected with the malady.

THE REGISTRATION OF ARCHITECTS.

ARCHITECTS have been slow to claim the rights which have long since been accorded to other professions; but at last a movement has been made which will in all probability end in the granting of licences to practise to those architects who are competent to perform the responsible duties which devolve upon them. A large meeting was held at St. James's Hall on the 4th inst., which was called by the Architectural Federation Committee, who had drafted a Bill which in principle resembles that of the Medical Acts. It is probable that some modification of this measure will be required before its acceptance is sufficiently general to enable it to become law. With the intention of the Bill we are entirely in accord; there is reason for the public to be able to dis- tinguish between qualified and unqualified architects, as there is also for them to be able to know the professional position of medical men. It will doubtless be necessary to place upon the register in the first instance many who although now engaged in practice, have but scanty claim to this position; but this is inevitable, and in course of time the difficulty will be overcome. The intimate relation which, it is now recognised, exists between ill-health and imperfect house construction renders the Bill deserving of the support of the medical profession.

LUMINOUS PAINT IN THEATRES.

HERR STEHLE, the Government Inspector of the Royal Bavarian Court Theatre, has, according to *Iron*, given high testimony to the use of luminous paint as a safeguard against panic in theatres. Any explosion or disaster with gas leaves the exit passage of the theatre in total darkness, and even if additional oil lamps were used, they would probably be extinguished by the air concussion. In the above-named theatre inscriptions in luminous paint are suspended over the exit passages, which direct the audience to the "way out" (*Ausgang*). "These placards, in spite of being exposed to the very poor light of the corridors in the daytime and the gaslight in the evening, are so luminous after the gas has been turned out that anyone can gain the stairs in each corridor without difficulty." The precaution is so simple and inexpensive that we wonder it is not immediately adopted in all theatres. Indeed, we see no reason why its use should not be made compulsory. Surely some provision of the kind might be included in the Theatres Bill now before Parliament.

DEATHS OF EMINENT FOREIGN MEDICAL AND SCIENTIFIC MEN.

THE deaths of the following foreign medical and scientific men are announced:—Dr. Johann Anger, the well-known Carlsbad "bath-physician," at the age of seventy-two.—Dr. Fleitas y Lemus, Director of the Hospitale de Higiene in Havana.

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SURGICAL OPERATIONS ON THE BRAIN.

AT the meeting of the New York Neurological Society, held on April 5th, two interesting examples of "cerebral surgery" were recorded. The first was the case of a man forty-two years of age, who suffered from left lateral hemianopsia, slight dilatation of the left pupil, awkward gait, and double optic neuritis. A large tumour in the right occipital lobe was diagnosed, and Dr. Weir proceeded to remove it. The mass removed weighed five ounces and a quarter, and the operation was attended with very troublesome hæmorrhage, for which the wound was plugged. Unfortunately the bleeding recurred, and the man died from it. The other case was one of unilateral (left) convulsions, followed by paralysis of the left side of the face, then of the left arm, and then of the left leg. A tumour was diagnosed in the right motor area, and the skull was opened and the brain explored with a hypodermic syringe without any result. The patient died, and at the necropsy three cysts were found lying close together in a line deep in the white matter of the right hemisphere, and "in a position to affect the face, arm, and leg centres."

ACTION OF CALOMEL ON BILE.

AN account of a number of observations made in the laboratory of Professor Tumas in Warsaw, and published in the *Vrach*, points to the antiseptic action of calomel on bile. It was found that when fresh bile was mixed with calomel and kept at the temperature of 12° R. (59° F.) for several days its smell and its colour changed but little, whereas another portion of the same specimen, unmixed with calomel, kept under similar conditions, rapidly became putrid and turned to a reddish colour. Again, a smaller admixture of calomel produced a partial effect only. This antiseptic effect appears to be due to the conversion of calomel in an alkaline medium into suboxide of mercury, which converts bilirubine into biliverdine—thus, $C_{16}H_{18}N_2O_3 + 2Hg_2O = C_{16}H_{18}N_2O_4 + HgO + 3Hg$, mercuric oxide and metallic mercury being also formed. If an experiment is made on alkaline bile by mixing it with calomel a distinct deposit of metallic mercury is easily obtained.

EFFECTS OF WARM ABDOMINAL COMPRESSES.

DR. T. T. LEVINSON, who has been engaged in investigating the effects of warm abdominal compresses under the direction of Professor Manassein of St. Petersburg, finds that they distinctly promote nitrogenous change in the body, the quantity of urine passed and the amount of uric acid excreted being also increased, as well as the assimilation of the nitrogenous elements by the body.

THE COMPULSORY DETENTION IN WORKHOUSES OF PATIENTS WITH VENEREAL DISEASES.

IN our issue of last week there appeared, on p. 954, a letter from Mr. A. F. Mickle, M.B., advocating the necessity of acquiring powers to detain until well all patients suffering from venereal diseases in our Poor Law and other institutions. A correspondent calls our attention to the fact that, so far as workhouses are concerned, such power already exists as to syphilitic diseases, and presumably also to gonorrhœa. It is the Act 30 and 31 Vict., the Poor-law Amendment Act, c. 106, s. 22, which provides for the compulsory detention in workhouses of persons afflicted with contagious disease; and the Royal Commissioners appointed in 1870 to inquire into the Contagious Diseases Acts were advised that this includes syphilis. The clause is very complete and stringent, conferring ample powers on the guardians, the master, and the medical officer of each workhouse to detain such patients until the medical officer has certified as to their freedom from disease. If from any reason this power has been permitted to fall into abeyance, or has been exercised with laxity, it is of the greatest importance that it should in future be rigidly enforced.

THE ELECTION AT ST. THOMAS'S.

WE understand that Walter Baugh Hadden, M.D. Lond., M.R.C.P., and Theodore Dyke Acland, M.D. Oxon., M.R.C.P., have been elected assistant-physicians to St. Thomas's Hospital.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—Dr. F. Renk of Munich has been appointed to take charge of the Imperial Sanitary Bureau, in succession to Professor Wolffhügel, who has gone to Göttingen.

Halle.—Dr. Zopf, *Privat Docent* in Botany, has been granted the position of an Extraordinary Professor.

Königsberg.—Dr. Branco of Berlin has been offered the Professorship of Mineralogy and Geology.

Montpelier.—The Faculty of Medicine has recommended M. Kiener, principal medical officer of the Military Hospital, for the Professorship of Pathological Anatomy and Histology, vacant by the death of M. Estor. In proposing M. Kiener, who is not *agrégé*, the Faculty has taken a new departure, it being the rule hitherto that only those who had the title of *agrégé* or assistant professor could hope to obtain the higher post.

DR. J. A. MARSTON, Deputy Surgeon-General, head of the Sanitary Branch of the Army Medical Department, is, in consequence of the continued indisposition of Dr. De Chaumont, at present discharging the duties attaching to the chair of Military Hygiene at the Medical School at Netley. We regret that we are unable to report any great improvement in the condition of Dr. De Chaumont.

ON the 9th inst., Princess Beatrice opened as a place of recreation the disused burial-ground adjoining the Church of Holy Trinity, Tredegar-square, Bow-road. The whole cost of laying out the ground, which is about an acre in extent, has been defrayed by the Metropolitan Public Gardens Association.

MR. CONDER'S sewage process is said to be now at work successfully at Chichester Barracks. A pamphlet has been forwarded to us in which the results obtained by its means are represented as remarkably satisfactory, but no sufficient details are given as to the *modus operandi*. We are therefore unable to express an opinion on its merits.

ON the 21st ult. the death occurred of Deputy Inspector-General J. G. T. Forbes, R.N., at Pitlochrie, N.B., after a lingering illness, borne with exemplary resignation and fortitude. The deceased, who had some time ago retired from the service, obtained the licence of the Royal College of Surgeons of Edinburgh in 1848.

AS announced in our advertising columns the annual general meeting of the governors of the Royal Medical Benevolent College will be held on the 26th inst., when, in addition to other business, several important alterations in the bye-laws of the College will be proposed by the Council.

WE are requested by the Director-General of the Army Medical Department to state that no examinations for commissions in the Medical Staff of the Army will be held in August next.

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WE understand that the new and commodious Physiological Laboratories just completed at St. George's Hospital Medical School will be opened on Wednesday, May 18th, at 3 P.M. An address will be delivered on the occasion by Mr. George D. Pollock, consulting surgeon to the hospital.

THE President of the Royal Medical and Chirurgical Society announces that the name of Dr. S. J. Gee has been nominated by the Council as honorary librarian, to fill the vacancy caused by the much-regretted death of Dr. Wilson Fox.

MR. BLAND SUTTON and Dr. Dudley Buxton have been elected honorary members of the Odontological Society, in acknowledgment of the distinguished services they have rendered the science of dental surgery.

THE proposal to erect an Infectious Disease Hospital at Horsham is meeting with much opposition by the residents of the town, and a memorial is to be presented to the Local Government Board against the scheme.

MR. VICTOR HORSLEY, F.R.S., will give at the Royal Institution, on Tuesday, May 17th, the first of a course of three lectures on the Modern Physiology of the Brain and its relation to the Mind.

DR. GRAILY HEWITT has been appointed a Vice-President of the Gynæcological Section at the forthcoming International Medical Congress at Washington.

LORD RAYLEIGH, F.R.S., has been elected Professor, and Dr. John Tyndall, F.R.S., Honorary Professor, of Natural Philosophy at the Royal Institution of Great Britain.

MEETING OF THE GENERAL MEDICAL COUNCIL.

(*Continued from page 989.*)

THURSDAY, MAY 12TH.

MR. MARSHALL, PRESIDENT, IN THE CHAIR.

SIR WM. TURNER moved that the following address to Sir Henry W. Acland be signed and approved by the Council:—

To Sir Henry Wentworth Acland, K.C.B.

We, the members of the General Medical Council, desire to express to you on your retirement from the presidential chair, to which you were elected in July, 1874, our warmest thanks for the invaluable services which you have rendered, as President, during the past thirteen years. We would record that you have with singular devotedness applied yourself to the service of the Council, and that you have conducted its business with a dignity, courtesy, and impartiality which have secured for you the confidence, regard, and affection of its members. We would also recall the fact that you have been a member of the Council since its establishment by Parliament in 1858, and that your action during that long period has had for its object the improvement of medical education, the elevation of the status of the medical profession, and the establishment and maintenance of harmonious co-operation between the Council and the several medical authorities of the United Kingdom. We would also express the hope that you may, in your retirement, have the enjoyment of your well-earned leisure.

Dr. QUAIN seconded the motion, and suggested that Sir H. W. Acland be requested to dine with the Council next week.

The motion was unanimously agreed to.

The debate on Mr. Carter's motion was resumed.

Dr. HUMPHRY said the question was not one of sympathy with the Society of Apothecaries, but a question of carrying out the Medical Act, the great object of which was to enable the different medical bodies to combine in their examinations. A discretion was given to the Medical Council; and it was not only to "think fit" on the subject, but was bound to think fitly, and if it did not it was subject to a *mandamus* from a higher power. It would be absurd for the Medical Council to tell the Privy Council that it would be "injurious to the interest of the public" to adopt the course proposed without stating its reasons. None of the reasons which had been given would have any weight with a sensible body like the Privy Council. He had been astonished that they should have been brought forward by two sensible Scotchmen. One reason assigned was that competition would be injurious; but Parliament had provided for that competition, and the Council could not put forward such an objection. As to the Apothecaries' Society being a trading Society, that fact was known by Parliament, and there was no reason why a trading Society should not give a good examination. It had been stated that the Society had degraded the profession. It had, however, commenced the examination of students, and the Medical Council had extended that examination. As to dispensing medicines, he knew many high-class practitioners who had done the same thing without any degradation whatever. The assertion that the Society of Apothecaries had been the cause of homœopathy was absurd, and it was impossible to assign such a ground of objection to the Society. There was only one proper ground of refusal, and that was that a proper examination could not be given with the aid of the Medical Council; and the question was whether such a statement could be borne out. It was admitted that the Society gave a good examination in its own department; and the Council had power to appoint any number of examiners whose duty it would be to maintain the required standard of examination. Could the Medical Council go to the Privy Council and state that it could not make the examination an adequate one? If it could not, it had no valid objection to offer to the proposed combination.

Mr. COLLINS said he understood the objection which many gentlemen might have to a mixture of trade and profession; but the Council was sitting as a judicial body, and ought to act in that capacity, not simply carrying out the private opinions of its members. One of the privileges conferred by Parliament upon medical practitioners was that they might charge for the medicaments they supplied. Physicians only were prohibited from charging for medicines. As a judicial body the Council was bound to carry out the law. When the Apothecaries' Society's Act was passed, Parliament knew that the members of the Society kept open shop, and yet it gave the Society power to examine in medicine, thus mixing trade and profession. As to the interpretation of the words "if they think fit," if there was any doubt on the subject, the Society of Apothecaries was entitled to the benefit of that doubt. It was quite possible that the young man who sold to Dr. Struthers the 3*s.* 2*d.* worth of medicine at Blackfriars had the diploma of the University of Aberdeen in his pocket. (Laughter.) If the licentiates of the Apothecaries' Society were inferior men, the fault lay chiefly with the teachers who gave them their certificates. The idea of homœopathy and hydropathy having been encouraged by the Society of Apothecaries could not be substantiated, other causes having contributed to the result.

Sir WM. GULL protested against the notion that the Council had no discretion in the matter. He maintained that the Government would not interfere with the discretion of a public body so long as it was exercised *bonâ fide*. His duty as a member of the Council was to consider whether it was desirable to have a Society of Apothecaries at all. He contended that it was not, and that its existence was contrary to the interests of medicine. People did not get well by drugs. When the Prince of Wales was ill of typhoid fever how many doses of medicine did he take? Not four. The question was whether the profession should be set free from the trammels of the past. Medicine was once given even for fractures. It was the powers of nature that effected a cure of disease, and the duty of the medical man was not to give drugs, but to see that nature's powers were not interfered with. He had nothing to say against general practitioners, whom he respected and admired; but he wanted to raise the general tone of the profession, and that object would never be accomplished by maintaining the Society of Apothecaries. There was no reason for appointing examiners in surgery for the Society, seeing that the College of Surgeons was willing to undertake the examinations. Whatever might be said of general practitioners, there was a universal practitioner better than all of them—a warm bed when you are sick.

Dr. QUAIN protested against being considered a pretender in professing to cure disease by administering remedies. He had seen drugs of use in thousands of cases, and where they

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failed, the fault was not with the drugs, but with the diagnosis.

Mr. MACNAMARA was not going to discuss the merits or demerits of drugs, but he believed it was the general feeling that the request of the Society of Apothecaries should not be granted. He differed from Mr. Simon as to the compulsory signification of the words "if they think fit." Legal opinions on the subject were of little value unless they were delivered from the bench. He maintained that the Act of Parliament had actually disfranchised the Society of Apothecaries. Its qualifications were stated not to be registrable, and it was for the Medical Council to decide whether they should be made registrable. There was no adequate ground for the adoption of that course, and he hoped that the application for the appointment of additional examiners would not be granted. It would, he believed, be to the advantage of the profession and the public to prevent the appointment of such examiners, which would, in his opinion, be a retrograde step.

Dr. GLOVER protested against Sir Wm. Gull's statement as to the uselessness of drugs, and said that his speech was rather directed against physicians and the whole medical profession than against drugs. It had been said that if the virtue of cinchona had been discovered a little earlier the life of Oliver Cromwell might have been prolonged for some years. The action of the two Colleges was, in his view, an additional reason for granting the prayer of the Society of Apothecaries. He had been for many years one of a number of persons who had tried to diminish the number of licensing corporations by the action of the Legislature. The Legislature, however, had declined to reduce the number in the way desired; and that being so, he now declined to be the executioner of an old corporation that had done its work well for seventy years. If it was disestablished, it should be by the same Parliament that had called it into existence. His experience agreed with that of Mr. Wheelhouse, that low professional conduct was rarely exhibited by licentiates of the Society of Apothecaries, who had always been distinguished for their honourable behaviour as men and their competency as practitioners.

Dr. CHAMBERS supported the motion, and contended that the Society of Apothecaries ought to be continued because, among other reasons, it was the only English body to which women could go for diplomas to practise; the curriculum of the London University being unsuitable.

Dr. MCVAIL supported the motion for the appointment of examiners. He said that in that case the Council would become the examining body, and they could surely ensure that the examinations were sufficient. It was utterly absurd, therefore, to say that a number of inferior practitioners would be appointed. The Act of Parliament gave the Council no option whatever. It had been assumed that it was an Act which extinguished the Apothecaries' Society, and that the Council was appointed the executioner, but from the beginning to the end of the Act there was not a single word to support that notion. It might have been that the College of Surgeons found itself unable to give the full qualification, but was it to be said that therefore that College was to be extinguished? The past history of the Apothecaries' Society was very honourable, take it all in all. Undoubtedly here and there in the reports of visitation of examinations there might be found observations not of the most complimentary character on some part of the Apothecaries' Company's examinations, but that did not apply to that Company alone. He was sure that anyone acquainted with the medical practitioners of England would admit that the licentiates of the Apothecaries' Company had been as worthy members of the profession as those of any other body in the kingdom.

Dr. KIDD asked whether the Council was prepared to accept the responsibility of becoming an examining body. So far as he was concerned, he was not prepared to accept the responsibility. They were asked to set up an examining body under their own control, and that body was to be a competing body with the Colleges of Physicians and Surgeons. That was a position that was altogether contrary to the public welfare. If the amendment were carried, the effect would be simply to refer the matter to the Privy Council; and if the Privy Council decided that examiners must be appointed, it would take away the responsibility from the Medical Council.

Dr. HERON WATSON said that no sufficient reason had been advanced for refusing the crave of the Apothecaries' Society. He hoped it would not enter into the imagination of any of the members of Council, nor of the profession generally, that they were really establishing a new institute, setting up a new examination, and taking steps which should enable a new university to be created at Blackfriars; but he did most sincerely hope that the Council would grant the crave of the Apothecaries' Society, would give them what they required in the way of an additional examiner, and so enable this most useful, valuable, and ancient body to be perpetuated.

Dr. AQUILLA SMITH supported the amendment.

Mr. BRUDENELL CARTER, speaking in reply upon the question of statutory obligation, said he thought there was a moral obligation upon gentlemen who accepted a certain definite position, such as membership of that Council, to fulfil the statutory duty which that position imposed upon them, or to retire from their position. He referred to what took place in April last year when he formed one of a deputation from the Society of Apothecaries to Sir Lyon Playfair, the object being to point out that they did not think they were sufficiently protected by the words "think fit," which then carried no right of appeal. Sir Lyon Playfair, in his reply, stated that the clause was put in specially for the protection of the Apothecaries' Societies, because it was not thought desirable that those Societies should be extinguished. Stress had been laid upon the changes made in the statements in the medical journals with reference to the Society of Apothecaries. That change was only an indication that the Society had improved its position in the estimation of the profession.

The amendment was then put, as moved by Dr. Struthers, and was rejected by 19 votes against 9. One member of the Council did not vote, and two were absent.

The debate was then adjourned.

ABSTRACT OF

LECTURES ON MALARIAL FEVERS.[1]

BY W. NORTH, B.A., F.C.S.,

LATE RESEARCH SCHOLAR OF THE GROCERS' COMPANY.

LECTURE III.

RECENT RESEARCHES INTO THEIR ETIOLOGY AND PATHOLOGY.—THE POSSIBILITY OF PREVENTION IN THE INDIVIDUAL AND OF IMPROVING THE CONDITION OF MALARIOUS COUNTRIES.

AFTER considering the general and local distribution of malaria and the conditions under which it exists, the next question which arises is, How far may the symptoms which characterise the disease be regarded as the natural consequence of exposure of the individual to these conditions? Or is it necessary to go further, and seek their origin in some poison whose growth and development are especially fostered by these conditions. A simple uncomplicated attack of malarial fever, as is well known, begins with a "cold stage," often accompanied, but not necessarily, with more or less violent rigors; then follows a "hot stage," or condition of fever, which terminates in profuse sweating—the "sweating stage." It is possible for a patient to have such a train of symptoms, and to recover and have no return of them if he be promptly treated; but in most cases they repeat themselves at varying but exceedingly regular intervals, constituting what is known as quotidian, tertian, and quartan ague. Further, it is possible for an individual, after an interval of immunity varying from days to years, to have a recurrence of the symptoms, though not, as a rule, with the same period of intermission, and in old cases the regular intermission disappears. Further, these symptoms may, and often do, reappear under conditions which render it impossible that there should have been a fresh access of poison; and an individual who has once suffered appears to be more or less liable to returns of the disease as long as he lives; and should he be attacked by any febrile disorder whatsoever, a distinct intermission will generally be found added, as it were, to the ordinary symptoms of his disease, and this intermission will disappear under the treatment usually prescribed for ague—viz., the use of quinine, arsenic, and the like, in addition to any drugs proper to the treatment of the particular disorder from which he is suffering. If

[1] Delivered at the London Institution, April 28th, 1857.

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ıtiperiodics be not administered, the intermission will sappear with the disease, and may not manifest itself ɡain until the patient suffers from some other disease. ɡain, in a person who has once had ague, an attack may ı provoked by a number of widely different circumances—e.g., fright, surgical injury, nervous and physical haustion, sudden chill, &c.; and not only will these circumances bring about an attack, but some of them are equally ficacious in cutting one short which has just begun. In ıe very grave forms of the disease known as "pernicious" ıe fever is often continuous and frequently fatal. These ses—in the Roman Campagna, at all events—are not very ımmon, and, in the author's opinion, are rarely, if ever, first" attacks; and though a first attack may be severe, ıere is a very large amount of evidence to show that interittent fever, except perhaps in the case of persons of very eble constitution, cannot be acquired by a few hours' posure in a malarious locality, and that there is some ırt of connexion between the duration of the exposure and ıe severity of the attack. This varies enormously in fferent individuals, and though it is exceedingly doubtful hether such a thing as absolute immunity exists, there e certainly such differences in susceptibility as to render at all events conceivable.

The pathological changes in the organs and tissues which ɔcompany the disease are somewhat obscure. In grave cases ıere is always a large amount of melanæmia, which manists itself in the liver, spleen, and kidneys, and especially ı the cortical substance of the brain, where the capillaries e found to be loaded with minute black granules. The ılenic trouble which is characteristic of most cases would ɐem to point to some special interference with or alterations ı the functions of that organ; and it is not surprising, ıerefore, to find in the blood evidence of profound changes ı the red corpuscles and their pigment, and the production certain amœba-like bodies, which, under the name of lasmodium malariæ, have been described by Drs. Celli and archiafava as the cause of the disease, the transmissibility which they claim to have proved by the intravenous inction of the blood of a patient suffering from intermittent ver into an individual who was said never to have had it in s life. It is needless to remark that the experiments are open very grave objections—so grave as to deprive the result almost all its significance. Dr. W. Osler has given a very ll account of these so-called "hæmatozoa of malaria" in the *ritish Medical Journal* of March 12th. Here it will suffice state that all attempts to discover an organism capable producing the disease in the air, soil, or water of malarious calities have signally failed, though a number of organisms ıve from time to time been announced as such; nor have ıe attempts to cultivate the blood of patients produced ıy better results. The experiments of Dr. Silvestrini on ıe subcutaneous injection of dew, water, and the water in hich soil from exceedingly malarious localities had been ashed, are interesting. Sixty-three experiments of this ind yielded absolutely negative results, and, despite the rge amount of work which has been done in the search r a pathogenic organism, a confirmation of the existence the peculiar changes in the blood above referred to presents the progress made; and proof that the disease has s origin in such an organism, or that the bodies discovered ı the blood come from without and are not the outcome of ıanges in the corpuscles themselves, is still wanting.

There is one other theory as to the cause of the disease hich claims serious attention. The so-called "chill theory," ɔcording to which the thermotaxic nervous system, in ıdeavouring to adapt itself to the needs of the body ɾposed to the great and violent changes of temperature ıid to occur in malarious countries, breaks down and ɔcomes disorganised; that is to say, malarial fever is essenally a disease of the nervous system caused by exposure to imatic conditions. "Chill" is probably a wrong term to ɐe; for the break-down is more likely to be occasioned by ɾposure to excessive heat than to excessive cold, and, cndering that we know practically nothing of what occurs ı the body when exposed to a temperature above its own, ıe theory cannot be summarily rejected. It depends, hower, on the supposed existence of these violent changes, hich have not apparently been made the subject of accurate ɔservation by those who have urged this explanation of the isease.

From a large number of experiments made by the author ı exceedingly unhealthy sites near Rome in the summer of 385, it would appear—1. That the daily range of temperature in these places is very great. 2. That the changes are sudden and violent. 3. That the characters of the curves indicating temperature and tension of aqueous vapour present in the atmosphere present most marked differences in localities barely 200 metres apart horizontally, and similarly marked differences are found in the records of instruments placed at different vertical heights above the soil. 4. The connexion between these variations of temperature and vapour tension and the malarious character of the localities in which they were observed is such as to lead to the conclusion that, if not in themselves the cause of the disease, they must directly affect any organism to which such a power could be attributed; and it would seem fair to conclude that if these climatic conditions could be modified, the pathogenic organism which may be supposed to thrive under them would disappear, and the localities in question become healthy. Either as a sufficient cause in themselves, or as controlling the growth of organisms, these phenomena undoubtedly have a most intimate connexion with the disease, and it becomes possible for us to understand the real value of the precautions universally deemed advisable in malarious countries: fire, food, and clothing; the avoidance of low, damp ground for camps; the building of huts on poles, residence in the top floors of houses, and the like. It is difficult to realise from mere figures what these climatic phenomena really are, but one night spent in the Campagna in August would suffice to convince the most sceptical of the necessity of protecting the body against them, and to realise the wretched condition of the great bulk of those who are most exposed: ill-fed and worse clothed, they have to resist all day long a temperature often 104° F. in the shade, and to sleep in a damp wretched hovel, in an atmosphere saturated with moisture and a temperature which just before dawn may have fallen to 38° or even 36°, to rise in three or four hours to 100° or even more. A healthy person exposed for some time in places where these conditions obtain, runs grave risk of acquiring an intermittent fever, and one who has already had the disease will readily relapse under them, and may be attacked by one of the very grave forms. In both cases the result may be attributed to access of poison; but the same explanation will hardly hold in cases of relapse from exposure to heat and cold in a non-malarious country, and after years of immunity. Either the organism, if such there be, has a wonderful power of lying dormant and of being recalled to activity by exceedingly diverse conditions, or the thermotaxic nervous system, having once been thrown out of gear, readily breaks down again under strain. The recurrence of attacks would seem to be, as it were, a vice rendered the more easy by practice; consequently the anticipation of them by drugs or other remedies is of great importance in treatment. Chronic cases in which all regular periodicity has been lost are notoriously obstinate, and difficult, if not impossible, of cure. Much may be done, however, in all cases by avoiding exposure to the above-mentioned extreme variations of temperature and the maintenance of "tone" in the nervous system.

The question of the cure of a malarious country resolves itself into the removal of the causes of these climatic extremes, and this in turn into perfect control over subsoil water. Drainage and the planting of suitable trees are the well-recognised methods of effecting this; and the care bestowed by the Romans on their woods, and the elaborate system of drainage which they constructed in the hills round Rome, would seem to indicate that they, at all events, realised the vast importance of these things. It is very evident from the facts that malarial fevers have a most intimate relation to the soil and to local climate. In the case of the Roman Campagna it has been possible to some extent to trace the spread and increase of the disease *pari passu* with the depopulation and neglect of the soil, and whether malaria be due to the direct influence of climatic conditions on the individual or to a pathogenic organism, there can be no reasonable doubt that these peculiar local conditions form an important factor in the problem of its causation—and not only of malaria, but probably of other diseases. The peculiar form of enteritis known as typho-malaria exhibits a similar relationship to the soil, and in England infantile diarrhœa shows a connexion hardly less striking. Our knowledge of the relations of soil and climate to disease is scanty and very general, and a careful study of these local conditions would probably tend to throw great light on much regarding them which is at present obscure or almost inexplicable.

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UNIVERSITY OF LONDON: ANNUAL MEETING OF CONVOCATION.

THE annual meeting of Convocation of the University of London was held on Tuesday last, the 10th inst, Dr. Wood, the Chairman of Convocation, presiding. Mr. Henry E. Allen, LL.B., B.A., was re-elected Clerk of Convocation. The report of the Annual Committee was received on the motion of Mr. Howse. The report contained the reply of Her Majesty acceding to the petition of the University to grant it the privilege of addressing Her Majesty upon the Throne "upon the occasion of the completion of the fiftieth year of Her Majesty's reign, and upon all future occasions in like manner as is allowed to the Universities of Oxford and Cambridge." The Committee also reported that revised regulations for matriculation had been framed by the Senate, embodying many of the recommendations of Convocation. The steps taken with regard to the reconstitution of the University were stated and the report of the Special Committee of the Senate on the subject was appended. The Senate had approved of the adoption of a motto for the University in accordance with a resolution of Convocation, and had referred the consideration of its selection to the Committee on Examinations in Arts, Science, and Laws. The Annual Committee desired that the subject of the expenses of Convocation be again referred to them, and with respect to a resolution upon the regulations for the doctors' degrees, were not prepared to make any recommendation. The report mentioned with regret the death of Mr. William Shaen, and stated that the vacancy in the Senate occasioned by the death of Mr. George Busk had been filled by the Crown appointment of the Right Hon. A. J. Balfour, M.P.

On the motion of Dr. Weymouth, seconded by Mr. Spratling, B.Sc., it was resolved that the resolution of January 17th, 1887, in regard to the annual expenses of Convocation, be again referred to the Annual Committee for its further consideration.

Dr. Napier moved, and Mr. Mears seconded, the reception of the interim report of the Special Committee for the consideration of the regulations for the examinations for the degrees in Law.

Dr. S. P. Thompson moved, and Dr. Napier seconded, a resolution, which was to the effect that in the voting for graduates nominated by Convocation to serve on the Senate the vote of each member should be restricted to one candidate. It should be remembered that Convocation is required to submit three names to the Crown, and that it has been the custom for the choice to fall on the candidate who has received the largest number of votes. It was urged that under the present system the candidate thus chosen might not represent the actual majority. After much discussion, in which the resolution was opposed by Mr. Macdowall, Mr. Tyler, Mr. Osler (who believed the proposed change was *ultra vires*), Sir A. K. Rollitt, and others, and supported by Dr. Weymouth, Dr. Nesbitt, Dr. Colline, and others, the resolution was carried. A further resolution, to make the nominations in rotation from amongst the Faculties of Arts, Science, Laws, and Medicine, was moved by Dr. Thompson, and seconded by Sir A. K. Rollitt. At present the selection is made alternately from the combined Faculties of Arts and Laws and those of Science and Medicine; and it was urged that this gave a disproportionate representation on the Senate to graduates in the Faculties of Arts and Medicine. Sir Julian Goldsmid opposed the resolution, and in the course of his speech referred to the "inchoate scheme" for the reconstitution of the University now before the Senate, expressing his belief that it would be long before it emerged as a real fact. Several graduates spoke, and eventually the resolution was lost.

On the motion of Dr. O'Reilly, seconded by Mr. Enright, the meeting reaffirmed previous resolutions in favour of the establishment of London local examinations by the University; but a further resolution to initiate the undertaking by means of a voluntary Permanent Committee, or Syndicate, was passed over.

Mr. E. S. Weymouth, M.A., moved, and Mr. Nesbitt, M.A., seconded, a resolution that Convocation cannot assent to any scheme for the establishment of Faculties in which it will [illegible] representation [illegible] relating to a vote on [illegible]

The Annual Committee was appointed, the following members being elected:—

Faculties of Medicine and Science.—M. Baines, M.D.; A. W. Bennett, M.A., B.Sc.; W. L. Carpenter, B.A., B.Sc.; W. C. Coupland, M.A., B.Sc.; J. Curnow, M.D.; G. Eastes, M.B.; W. H. Holman, M.B.; H. G. Howse, M.S., M.B.; Sir P. Magnus, B.A., B.Sc.; H. Morris, M.A., M.B.; R. Neale, M.D.; M. F. O'Reilly, D.Sc.; W. J. Spratling, B.Sc.; F. Taylor, M.D.; S. P. Thompson, D.Sc., B.A.; W. C. Unwin, B.Sc.

Faculties of Arts and Laws.—J. B. Benson, LL.D., B.A.; J. W. Bone, B.A.; M. P. Christie, B.A.; J. Hennell, B.A.; R. W. Hinton, B.A.; B. Kisch, M.A., B.Sc.; W. G. Lemon, LL.B., B.A.; A. McDowall, B.A., B.Sc.; S. P. Moore, LL.B., B.A., B.Sc.; T. B. Napier, LL.D.; H. A. Nesbitt, M.A.; W. Paice, M.A.; G. A. Smith, M.A.; E. S. Weymouth, M.A.; R. F. Weymouth, D.Lit., M.A.; B. Whitehead, B.A.

WILLS OF MEDICAL MEN.

THE will and codicil of James Drummond, M.D., formerly of Glasgow, afterwards of Richmond, and late of 5, Great Cumberland-place, who died on Feb. 28th last, were proved on the 16th ult. by George Skene Keith, M.D., the acting executor, the value of the personal estate exceeding £52,000. The testator gives his furniture and effects to his spouse Mrs. Jemima Johnston or Drummond; and there are bequests in favour of his mother and sister. The residue of his real and personal estate he leaves upon trust for his wife for life or until she shall marry again, and then for his children.

The will of David Scott, M.D., late of 52, Camden-square, Camden-town, who died on March 7th last, was proved on the 18th ult. by Mrs. Emma Louisa Scott, the widow, James Hamilton Wylie and Alfred Charles Preston, the executors, the value of the personal estate amounting to over £31,000. The testator gives all his household furniture and effects and £1000 to his wife; £150 each to his executors, James Hamilton Wylie and Alfred Charles Preston, and £1500 upon trust for his son David Forest. The residue of his real and personal estate he leaves upon trust for his wife for life, and after her death to his said son absolutely.

The will of Robert Elliot, M.D., late of 93, Denmark-hill, Camberwell, who died on February 15th last, was proved on the 4th ult. by Mr. Norman Bruce Elliot, M.R.C.S., the son, and Major-General James Mansfield Nuttall, C.B., the executors, the value of the personal estate amounting to over £12,000. The testator bequeaths £25 to his executor, Major-General J. M. Nuttall, to purchase a walking-stick or other momento of him. The residue of his real and personal estate he gives to his son Norman Bruce and to his three daughters Janet, Caroline, and Charlotte Alice in equal shares.

The will of Robert Bryce Gilland, M.D., formerly of the Berks County Asylum, but late of Fayremeade, Sevenoaks, who died on March 8th last, was proved on the 7th ult. by John Bryce Gilland, William Taylor (physician), and William Taylor (farmer), the executors, the value of the personal estate being sworn over £6000. The testator after leaving sundry legacies to persons connected with the Berks County Asylum, leaves the residue of his real and personal estate to his sister Ann Wilding Taylor absolutely.

The will of Charles Hutton, M.D., late of 26, Lowndes-street, Belgrave-square, who died on March 27th last, was proved on the 19th ult. by Mrs. Henrietta Sophia Elizabeth Hutton, the widow, and the Rev. Edward Seymour, the executors. The testator gives all his real and personal estate to his wife absolutely.

The Scotch Confirmation, under seal of the commissariot of Lanarkshire, of the deed of settlement, with two codicils, of Ebenezer Watson, M.D., of Glasgow, who died on Dec. 4th last, granted to Mrs. Mary Ferrier Young or Watson, his widow, Mr. James Ebenezer Watson, the son, and Mr. James Ebenezer Watson and Mr. Thomas Watson, the cousins, the executors nominate, was resealed in London on the 2nd ult. at the value of the personal estate in England and Scotland amounting to over £12,000.

The following legacies have recently been left to hospitals and other medical institutions:—Miss Harriet Gunn Fordham, late of Melbourn, Bury, Cambridgeshire, £500 to Addenbrooke's Hospital, Cambridge; £300 to the Hospital Stanton Convalescent Home; £200 each to the Royston Cottage Hospital, and the Hospital for Children with Hip-Disease

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Sevenoaks.—Mr. James Chapman, late of Warminster, Wilts, £250 each to the Warminster Cottage Hospital and the Salisbury Infirmary.—Mr. John Clark, formerly of 34, Marischal-street, Aberdeen, but late of 19, Royal York-crescent, Clifton, Bristol, £200 each to the Royal Infirmary of Aberdeen, and the Hospital for Persons labouring under Incurable Diseases, Aberdeen.—The Right Hon. Henry Edwyn Chandos, Earl of Chesterfield, J.P., D.L., late of Holme Lacy, Herefordshire, £100 to the Hereford Infirmary.—Mrs. Eliza Maria Beaumont, late of Kenwood-park, Sheffield, £100 each to the Sheffield General Infirmary and the Sheffield Public Hospital and Dispensary.—Mr. Stephen Ponder Kennard, J.P., D.L., late of 17, Kensington-palace-gardens, £300 to the West London Hospital, Hammersmith.—Mr. Benjamin Lancaster, late of Sunnyside, Bournemouth, £1000 to St. George's Hospital, Hyde-park-corner, £500 each to the Middlesex Hospital, King's College Hospital, the Consumption Hospital, Brompton, and the Home for Incurables, Putney.—Mr. Moses Lea, formerly of the Stock Exchange, and of 27, Clarendon-gardens, Maida-vale, but late of 58, Maryland-road, St. Peter's Park, £1000 to the London Hospital, Whitechapel, £500 each to the Jews' Hospital, Lower Norwood, the Royal Ophthalmic Infirmary, Moorfields, the Home for Incurables, Putney, and the Cancer Hospital, Brompton. The residue of his property is to be divided between the London Hospital, Whitechapel, and the Jews' Orphan Asylum, Tender Ground.—Mr. William Westley, late of 24, Regent-street, £100 each to the General Hospital and the Birmingham Dispensary; £200 to the Consumption Hospital, West Brompton.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5899 births and 3704 deaths were registered during the week ending May 7th. The annual rate of mortality in these towns, which had been 21·6 and 20·6 per 1000 in the preceding two weeks, rose again last week to 20·9. During the first five weeks of the current quarter the death-rate in these towns averaged 20·9 per 1000, and was 2·1 below the mean rate in the corresponding periods of the ten years 1877-86. The lowest rates in these towns last week were 16·0 in Birkenhead, 16·7 in Bolton, 17·2 in Nottingham, and 17·5 in Hull. The rates in the other towns ranged upwards to 27·2 in Oldham, 27·8 in Huddersfield, 31·0 in Manchester, and 34·2 in Preston. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 558 and 529 in the preceding two weeks, rose again last week to 548; they included 249 from measles, 160 from whooping-cough, 45 from scarlet fever, 39 from diarrhœa, 32 from diphtheria, 22 from "fever" (principally enteric), and only 1 from small-pox. The lowest death-rates from these zymotic diseases were recorded last week in Birkenhead and Wolverhampton; and the highest rates in Liverpool, Manchester, Salford, and Norwich. The greatest mortality from measles occurred in Liverpool, Manchester, Salford, and Norwich; and from whooping-cough in Bradford, Liverpool, Oldham, and Huddersfield. The 32 deaths from diphtheria in the twenty-eight towns included 20 in London and 2 in Liverpool. Small-pox caused 1 death in Cardiff, but not one in Greater London or in any of the twenty-six other large provincial towns. Only 5 cases of small-pox were under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease; one new case had been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 337 and 338 in the preceding two weeks, further rose last week to 348, but were 9 below the corrected average. The causes of 81, or 2·1 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Nottingham, Portsmouth, Brighton, and Wolverhampton. The largest proportions of uncertified deaths were registered in Sheffield, Halifax, Cardiff, and Newcastle-upon-Tyne.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 22·0 and 22·5 per 1000 in the preceding two weeks, declined to 21·2 in the week ending May 7th; this rate exceeded, however, by 0·3 the mean rate in the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 9·4 in Leith and 13·0 in Perth, to 23·9 in Aberdeen and 26·0 in Greenock. The 529 deaths in the eight towns last week showed a decline of 34 from the number in the previous week, and included 31 which were referred to whooping-cough, 25 to measles, 11 to diarrhœa, 2 to scarlet fever, 2 to diphtheria, 1 to "fever" (typhus, enteric, or simple), and not one to small-pox; in all, 72 deaths resulted from these principal zymotic diseases, against 95 and 89 in the preceding two weeks. These 72 deaths were equal to an annual rate of 2·9 per 1000, which was 0·2 below the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 36 in each of the preceding three weeks, declined last week to 31, of which 13 occurred in Glasgow, 8 in Dundee, and 3 in Edinburgh, in Aberdeen, and in Greenock. The 25 deaths from measles showed a further decline of 2 from the numbers in recent weeks, and included 12 in Aberdeen, 9 in Glasgow, and 3 in Greenock. The 11 deaths attributed to diarrhœa showed an increase of 3 upon the low number in the previous week, but were one below the number in the corresponding week of last year. The fatal cases of scarlet fever further fell last week to 2, both of which occurred in Edinburgh. The 2 deaths from diphtheria, also showing a further decline from recent weekly numbers, were returned in Glasgow; and the single death from "fever," occurred in Edinburgh. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 126, 124, and 111 in the preceding three weeks, further declined last week to 106, and were 2 below the number in the corresponding week of last year. The causes of 57, or nearly 11 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 31·3 per 1000 in each of the preceding two weeks, rose to 36·6 in the week ending May 7th, and exceeded the rate in any previous week of this year. During the first five weeks of the current quarter the death-rate in the city averaged 32·7 per 1000, the mean rate during the same period being but 18·6 in London and 19·4 in Edinburgh. The 248 deaths in Dublin last week showed an increase of 36 upon the number returned in each of the previous two weeks; they included 6 which were referred to measles, 5 to "fever" (typhus, enteric, or simple), 5 to whooping-cough, 3 to scarlet fever, and not one to small-pox, diphtheria, or diarrhœa. Thus 19 deaths resulted from these principal zymotic diseases, against 19 and 24 in the preceding two weeks; they were equal to an annual rate of 2·8 per 1000, the rates from the same diseases being 2·7 in London and 1·8 in Edinburgh. The fatal cases of measles, which had been 6 and 11 in the preceding two weeks, declined again last week to 6; while the deaths referred to "fever," whooping-cough, and scarlet fever showed an increase upon recent weekly numbers. The deaths of infants were within one of the number in the previous week, while those of elderly persons showed a considerable increase. Seven inquest cases and 7 deaths from violence were registered; and 93, or considerably more than a third, of the deaths occurred in public institutions. The causes of 31, or more than 12 per cent., of the deaths registered during the week were not certified.

ROYAL INSTITUTION OF GREAT BRITAIN.—The annual meeting of this institution was held on the 2nd inst., Sir William Bowman, Bart., LL.D., F.R.S., manager and vice-president, in the chair. The annual report of the Committee of Visitors for the year 1886, testifying to the continued prosperity and efficient management of the institution, was read and adopted. The real and funded property now amounts to above £83,000, entirely derived from the contributions and donations of the members. Forty-eight new members had paid their admission fees, and sixty-three lectures and nineteen evening discourses had been delivered. The books and pamphlets presented in 1886 amounted to about 288 volumes, making, with 443 volumes (including periodicals bound) purchased by the managers, a total of 731 volumes added to the library in the year.

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Correspondence.

"Audi alteram partem."

THE RELATIVE RANK QUESTION.

To the Editors of THE LANCET.

SIRS,—I have no sympathy with those who have again roused a spirit of opposition in a department which craved only one thing—viz., to be let alone, and not subjected to constant changes, the reason for which they could not be expected to understand, but the effect of which their previous experience gave them every reason to apprehend. The recent change involved a meaningless contradiction; for if A is brought in relation to B in regard to rank and position, that necessarily involves relative rank, if the English language has any meaning. But if the authorities choose to be so foolish as to state, what is evidently not the case and cannot be the case, that relative rank is abolished, they can only mean that the use of this term is to be discontinued, the thing meant by it is and must remain, and the War Minister affirms emphatically and unequivocally that not only has no change been made in the rank and position of any medical officer, but, in deference to the representations of others about a dispute, the meaning of which he declared to be simply inexplicable after the deputations had laboured in vain to make it apparent to him, he has offered to secure the rank and position of medical officers as definitely and precisely as human language can make it, by expressly specifying that each grade in the medical service shall rank, not *with*, but *as* the substantive military rank with which it corresponds, in all and every respect within the sphere which circumscribes and defines the position, functions, and duties of the medical officer. To my mind the word "as" not only includes, but is distinctly a stronger and more satisfactory expression than either "with" or "equivalent to." It must be clearly understood that, as the medical service forms a necessary and integral part of the military machine, it must be provided for and adequately recognised and respected in every way. It would be undignified to ask less; it would be absurd, as well as undignified, to ask more. The professors in our medical universities and schools are told, however, that they must shut their doors upon a public medical service, and an enthusiastic opposition to it is invoked. To what end? To secure honorary rank in substitution for that which medical officers now have; and to get some distinctive combatant military title incorporated with the medical one—such as captain, major, colonel, general. I confidently appeal to the civil medical profession to do nothing of the kind; and I claim to represent the views and feelings of some of the very best men in the service—men proud of their profession and emulous of getting on in and by it, and not by grasping at military titles which would only render them ridiculous in the eyes of those who from a professional point of view had a right to them; men whose professional knowledge is recognised, and who have, in a quiet way, done much to merit consideration.

Is it possible that after about half a century's contention to prove that, as we shared all the dangers, risks, and hardships of combatant officers in the field, supplemented by others in which combatant officers had no share, we should have our due proportion of honours and rewards—of C.B.'s, V.C.'s, and so forth—we should now put forth a claim for *honorary* rank—a rank bestowed upon officers (we speak of them with all respect and esteem) whose duties are of a purely clerical kind, and may be from the beginning to the end of a campaign performed in an office far removed from all possible dangers of a fight, and all the hardships of actual field service? It seems a monstrous step backwards, which these very *military* medical officers are pressing on the authorities! The medical officer is, on the one hand, non-combatant in the sense that the colonel commanding a regiment or an officer commanding a field battery in action is combatant; but, on the other, he is surely not to be put in the same category and on the same platform as the officer indenting for rations or casting up a pay bill. A medical officer's rank is relative, and the relation to other ranks appears to be better defined now than it ever was before, in spite of the abolition of the form of words "relative rank," but the medical officers owe the War Office no thanks for the change. I have no sympathy with that small section of medical officers who are more military than the military themselves. If they think that they are to obtain greater respect—military or social—by the titular military distinctions of Captain, Colonel, and Major, they will only find themselves, and not unjustly, very much mistaken.

I have always understood that the sense of professional trust and honour was so elevated and keen that, to take an illustration, a physician would refuse to make an experiment on a condemned criminal in order to test the truth of any theory—such, for instance, as Koch's comma bacillus being the essential cause of cholera; he would urge that it was his function to save human life, not to destroy it. But now it seems that the highest aim of a doctor is to gain the titles and be confounded with the rank of those whose function it is to fight and destroy life. But if so much value be attached to military titles, it is natural to expect that the holders of them will in consequence despise and depreciate professional ones. What has been the main aim and object of the medical profession—civil and military—of late years but to be welded more closely together by ties of mutual sympathy, and of associated aims, as members of a common profession with common interests? The strenuous efforts now being made to obtain purely military rank and titles must tend to create a very strong impression that these are held to be altogether superior to those arising from professional and academic distinctions. Is that a wise, judicious, or dignified course to adopt?

Advocacy of a cause is one thing; a fair judgment and consistency another. The combatant officer is scarcely tempted into the ranks of the service by the emoluments it offers. Whether the view be right or wrong, wise or silly, still there it is; he values military rank for the power of command it confers and the social value he thinks it gives. Honorary military rank has been bestowed broadcast among other than purely combatant officers, and distinctly with the effect of diminishing the value of such titles. Would there be no ground for the combatant officer's jealousy and dislike to the presence of a Surgeon-Colonel drawing the much higher pay of a medical officer on the one hand, and usurping a purely distinctive military title on the other?

The medical officer is now master of his own household; he has the responsibility of all that concerns the sick and the hospital service, and he has the power to command obedience and enforce his behests within those limits. To secure respect from others you must extend it to those within their sphere of responsibility. If a combatant officer presumed to interfere or to give advice inside the limits of a senior surgeon's duties and responsibilities he would have to pay dearly for his temerity. Surely, with the indisputable rank granted him by Her Majesty's warrant, the medical officer should have no difficulty in maintaining his position and in obtaining that respect from officers of other departments to which he is professionally and socially entitled.

I am, Sirs, your obedient servant, A. M. D.

*** The above letter, which, it will be seen, is strongly confirmatory of the view expressed in our leading article this week, is from the pen of a distinguished medical officer on the retired list.—ED. L.

GASEOUS RECTAL INJECTION IN CONSUMPTION.

To the Editors of THE LANCET.

SIRS,—I have read with much pleasure Dr. Burney Yeo's interesting lecture on a new method of treatment of consumption by gaseous rectal injections. During the last winter I have applied this treatment in a few cases. At first I used the apparatus described by Dr. Burney Yeo in THE LANCET, but lately I have preferred another (Sehet's), in which the gas is allowed to pass directly into the rectum, the amount being regulated by a screw. The pumping of the gas is done away with. The apparatus works well, and the patient can carry on the treatment by himself after he has been taught how to use it. I have always prescribed the "Eaux Bonnes," being careful to exclude all bottles not containing a good supply of sulphuretted hydrogen. At the beginning of the treatment two litres were injected, gradually increasing to four, and after awhile this quantity was injected twice a day. In every case the gaseous

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injections were well tolerated. They never gave rise to any local or general disturbance. They were very soon followed by a marked improvement in the general condition of the patient. He gained flesh, the appetite increased, the hectic lessened. In one case tubercular infiltration was progressing rapidly, attended by a high temperature. It ceased to invade the lungs a fortnight after the treatment had been commenced. The patient is progressing favourably. He is still making two gaseous injections daily. It is nearly three months now since he began them. On the other hand, in this as well as in other cases, the bacilli are as abundant as ever; the cough persists, and is, perhaps, more troublesome, a lessened expectoration being one of the consequences of the treatment. Some of the cases left Cannes before I was able to form an opinion as to the ultimate value of this new method, and altogethef my cases are too few for me to pass judgment on it one way or the other. I believe, however, that it has done some good, certainly no harm, and with Dr. Burney Yeo I would say that the remedy is worthy of a more extended trial, and that "something" may come out of it.

I am, Sirs, yours truly,

Cannes, April 25th, 1887. H. BLANC, M.D., F.R.C.P.

THE PULSE.

To the Editors of THE LANCET.

SIRS,—I have read Dr. Broadbent's lectures on the Pulse very carefully; but the good they would otherwise do me is largely lost owing to a somewhat lax phraseology. In the first place, we are told the pulse is not an expansion of the artery, but simply an increase of pressure. Now there are three typical variations in the calibre of an artery—a maximum calibre occurring at the top of the pulse, a minimum calibre at the end of the diastole, and a mean calibre somewhat midway between these, corresponding to the mean arterial pressure. If Dr. Broadbent denies that the mean calibre or the minimum calibre is converted into the maximum calibre during the pulse, of course he denies the existence of varying calibres at all; and this is apparently what he means, because his explanation of the pulse is consistent with this view. Instead of varying calibres, he substitutes flattening of the artery, to account for the pulse. I may not properly understand him, and am in doubt whether he means that an artery is only flattened by and during the pressure of the finger on it, or whether the natural condition of an artery during the diastole is one of more or less flattening. If the flattening only occurs when we press with our finger, then the pulse does not naturally exist, for take away the pressure of the finger and the pulse is non-existent. If, on the other hand, an artery is naturally flattened during the diastole, this is utterly inconsistent with that continuous pressure of the arteries on the blood which maintains the circulation during the diastole, for from the moment the cylindrical form is lost pressure is practically abolished. Then we are told that tension and distension are almost similar terms, and mean the same thing. I find, too, by reference to my dictionary, that distension is given as one of the meanings of tension, and that expansion and distension have the same meanings attached to them. Now, according to Dr. Broadbent, during the pulse the pressure is increased, but the expansion of the artery is not increased. If this is so, then the distension is not increased, neither is the tension; and this implies that Dr. Broadbent does not consider pressure and tension as one and the same thing. But, unfortunately, in other portions of his lectures he talks as if they were the same thing; and between these two views those parts of his lectures relating to arterial pressure are lost on me.

I remain, Sirs, yours obediently,

East Greenwich, April, 1887. W. NICHOLSON.

RAGS AS CARRIERS OF INFECTION.

To the Editors of THE LANCET.

SIRS,—I read the able article on the above subject which appeared in your issue of the 30th ult., and, with your permission, would point out that uncleaned rags are often employed for making the flock of the flock bed. In Australia there are many flock-bed manufactories, and I do not know of one in which the rags are washed or otherwise cleaned before their conversion into flock. I am told that in England "it does not pay" to do more than "shake out" the dirt adhering to the rags before putting them in the machine that converts them into that material which composes the soft beds of millions. Exceptions to this practice doubtless exist, but I think medical authority should be brought to bear upon flock-bed makers who neglect to cleanse the raw material upon which they start.

I am, Sirs, yours truly,

R. W. E. MACIVOR, F.I.C., F.R.G.S., &c.,

May, 1887. Late Member of the Central Board of Health, Victoria.

LIVERPOOL.

(From our own Correspondent.)

THE EYE AND EAR INFIRMARY.

THE report of the Eye and Ear Infirmary, just published, shows that in 1886 there were 6109 new eye cases and 2352 new ear cases treated; 68 cataract extractions were performed, in 18 of which irrigation by Mr. McKeown's method was employed. This plan finds increasing favour with the surgical staff in cases of sticky cortex. In a considerable number of unripe cataracts a preliminary iridectomy and artificial maturation by stroking the cornea has been found to give good results.

THE TOXTETH PARK CASE.

A chemical examination of the stomach of the deceased girl, and of such of its contents as could be obtained, was made by Mr. Edward Davies, F.C.S., of the Liverpool Royal Institution, but with a negative result, none of the mineral poisons being found, except a small quantity of bismuth which had been given medicinally. The inference, therefore, is that death resulted from natural causes.

THE CLINICAL STUDY OF SMALL-POX.

Dr. Hope, assistant medical officer of health, has been appointed by the City Council visiting physician at the Park-hill Hospital. This will afford facilities to the students of the Medical Faculty of the Liverpool University College to become conversant with small-pox in its various phases, Dr. Hope, who is the lecturer on hygiene, being most anxious that such opportunities should not be lost.

HOSPITAL SATURDAY.

The 7th inst. being Hospital Saturday, boxes and cages were freely displayed in all parts of the city. Out of over 1000 boxes only 112 have been returned, the contents of which amounted to £397. There is every prospect of the result being considerably in advance of that obtained last year.

Liverpool, May 10th.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

NEWCASTLE JUBILEE EXHIBITION.

ON Saturday last I was, as your representative, privileged to a private view of our Industrial Exhibition, now all but complete, and we can, in the words of our local poet, Dr. Hodgkin, in his very fine opening ode—

"Upon a bleak Northumbrian moor
Behold a palace raised."

For palace it is, regarded either as to cost, extent, wealth, or variety of exhibits. Much as I was prepared to see wonders from the articles in our daily press, I must say that all my anticipations were far exceeded when in the building. First as to the site. It is in a park forming part of the Town Moor, and in the northern suburbs of our city. It is only one mile from the Central Station, tramcars passing the building at very short intervals. The space at the disposal of the Executive Committee covers thirty-one and a half acres, or a little in excess of that provided for the late exhibition at Edinburgh. There is thus provided ample room and verge enough, not merely for the exhibition, but for the show of the Royal Agricultural Society of England, which, for the third time in its history will be held in the month of July next in Newcastle. As regards the building, it is con-

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structed upon the systems adopted at the exhibitions at South Kensington. It contains a theatre to seat 1500 persons, art galleries, machinery in motion, and an internal garden which covers two and a half acres, while around it runs a pleasant verandah giving shelter from the sun and rain. The band stand is surrounded by pleasant walks and well-arranged parterres. The exhibits are full of interest, and many have a special interest for our profession, which I shall notice in future letters.

NEW HOSPITAL FOR SUNDERLAND.

It is now more than four years ago since the pressing need of a new hospital for fever at Sunderland was pointed out in THE LANCET'S sanitary report on the borough, and it is only just now we read that a commencement is to be made by the laying of the foundation stone, which is fixed to take place next Saturday.

NEWCASTLE INFIRMARY.

At the last quarterly meeting of the infirmary, a gratifying report was read, showing that the income had increased and the expenditure diminished. Dr. Philipson moved the following resolution, which was carried unanimously: "That in consideration of the life governors, the annual subscribers, and weekly contributors having agreed to relinquish their privilege of recommending patients, with the object of making the hospital accessible to the public, Her Majesty the Queen be respectfully invited to allow the institution in the future to be designated the "Royal Infirmary." It is as well to say that it is to be hoped that the governors will not allow their zeal for economy in the management to extend so far as to deprive patients of any necessary comfort. That there is a tendency that way will be apparent when I mention that a governor took strong exception to the amount expended on aerated waters—about £12, I believe for the quarter; indeed, he went so far as to say aerated waters "were a great humbug," and asked why the patients were not given "cold water"; but if this governor had the misfortune to suffer from surgical fever, with irritability of the stomach, he would be in a better position to appreciate the value of aerated waters.

NEWCASTLE DISPENSARY.

A curious dispute took place at the late meeting of the special court of governors called for the purpose of electing a physician. I told you in my last letter that Dr. Beatley, the late resident physician, was the selected candidate, canvassing being prohibited. The chairman ruled that, there being only one name put forth by the Committee of Selection, the election could not take place. There was a good deal said about canvassing, and, although the letter of the rule may have been adhered to, it was plain that the spirit had been somewhat infringed. Candidates have not canvassed, but the governors have been influenced by friends, and of course the candidate who gets the most governors' influence is elected. As it was, the governors present held that, as there was only one name before them, there was no choice, and so the election was postponed.

TYNEMOUTH INFIRMARY.

At a meeting of the Building Committee of the Tynemouth Infirmary, held in the Town Hall, North Shields, on Friday last, the architect presented his plans for the new building, and it was decided to ask the Dowager Duchess of Northumberland to perform the ceremony of laying the foundation stone on the Queen's Jubilee day.

Newcastle-on-Tyne, May 9th.

EDINBURGH.

(From our own Correspondent.)

THE ROYAL COLLEGE OF PHYSICIANS.

CONSIDERABLE interest in Edinburgh has centred in the recent election of the representative of this College on the General Medical Council, in the room of the late Dr. Rutherford Haldane. The election of Dr. Batty Tuke has been to many a surprise, and it indicates clearly the direction in which public opinion is now gravitating amongst the Fellows. There can be little doubt that Dr. Tuke owes his election to something approaching a declaration of independence among the younger Fellows, and that his return shows a tendency to a new departure in the internal policy of the College. He has frequently identified himself with movements of a liberalising nature, and that he is the choice of a majority of the electors shows that such changes in the direction of the College procedure would be received with a large measure of satisfaction. In other respects also the College is to be congratulated on its choice, for Dr. Tuke is generally recognised as a man of exceptional ability in the conduct of affairs, and his wide popularity with the profession in Edinburgh can but react favourably in the interests of the corporation he now represents.

THE COLLEGE OF PHYSICIANS' LIBRARY AND LABORATORIES.

I have had occasion in previous letters to notice the splendid library equipments possessed by the College, and the generous terms on which it placed these advantages within the reach of medical men engaged in study and research. Of late a rule of the College has been rigorously insisted on that indicates a reactionary feeling on the part of the College Council. All applicants for the use of the library not possessing the privileges of Fellowship are now refused access to the books unless they are accompanied by a Fellow *in propriâ personâ*. This results in the exclusion of many of our most diligent workers from their only local sources of information on special points in medical literature, and the continuance of such a state of matters must react very disadvantageously upon the vitality of the Edinburgh school. This is not, as far as is known, the result of any abuse of the previous generosity of the College, but seems to have arisen from some increased sense of jealous proprietorship almost inconceivable in a leading medical corporate body. There are hopes that the College will recognise the widespread feeling now abroad on this subject, and will add the grace of liberality to the virtue of loyally maintaining the present effectiveness of its library. In respect to its new laboratories, the College merits the highest praise for its efforts towards creating a greater earnestness in original research. The laboratories are rapidly approaching completeness under the auspices of Dr. Woodhead, who has handsome provision supplied him for making the equipment of the institution complete in every respect. The tariff proposed in relation to work done is no less generous, as it is understood that medical men are to be accommodated as workers free of charge and with the ordinary laboratory necessities supplied at the expense of the institution. In a few weeks these well-furnished rooms will be open for the prosecution of research.

THE COUNCIL ASSESSORSHIP IN THE UNIVERSITY COURT.

On Tuesday the election of an assessor in the University Court was concluded, and resulted in the return of Dr. Heron Watson by a majority of 587 votes, in a gross poll of over 5000 in number.

Edinburgh, May 11th.

DUBLIN.

(From our own Correspondent.)

THE CARMICHAEL PRIZES.

A MEETING of the Royal College of Surgeons was held on Monday last to hear the awards of the judges (Messrs. Robert McDonnell, P. C. Smyley, and S. Chaplin) selected to adjudicate the Carmichael Prize Essay. Sir William Stokes, President of the College, who occupied the chair, said that however opinions might differ as regarded either the wisdom or the utility of the design of the founder of these prizes, yet it was satisfactory to learn that the great majority of the essays sent in possessed very considerable merit. More especially was this the case with the essay which had obtained the first place. It was a work of exceptional merit, and the judges had stated that it was one likely to be of great utility as a work of reference. The first prize has been awarded to Mr. Walter Rivington of London, for his essay on "Every Man is a Debtor to his Profession," and the second prize to Mr. T. Laffan, for his paper on "Aristides." It is a circumstance worth noting that on the last occasion when the Carmichael prizes were awarded both these successful essayists respectively obtained first and second prizes.

MEDICAL STUDENTS' ASSOCIATION.

A meeting of those interested took place at the Ledwich School of Medicine last week to consider the proposed

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changes in connexion with the Conjoint Examination Scheme adopted last October by the Colleges of Surgeons and Physicians. After some discussion it was resolved to send a petition to both Colleges asking to be allowed to continue their studies according to the regulations under which they commenced their medical curriculum, making only such alteration in the final or qualifying examination as the Medical Act of 1886 required. It was pointed out that, in consequence of the uncertainty as to what might be required of them at the coming examinations in July and October, they would find it most difficult to give their minds to study, and that they feared it would be impossible to be prepared for the conjoint examination at such short notice should they have to enter for it. No postponement would get them over the difficulty, as school and hospital instruction would cease during the summer holidays. It has been arranged that a deputation of the students belonging to the Association shall wait on the Joint Committee of Management in reference to the matter.

ZYMOTIC DISEASES IN DUBLIN.

During the March quarter the number of deaths from zymotic diseases was 212, being 204, or 49 per cent., below the average for the corresponding quarter of the past ten years. As compared with the December quarter of last year, the deaths from scarlatina show a decrease of 44, fever of 8, and diarrhœa and dysentery of 61.

Dr. Ahearn has resigned the post of medical officer for Ballickmoyler and Newtown Dispensary; and his successor will be appointed on the 20th inst.

Dublin, May 10th.

ROYAL COLLEGE OF PHYSICIANS.

AT an extraordinary Comitia on the 12th inst., Sir W. Jenner, Bart., President, in the chair, the following gentlemen were admitted to the Fellowship:—Drs. G. Oliver, R. Cory, H. R. Crocker, F. Buzzard, C. J. Cullingworth, W. J. Mickle, G. A. Heron, and J. Anderson.

A memorial, signed by 270 medical officers and teachers in London hospitals and schools of medicine, in support of the proposal that the two Colleges should obtain powers to grant a degree in Medicine, was read. It was referred to the Committee of Delegates.

Notification was made through the Foreign Office that an International Congress on Hygiene would be held in Vienna in the month of September.

On the motion of Dr. C. T. Williams, seconded by Dr. Julius Pollock, it was resolved to hold a *conversazione* in the month of June.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT an ordinary meeting of the Council of the Royal College of Surgeons on Thursday last the Minutes of the extraordinary meeting of the Council were confirmed.

An address of congratulation to the Queen on the completion of the fiftieth year of her reign was read, approved, adopted, and entered on the Minutes, and directed to be sealed and presented in the proper quarter.

On the report of the Nomination Committee, Mr. Howard Marsh was elected an Examiner in Anatomy for the Membership, and Mr. Davies-Colley for the Fellowship.

Further memorials from Mr. B. Brian were presented, in opposition to that recently presented by Dr. Wilks.

The Council resolved not to appoint any separate Examiners in Medicine and Midwifery for the ensuing year, on the ground that by the Medical Act of 1886 the diploma of Member will not be registrable alone as a qualification for practice.

The following resolution was adopted, and referred to the Colleges' Land Committee for further consideration and report:—"That, in accordance with the proposals contained in the report of the Colleges' Land Committee dated the 13th of December, 1886, it be recommended to the Council, with respect to the report from the President, senior Vice-President, and Mr. Marshall, referred to the consideration of the Committee, that the Council do agree with the Royal College of Physicians that the vacant ground on the Embankment be occupied by buildings suitable for such scientific purposes as may hereafter be resolved upon."

The Council proceeded to the further consideration of the report dated April 2nd, 1887, from the committee of delegates of the Royal College of Physicians of London and the Royal College of Surgeons of England, on the question of the granting by the two Colleges of degrees in Medicine and Surgery. This report included a recommendation from the Committee of Delegates that the overtures made on the part of the Council of University College and King's College, London, that the four Colleges should confer with a view to obtaining powers to jointly get degrees in Arts, Science, and Medicine, should not be entertained; and it was agreed to take the necessary steps to petition the Crown to grant a new Charter to enable the two Colleges to give degrees in Medicine and Surgery.

A petition sent in by Mr. F. Treves addressed to the Presidents of the two Colleges, and signed by representatives of all the metropolitan schools, in favour of the grant by the two Colleges of degrees in Medicine and Surgery, was received (see page 997).

The usual resolutions with regard to the election of members of Council on July 7th at 2 P.M. were passed. The following are the retiring members of Council:—Mr. Hutchinson, Mr. John Wood, and Sir Spencer Wells.

It was agreed, on the motion of Mr. Heath, that an extraordinary meeting of the Council be held, to be called at such a time as the President shall determine, to consider the disposal of the Erasmus Wilson bequest.

Obituary.

WILSON FOX, M.D., F.R.C.P.L., F.R.S.

WILSON FOX was born at Wellington, in Somersetshire, on November 2nd, 1831. His family belonged to the Society of Friends, a large number of whom were more or less closely related to him. His early education was at Bruce-grove, Tottenham; but he became a student of University College, London, in 1847. He studied in the Faculty of Arts, and obtained his degree of B.A. in 1850; he then entered the Faculty of Medicine in the same College, and among other honours obtained the Fellowes' gold medal in 1853. He was clinical clerk and physician's assistant to Dr. Walshe. He took his degree of M.B. Lond. in 1854, obtaining honours in Medicine, and proceeded to the degree of M.D. in 1885. He then studied in Edinburgh, where he was resident in the Royal Infirmary for a year. After this he visited Paris and its medical schools, on his way to Vienna, where he remained for a year. Subsequently he went to Berlin, and for two years studied assiduously, under the guidance of Professor Virchow. It was here, under the personal direction of Virchow, that his great powers for anatomical investigation were educed, stimulated, and developed. While in Berlin he made an important observation with regard to the degeneration of the gastric glands, finding in them the same kind of change that had been described by others in the intimate structure of the kidney in Bright's disease. The results of this investigation were given after his return to this country.

Dr. Wilson Fox married, in 1859, Emily, daughter of Wesley Doyle, Esq., and not long afterwards was invited to accept the post of physician to the Royal Staffordshire Infirmary. This invitation he accepted, and at once entered upon a career of successful practice. His reason for going there was that the hospital presented a large field for continued medical and clinical research. After some time his health failed, and he came to London to be under medical care; but from this ill-health he entirely recovered, and returned to Staffordshire. In 1861, upon the strong recommendation of Professor Virchow, he was appointed Professor of Pathological Anatomy in University College, London, and not long afterwards assistant physician to University College Hospital. He was elected a Fellow of the Royal College of Physicians in 1866, and in 1867 physician to the hospital, Holme Professor of Clinical Medi-

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cine, and also a Fellow of University College. He contributed a paper in 1866 to the Philosophical Transactions of the Royal Society on the "Development of Unstriated Muscular Fibre." In 1870 he was appointed Physician Extraordinary to the Queen, and became a Fellow of the Royal Society. Soon after the marriage of the Duke of Edinburgh Dr. Fox was appointed Physician in Ordinary to their Royal and Imperial Highnesses. A most important paper was published in the Transactions of the Royal Medical and Chirurgical Society on the "Origin, Structure, and Development of the Cystic Tumours of the Ovaries"; also a remarkable contribution to science in the *Medical and Chirurgical Review* on "Purpura," giving the details of a fatal case, accompanied by waxy degeneration of the muscles. In this paper he gave full evidence of his great power as a microscopical observer. He contributed also various papers to the Pathological Society, and was elected its vice-president, an office which he held from 1875 to 1877. At this time he became librarian of the Royal Medical and Chirurgical Society, and continued to perform the duties of that office until his death. In 1868 Dr. Wilson Fox delivered a lecture before the Royal College of Physicians on the Artificial Production of Tubercle in the Lower Animals, which was afterwards published in THE LANCET, and re-published in a separate form. This paper contained in clear and concise form the results of long-continued research, and was a most valuable addition to our knowledge of the etiology and pathology of tubercle. In 1871 Dr. Wilson Fox originated in this country the treatment of hyperpyrexia by cold affusions and baths, and, in spite of apparently the most obvious difficulties and dangers, carried his case through to a successful issue. He wrote the article on "Diseases of the Stomach" in "Reynolds' System of Medicine," which was subsequently re-published in a separate form. He contributed also to the same work the results of one of his most important researches in his exhaustive article on "Pneumonia."

At the Pathological Society, in 1873, Dr. Fox opened a discussion on the Anatomical Relations of Pulmonary Phthisis to Tubercle of the Lung, occupying the whole evening in a lucid exposition of the subject, founded chiefly on his own work, but taking cognisance of all that had been done by others, from Bayle to Niemeyer. Another important contribution to science was given by him to the Medical and Chirurgical Society about the same time, on the Temperature, Pulse, and Respiration in Phthisis and Acute Tuberculisation of the Lung, founded on eighty cases observed by himself in University College Hospital. At the meeting of the British Medical Association in Manchester (1877), he opened a discussion on the Mortality of Pleurisy considered in relation to the operation of paracentesis thoracis, accompanied by most careful tables of mortality from various sources. His great work on Diseases of the Lungs is not yet published, but, we believe, is almost complete. It has occupied him during the last fifteen or sixteen years, and is accompanied by an atlas containing his own microscopical drawings, and coloured plates, the latter produced under his most careful direction.

Dr. Wilson Fox's first wife died in 1870, leaving him with three sons and three daughters. In 1874 he married Evelyn, daughter of Sir Baldwin Wake Walker, Bart., widow of the late Captain Hugh Burgoyne, R.N., V.C., who survives him. We have already given an account in this journal of Dr. Fox's last illness, and of its sad termination at 4 A.M. on May 3rd, at Preston in Lancashire. The funeral took place at Taunton in Somersetshire, on Friday, the 6th inst., where several of his nearest relatives had been buried. Mrs. Wilson Fox and all his sons and daughters were present, with a number of relatives and friends. The Queen was represented by Dr. Russell Reynolds, Physician in Ordinary to Her Majesty's Household, who was entrusted with a wreath to be placed by him on the coffin on Her Majesty's behalf. Attached to the wreath was a card, on which Her Majesty had written the following words: "A mark of sincere regard and esteem from Victoria R." A very large number of most beautiful wreaths, crosses, and other tokens of affection were sent from sorrowing friends and relatives. They were placed in the chapel, and then around the grave. The service was read by the Rev. Henry Jones, M.A., hon. chaplain to the Queen, Prebendary of St. Paul's, an affectionate friend for many years, assisted by the Rev. F. Baggalay, M.A., son-in-law of Dr. Wilson Fox.

In this endeavour to give some slight sketch of Wilson Fox's life, which was so beautiful, and of his death, which was so sad, we feel that but scant justice has been done to the character of one so great and good; and we therefore add the impressions that were made on us through four years of intimate acquaintance and most loving friendship.

As a "student" Fox was industrious in his work and thorough in his play. He enjoyed both, and one as much as the other. In the class of Professor Malden, he entered into the mirth of Aristophanes with intense pleasure and amusement, and his keen sense of humour enhanced to him the delight of hearing the ancient Greek author's fun "done into English" by the staid and learned modern Professor. It was the same in the mathematical course, and in other classes in the Faculty of Arts; and when he commenced his career in the Faculty of Medicine he was a most diligent learner in the classes of Sharpey, Graham, and Quain; and, subsequently, in the hospital wards, under the direction of Walshe, Jenner, and Parkes. But, at the same time, he gave himself healthy recreation in walking, riding, cricket, racquets, and music; and during vacation days in mountain climbing, both in England and abroad. Work and play were duly balanced, and each helped the other, and each to him was a delight. He listened and observed eagerly, assimilated rapidly and yet thoroughly, so that he could readily reproduce his knowledge when called upon to do so.

As "physician to a hospital," in both Newcastle and University College Hospital, Dr. Wilson Fox exhibited the most admirable combination of qualities. He was painstaking to the very highest degree in his study of each individual patient. To him the sufferer was a "human being," and not only a "case" from which to learn, and so add his mite, as he regarded it, to the sum of human knowledge. He felt that he had something to "do" as well as something to "learn." It was "the man" he had to investigate and treat, and the obvious disease from which he suffered was but a part of him. He could quickly make a diagnosis of the immediate source of suffering, and as readily give relief where such was possible. But he was not content with any such routine work as that might be. He would trace disease as far as could be, to its source. He made it his business to know "the man" thoroughly, to grasp facts that the stethoscope could not reach, and, while searching into the morbid physical processes of every organ in the body, kept in view the heavy burden of the soul, which lay beneath and often was the source of the greatest suffering. This he did by inspiring utter confidence in his kindness, knowledge, sympathy, and power to help. These qualities rendered him to his hospital patients, as well as to others, the successful physician, the wise and steady counsellor, the beloved and trusted friend. His great success as a "teacher" depended upon the thoroughness of his knowledge of the thing he had to teach; his ready appreciation of the plane upon which his pupils were standing; his sympathy with them in their blameless ignorance, and in their desire to learn; his peculiar lucidity of expression; his rapidity of illustration by analogy; his versatility and humour; and, most of all, his earnestness. Whether in college theatre or at the bedside of patients, he would exhibit his mastery of the minutest details, but would, at the same time, bring his genius as a burning glass to gather all details to a focus, and place in the strongest light the primary and all important points that needed observation, study, and recollection. In thus concentrating the facts or dogmas with which he dealt, he achieved a double success, he presented the subject-matter of his lesson in the best form possible, and concentrated at the same time the attention of his pupils. The attention he had won by his skill he riveted by his enthusiasm. His teaching was of the highest moral tone, everywhere and at all times; and although he would most kindly give individual help to a dull student who was struggling to advance, he could give him, with all good grace, a sharp goad onwards; an idle and conceited man he would at once put in his proper place, and perhaps "treat with bitter banters"; but "a fool," although he would be generous to him, he could not abide. His pupils, now scattered far and wide, must be numbered by many hundreds, and there can be among them no one worthy of the name of student who will not sorrow deeply at the loss of him to whom they owe so much, nor fail to cherish with profound gratitude the memory of their teacher and their friend. On his dying bed he sent this message to his pupils: "Tell my boys, the students of University College, how much I love them. Tell them that the surest road to success is to have a high

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ındard of right and honour, and to adhere strictly to it." is message was given to Dr. Arkle, a former pupil, for ıom he had a great regard, and for whom he had sent ıen becoming ill at Preston, and who watched him with voted attention to the last. It was communicated to the ıdents by Dr. Gowers, who enforced upon them the great ample that Dr. Fox had set before them.

In his capacity as a "worker in physiology," pathology, and ıdicine, Dr. Fox followed closely in the steps of the greatest vestigators of Nature's secrets. Their method was his—to ertain the facts by every means in his power, to see all at was to be seen, to read all that was written in the ok of Nature, and to "read between the lines" by stituting experiments, and so shifting the relations tween materials and forces, both inside and outside the ing organism, as to anticipate the results of slowly cumulated observations. His work was done in no ıdom way, but with distinct and careful forethought; recorded faithfully, step by step, the facts that lay before n; proving, and, indeed, almost over-proving, the conclu- ns to which he had arrived, advancing by a strict process induction, guided by acute selective faculty between the eat and small, the relevant and irrelevant, or collateral, til he was convinced of the accuracy of the answers ıture had given to his inquiries, and then, and not till en, placing them as truth before those who wished to ow how he had read her mysteries. His power of ob- rvation, innately good, had been sharpened to the finest, enest edge by his long-continued studies in England, otland, and Germany. He had great faculty for original vestigation, and an energy that was as untiring as it was tient. But beyond these qualities, which were his bitual working tools, he was endowed with undeviating votion to truth, and yet further with most buoyant hope. As an "author" Dr. Fox's great qualities found worthy pression, but only those who knew him intimately in his de of writing and of publishing can be aware of the great st and enormous amount of labour he imposed upon him- f in order to secure accuracy and fulness. Many years o it was said by a great author that "no man should ite a book unless he could put into it all that was own until his time, and so add to it that there could be thing to be said afterwards." In the line of work which Wilson Fox had adopted the latter term was an impos- ility, but in so far as there was possibility he secured the mer. His reading of all literature, past and present, that re upon his subject was wide, deep, and critical; and e pains which he took to verify quotations by one thor from another, whether in monograph, contribution to entific journals, in this country or elsewhere, was beyond praise. His work was so elaborated that sometimes fore he had reached the end of an article some fresh pers came forth from the teeming press of France, rmany, Italy, and America, and all that was worthy in ese he felt bound to digest and introduce. This marvellous lustry, while it has given the greatest value to already published works, has yet delayed the pro- ction of his "Magnum Opus," now nearly finished.

Regarded as a "member of the medical profession," he was profoundly interested in all that affected its welfare. "Order" d "Progress" were the watchwords of his life. He was nest to preserve what was right; eager to make that ter; to remove what was wrong or unhelpful; to widen d advance, by new methods and in every direction, its ge of usefulness; and to secure this end, by reduction of necessary work, and the addition of other modes of pro- lure which might, in his opinion, conduce to this end. enly critical, he was no mere critic, but was always full of gestion and constructive genius. Having once made up mind, he rarely swerved from his purpose, but maintained ground by considerate courtesy to those who differed m him; by absolute intrepidity and perseverance in ending all that he believed was right; and so he often ceeded by impressing upon those who heard him the con- tion of the entire sincerity of his heart and judgment, l also by the eloquence and impetuosity of his words, ich made many feel that, in spite of obstacles, all things re possible to him that believed.

In his dealing with private patients he was all that has n said about him as hospital physician; and there is little re to add. He was entirely unselfish, truthful, and ost infinitely tender. With their friends he was the ne; and if, sometimes, his eager, earnest look might have en the feeling that he was over-anxious, those who knew him best knew also it was the outcome of his heart's deep feeling—neither alarm nor even fear, but—the unconscious expression of his loving sympathy.

As a "man," Wilson Fox was a Christian gentleman in the best, fullest, and highest meaning of those words. He lived soberly, righteously, and godly. Careful in his living, for the sake of others and himself, he was righteous to all with whom he had to deal, and his motives came from the highest source; he was eminently a godly man. Free from sectarianism as he was free from cant, he took great interest in the Christian Association of his College, and often gave wise words of counsel to its members.

As a "friend," only those who knew him best and loved him most can feel how absolutely impossible it is to find, in the poverty of words, any adequate expression of their thankfulness for his life and their unspeakable sorrow at his death. Many will feel, as with tear-blinded eyes they read this slight attempt, or any others that may be written, to recount his life, and tell their grief that it has now been taken from their earnest gaze, the full meaning of our great poet, when he wrote—

> "I cannot see the features right,
> When on the gloom I strive to paint
> The face I know ....."

There are many, however, who will be consoled to know that a few hours before his death, Wilson Fox said, in reply to a question put to him by a member of his family, "My only prayer is 'Thy will be done.'"

On the next morning, when obviously and consciously dying, and after his eyes had been fixed for a few minutes on the angle of the room, and as some grey streaks of dawn were entering it, he said suddenly—"There is a great light, a great glare of light.....I feel so strange.....a glare of light. What is it, Reynolds?" The reply was—"It is the peace of God." He grasped his friend's hand firmly and said, "God bless you," and in a few minutes after this

> "His soul to Him who gave it rose,
> God led him to his long repose,
> His glorious rest.
> And though the warrior's sun has set,
> Its light shall linger round us yet,
> Bright, radiant, blest."

Yes, dear Wilson Fox has gone into that light in which he trusted all his life through; the light that knows nor cloud nor shadow. This world is greatly poorer, but the higher world is richer in receiving, with bright welcome, a soul so strong, so loving, so good, so tender, and so true.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentleman, having passed the necessary examinations for the diploma, was at an ordinary meeting of the Council on the 12th inst. admitted a Member of the College:

Mitchell, Richard Pryce, St. Mary's-square, Cardigan.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a recent meeting of the Court of Examiners the following gentleman was admitted a Fellow of the College:—

O'Brien, John William, Melbourne.

UNIVERSITY OF DUBLIN.—The following degrees were conferred last week by the Vice-Chancellor of the University:—

LICENTIATE IN MEDICINE.—Alfred Russell Darley.
BACHELOR IN SURGERY.—Armstrong Herbert Swiffte Todd.
BACHELOR IN MEDICINE.—Walter James Buchanan, Robert William Henry Jackson, Henry Simpson Lunn, William Moyle O'Connor, Perceval Cecil Ryan, Armstrong Swiffte Todd, and John Henry Du Bedat Whaite.
DOCTOR IN MEDICINE.—George Thomas Revington.

SOCIETY OF APOTHECARIES.—The following gentlemen, having satisfied the Court of Examiners as to their knowledge of the Science and Practice of Medicine, Surgery, and Midwifery, received certificates entitling them to practise as Licentiates of the Society on May 5th:—

Jaques, John Warren, Tyndale-place, Islington.
Pott, Francis Henry, Cornwall-gardens.
Worrall, Charles Lloyd, Buckfield, Leominster.
Whicher, Alex. Hastings, Westcombe Park, Blackheath.
Weld, Octavius, London, Canada.
Wooldridge, Arthur Tylee, Winchester, Hants.

On the same day four others passed the Primary Examination, four the Surgical, and one for Assistant.

[The name of "Francis Forbes Lanyon Penno" was in-

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advertently omitted in the list of candidates who passed their examinations on April 28th, and received certificates to practise.]

WESTMINSTER HOSPITAL MEDICAL SCHOOL.—Mr. Edward Cullinan has been elected to the Natural Science Entrance Scholarship.

JERVIS-STREET HOSPITAL, DUBLIN. — This institution has received £500, being a bequest by the late Captain Geary.

PORTSMOUTH has spent nearly £150,000 in improving its drainage. The new works were inaugurated on the 9th inst., with a pomp and ceremonial befitting their magnitude.

PRINCELY DONATIONS.—Sir George Stephen and Sir Donald Smith have given $500,000 each to found a Royal Victoria Hospital for the sick and poor of Montreal, and that city gives a fine site for the buildings.

KING'S COLLEGE HOSPITAL.—On the 10th inst., Princess Louise opened a grand bazaar in King's College, Strand, in aid of the funds of this institution. The hospital, which was founded in 1839, relieves annually about 20,000 persons.

THE FRENCH HOSPITAL.—The Queen has graciously consented to be patron of the French Hospital and Dispensary, Leicester-place, Leicester-square, and has sent a handsome donation towards the building fund of the new hospital about to be erected on a site in Shaftesbury-avenue.

ANDERSON'S COLLEGE MEDICAL SCHOOL.—In connexion with the reconstitution of Anderson's College under the scheme of the Glasgow and West of Scotland Technical College, the Medical Faculty of Anderson's College will in future be carried on as a separate incorporation, under the title of "Anderson's College Medical School."

MEATH HOSPITAL, DUBLIN.—The following prizes were awarded at the termination of the winter session:—First Medical Prize: Harry P. Sloggett. Second Prize: William Bagot. First Senior Surgical Prize: Thos. Galavan. Second Prize: Alfred Bewley. First Junior Surgical Prize: Oliver L. Robinson. Second Prize: George Hepenstal and Ernest Hawthorne.

THE FREEMAN CONVALESCENT HOME, BATH. — At a meeting of the Royal United Hospital Committee, held last week, the Mayor (Alderman Murch) presiding, it was decided not to accept the responsibility of the management of the Convalescent Home on Lansdown, given by Mr. H. W. Freeman as a Jubilee gift, towards the endowment fund of which only £1700 has been collected.

THE Committee of the Liverpool City Hospital, Netherfield-road, have accepted a tender for the erection of a new administrative block, laundry, mortuary, and boundary walls, together with additions and alterations to the east pavilion, and the formation of a complete system of drainage for the whole site of the hospital, for the sum of £10,533.

INSTRUCTION TO VOLUNTEER MEDICAL OFFICERS.—A course of lectures to Volunteer medical officers is now being given by Dr. Walter Pearce at the headquarters of the Volunteer Medical Staff Corps. A lecture on Barrack and Camp Hygiene will be delivered in the Parkes Museum on Wednesday, May 25th, at 7.30 P.M. Dr. Farquharson, M.P., will take the chair.

GLASGOW UNIVERSITY CLUB, LONDON.—Sixty-five of the members of this Club, with their guests, dined together at the Holborn Restaurant on the evening of Friday, April 29th. Professor Gairdner of Glasgow was in the chair. Amongst those who spoke after dinner were the Marquis of Lothian, K.T., Lord Watson, Sir F. Sandford, K.C.B., Lieut.-General Sir A. Alison, Bart., K.C.B., Sir T. A. Colt, Bart., M.D., and Professor McCall Anderson, M.D. During the evening the chairman read a congratulatory telegram sent to the Club by Principal Caird on behalf of himself and the Chancellor and professors of the University of Glasgow. The Club now numbers over 120 members. The honorary secretaries are Dr. Heron, 57, Harley-street, W., and Mr. McIlraith, 3, Furnival's-inn, E.C.

LEITH HOSPITAL.—The series of improvements in this hospital, which have been in progress for some time, have now been completed, several wards having been added to the charity.

SMALL-POX IN JAMAICA.—According to the latest advices from Jamaica, the epidemic of small-pox which has prevailed on the island since March, 1886, shows but slight signs of abatement. Between March 13th and 27th last 330 cases occurred, of which 19 were fatal. Since the commencement of the epidemic there have been altogether 615 cases and 590 deaths, of which 1990 cases and 353 deaths were in Kingston.

THE SANITARY CONDITION OF WARSAW.—Hitherto the inhabitants of Warsaw have been drinking Vistula water drawn from where the river is polluted by the drainage of the town, and the sewage has been running through open gutters, with which the streets are lined on both sides emitting pestilential odours. Important water and sewage works, designed to rectify this intolerable condition of affairs, are now approaching completion.

THE HOSPITALS ASSOCIATION.—The annual general meeting of members and associates will be held at the rooms of the Society of Arts, John-street, Adelphi, on Wednesday the 18th inst., at 5 P.M., at which the President, Sir Andrew Clark, Bart., M.D., F.R.S., will preside. On the evening of the same day the Association will be held at the rooms of the Medical Society of London, at 8 P.M., when a paper will be read by Dr. Wm. Collier, on "The best means to prevent the Abuse of Hospital Charity."

THE SANITARY CONDITION OF POOLE.—On the 11th inst., a Local Government Board inquiry was held at Poole into the application of the Town Council for leave to borrow £3000 for the erection of public baths. The inspector ascertained that there was no system of sewerage in the town and expressed the opinion that the Local Government Board would not be justified in giving encouragement to the growth of an increasing town like Poole unless there were simultaneously carried out a thorough system of sewerage. The mayor expressed the opinion that the death-rate of the town would increase if a system of underground sewers were substituted for the present cesspool system.

MEDICAL NOTES IN PARLIAMENT.

The Lunacy Board of Scotland.

ON the 5th inst., in the House of Lords, the Marquis of Lothian presented a Bill restoring to the General Lunacy Board of Scotland power to alter, enlarge, or restrict, in such manner as may be necessary, the present lunacy districts in Scotland. The Bill was read a first time.

Smoke Nuisance Abatement (Metropolitan) Bill.

On the 9th inst. Lord Stratheden and Campbell formally moved the second reading of this Bill.—The Duke of Westminster, in supporting the second reading, referred to the action of their lordships in 1884, when the same Bill was carried on a division, and concluded by asking them to give a second reading to the Bill, on the ground that it would be conferring a boon on those who were constrained to pass the bulk of their lives in an atmosphere greatly contaminated by smoke.—Lord Mount-Temple commented upon what he termed the barbarous circumstance that in London one-half of the fuel used did not produce heat at all, but simply rose into the atmosphere, irritating our nostrils and throats and inflicting enormous injury on buildings and everything. The Bill was, he thought, provide better machinery than at present existed without at the same time, making any alteration in the law, and there was no reason to believe that the measure, so far as it went, was not a useful but a safe one.—The Marquis of Salisbury explained that the Government could not resist the second reading, but he hoped that the noble lord would allow sufficient time to elapse before the stage of Committee to enable the metropolitan authorities to take cognisance of the Bill.—The Bill was ultimately read a second time.

Cremation.

On the 10th inst., Lord Forbes moved for a return of the number of cremations that had taken place in England within the last five years and asked by what authority and under what regulations they were permitted.—The Marquis of Salisbury said that the Government would have been willing to give such a return if it had been in their power. It was impossible, however, for them to do so, because, cremation being a matter of individual discretion, and not an official proceeding, no records were kept, or at least none that were accessible to the Government.—The motion was withdrawn.

Ventilation of the Vote Office.

In the House of Commons on the 5th inst., in answer to Dr. Tanner, Mr. Plunket stated that he was afraid it was true that the Vote Office was inconveniently small, and that at times when much crowded the ventilation is not very good, but he had not heard that the existing arrangements have proved injurious to the health of the officials in that room. He feared there would be considerable difficulty in mending the matter.

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but he would consult with Dr. Percy as to what could be done as to substituting electric for gas lighting. The difficulty was that the plant for the electric lighting was already strained to the utmost.

The Vaccination Acts.

On the 6th inst., Mr. Channing asked the Secretary for the Home Department whether his attention had been called to the circumstances attending a recent execution of a distress warrant on a person residing at Kettering for non-payment of a fine under the Vaccination Acts, and whether he would make some representation to the local bench of magistrates to prevent any similar occurrences.—Mr. Stuart Wortley said that he had received a report as to the circumstances of this distress, but would cause further inquiries to be made in the matter.

Pleuro-pneumonia in Dublin.

In answer to Sir J. Swinburne, Lord J. Manners said that Her Majesty's Government had not taken any steps to prevent the landing in Great Britain of cattle from any part of Ireland; but as a result of correspondence on the subject the Irish Government had passed an order with the object of preventing the exportation of animals from certain districts in or near Dublin in which pleuro-pneumonia was known to exist. The correspondence would be laid before Parliament.

Females Labour at Collieries.

On the 9th inst., in reply to Mr. W. M'Laren, Mr. Stuart Wortley stated that the Secretary of State would be pleased to receive a deputation of those opposed to the prohibition of labour by women and girls at the pit bank. He would undertake that discussion on the clauses of the Bill in committee should be postponed for a week, but would avail himself of the earliest opportunity to take the general discussion before going into committee.

Army Medical Officers.

In the House of Commons on Thursday, Dr. Clark asked the Secretary of State for War whether, considering the great dissatisfaction that exists amongst medical students and the medical profession generally at the abolition of relative rank, which dissatisfaction may seriously diminish the number of candidates for the Army Medical Service, he will advise Her Majesty to issue a Warrant conferring honorary rank on all medical officers, and place them at least in as good a position as the officers in the Commissariat, Ordnance, and Pay Departments.—Mr. Stanhope: I think I have told the House several times that the abolition of relative rank will in no way alter the position or status of any medical officer. I have no reason to suppose that these officers are desirous of being called by titles which dissociate them from their duties. —Mr. William Corbet asked the Secretary of State for War whether, in view of the proposed alterations in the new Warrant with reference to the medical department of the army, the same privileges as enjoyed at present by the Royal Engineers would be extended to medical officers, viz., "That an officer, placed on half-pay on account of ill-health incurred in and by the service, may reckon time on half-pay, not exceeding one year, towards promotion, towards voluntary retirement, and towards retired pay."—Mr. Stanhope: The general rule for all departmental offices is not to reckon time on half-pay towards promotion or retirement. Medical officers come under this rule, in common with officers of all other departments.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BARRON, JOHN, M.D., M.Ch. Roy. Univ. Irel., has been appointed Medical Officer for the No. 1 District of the Belfast Dispensary, vice Barron, deceased.

COPLEY, WILLIAM HENRY, M.R.C.S., L.R.C.P. Lond., has been appointed Honorary Surgeon to the North Cambridgeshire Hospital, Wisbech, vice Wm. Roy, M.D.Ed., resigned.

DAVIES, ARTHUR HOLDSWORTH, L.R.C.P., M.R.C.S., has been appointed Resident Medical Officer to the City Hospital, Netherfield-road, Liverpool.

GRIFFITHS, ERNEST E., L.R.C.P., M.R.C.S., L.S.A., has been reappointed Government Medical Officer and Vaccinator for Blayney District, New South Wales.

HULL, WALTER, M.B. Lond., M.R.C.S., has been appointed Senior House-Physician to the National Hospital for the Paralysed and Epileptic, Queen-square, Bloomsbury.

MACKINTOSH, ANGUS, M.D.Glas., has been reappointed Medical Officer of Health by the Chesterfield Rural Sanitary Authority.

METCALFE, JAMES, L.R.C.P., L.R.C.S.Ed., L.M., has been elected Dispensary Surgeon to the Bradford Infirmary, vice W. J. V. Harle, resigned.

MILLSON, GEORGE, M.R.C.S., L.R.C.P. Lond., has been appointed Temporary Medical Officer of Health for the Parish of Newington, vice Iliff, deceased.

NEWBY, C. H., F.R.C.S.Eng., has been appointed Medical Officer to Out-patients at the Royal Portsmouth, Portsea, and Gosport Hospital.

PERKINS, WHITFIELD, M.D.Dur., M.R.C.S., has been appointed Medical Officer for the Fulbourn District of the Chesterton Union.

RIGGE, JOHN A., M.R.C.S., L.R.C.P.Lond., has been appointed Medical Officer for the Hambledon District of the Henley Union.

STEWART, W. R. H., F.R.C.S.Ed., has been appointed Aural Surgeon to the Great Northern Central Hospital, vice A. E. Cumberbatch, resigned.

SYMONS, JOHN, M.R.C.S., L.S.A., has been appointed Surgeon to the West Cornwall Dispensary and Infirmary, vice Henry Grenfell, deceased.

VALPY, CHAS. E., B.A.Oxon., M.R.C.S., has been appointed Junior House-Surgeon to the Cancer Hospital, Brompton, vice A. C. Dove, M.B., M.S., M.R.C.S., resigned.

WILLIAMSON, R. T., M.B., B.S. Lond., has been appointed Junior House-Physician to the National Hospital for the Paralysed and Epileptic, Queen-square, Bloomsbury.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Dispenser. Salary £70 per annum, with dinner, or an equivalent.

BLACKBURN AND EAST LANCASHIRE INFIRMARY.—House-Surgeon. Salary £100 per annum, with board, washing, and lodging.

CHARING-CROSS HOSPITAL, Strand, W.C.—Assistant Surgeon. Medical Registrar.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark-bridge-road, S.E.—Registrar and Chloroformist. Salary £30 per annum, with additional £20 if the post is held for twelve months.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT, Margaret-street, Cavendish-square, W.—Honorary Visiting Physician.

LINCOLNSHIRE COUNTY LUNATIC ASYLUM, Bracebridge.—Medical Superintendent. Salary and emoluments £100 per annum, with furnished house, coals, gas, milk, vegetables, and washing.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House-Surgeon. Salary £70 per annum, with residence and maintenance in the house.

MADAGASCAR MEDICAL MISSION.—Superintendent of Hospital &c. Salary £150 to £200 a year, house, outfit, &c.

NEWCASTLE-UPON-TYNE INFIRMARY.—House-Physician. Salary £100 per annum, with board, lodging, and washing.

ROTHERHAM HOSPITAL.—Assistant to the House-Surgeon. Rooms, commons, and washing in lieu of salary.

RURAL SANITARY AUTHORITY OF THE STAINES UNION.—Medical Officer of Health. Salary £75 per annum.

ST. THOMAS'S HOSPITAL.—Librarian. Salary £150.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.—Lecturer on Systematic Physiology.

TAWD VALE COLLIERY SICK AND ACCIDENT SOCIETY. Skelmersdale, Lancashire.—Medical man. Salary about £150 per annum.

TEIGNMOUTH, DAWLISH, AND NEWTON INFIRMARY AND CONVALESCENT HOME.—House-Surgeon and Dispenser. Salary £71 per annum, with board (beer excepted), lodging, and washing.

UNIVERSITY COLLEGE, London.—Holme Professor of Clinical Medicine. Professor of Pathology.

VICTORIA HOSPITAL FOR CHILDREN, Queen's-road, Chelsea.—Assistant Surgeon in the out-patient department.

WEST LONDON HOSPITAL, Hammersmith-road, W.—House-Physician. Board, lodging, and attendance. Two House-Surgeons. Board, lodging and attendance.

Births, Marriages, and Deaths.

BIRTHS.

BARLOW.—On the 4th inst., at Wimpole-street, the wife of Thos. Barlow, M.D., F.R.C.P., of a daughter.

DAVIS.—On the 9th inst., at West Hartlepool, Durham, the wife of B. H. Davis, M.R.C.S., L.S.A., of a daughter.

EMBLETON.—On the 4th inst., at St. Wilfrid's, Bournemouth, the wife of Dennis C. Embleton, M.R.C.S., L.R.C.P.Lond., of a son.

GOULD.—On the 6th inst., at Queen Anne-street, W., the wife of A. Pearce Gould, M.S., of a son.

GRIFFITHS.—On Jan. 29th, at Blayney, N. S. Wales, the wife of Ernest E. Griffiths, L.R.C.P.Ed., M.R.C.S. Eng., Government Medical Officer, of a son.

JONES.—On the 7th inst., at Chesham-place, the wife of T. Ridge Jones, M.D., of a son.

LANKESTER.—On the 5th inst., at Elm-park-gardens, South Kensington, S.W., the wife of Herbert Lankester, M.D.Lond., of a daughter.

MARRIAGES.

ADAMS—KINCHIN.—On the 5th inst., at Emmanuel Church, Clifton, James Alexander Adams, M.D.Glas., to Agnes Mortimer, only daughter of the late John Coster Kinchin, of Clifton.

KIRBY—COLLISTER.—On the 30th ult., at St. George's, Hanover-square, Albert Edward Kirby, M.R.C.S., to Marian, fourth daughter of W. Collister, Esq., of Liverpool, and relict of the late James Flinn.

ROBINSON—GOLDFINCH.—On the 27th ult., at St. Mary Abbott, Kensington, George Strickland Robinson, M.R.C.S., to Lavinia Maria, youngest daughter of Edwin Goldfinch, Esq.

TAIT—BATTEN.—On the 10th inst., at St. Mary Abbott, Kensington, Henry Brewer Tait, F.R.C.S., to Beatrice Brend, second daughter of John Winterbotham Batten, of the Inner Temple and Airlie-gardens, Campden-hill.

DEATHS.

ATWELL.—On the 10th inst., at Portland-road, Stoke, Gregory Haines Atwell, L.R.C.P., late of Altrincham, Cheshire.

BANNISTER.—On the 8th inst., at Tottenham, John Henry Bannister, M.R.C.S., L.S.A., late of Keppel-street, Russell-square.

BURGES.—On the 4th inst., at Fethard, co. Tipperary, Francis Carleton Burges, L.R.C.S.I., aged 72.

LOWES.—On the 25th ult., at his residence, Lexham-gardens, Kensington, W., and formerly of Anglesey, Hants, Frederick John Lowes, M.D.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

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Medical Diary for the ensuing Week.

Monday, May 16.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.
SOCIETY OF ARTS.—8 P.M. Mr. J. M. Thomson: The Chemistry of Substances taking part in Putrefaction and Antisepsis.

Tuesday, May 17.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 1.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.
ROYAL INSTITUTION.—3 P.M. Professor Victor Horsley: The Modern Physiology of the Brain and its Relation to the Mind.
SOCIETY OF ARTS.—8 P.M. Sir Augustus Adderley: The West Indies at the Colonial and Indian Exhibition.
PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Payne: Multiple Neuro-fibromata in connexion with Molloscum Fibrosum.—Mr. R. W. Parker: Cases of Sarcoma in Children.—Mr. L. Hudson: Sarcoma of Pelvic Fascia.—Dr. Handford: Cerebral Hæmorrhage in a Child following Thrombosis of Sinuses.—Dr. Charlewood Turner: Fibrous Contraction with Stenosis of Stomach.—Mr. F. W. Clark: Subpleural Lipoma of Diaphragm.—Mr. Bland Sutton: A Curious Effect of Rickets on the Skulls of Lions.—Mr. S. Paget: Supra-pubic Abscess.—Mr. Shattock and Mr. Ballance: Cultivation Experiments with New Growths and Healthy Living Tissues and the Parasitic Theory of Cancer.—Mr. Battle: Bones from Congenital Syphilis. Card Specimens: Mr. Page (for Mr. Raven): Sarcoma of Dorsal Vertebra.—Mr. S. Jones: Tumour of Parotid of Twenty-five Years' Growth.—Dr. Barlow: Renal Sarcoma.—Dr. Pitt: Pleura Two Years after Drainage for Empyema.—Dr. W. Collier: Pelvic Sarcoma Simulating Hæmatocele during Life.—Dr. Turner: Bladder Kidney and Dura Mater from a case of Purpura.—Mr. J. Morgan: Cystic Disease of Metatarsal Bone.—Mr. Fenwick: (1) Encephaloid Cancer of Apex of Bladder; (2) Acute Tuberculosis of Bladder and Prostate; (3) Purpura Hæmorrhagica of Bladder.—Mr. Bull (for Mr. Rouse): Sarcoma of Clavicle.—Mr. Mansell Moullin: (1) Abscess of Brain following Disease of Ear, trephined: (2) Sacculated Bladder with Calculus fixed behind the Prostate.—Mr. Poland: Osteo-myelitis of Scapula and Separation of its Coracoid Epiphysis.—Dr. Gulliver: Aortic Aneurysm opening into Superior Cava.

Wednesday, May 18.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M. Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M. Saturday, same hour.
SOCIETY OF ARTS.—8 P.M. Mr. William Henry Preece: Progress in Telegraphy.

Thursday, May 19.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL INSTITUTION.—3 P.M. Professor Dewar: The Chemistry of the Organic World.
PARKES MUSEUM OF HYGIENE.—5 P.M. Major Lamorock Flower, C.E.: The River Lee.
HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Clinical Evening.

Friday, May 20.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
SOCIETY OF MEDICAL OFFICERS OF HEALTH.—7.30 P.M. Dr. Alfred Hill (President): On an Improved System of Flush-closets for small House Property.—Dr. B. A. Whitelegge: The Powers and Responsibilities of Local Authorities in regard to Rabies.—Mr. Shirley F. Murphy: A few Facts concerning the Recent Prevalence of Winter Diarrhœa in London.
ROYAL INSTITUTION.—9 P.M. Mr. Benjamin Baker: Bridging the Firth of Forth.

Saturday, May 21.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. John W. Hales: Victorian literature.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, May 12th, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
May 6	29·89	E.	47	45	...	52	44	...	Overcast
,, 7	30·17	N.	49	45	99	66	45	·18	Cloudy
,, 8	30·43	N.	64	55	105	73	48	...	Fine
,, 9	30·40	W.	55	51	107	70	50	...	Overcast
,, 10	30·39	N.	56	49	105	69	48	...	Fine
,, 11	30·26	N.W.	55	50	79	60	50	...	Cloudy
,, 12	30·11	N.	56	53	...	...	53	·02	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

THE PENGE CASE.

DR. L. FORBES WINSLOW writes to remind us that at the time when the petition respecting the convicts in what was known as the "Penge Mystery" was first sent in, previously to the commutation of the sentence of death, he also obtained and sent a petition signed by 500 members of the profession. Dr. Winslow desires that all those who signed his petition should now sign the one alluded to in our last issue by Dr. Bristowe.

Students.—Nothing is yet decided by the Council as to the recognition of American or foreign diplomas.

SERIOUS RESULT FROM UNINTENTIONAL INTRA-UTERINE MEDICATION.

To the Editors of THE LANCET.

SIRS,—Having read your account of the fatal result of intra-uterine medication related by Dr. Otto Engstrom, I thought perhaps a short account of a case which has just happened in my own practice might be interesting.

On March 8th I attended a lady with her first child. About the third day, the discharge being offensive and the temperature elevated, I ordered injection of Condy's fluid and gave quinine. In a few days the temperature and discharge were normal. Ten days after this I was suddenly called at 10 P.M., and found the patient almost in a state of collapse. Violent and incessant vomiting and diarrhœa. Temperature 102·6°. The following was her statement:—For the sake of comfort she had continued using the syringe at night; but on this occasion when she introduced the vaginal tube she experienced intense pain, which was increased by the injection. Shortly afterwards her condition became so alarming that I was summoned in haste. I found on examination the os somewhat patent and the uterus abnormally low. The injection was deeply coloured with ordinary blood. On the following day the sickness had abated; temperature 102°; no abdominal tenderness, but intense pain in the back, which lasted for two days. The uterus was tender on examination per vaginam. Two days after the temperature rose to 104·4°, with rigors and vomiting. The patient was almost pulseless, and apparently in a dying state. My friend, Dr. Moon, saw her with me at 11 A.M. Still no pain, the back pain having left. On the following day the temperature sank to 103°, the rigors had ceased, and only a feeling of nausea remained. The next day the temperature sank another degree, and the patient complained for the first time of pain in the left groin as far as the left ovary. The pain remained severe for two days; but the temperature sank gradually to normal, the patient improving daily. She is now (April 25th) able to change her room, eating well, but feeling and looking extremely weak. The treatment consisted mainly in the exhibition of quinine, opiates, and soothing applications when necessary.

I am, Sirs, yours truly,

West Norwood, S.E., April 25th, 1887. JOHN B. HARRIS, M.D.

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LANGMORE DEFENCE FUND.

A SUM of about £90 is still required to settle the heavy bill of costs for legal expenses incurred by Dr. J. Wreford Langmore for his defence in the recent action unjustly brought against him, which he, indeed, gained completely, but the expense of which, in consequence of the bankruptcy of the plaintiff, falls upon Dr. Langmore. The committee in charge of the fund desire to close it soon, and will therefore thank all gentlemen wishing to subscribe to send their donations at once to Mr. George Eastes, M.B., 69, Connaught-street, Hyde Park-square, London, W.

Subscriptions announced	£136	16	0	Dr. C. Ransford	£1	1	0
A Friend	3	0	0	Dr. C. Royston	1	1	0
Dr. C. T. Aveling ...	1	1	0	Mr. T. C. White	1	1	0
Mr. A. E. Cumberbatch	1	1	0	A Friend	1	0	0
Mr. J. H. Drew	1	1	0	A Friend	1	0	0
Mr. H. C. Lawrence ...	1	1	0	Mr. A. H. W. Ayling ...	0	10	6
Dr. Isambard Owen ...	1	1	0	Mr. Rayley Owen ...	0	10	6

THE DISPOSAL OF LONDON SEWAGE.

To the Editors of THE LANCET.

SIRS,—In your issue of April 30th there is a most valuable note relating to the proposed disposal of the sewage of the Thames district and of the Lea district at Barking Creek and Crossness. Sir Joseph Bazalgette, the engineer of the London Board of Works, seems to be quite satisfied with the present plan of the Board, which treats the sewage at these outfalls with chemicals in two underground reservoirs of about nine acres in extent at Barking, and of about the same extent at Crossness. The extension of the Barking reservoirs will, I hear, make the whole extent at that spot of underground reservoirs about twenty acres; and, what with chemicals and steamers to convey the chalk and iron salts and mineral constituents of the sludge down the river Thames, it is calculated that the interest of ten millions sterling will have to be annually met by the ratepayers of the metropolis. All this, too, will be totally useless, and will certainly have to be undone in a few years. Meanwhile, Paris, which took lessons from English sewage farms, and Berlin, which did the same, are both in possession of splendid sewage farms at Gennevilliers and round about Berlin. The latter city has purchased no less than 19,000 acres of land, and is thoroughly content with her experiment. All who understand the question will agree that the only real way of treating sewage with effect is the physiological plan of passing it through suitable soils, and allowing the organisms contained in all pervious soils to split up the urea into ammonia, the food for plants. If London sewage were conveyed, as proposed by Col. Jones and Mr. B. Denton, down below Tilbury, and then pumped up on the lands of Essex, enormous amounts of rye grass and roots might be raised, and the Thames thoroughly purified.

I am, Sirs, your obedient servant,

London, May 3rd, 1887. C. R. DRYSDALE, M.D.

PROFESSIONAL ATTENDANCE ON SCHOOL BOYS.

H. B. W.—The rate of remuneration for professional attendance on boys at school varies very much in the same degree as attendance on the different grades of society. At Winchester the medical officers, two in number, are paid at the rate of two guineas per head. At Rugby the medical officer, who has sole charge of the school, is remunerated at the rate of about a guinea and a half per head. At Wellington College, Charter-house, and some other schools of the same class, the medical attendant receives one guinea for each boy. At Eton the older system prevails of remunerating the medical attendant after the manner of family practice. Each house-master selects his own medical attendant, whose remuneration is on a scale similar to that in family practice. The same rule is observed at the majority of grammar schools, as well as at most private boys' schools and girls' schools. The fee varies with the class of school—from five to seven shillings a visit. It would be better for all schools to follow the example of the higher grade public schools, and pay a sum per head for medical attendance, either inclusive or exclusive of necessary medicines. It occasionally falls very hard on parents who are struggling to give their children the best education their means will afford to have to meet a heavy doctor's bill as an extra to the school charges, whereas a guinea a year divided into three payments of seven shillings each school term would be an easy matter. Medical men would, as a rule, be found willing to attend schools at this rate where masters and parents were not needlessly exacting, which, as a rule, they would not be.

Mr. Thomas Laffan is referred to an article in our present issue.

Mytton.—No.

DR. RICHARDSON'S ELECTION FUND.

To the Editors of THE LANCET.

SIRS,—May I ask you kindly to inform your readers that the above fund was closed on April 23rd, and the audit published. I have since received two subscriptions (one to-day), which I have returned with a note of explanation; but as this involves trouble your insertion of this letter will oblige.—I remain, Sirs, yours truly,

FREDK. H. ALDERSON, M.D., Hon. Treasurer.

Hammersmith, May 4th, 1887.

SUICIDE IN ANCIENT ROME.

THIS sombre, though fascinating, theme has usually been handled as if a series of anecdotes of celebrated suicides sufficed to exhaust its interest; but Dr. Iginio Gentile of Milan, in an able memoir recently read before the Circolo Filologico of that city, adopts the more scientific method of treating it in relation to the notions of death, as these have been developed and embodied in the various philosophic systems. Aristippus of Cyrene proclaimed the nullity of existence, and sought to deprive death of its traditional horrors; and Hegesias, by persuading the Greeks that the sum of pain exceeds the sum of pleasure, caused so many to destroy themselves that his "prælections" were prohibited. Epicurus, shrinking from absolute pessimism, maintained that the dread was as culpable as the desire of death, which, by itself being neither a good nor an evil, might yet become, according to circumstances, either the one or the other. The next step in the evolution of the notion of death was that of the Stoics represented by Zeno, who placed the chief good in the pure repose of the reason, and limited himself to considering death as a necessary evil, and suicide as a rational mode of exit. These notions in the march of historical development penetrating the Roman mind, so averse to philosophical speculation, formed part of the groundwork of morals; and, in spite of the protest of the older citizens, who hated this intrusion of Greek subtleties, suicide received its sanction in the Latin "mori licet cui vivere non placet" (he is at liberty to die who does not like to live); so that self-destruction became common in the last years of the Roman Republic and in the first of the Empire—a period prolific in social and political perturbations. When the Empire reached its culmination, while there were development and vigour in the provinces, there were corruption and decay in the City, where the new condition of things supplied new incentives to suicide, and voluntary death, refined into a philosophy, became the crown of the career of the Roman voluptuary. It was in the upper classes, the old Republican oligarchs, become effete under the Empire, that this notion prevailed; but in the lower strata of society, in the suffering masses, germinated the mystic idealism that prepared the victory for advancing Christianity. Epictetus and Marcus Aurelius represented the last phase of philosophy which sanctioned voluntary death in a mitigated form, while the "acta urbis" (the daily journals) registered suicides every twenty-four hours. At last came the message of salvation, the new faith which preached the comforting doctrine of man's duty to live. Dr. Gentile's paper, highly interesting to its Milanese audience, may prove not less so to a yet wider public.

THE HONOURS REGULATIONS AT THE LONDON UNIVERSITY.

To the Editors of THE LANCET.

SIRS,—As an intending candidate for the 1st M.B. of London, might I be allowed to express a student's views on the recent honours regulations? I quite understand the reason of them—viz., to prevent every man who obtains a pass trying for honours in every subject on "spec," which I believe used to be a favourite amusement. This certainly ought to be stopped, as it simply meant extra and unnecessary trouble to the examiner. But the regulations do more than that; they prevent men trying for honours, and tempt men to read for the lower standard. Could not this be obviated by the following method? Make each candidate take the pass in each subject, and then if he obtains a sufficient percentage in any subject, let him have the option of trying for honours in that subject. The same regulations might also apply to the preliminary scientific. This method would effect a weeding out, and thereby enable the honours papers to contain purely honours questions—raising the standard. As it is, failure to obtain honours means possibly a recommendation for a pass, possibly failure. This would entail a heavy loss of time and money, that in most cases can be ill afforded, whilst at the same time there would be the irritation of feeling that one might not have failed if one had been more modest, whence would come the obvious moral—Don't read for honours again. Enclosing my card,

I am, Sirs, yours obediently,

May 9th, 1887. X. Y. Z.

REGULATION OF MINIMUM FEES.

Mr. Albert S. Morton complains severely of the low fees charged by some medical men, and of the system at Guy's and other hospitals of charging out-patients a small pittance, and taking, and even advertising for, in-patients at a guinea a week. Unless cases are carefully selected, such conditions might easily operate injuriously on patients and on the profession. But it is of little use to expect the Medical Council to regulate fees. Its business is to regulate medical education. Medical men themselves, and amongst themselves, must regulate fees; and the sooner it is understood that there is no power in any existing body or authority to fix fees or prescribe scales of charges the better. Our correspondent encloses a small circular advertising a cheap medical practitioner (M.D. St. Andrews and M.R.C.S. Eng.). He should forward this circular to the bodies from whom the gentleman in question holds his diplomas.

Student should write to the Secretary of the College.

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HUTTON FUND.

THE secretary of the committee of the above fund requests the insertion of the following list of subscriptions, and hopes that this may be added to, so as to create a lasting provision for those who have so great claim on the profession as the widow and daughters of Dr. Hutton.

Second List.

Amount acknowledged	£436	17	0	Mrs. Lloyd	£5	0	0
Mrs. C. La Motte ...	50	0	0	Mrs. Keyser	5	0	0
A Friend	50	0	0	William Fuller, Esq. ...	5	0	0
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The Rev. W. Niven ...	25	0	0	A. Cox, Esq.	5	0	0
Dr. Herbert Watney ...	21	0	0	Mrs. C——	5	0	0
Baron Von Hügel ...	21	0	0	Woolhouse Braine, Esq.	3	3	0
A. Sandeman, Esq. ...	21	0	0	Dr. Gibbons	3	3	0
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Bernard G. Broadhurst, Esq.	10	10	0	Dr. Barnes	2	2	0
				Dr. Blandford	2	2	0
Dr. Arthur Farre ...	10	10	0	Dr. Gage Brown... ...	2	2	0
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George Barnett, Esq. ...	10	0	0	James Teevan, Esq. ...	2	2	0
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				Mrs. Owen Jones ...	1	1	0
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John Wier, Esq.... ...	5	5	0	Dr. de Havilland Hall...	1	1	0
Mrs. R. Stewart... ...	5	5	0	The Rev. Frederick Cox	1	1	0
H. Gerald Tudor, Esq....	5	5	0	F. H. Stewart, Esq. ...	1	0	0
Lady Herbert of Lee ...	5	5	0	K.	0	10	6
Sir Oscar Clayton ...	5	0	0	E. J.	0	10	0
Miss Arnold	5	0	0				
Colonel Hume	5	0	0	Total	£974	4	6

Mr. L. Houghton.—To the Secretary of the St. John Ambulance Association, St. John's Gate, Clerkenwell.

Dr. James Weaver.—One case is hardly sufficient to prove our correspondent's contention.

L.R.C.P., L.R.C.S.—St. Thomas's amongst others.

ERRATUM.—In Mr. Sessions Barrett's letter in our last issue, page 966, for "fifty hours" read *thirty* hours.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Haslam, Birmingham; Dr. Goodhart, London; Dr. Heron, London; Mr. F. Treves, London; Dr. Jas. Braithwaite, Leeds; Mr. Mackenzie Booth, Aberdeen; Dr. Dickinson, London; Dr. Steavenson, London; Dr. W. Wilson, Florence; Professor Humphry, Cambridge; Dr. Percy Boulton, London; Dr. W. Nicholson, Greenwich; Mr. Saxon Snell, London; Dr. Saunders, Exeter; Dr. W. Pearce, London; Messrs. Whitelegge and Pryce, Nottingham; Mr. A. E. Hind, St. Helier's; Mr. Alfred Haviland, Douglas, Isle of Man; Mr. Hovell; Messrs. Krohne and Sesemann, London; Mr. J. R. Williamson, Manchester; Mr. John A. Brown, Douglas, Isle of Man; Dr. Henry, London; Mr. Spencer Watson, London; Dr. Sadler, Barnsley; Mr. G. R. Nelson, Bridlington Quay; Dr. M'Clure, Cromer; Dr. Ris, Zurich; Dr. Camera, New York; Mr. W. Odell, Hertford; Mr. Goodall, Kenmare; Mr. Teague, Manchester; Mr. F. W. Clark, Croydon; Mr. Hearne; Messrs. Smith and Son, Weston-super-Mare; Mr. Knight, Dublin; Messrs. Christy and Co., London; Mr. C. J. Johnson, Chicago; Messrs. Maclachlan and Co., Edinburgh; Mr. Symes, Chesterfield; Messrs. Wright and Co., Birmingham; Dr. D. M. Sergeant, London; Messrs. Trübner and Co., London; Dr. Whipham, London; Dr. Shoemaker, Philadelphia; Mr. R. W. Walsh, London; Mr. Strugnell, London; Dr. Thurstan, Southborough; Mr. J. E. D. Douglas, Bournemouth; Messrs. Peebles and Son, London; Mr. C. B. Lockwood, London; Mr. Fitzroy Benham; Dr. F. H. Alderson, London; Mr. Benthall, Southsea; Mr. Townsend, Exeter; Mr. Lewis, London; Mr. Masson, Paris; Mr. Oliver, Manchester; Mr. Botwood, Ipswich; Mr. Lawley, London; Mr. Birchall, Liverpool; Miss Townson, Chester; Mr. Corry, Manchester; Mr. G. Mason, London; Mr. Armstrong, Manchester; Mr. Gilchrist, Liverpool; Dr. Sunderland; Mr. Emerson, Sondershauser; Mr. Christmas, Hemel Hempstead; Mr. Jones, Llanfairfechan; Mr. Morris, Chester; Mr. C. T. Dent, London; Mr. R. W. E. MacIvor; Dr. M. Handfield Jones, London; Dr. Thos. Oliver, Newcastle-on-Tyne; Dr. Sinclair Thomson, London; Mr. Mansell Moullin, London; Messrs. Kegan Paul and Co., London; Dr. P. Hood, London; Mr. Lyttle, Maida Vale; Dr. W. Duncan, London; Mr. W. North, London; Mr. Lynd, London; Dr. R. G. Alexander, Halifax; Dr. Pasteur, London; Mr. C. Empson, Beechwood; Dr. H. W. Jones, Chicago; Mr. H. H. Clutton, London; Mrs. Howlett, Westgate-on-Sea; Mrs. Wigg; Mr. Juler, London; Miss Munster, Surbiton; Dr. Jones, Poole; Miss Goodwin, Chesterfield; Messrs. Isaacs and Co., London; Mr. R. W. Lloyd, London; Messrs. Lumleys, London; Mr. F. B. Humphreys, London; Mr. C. J. Green, Preston; Mr. B. H. Mumby, Portsmouth; F.L.S.; Studens; Medulla; Country Doctor; X. Y. Z.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Bower, Bedford; Mr. Lloyd, London; Mr. Aston, Barnetty; Messrs. Cowan and Co., Perth; Mr. Bennett, Dublin; Mr. Thompson; Messrs. Read and Co., Bristol; Mr. Atkinson, Halifax; Mr. E. A. Lester, South Molton; Mr. Poole, Shrewsbury; Mr. Hugo, Reading; Messrs. Savory and Moore, London; Mr. Oldham, Macclesfield; Dr. Anderson, Ebbw Vale; Dr. Smith, Kinnetty; Mr. Fox, Birmingham; Messrs. Davidson and Co., Glasgow; Mr. Craske, Kentish-town; Messrs. Macmillan and Co., London; Miss Yates, Bridgnorth; Mr. Hosegood; Messrs. Beal and Son, Brighton; Mr. Miller, Chelsea; Mr. Nunn, London; Mr. Fuge, Taunton; Miss Jones, Blaenavon; Dr. Branson; Dr. Duggan, Castle Eden; Mr. Maskew, Fawley; Mr. Bennett, London; Messrs. E. Smith and Co., London; Mr. Garrard, Rotherham; Mrs. Wimpress, West Worthing; Mr. Andrew, Stockport; Dr. Cochrane; Mr. Thurnam, Highgate; Mr. Webster, Darlington; Mr. Unsworth, Liverpool; Mr. Hume, Edinburgh; Mr. Kneebone, Bedford; Dr. Dickson, Wye House; Mr. Affleck, Manchester; Mr. Lupton, Bramley; Dr. Slade King, Ilfracombe; Mr. Cartmal; Mr. Rowe, Manchester; Miss Clark, Burton-on-Trent; Mr. Edmonds, Kilburn; Mr. Blenkarne, Leicester; Mr. Griffiths, Blaney; Mr. Larmuth, Manchester; Dr. Murchison, Salem; Mr. Paterson, Leeds; Mr. Williams, Arundel; Mr. Mackay, Bury; Mr. Davenport, London; Mr. Mainwaring, London; Mr. Locke, Kingsland; Matron, Newark; M.D., Swanage; Medicus, Dalston; A. B. C., Harrogate; H. A. C., Bridgwater; Surgeon-Major, Upper Norwood; L. N. T.; Strophanthus; R. C. S.; O. P.; W.; Lady Superintendent, Leeds; B., Poplar; J. A. E. P.; S., Barnes; H. L., Pendlebury; Delta, Sutton; Secretary, Bristol; L. B.; C. C., New Cross; Permanency, Burton-on-Trent; B., Bradford; M.D., Walton-on-Thames; Tutor; Dispensary, Horsham; J. K., Hastings.

Cork Examiner, Freeman's Journal, Georgetown (British Guiana) Royal Gazette, Saint Christopher Advertiser, Manchester Guardian, &c., have been received.

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ABSTRACT OF A

Clinical Lecture

ON

GUNSHOT WOUNDS OF THE EYE.

By CHRISTOPHER S. JEAFFRESON,

SENIOR SURGEON TO THE NORTHUMBERLAND, DURHAM, AND NEWCASTLE INFIRMARY FOR DISEASES OF THE EYE.

GENTLEMEN,—We have now for another year entered upon that season when the frequent use of firearms for sporting purposes brings its almost inevitable crop of accidents. Indeed, so common are these becoming that it is rare for the shooting season to pass without several such cases coming under my notice. Within the last few days my advice has been sought in two instances of this kind of injury. I am quite certain that these casualties are now much more frequent than they used to be, and we must look for the reason to several different circumstances. In the first place, there are many more sporting men, or, I should perhaps say, men given to sporting proclivities, than there used to be. Of these, many only take to the gun late in life, when the accumulation of sufficient means enables them to indulge in pastimes to which they have never been trained, but which for the sake of fashion they feel called upon to pursue. These patrons of sport, however careful they may try to be, are always dangerous companions upon a moor or in a cover. They always handle their weapons badly, are bad judges of distance, and lack that calmness and deliberation which are only acquired by a training commenced in early youth. Unquestionably, too, the use of breech-loaders has engendered a very rapid system of firing, which encourages recklessness in young and excitable sportsmen; and, finally, the system of grouse, and of late years partridge, driving is responsible for no small number of the casualties which occur. Not infrequently the butts are much closer together than there is any necessity for, they are not uncommonly very deficiently constructed, and the rules with regard to lateral firing are not sufficiently impressed upon each sportsman before the shooting commences. I find I have altogether notes of twenty-three cases of gunshot wounds of the eyes and orbital regions; to give them in detail would, however, occupy too much of your time and space. I shall therefore only refer to them when necessary to illustrate certain points relative to symptoms, diagnosis, and treatment. And here I may say that it is my intention in this lecture to confine my remarks chiefly to those injuries which affect the globe, reserving for another occasion the more severe form of injuries, where the globe is destroyed together with parts of the orbit.

Gunshot wounds of the eye do not differ very materially from injuries to the eyes which occur from the projection with force of particles of metal or other materials used in the arts and manufactures, but they are usually attended with much more shock. Sometimes this is peculiarly marked. Though the globe may have been only penetrated, or perhaps even only struck by a single pellet, the collapse may be as severe as when a bullet has entered one of the principal cavities of the body. On one occasion I was present when a young gentleman was struck by a spent shot on the globe; he immediately fainted, the faint being accompanied by general convulsions. His restoration to consciousness was twice within an hour followed by similar attacks. An examination of the eye showed only a slight abrasion of the cornea, and at the end of forty-eight hours his general health and the eye were completely restored. No doubt mental influences play a great part in this form of shock. The uncertainty of what has really happened, the forebodings of future sufferings, and the exaggerated fears of sudden and perpetual blindness acting upon a person of a sensitive and highly nervous temperament are enough to account for this condition. Although not infrequently several pellets strike different parts of the body at the time the patient is injured, still it happens with remarkable frequency that the globe is the only part struck. Indeed, so often does this happen that there is a popular superstition among keepers and persons of that class that the globe of the eye possesses a power of drawing a shot out of its course.

Shots may be "direct" or "ricochet." Ricochet shots may take place at the most peculiar angles, and the possibility of a double ricochet must not be forgotten. It is only by taking them into consideration that we can account for some cases in which the person wounded was in a position where it seemed almost an impossibility that he could be hit. Ricochet shots are, for a given velocity, much more dangerous than direct ones, for the following reason: Their primary impact usually destroys their spherical form, flattening them, and giving them an edge in some cases almost as sharp as a knife, and which peculiarly facilitates their penetration under a comparatively low velocity. The effects produced by the impact of a pellet upon the globe will naturally vary with the velocity of the shot and the angle at which it strikes, partly also upon the varying thickness and resistance of the ocular tissues in different individuals. The cornea is much less resistant than the sclerotic, and may be penetrated at a greater distance than the latter. From experiments I have conducted I think the penetration of the globe through the sclerotic is rare at a greater distance than seventy yards, although in the case of the cornea I believe it may occur up to eighty or ninety yards; and in one case where a No. 5 shot penetrated at the cornео-scleral junction, I was informed the distance of the injured person from the gun was fully 100 yards. For convenience sake we may divide these injuries into "non-penetrating" and "penetrating" wounds. The former may vary from trivial ecchymoses of the conjunctiva, almost unattended with visual disturbance, to extensive extravasations, subconjunctival and intraocular, with detachments of the retina, rupture of the choroid, and partial or complete displacement of the lens. On one occasion I found a shot in the superior conjunctival cul-de-sac; it had evidently struck the upper part of the sclerotic at one angle and glided under the lid.

In some cases there may be a momentary difficulty in assuring oneself if the globe has been penetrated—a difficulty which may be considerably increased if the patient is not seen till some days after the accident and the wound lies in the equatorial regions of the eye, away from the plane of the iris. The little wound, if it existed, may then have healed, or its site may be masked by chemosis or extravasated blood. It is usually to be found if diligently sought for. In these doubtful cases it is well to carefully examine the tension of the globe. A perforated globe generally shews a very marked diminution of tension compared with the healthy eye. When the globe has been penetrated more anteriorly the wound is usually sufficiently obvious, the iris being irregular or displaced, and in many instances partially prolapsing, and the lens is seen to be opaque and swollen. In other cases the whole of the deeper structures may be concealed by hæmorrhage into the anterior chamber. In doubtful cases we should never omit to call in to our aid all the points bearing upon the case, and we should make a detailed and minute examination into the circumstances of the accident, having fully explained to us the relative position and distances of the parties engaged. The elasticity of the sclerotic is such that the aperture made by a No. 6 shot may sometimes require a good deal of searching for. On one occasion, after the enucleation of a globe which had a most distinct and well-marked aperture of entrance through the cornea, immediate dissection of the eye failed to find any shot in the interior. This was very puzzling. After a very minute and careful examination the aperture of exit was found close to the inner side of the optic nerve entrance, the shot having completely traversed the globe. On examining the wound carefully, the pellet was found in close apposition to the cut extremity of the nerve and removed. A very oblique shot striking a very prominent eye may traverse it without lodging. There will then be the appearance of two apertures, which might mislead the surgeon into supposing that two shots had penetrated instead of one. Again, there may be but one aperture in the globe, and two shots may have entered, one following exactly in the footsteps of the other. Such a case occurred in my practice some years ago. The case is vividly impressed upon my mind from a curious coincidence.

A surgeon brought me a gentleman who had summoned him on account of a gunshot wound of his right eye. He was of opinion that a shot had penetrated and lodged

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whilst another medical practitioner held a contrary opinion, and I was asked to determine the point. Upon examination it was decided that the globe should be enucleated, and I promised at a subsequent time to give the result of the dissection of the eye after it had been prepared by hardening in Muller's solution. In a fortnight both gentlemen appeared, and were equally anxious to learn my conclusions. Mr. A. said, "Well, was I not right—there was a shot in the eye?" I replied, "No." "Then," said Mr. B., "it was just as I expected—there was no shot in the globe." When I replied that he also was wrong, they both looked at each other with astonishment. They then pressed me for an explanation of this apparent inconsistency, and were much amused when I explained to them they were both wrong, because there were two shots lodged in the injured organ.

It may seem somewhat paradoxical to say that a shot may penetrate the globe without there being any visible aperture or external manifestation of the occurrence. Yet the possibility of this accident and its absolute fulfilment are amply illustrated by a case which I shall relate, in which it is more than probable that a considerable number of shot entered the posterior part of the orbit through the pterygo-maxillary fossa, producing blindness. The case, which was a most interesting one from many points of view, happened as follows:—

A number of gentlemen out shooting were walking in single file along the bank of a river, when a duck rose in front of them. The leading sportsman put up his gun to fire, as did also the one immediately behind him, and in the excitement of the moment the latter discharged his piece. The distance of the leading man could scarcely have exceeded five feet from the one immediately behind him, and the greater part of the charge from the latter's gun entered the right side of the foremost gentleman's head and shoulder. He fell as though dead, and was promptly removed to a neighbouring house. When I saw him some hours after the accident he was in the following condition. He was much collapsed from hæmorrhage and shock, but was sensible, and there was no paralysis. The right temporal bone was riddled by shot, and considerable hæmorrhage was still going on from these apertures; the ear was much torn and lacerated. The integuments over the temporal muscle were ploughed into furrows, and the substance of the muscle was a mere bag of ecchymosed blood and shot corns. Several shots had completely traversed the base of the skull, and, flattening themselves against the back of the teeth, had been spat out of the mouth. The right eye was deeply ecchymosed and somewhat prominent. With a little difficulty I was able to make a very satisfactory ophthalmoscopic examination. The media were clear and perfectly transparent, but the retina was covered with large hæmorrhagic patches. These were particularly visible upon the temporal side. Vision was completely abolished, with the exception of slight perception of light in the temporal half of the field; the nasal half of the retina having evidently escaped with less injury. I show you here, gentlemen, an enlarged rough sketch which I took of the fundus at the time, and I think there can be no doubt that these ecchymosed patches are the result of the impact of shot which arrived at the back part of the globe through the pterygo-maxillary fossa. The case proved a tedious and anxious one. During the course of treatment something like 150 shot were removed from the face and shoulder-joint, but a large number, in spite of extensive suppuration, must have remained lodged in the mastoid portion of the temporal bone. Sight, it is needless to say, was permanently lost in the right eye, but in other respects a perfect recovery took place without much visible disfigurement.

I previously mentioned incidentally the possibility of a shot traversing completely the globe, and lodging eventually in the deeper structures of the orbit. I may say that this is by no means a very uncommon result, and I have met with it on several occasions. Such an eye can rarely recover any useful degree of vision, but it may nevertheless recover very rapidly from the injury, and may thus belie the anticipations formed, and perhaps expressed to friends and relatives, of severe symptoms and prolonged suffering, which may have been legitimately urged in justification of enucleation. When a distinct aperture of entry is found in the globe, and on removing the damaged organ no shot is to be found in its interior, we should always suspect that the globe has been completely traversed, and make a minute examination for the aperture of exit, which is sometimes very difficult to see, and, if there is time, may possibly have closed. The shot, too, should be sought for amongst the orbital tissues, bearing in mind the fact that it may be wiped away in the sponges, these should be carefully looked after. Whether, however, the shot be found or not is not a matter, surgically speaking, of great importance, as it rarely gives rise to any mischief when left in the orbital tissues. Nevertheless, the patient and his friends never seem perfectly satisfied unless it is produced.

What is the treatment we should adopt in cases of gunshot wounds of the eye? Of course this will very much depend upon the nature and extent of the injury. In cases where there has been no penetration and the injury consists of ecchymosis of the conjunctiva with extravasation to a greater or less extent into the anterior or posterior chamber, we must use cold and evaporating lotions and do our utmost to guard against all inflammatory reaction. We shall usually succeed in this with young and healthy persons and in persons of more advanced years if there is an absence of gouty, rheumatic, or other diathesis predisposing to inflammation. In course of time the blood effused will be absorbed, and if the media regain their transparency and there has been no detachment of the retina, sight may eventually be restored to a useful degree. Are there any external or internal remedies which promote the absorption of extravasated blood? I must confess personally I have not much faith in any, but I usually order locally a weak lotion of lead and opium or belladonna, or, in cases where inflammation threatens, conium; and internally administer small doses of iodide of potass with tincture of jaborandi. I have more faith in this drug than any other, and certainly think its administration either internally or by means of subcutaneous injections in the shape of pilocarpine promotes absorption.

In cases where a shot corn has penetrated the globe the case at once assumes a more serious aspect and requires more radical measures. I must here only mention to condemn any attempts being made by probes or otherwise to search for the position of the shot or ascertain its presence. I have seen such attempts practised, but they can lead to no good, and may be productive of much harm by increasing the risk of panophthalmitis and suppurative inflammation. There is only one condition, or rather combination of circumstances, under which I should consider such attempts justifiable (and then only when we had reason to suppose the shot was close to the wound): that is, when the patient has already from some other cause lost the sight of the uninjured eye, or it suffers from such an amount of amblyopia as to render it practically useless. Under these circumstances we can be influenced by no fear of sympathetic mischief being developed, and every attempt should be made, and at all risk, to preserve the damaged organ if it retains nothing more than a mere perception of light. This rule applies, I need scarcely say, with equal force to accidents occurring from other mechanical causes than gunshot wounds. I have known enucleation recommended, and in more than one instance performed, before it was ascertained that the remaining eye was a useless organ, and I cannot too strongly impress upon you the necessity of making strict inquiry before you recommend such a proceeding. I have only once succeeded in extracting a shot from a wounded eye. On that occasion there was evidence of penetration about three inches outside the lowest part of the sclero-corneal junction, and a large piece of iris was protruding. The anterior chamber was full of blood, and there was no perception of light. The sight of the other eye was perfect. I recommended that the damaged organ should be enucleated; but the patient refused, and I therefore excised the protruding piece of iris. When I had cut it close off, a small black spot seemed still to project at the wound. Touching it with the iris forceps, I found it to be a shot. I slightly enlarged the wound and at once removed it. The patient recovered, but with no useful vision.

The enlargement of the wound will in all cases be necessary when a shot has to be extracted, as the elasticity of the cornea and sclerotic is such that the opening is always smaller than the body which produces it. In cases where a shot has penetrated the globe and is supposed to be lodged there, the only legitimate [illegible] extraction of some one of its [illegible] I do not think it necessary to let a moment examining with [illegible] such plan is pursued. In a few [illegible] there takes place; the blood effused [illegible] lens is not wounded and the iris [illegible] fully remain in a quiet condition [illegible]

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become encysted. In these cases, for a time the patient is satisfied with his condition, and is apt to consider that the advice tendered in favour of enucleation was unnecessary and harsh. But the dangerous epoch for such an eye is sure to come sooner or later. The encysting capsule becomes partially absorbed, under some violent exertion or shock to the head or body the shot shifts its position, and severe symptoms immediately set in. I have noticed that the train of events above described is peculiarly liable to occur when the patient is least able to bear it—that is, at a time when some intercurrent disease has reduced his physical powers, especially maladies which have a tendency to produce emaciation. In other cases the original hopeful condition is only maintained for a short time, retrogressive changes set in, and the whole globe undergoes a process of phthisical wasting. In others, again, a subacute inflammatory condition is developed with choroido-iritis or perhaps ossification of the choroid, and the patient is eventually glad to submit to the treatment which the surgeon proposed to him from the first. In by far the majority of cases, however, if nothing is done, violent reaction takes place at once. Acute inflammation is set up with great pain, and considerable constitutional disturbance and a condition of panophthalmitis, or suppurated choroiditis, is established, which in weakly and broken-down subjects may give rise to grave anxiety.

In the event of a patient acquiescing to part with his eye, what operation should we perform? Should we enucleate the whole globe, or should we content ourselves with the ablation of the anterior segment and clearing out the sclerotic cavity, an operation which now goes by the euphemistic term of "exenteration"? To enter upon this question here would be to open up ground which has lately been much controverted. Personally I believe the disadvantages of enucleation have been very much exaggerated, and the advantages of exenteration unduly extolled. Its relative value as a preventive, or rather I should say safeguard, against sympathetic ophthalmia, as compared with enucleation, has yet to be determined. It is more painful, is not less tedious in its performance than enucleation, and is followed at times by an amount of reaction which, in my experience, is very rare in enucleation. I have not been overtaken by the fear of septic poisoning following enucleation, which seems to have invaded continental ophthalmic clinics and threatens some of our own. It must have fallen to my lot within the last sixteen years to have enucleated as many eyes as most persons; yet I have never lost a patient or seen one lost by enucleation. I have seen cases in which slight symptoms of septic poisoning were developed, but these occurred almost invariably when enucleation was performed at the height of acute suppurative inflammation—a practice which I always personally condemn. The danger of this proceeding has, however, long been recognised; and it is in these cases that, perhaps, the operation known as "exenteration" may find a useful sphere for its execution; although I am still doubtful if it has any advantages over a free corneal incision with evacuation of the contents of the globe. All the different operations which have for their object the removal of an eye are as much an "opprobrium" to the ophthalmic surgeon as an amputation is to the general surgeon. They are as distasteful as arithmetic is to the schoolboy, and, if we might be allowed to parody, we might say—

"Exenteration is vexation,
Abscission is as bad,
Neurotomy won't do me,
Though extraction drives me mad."

ST. THOMAS'S HOSPITAL.—On Monday, the 16th inst., the Dean, in the name of the students, past and present, of St. Thomas's, of whom above one hundred were present in the library, presented Mr. Denison, the retiring librarian, with a clock, a purse of 120 guineas, and an illuminated engrossed list of the subscribers to the fund, numbering 309. Dr. Ord briefly touched on the many services of Mr. Denison, the tact which he has shown in advancing school matters, and his happy influence on many generations of students. Mr. Le Gros Clark afterwards, in a short address, emphasised the remarks made by Dr. Ord, and expressed the deep feeling of friendship existing between himself and Mr. Denison. The clock and purse were then presented, and Mr. Denison briefly replied, thanking his friends present for their kindness at all times during his lengthy connexion with the school.

Lectures
ON
INJURIES OF NERVES.

Delivered at the Royal College of Surgeons,

BY ANTHONY A. BOWLBY, F.R.C.S. ENG.,
SURGICAL REGISTRAR AND DEMONSTRATOR OF SURGICAL PATHOLOGY AT ST. BARTHOLOMEW'S HOSPITAL, HUNTERIAN PROFESSOR OF THE ROYAL COLLEGE OF SURGEONS.

LECTURE II.

(*Concluded from page 971.*)

THE trophic changes in the *joints* and *bones* next claim attention.

With regard to the *joints*, the description by Weir Mitchell must again be given the foremost place, for he was the first to describe the conditions to which I am about to allude.[1] He states that the arthritic lesions may appear either early after the nerve lesion, or else at a later period, when the more immediate symptoms have subsided. Under the latter conditions, "we may then have one articulation—and if only one, a large one—involved; or perhaps all the joints of a finger, or every joint of a hand, or of the entire limb, may suffer. The swelling is never very great, the redness usually slight, and the tenderness on touch or motion exquisite. This condition of things remains, with little change, during weeks or months, and then slowly declines, leaving the joints stiff, enlarged, and somewhat sensitive, especially as to movement. A small proportion of such cases find ready relief, but in many of them the resultant ankylosis proves utterly unconquerable, so that it is vain to try to restore mobility by manipulation or splints." Such is Weir Mitchell's account, and I make no doubt that cases such as he has described have been seen by him. Yet it would be quite a mistake to consider that such are at all common. It has been my fortune to observe for some years past, and to keep constantly under my notice, a large number of cases of nerve injury of most various kinds, yet in none of them have I seen any joint affections so extremely acute and painful as those described by Weir Mitchell. On the other hand, I think that arthritic lesions of a less severe and more chronic kind are amongst the most common results of nerve injury. I have seen them over and over again, and, for my own part, am inclined to consider them as an almost invariable sequel of nerve lesion. It is difficult to understand how they have been missed by many observers; I suppose because they have not been looked for. From my own observations, I should say that within a time varying from one to six weeks after injury to a nerve, the joints will usually be found somewhat stiff. The finger joints have seemed to me to be much more liable to be affected than those of the wrist and elbow, and this not only in cases of injury inflicted low down in the forearm, but also when the wound has been in the upper arm. Usually, but not always, this stiffness has supervened without causing the patient any pain, and, from the fact that the affected parts are often both anæsthetic and partially paralysed, the stiffening of the articulations not infrequently escapes the notice of the patient himself. For several weeks the stiffness increases, and the movements of the joints, both active and passive, gradually diminish. Finally, there appears to be a tolerably firm fibrous ankylosis. The future of the case depends to a great extent on the condition of the injured nerve and on the patient himself, for, if the hand be not used, the stiffness is likely to be much more persistent than if resolute attempts are made to overcome the fixation of the articulations. If the divided nerve resume its functions, the joints are much more likely to again become movable than in cases where no reunion occurs. In many cases they entirely recover, but in others, in spite of all treatment, permanent stiffness results. There is much in the condition of these joints which is suggestive of chronic rheumatism.

It is but rarely that an opportunity is afforded for an examination of the diseased articulations, and I am only aware of one case in which the results of such an examina-

[1] Injuries of Nerves, p. 169.

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tion have been recorded. The case I allude to is one by Blum,[2] in which the joints of a man whose median nerve had been divided several years previously were examined after death. The cartilages were thinned and softer than natural, and there was some cell proliferation. The articular bone also was rarefied. In 1882 I had the opportunity of examining the hand of a man whose median nerve had been injured about eighteen months previously. An examination of the hand after amputation showed that the nerve had been wounded above the wrist joint, and that a fragment of wood was still buried in its substance. The finger joints were one and all much stiffened. On opening those of the middle finger the capsules were found to be thickened, and the cartilaginous surfaces of the most distal joint united by fibrous tissue. The terminal joint of the ring finger was firmly ankylosed, the union being by bone, and so firm as only to yield to cutting instruments. Microscopically examined, the cartilages were all thinned, and their normal matrix replaced in part by fibrous tissue.

With regard to the *bones*, I have not myself met with a case in which any definite change could be assigned as the result of nerve injury. Instances have, however, been detailed by Blum, Ogle, and Arnozan.[3] In the cases collected by these authors the chief alteration appears to have been a simple atrophy of the osseous tissue, such as might not improbably result from simple disuse. Thus shortening of the femur is mentioned as a result of injury to the sciatic during childhood. In one of Ogle's cases, however, there was not only thinning of the bones of the hand in a case of section of the median nerve, but also bony union between the radius and ulna at their lower ends. Considering therefore the paucity of information on the subject of bone lesions due to nerve injury, I think it may be concluded that they are of comparatively rare occurrence.

Such is a brief account of the various trophic changes that may follow on nerve injury. Instances of them are sufficiently numerous to allow most surgeons to become more or less acquainted with the more common of them, and although I might quote in detail numerous cases in support of the above descriptions, it is needless to enumerate them here. What is of more importance is to inquire into the manner in which section of a nerve trunk so affects the tissues to which it is distributed; and on this point opinions are much at variance. The following are the chief theories:—1. That the changes are due to section of vaso-motor nerves, and consequent irregularity of the blood supply. 2. That they are due to non-use of the paralysed parts. 3. That they are due to irritation of the centrifugal fibres set up by the injury. 4. That they are due to the removal of a special influence exercised by the nerves on the nutrition of the tissues.

The first of these theories has been very extensively supported, but may, I think, be disproved. The arguments adduced in its favour, have been mainly founded upon incorrect views of the vaso-motor system, and conclusions have been incorrectly drawn. It is well known that section of vaso-motor fibres results in the congestion and rise of temperature of the part to which they are supplied, and it has been rather hastily assumed that these changes may readily overstep their bounds and pass on to inflammation and destruction of the affected tissues. These conclusions were drawn on the supposition that the vessels of the part remained permanently in a state of suffusion. Such is not the case. It has been definitely proved by experiments on animals[4] that the vessels of any part are not entirely dependent on their connexion with the medulla oblongata for their nerve supply, but that local vaso-motor centres are present, which are capable of regulating the calibre of the vessels after section of all nerves connecting the latter with the brain and spinal cord. The ear of a rabbit in which the cervical sympathetic has been divided will gradually return to its normal condition, and the former rhythmical contractions of the blood-vessels may again be perceived. The temperature also gradually approximates to that on the opposite side, and subsequently the ear or else the limb of a vertebrate animal, which after section of the main nerve was markedly hotter than its fellow, will gradually become colder by several degrees. It will thus be seen that, while the trophic changes may last a considerable time, the condition which is supposed to give rise to them gradually passes away. Again, while the vessels are turgid and swollen the ear of the rabbit does not atrophy or inflame. On the contrary, the hair grows more luxuriantly (exactly the reverse of that on an extremity whose main nerve is divided) and the nutrition of the whole part is improved. So much, then, for the experimental evidence; but that afforded by pathology is none the less clear in its refutation of the claims made for the influence of the vaso-motor nerves on nutrition. If it can be shown that in certain cases vaso-motor paralysis exists without trophic lesions the independence of these two conditions might be considered demonstrated. Now the first of these conditions is undoubtedly present in a large number of cases of infantile paralysis. It has been shown of late years that the seat of the lesion in these patients lies in the anterior horns of the grey matter of the cord, and most probably in the ganglion cells which are found in this situation. Further, it is well known that many of the vaso-motor nerves leave the spinal medulla by the anterior roots as low down as the eleventh dorsal. These nerves, then, are *a priori* likely to be affected by the lesion in the cord, and it is a matter of clinical observation that the skin over the paralysed muscles is generally congested and its temperature raised, although later on it becomes cold and blue. But infantile paralysis is never accompanied by changes in the nutrition of the skin, always excepting chilblains. There are no subcuticular whitlows, no herpetic eruptions, no loss of hair, and no glossy fingers. Yet, were these lesions dependent on loss of a proper vaso-motor supply, we might fairly expect to find them present in at any rate a certain proportion of these cases, whereas they are conspicuous by their absence. And, on the other hand, we have the testimony of the best authors to prove that trophic changes may be present and the vaso-motor supply still intact. On this point Weir Mitchell[5] writes: "If the vaso-motor nerves were alone responsible for the existence of all the lesions which follow nerve wounds, it would be reasonable to expect always to meet with some rise or fall in temperature. Such, however, is not the case, and I have frequently met with profound trophic changes unattended by thermal perturbations, and the same remark has been made by other neuro-pathologists."

With regard to the second theory, that the wasting and degeneration are due to non-use of the part, it will be well to turn to the case of the muscles, and the claims made for this explanation may be readily set aside. The most distinctive characters of the atrophy following division of a motor nerve are the rapidity of the onset and progress, and the fact that it is accompanied by "degeneration" of the muscle-fibres, so that the affected muscle will not react to faradism, but will do so to galvanism. Now, on the other hand, we have innumerable cases of injury to the spinal cord, of hemiplegia and paraplegia, in which, so long as no destructive disease is in progress in the cord below the seat of the lesion, the paralysed muscles maintain very nearly their normal bulk and do *not* give the *degenerative* reactions to electrical stimuli. Yet these muscles are equally powerless as those whose motor nerve is divided, so that, were the atrophy due to simple non-use, it ought to accompany the one lesion as frequently as it does the other.

Both the third and fourth theories involve the belief in the presence of a direct nervous influence over the process of nutrition, and may be considered together. From an anatomical point of view, the distribution of the terminal nervous filaments to the cells themselves of the different glands, to muscle and connective-tissue fibres, &c., would render it extremely probable that they are intimately concerned both with their functional and vital powers, and a well-known experiment lends proof to this supposition. If the fifth nerve of a rabbit be divided within the skull, the section is followed in about twenty-four hours by a cloudiness of the cornea, and subsequently by a destructive inflammation of the eyeball, frequently by ulceration of the mucous membrane of the lips, gums, and nose. Considering that division of the fifth nerve necessitates an anæsthetic condition of the corresponding side of the face and of the parts involved in the inflammatory process, it seemed at first quite probable that the destructive changes occurring in the eye were the result of an inability to perceive and remove any irritating substances which might be lodged upon it. Snellen accordingly reinvestigated the subject, and expressed his belief that, with due care in protecting the eyeball, the subsequent

[2] These d'Agrégation.

[3] Des Lésions Trophiques consécutives aux Maladies du Système Nerveux.

[4] Lister: Phil. Trans., 1858. Geltz: Pflüger's Archiv, vols. viii. and xi., 1875.

[5] Op. cit.

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inflammation might be avoided. His results have not, however, been obtained by others, and more recent investigations by Merkel have placed the matter in a rather plainer light. This observer states that the fibres, division of which causes the inflammatory conditions above described, are collected together in a small bundle on the inner side of the fifth nerve. If they alone be divided, while the rest of the nerve is intact, sensation of the corresponding side of the face is not lost, but destructive changes occur as before; and, on the other hand, if this bundle be left, but the rest of the nerve be divided, no trophic troubles follow, though anæsthesia of the face ensues. It is therefore assumed that the small tract of fibres alluded to are essentially "trophic."

The numerous experiments bearing on the secretions of saliva by the submaxillary gland also tend to prove the reality of the trophic influence of nerves. When all of those supplied to the above-mentioned gland are divided, and a so-called "paralytic" secretion is set up, the gland tissue ultimately degenerates. This degeneration is not due to cessation of function, for the gland continues to secrete so long as it is able. It may also be proved that secretion (which is but a variety of nutrition) may be started by stimulation of the nerve going to the gland, under the most varied conditions of blood supply, or even in the entire absence of any such fluid. It therefore appears that, in the presence of a copious blood supply and of a continuance of the functional activity, division of the nerves will yet cause an atrophy of the gland structure; while, on the other hand, the presence of the nerves alone is sufficient for the temporary maintenance of the salivary secretion, or, in other words, of the nutrition of the salivary gland.

The argument that the lesions of the skin are due to physical causes, such as pressure, heat, &c., applied to an anæsthetic part, cannot be maintained in its entirety. I have already stated that in some of the cases which have come under my own notice, some external injury has been the starting point of an ulcer or inflammation of the finger; but this is not the case in all, and does not, indeed, apply to many of the trophic changes, such as loss of hair, herpetic eruptions, and others that might be mentioned. Again, in these cases lesions occur while the patient is under observation, and frequently while the extremity is bound up in bandages, &c., which obviate all external influences. Lastly, ulcers, whitlows, &c., are more particularly prone to make their appearance very early after the date of the nerve injury, whilst the anæsthetic condition of the skin, to which they are supposed by some to be due, is much more permanent, and indeed exists under conditions such as manual labour, &c., which might fairly be expected to predispose to inflammatory conditions in a part insensible to pain. Yet, as the anæsthetic condition outlasts the tendency to trophic change, the latter can scarcely be said to be dependent on the former. Many of these arguments have already been used by Dr. Poore in THE LANCET of May 19th, 1877, and to his paper I am much indebted for many suggestions.

Against the theory of the trophic influence of nerves, it has been argued that some tissues—e.g., cartilage and fat—whose nerve supply is either very scanty or entirely absent, get along very well under such conditions, and that therefore nutrition is independent of neurotic influence. Such is by no means necessarily the case, and, indeed, the changes which occur in the above-mentioned tissues after nerve section argue the contrary. Further, it is no argument to say that because any tissue maintains its nutrition, although unconnected with the nervous centres, therefore those which are supplied by nerves can afford to do without. It is only fair to suppose that the more highly developed a structure the more dependent it is on the accurate working of every component part.

All other theories failing, we are therefore driven back to the conclusion that the nerves exercise a direct trophic influence over the tissues. Where, then, is this influence generated, and what are the conditions essential for its integrity? These questions may be briefly answered by stating that so long as any tissue is connected to a healthy nerve centre by healthy nerve fibres its normal nutrition is preserved. Each tissue, then, has its own centre of nutrition in the ganglion cells from which its nerve fibre springs, the tissue, the fibre, and the cell being considered—as Dr. Poore puts it—to be one nutritive unit. One question which offers itself for solution is whether the ganglion on the posterior root acts as a centre for nutritive functions; but the answer must be that, though it may do so, yet *all* the trophic impulses are certainly not generated in it, as is proved by the fact that many of them follow lesions of the cells in the cord itself.

But it may be considered necessary to still further localise the situation of the trophic cells of each fibre, and it only remains to be shown that the latter are not situated higher up the cord than the point at which each of the nerves takes its origin. Simple section of the spinal cord, however, above the point of junction of any particular nerve root, does not in any way interfere with the nutrition of the parts to which the same is distributed; whilst, on the other hand, any lesion involving the nerve cells, from which the fibres take their origin, results in trophic changes in the peripheral tissues. Thus it has been shown by Charcot, in his "Leçons sur les Maladies du Système Nerveux," that in hemiparaplegia there results, on the same side as the lesion, atrophy and degeneration of muscle with disease of the joints, and on the opposite side anæsthesia with acute bedsore, and MM. Déjérine and Leloir, in the *Archives de Physiologie* for 1881, have demonstrated that in cases of acute decubitus the nerves themselves had undergone a degeneration, thus placing the tissues to which they were distributed in a condition similar to that which results from nerve section. Again, in infantile paralysis, a disease in which the cells of the anterior cornu undergo destructive changes, atrophy of the muscles is the most marked symptom, and there can be no doubt that the nerve fibres also degenerate, for transverse sections of them show an increase in the connective tissue and a corresponding diminution of nerve fibres. This condition is evidently the result of a degeneration of the motor nerves, their atrophied remains being seen amongst the normal sensory fibres.

But, granting that the nerves exercise a special control over nutrition, the nerve injury may be supposed to affect the latter in one of two ways: first, by irritation of the trophic fibres; and, secondly, by cutting off the permanent trophic influence which is constantly supplied. Professor Charcot is at present the most notable supporter of the first view; others who formerly held to it, foremost of whom is Dr. Weir Mitchell, having given their adhesion to the latter explanation. In this particular Charcot follows the teaching of Samuel, who thus states his opinion: "The sudden increase in the action of the trophic nerves beyond their ordinary physiological action occasions a rapid development of all nutritive processes throughout the parts to which they are distributed. Acute irritation of these nerves gives birth to a series of abnormal products simply because it stimulates to the highest degree the nutritive processes. The tissues suddenly tumify, the cells increase rapidly, they divide and multiply, and hence the formation of new structures, which no longer resemble the parent one. We are accustomed to name this *tout ensemble* of phenomena inflammation." Under this belief Charcot states his opinion that muscular atrophy occurs most frequently "after contusions, punctures, and incomplete sections of the nerves—that is to say, after traumatic causes which are most liable to produce neuritis, or at any rate neuralgia"; and this is also his opinion as regards other trophic lesions following nerve injury. But this theory is in no way borne out by facts, and I have no hesitation in saying that in by far the larger number of nerve injuries which I have examined, and which have shown trophic lesions more or less marked, the section has been complete, and there has been no reason whatever to suspect any neuritis or neuralgia. Moreover, in most of the cases described by other writers similar conditions have existed. This explanation of Samuel, then, is theoretical; but even on a theoretical ground it falls through; for, as Vulpian has pointed out, the nerve fibres below the seat of section or other injury rapidly degenerate. How, then, can they convey the necessary irritative impulses? I think, therefore, that it may safely be assumed that nerves do exist which exert a direct trophic influence upon the tissues, and that the currents which convey the same are constantly passing. The only question that remains to be considered is whether the existence of special nerve fibres is necessary for the conveyance of trophic impulses, or whether the ordinary sensory and motor tracts suffice. It has been shown that there is nothing incongruous in the idea that any given nerve fibre can convey currents either centripetally or centrifugally, so that there is no *primâ facie* reason why the nerves of motion and sensation should not be amply sufficient for the purpose. And, considering that

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trophic disturbances very rarely, if ever, occur without some interference with the sensory and motor functions, there is strong probability that the same fibres are capable of conveying the different impulses which are generated in the centres. This point, however, requires further investigation.

STRETCHING THE SPHINCTER IN APOPLEXY.[1]

BY JOHN W. TEALE, M.A.OXON., F.R.C.S.

ON June 8th, 1886, I was summoned by a gentleman to see his wife, whom he had brought from the Midland Counties to place under my care. The lady, aged sixty-four, looked very ill, and was in a highly nervous state. She had a waxy, yellow complexion, and looked wan, anxious, and careworn. She said she had suffered much from constipation, had had severe attacks of what she called "angina pectoris," and that she lived in perpetual dread of having accumulations in the bowels, from which she had suffered. She was clearly possessed of considerable intellectual powers, and when she could forget her physical troubles she was bright and animated. My routine treatment of mild alteratives, stomachics, and aperients proved a complete failure. Mild remedies were ineffectual; more severe ones produced vomiting. So after a few days of fruitless efforts to relieve the bowels, I examined per anum, and found, as I rather anticipated, a very tight sphincter. With considerable difficulty I passed a finger through it into the rectum, which I found distended and loaded with hardened fæces—the cause, no doubt, of the straining, discomfort, and sense of weight. In her feeble health, with shattered nerves, an irritable heart, and albuminous urine, an operation seemed inadmissible. Failing this, I could see no course open except by careful and repeated castor oil enemata, &c., to gradually unload the lower bowel and break down the accumulated mass. For some days this was persisted in, with more or less success. Several times a considerable quantity of old fæces was removed, and often the patient had some gleams of returning health and spirits. July 7th, however, proved a very trying day. No relief could be obtained. In the evening Mrs. E——, with her maid's assistance, gave herself two injections, which were ineffectual, in spite of considerable straining. About 10 P.M. she became very restless and excited, and almost beside herself, wandering from room to room, scarcely recognising those about her, constantly making attempts to relieve the bowels. About 6 A.M. on July 8th, whilst on the night-stool, her maid noticed her face twitching, and, on getting her into bed, she said that these twitchings increased until they amounted to violent convulsions, which continued at intervals. I was sent for, and saw her with my friend, Mr. Beverley, at 6.50 A.M. We found her with slight but well-marked symptoms of paralysis of the left side of the face, which gradually became more decided in character, extending to the left arm and leg. The pupils were regular, somewhat contracted, slightly sensitive to light. There was no stertor, but insensibility was complete. Every few minutes there was a convulsive attack, commencing with twitchings of the left side of the face, extending gradually to the left arm and leg, and then becoming general over both sides of the body, and gradually relaxing without pursuing any definite order. A copious enema of soap and water and olive oil was given, which was retained. At 10 A.M. the enema was still retained, the convulsive attacks continued every few minutes, were more frequent and violent, and insensibility complete. On examining per anum, hardened fæces could be felt floating about in the enema fluid, though, even in her insensible condition, so tight was the sphincter that the finger could only be passed through it with difficulty, nor would it allow a drop of fluid to escape.

Happy thought—why not operate now? In this insensible condition no ether would be required. Nothing could be worse or more hopeless than the present state of things; any change must be for the better. So I stretched the sphincter freely. Immediately the enema fluid poured out, followed by a copious mass of offensive fæces of various stages of antiquity. The convulsions continued as before. At 11 A.M. some beef-tea and forty grains of bromide were injected and retained. At 1 P.M. this injection was repeated. The urine was drawn off by catheter, and on boiling was almost solid albumen; and ice was applied to the head. The convulsive attacks continued pretty regularly until 1.30, when they ceased after the second dose of bromide, and there were slight natural movements of the right side, but none of the left. Temperature 103°; pulse 120, small and weak. In the evening there was another extensive action of the bowels; patient still unconscious.

July 9th.—Fair night; no return of convulsions; bowels again acted freely. Pulse 110; temperature 99·3°. Has slightly moved her left leg. Suppositories given at intervals.

9th.—10.30 A.M.: Patient can swallow sips of water; seems to recognise her husband. Iced water given to moisten the lips.

10th.—When Mr. Beverley saw her at 5.30 A.M. she had passed a restless night; pulse very poor and scarcely countable, about 200; respiration 40. She looked very like sinking, but revived with some essence of beef, with a few drops of brandy added, which she could now swallow.—9 A.M.: Pulse rallied, more regular, 110.—11.30: Suppositories continued. Essence of beef and iced milk and soda given. Gradual return of consciousness after fifty-four hours. Looks eagerly for fluid.

The urine had to be drawn off by catheter for the next three or four days, but the amount of albumen soon became merely nominal.

Mrs. E—— slowly recovered. For some days she misplaced names and words. The right side of the body soon regained power, the left more slowly, and still remains markedly weaker than the right. In about three weeks she returned home. She has again recently visited Scarborough for two or three weeks. The bowels now act easily and naturally without purgatives. She suffers much at times from mental depression, but is clear and animated, and can walk a mile with her husband, sit in a boat with him whilst he catches codlings, and lives out in a Bath chair the most part of the day.

P.S.—I hear that Mrs. E—— died at her home about a month ago. During the early winter she was able to get out in a Bath chair, and, except for fits of extreme despondency, was fairly well, and had little discomfort from the bowels. I think the operation lengthened her life for nearly a year, and also relieved her from suffering. The fact that prolonged constipation from any cause is an important factor in causing apoplexy, when the arterial coats are degenerated, has long been recognised—an argument, no doubt, for the early and effectual surgical relief of affections of the rectum, where they are found to exist.

Scarborough.

[1] Paper read before the Leeds and West Riding Medico-Chirurgical Society, Nov. 8th, 1886.

COCAINE DOSAGE AND COCAINE ADDICTION.[1]

BY J. B. MATTISON, M.D.

THE recent sad story of the Russian surgeon's suicide from sorrow or remorse due to his belief that a patient had died from an overdose of cocaine points a moral, the import of which demands more than a passing notice. No advent in the therapeutic arena during the last decade has been attended with such varied and extensive claims for favour as cocaine. Its marvellous effect in ophthalmic surgery roused a spirit of experimental research in other directions which has added largely to its well-proved power for good; but, as has been well observed, a potency for good implies a potency for harm, and the risk impends of its ardent advocates being carried by over-enthusiasm beyond the limit of a safe regard for the welfare of their patients or themselves, that may imperil an otherwise well-founded success. Surely it is high time to draw the line to revoice a warning as to the use and abuse of this valued but at the same time toxic drug, lest the roll of alarming, dangerous, and fatal effects from its ignorant or meretricious use be sadly extended, and a reaction engendered, by creating distrust within and without the profession, will damage its good repute, and hinder its use in cases where it would be almost certain of serving us well.

[1] Read before the King's County Medical Society, Feb. 15th [illegible]

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the need of this seems all the more called for in view of opinions expressed during the past year, in certain quarters, affirming the harmless character of cocaine—opinions which, I am convinced, are at variance with well-accredited facts, and should not be allowed to pass uncontradicted.

Cocaine seems to have secured for itself a more than usual share of attention apart from the professional press. One metropolitan daily, in particular, has again and again given its columns to a discussion of the topic, and in a somewhat lengthy article not long ago an "eminent but unnamed specialist"—Dr. Francke H. Bosworth—was reported as saying, "There is not a well-authenticated case on record as yet where cocaine has effected injury." In view of cases cited in this paper, and others elsewhere recorded, such a statement is no longer tenable, and any conclusion based thereon as to the harmless nature of cocaine is misleading and incorrect. And the evidence herewith presented weighs even more heavily against an assertion by Dr. Wm. A. Hammond, at a recent meeting of the New York Neurological Society, in the course of his "Remarks on Cocaine and the so-called Cocaine Habit," when, after narrating his taking of eighteen grains as a subcutaneous dose, he asserted "he did not believe any dose that could be taken was dangerous." What might be the outcome of such an opinion put in practice? The Russian surgeon's error of judgment, fatal to his patient and himself, was largely due to his reliance on the asserted use by other surgeons of large doses without ill effect. Might not a like result follow an incautious dependence on Dr. Hammond's disbelief in the toxic power of cocaine? The *Medical Record* (New York) well said of Professor Kolomnin's case, "The experience, though so sad, may not be without its lesson," and put a very pertinent query as to whether "there are not other surgeons who could report very serious if not fatal results from injudiciously or ignorantly using too large a dose of cocaine." Fifty cases herewith noted attest a power in this drug on some patients that warrants caution with all.

Germane to the subject of acute cocaine toxæmia is that of cocaine addiction—these notes are preliminary to a more extensive paper on cocaine inebriety,—the existence of which Dr. Hammond denies. He took half a dozen doses, at intervals of from one to four days, and says "he acquired no habit." But to argue from that that there is no danger of addiction is absurd. Such evidence is worthless. Dr. Hammond might do the same thing with morphia; more, he might take morphia subcutaneously daily for a month or two without creating a "habit"—albeit its ensnaring power is well admitted,—and yet that would not prove its freedom from danger. Not at all; it would merely show his exceptional strength to resist. Many, under a like pressure, would surely succumb. Supporting this opinion, I quote from the last report of Dr. Orpheus Everts (Cincinnati Sanitarium), a gentleman well known in alienistic circles, which report was kindly sent me after my paper was written, who says: "A distinguished physician of New York has recently reported personal experiences tending to discredit the claim that a cocaine habit corresponding to the morphine habit is acquirable. The judgment of this distinguished physician is based upon the evidence of personal experience reported by himself, he having failed to acquire the habit, or any especial fondness for the specific effects of the drug experienced by the hypodermic injection of one, two, three, and finally eighteen grains of the salt, on five or six different occasions in the evening before going to bed. But for the great reputation of this physician as an author and observer of facts, this denial would have but little weight. The testimony is both bad and insufficient. Bad, because reported by himself: the testimony of an intoxicated person respecting his experiences while intoxicated being proverbially untrustworthy; and insufficient, because the experiment was not continued long enough. Many instances might be cited of total failure to establish the morphine habit or habitual drunkenness by the use of six or seven doses of morphine, or six or seven drinks of whisky, one a day, for six or seven days in succession. It is often the case that such experiences end with disgust for the drugs used, instead of a desire to continue their use. There is also much and accumulating testimony by competent observers to the fact of such a habit as is alleged respecting cocaine, which a single opinion will not invalidate, however worthy of consideration."

Cocainism is not the outcome of using the drug at long intervals. Its transient effect and the demand of an impaired nerve status compel frequent taking—more than alcohol or opium,—so that *habitués* have been known to take it ten, twenty, or more times daily; and it is this—growing by what it feeds on—that tends to create and continue the disease. In the early days of chloral one point claimed in its favour was a freedom from risk of "habit," a claim long ago exploded, as cases of chloralism well prove; and yet I venture to assert that there are more cases of cocaine taking in this country to-day—less than three years since its arrival—than of chloral after a period more than six times as long. Dr. Hammond says there may be instances of cocainism as rare as chronic tea taking, and of cases with or after habitual alcohol or opium using; but, as for giving up the use of the drug, he believes every cocaine taker could if he chose. The same opinion regarding opium obtains among some medical men, and the only effective argument against such a fallacy is to place those who hold it under power of that drug, and then have them prove their precept by their practice. While admitting that most instances of cocaine taking are, for obvious reasons, in those who have been or are alcohol or opium *habitués*, especially the latter, I maintain there are cases of pure, primary addiction, and that the number is increasing at home and abroad. Foreign writers have noted them, and they will figure in our records. Notes of one such are here given; others are at command. My experience with a number of cocaine cases makes to me two things certain—there is a pernicious power *per se* in this drug, and it finds in the opium *habitué* a peculiar condition that specially favours its ill effects, making it, for such patients, as has well been said, the "devil's own device" to still further enslave. And this opinion is that of others, for it is the testimony, without exception, so far as I know, of those who have had to do with this disease, that as an intoxicant cocaine is more dangerous than alcohol or opium, and that inebriety resulting from its use is more marked and unyielding than any other form. Dr. Shrady, in the *Medical Record* of Nov. 28th, 1885, says: "To some persons nothing is more fascinating than indulgence in cocaine. It relieves the sense of exhaustion, dispels mental depression, and produces a delicious sense of exhilaration and well-being. The after-effects are at first slight, almost imperceptible, but continual indulgence finally creates a craving which must be satisfied; the individual then becomes nervous, tremulous, sleepless, without appetite, and he is at last reduced to a condition of pitiable neurasthenia." Dr. A. B. Shaw, Physician to St. Vincent Asylum for the Insane, St. Louis, asserts: "Once a man flies to cocaine for relief from 'cares that annoy,' he generally continues with such rapid strides towards such complete subjugation to its bewitching thraldom as but few will ever be rescued from by any power of will which they may be able to bring to their aid." Dr. Everts writes: "It is not only not an antidote to opium poisoning—or, more properly speaking, the organic demand for such drug effects as have been acquired by use,—but is itself a fascinating and dangerous intoxicant, the effects of which may be more difficult to counteract and renounce than are those of opium or its derivatives." Dr. Hughes declares it "a remedy to be used with extreme caution and prudence internally, and the large doses reported as having been given are not ordinarily safe. It will bear watching. It crazes and kills quicker than opium. The possibilities for immediate harm are only not great, but the likelihood of remote damage when tolerance is established is not small. The cocaine habit, more pernicious than the morphine neurosis, is the certain entailment of its frequent administration, and its thraldom is far more tyrannical than the slavery of opium." Erlenmeyer calls cocaine the third scourge of humanity, alcohol and opium being the first and second; and Erlenmeyer is right as to toxic neuroses. He says: "Its characteristic effects are vaso-motor paralysis, accelerated pulse, profuse sweats, dyspnœa and syncope, failure of general nutrition, eyes sunken, skin cadaveric, with mental trouble that sometimes needs restraint"; and I am positive, from cases under my care, that he is correct. I think it for many, notably the large and enlarging number of opium and alcohol *habitués*, the most fascinating, seductive, dangerous, and destructive drug extant; and while admitting its great value in various disordered conditions, earnestly warn all against its careless administration in these cases, and especially insist on the great danger of self-injecting, a course almost certain to entail added ill. To the man who has gone down under opium, and who thinks of taking to cocaine in the hope of being lifted out of the mire, I would say, "Don't," lest he sink the deeper. I have yet to learn of a single instance in which such an effort reached success,

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but know of many cases where failure followed, or worse—cocaine or coca morphia addiction. And the need of caution against free and frequent use obtains in other cases, for there may come a demand for continued taking that will not be denied.

To summarise. Cocaine may be toxic, sometimes deadly, in large doses. It may give rise to dangerous, or even fatal, symptoms in doses usually deemed safe. The danger, near and remote, is greatest when given under the skin. It may produce a diseased condition, in which the will is prostrate and the patient powerless—a true toxic neurosis, more marked and less hopeful than that from alcohol or opium. Such being my belief, I regard Dr. Hammond's statements mistaken and his conclusions rash and dangerous.

Brooklyn, New York.

MANIPULATION WITHOUT INCISION AS A POSSIBLE TREATMENT IN CERTAIN CASES OF STONE IN THE KIDNEY.

BY WILLIAM H. BENNETT, F.R.C.S.

IN connexion with the recent discussion on Renal Surgery at the Clinical Society, the following case—which, had time allowed, I intended to have mentioned—presents, I venture to think, some points of interest.

An unmarried woman, thirty years old, of a spare habit and nervous disposition, came under my care as an out-patient at St. George's Hospital in September last, complaining of symptoms which led me to suspect that she was the subject of a calculus in the left kidney. At the same time she presented several indications of "hysteria," and stated that she occasionally suffered from fainting attacks, which were quite unconnected with the symptoms on account of which she applied for treatment. Upon examining the abdomen, which was very thin, deep pressure over the left kidney caused considerable sharp pain and threw the superjacent muscles into rigid contraction. The kidney could be distinctly felt and moved with the hand, and seemed of the natural size and form. Taking into consideration the hysterical tendency of the patient, I was unable to decide, in the absence of any very marked abnormality in the urine, with the exception of a very slight deposit of mucus and pus, whether the case was really one of renal calculus or not. Seeing, however, the ease with which the kidney could be felt, partly by reason of the thinness of the patient, I determined, as drugs afforded no relief, to ensure complete relaxation of the abdominal parietes by the administration of an anæsthetic, and then manipulate the kidney as freely as possible, without previously exposing it by incision, with a view, if the case were one of calculus, to disturbing the stone, and, if it were not too large, perhaps bringing about its passage down the ureter, or, in the event of the symptoms being "hysterical," with the hope of producing a mental effect upon the patient sufficient to relieve her distress. She, however, declined the anæsthetic, and I was compelled to attempt the manipulation without its aid. The patient having been laid on her back upon a couch, the fingers of my left hand were dipped deeply into the abdominal wall over the kidney, the right hand being pressed forwards into the loin. By a little management, the muscles being quite flaccid from the patient having become faint, the kidney could be felt quite easily between the two hands, and was kneaded as thoroughly as the circumstances allowed. The patient, although much discontented with the aching and tenderness which the operation seemed to have caused, was well enough to walk away almost directly afterwards.

Two days later she reappeared at the hospital in a more grateful mood, saying that, having suffered much discomfort for the rest of the day after the manipulation, she was seized as she was going to bed with a most acute pain in the affected loin and side of the abdomen. The pain lasted for about half an hour, during which she vomited twice. All at once an uncontrollable desire to micturate occurred, and the pain immediately ceased. No further pain followed, and there can be little doubt that a small calculus had made its way down the ureter into the bladder, although no evidence of its having passed "per urethram" was forthcoming. Moreover, it is quite possible that the manipulation had moved the stone from its resting place in the kidney, and thus brought about its expulsion.

I am aware that an isolated case like the above cannot be taken to necessarily prove much, since the passage of the calculus may have been a mere coincidence; at the same time I am strongly disposed to attribute the result to the manipulation. This view receives some corroboration from a case which was under the care of one of my colleagues, in which the kidney was exposed and examined without the detection of a stone, although shortly afterwards an attack of renal colic was followed by the expulsion of a very small calculus, which had probably been disturbed during the exploration. Other similar cases have, I believe, occurred. As bearing on the same point, I may here say that it seems most probable that when relief has followed the exposure and manipulation of the kidney without the detection of a stone, the result has been due to an alteration in the position of the calculus produced by the kneading to which the organ has been subjected. That calculi of *considerable size* may be overlooked both in the lumbar and combined abdominal and lumbar operation for exposing the kidney when the organ is examined by the fingers only is certain, and it is, I believe, from our experience at St. George's Hospital, equally certain that only stones of the smallest size can escape detection when the kidney is thoroughly explored by acupuncture an operation which has been at present associated with risks which are hardly more than problematic, and at all events less serious than the danger which exists of overlooking calculi of no small size when digital examination is alone employed. Manipulation of the kidney through the parietes without previous incision is possible in certain cases, the number of which is far larger than is generally supposed, when the abdominal walls are not too much loaded with fat, and the muscles have been completely relaxed by the administration of an anæsthetic. Indeed, I believe the kidney to be, as a rule, far more movable and less fixed in the loin in the living subject than it is usually described to be. In conclusion, I venture to suggest that manipulation without incision is a proceeding worthy of trial as a treatment which may possibly prove of utility in certain cases of renal calculus, not too far advanced, as a means of changing the position of the stone and perhaps effecting its expulsion—a possibility, to my mind, sufficiently strong to commend the process to the attention of physicians as an adjunct to the medical treatment of renal calculus.

Chesterfield-street, Mayfair, W.

WILL THE KNEE JERK DIVIDE TYPHOID FEVER FROM MENINGITIS?

BY ANGEL MONEY, M.D., M.R.C.P.,
ASSISTANT PHYSICIAN TO THE HOSPITAL FOR SICK CHILDREN AND TO THE VICTORIA PARK CHEST HOSPITAL.

DR. HUGHLINGS JACKSON asserted a month ago at the Medical Society of London that loss of the knee jerk might prove of service in the diagnosis of meningitis from typhoid fever, for he had never known the knee jerk to be absent in typhoid fever, whilst he had found it to be wanting in cases which the necropsy ultimately proved to be meningitis. Our "friend in need," the knee jerk, indeed, appears to be considering its apparent triviality of as much, if not more, value than almost any other clinical phenomenon.

At the same meeting of the Medical Society at which Dr. Jackson's announcement was made, Sir Dyce Duckworth seemed to put a damper on the President's suggestion by asserting that the knee jerk might be absent in undoubted typhoid fever. Two years ago I recorded in THE LANCET my experience of the reflex actions and other nervous phenomena in typhoid fever, phthisis, and other continued fevers (pp. 843 and 1069, vol. ii., 1885), and I can only add that further experience does but confirm what I then stated to be the condition of the reflexes and muscle in these various diseases. The suggestion forces itself upon us that prolonged pyrexia with all that it involves, whether in the way of direct deterioration of protoplasm by the fever heat, or of indirect deterioration of the same by collateral consequences of the pyrexia, is the cause of the very general exaggeration of the deep reflexes and muscular irritability to be found in the diseases mentioned.

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have not seen a case of typhoid fever in which the knee jerk was lost; though the jerk may have been absent on the day or so preceding death in fatal cases, which are rare at the age at which tubercular meningitis is common. On the other hand, tubercular meningitis does not always cause the disappearance of the knee jerk. Sometimes the knee jerk is increased in cases of undoubted tubercular meningitis, but only, I believe, when the child is unconscious or nearly so. I have even observed, in company with Dr. Gee, that tapping of the patella tendon on one side caused powerful contraction not only of the quadriceps extensor of the same side, but also of the adductors of the thigh of the opposite side, in a case of tubercular meningitis. Such phenomena will not be found to be very uncommon if they be diligently searched for. I have myself seen them in diphtheritic paralysis, as well as in tubercular meningitis and phthisis. In order to answer so far as is possible the question which forms the title of this brief communication I shall formulate the following propositions: Given a case of fever with morbid mental phenomena, without a typical rash, optic neuritis, or choroidal tubercle, or any sign of cranial nerve paralysis or irritation, if the knee jerk is lost on both sides during the illness, and the wasting of muscle is unattended with loss of response to the faradaic current, the diagnosis should be meningitis rather than typhoid fever. If the knee jerk be exaggerated, and if there be ankle clonus, no certain conclusion can be drawn, for these conditions occur both in typhoid fever and in meningitis (and other conditions). But I am inclined to assert—though on this point I desire further observation and investigation—that increase of the jerks (with or without ankle clonus), accompanied by lively spontaneous flickerings (fibrillar contractions) of the muscles, is much more likely to be due to prolonged pyrexia than to direct disturbance of the nervous functions from meningitis or other nervous irritation. If typhoid fever be complicated with myelitis or meningitis—complications of rare occurrence—then the jerk may be lost, but with a fairly large experience (I have carefully tested the point in twenty-five cases) I have never known it to be absent; whilst in tubercular meningitis its disappearance for a few hours, or a day, or a few days, is by no means rare. A variable state of the knee jerk—e.g., one day present, next day absent, and a third increased—points to meningitis, not fever.

To make what may be considered a curious comparison, I should think that the differential diagnosis of meningitis from mere fevers might be assisted far more by the state of the knee jerk than by the swelling of the spleen; for unless the splenic enlargement be enormous, tubercle as well as typhoid fever and other diseases—e.g., pyæmia—will account for the splenic swelling; whereas absence of the knee jerk, or rather ascertained disappearance of the same, is practically never met with as the simple outcome of prolonged pyrexia.

Harley-street, W.

A CASE OF HYDROPHOBIA IN A CHILD.

BY R. A. JAMIESON, M.A.,

CONSULTING SURGEON TO THE IMPERIAL MARITIME CUSTOMS IN CHINA.

L——, an English child, male, aged three years and a half, was knocked down by a stray dog on January 4th, 1886, and severely torn about the face by the animal's teeth and claws. The mouth was laid open through the lower lip by a perpendicular cut beginning at the left angle and extending an inch and a half downwards; and through the upper lip by an almost horizontal cut, about one inch in length, reaching from the right nostril towards the left side. The skin and areolar tissue of the right lower eyelid were torn from the muscle, leaving a narrow border of skin perhaps one-sixth of an inch wide below the ciliary margin. The portion thus torn formed nearly a semicircle of one inch radius, the centre corresponding to the middle point of the edge of the lower lid. It was split more or less horizontally by a laceration extending from the internal canthus about half way across the flap, and was rolled into a ball at the inner angle of the orbit, being retained by two slender points of attachment separated by the horizontal laceration, and corresponding to the anterior edge of the lacrymal bone. When unfolded, the flap was bruised and cold, and its external extremity severely crushed. Under chloroform it was replaced, and the edges sutured and smeared with iodoform ointment. The other wounds were united and covered with collodion. On Jan. 23rd all the wounds had healed, but in consequence of sloughing of the external edge of the flap some slight eversion of the lower lid was threatened. Bleeding had been profuse from all the wounds at the time of the accident. Taking this and the condition and position of the injury to the lower lid into consideration, I did not cauterise the exposed surfaces. It was subsequently remembered that on the 26th and 27th (twenty-third and twenty-fourth days) the child made excuses not to drink milk or tea. He ate, however, porridge and milk, bread and soup, &c. On the 28th he ate a quantity of fruit, and seemed to suffer from indigestion. Some castor oil was administered with great difficulty, and he had a warm bath. When he was on the point of being put into the bath he sprang from his mother's arms in apparent fright, and climbed up the back of a high chair "like a monkey." He soon, however, came down, got into the tub himself, and wished to stay in the water. Next morning (29th), when coaxed to take some milk, he would only answer, "by and by," and when at last persuaded to make the attempt he pushed the cup from him. There was no spasm, no mucus in the fauces, and no aerophobia. During the day he repeatedly asked for milk &c., but refused everything as soon as it was brought, and was very restless and peevish. A mustard bath was administered at some friend's suggestion, and it did not frighten him. At 7 P.M. he was extremely nervous, and his legs were trembling. There was no intolerance of light (in fact he seemed pleased to look at the gas), and he paid no attention to the splashing of water close by him. At 10.30 P.M. he was delirious and saw spectres. The slightest touch on the head now produced spasm of respiration. At 11.15 P.M. the following note was made: "Frequent spasmodic arrest of breathing, immediately followed by forced inspiration in a series of short gasps. He starts up, momentarily stiff in all his limbs, but there is no clonic convulsions. His expression is maniacal, and he agitates his hands battling with spectres. This lasts for about forty-five seconds, when he becomes calm, recognises the people round him, and talks rationally, asking his father, for instance, to 'send the doctor away,' and replying, when a drink was offered him, that he did not want it. Between the grand attacks he has minor seizures, due apparently to spasm of the fauces; he retches violently, but brings nothing up." At 11.30 P.M., and again an hour afterwards, injections of one-tenth of a grain of morphia each time were administered, but with hardly perceptible effect, the pupils remaining dilated rather than contracted. On the 30th, from 1.30 to 5.30 A.M. he spent in spasm of the entire body, so violent as to jerk him out of his mother's arms and fling him two feet from her on to the bed on which she was sitting. At 4 A.M. he began to hawk up viscid mucus, which collected at the corner of his mouth; asking constantly for milk, but refusing it before it could be brought. At 5.30 A.M. one-tenth of a grain of morphia was injected. He did not during this period seem to lose consciousness under the attacks, and in the interval he was perfectly sensible, and his voice was unaltered. He passed urine three times between 1 and 5 A.M. standing up, and was not affected by the sound of falling water. The urine became milky on boiling; it was cleared by a drop of nitric acid. An attempt to relieve thirst by a warm water enema had to be abandoned, as it induced violent general spasm. Thinking it better to keep the room dark, the gas was lowered, but the change in the light brought on a spasm, and he begged that it should remain bright. At 6 A.M., the last dose of morphia showing no effect beyond causing moderate contraction of the pupils, the saliva becoming more and more abundant, the spasms more violent, frequent, and prolonged, and death seeming imminent, I again gave one-tenth of a grain. All the injections were given in the right buttock. There appeared to be complete insensibility of the skin in this region, as the child made no complaint of the needle prick. Immediately before giving this injection the following note was made: "Each spasm begins with a gulp, followed by the appearance of a little froth at the corners of the mouth. He then momentarily ceases to recognise the people round him, sees some terrifying sight, the lips become livid, he opens his mouth widely in prolonged effort to get air, and a quantity of viscid saliva is suddenly secreted which he hawks up. The end of the attack is marked by his speaking about some indifferent thing in a clear, strong, and natural voice. Conjunctivæ injected face pale, lips ashy."

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The breathing now became deep and regular, and colour returned to the cheeks and lips. He seemed to sleep until 7 A.M., when he roused and asked for some toys. At 7.30 there was an extremely severe seizure, caused apparently by a sudden profuse secretion of mucus in the fauces. This collection, after a tremendous effort, he swallowed. He spoke of some water which he saw in a glass standing on the mantelpiece six or eight feet from him, but was not affected by looking at it. Another attack threatening at 7.35, I again gave one-tenth of a grain of morphia. He remained quiet, talking occasionally, and vomited some brown fluid. At 7.50 he inquired whether I had gone away, and then asked to be held so that he could see the gas. At 8 A.M., without loss of consciousness, there was a clonic convulsion of the left arm and of both hands. Both thumbs were flexed into the palms, but not firmly. Secretion in fauces more and more profuse, but no spitting. Breathing consisted of violent shallow inpirations, rapid expiration, and long pauses. Vomiting of brown fluid continued, which was now darker and contained altered blood. At 8.30 A.M. a grand attack was imminent. Morphia was again given, after which he dozed. No further violent spasms, but constant starting and continual vomiting. Pupils slightly contracted. At 10 A.M. corneæ muddy, and commencing ulceration of lower external quadrant on left side. Profuse muco-purulent discharge from conjunctivæ. Large quantities of grumous fluid vomited. No further secretion of mucus in the fauces occurred. He lay quietly in bed, disturbed from time to time by convulsion of the left side of the body and face until now, when in a violent and general convulsion he died.

I have detailed this case with what may seem tedious minuteness; but while it falls to the lot of but few practitioners to observe any considerable number of cases of hydrophobia, there are scarcely any opportunities for observing the disease in infancy. This fact may be my excuse. It is only in childhood that the course of the malady is uncomplicated by the mental condition arising out of knowledge of the inevitable termination close at hand; and although this condition is often, if not generally, betrayed by but few outward signs, it cannot fail to influence the psychical symptoms manifested.

Shanghai.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF HÆMOPHILIA.

BY HERBERT W. PAGE, M.A. CANTAB., F.R.C.S. ENG.,
LECTURER ON SURGERY, ST. MARY'S HOSPITAL.

THE publication by Dr. Skelton of his "Three Cases of Hæmophilia in the same Family" induces me to publish a clinical note of a case recently under my care in St. Mary's Hospital, where the patient was a member of a family in which ten members, males and females, of three successive generations were hæmophilic, and in which there was some departure from the ordinary rule of transmission.

A young man aged twenty-two, tall, anæmic, and thin, was admitted with an extensive swelling of the left thigh reaching from the knee to the groin, and from its physical characteristics evidently due to blood extravasated beneath the muscles. Seven weeks previously he had been laid up with so-called rheumatism in his left knee, which left it stiff; and five days before admission he had stumbled and fallen, and his leg was bent forcibly under him. It seemed to him as if "the flesh was being torn from the bone"; he suffered great pain, and the thigh rapidly swelled. We very early suspected he was a bleeder, and learned from him that he had had profuse hæmorrhage at one time from the extraction of a tooth, that he was subject to epistaxis, had bled furiously some two years ago from the opening of an abscess, and three years before had been laid up for many weeks with a swelling of the right knee, which, he said, was thought at first to be a sarcoma, but which in all probability was an intra-articular hæmorrhage. His high temperature, and the considerable tenderness with some redness at one point of the thigh, led us to suspect suppuration might supervene; and as the necessity for making an incision was above all things to be avoided, the limb was placed at perfect rest on a Macintyre splint, after having been carefully bandaged from toes to groin. He was soon easier, the swelling at once began to diminish, and in seven weeks had entirely gone, some slight stiffness of the knee alone remaining when he was discharged at the end of two months.

His family history was very carefully worked out by my dresser and friend, Mr. Davis; and although it was impossible for him to see the various members of the family, he nevertheless elicited the following facts. Paternal grandparents healthy; maternal grandmother was in early life a bleeder, though in what precise way it was not known. She and her husband were not related to each other, nor were her own parents. She had eleven children, of whom the first, second, fourth, sixth, seventh, and eighth (all males) are dead—a startling mortality; but whether any were bleeders or not it was impossible to discover. As, however, the ninth, a living male, is a bleeder, it seems probable that some of his elder brothers may have been bleeders also. One of these brothers had died in infancy, and none are known to have died of hæmorrhage. The third, fifth, tenth, and eleventh (females) are alive, and all are bleeders. The third child, and eldest daughter, now aged sixty, is the patient's mother, and some of her children alone, of the third generation, are, so far, bleeders. Her family consists of two daughters and three sons. The three eldest are daughters, all bleeders, if a history of severe epistaxis and free bleeding is sufficient to establish this fact. The fourth is the patient; then come a daughter and two sons, of whom none are bleeders. It is true that these three, the youngest brother and sisters of the patient, may perchance not yet have had the opportunity of showing their diathesis, but it may be hoped that their immunity is an indication that the hæmophilia is tending to die out. What may have been the original cause of the hæmophilia in the first generation it is of course impossible to say; but this pedigree affords, at any rate, a good example of a morbid diathesis becoming rapidly developed to an extreme degree in the second generation—so much so that the children were affected certainly from the third down to the very youngest member (the eleventh) of the family; and possibly declining again, and it may be disappearing altogether, in the third generation, the three youngest grandchildren not being affected. Of the fourth generation, there are two, a male and a female, children of the patient's eldest sister, who are not bleeders. A noticeable feature, also, in this history is the fact that males and females seem to have been affected in an equal degree, contrary to the supposed usual rule that the males alone or most chiefly suffer, and that while the males inherit the disease it is through their mothers who themselves remain unaffected.

SOME REMARKS ON A CASE OF SMALL-POX ARISING IN MID-OCEAN.

BY CHARLES J. POWER, M.A. CANTAB., M.D.
LATE SENIOR HOUSE-SURGEON, METROPOLITAN FREE HOSPITAL.

THE following communication may be interesting in connexion with the leading article on "Small-pox in Australasia," which appeared in THE LANCET of January 1st of this year.

In April of last year, two days after leaving Aden, a case of variola arose amongst the passengers of the Orient Company's R.M.S. *Chimborazo*. The patient was an Italian steerage passenger, who embarked at Naples. The diagnosis of variola was certain. I had the patient removed to one of the boats, which was partly covered in and otherwise fitted up for his accommodation. One of the patient's compatriots volunteered to act as nurse, and he was strictly confined to the boat. No one was allowed near the patient but myself, and the part of the deck near the boat was fenced off. The food of both patient and nurse was drawn up by the latter, and all scraps of food, &c., were lowered down at night and at once thrown overboard. In addition to this, the ship was repeatedly fumigated with sulphur, steam, &c. The supply of lymph on board led me to vaccinate all the most urgent cases. As I was the only surgeon on board I had to move about among the passengers in the exercise of my duties; and I wore a special suit of clothes, well sprinkled with

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tion, for visiting the patient, avoided touching him, and took a bath immediately after my visit. On our arrival at Adelaide those of the passengers who had reached their destination were placed in quarantine, and the boat in which the patient was (who was now becoming convalescent, the scabs commencing to fall off, showing well-marked "pits") lowered into the sea, and taken off to a separate island to undergo his quarantine. We subsequently arrived at Sydney, where we were placed in quarantine for three weeks, the time to date from our arrival at Adelaide. All the rest of our passengers were landed on the quarantine ground at Melbourne and Sydney. The patient, who had never been vaccinated, had confluent small-pox, highest temperature 104°, never had any delirium, and made a good recovery. At the commencement of disease there was an uncertain history of vomiting and pain in the back. The "secondary fever" was well marked. None of the passengers, officers, or crew subsequently contracted variola. I believe the main factor in preventing the spread of the disease was the early isolation of the patient. Variola, never easy to diagnose, is rendered much more difficult in hot climates. I have seen cases of "prickly heat" closely simulating variola, and a mosquito bite which has not been scratched has exactly the hard, shot-like feel of a papule in small-pox. Of course these cases will not have the constitutional disturbance which variola usually has, though I have seen constitutional symptoms in bad cases of prickly heat, and these symptoms in modified variola are sometimes, at any rate at the commencement of the disease, very slight. I can strongly recommend the treatment of patients suffering from variola in a boat which is partly covered in, thus forming a tent, provided the climate is suitable.

The Australians have a great dread of variola, yet vaccination is not compulsory amongst the inhabitants. The sanitary authorities made a great point about the vaccination of our passengers and crew. All who had not been successfully vaccinated within two years had to undergo the operation or remain in quarantine for an indefinite period. Some of the quarantine regulations are very strict, but in other matters the sanitary authorities are lax.

Aldermey-street, S.W.

CASE OF THYROTOMY FOR EPITHELIOMA OF THE LARYNX.

By W. R. H. STEWART,

AURAL SURGEON TO THE GREAT NORTHERN CENTRAL HOSPITAL, SURGEON TO THE LONDON THROAT HOSPITAL, ETC.

B. K——, aged forty-five, a chimney sweep, came under my care in 1883. A slightly-made, delicate-looking man, married, no children; does not remember his parents; one brother and two sisters living, all healthy; no history of hereditary taint; had been a sweep from boyhood; had suffered from difficulty of breathing for the last six months, which was much worse lately; paroxysmal cough; had lost flesh. When first seen there were marked laryngeal stridor, harshness of voice, and severe attacks of dyspnœa. There were no enlarged glands in the neck. Laryngeal examination revealed a rather large, irregular growth, springing from below the right vocal cord, and projecting across the larynx. A portion removed by laryngeal forceps and placed under the microscope proved to be epithelioma. A preliminary tracheotomy was performed, and when the patient was sufficiently recovered, the growth being large, thyrotomy was determined on. Ether having been administered and a tampon tube inserted in place of the ordinary one, the superficial structures were divided in the middle line, the thyroid cartilage was then carefully cut through in its whole length with a knife (there was no ossification), and the alæ drawn aside with retractors. Through this small opening the tumour was seen to be growing from the under surface of the right vocal cord, and involving the soft tissues around. It was seized with forceps and as much as possible of the tumour, with the vocal cord and adjacent structures, cut away with small curved scissors; the remains of the growth were then scraped away with a sharp spoon, and solid nitrate of silver applied. The hæmorrhage was rather profuse at first, but soon stopped. The alæ were then carefully adapted and brought together with silver sutures, strapping applied to the external wound, a drainage tube inserted, and antiseptic dressings used. The tampon tube was left in for twenty-four hours, after which an ordinary tube was used for a couple of days. The patient was entirely fed for the first week by nutrient enemata. There was no sign of perichondritis, and the patient made an uninterrupted recovery. At the end of the fourth week, when he left at his own desire for domestic reasons, the external wound had completely healed and the internal one was cicatrised over, but up to that time he had not regained his voice. The cartilages, however, having firmly united, would lead one soon to expect a complete return. There was no sign of a recurrence of the growth.

I unfortunately lost sight of the case, as I was obliged soon after to leave England on account of my own health, and subsequent inquiries have failed to find the man. Where possible, either the above operation, or removal of half the thyroid, as illustrated in a case recently published in a medical journal, is, I think, preferable to the extremely fatal one of excision of the larynx. I strongly advise preliminary tracheotomy with retention of the tube for some days after the operation, and also feeding per rectum.

Devonshire-street, W.

HERNIOTOMY IN A VERY YOUNG CHILD.

By J. LIONEL STRETTON.

H. G——, born July 28th, 1886; male child. On Aug. 16th a swelling was noticed in the right scrotum; this was found to be a rupture, and was reduced by my assistant. On Aug. 25th the rupture again appeared, and all attempts at reduction failed. Fæcal vomiting set in, and the child was evidently losing ground. There had been no evacuation, and, so far as the mother could tell, no passage of flatus since the rupture appeared, thirty hours previously to my seeing him. Under such circumstances I determined upon immediate operation. Chloroform was administered and an attempt made to reduce the rupture; this failing, I made an incision over the swelling about three-quarters of an inch in length, and exposed the bowel, which was an exceedingly difficult proceeding in such a small space. The stricture, which appeared to be situated at the inner ring, was exceedingly tight, and required two or three nicks before the bowel, which was in a healthy-looking state, could be reduced. Silk sutures were employed and the wound dressed with oiled lint. Ordered half a minim of tincture of opium every four hours; the mother to continue suckling.—Aug. 27th: Passed flatus last night; no sickness since operation. Temperature normal. Takes breast well. Wound looks healthy.—28th: There were two natural evacuations during the night. Child seems quite well. A little local inflammation round the wound.—Sept. 1st: The bowels have acted regularly. Sutures removed. Slight gaping.—7th: The wound has quite healed; the child has gained much in flesh, and appears to be quite well. There is no bulging, even on violent crying.

Remarks.—This case is remarkable on account of the age of the child, the immediate subsidence of all symptoms after operation, and the rapid recovery. I have been unable to find any account of operation in so young a child; but when I take into consideration all the disadvantages I laboured under in this case I should not despair of success in even younger subjects. He was the child of poor parents, and was brought to my house for me to examine him, and knowing that he was in better air and surroundings I operated at once, and he was carried home in a blanket, and certainly did not receive any skilled nursing afterwards, nor was it possible to prevent the dressings being soaked in urine.

Kidderminster.

A RARE COMPLICATION IN A CASE OF PLACENTA PRÆVIA.

By GEORGE D. LOGAN, M.B. & C.M. ED.

IN July last I was called to see a woman who lived four miles away, and who was said to be in labour and bleeding to death. On arrival I found her blanched and in a cold sweat. Her pulse was quick, irregular, and feeble. I was informed by an attendant that the patient, who was a primipara, had fainted twice, and that the pains were neither so strong as they had been, nor so frequent. She

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had an attack of bleeding about three weeks previously for the first time, but it was not severe, and there had been a recurrence of it on one or two other occasions. It was now excessive. On examining per vaginam the placenta was found presenting and slightly detached on the left side, but the os uteri was not very dilatable. Considering this, together with the facts that the liquor amnii had escaped, and that I could not discover the fœtal heart sounds, I made up my mind to detach and extract the placenta, thinking it would give the best chance of recovery to the mother. After having detached the placenta, I could not, however, extract it, but the bleeding was considerably diminished. I now plugged the vagina with lint and administered ether hypodermically, as the stomach rejected everything immediately after it had been swallowed. On removing the plug about half an hour later, the os uteri was more dilatable. There was still considerable hæmorrhage, so I determined to turn and deliver the child. While passing my hand into the uterus the latter suddenly contracted, and after this had passed off the uterine surface felt warmer than the placental, due no doubt to a renewed flow of blood from the uterine vessels. After turning, the child was easily delivered, but it was dead. It now became evident why the placenta could not be extracted; it was intimately adherent to the head of the child. As nearly as could be calculated, the surface of attachment measured in diameter about two inches and a half, and the situation of its centre was a point a little below the posterior fontanelle. The neck of the child was very short, the head having the appearance of being attached to the trunk, without neck at all. The forehead receded very much, so that the supra-orbital ridges became very prominent, as were also the eyes; the bridge of the nose extended upwards beyond the eyes and separated them. The cord was quite natural both at its origin and insertion, and in every other respect the child, which was a male, was well developed. The mother made a good recovery.

Ecclefechan, Dumfriesshire.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

ST. GEORGE'S HOSPITAL.

A COMPLICATED CASE OF INTUSSUSCEPTION IN A CHILD; OPERATION AFTER SEVENTY-TWO HOURS; DEATH; NECROPSY; REMARKS.

(Under the care of Mr. DENT.)

THE treatment of intussusception is a subject which has occupied the attention of practical surgeons for years. Whether to proceed immediately to the performance of abdominal section on the failure of the injection of air or fluids into the bowel, or to try again these methods even though the patient is *in extremis*, has been, and still is in many cases, a doubtful point with practitioners. There is no doubt that an early abdominal operation is more likely to be successful than one performed later, when the patient is exhausted by vomiting and early peritonitis. Still, there are cases in which the employment of injection of air or fluid has succeeded when the intussusception has recurred after reduction, and in which this treatment has ultimately proved successful. The difficulty is to determine when the case is one of incomplete reduction or of complete reduction with recurrence of the original condition of intussusception. We would refer our readers to the remarks on this case.

Annie O——, aged six months, was admitted on Jan. 31st last. On the 28th she was seen by a medical man who was told that the child had had symptoms of obstruction for about twelve hours. An intussusception of considerable size was found, easily felt through the abdominal walls and per rectum. The symptoms were not urgent. On the 29th, nothing having passed but mucus, an attempt was made to reduce the intussusception by means of enemata. On the 30th, under chloroform, the same plan of treatment was again adopted. The tumour appeared to be to a great extent though not entirely reduced, for it still could be felt through the abdominal walls. Next day the tumour came down as low as before, and the child being worse she was sent to the hospital for operation.

On admission there was evidence of rather severe abdominal pain and peritonitis. The vomiting was tolerably constant and the obstruction complete. The tumour could easily be felt through the wall of the rectum, low down in the pelvis, but its extent could not be ascertained. In view of the peritonitis it seemed highly improbable that the intussusception could be reduced, and it was decided to open the abdomen at once under an anæsthetic. An incision two and a half inches in length was made in the middle line below the umbilicus. As was expected, the distended coils of intestine protruded immediately the peritoneum was opened, and throughout the operation gave the greatest difficulty. Search was made in the neighbourhood of the right sacro-iliac joint for the obstruction. A double coil of empty small intestine now came into view, and on being traced out was found to be about fifteen inches in length and to pass down to the left side of the pelvic cavity. Further examination revealed that this loop of gut was tightly constricted by the sharp edge of a fold of mesentery attached to the ileum, this portion of intestine being buried deeply down in the pelvic cavity. The sharp constricting edge was cut and the portion of small intestine forming the internal hernia released, though not without difficulty. The child was now so exhausted that it was necessary to proceed with the utmost rapidity. Attention was next turned to the intussusception, which proved to be ileo-colic as well as ileo-cæcal, and six or eight inches in length. The cæcum lay in the middle line opposite the first vertebra of the sacrum, while the transverse and descending colon were dragged down and stretched across the brim of the pelvis on the left side. The entering gut was pretty firmly adherent to the intussuscipiens, and considerable traction was required to draw out the intussusception. The peritoneal coat was slightly lacerated in two places in releasing the intestine. The apex of the cæcum, together with the vermiform appendix, was also invaginated upwards into the ascending colon, the whole of the appendix being buried; this second invagination was easily drawn down. The invaginated bowel was dark, and patches of it were rough from lymph. By hooking the fingers under the upper angle of the wound and lifting the abdominal wall well up, the protruding intestine was easily reduced and the wound closed as quickly as possible. The child, who was almost moribund after the severe operation, rallied considerably after a while. The pulse returned, the limbs became warm, and she began to cry. About five hours later, however, she died very suddenly.

At the necropsy, the coils of intestine were found to be lightly adherent together. The lumen of the intestine was pervious throughout, but the coil of gut that had formed the internal hernia was still empty and flaccid. The edge of the ileo-cæcal opening was stretched and thickened, and the mucous membrane ulcerated. There was no blood in the peritoneal cavity. The other organs were all healthy.

Remarks by Mr. DENT.—No cause could be assigned for the intussusception, and the child had previously been in good health. In view of the condition of the parts found at the time of operation and at the post-mortem examination, it is hard to believe that the first attempt at reduction really relieved the obstruction at all. The internal hernia, no doubt, was a secondary affection, and resulted from the dragging down of the colon as the intussusception enlarged. Still, from the appearance of the gut, it must have formed early. The noticeable points of the case are—(1) that the intussusception was ileo-colic as well as ileo-cæcal; (2) the complicated nature of the obstruction; and (3) that it was possible to reduce this completely by operation. In acute intussusception such as in this case, in which vomiting occurred early, abdominal section, to my mind, offers the only prospect of relief. After thirty hours the prospect very rapidly diminishes. The case was from the first attended to promptly, and orthodox treatment was skilfully employed. The child was submitted to operation much earlier than is usually the case, yet the chance of success was very slight, seeing that peritonitis had already commenced. In this, as in so many cases of intestinal obstruction, although the operation was performed comparatively early, the epitaph must still be "too late." There is, I think, more tendency to procrastinate in cases of

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intussusception than in other forms of obstruction, and this record may therefore prove instructive. The hope that the invagination may slough and come away is a very delusive one; for, as Mr. Treves has pointed out, only a small proportion of patients in whom this occurs actually recover. Obviously in this case the obstruction would still have existed, even though the intussusception had sloughed off. The greater the number of cases recorded, the more will knowledge advance; and the more knowledge advances, the more will the principles that guide the treatment of internal and external strangulated hernia tend to assimilate.

CROYDON INFIRMARY.

A CASE OF ACUTE INTERNAL STRANGULATION.

(Under the care of Mr. F. W. CLARK, L.R.C.P., M.R.C.S.).

F. B——a Polish Jew, aged twenty-nine, was admitted into the infirmary on Tuesday, July 6th, 1886, at 5 P.M. He was a fairly well nourished man, a painter by trade, and on admission he complained of great pain in the abdomen and intense thirst. His face had a drawn and anxious expression; there was pallor of the surface; the tongue dry and coated; and he lay in bed on his back with his knees drawn up, and was evidently in great suffering. The abdomen was distended and tympanitic, and was tender all over, but especially so over the hypogastric region. The pulse was small, hard, and rapid—"wiry,"—and the respiration thoracic. The patient dated the onset of his illness from the previous Saturday (four days), on which day he had partaken largely of some tinned salmon, and since that meal he had suffered from pain in the abdomen, which had gradually increased. There was no history of vomiting, but it was elicited that his bowels had not been opened since the onset of the pain in the abdomen. There was no external hernia. The patient asked repeatedly for a catheter; a No. 10 silver English catheter was accordingly passed into the bladder without any difficulty, and four ounces of clear, high-coloured urine were drawn off, containing no traces of blood. Turpentine stupes were at once applied to the abdomen, and he was given a grain of opium by the mouth; and was ordered two drachms of brandy every half-hour, diluted with small quantities of warm water. During the night the patient twice got out of bed to get to the night-stool, and, with much straining, he passed about two ounces of very dark-coloured fluid blood. Vomiting set in at 8 P.M. the patient bringing up at this time the brandy which had been given him, and he continued to vomit intermittently until his death at 1 A.M., eight hours after admission, the vomited matters not becoming stercoraceous until within an hour of his death.

At the necropsy, made thirteen hours after death, a large mass of gangrenous small intestine was found lying in the pelvic cavity, while the rest of the bowel was matted together by recent lymph. The gangrenous bowel was found to have been strangulated by a rounded fibrous cord, about an inch and a half in length, stretching between two adjacent coils of small intestine in such a manner as to form a loop through which the strangulated bowel had passed. This band had evidently been formed by the stretching of an old peritonitic adhesion of the intestine.

Remarks by Mr. CLARK.—Apart from the comparative rarity of such cases of acute internal strangulation, this case, I think, presents several features which are of especial interest. One is so apt to look upon fæcal vomiting as inseparable from strangulation of the bowel, whether external or internal, that the marked absence of this symptom in the present case until the patient was *in extremis*, rendered the cause of the peritonitis at first very obscure. The persistent reference by the patient of all his pain to the bladder, coupled with the marked tenderness over the hypogastric region, suggested a rupture of that viscus as the possible cause of the peritonitis, but the result of the catheterisation completely negatived such a conclusion. Another feature which adds an interest to the case is the nature of the strangulating band. It is well known that fibrous adhesions of adjacent segments of bowel, the result of an old peritonitis, will, under the influence of the peristaltic contraction of the bowel, gradually elongate to form bands of fibrous tissue stretching across the peritoneal cavity, and these bands or cords may, as in the present case, occasionally prove the direct cause of an internal strangulation. It is most probable that, had the patient been seen earlier—for he had been ill for four days before admission, yet had sought no medical advice,—and had the condition been correctly diagnosed, an abdominal section, followed by the division of the strangulating band, might have been the means of saving his life. Other points of interest in the case are: firstly, the fact that the patient was a painter by trade, and so liable to attacks of intestinal colic; and, secondly, the suspicion of irritant poisoning, which was excited by the history that the symptoms dated from the time at which he had partaken largely of some tinned fish.

DORSET COUNTY HOSPITAL.

A CASE OF SUPRAPUBIC LITHOTOMY.

(Under the care of Mr. A. EMSON.)

FOR the following notes we are indebted to Mr. F. J. Malden, house-surgeon.

R. W——, a quarryman, aged sixty, residing at Portland, was admitted on Oct. 14th, 1886, with symptoms of stone in the bladder. The symptoms had not been severe, but had been present over a period of four years. It was only a few days before he came to the hospital that he was obliged to give up his work, on account of frequency of micturition, hæmaturia, and pain after the act of micturition.

At the time of admission the urine was alkaline, specific gravity 1020, no albumen, muco-purulent. The stone was readily detected by means of a No. 8 sound with small curve, and the ring heard distinctly. The stone, which seemed to fit in the concavity of the sound, was situated in the right lower part of the bladder. The attempt to pass the grooved "staff" on two previous occasions having failed on account of the enlargement of the prostate, it was determined to remove the stone by the suprapubic instead of the lateral method. The operation was performed on Jan. 11th, 1887. The rectal bag was first inserted, and twelve ounces of warm water introduced with a syringe; the bladder was then distended by means of eight ounces of carbolic lotion (1 in 1000), and the penis tied with a soft rubber catheter. An incision was now made about three inches long in the middle line, coming well down on to the front of the pubes; after this the tissues were separated by means of a director, handle of scalpel, and finger nail until the wall of the bladder came in view. There was no hæmorrhage to speak of, no vessel needing ligature. The hook used in this case for elevating the walls of the bladder was one found particularly serviceable (it was made by Ferguson, and intended for cases of laryngotomy); on the convex surface of it is a groove (like a miniature staff), into which the point of the scalpel was inserted, and an incision in the bladder wall made direct from the point of puncture of the hook large enough to admit the finger. The stone was easily felt, and removed by means of a small pair of lithotomy forceps. A drainage tube was inserted into the bladder, but it slipped out during the night, and was not replaced. No sutures were placed in the walls of the bladder, but two in the upper part of the abdominal wound, which was dressed with absorbent cotton wool.

On the day of operation the evening temperature was 101°; next day, morning 100·4°, evening 101°; the following morning 99·6°, evening 100·4°. From this time the temperature remained about normal. There was a free discharge of urine through the wound. No catheter was passed until Jan. 25th, when a soft rubber one was tied in; this after the second day, however, set up urethritis, and was discontinued. The after treatment consisted in placing the patient alternately on one side or the other as much as possible, to encourage drainage. The wound was dressed with boracic lotion (1 in 80), and the urine absorbed by means of sponges and absorbent cotton wool. The patient's progress was satisfactory, but slow; the wound granulated, but cicatrisation took place slowly. On Feb. 6th (twenty-seven days from operation) twenty ounces of urine were passed through the urethra, being the first time it had flowed naturally since the operation. The abdominal wound now began to contract more rapidly. The stone was a mulberry calculus covered with phosphates weighing five drachms. The handle of the scalpel used was made of tortoiseshell rounded off at the end and bevelled to form an edge, and was admirably adapted for separating the tissues in this case.

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WOLVERHAMPTON GENERAL HOSPITAL.

MULTIPLE ANEURYSMS OF THE ARCH OF THE AORTA.

FOR the following notes we are indebted to Mr. Arnold Evans.

R. L——, aged thirty-seven, grinder, having been seized with sudden illness whilst at work, was brought to the Wolverhampton General Hospital, but on arrival life was found to be extinct.

At the necropsy it was found that the pericardium contained about fifteen ounces of clotted blood. The heart, with the aorta and aneurysms attached, weighed about eighteen ounces. Apparently the aortic valve was competent, but its cusps were distinctly thickened. The ascending and transverse parts of the aortic arch were enormously dilated and thickened; and springing from the first part of the artery immediately above the valve were three aneurysms, each communicating with the artery by a narrow orifice: one sprang from the anterior surface of the vessel, and pointed downwards and forwards towards the origin of the pulmonary artery overlapping the appendix of the right auricle; the other two, each about the size of a walnut and situate close together, projected backwards under the aortic arch and compressed the pulmonary veins. One of these last mentioned had ruptured into the pericardium, forming an orifice which barely admitted the tip of the little finger, and had ragged and attenuated edges. About an inch higher up was a cluster of three aneurysms, each slightly larger than those above described, but resembling them in that each communicated with the artery by a narrow mouth; two projected forwards and the third to the right. Another aneurysm arose from the upper part of the arch; this was a little larger than the others, and had thin walls; from its side sprang the brachio-cephalic and left carotid arteries. There were several other small aneurysms in addition to those just described. All contained a small quantity of laminated clot. At the commencement of the descending part of the arch the aorta resumed its normal calibre, and in its onward course contained only a few small atheromatous patches. The mitral valve was competent, but its curtains were slightly thickened. The hypertrophy of the left ventricle was by no means great. There were no other aneurysms in the body. The only other morbid change in the organs was an œdematous condition of the lungs.

The most interesting point in connexion with the above case was the complete immunity (with the exception of a slight cough for a few days) from any serious or distressing symptom, until the time of the man's sudden death.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Multiple Neuro-fibromata and Molluscum Fibrosum.—Sarcoma of Pelvic Fascia.—Cerebral Hæmorrhage in a Child with Thrombosis of Sinuses.—Fibrous Contraction of Stomach.—Subpleural Lipoma of Diaphragm.—Rickets in the Skulls of Lions.—Suprapubic Abscess.—Cultivation Experiments with New Growths and Healthy Tissues, and the Parasitic Theory of Cancer.—Bones from Congenital Syphilis.

THE last ordinary meeting of this Society was held on Tuesday last, Sir James Paget, Bart., President, in the chair.

Mr. CHARTERS SYMONDS read the report of the Morbid Growths Committee on Mr. Hutchinson's specimen of Tumour of the Lower End of the Femur shown at the last meeting. The committee came to the conclusion that the morbid process was of an inflammatory nature, and most probably the result of syphilitic poison. Drs. Coupland and Payne and Mr. Bowlby were the other members of the committee.

Dr. F. J. PAYNE showed specimens from a case in which Fibro-Neuromata co-existed with Molluscum Fibrosum. The patient, a woman aged forty-three, had been under observation for some years as a well-marked case of molluscum fibrosum. The surface of the body was nearly covered with small, soft, fibrous tumours, from the size of a pin's head to that of a hazel-nut—some pendulous, some sessile, some under the skin. They had existed as long as the patient could remember. There was also a tumour, the size of a walnut, in the left axilla, formed on the brachial plexus; it gave rise to much nerve pain in the arm. It went on increasing in size, while the skin tumours varied, some new ones being formed, while others wasted and almost disappeared. During the last few months of life there was a marked diminution in their number. The patient died in August, 1886, with symptoms of violent summer diarrhœa. A partial necropsy only was possible, but all the chief organs were found healthy. The left brachial plexus was removed, and on dissection by Mr. Shattock there were found, besides the large tumour, a number of smaller ones, varying in size from a pin's head upwards, on various parts of the plexus, giving the appearance known as plexiform neuroma. These tumours had the usual structure of fibro-neuromata, consisting of nucleated fibrous tissue, in the midst of which the nerve-fibres could be traced. It was not possible to examine other nerves thoroughly, but the right brachial plexus appeared healthy. The skin-tumours, which were seated chiefly in the corium, but some in the subcutaneous tissue, consisted of fibro-nucleated tissue, the larger ones containing broad fibrous bundles with lacunæ. To ascertain the connexion of the tumours with the nerves sections were made by Mr. Shattock, and stained with osmic acid, as well as with other dyes; but though nerve-fibres were seen near the small tumours, none could be traced entering them, and the fibrous masses contained no nervous structures. At the same time, the possibility of the fibrous growths originating in the sheaths of nerves, as in the internal nerve-tumours, could not be disproved. These observations, therefore, only partially confirm those of Recklinghausen, who, in his classical memoir, "Die Multiplen Fibrome der Haut" (1882), first noticed in two cases the coincidence of fibroma molluscum of the skin with multiple fibrous tumours on the nerves, and explained the former as being neuro-fibroma of the skin.

Mr. LEOPOLD HUDSON showed a Sarcoma of the Recto-Vesical Fascia. The patient was a man twenty-eight years of age. There was no family history of tumour. The first symptom, seven months before his death, was pain on defecation, and on rectal examination a bilobed tumour feeling like an enormously enlarged prostate was found. Five weeks after its first appearance cutaneous nodules developed. The tumour grew rapidly, filled the pelvis, and extended upwards into the abdomen causing lancinating pains and severe vomiting. There was no albuminuria, and the constipation was overcome by purges. He died emaciated. At the necropsy the tumour was found to weigh seven pounds and a half, was distinctly encapsuled, and originated apparently from the layer of recto-vesical fascia which investing the vesiculæ seminales passes across the space between the bladder and the rectum. Examination proved the growth to be a small spindle and round-celled sarcoma, which had in part undergone development into a myxomatous tissue, and showed also areas of retrogression with mucoid cyst formation.—Dr. COLLIER mentioned a case in a young woman who, after a fall one month previously, experienced severe pain in the left iliac region, where a swelling formed, and there was considerable fever. Inflammation with caries was diagnosed, and an incision was made and much blood evacuated from the pelvis. The tumour proved to be sarcoma, and the specimen was shown. The total duration of the clinical course was apparently only ten weeks.

Dr. HANDFORD read a case of Cerebral Hæmorrhage in a boy aged five, following thrombosis of the venous sinuses. Drawings of the brain and preparations of the vessels of this case were shown. The chief symptoms had been headache, constipation, and frequent vomiting. There was no dryness or discharge from the ears. The breathing became stertorous three or four hours before death, which took place ten days after the commencement of the illness. There was no sign of head injury or disease of the ears. The venous sinuses were thrombosed, the superior longitudinal and lateral sinuses containing adherent decolourised clots. The superficial cerebral veins were also thrombosed, and felt like whipcord. There were numerous hæmorrhages on the surface of both hemispheres; two of them—viz., those in the left ascending parietal convolution and in the right temporo-sphenoidal lobe—being very extensive, and ploughing up the brain substance to a considerable depth. There was ground for supposing that the hæmorrhage occurred only a few hours before death. No cause for the thrombosis could be ascertained, neither could the ruptured vessels be

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found. The cause of the hæmorrhage was assumed to be the increased vascular tension from the thrombosis of the sinuses; but whether the vessels that gave way were arteries or veins was left an open question, though Dr. Handford inclined to the latter view.—Dr. S. WILKS had seen five or six cases of thrombosis of the cerebral sinuses in young women suffering from severe anæmia, and in all there were hæmorrhages: the cause was probably in the blood.—Dr. COUPLAND had seen one case of thrombosis in the cranial sinuses in cancer, and he referred to Dr. Bright's paper on the subject.—Dr. ORD had seen thrombosis of the cranial sinuses in a case of acute rheumatism, in which phlebitis developed in the neck and arm on one side. There was hæmorrhage into the brain. Changes in the condition of the lining membrane of the vessels were perhaps operative in the causation.—Dr. T. BARLOW referred to the possible source of the hæmorrhage. In one case of a child who had marked anæmia and cachexia from whooping-cough and ulcerative bronchitis (bronchiectasis)—in all the cases he had seen there had been a long continued cachectic condition—there was a large hæmorrhage which might have proceeded from rupture of a large vessel, but there were innumerable small punctæ of hæmorrhage in the cerebral cortex, and the large hæmorrhage was probably a great mass of the small hæmorrhages. Sir William Jenner had told him that he considered the source of the hæmorrhage was the small venules, and was the result of the venous stasis.

Dr. CHARLEWOOD TURNER showed a specimen of Stenosis of the Stomach due to Fibroid Thickening; there was chronic ulceration of the anterior wall, but the whole stomach was seamed all over by fibroid tracts.

Mr. F. W. CLARK showed a Subpleural Lipoma taken from a woman aged sixty-five, in whom it had caused no symptoms. It was a lobulated tumour (lipoma) springing from the diaphragm and projecting into the right pleural cavity, without adhesions. Normally there was a growth of fat attached to the diaphragm on the right side anteriorly, and this outgrowth of fat from the diaphragm might go beyond the physiological bounds.

Mr. BLAND SUTTON made a communication on Rickets in Animals. The bones preformed in membrane were much thickened, and the diploë absent. The reverse of this process obtained in the cartilage-formed bones, they being very much thinned. The lions of Manchester and Dublin did not become rickety. Paraplegia developed in carnivorous rickets as the result of the epiphysial plates of the vertebræ becoming greatly overgrown. The tentorium cerebelli was enormously ossified; instead of being a thin plate of bone, it had become a veritable exostosis. Reference was made to the case of a cub which at two months of age became paraplegic. The tentorium was greatly ossified, and there was great dilatation of the cerebral ventricles as occurred in the brain in hydrocephalus, and due to interference with the circulation of cerebro-spinal fluid. Paraplegia was the first sign; then the head was drawn to one side and convulsions set in. Afterwards oscillation of the eyeballs and rhythmic movements in the head were observed. These symptoms were parallel to those described by Hilton, Wilks, and Moxon in cases of hydrocephalus in children.—Dr. HORROCKS asked why London lions developed rickets and not those in Dublin.—Sir JAMES PAGET said that Dr. S. Haughton had found that if bones were given to ricketty lions in Dublin the rickets disappeared. Had this been tried at the Zoological Gardens?—Mr. B. SUTTON, in reply, said that it was supposed that the constant use of horse's flesh was the cause of rickets, but even when goat's flesh was added and the bones could be eaten the rickets did not disappear. He could not offer any solution of the differences between lions in London and elsewhere. In reply to Sir James Paget he said that the giving the lions bones cured the cubs of being born with cleft palates, but did not prevent their developing rickets.

Mr. STEPHEN PAGET read a paper on Suprapubic Abscess, and showed one specimen removed from a man aged sixty-five, who had had cystitis and other bladder troubles, with a perforation leading obliquely into the cellular tissue of the pelvis. Cases of suprapubic abscess were not very common. Twenty cases were collected. Sixteen occurred in young or middle-aged men who were generally healthy and vigorous. Four occurred in women, after genital disease. In the males, eight under thirty and eight over this age. The inflammation resolved without suppuration in the cases under the age of thirty. Those that occurred after typhoid fever suppurated. Malignant disease was not noted in any case.

Mr. BALLANCE and Mr. SHATTOCK exhibited the results of a series of Cultivation Experiments made with New Growths. The authors were led to experiment with malignant new growths in this direction, since they were persuaded that the essential pathology of these must (as so greatly insisted upon by Sir James Paget) be similar to that of the specific diseases. Pieces of carcinomata of the breast removed immediately after operation and transferred to tubes of solidified serum, agar agar, and Koch's beef peptone gelatine, were incubated at 100° F. for various periods—in one case for thirty-three days. The authors compared the pathology of cancer with that of tubercle, and considered that cancer, like tubercle, might be either a purely local disease, or the local manifestation of a "diathesis," comparable to that of the "scrofulous," the localisation in either case depending upon a specific organism. The geographical distribution of cancer was also noticed as an argument in favour of its parastic nature. They met the chief objection urged against the parasitic theory—viz., that in a case of columnar-celled carcinoma of the rectum the secondary tumours in the liver resembled in structure the crypts of the intestine—by observing that in the normal process of development it is the epithelium that determines the anatomical character of glandular formation, the arrangement of vessels and connective tissue being a secondary adaptation to this; and they conjectured that in a similar manner a cell transported to another organ would by its determinate hereditary tendency produce a structure similar to that of which it primarily formed a part, the organ itself furnishing the vessels and supporting tissue of the new epithelial formation. They further remarked that the view of the parasitic nature of cancer afforded a possible explanation of the cachexia, which is at times not to be wholly accounted for on general principles, since all pathogenic organisms give rise, as a result of their activity, to deleterious chemical products, and these passing continually into the general circulation from the substance of the tumour would exert an unfavourable influence on the general health. The alleged antagonism of cancer and tubercle might be explained on the well-known grounds of the interference in growth which certain organisms exercise upon others. They concluded from their experiments that the parasite of cancer must be unlike in its life-history those already known, in that it does not admit of cultivation in any of the ordinary media. They commented upon the supposition that the parasite was one of the protozoa, and thought that the physiology of certain of the naked protozoa afforded much interesting material for speculation upon the physiology of cancer; the sporulation of protozoa and the rejuvenescence by fusion were referred to as offering possible modes of explaining the infection of the epithelium, the abnormal growth and extension of which constituted the characteristics of carcinoma. Having found that new growths were sterile under the conditions of the experiments, the authors experimented in a similar way with healthy tissues, with the result that they were able to maintain sterile at 100° F. portions of testicle, submaxillary gland, kidney, muscle, and liver. In regard to the liver, they were not prepared to state that the same holds good, since in most cases the portions experimented with did not remain sterile. These results accord with Mr. Watson Cheyne's previous work reported in the Society's Transactions for 1879.—Dr. COUPLAND said that the late Dr. Grant believed that white corpuscles of the blood were forms of the lowest protozoa.—Mr. F. S. EVE gave arguments against the parasitic theory. He had repeated Leopold's experiment and transplanted portions of epitheliomata of the tongue into the anterior chamber of the eye of the rabbit, and acute suppuration followed, although it was known that this chamber was very tolerant of living tissues.—Mr. ROGER WILLIAMS also combated the parasitic theory.—Mr. FELIX SEMON referred to the antagonism alleged to exist between tubercle and epithelioma. He had seen the two forms together in the larynx.—Mr. S. PAGET referred to a paper in THE LANCET of May 14th by Mr. Roger Williams.—Sir JAMES PAGET said that he had known cancer almost decay and shrivel up during the rapid development of tubercle, and *vice versâ*; neither lived in full force together. He felt that he must have made a happy guess in early life, and he thought that very likely the parasitic theory would be found to give an explanation of the great difference between innocent and malignant growths.—Mr. BALLANCE said he could not imagine any other result than suppuration following the inoculation of material from any growth on

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any surface of the body. They did not believe that the parasite was a bacterium.—Mr. SHATTOCK, in reply, said that he imagined that the transported cell was provoked to multiply by the irritation of the contained parasite.

Mr. W. H. BATTLE showed specimens of Extensive Bony Lesions from Congenital Syphilis and Rickets. The illegitimate child was three years and ten months old. One year before admission the left elbow swelled, and afterwards the right one, and then the right knee. Progressive emaciation, sleeplessness, and great tenderness were the chief symptoms one month before death. There was also considerable fever —101° to 103° F. The necropsy showed broncho-pneumonia and collapse of the lungs. There was separation of the epiphysis from the diaphysis of the femur, the periosteum was separated from the shaft over nearly the lower half, and was much thickened and vascular, with slight new formation of bone. The tibia showed a similar necrosis with separation of epiphysis. There were similar changes in the bones of the upper extremity, with signs of rickets in the ribs and about the growing ends of the shafts of the bones. There was marked "bossy" growths on the skull, which had a natiform aspect.

The following card specimens were exhibited:—Mr. Page, for Mr. Raven: Sarcoma of Dorsal Vertebræ. Mr. Sydney Jones: 1. Tumour of Parotid, twenty-five years' growth. 2. Papilloma of Bladder removed by Suprapubic Cystotomy. 3. Uterus and Appendages extirpated for obstruction of rectum and bladder. Dr. Barlow: Renal Sarcoma. Dr. Pitt: Pleura, two years after drainage for Empyema. Dr. Collier: Pelvic Sarcoma, simulating Hæmatocele during life. Dr. C. Turner: 1. Bladder, Kidney, and Dura Mater, from a case of Purpura. 2. Endocarditis, with Necrosis of Mitral Valve. Mr. J. H. Morgan: Cystic Disease of Metatarsal Bone. Mr. Fenwick: 1. Encephaloid Cancer of Apex of Bladder. 2. Acute Tuberculosis of Bladder and Prostate. 3. Purpura Hæmorrhagica of Bladder. Mr. Bull, for Mr. Rouse: Sarcoma of Clavicle. Mr. Mansell-Moullin: 1. Abscess of Brain following Disease of the Ear; trephining. 2. Sacculated Bladder, with Calculus impacted behind the Prostate. Mr. Poland: Osteomyelitis of Scapula and separation of Coracoid Process. Dr. Gulliver: Aortic Aneurysm opening into Superior Cava. Mr. Targett: Bony Tumour of Buttock. Dr. Hebb: Quiescent Tubercle (a Disseminated Fibrosis) of Lung. Dr. Horrocks: Uterus and Fibroids removed by Abdominal Section (recent specimen).

CLINICAL SOCIETY OF LONDON.

Abdominal Cysts following Injury.—Spasmodic Torticollis due to Cerebral Lesion.—Gouty Knee-joint with Suppuration.—Intracapsular Fracture of Neck of Femur.

AN ordinary meeting of this Society was held on the 13th inst., Dr. W. H. Broadbent, President, in the chair.

Mr. GODLEE related three cases in which abdominal cysts of large size followed the passage of a cart wheel over the body of the patient. The first was a little girl aged four, who sustained a rupture of the left ureter. A large cystic tumour containing urine developed itself, which was first aspirated and then tapped and drained. The kidney was felt projecting into the upper part of the cavity when it was opened. As the patient became liable to frequently recurring attacks of fever, caused by accumulations of urine and pus at the bottom of the wound, it was decided to remove the kidney, which was accordingly done. The operation was a difficult one, but the child made an excellent recovery. The sinus, however, has not completely closed, but still continues to secrete a small amount of pus. The second case was that of a man aged twenty-three, who was run over by a heavy waggon. A cystic tumour developed itself on the left side, partly under the ribs, partly projecting below them, causing considerable discomfort and vomiting. After periods of improvements and relapses the tumour was aspirated through the seventh intercostal space, and seven ounces of turbid fluid, containing a trace of urea with a considerable amount of albumen, were drawn off. After this the patient gradually recovered. It was pointed out that, while the diagnosis of the case was very obscure, it was probably a renal cyst resulting from a laceration of the kidney. The third case was that of a boy aged seven, who was knocked down by a van, but not run over. A month afterwards, a tumour of considerable size, but the dimensions of which apparently varied, was found in the upper part of the abdomen on the left side. During the eleven months after the accident the tumour gradually increased in size, and came to occupy the middle line of the abdomen, pressing the stomach upwards. It was accordingly opened, and the cyst wall was stitched to the abdominal wall. It contained forty-three ounces of turbid whitish-yellow fluid, containing five ounces of urea and a large amount of albumen. The child made an excellent recovery. There appeared to be no data for making a diagnosis in the case.—Mr. GOLDING BIRD said that urea might be found in appreciable quantities in most of the tissues and fluids of the body, so that its presence in minute proportions did not necessarily indicate a connexion with the kidney. He had found as much as ·2 per cent. in ovarian fluids.—Mr. BARKER referred to a case of his own, published in THE LANCET, Jan. 17th, 1885, in which ·5 per cent. of urea was found. This low percentage appeared to be due to reflex pressure on the kidney, for on opening the cyst the percentage rose to more than 1 per cent. A second case was alluded to, in which the patient having been run over, the abdomen began to swell greatly. After some months forty-five ounces of fluid were withdrawn from a point three inches to the left of the middle line; the fluid contained a considerable quantity of urea. The case was probably a localised peritonitis, and not a renal tumour. The presence of urea should not therefore in itself suggest a renal origin for the cystic tumour.

Dr. G. V. POORE read a case of Spasmodic Torticollis, probably caused by Cerebral Lesion. The patient, aged thirty-six, was admitted to University College Hospital on Aug. 5th, 1886, suffering from violent spasmodic torticollis of nearly six months' duration. The head was twisted towards the right shoulder. At first the left sterno-mastoid muscle was mainly at fault, but after division of the sternal attachment of this muscle the spasm was scarcely altered, the rotation of the head being effected by the right splenius. This fact made it probable that the lesion was central. On the left side of the head, immediately over the situation of the posterior part of the superior and middle frontal convolutions, was a scar, the result of an injury many years previously, which at the time had "half-stunned him." There was an undoubted history of syphilis, and the patient, prior to the onset of the torticollis, had suffered from headache, referred to the neighbourhood of the scar, and from occasional attacks of giddiness. All things considered, it seemed probable that the lesion (? meningeal thickening) would be found on the surface of the brain beneath the scar on the scalp—i.e., in the region irritation of which is said to cause deviation of the head to the opposite side. The propriety of trephining was considered, but prior to its performance it was deemed advisable to subject the patient to a thorough course of mercury. This was done, with the result that the torticollis almost completely disappeared.—Mr. B. ROTH asked whether the spasm disappeared when the patient was under the influence of chloroform.—Dr. GLOVER spoke of the extreme severity of the spasm. The case showed the virtue of patience in physicians before calling in surgical aid.—Dr. S. MACKENZIE mentioned Dr. Ringer's case, shown to be associated with a lesion about the ganglia of the brain; and also referred to the case of Mr. Campbell de Morgan, in which the spinal accessory nerve was stretched with success. In other cases various operations were undertaken without success, and the arm and other parts of the neck were sometimes involved.—Dr. BROADBENT alluded to the hemiplegic lateral deviation of the head and eyes, and said that the cortical mechanism must be similar in Dr. Poore's case. The higher centre calls upon and commands muscles on opposite sides of the body, as in conjugate palsy of the eyeballs. The deviation disappears as soon as communication is established with the opposite cerebral hemisphere. Permanent deviations are present when there is a lesion in the medulla. He had no doubt of the correctness of the localisation, and the striking development of symptoms during the waking state was very confirmatory, as also the relaxation during sleep.—Dr. POORE, in reply, said that the difference observed during the waking and sleeping states went to prove the cortical origin of the spasm, so he did not give the patient chloroform, because natural sleep sufficed. He had made a bare recital of one isolated case, and had not weighted his paper with literature. Cases which had preceded or followed hemiplegia were well known, and also that mercury had relieved other cases. He considered that trephining would be warrantable, for the danger of the operation was slight.

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Mr. STEPHEN PAGET showed a Knee Joint from the body of a man, aged forty-nine, who had suffered for seventeen years from severe gout. The knee was suddenly attacked by acute inflammation, and a very large abscess occupied the joint and the thigh. It was aspirated, and perfectly healthy pus was let out; later it was opened. Suppuration extended up nearly to the trochanter and down into the calf; and several counter-openings were necessary. Amputation was not advised, on account of the constitution being broken down by disease. For some time he seemed likely to recover, but at last bedsores formed, and he died about eleven weeks after the invasion of the inflammation. The specimen showed destruction of the cartilages and ligaments, with rarefaction of the ends of the bones; no marked lipping or eburnation. The synovial membrane was infiltrated and partly destroyed by suppuration. Mr. Paget referred to a case published by Dr. Norman Moore of purulent effusion into the knee joint in chronic gout, a case of suppuration of the back of the hand and the wrist joint published by Mr. Rivington, and a case of suppuration of the eyeball published by the late Mr. Critchett. In all these cases the only common cause for the suppuration was chronic gout, of very long duration and of great severity.

Mr. SPENCER WATSON read notes of a case of Intra-capsular Fracture of the Neck of the Femur, with specimen. A gentleman aged sixty-nine fell from his horse, and on attempting to rise found he could not support himself on his right leg. There were no symptoms of fracture, beyond the pain on attempting to move the limb for a fortnight after the accident, and measurements taken several times during the period indicated no shortening. Three weeks after the accident shortening of the right limb to the extent of an inch and a quarter was discovered. No splint or extension apparatus could be borne by the patient, who got up and sat in a chair from the first week, and was on crutches at the end of a month. He died seven months after the injury, and the specimen exhibited showed a fracture through the neck of the femur, intra-capsular, and at one time firmly impacted. The neck of the femur was so much wasted that the head of the bone rested on the space between the two trochanters, and was kept in that position by interlocking splinters of the neck.—Mr. WM. ADAMS said that in intra-capsular fracture a difference existed in the degree of mobility and shortening in different cases, dependent on the kind and direction of the fracture. If the fracture were oblique and irregular, a sort of impaction might have taken place, and yet the diagnosis of fracture be doubted. In the specimen shown the periosteum had become folded in between the fragments, and a neoplasia of fibrous tissue afforded a very fair fibrous union.—Mr. CHRISTOPHER HEATH said that measurement might detect slight differences in the length of normal limbs, and much importance could not be attached to slight differences as indicating fracture. If the patient could raise the limb, then the fracture must necessarily be of the impacted sort.

The following living specimens were exhibited:—Mr. Clutton: Osteitis Deformans in a woman. Dr. Percy Kidd: Rheumatic Nodules in an old woman. Dr. de Havilland Hall: Adhesion of Soft Palate to Posterior Wall of the Pharynx. Mr. Mansell-Moullin: Elephantiasis of Right Leg.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

Some Evidence respecting Tubercular Infective Areas.

AT a meeting of this Society held on Wednesday, May 11th, Inspector-General Lawson in the chair, Dr. ARTHUR RANSOME read a paper on some Evidence respecting Tubercular Infective Areas. He showed that there are strong reasons for believing that whilst tubercle travels infectively through the body, and is derived from infective particles contained in air rendered impure by organic matter from human breath or from ground air, yet it is very rarely directly transmitted from person to person. It seems most probable that for the active propagation of the disease some increase in the virulence of the organism must take place outside the body, in a manner similar to the infection of typhoid fever or cholera. Although direct transference of the complaint is probable, especially after previous injury and loss of elasticity of the lungs, yet the evidence so far adduced would seem to show that it is a very rare event—first, because many medical men have never seen a case; secondly, many of those recorded as cases of infection would have taken place without infection, as shown by Dr. Longstaff's formula; thirdly, most of these cases of supposed infection lived under conditions favourable to indirect infection; fourthly, it is difficult to see why drainage of the land and the sandy condition of a soil should affect direct contagion, but it is easy to see why indirect infection should be thus affected; fifthly, the frequency of one-sided phthisis was pointed out. Numerous instances of infected areas were given from records of barracks, public institutions, ships, &c., and cases of infected houses were given from private practice from the Collective Investigation Record and from other sources. In all of these the outside conditions as to ventilation, drainage, soil, &c., were favourable to the intensification of the virulence of the morbific agent. The mortality tables of certain districts in Manchester and Salford had also been kindly given to the author by the medical officers of health, Mr. Leigh and Dr. Tatham; and maps showing the construction of the Salford districts had been furnished by Dr. Tatham. An analysis of these showed that in certain streets and courts, consisting of back-to-back houses, and with no through ventilation, the disease was much more common than in other parts; and that it occurred again and again in the same house in these parts. In all, forty-one cases of such coincidence of death were detected in five years in Ancoats in a population of 5600; and in Greengate, Salford, with a population of 2600, in six years, there were twenty-nine such double or treble deaths. Certain possible sources of fallacy were discussed. In the discussion which followed, Inspector-General Lawson, Brigade Surgeon Scriven, Surgeon-Major Pringle, Dr. Moir, and Messrs. Paget and Murphy took part.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

THE quarterly meeting of the above Association was held at Bethlem Hospital on Tuesday, May 17th, the principal business being to consider a memorandum from the Parliamentary committee of the Association containing observations and suggestions in regard to the Lunacy Acts Amendment Bill. In the absence at first of Dr. Savage, Dr. Rayner occupied the chair. A long discussion ensued, in which Drs. Ringrose Atkins, Outterson Wood, A. R. Urquhart, J. Murray Lindsay, S. W. D. Williams, Hayes Newington, Hack Tuke, G. H. Savage, H. Rayner, S. H. Agar, Robert Baker, and Evan Powell took part. In opening the discussion, the chairman animadverted upon some observations made by the Lord Chancellor in introducing the Bill, and to his having made use of certain words, i.e., "accused" of lunacy, "supposed" examination, &c, which, if lightly construed, associated lunacy with crime, and further implied perfunctory work or laxity on the part of medical men in their professional duties in connexion with lunacy. Suggestions having been freely made on the various clauses of the Bill, it was agreed that the memorandum should be circulated among the members of the Association, now numbering upwards of four hundred. A strong opinion appeared to prevail that the magisterial intervention proposed by the Bill should not be allowed entirely to override medical opinion, and, further, that there should be a power of appeal to the Home Secretary in cases of refusal or reduction of pensions. It was also urged that members of the Association should seek to impress most earnestly on members of the House of Commons with whom they were acquainted that insanity is a symptom of disease, and that the primary aim and object of all legislation in regard to it should be the care and proper treatment of those suffering from it.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Empyema.

AT the ordinary meeting on April 1st, Dr. Spottiswoode Cameron, Vice-President, in the chair, a discussion took place on the above subject.

Dr. CHURTON cited some remarkable examples of empyema, selected from seventy cases, in some of which the pus was difficult to find, and in others there had been difficulties in the operation required. He also described cases of double and of fetid empyema, and of apparent empyema in which the pus came from dilated bronchi.—Mr. GODFREY CARTER

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described the case of a girl in whom symptoms of pneumonia on the left side were followed by symptoms of dyspnœa and signs of fluid in the opposite side. Some days afterwards pus was evacuated by incision, but no great improvement followed. Three exploratory punctures were made in the first affected side without effect; but in a month's time, dyspnœa being urgent, repeated exploration was made under chloroform, and pus was found on the left side in the eighth space near the spine. As the right side seemed nearly healed, and only a few ounces of water could be injected, an incision was made in the left side and a large quantity of pus evacuated, with satisfactory result. — Dr. WARDROP GRIFFITH gave statistics of thirty-three male and seventeen female cases treated in the Leeds Infirmary. 1. As to age: Twenty-nine were in the first decade, seven in the second, and eight in the third. Contrasting these with a similar number of cases of simple effusion, there were ten in the first decade, sixteen in the second, and nine between thirty and forty, against one only of purulent effusion. 2. The right side was affected in nineteen; the left in twenty-six; both in one. 3. As to results: Thirty-five cases recovered after incision. In four of these there was certain or suspected phthisis; five cases, in addition, were discharged with a sinus still open. 4. Six cases were fatal, three from advanced phthisis. In one there was double effusion, and another was complicated by hepatic abscess. 5. There was a history of injury in three instances. In most cases the fluid seems to have been purulent from the beginning. Out of 151 cases of simple effusion treated in the infirmary, of which most were tapped, only two became subsequently purulent, suffering respectively from tuberculosis and erysipelas. 6. Physical signs: There was œdema of the chest wall in one case only. In children there was great deviation from the physical signs, vocal fremitus being frequently marked, and considerable effusion being present. 7. The operations were done mostly under ether, which the patients took well. The spray was used, and the incision was made low down at the back. No ribs were excised, although in two cases this might have been done with advantage. In nine cases there was pointing of pus, a spontaneous opening in four, and in one case the pus pointed behind.—Dr. CLIFFORD ALLBUTT held that resection of ribs was never needed if the operation was done early enough. All effusions of any bulk should be promptly and repeatedly removed. If the case were uncomplicated, and the operation and drainage efficient, the temperature should never be raised. Injections were therefore worse than useless.—Mr. MCGILL referred to a case where a piece of drainage-tube remained in the chest four years; it was removed post mortem.—Mr. LITTLEWOOD described a case where he accidentally penetrated into the peritoneum. The incision was made in the eighth space, extending as far forward as the mid-axillary line. Omentum was seen in the anterior part of the opening.—Dr. EDDISON referred to the statistics of forty cases under the care of Dr. Allbutt, Dr. Churton, and himself, which he had published three years before. The largest proportion of his cases occurred between the ages of twenty and thirty. In one case there was reason to believe the effusion had existed for three years, in another for one year; both recovered. In one case, where 150 oz. of pus were removed, death ensued within fifteen minutes. Cases with 62 oz. and 104 oz. removed recovered. In no case did death occur if the lungs were healthy. He had never seen a case where resection of the rib was necessary. — Mr. LAWFORD KNAGGS spoke against the use of anæsthetics, preferring cocaine.—Dr. TEMPEST ANDERSON recommended a double opening made with a curved trocar.—Dr. CHURTON, in reply to Dr. Allbutt, said he had known cases where the temperature remained high for some days after operation in spite of perfect drainage, but was reduced by five grains of quinine three times a day.

Pathological specimens.—Mr. L. Knaggs: Dermoid Cyst of Broad Ligament. Dr. Allan: Rupture of the Bladder from Retroversion of Gravid Uterus, which had become occluded by adhesions. Mr. Mayo Robson: (1) Polycystic Ovary; (2) Uterine Appendages removed for rapidly-growing Fibroid of Uterus. Dr. Braithwaite: Uterus with Cylindrical Cancer, removed by Vaginal Hysterectomy. Dr. W. Griffith: (1) Thoracic Aneurysm, showing thick Laminated Clot; (2) Case of Extreme Aortic Stenosis without Incompetence; (3) Microscopic Sections of Tubercular Tumour of the Optic Tract, causing Hemianopsia. Dr. E. Jacob: Sections and Microphotographs of a Sporosperm of Coccidium Oviforme from the liver of a rabbit, the bile-ducts being greatly dilated and a condition resembling encephaloid [illegible].

Reviews and Notices of Books.

Pilocereus Senilis, and other Papers. By WALTER MOXON, M.D., F.R.C.P. London: Sampson Low and Co. 1887.

THIS little volume consists of short essays contributed to the *Guy's Hospital Gazette* under the assumed title given above, together with three longer essays, two of which are introductory or annual addresses. We have read it through from cover to cover, and with much enjoyment. No book more vividly recalls its author; his keen, eager face, his eyes twinkling with humour, and his body with its curious, sudden movements (we often wonder who was the originator of the Guy's Hospital gestures), rise up before us as we read. The author being, in this instance, identical with his book, we may speak of either indifferently. The prevailing element in his writing is humour—searching, keen, and critical, but always good-natured. When he incites us to laugh at an individual, he always invites the subject of laughter to join with us; he says as plainly as words can speak, "Let us all laugh together." We have heard that this habit of his sometimes gave dire offence to students, but no statistics are forthcoming as to the part of the United Kingdom from which such individuals sprang. Another element in his humour which adds greatly to its value is his essentially reverent treatment of great questions, which is very striking. We often seem to enter quite suddenly from the light and glitter of clever banter into the dimness and quiet of a sanctuary. The literary effect of this is not inconsiderable, but its moral effect is greater still. We can quite well understand that these qualities, which charm those who are sympathetic, may have narrowed the circle of his disciples; but even those who failed to follow his meaning cannot have been entirely unaffected by his purpose.

The essays themselves are not, indeed, easy reading. To read easily, the mind of the reader must travel with the writer, and be not altogether unprepared for the next sentence. For this to be possible the motion of the author must generally be rhythmical, like the flight of a bird. But in reading these essays we are reminded of nothing so much as of a dragon-fly on a brilliant summer afternoon, glittering with gold, and barred with stripes, which is seen fluttering near; anon he has disappeared, and again reappears some distance off, and again he is gone. The glitter rivets the attention; the sudden darts cannot be followed, but we cannot but gaze and admire. Of the essays, we like the short ones best of all, where all are good, none more than that with the Guy's Hospital motto, *Dare quam accipere*. It is pleasanter to give than to receive medicine prescribed in the surgery (why *is* it made so nasty?), advice, and even money sometimes. The division of advisers (p. 11) into the sympathetic, apathetic, and antipathetic, is admirable. The first says, "Let me help you?"; the second, "Do as you like"; the third, "Get thee and hang thyself." The first, in the case of a bad tooth, will say: "Let's see if stopping will do any good." The second: "Now then, if you're going to have it out sit down." The third drowns the enemy's yells with "Don't make that noise, it doesn't hurt you." "The thoughts of the heart" is another which is itself full of thought. Thoughts are not only of the brain, as physiologists say. "The fact is, the brain is a sort of Æolian instrument of many strings, whereupon the several organs play (notably those of the circulation—the heart), and so David was right." "Special kinds of activity determine character. Thus are we creatures of our own activities, and he who has no special activity will have no character." We have not room for all the passages we should like to quote; but we must select a few to whet our reader's appetite, and make him long for more.

'Why cannot we combine against the continual heaping

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up of unverified hearsay? Ingenious men with large memories connect together various well-meant quotations, until some far-away propositions, uncertainly drawn from uncertain sources, go for the 'progress of medicine.'" (Page 34.)

"Did you ever see a caddis worm? When I was fishing I never could stick a hook into a caddis worm. I never contemplate a caddis worm without a certain feeling of brotherhood. Nature is essentially too satirical in the way she takes off one thing when she designs another. Every one has, by nature, the faculty of picking up bits wherewith to furnish himself according to the grounds he is upon at the time, as the caddis worm dresses herself in scraps of green when she is upon leaves, and in bits of brown when upon the stones.....Most minds are like maggots dressed in scraps, and all that is their own is just the glue the scraps are stuck with.....You mustn't shake the scraps much for fear you see the maggot." (Page 42.)

"With one man faith may be compared to wings supporting him by his own brave effort where there is no ground to stand upon, and with another, faith is as a prehensile tail, such as you see on those monkeys who, holding securely by something they are not obliged to keep in view, have their hands thereby the more free to pick nuts, &c. Let us not think disrespectfully of any; to the born prehensile such a tail is a requisite. We see how needful it may be at the 'Zoo,' and though nature gives the human form no such outward and visible sign of dependence, it may be just the same inwardly with men." (Page 44.)

"I have met the modern scientific and well-read youth, who has studied chemico-physiological lectures upon texture and its vitality until he thinks that the life is nothing more than meat, and read Carlyle's 'Sartor Resartus' until he suspects 'nor the body than raiment,' and who would call the holding of such opinions 'faith,' and then wonder at the enthusiasm faith has aroused in the world." (Page 46.)

"No thought is ever strong and true which does not arouse something into unexpected harmony." (Page 70.)

"It (the present classification of diseases—one a pain in the leg, another a growth in the stomach, and another a spider in the skin) is like trying to mix the solar spectrum and the key of C major with essence of peppermint." (Pape 89.)

"Some day, you know, we shall be historic ourselves; that is, the louder ones amongst us—a chastening thought, when you reflect what sort make the most noise." (Page 125.)

On page 138, treatment without drugs is compared to religion without a creed. "It is very sublime, and suits your inside nature so well that you try it on your friends; but it does not suit them."

"Patients do not drink medicine as medicine. They swallow it as if to Æsculapius, and in the gulp their eyes sparkle with all the old ineffaceable longing for help from the unknown. The time-honoured potion carries with it the undying power of the medicine-gods and medicine-man of fairyland, and of the witches as real as ever." (Page 147.)

A few pages further on the author discusses homœopathy excellently, but we have not space for all the quotations we should like to make.

"The great fallacy of the age is the vulgar fallacy that 'Knowledge is power.' But not all knowledge is power. Only the knowledge you have faith and aim to use is power." (Page 205.)

"The power of knowing is the fruit of knowing, and the power of acting is the fruit of acting." (Page 206.)

"If we follow the biologist through his long story, what does he do towards touching the mystery of genesis, or help us to conceive how a little thing shaped like a frying-pan, and so small that you can scarcely see it with the best microscope, shall carry over the shape of the paternal nose, the colour of his whiskers, and even his mode of thinking, for sixty odd years?" (Page 216.)

"We want less of such biology as takes all purpose out of the universe and aims at professing a theology of high apes.....But Hunter's back was towards all apes, and his face to the future, because he did not make futile biology, but took pains to bring in the knowledge of nature to the help of man." (Page 222.)

From the suggestive essay on "Alcohol and Individuality" we have not space to quote.

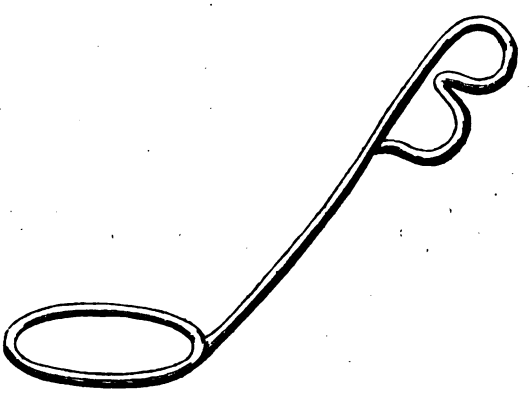
The foregoing quotations sufficiently illustrate our author's aptitude for epigram, love of paradox, and humour. He strikes us as the type of man who generally gravitates to the Bar. Such powers fill the pocket better in the legal profession, but their possessors are not always the better for such a choice, and we are thankful for the choice made by Dr. Moxon. Indeed, the profession can ill spare such men, and to his school his loss must be irreparable.

New Inventions.

A NEW EYE SPECULUM.

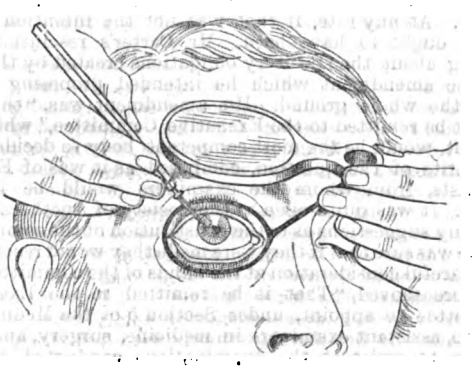
THE ordinary speculums are perfectly efficient in exposing the eyeball, but as they all have some part which enters within the margin of the eyelids, their use is necessarily attended with discomfort to the patient, which in slight operations, such as removal of foreign bodies from the cornea, or puncture of the cornea, is often more than the pain of the operation itself. For such cases the author has used the speculum shown in Fig. 1 for several years, and now brings it under the notice of the profession. It consists of

FIG. 1.



a piece of stout wire bent into an oval ring at one end and a handle at the other, as shown full size in the figure. Fig. 2 shows on a reduced scale the mode of application for removing a foreign body, the operator standing behind the patient's head. The ring is applied outside the lids and near their edges. The lids are then, if necessary, pulled more open by the fingers of the other hand. The pressure of the speculum gives it such a good hold on the skin that

FIG. 2.



even the most intense spasm of the sphincter is powerless to close the eye. The pressure to a great extent fixes the eyeball, and also renders the cornea tense, which is a great advantage, especially in puncturing the cornea. In removing a foreign body it is usual and perfectly easy to hold a magnifier in the same hand as the speculum, but this may be dispensed with if preferred. Messrs. Wood and Co., of York, are the makers.

TEMPEST ANDERSON, M.D.,
Medical Officer, York Eye Institution.

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THE GENERAL COUNCIL OF MEDICAL EDUCATION & REGISTRATION.

FRIDAY, MAY 13TH.

MR. MARSHALL, PRESIDENT, IN THE CHAIR.

MR. CARTER'S motion with reference to the appointment of examiners to the Society of Apothecaries was adopted without further discussion.

In pursuance of the proposal made on the previous day,

MR. CARTER moved the appointment as assistant examiners to the Society of Apothecaries of Messrs. Makins, Walsham, and Andrew Clark, and, referring to the point raised by Mr. McVail as to whether the Council could appoint more examiners than were asked for by the Society, said he thought they could not do so, though he admitted that those who were nominated by the Council would carry with them peculiar authority, and if they were of opinion that examinations were not properly conducted the Council would be able to interfere and make a statement to that effect to the Privy Council. Irrespective of the legal aspects of the question, he would suggest to the Council whether it would not be better simply as a matter of courtesy to afford every assistance that was asked of them. The Society desired that those gentlemen who had been appointed surgical examiners in accordance with the recommendation of the Council should be confirmed in their position, although it was fully recognised that if the Council's nominees were accepted they would be empowered to exercise an influence in excess of that of the ordinary members.

The motion having been seconded by Mr. SIMON,

MR. MACNAMARA remarked that it had been stated by Mr. Carter that it was necessary that the responsibility of examinations should rest entirely with the body which he represented. What, then, became of the Medical Council? The Act of Parliament had cast the responsibility upon the Council, and by its action on the previous day the Council had accepted that responsibility. The Act distinctly stated that it was the duty of the examiners to maintain the standard of efficiency in medicine, surgery, and midwifery, and clearly there ought to be an examiner to report to the Council upon the examinations on the last-mentioned subject. As showing the necessity of this, he might say that, though he considered himself a very good surgeon, he had only delivered two women in the course of his life; how, therefore, could he be expected to sit in judgment on midwifery examinations? Such an official would not exclude the Society's examiners, but co-operate with them. The same observation would apply to examinations in medicine and surgery; in fact, he thought the Council might supplement the Society's Court of Examiners by adding, if necessary, an examiner in connexion with the subjects of surgery, medicine, and midwifery. At any rate, if that was not the intention of the Act it ought to have been. Mr. Carter's resolution said nothing about the statutory obligations created by the Act, but the amendment which he intended proposing would cover the whole ground. His amendment was, "that the subject be remitted to the Executive Committee," which, he thought, would be the most competent body to decide upon the merits of the question, composed as it was of English scientists, from whom the examiners would be largely drawn. It was quite open to the Society of Apothecaries to offer any suggestions as to the constitution of the committee, and he was sure that if they were made they would receive the most careful consideration at the hands of the committee. He therefore moved, "That it be remitted to the Executive Committee to appoint, under Section 5 of the Medical Act of 1886, assistant examiners in medicine, surgery, and midwifery, to assist at the examinations conducted by the Society of Apothecaries in London, and to fix the amount of remuneration to be paid such examiners by the Society of

[illegible] having seconded the amendment,

[illegible]

believed that it should simply provide for a recognised deficiency in the examining powers of the corporation.

SIR WM. TURNER having directed attention to the wording of Sub-section 2 of Section 5 of the Act,

SIR WALTER FOSTER observed that he could not vote for Mr. Carter's resolution because he feared that, if carried, it would in the future place the Council in a dangerous position. Any action that they might now take would become a precedent, and the question before them ought, therefore, to be discussed with great deliberation. He looked upon the Council as the supreme authority for the regulation of medical examinations, and consequently it was not in the power of any of the corporations to dictate the course of procedure which it should adopt. The Council had affirmed by resolution the principle that the Society of Apothecaries was entitled to hold a qualifying examination, but when the latter endeavoured to nominate examiners the effect was to make the Council a body for registering their degrees, and that position could not, of course be accepted. The Act of 1886 regarded the Society as capable of holding an examination, not in surgery, but in medicine and midwifery, and it gave the Council a discretionary power to remedy this deficiency by appointing any number of examiners they thought fit in order to make each body complete in itself. It was not contemplated that the Council was to send to the Apothecaries' Society additional examiners in medicine and midwifery, because those subjects were already admitted to the Register, so that there was no necessity to interfere with what was already declared to be right and proper; all that it was necessary to do was to intervene in connexion with the surgery examination, and make it of such a character as to meet with the approval of the Council. Mr. Macnamara's amendment sought to authorise the appointment of examiners in three subjects, and to that he (Sir Walter Foster) could by no means consent, as it was not contemplated by the Act. He would suggest that in order to enable the Executive Committee to report on the matter further debate should be postponed.

DR. PETTIGREW argued that the Council would not carry out its duties if it simply appointed additional examiners in surgery, seeing that it was their province to maintain the standard of efficiency in medicine, surgery, and midwifery.

MR. MCVAIL, after observing that if such a committee as had been proposed were appointed the difficulty might perhaps be evaded, proceeded to point out that the Act declared that certain universities were still able to hold qualifying examinations, and that if other bodies deficient in such powers were unable to combine with those that were thus privileged they might join with the Council whose examiners would have the power of controlling the examinations. The Council were now in a position to form a union with the Apothecaries' Society exactly as the College of Surgeons might have done had it been so minded. Such examiners, however, would not merely be responsible for surgery, but for medicine and midwifery also, because the Act expressly mentioned that this should be done. It was imperative on the Council to carry out the provisions of the statute, and it was useless to attempt to wriggle out of an obvious duty simply because it might be urged that the Act was badly drawn. Mr. Carter had succeeded in joining his Society with the Council, and he ought to be proud of it, but if his proposals were accepted he would do harm to the institution with which he was connected, and help to render the Act a farce and a sham. He agreed with Sir Walter Foster that it would be better to delay further discussion until they realised their exact position.

MR. CARTER said he was willing to withdraw his motion, but announced that he would vote in favour of the amendment which Sir W. Foster proposed to bring forward in preference to supporting that which Mr. Macnamara had submitted.

SIR W. GULL, after expressing the satisfaction [illegible] being born this side of the Tweed, went on to [illegible] he had not much logic, he possessed some common [illegible] McVail had supplied them with no end of [illegible] all ended in wind. (Laughter.) It had been [illegible] Council that the Society of Apothecaries should [illegible] ying examination, and they were now asked [illegible] Society to carry that examination to the [illegible] the suggestion made by Mr. McVail that [illegible] should appoint examiners in all sorts of [illegible] saying, "Why make your bridge [illegible] The Apothecaries' Society could not examine

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it naturally came to the Medical Council for the necessary powers; but it seemed that if Mr. McVail could have his way he would extend the provisions of the Act to all space and time, even to the controlling of the movements of the heavenly bodies. (Laughter.) With his old friend, Benjamin Disraeli, he (Sir William Gull) could only say, "Thank God we are not governed by logic." (Laughter.) Mr. McVail had said the Council was responsible for the entire examination, although what it simply had to do was to appoint the necessary examiners. Perhaps when he next spoke he would assert that the Council was responsible for the issues of life and death. He (Sir William Gull) should certainly vote for Mr. Carter's motion.

Dr. LEISHMAN heartily supported Mr. Macnamara's amendment, because he was distinctly of opinion that the examiners to be appointed should be responsible to the Council for every detail of the examination.

Dr. HAUGHTON could not vote for the motion, because he was convinced that the Council had power to appoint examiners in midwifery and medicine as well as in surgery.

Dr. HERON WATSON suggested that, in order to avoid further delay, the Council should itself go into committee on the subject. The Apothecaries' Society had asked that certain gentlemen should be appointed, and had thereby exceeded their powers, inasmuch as the Act enabled them only to apply for examiners, and not to nominate them. He understood that the examination fee was six guineas, and he should like to know whether it was sought to have the Society rehabilitated in order to cheapen the process of obtaining a licence in medicine, surgery, and midwifery. The varying prices of diplomas were a melancholy fact, and he thought it would be desirable that the Council should insist upon a levelling up, not only as regarded the fees, but also as to the times of examinations. In conclusion, he said that he should vote for the amendment.

Further debate was at this point discontinued, and the Council adjourned for a short time, having unanimously agreed in the meanwhile, on the motion of Dr. Quain, seconded by Mr. Macnamara, to the adoption of the report of the Pharmacopœia Committee. When the Council reassembled,

Mr. CARTER said he should like to be permitted to withdraw his motion, and the Council having agreed to allow him to do so, Mr. Macnamara's amendment became the substantive motion, but this in turn was withdrawn in favour of Mr. McVail's proposal, to the effect "That a committee be appointed to consider, with such legal assistance as they may require, the number of assistant examiners that should be appointed to the Society of Apothecaries of London, the subjects in which they should respectively examine, and the powers and duties which they may consider the Council should by order prescribe, also as to the remuneration of the assistant examiners, and to report to the Council at its present session."

Sir W. FOSTER then moved, as an amendment, "That pending a full consideration of the best mode of carrying out the resolution of the Council to appoint assistant examiners to the Society of Apothecaries under the provisions of the Medical Act (1886), and subject to further resolutions of the Council under Section 5 of the Act, the Council hereby appoint Messrs. Makins, Walsham, and Andrew Clark as assistant examiners for the Council for one year from July, 1887." He said the matter was a very serious one, but he could not see how during the present session the Council could obtain all the requisite information for its guidance. The Council might be compelled to act in a way not contemplated by the framers of the Act, but before going to that extreme full time was needed for deliberation; whilst it was not unlikely that counsel's opinion would have to be taken and arrangements made to confer with the leading officials of the Privy Council. The gentlemen named in his resolution would be appointed, not at the dictation of the Society, but because they were members of the profession, and had been introduced to the Council as fit and proper persons to conduct the examination. To add these examiners to those on the Society would not in any way prejudge the question, and during the interval legal advice could be obtained as to future procedure.

Dr. QUAIN seconded the amendment on the ground that it would be impossible to go into and present a satisfactory report upon the subject during the current session. To his mind, however, there could not be any difference of opinion as to whether the Council could appoint examiners in all subjects or in only one, and he thought they ought to confine themselves simply to what was asked for—viz., examiners in surgery.

Dr. LEISHMAN suggested the appointment of an examiner in surgery, medicine, and midwifery respectively, instead of three in surgery.

Sir W. FOSTER thought that to do so would prejudge the question, which would not result if his amendment was adopted in its present form, because the gentlemen mentioned therein were simply styled "assistant examiners."

Dr. A. SMITH looked upon the amendment as a mere substitute for Mr. Carter's motion, and he objected to this attempt to obtain by a side wind what had been refused when put in another form. The Council ought to possess complete control of the examinations, but if they were to accept Sir W. Foster's amendment they would find themselves shorn of their power to do so.

Dr. BRUCE was in favour of the amendment. The Society's examination hitherto had been accepted as sufficient, and the body ought not be unnecessarily interfered with; but it was doubtless desirable that its standard of efficiency should be raised, and, having regard to the words of the Act, he thought it was the duty of the Council to supplement the existing board by appointing assistant examiners in surgery, medicine, and midwifery. It was only proposed to continue the present arrangement for a year. Next year the Council could consider the whole question, and see that the examinations were what they should be.

Sir WM. TURNER thought that Mr. McVail's motion, perhaps with some little modification, was the best that could be adopted. He did not at present see his way to a true interpretation of the words of the Act, and an authoritative opinion was wanted upon the subject. For that purpose it would be best to refer the matter to a committee. He could not, however, think that it was the intention of the Legislature to establish anything like a State examination. Sir Walter Foster's amendment appeared to him to be a proposal to shirk the difficulty, at least for a year, and to sanction the existence of the examinations of the Society of Apothecaries precisely as they had been conducted.

Dr. HAUGHTON referred to the answers given by the Attorney-General, the Solicitor-General, and Mr. Muir Mackenzie on the points submitted to them. A question had been raised as to whether, if a university were to give a degree in medicine, another in surgery, and another in midwifery, the holder of them would be entitled to registration. He understood the answer to be in the affirmative: "Such evidence can be either by diploma, or diplomas granted by the combined body, or by a certificate, or in any other manner that the General Council or Branch Council may consider satisfactory." He presumed that the conjoined bodies or universities might send up diplomas or qualifications without a special certificate. The Apothecaries' Company was already qualified to give a diploma in medicine and midwifery; and the Council, in supplying an additional examination in surgery, had placed the Society in the position of a conjoint body, and had not given it the right to conduct a State examination. By the addition of surgery the Society would be able to give three diplomas, the production of which would entitle the holder to be placed upon the Register. He supported Mr. McVail's motion. The authorities in Dublin considered that it was absolutely in the power of the Council to give directions to the Registrar in the sense he had indicated.

Mr. SIMON said the Council would be going beyond its powers in agreeing to the amendment. The Act gave the Council power to appoint additional examiners "from time to time," and the present motion was to appoint them for a limited time only. According to his reading of the Act the duty of the Council was simply to supply a specific deficiency; it had not a general commission to improve the examinations of the licensing bodies except by means of inspectors, and by reporting when necessary to the Privy Council. The two things ought not to be confounded. He supported the amendment of Sir Walter Foster, which simply accepted provisionally the arrangements in force at the Society of Apothecaries for a limited period, and subject to any further resolutions of the Council under Section 5. If there were a reference at all, it ought to be to the Executive Committee.

Dr. DUNCAN supported Sir W. Foster's amendment, but expressed his dissent from most of the speeches that had been delivered in its favour.

Dr. GLOVER said the Medical Council had an awkward habit of postponing its duties. He had himself found in

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private life that however difficult a thing might be to-day, it was still more difficult if put off till to-morrow. That rule applied, he thought, to the present position of the Council. They owed it to themselves and to the Society to settle the business during the present session. If the matter were postponed, the Society of Apothecaries would be living for twelve months in a state of suspended animation. It was due to the Society that the Council should complete its equipment as rapidly as possible.

Mr. CARTER said that on behalf of the Society of Apothecaries he cordially supported the motion of Sir Walter Foster. As to the weekly meetings of examinations, the fees paid, and other matters of the kind, they were all settled by Act of Parliament; but the Society intended, as soon as it was relieved from its present state of suspense, to apply for an Amendment Act so as to bring the arrangements more in harmony with present-day requirements. There was no intention on the part of the Society to dictate to the Council. If the Amendment were adopted, there would be ample time to consider the many difficult problems requiring solution, and the ordinary work of the Society would still be conducted in an uninterrupted manner.

Dr. STRUTHERS said that, as he had foreseen, the letting out of the waters had already begun. Sir Walter Foster's amendment was a very clever and ingenious way of getting out of the difficulty; but it certainly prejudged the question.

Sir W. TURNER said it was the duty of the examiners to take cognisance of medicine, surgery, and midwifery, and he wanted no lawyer's opinion upon the subject. Indeed, the Council had no choice in the matter.

Dr. KIDD called attention to a statement in the report of the visitors that the examiners of the Society of Apothecaries were not bound to examine in any special subject; but undertook the examinations for periods of five weeks. It was, however, generally recognised at the present time that all examinations should be conducted by experts.

Mr. CARTER said that on the recommendation of the Council the system had been altered.

Mr. MCVAIL said that if Sir Walter Foster's amendment were adopted, the Society of Apothecaries in its present state would be perpetuated for another year, and he maintained that the Council had no power to bring about that result. One consequence of it would be that when there was the least difference on the part of any combining body there would be a split up of the whole thing, and more examining bodies would have to be appointed.

On a show of hands being taken for the amendment, 12 voted for it and 14 against. For: Mr. Wheelhouse, Dr. Fergus, Mr. Teale, Dr. Haughton, Mr. Collins, Sir W. Foster, Dr. Pyle, Dr. Quain, Mr. Simon, Dr. Bruce, Mr. Carter, and Dr. Moore. Against: Dr. Struthers, Sir Dyce Duckworth, Sir W. Turner, Dr. Banks, Dr. Pettigrew, Dr. A. Smith, Dr. Leishman, Dr. Tuke, Dr. Heron Watson, Dr. Kidd, Mr. McVail, Dr. Glover, Mr. Macnamara, and Dr. Chambers.

Some discussion took place on a motion for the adjournment of the debate. On a show of hands the motion was negatived, but on the names being taken and the numbers counted it was declared to be carried by a majority of one.

SATURDAY, MAY 14TH.

MR. MARSHALL, PRESIDENT, IN THE CHAIR.

A communication was received, and ordered to be entered on the Minutes, from the London School of Medicine for Women, petitioning the Council that, in the event of their appointing examiners in surgery for the Society of Apothecaries of London, they would urge upon the Society the duty of recognising the School and admitting its students to the benefits of the Society's examinations and licence.

Sir WILLIAM GULL gave notice that he would call attention to the subject at a future sitting of the Council.

The following *ad interim* report was received from the Income and Expenditure Committee:—

The Committee appointed to consider the past income and expenditure of the Council, and to report to the Council whether any, and if so what, diminution can be made in the future expenditure of the Council, and also whether, and in what manner, its income may be increased, make the following *ad interim* report.

The average annual income of the General Council and of the three Branch Councils for the past five years has been as follows:—

General Council ...	£5679 5 0	Scotch Br. Council ...	£1933 0 2
English Br. Council ...	4730 14 3	Irish Branch Council	1276 4 0

The average yearly total income (£8877 14s. 6d.) of all the Councils for the past five years—as set forth in Table A—includes, however, exceptional receipts from the new edition of the Pharmacopœia. If the average yearly amount (£881 6s. 4d.) which has resulted from the sale of Pharmacopœias during the past five years be deducted, the average annual income of the General and three Branch Councils amounts altogether to £7996 8s. 2d.—that is to say, in round numbers to about £8000. The committee are unanimously of opinion that there are at present no available means of increasing the income of the Council. It has been suggested that a registration fee might be charged for medical students, but the committee are unanimously of opinion that this cannot be recommended.

The expenditure of the General Council and of the three Branch Councils during the past five years is set forth in Table B, which shows the annual averages during that period to have been as follows:—

General Council ...	£5679 5 0	Scotch Br. Council ...	£444 9 1
English Br. Council ...	875 19 10	Irish Branch Council	487 2 7

The expenses and balances of receipts of the three Branch Councils for the past five years are set forth separately, in detail, in Table C. It results, therefore, that the annual average of the total income for the past five years of the General Council and of the three Branch Councils—excluding, for purposes of comparison, the exceptional receipts that have, as before stated, arisen in connexion with the Pharmacopœia—amounts to £7996 8s. 6d.; and that the expenditure has been £6789 14s. 8d., thus leaving a yearly balance in favour of income of £1206 13s. 6d. These yearly balances have, from time to time, been invested in Consols by the Branch Councils, thus giving now a total of investments of £38,169 17s. This expenditure will, at the present rate of payment, be increased by the enlargement of the Council: and the increase will probably be to the extent of nearly one-fourth, the proportion in which the number of Council members will be ultimately increased. It becomes thus manifest that if the income and expenditure of the enlarged Council are to be brought into satisfactory relation, and if there are no means available for increasing the income, it will be necessary to reduce the expenditure. Among the items of expenditure, those which are attendant upon the meetings of the General Council have received the serious consideration of the committee, and the committee are of opinion that this expenditure should be reduced. But they defer making any proposal as to the method of effecting such reduction until the report by the Procedure Committee shall have been considered by the Council.

May 12th, 1887. G. M. HUMPHRY, Chairman.

An opinion was read from the Attorney-General, the Solicitor-General, and Mr. Muir Mackenzie, in answer to the following questions:—

(*a*) Whether the sanction of the Council is necessary in order to enable the medical bodies mentioned in the Act of 1886 to combine for the purposes of the examinations therein mentioned; or whether such bodies can combine without the sanction of or reference to the Council. (*b*) If counsel are of opinion that the medical bodies can legally combine without the sanction of the Medical Council, whether the General Council or Branch Councils, through their registrars, can or should require evidence, either from the diploma or diplomas granted by such combined bodies, or from a certificate to accompany such diploma or diplomas, that the person receiving it or them has passed the necessary qualifying examination, and that the examination has been conducted by bodies who have legally combined under the Act of 1886.

The opinion was as follows:—

(*a*) In our opinion, the sanction of the General Council is not necessary in order to enable the medical bodies mentioned in the Medical Act, 1886, to combine for the purposes of the examinations therein mentioned, and such bodies can combine without the sanction of or reference to the General Council. (*b*) In our opinion, the General Council or the Branch Council through their registrars can and should be satisfied that each person who presents himself for registration has passed the necessary qualifying examination, and that the examination has been conducted by bodies who have entered into a valid combination, under the Act of 1886, s. 3. Such evidence can be afforded either by the diploma or diplomas granted by the combined bodies, or by a certificate, or in any other manner that the General Council or Branch Council may consider satisfactory.

R. E. WEBSTER.
EDWARD CLARKE.
The Temple, March 30th, 1887. M. MUIR MACKENZIE.

A letter was read from the Lord President of the Privy Council, together with a copy of an Order in Council of the 25th March last, declaring that Part 2 of the Medical Act of 1886 shall apply to the colony of New Zealand.

Certain regulations were received for the diploma in Public Health of the University of Aberdeen.

A communication was received from the Science and Art Department with reference to the International Conference on Hygiene to be held next September in Vienna, and stating that, should the Medical Council wish to nominate a delegate, the Secretary of State for Foreign Affairs had expressed his readiness to furnish his name to the Austro-Hungarian Government.

The adjourned debate of Mr. McVail's motion with reference to the Society of Apothecaries was resumed.

Mr. SIMON said that the motion as to the appointment of assistant examiners referred to "the subject in which they should respectively examine." He suggested that the words should read "the subjects in which they should respectively or collectively examine." The words proposed by Mr. McVail appeared to prejudge the whole point at issue.

Mr. MCVAIL accepted the proposed modification.

Dr. HAUGHTON moved as an amendment "to omit the words 'a committee be appointed,' and to substitute for them 'the executive committee be requested.'" The Council had passed a resolution affirming the principle that it would supplement the Society of Apothecaries' examination by the appointment of examiners in surgery only. There

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was no power to thrust on the Society an examiner in medicine and midwifery, and if the Council did so he believed that the Society might resist it in a court of law. If the College of Surgeons were under consideration the Council would have to give them supplemental examiners in medicine; and in the same way it had to give the Society of Apothecaries examiners in surgery. The principle of Mr. Carter's resolution had been adopted by a large majority, but the Council appeared to be hopelessly divided on the question of how to carry it out. There was the same confusion among the members of the Council as there would be among the judges of the Court of Queen's Bench if they tried to treat a case of fever. He did not think that any committee would be able to settle the question during the present session. Under all the circumstances, he thought the best course was to refer the question to the Executive Committee, who were accustomed to deal with such matters. He believed that it was beyond the power of the Council to appoint examiners in medicine or midwifery for the Society of Apothecaries, and if it had the power it would be unwise to exercise it.

Mr. MCVAIL said that the Executive Committee was a small body, and he believed that the members of it were all of one way of thinking. He therefore objected to the question being remitted to that committee; a larger committee should be appointed on such an important question.

Dr. HAUGHTON said he did not know who constituted the Executive Committee, or what views they entertained.

Mr. MCVAIL said he had no objection to include in the committee that would be appointed under his motion all the members of the Executive Committee.

Dr. HAUGHTON said that under those circumstances he would withdraw his amendment.

Dr. H. WATSON said he did not approve of the matter being referred to the Executive Committee, and did not desire that it should be relegated to another session. If the Council did nothing more than appoint surgical examiners, he did not think it would incur the opprobrium of setting up a gigantic examining body; but he strongly held the view that the Society of Apothecaries should be aided by the Council by the appointment of such assistant examiners as the Council thought fit, in order to make it an efficient board.

Dr. QUAIN moved an amendment to the effect that it was unnecessary to refer the matter to any committee, and that the Council proceed to comply with the request of the Society of Apothecaries. He said he hoped the Council would not commit itself to so false a step. There was not a shadow of pretence for saying that the Council had any other duty than that of appointing examiners in surgery for the Society of Apothecaries. The Act of Parliament stated that examiners should be appointed to the bodies concerned "on their application," and the Society had only applied for examiners in surgery.

Mr. B. CARTER seconded the amendment. He said he had no sympathy with the imaginary difficulties that had been raised by many speakers. The intention of the Act was clear, although its language was in many respects defective and involved. The great peculiarity of the case of the Society of Apothecaries was that the inability was not a real but only a technical one. They had the examiners, although they had not the statutory right, and he asked the Council to recognise the existing position of things. The direct question which they had to determine had been lost sight of. His willingness to consent to a reference to the Executive Committee arose from the fact that that committee consisted of gentlemen accustomed to transact business expeditiously, and he knew that when they went to the law officers of the Crown the contentions raised about the responsibilities the Council was going to assume would be scattered to the winds. He could not, however, agree to a reference to a committee *ad hoc*.

Mr. SIMON said that if the proposed committee were to take legal advice of a quality sufficient to satisfy every scruple of every member of the Council, the proceedings must occupy considerable time. The opinions of solicitors and attorney-generals could not be obtained in a day. There might be a difficulty in the selection of the members of the committee, and would it not be better that the Council settled the matter itself? He had no right to go back on the amendment which was rejected yesterday afternoon, but it was rejected by an accident, after the Standing Orders had been suspended, and when one or two of those who were in favour of it were absent. Would not the simplest way of dealing with the matter be to invite Mr. Muir Mackenzie to attend and answer any questions that might be put to him? Some of them dissented from the principle of what they were doing, but if his suggestion were adopted they would be able to take part in the consultation, while great embarrassment would arise in the appointment of a committee. If they did it in full Council, with the assistance of the legal adviser, he thought they could not go very wrong, and much time would be saved.

Sir W. TURNER said, although Mr. McVail's motion to a large extent met with his approval, he thought that under the circumstances in which they were placed Mr. Simon's suggestion would better meet the most important of their difficulties. He would ask Dr. Quain to withdraw his amendment and allow Mr. Simon to substitute for it one expressing in terms the suggestion that he had made.

Dr. HERON WATSON considered that the solution of the position suggested by Mr. Simon was really the only possible one. He could not, however, coincide with the proposal to have legal advice. So far as he had seen, the advice which they had of late received from the solicitor and counsel had rather tended to darken judgment than to clear it up.

Dr. QUAIN consented to Sir Wm. Turner's suggestion.

Sir WM. GULL could not see why the Council should not proceed to do their duty. He could see his way clear enough. He had no doubt that it was his duty to help to appoint assistant examiners, and in his opinion it should be done at once. Metaphysics and logic and theory had been indulged in; but the Council had its work to do, and any plain Englishman could in five minutes do all the work which had taken three days.

Dr. DUNCAN said he did not quite agree with the views expressed by any of the previous speakers. The Council had settled that they were to proceed with the appointment of the assistant examiners to the Apothecaries' Society, and the point that was not decided would not be settled by Mr. M'Vail's resolution or by Dr. Quain's amendment. Underlying all other matters was the question whether the Council were to take charge of the entire examination by the Apothecaries, or whether they were merely to do what the Act prescribed--namely, to appoint assistant examiners. When that was settled the whole question would proceed easily. Was the Apothecaries' Society in future to be a mere creature of the Council, or was it to be, as it had hitherto been, a body of independent examiners, with assistants sent to them by the Council? Mr. McVail and his supporters hoped to establish the principle that the Apothecaries' Society should in future exist, not in reality, but merely virtually; that as an examining board it should be a mere creature of the Council, and that the Council itself should examine in all branches through the Apothecaries' Society. No one could read the Medical Act and suppose that that was the intention of the Legislature. The word "assistant" was enough to settle the whole matter. He would suggest another amendment, which would not require legal advice: "That the assistant examiners about to be appointed are to be such as are required by the Apothecaries' Society, with a view to the completion of the board of examiners under the Act of 1886."

Dr. HERON WATSON.--That does not clear up the difficulty.

Mr. MACNAMARA thought the difficulty would be solved if the legal adviser attended at two o'clock next Tuesday.

Dr. Quain's amendment was thereupon withdrawn in favour of the following, moved by Mr. Simon, and seconded by Dr. Quain: "That the Council will on Tuesday next, at two o'clock, consider in committee the steps by which to give effect to its resolution of May 13th for the appointment of assistant examiners to the Society of Apothecaries, and that a request be made to Mr. Muir Mackenzie and Mr. Farrer for their attendance on that occasion."

Mr. M'VAIL said that after discussing the subject for nearly a week the Council had now got into a position of grave legal difficulty, and the time was very short before June 30th. In the interest of the Apothecaries' Society the matter should be quickly settled. It was therefore advisable to refer it to a committee to prepare for the discussion next Tuesday, and to lay before the legal advisers the difficulties which the Council felt, and which they were incapable of settling. Evidently Mr. Simon meant to oppose to the death the views of some members of the Council. By motion after motion obstructing the inquiry he showed that he was determined that his view of the duties of the Council should be carried.

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Mr. SIMON said such personal imputations were contrary to the practice of the Council. He could not more clearly show that he was not pressing any personal view on the Council than by asking that their legal advisers might attend.

Mr. MCVAIL said he did not impute any personal motive to Mr. Simon, who was simply acting according to what he considered his duty, but he opposed the inquiry by amendment after amendment, and was conducting his opposition with a degree of persistency that was unusual in the Council. The opinion of the committee might come before a committee of the whole House, and it was extremely desirable that then the legal advisers should be present. If the Council declined to proceed with the matter until Tuesday, they would either have to sit an absurdly long time, or would have to be called together again before June 30th.

Dr. BANKS heartily supported Mr. Simon's motion, as he considered it the only practicable way of getting out of the difficulty. If the discussion were continued much longer, he thought the power ought to be conferred upon the President, which was exercised in another place, to put a stop to it.

Dr. KIDD thought that the different views might be harmonised. There were certain duties laid down by the statute which Mr. Simon's amendment did not cover. The Council had to fix the time of the examinations, to decide how the standard of education and examination was to be maintained, and to consider the powers and duties to be conferred on them, as well as the remuneration. It would probably meet the views of the Council if the motion ran: "That a committee be appointed to consider, with such legal assistance as they may require, the number of assistant examiners that should be appointed to the Society of Apothecaries of London, the subjects in which they should respectively examine, and the powers and duties which they may consider the Council should by order prescribe, and also as to the remuneration of the assistant examiners, and to report on Tuesday at two o'clock, when the legal adviser should be requested to attend."

Dr. BRUCE said there appeared to be an attempt to put the cart before the horse. The first thing the Council had to do was to make up its own mind. Referring the matter to a committee was a silly proceeding; it was passing away their responsibility to a committee. The right and proper thing to do was to first settle the legal question, and then they might appoint a committee.

Dr. GLOVER wished to ask the older members of the Council if they ever remembered a question of such magnitude being settled without the previous appointment of a Committee to draw up a careful statement, and then to come to the Council with the best basis they could arrive at. With regard to the legal construction, he thought it would be shown that their duty would be limited to the appointment of surgical examiners, but the question would come out in the report of the committee, who would certainly be very much fortified by having a lawyer present at their meeting. He would appeal to Mr. Carter, after the friendly vote of Thursday and the disposition shown by the majority of the Council to treat the Apothecaries with great faithfulness and justice, to give the members credit for wishing as well to the Society as he did himself.

Mr. SIMON said that, to the best of his recollection, there had never been a case of this kind before. There were groups in the Council holding fundamentally different opinions on a point of law, and a settlement could not be arrived at by a Committee. After hearing Mr. Muir Mackenzie's opinion each member of the Council would be able to satisfy himself as to the construction of the law and to put questions to counsel.

Sir W. TURNER said that the presentation of the amendment by Mr. Simon had put the question in a very different aspect, because it now appeared that all parties in the Council were of opinion that additional advice was needed before the matter was dealt with. He did not consider that a special committee was needed. Every member of the Council had the points in dispute clearly in his mind, so that it seemed to him that Mr. Simon's suggestion was the more practical. If it were agreed to, then the Council, before it parted on Tuesday afternoon, would be able to do what they were advised to do.

Dr. STRUTHERS could not agree with Sir W. Turner. He thought the motion and amendment might be worked in together. Besides the point of law, there were a number of other matters to place before counsel, and if that were done, then on Tuesday they might come to a decision.

Mr. MCVAIL said he was willing to adopt Dr. Kidd's amendment if Mr. Simon would do the same.

Mr. SIMON would not consent to this course.

Dr. QUAIN said, in answer to Dr. Glover, that the usual way had been for the President to communicate to the solicitor the question under discussion, and, no doubt, that course would be followed in the present case.

Mr. Simon's amendment was then voted upon, and carried by 21 to 5.

On its being put as a substantive motion,

Dr. KIDD moved the amendment which he had previously referred to.

Dr. PETTIGREW seconded the amendment, but it was lost by 18 to 8.

The PRESIDENT said that he regarded it as his duty, in the present crisis, to prepare a case and a series of questions to be submitted to the lawyers before Tuesday. He congratulated the Council on the failure to carry Mr. McVail's motion, because it had struck him all along that the words "such legal assistance as they may require" involved an exceptional and altogether wrong power. The committee, if appointed, would have been able to go outside the legal advisers of the Council and obtain opinions from Scotland or Ireland.

Mr. MCVAIL.—Certainly.

Mr. SIMON's motion was then agreed to *nem. con.*

The Apothecaries' Hall of Ireland.

Mr. COLLINS moved: "That inasmuch as the King and Queen's College of Physicians and the Royal College of Surgeons in Ireland have declined to comply with the request of the Medical Council of Feb. 16th, 1887, that the Colleges should combine with the Apothecaries' Hall of Ireland for the purpose of holding qualifying examinations in accordance with the provisions of the Medical Act (1886), and the Governor and Court having made application to the Medical Council for the appointment of assistant examiners, the Council do now appoint such examiners accordingly." In doing so he said the Registrar of the College of Physicians had sent him a statement, with the request that he would carefully consider it. He had done so, and he thought there were certain portions of it calculated to produce an erroneous impression upon the members of the Council. The Act of 1791 was "for the more effectually preserving the health of His Majesty's subjects, for erecting an Apothecaries' Hall in the city of Dublin, and regulating the profession of an apothecary throughout the kingdom of Ireland." The members of Parliament who passed it knew very well what the meaning of the word was, but the contention of the College of Physicians of Ireland was that the licence of the Apothecaries' Hall was only a licence in pharmacy. If that had been the intention of the Irish Parliament, the words would have been "for regulating the practice of pharmacy in Ireland." It should be known that the College of Physicians was at that time just as much opposed to the idea that the apothecaries of Ireland should practise medicine as they were at the present time. In one part of their statement it was said that in 1791 there were no apothecaries in Ireland properly so called, but the Act was passed "at the request of the master, wardens, and commonalty of the corporation of apothecaries and other apothecaries of the city of Dublin." Therefore there were apothecaries at that time because the Act was passed at their request. He at once acknowledged that the Hall mixed up trade with profession, and the Irish Parliament and the English Parliament intended that they should do so. There was not a single word in the Act directing the appellant examiners to confine their examinations to materia medica, pharmacy, and chemistry, nor did it preclude them from examinations in the practice of medicine. The legal opinion of Sir Joseph Napier was that no such thing was intended by the Act, and that it would be an anomaly to give the appeal to the College of Physicians without expecting them to examine in the practice of medicine. What made that perfectly certain was this: they had, as a board of examiners, to institute examinations for apprentices, and to give examinations to assistants, and then the final examination for licence to practise as an apothecary. Now an apprentice and an assistant, if three times rejected, had an appeal to the General Council of the Hall, but an apothecary was allowed to appeal to the College of Physicians because they had to examine him to see that he was not unfairly rejected by the examiners of the

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Hall either in pharmacy or in the practice of medicine. The Act left the Hall perfectly at liberty to examine in every subject from time to time. The Apothecaries' Society of London were obliged to have an examination every week, but there was no such limitation in the Irish Act, which left the Hall at liberty to make changes from time to time as circumstances and the progress of knowledge might require. Dr. Kidd had said that the College of Physicians had not declined to comply with the request of the Hall, but in his opinion an offer based on impossible conditions was the same thing as declining. The condition was that the Hall should take some kind of case to the Queen's Bench at Dublin and have it decided at their own expense, for the satisfaction of the College of Surgeons and the College of Physicians, before they were admitted to the conjoint examinations. He had asked Mr. Purcell whether the College of Surgeons could be satisfied in that way—by bringing a sham friendly case into the Queen's Bench; and the answer was that there was no way of doing it until the Hall had an independent position, or until they joined with the College of Surgeons, and then, if the College of Physicians chose to go to law, the question might be brought into court. The efforts to bring about a Conjoint Scheme in Ireland went on for three or four years—from 1871 to 1875. First, the two universities and the three corporations endeavoured to combine; afterwards, the University of Dublin and the three corporate bodies tried to form a Conjoint Scheme; and, finally, the three corporate bodies alone formed such a scheme, but it came to nothing because the two colleges could not agree upon pecuniary matters. It was said that efficient examiners could not be obtained among the existing directors of the Hall; but of the sixteen examiners, only two held the qualification of the Hall alone, six had double qualifications, and seven had triple qualifications. It had been stated that only one of the examiners was a licentiate of the College of Surgeons in Ireland, but there were four. He himself had kept up his knowledge of medical and pharmaceutical chemistry to the present day, and in reality the examiners were all experts. When the visitors from the Council attended at the examinations, the Hall came off just as well in the reports as any of the other bodies that were visited. Of course some fault was found, but not more than was found with the College of Physicians, and Dr. Gairdner was astonished at the admirable examination in hygiene. The Hall, too, was complimented by the visitors on the examination in midwifery.

Four o'clock having arrived, the debate was adjourned.

MONDAY, MAY 16TH.

MR. JOHN MARSHALL, PRESIDENT, IN THE CHAIR.

On the motion of Mr. WHEELHOUSE, seconded by Dr. STRUTHERS, a communication from the Parliamentary Bills Committee of the British Medical Association, requesting the attention of the Council to the provisions of the Pharmacy Acts Amendment Bill, was received and entered on the Minutes.

The Practical Education Committee, which was appointed (1) to consider the best methods of increasing the practical element in medical education, as by a system of limited pupilage with a registered practitioner, and (2) by insistence on more clinical, therapeutical, and pathological teaching and work in medical schools, now reported that it had had under its consideration the large proportion of rejections at the final examinations of many of the medical authorities, together with other facts which seemed to show a deficiency in the knowledge of practical subjects on the part of candidates. It was of opinion that such deficiency was, primarily at least, the concern of the medical authorities, and that they were best able to make such changes in their curriculum and examinations as would effect the improvements to be desired in medical teaching. On the question of pupilage, the committee was of opinion that, in some way, the advantage to be derived from personal instruction was of too great value to be altogether sacrificed, and suggested that a period of not less than six months should be spent in personal pupilage—not necessarily six consecutive months, but six in all; that personal pupilage should imply not only the study of the routine of medical life and its accessories, but also, at some period of its duration, the responsible charge of patients under efficient supervision. They also recommended that the six months should be taken during the long vacation, and after the examinations in anatomy and physiology had been passed. On the subject of school and hospital study, the committee drew attention to a resolution which had already been before it, and which stood recorded in its Minutes—viz.:

"That it be a recommendation to the licensing bodies that in admitting candidates to professional examinations care be taken that attendance on courses of study prescribed for any second professional examination shall qualify only if made *after* the first examination has been passed, and generally that attendance prescribed for any subsequent examination must be made after passing the immediately preceding examination."

In conclusion, the committee offered the following suggestions:—

1. That the Council, with a view to increasing the practical elements in medical education, should circulate a recommendation to the examining bodies to make the practical part of examination in medicine, surgery, and midwifery more extended and more searching than it has hitherto been, so that it may form a surer guarantee of the possession by the candidate of the required skill for the safe practice of the above-named arts. 2. That it be a recommendation to the examining bodies, in their clinical examinations, to give more prominence to the recognition and treatment of common diseases; and to facilitate the extension and searching power of these examinations, the "final" or qualifying examination should be divided into two parts, of which the ultimate should consist mainly of clinical work and the personal application of diagnosis, prognosis, and treatment to set cases, leaving to the penultimate the testing of the knowledge possessed by the candidate of the other subjects contained in the curriculum of school work. 3. That it be also recommended that there should be an interval of at least twelve months between the two parts of the final examination, and that this interval should be passed in such occupations as will involve the charge of patients under the supervision of competent persons recognised by the authorities of the school at which the candidate has been educated, which authorities should be responsible for the genuineness of the evidence afforded of the candidate's diligence and care of such number of cases of medicine, surgery, and midwifery as the examining body shall deem expedient.

On the motion of Mr. WHEELHOUSE, seconded by Dr. STRUTHERS, the report was received and entered on the Minutes.

The report of the Procedure Committee, appointed "to consider under what rules of meeting and procedure, and with what appointment and authorisation of standing committees and subcommittees, the Council may best provide for the regular, effective, and economical discharge of its statutory duties, the committee to report to the Council at its next meeting, and to propose for consideration of the Council the draft of any new Standing Orders which it may deem desirable," was received and entered on the Minutes.

Visitation and Inspection of Examinations.

The Council having referred to the Executive Committee the arrangements to be made in regard to inspectors of examinations, the committee now presented an interim report stating that it had passed the following resolutions:—

(*a*) "That it be an instruction to the inspectors on the present occasion that they give special attention to the quality of the practical examinations, and to the sufficiency of the means and appliances which are in use in them for testing the qualifications of candidates." (*b*) "That each inspector, within the period of twelve months from the date of his commission, inspect, as regards his subject matter, the qualifying examinations of all the licensing bodies, and report thereon to the Council."

Adjourned debate on the application of the Apothecaries' Hall of Ireland.

Mr. COLLINS, in continuing his address in support of his motion, proceeded to deal with the contention of the King and Queen's College of Physicians that the Apothecaries' Hall had no legal status beyond the appointment of pharmacists, referred to various Acts of Parliament passed during the last century, in which apothecaries were appointed in the same category as physicians and surgeons to attend the county gaols. The present Apothecaries' Act was passed by the Irish Legislature in 1791, and contained provisions for the education and examination of apprentices, assistants and licentiate apothecaries. To show the kind of education given, he stated that when he passed the Hall in 1826 he was examined in Greek, Latin, and English, the subjects being the first two books of Sallust, the first six books of the Æneid, and the first two books of Homer. Having passed that examination, he was bound to an apothecary, and after a certain time, wishing to become an assistant, had to undergo an examination in materia medica, chemistry, and pharmacy. Acts of Parliament passed in 1817 and 1823 stated that persons might be admitted into hospitals on the certificate of a certified apothecary or surgeon, and defined the term "medical officer," as meaning a physician, surgeon, or apothecary. By an Act of 1841 the certificates of two "apothecaries" were made equally valid with those of two physicians or surgeons with reference to the reception or detention of any person in a lunatic asylum; and by a

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second Act it was provided that no ship carrying a certain number of passengers was to proceed on a voyage without having on board a "physician, surgeon, or apothecary." He contended that the Apothecaries' Hall had fulfilled its duties, and had given its licentiates such an education and examination as would fit them, in some respects at all events, for the important positions they had to occupy, and for the practice of medicine as well as pharmacy. He referred to the hostility which the Hall had met with from the College of Physicians, although he was not aware that it had done anything to provoke it. Since 1791 it had licensed about 4000 practitioners and was still in a state of vitality, yet the Medical Act of 1886 placed all the various bodies in a new position. The Apothecaries' Hall must come up to that position and undertake the responsibilities, and his colleagues were fully prepared to do so. It was a mistake to say that there were only 387 licentiates of the Hall, for at the present time there were between 900 and 1000 in Ireland. If there were only 800, that would be one-third of the medical practitioners of Ireland, and till 1851 the majority of the practitioners in Ireland were licentiates of the Apothecaries' Hall. They were recognised as medical practitioners not only by the old Acts, but also by the Act of 1858 and the Act of 1886. He relied on the justice of Englishmen, Scotchmen, and Irishmen to aid the Apothecaries' Hall.

Dr. BRUCE seconded the motion. The Council, he said, had recognised the English Society, and in all fairness they ought to recognise the Irish Apothecaries' Hall.

Mr. TEALE felt that the Council had no other course open to it than to accede to Mr. Collins' motion. As they had decided in favour of the Apothecaries' Society of London, he did not see how they could refuse the request of the Apothecaries' Hall of Ireland. By the Act of 1858 they had been obliged to register the licentiates of the Hall, and that arrangement was not disturbed by the Act of 1886.

Dr. STRUTHERS had no objection to offer to admitting the Dublin Society of Apothecaries to the same privileges as the London Society. Still, it must be remembered that the Council were threatened with an action at law by the Dublin College of Physicians. Opinions had been obtained in Ireland in favour of both sides of the question. The College of Physicians contended that the Apothecaries' Hall had no legal power to grant a licence to practise medicine; and the opinion of counsel was "that the Apothecaries' Hall has no power to grant a diploma or licence to practise medicine." On the other hand, Mr. Purcell, Q.C., said: "I am clearly of opinion that the General Medical Council has no power to exclude the holders of such diploma from registration." He would therefore move—"That, inasmuch as a legal question has been raised by the King and Queen's College of Physicians in Ireland as to the right of the Apothecaries' Hall of Ireland to have assistant examiners appointed for them, to enable them to separately hold qualifying examinations within the meaning of the Medical Act (1886), or to enter into a combination with the Royal College of Surgeons of Ireland for that purpose, the General Medical Council decline to appoint assistant examiners for the Apothecaries' Hall unless directed to do so by the Privy Council."

Dr. DUNCAN inquired whether the licentiates of the Society of Apothecaries were refused admittance to the army, the navy, or the Poor-law boards of Ireland.

Mr. COLLINS said they were not. The licences were recognised as a qualification in medicine.

Dr. A. SMITH said that the mere licence of the Society of Apothecaries was not held to be sufficient.

Mr. COLLINS said it of course required a surgical qualification, just as did the licence of the College of Physicians. Both were in the same position.

Dr. KIDD seconded the amendment. The best solution of the question would have been to admit the Society of Apothecaries into the combination, but the question had now entered on a new phase. The College of Physicians had threatened to bring the Council before a court of law if it granted assistant examiners or registered men qualified by the College of Surgeons and the Society of Apothecaries. It was necessary, therefore, to obtain a legal decision on the subject, and that could be done by an appeal to the Privy Council. There was really no analogy between the English and the Irish Societies. The Society of Apothecaries were distinctly directed by the Act to examine in medicine, but no such direction was given to the Apothecaries' Hall of Ireland, the preamble of whose Act distinctly defined their duties as compounders of medicine. The question now was whether the Hall came within the definitions of the Act of 1886. In the opinion of Lord O'Hagan and Mr. Justice Lawson the Apothecaries' Company were not entitled to grant a diploma in medicine, and if so they could not combine with a surgical corporation. It was necessary for them to prove their title, and the amendment afforded them the opportunity of doing so by an appeal to the Privy Council. The College of Surgeons had expressed their willingness to combine if the Apothecaries' Hall had the power to enter into a combination, and if the Privy Council decided that they had that power the Medical Council would be relieved from the difficulty as to the question of examiners. The point in dispute was a legal one, and ought to be decided by a court of law.

Mr. SIMON said that the Privy Council, in the sense of Dr. Struthers's proposal, was not a court of law, but a branch of the executive government. The Act of 1858 enacted that a person holding the licence of the Apothecaries' Hall was a qualified practitioner. The Council could not legally refuse the application of the Hall.

Dr. LEISHMAN thought it would be beneath the dignity of the Council to be influenced by the threat of the King and Queen's College of Physicians. He frankly owned that he considered it a mistake that the Act of last year did not extinguish the London Society of Apothecaries, and the same observation would apply with still greater emphasis to the Irish Apothecaries' Hall. There could not, however, be any doubt that the Apothecaries' Hall was a medical corporation, and the Council therefore had no right to refuse their request, particularly after the decision that had been come to with regard to the London Society of Apothecaries.

Mr. MCVAIL said it was beyond dispute that the Act of 1858 made the licentiates of the Dublin Society of Apothecaries medical practitioners. The Society was therefore a medical corporation, and he could not see any ground for doubting what was the duty of the Council in this case.

Dr. BANKS could not vote for giving examiners to the Apothecaries' Hall until the legal question was decided in their favour.

On the motion of Mr. MACNAMARA the debate was adjourned.

TUESDAY, MAY 17TH.

MR. JOHN MARSHALL, PRESIDENT, IN THE CHAIR.

The Council at once resolved itself into committee, and strangers were requested to withdraw.

On the readmission of the public,

Mr. MACNAMARA resumed the debate on the request of the Apothecaries' Hall of Ireland. The case, he said, was not on all fours with that of the English Apothecaries' Society. That Society's Act clearly laid it down that they should examine in medicine, but no such words were to be found in the Acts relating to the Irish Hall. That Hall simply had to examine as to the knowledge of the candidates of the art and mystery of an apothecary. Neither was the case on all fours with the decision come to by the Council in 1863. At that time the Council's decision was final, and there was no appeal; but now there was an appeal. The Council was not only a Council of Education, but was also a Council of Registration, and they were now placed in the position of having to say whether they would or would not set up a body capable of conferring registrable qualifications. At present there were in Dublin two universities—one requiring a complete course of arts, and the other requiring a most satisfactory general education. There were also the Royal Colleges of Physicians and Surgeons, who were prepared to qualify for the Medical Register. The Council was now asked to set up a fourth body in that city. He knew that it would be most destructive to education in Ireland to give the Apothecaries' Hall the power of granting the qualification in medicine. It was not a question of corporate jealousy or a battle of the shops, but the opinion of the profession in Ireland had been deliberately pronounced upon the subject. In 1881 the Irish Medical Association, which included all ranks of the profession, stated before the Medical Acts Commission that the Apothecaries' Hall of Ireland could not be considered anything more than a body for the licensing of pharmaceutists, and that it had no more claim than the Pharmaceutical Society to be represented at the General Medical Council. It was a trading company, and was now so diminished in importance

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as not to be entitled to the privilege asked for it. Mr. Collins had said that in several claims for joint examination the Apothecaries' Society was included, but that was antecedent to the year 1879, from which date onwards the Colleges had steadily refused to have anything to do with the Apothecaries' Society. It might be true that the public services recognised the qualifications of the Apothecaries' Hall, but they also recognised non-registrable qualifications such as the licence of the Coombe Lying-in Hospital and the Rotundo, and those hospitals might as well call upon the Council to recognise and register their qualifications in midwifery as the Apothecaries' Hall might call upon them to register its qualification in medicine. Mr. Collins had argued that the licentiates of the Apothecaries' Hall were of great value as general practitioners because they were enabled to supply medicine to their patients; but the licentiates of the College of Physicians were not interdicted from supplying medicine, though they were from keeping an open shop for the sale of medicines. The pharmaceutical chemists had entirely taken the place of the apothecaries in Ireland. The Council, before conferring the powers sought for, should see that there was an urgent necessity for doing so, especially when they bore in mind that their decision was not the final one. For these reasons he supported Dr. Struthers' amendment.

Dr. QUAIN said that, inasmuch as Parliament had recognised the Apothecaries' Hall as one of the examining bodies, the Council must do the same or be prepared to take the responsibility of refusing, for the Privy Council would be guided by law, and not by sentiment.

Sir W. FOSTER said that the question now before the Council was one of dry law, and not of sentiment. The principle had already been practically decided. He acknowledged that the Irish Society stood on a different footing from the English Society, but still it was a body which had the power to put a man on the Register, and it was not the province of the Council to deprive them of it. As the Hall had not been able to combine with other bodies, it was the duty of the Council to fill up the deficiency by appointing examiners. He considered that the case made out was strong enough to induce a majority of the Council to comply with the request.

Sir WM. GULL stated that he should exercise his discretion, and vote against granting the demand of the Apothecaries' Society.

Sir DYCE DUCKWORTH also expressed his intention of voting against the application.

Dr. HUMPHRY said there was no question of setting up a new examining body. The Apothecaries' Hall existed as the examining body under as good authority as any in the United Kingdom, and since the passing of the Act of 1858 it held a legal position on a par with all other licensing bodies in the country. By that act its licentiates were to be entered on the Register, and whoever was on the Register was a qualified practitioner in medicine and surgery. In his opinion there could not be any legal doubt as to the duty of the Council, and what had been done in regard to the English Apothecaries' Society should also be done in regard to the Irish Society.

The amendment was then put to the vote and lost by 21 to 8, after which Mr. Collins' motion was carried by 21 to 8.

A motion by Mr. B. CARTER, seconded by Mr. SIMON, was agreed to: "That the assistant examiners to be appointed for the Apothecaries' Society of London be examiners in surgery."

Mr. B. CARTER moved, "That these assistant-examiners be three in number."

Mr. SIMON seconded the motion.

Mr. MCVAIL objected to the motion, because no intimation whatever had been given of the number of students to be examined, or any information as to the mode of carrying out the examination.

Mr. SIMON said that for two years the Society had found that three examiners were sufficient.

Dr. M. DUNCAN asked what was the number of candidates.

Mr. B. CARTER said there were 250 annually, and the examinations were held weekly.

Mr. MCVAIL said that the Council were suddenly asked, without any information of a definite kind, to determine on the number of examiners. In his opinion three surgical examiners would not be sufficient for 250 candidates; and before arriving at a decision he wished for information with regard to the examinations—how the written examinations were conducted, whether there were any clinical examinations and who conducted them, and were the same three men to carry out the written, the oral, the clinical, and the operative examinations? It might be said that the average number of candidates was only five per week, but it would be a marvellous circumstance if that were the uniform principle throughout the year. Under these circumstances he would move as an amendment, "That the Council, instead of proceeding to adopt this motion, postpone action until it has received information regarding the methods of carrying out the details of the examinations, written, oral, clinical, and operative, and the numbers of students on the different days of examination throughout the year."

Dr. KIDD seconded the amendment, considering that the number three was either too many or too few.

Dr. BRUCE said that the Council, through its inspectors, would learn how the examinations were conducted, and until their report was received it would be prudent not to interfere too much with the Apothecaries' Society.

Sir W. FOSTER considered that the whole discussion arose from the fault of those who persisted in defeating his amendment on Friday last, when he asked the Council to wait for twelve months in order to give the Apothecaries' Society time to equip itself as a body capable of giving a complete qualification. In his opinion three examiners were sufficient to examine five candidates per week, and he hoped that the Council would carry the resolutions it had previously passed to their logical conclusion.

Dr. STRUTHERS said the recommendations required that two examiners should be present at every examination, but he would offer no further opposition to the Apothecaries' Society getting whatever they wanted.

Dr. HERON WATSON said, as the Council was about to establish a precedent, they should carefully consider the wise and prudent course to adopt under the circumstances. It would be very heavy labour for three examiners to deal with 250 or 300 candidates in the year. The number was too few to invest the written examinations with a sufficient degree of variety, and those gentlemen who prepared students for examination would soon become acquainted with the style of questions, so that the surgical part of the examination might come to be regarded as a matter about which the students need not distress themselves.

Mr. BRUDENELL CARTER said that during the last five years the Society had passed an average of 250 men annually. It was quite impossible to foresee what number of students would present themselves, or in what proportion medical students would be attracted from them by the conjoint examination of the Royal Colleges. This being the case, his proposition was merely this—that, inasmuch as for the last three years the surgical part of the examination had been conducted by gentlemen of the highest character and ability, who had not found themselves overworked for the present for the space of a year, it should remain *in statu quo*, though probably the examiners would feel it necessary to widen the field of examination, and if possible to conduct it with greater strictness than had been found necessary when the surgery was a mere accidental appendage with the qualification the Society was able to give. If the number of candidates increased, no doubt the Society would ask for a further addition to its strength, but at present such a step would be premature.

The amendment was negatived by 21 votes to 5.

The motion was then put and carried.

Mr. CARTER moved, "That each of these assistant examiners be paid an annual stipend of £100."

Mr. SIMON seconded the motion.

Mr. MCVAIL said the idea that 250 students were to be examined in surgery for £300 reduced the whole thing to an absurdity. Was it supposed that men would be found capable of doing the work who would give themselves up to it for that pay. Such a proceeding would make the whole examinations a sham. He moved, as an amendment, "That the question of remuneration be postponed."

Sir W. GULL thought that £100 was not such a despicable sum. He objected to bringing the matter down to one of trade measurement. There was a question of honour in the matter. It was an honourable position that a surgeon should be responsible for surgical knowledge, and in such a case the honour was to be looked at, and not the mere money reward. It was going on very unprofessional ground to say that it would be a sham to get men to examine for £100 a year in surgery.

Dr. STRUTHERS, from the Scotch point of view, thought the proposal a very handsome one.

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Dr. HAUGHTON said that at Trinity College some of the surgical examiners were not paid at all, but those who were paid received on an average £1 a head. He therefore considered £300 for examining 250 candidates very fair remuneration. He entirely concurred with Sir Wm. Gull's idea. It was not requiring surgeons to turn out machines as they would steam-engines, but there was also the honour of the position to be considered, which would be worth more to the man than the sum he received.

MR. CARTER said it was the intention of the Apothecaries' Society to apply to Parliament for power to increase its fees. They felt that that which might be an adequate payment for a licence in one part of the profession was inadequate for a licence in all parts of the profession, and that the examinations must necessarily be more expensive. When that was done, then the payment to the examiners might be increased; in the meanwhile he hoped the existing arrangement would be permitted to stand.

The amendment not being seconded, the motion was put to the Council and carried by 20 votes to 1.

It was moved by Mr. CARTER, seconded by Mr. SIMON, and agreed to: "That, for a term of one year, from July 1st next, and subject to the orders of the Council, Messrs. Makins, Walsham, and Andrew Clark be appointed by the Council to be surgical examiners to assist the Apothecaries' Society of London in its conduct of its qualifying examinations."

Sir WM. GULL said a communication had been received from the London School of Medicine for Women, petitioning the Council that, in the event of their appointing examiners in surgery for the Society of Apothecaries of London, they would urge upon the Society the duty of recognising that school and admitting its students to the benefits of the Society's examinations and licence. He should be sorry if the application was passed over in silence. They could not do what they were requested, but he thought it would be right to pass a motion such as he had prepared—viz.: "That although the General Medical Council has no power to urge the duty of examining candidates, male or female, upon any examining body, and therefore cannot do more than receive the communication from the London School of Medicine for Women (Minutes, vol. 24, pp. 214-215), the Council are not unwilling to express the hope that examining bodies may, if within their powers, find it desirable to admit women on equal terms with men to the privilege of examination." He had no particular interest in the education of women, and had resisted it as long as he could in the University of London. But they had now come to the time when further resistance would be faction.

Dr. BANKS seconded the motion, and pointed out that, although women were not wanted as doctors in England, there was a very large opening for them in India.

Dr. QUAIN objected to the Council being asked to appeal to the Colleges with the knowledge that that appeal would certainly be refused. They had had a very recent lesson in that respect in regard to the appeal of the Apothecaries' Society to be admitted to the conjoint scheme. He moved the "previous question."

Mr. SIMON seconded the "previous question," which was put to the Council, and carried.

The Council then adjourned.

WEDNESDAY, MAY 18TH.

MR. JOHN MARSHALL, PRESIDENT, IN THE CHAIR.

Nearly the whole afternoon was occupied in appointing committees and arranging rules of procedure.

On the motion of Mr. Wheelhouse, seconded by Dr. Struthers, the Executive Committee was empowered to take the necessary steps for carrying into effect the clauses of the Medical Act (1886) relating to the registration of the diplomas of colonial and foreign practitioners.

A communication from the Parliamentary Bills Committee of the British Medical Association, relating to provisions of the Pharmacy Acts Amendment Bill, was referred to the Executive Committee.

Mr. MACNAMARA proposed: "That in compliance with the request contained in the last paragraph of the communication from the Science and Art Department, dated April 30th, 1887 (Minutes, vol. xxiv., pp. 229-230), the names of the medical bodies which have authority to give registrable diplomas or certificates for proficiency in Sanitary Science, Public Health, or State Medicine, be returned to the Science and Art Department as being 'genuine sanitary authorities,' which might wish to send delegates to the International Congress on Hygiene."

Dr. HERON WATSON seconded the motion.

Sir DYCE DUCKWORTH said that so far as the College of Physicians was concerned they refused to send delegates to such congresses because the Government would not pay the expenses.

Dr. GLOVER thought that the Council might itself send a direct representative.

The PRESIDENT said that any gentleman so sent would have to pay his own expenses.

The resolution was agreed to.

The Council then resolved itself into committee to consider the report of the Procedure Committee, and resolutions were passed to the following effect: That the Council should meet each year on the fourth Tuesday in May, and, if necessary, again on the fourth Tuesday of November, unless the President for reasons of public emergency should think otherwise; but other matters may be called on a written requisition signed by eight members and addressed to the President. That the Executive Committee should consist of eight instead of six members, four for England, two for Scotland, and two for Ireland, five being a quorum; and four meetings be held in the year on the Mondays before the fourth Tuesday in February, May, July, and November. Two new standing committees are to be appointed, the Education Committee and the Examinations Committee, each of which should consist of nine members, three for each division of the kingdom, to be annually elected on the nomination of the Branch Councils at the May meeting of the Council. It was also resolved that all the committees should be appointed annually at the meetings in May.

The Council having resumed, the resolutions passed in committee were agreed to, and to the Executive Committee was delegated the task of revising the Standing Orders, so as to bring them into harmony with the resolutions of the Council.

Mr. MACNAMARA hoped that the Council would before the present session terminated appoint visitors to the examinations, as he expected that in July examinations under the Conjoint Scheme between the Royal Colleges of Ireland would be held.

On the motion of Sir WM. TURNER, seconded by Dr. HAUGHTON, it was resolved, "That the General Council instruct the Branch Registrars to register, after the appointed day prescribed by the Medical Act (1886), graduates of universities who have passed a qualifying examination in medicine, surgery, and midwifery, either on the production of a diploma or diplomas in respect of medicine and surgery, or on the production of an authorised list of such graduates, duly certified by the University."

The Council then adjourned.

(*For continuation of Report see p. 1056.*)

"PLACENTA PRÆVIA."

To the Editors of THE LANCET.

SIRS,—Last year I recorded in your pages a case of entire placenta prævia which eventuated most happily to mother and child through the careful temporising measures adopted. That case was the last of four occurring in my obstetric practice during the last thirty years. I was, however, much struck by the perusal of your late article on this subject, and the aphorism you summed up the *pros* and *cons* with, and resolved, the next opportunity, to personally test its value. Strange to say, that chance was afforded me on the evening of May 5th. Mrs. W——, of this parish, was found on the floor in a state of collapse from very profuse hæmorrhage. This hæmorrhage had occurred at short intervals, but sparingly for three weeks. This, however, had not alarmed her or her friends much until this utter collapse occurred. I learned that she was about eight months pregnant. After giving some brandy and beef-tea and medical restoratives, I sent for my son (in practice about eight miles off at Sherringham), and whilst I gave the patient the A.C.E. mixture, he introduced his hand within the os uteri, detaching all the placenta adjacent thereto, pushing the rest to one side, and thus, after rupturing the membranes, placing the head *in situ*. Labour was rapid, and was expedited with short forceps. The child was dead, but the mother has done well.

I am, Sirs, yours faithfully,

Cley-next-Sea, Norfolk. W. SUMPTER, M.D.

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THE LANCET.

LONDON: SATURDAY, MAY 21, 1887.

IN the second edition of our issue of last week, we were able to announce that the General Medical Council had determined by a large majority to consent to the application of the Society of Apothecaries for the appointment of assistant examiners to enable the Society to hold "qualifying examinations" in medicine, surgery, and midwifery. This decision will meet with the warm approval of the profession. Such opposition to it as was based upon the unwillingness to create multiple examining bodies had our cordial sympathy, for we have throughout recognised the disadvantages attending upon the existence of more than one licensing authority in London. There were, however, other considerations involved, and the Council have doubtless properly appreciated the obligations imposed upon them by the Legislature in complying with the request of the Apothecaries' Society, who, through no fault of their own, had been unable to combine with the other corporations. The Council, having arrived at this conclusion, encountered great difficulty in determining the steps which should be taken to give effect to the resolution they had already adopted. The whole question of the Council's position with reference to licensing examinations was raised, and it was held by some members that the responsibility which the Council was about to incur necessitated the appointment of assistant examiners in every branch of professional education. Motions were followed by amendments, which in their turn became substantive motions, again to be rejected by subsequent amendments which were proposed. The questions at issue were undoubtedly of extreme importance, and it is well that each aspect which they presented should be duly considered, but the conduct of the discussion, and the time which it occupied, gave but too clear evidence of the widest differences of opinion amongst the members of the Council. The question is certainly complex, and the Act is so drawn as to enable an interpretation to be put upon it which leaves room for doubt as to whether the Council have been well advised in the course they have adopted. The Medical Act of last year deals with two separate and distinct subjects. In the first instance a qualifying examination is defined as an examination in medicine, surgery, and midwifery for the purpose of granting a diploma, and this examination may be conducted by any corporation already possessing this right, or by a combination of two corporations, one of which is capable of granting a diploma in surgery, and the other of granting a diploma in medicine. Further, the Act puts upon the Medical Council the duty of maintaining the standard of proficiency required from candidates, and for this purpose empowers them to appoint inspectors of examination, who will make reports to be used subsequently for compelling the examining bodies to improve their method or for depriving them of their rights. When, however, any corporation is unable to enter into a combination for the purpose of holding a qualifying examination, notwithstanding that it has used its best endeavours, an entirely different course is adop General Medical Council are then authorised to ap examiners to assist at the examinations which are held by such corporation, and it becomes the duty of the assistant examiners to secure at these examinations the maintenance of such standard of proficiency in medicine, surgery, and midwifery, instead of the inspectors, whose services appear by the wording of the Act to be limited to watching the qualifying examinations conducted by the bodies mentioned in Section 3. It is therefore not an unreasonable contention of Mr. MCVAIL that the Council under these circumstances should take part in examination in the three subjects. The Council have, however, determined to limit their action to supplementing the wants of the Society of Apothecaries by the appointment of examiners in surgery only, and, whatever may be the intention of the Act, it is undoubtedly wise to interfere as little as possible at this mement in the Society's examinations. It may, indeed, be anticipated that the Society will wholly rearrange its examinations, and will strengthen its staff by the addition of men competent to deal with the various subjects. Should it fail to maintain a sufficient standard, the course of the Council is obvious; but interference in anticipation of failure would lessen the prospect that the Council and Society may usefully be employed together to the advantage of the profession.

Of other work which has engaged the attention of the Council may be mentioned the report of the committee on Dr. GLOVER'S proposals for amendment of medical education and the application of the Apothecaries' Hall of Ireland for the appointment of assistant examiners by the Council. To the former we shall hope to refer later; of the latter it may be said that there was no material difference between the position of the Irish and English Societies. The Council have, indeed, taken this view, and have agreed to comply with the application of the Apothecaries' Hall.

With reference to our remarks last week regarding the higher qualifications of the Universities and the Colleges, it is interesting to note that the Council resolved to "instruct the Branch Registrars to register, after the appointed day prescribed by the Medical Act (1886), graduates of universities who have passed a qualifying examination in medicine, surgery, and midwifery, either on the production of a diploma or diplomas in respect of medicine and surgery, or on the production of an authorised list of such graduates, duly certified by the University."

LAST week we published an account of two cases of Thomsen's disease, with remarks on the nature of the affection by Dr. BUZZARD. An interesting paper by Dr. JACOBY on the same malady is contained in the March number of the *Journal of Nervous and Mental Disease*. The disease is undoubtedly rare, and far more common in some countries—Germany and Scandinavia—than in others, though it is possible that slight cases may be of not unfrequent occurrence, and, not being very obtrusive, may have escaped the attention of the medical profession. So far as is known, Dr. BUZZARD'S are the first cases of the kind that have been seen in England. ERB has given a very thorough account of the disease in a monograph

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published at Leipzig last year, and entitled "Die Thomsensche Krankheit" (Myotonia congenita). Good summaries of all the literature have been given in *Brain* in 1883 by Dr. PAUL CHAPMAN, and in 1886 by Dr. HALE WHITE. But for all this literary abundance, our actual knowledge of the true nature of the disease remains obscure, and though most authorities are inclined to regard the conditions as dependent entirely on muscular change, yet this view cannot be said to be altogether satisfactory. Tonic spasm catching the voluntary muscles as they are about to be put into action is the most characteristic symptom. The spasm may prevent altogether, or interfere but slightly with, the voluntary action; there appear to be all shades of difficulty of voluntary movement. But one point comes out very clearly, and that is that the spasm subsides after a variable period measured sometimes by seconds and sometimes by minutes, and then no further hindrance exists to voluntary movement until after a period of actual repose. The patient will have a difficulty in starting the pedals of a bicycle, but once he has thoroughly begun he may continue for hours without experiencing any impediment to the "paddling" action. Let him but stop for one brief rest, and the spasm will recommence with his fresh attempt at action.

According to most authorities the disease is necessarily congenital and hereditary, though it may not be manifested till very early youth, and generally is not very pronounced till adult life. In JACOBY'S case and in others the evidence of heredity was wanting. The muscles themselves are apparently splendidly developed, but there does not appear to be any actual increase of strength, so that though pseudo-hypertrophic paralysis may be suggested by the size of the muscles, yet the possession of fair strength and the retention in the vast majority of cases of the knee jerks are features sufficiently striking in contrast. Changes have been detected in the muscles in Thomsen's disease, and chiefly in the direction of great enlargement of the muscular fibres themselves, together with increase in the number of nuclei beneath the sarcolemma; and some assert that the connective tissue (perimysium of the muscles) is also augmented in amount. JACOBY says, "there can be no doubt that this disease is a congenital malformation of the muscular fibres," but it is surely open to belief that the muscular changes are secondary effects of the frequent tonic spasms. The influence of emotion in increasing the tonic spasm, and the prolongation of the same produced by energetic action of the will together with the inability quickly to relax the muscles by voluntary effort, whilst they could be equally explained on the muscular theory, might also point to a participation of central influences in the causation of the malady. The behaviour of the muscles to mechanical and electrical stimulation also differs from that which obtains in health. These changes were well marked in Dr. BUZZARD'S cases. The prolongation of contractions artificially induced, as by percussing the muscle, is the most noteworthy change. Indeed, it would seem that any stimulus to the muscle tends to set up an almost tetanic spasm, and, so far as these facts go, there would thus be much reason in ascribing the essential characteristic of the disease to the muscular apparatus alone. Although the disease is thus fairly characterised by its chief symptoms, yet many cases have been recorded which do not fully exhibit all the symptoms necessary to establish the diagnosis. ERB therefore classes the recorded cases in three groups: the first containing only purely typical cases, the second those which have a great similarity, and the third those which only show the myotonic disorder, but are complicated with other symptoms of nervous disease, it being essential to the diagnosis of Thomsen's disease that all other functions of the body and nervous system should be perfectly normal.

RINGWORM of the scalp is a disease of no great importance; it does not threaten life or even health, and there are plenty of remedies—so think many who have not had experience of it. The medical man who has had to treat it, however, regards it in quite another light; he knows well that in undertaking a case of ringworm of the scalp he will go through some anxiety in using active remedies and controlling their effects; that despite his best efforts with new remedies and methods, the disease will probably spread; that he will have difficulty in getting instructions efficiently carried out; and, finally, that the parents, becoming impatient at the long-delayed cure, will most likely seek further advice. He has, however, the consolation of finding that the results obtained are not much more brilliant than his own, and that the time expended in the "cure" leaves it doubtful whether this is due to remedies or the natural course of the disease. Parents who have had ringworm in their families look back on the time with a shudder; they think of the hair-cropping and shaving, the never-ending head-washing, the poulticing, the malodorous applications, the irritation and disfigurement of the child, the interrupted studies, and the long tedious isolation (often extending over a year or more) from playmates. Ringworm is equally trying to the poorer classes. They have to send their children to Board schools, where they contract the disease; during the earlier hair-falling stages, when it is easily recognisable, the patients are brought to hospitals, often in families, the poorest having to spend time and money in accompanying them; then, after attending some months, the hair crops up again, the disease drifts into the well-known chronic stage, in which only a few hair stumps and scales remain to betray the presence of the fungus; the children are thought to be well, and under renewed pressure by the Board-school authorities they return to school and spread the disease to others. This is going on every day at hospitals where such cases are treated. Of the thousands attending in the course of a year, probably not 3 per cent. are seen to their complete recovery. The time and trouble expended by doctors and patients, to say nothing of remedies, are little better than thrown away. Here, then, we have an exceedingly annoying disease, practically incurable in chronic stages, not difficult to diagnose, not depending on some obscure diathetic cause difficult to remove, but simply on the contagion of an easily recognisable parasitic fungus. With this knowledge we have allowed the disease to spread until it has gained such a hold on the population that it is to be met with amongst all classes and at every turn. Surely the time has come to make some organised stand. It may be suggested, with deference, that it is of the first importance that the appearances in the more chronic forms of ringworm of the scalp should be readily reco-

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gnised. That this is not always the case at present is proved by the fact that children still suffering with the disease are frequently being certified as well or cured. It is these unsuspected chronic forms which are met with in families, at lodging-houses, at children's parties, and, above all, in schools. Medical men would do well to advise parents to send their children to schools where proper medical supervision is in force. For a reasonable fee any medical practitioner in the neighbourhood could act as referee; all fresh scholars should pass through his hands, and, most important, all scholars should be examined by him on their return from holidays. No scholar who had had ringworm should be permitted to return without a certificate. But all such effort will be of little use unless the School-board authorities will consent to give their help. No doubt there are difficulties in the way, but while no efficient means are taken may we not ask if it is fair to the poorer classes that they should be compelled to expose their children to contagion, or if it is fair to the community that Board schools should be permitted to become centres of infection?

AT the presentation-day on the 11th inst., Lord GRANVILLE, in making his annual speech as Chancellor of the University of London, touched full lightly on the educational questions which have been so thoroughly discussed in professional and academical circles, in the past year. The Chancellor is apparently unaware that there is in existence an Association for the promotion of a Teaching University in London; that University and King's Colleges are profoundly dissatisfied with being annexed to a University which requires no professional curriculum in Arts and Science, and so reduces these bodies to an equality with any so-styled college of a year's existence; that the Royal Colleges of Physicians and Surgeons are seeking a joint Charter to confer degrees in Medicine and Surgery, and are basing their petition on the fact that the present University only recognises the metropolitan medical schools as authorities to sign certificates, as in the case of provincial and colonial degrees, and gives them no power in the University of London. The opinions as to the proper functions of a real University expressed by Sir LYON PLAYFAIR fifteen years ago are now held much more absolutely than they were then, as the letters of Professor LANKESTER and Sir GEORGE YOUNG in *The Times* of the 18th inst. clearly show. It is now almost taken as an axiom that a university and an examining board have essentially different functions to perform, and, unless the latter is made subordinate to the former, that they require different organisations for their work. We regret to find that the Chancellor has not appreciated these differences in their full force. London requires a local university, such as exists in most provincial and colonial centres, and the fact that in London an Imperial examining board has been placed makes this necessity none the less urgent. The duties of the two bodies are as dissimilar as can possibly be imagined. A university has an assemblage of teachers for its rule and guidance; a purely examining board knows nothing of teachers, and only guarantees results. Both are valuable, but they cannot work side by side. The University of London has chosen the examination *rôle*, and it is impossible for it now to change its function. The modifications foreshadowed by the Chancellor will damage its present position, and not satisfy the desires of those who are anxious for a university on the old model. It is, indeed, very doubtful if Convocation will pass the new scheme, and anyone who is conversant with the attendance and debates in Convocation will readily see that a large university scheme for the metropolis should not be dependent on the casual attendance and votes of such a body. Important interests are at stake, and Convocation is not the body from which a fiat should issue. In the whole controversy two very different questions are intermixed—viz. (1) the best general teaching in Arts and Science in the metropolis, and how this is to be attained; (2) why medical students in London should not obtain degrees on the same conditions as elsewhere, even if the University of London persists in barring the way. A strong Royal commission would bring the numerous factors into a clear light, and in the present position of domestic legislation would probably be a necessary preliminary to settling the claims of the numerous bodies who are anxious to present, or to oppose, the petitions for Charters which are being prepared for the Privy Council.

Annotations.

"Ne quid nimis."

THE MEDICAL ACT, 1886: EXTRA PASS EXAMINATION.

IT has been decided to hold an Extra Pass or Final Examination on Friday, the 17th of June next, for the licence of the Royal College of Physicians of London and for the membership of the Royal College of Surgeons of England under the old regulations, in order that candidates who have completed the required curriculum of professional study may have an opportunity of obtaining the licence of the Royal College of Physicians or the diploma of Member of the Royal College of Surgeons in time to register under the conditions now in force, before the new Medical Act comes into operation (June 30th). Those candidates who were referred for three months in April last and those referred in January for not more than six months will, we are informed, be specially allowed to present themselves for re-examination on June 17th. Candidates should bear in mind that they must give fourteen clear days' notice in writing, stating the subject in which they desire to be examined, and whether for the licence of the College of Physicians or the membership of the College of Surgeons, to the secretary, Examination Hall, Victoria Embankment, London, W.C.

ALTERATIONS IN THE EXAMINATIONS OF THE UNIVERSITY OF LONDON.

THE calendar for the year 1887-88, which has been recently published, contains the numerous alterations in the examinations to which we referred when they were sanctioned by the Senate. Revised regulations and a revised syllabus for the Matriculation Examination will come into force in June, 1888. As a result of these changes, the length of the examination will be slightly reduced, *one* language only in addition to Latin and English will be demanded instead of *two* as at present, a separate paper in Mechanics will be set, and an option given between Chemistry, Heat and Light, and Magnetism and Electricity. But even more important alterations are to be introduced into the medical examina-

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tions. At the examination for the M.B. degree, a practical examination of surgical patients at a hospital or at the University will for the future always form a part of the examination—in deference, we suppose, to the severe comments of the visitors from the General Medical Council. But in the changes introduced into the Intermediate M.B. Examination, the Senate has taken no advice, either from these critical visitors, from the examiners, or from the metropolitan teachers, and the result is a series of innovations which are universally condemned. In future, every candidate at the July examinations will have to choose between a Pass and an Honours paper in each subject; at the January examinations he will only be examined for a pass. If in July a candidate takes the honours paper, and cannot satisfactorily answer it, he will endanger his passing; and if he takes the pass paper, he shuts himself out from all chance of distinction. The only reasons for this proceeding which have reached us are that many candidates who have no chance for honours now send in papers, and so waste the time and patience of the examiners, and that the system works well at the Preliminary Scientific M.B. Examination. But we question if the examiners have recommended this change, or even been consulted about it. It was, we believe, in the pass examination that the examiners complained of the severity of the work, and this has been materially lessened by the appointment of assistant examiners, who obviously cannot be employed in determining honours. Again, at the Preliminary Scientific M.B. Examination honours are of but little value to medical students, whilst at the Intermediate M.B. the subjects are strictly professional, and the obtaining of honours in any given subject may materially affect the whole of the after career of a student. In every way these changes are most unfortunate, and show how far the authorities of the University can lose sight of the candidate in drawing up new regulations, and how necessary a Board of Studies is, so that a body in touch and sympathy with students may at least be consulted. As if in further emphasis of these remarks, the Senate has published a time-table for the coming examinations, which we should have thought impossible if it were not before us. The examination is to begin on July 11th—that is to say, before the medical session has even begun to draw to a close, and whilst lectures and practical classes in the subjects of examination are at their most important stages; and will finish on Aug. 4th, a period of nearly four weeks, during which time the student's physical energy will be taxed to the utmost and his mind be on the rack. A fortnight of this will be spent, not in the examination-room, but as an interregnum devoted to meditation on mistakes made in the papers, and in "cramming" for the *vivâ voce*. A more deplorable arrangement for the schools and the teachers, or one more trying to the candidates, could not have been devised. In January the same break of sixteen days has been introduced into the continuity of the examination, with a similar absence of reason.

EPIDEMIC MEASLES IN LEEDS.

MEASLES has recently shown exceptional general epidemic prevalence, and it appears from the recently issued Quarterly Return that the death-rate from this disease in England and Wales during the three months ending March last was higher than in the first quarter of any year since 1874. Leeds is one of the towns that has suffered most severely. The disease first became prevalent in this town about the middle of September last, and caused 230 deaths before Christmas; 137 more fatal cases were recorded in the first quarter of this year, and 15 more were returned in the first five weeks of the current quarter. Thus 382 deaths from measles have occurred in Leeds since the commencement of the epidemic in September last. The fatality of the present outbreak is the more remarkable, since the disease was severely epidemic in the borough so recently as the early part of 1884. The present epidemic of measles in Leeds has been more fatal than any since 1870, when the Registrar-General first began to issue mortality statistics for the large provincial towns. The recent exceptional fatality of the disease may be in great measure due to the unseasonably cold weather that prevailed during February and March, but relatively high rates of mortality from any of the principal zymotic diseases should always suggest special inquiry as to the sanitary condition of the suffering population. As regards the general death-rate in Leeds, it may be noted that in 1886 the death-rate, after correction for sex and age differences of population, was 23·4 per 1000; and that the town occupied the seventeenth place among the twenty-eight large English towns ranged in the order of their corrected rates of mortality from the lowest. The rate of infant mortality in Leeds that year, measured by the proportion of deaths under one year to registered births, was 181 per 1000. Tried by this test, Leeds took the twentieth place among the twenty-eight towns last year. The death-rate from the principal zymotic diseases in Leeds last year was 3·43 per 1000, against 2·88, the mean rate in the twenty-eight great towns, and, measured by this standard, Leeds took last year the twenty-first place among these towns, ranged in the order of their zymotic death-rate from the lowest. The mortality in Leeds from measles, scarlet fever, "fever" (principally enteric), and diarrhœa considerably exceeded the mean rate in the twenty-eight towns. Especially noteworthy is the fact that scarlet fever has in the last six years been nearly as fatal in Leeds as it was in the preceding ten years, whereas in other large towns, and in England and Wales generally, the decline has been most remarkable. These are among the considerations which point conclusively to unsatisfactory sanitary condition in Leeds requiring investigation and action on the part of the ratepayers and their sanitary authority. It may readily be proved that the health of Leeds, judged by its mortality statistics, has materially improved in the last twenty years; but it is fully as evident that, in comparison with other large towns, Leeds has in recent years been losing ground in the fortunately now general struggle for sanitary progress.

ADULTERATION OF DRUGS.

WE observe with satisfaction that Lord Coleridge and Mr. Justice A. L. Smith have decided, on appeal, that it is an offence against the Food and Drugs Acts to sell tincture of opium which differs materially in strength from that described in the British Pharmacopœia. It had been proved before the magistrate that the strength of the tincture sold was one-third less than that of the British Pharmacopœia, but the magistrate declined to convict. Many strange decisions have been given by magistrates in regard to the adulteration of drugs, and it appears evident that for this, as for many other reasons, the law requires amendment. It is unnecessary to insist on the extreme danger to public health which arises from weak or impure drugs. The effects of the most skilful treatment are often lost through the inertness of the drugs; and although we fully recognise the care and skill with which the great majority of pharmaceutical chemists do their work, it is necessary to guard the public against the dishonest minority. Moreover, the dispensing chemist, however careful and skilful he may be, is to a great extent at the mercy of the manufacturer, so that the public runs a double risk. Even the medical practitioner who dispenses his own medicines is exposed to the latter danger. He is often puzzled by the action or non-action of the medicine he is prescribing, when the fault lies entirely in the drugs. We hope to return to this subject before long.

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A "PALACE OF DELIGHT."

THE realisation of Mr. Walter Besant's beneficent idea of a "Palace of Delight" in the East-end of London, set apart for the amusement and improvement of the toiling multitudes of that densely crowded district, is in itself a sufficiently notable event to claim a place in the chronicles of the capital; but when to this are added the felicitous facts that the opening of the Palace has been so timed as to constitute the commencement of the celebration of the Jubilee of Queen Victoria's happy and prosperous reign, and that Her Majesty herself performed the inaugural ceremony there, the event supplies material not only for the theme of the Court newsman, but for the hearty congratulation of every loyal subject of the crown which has been worn gracefully by a Sovereign who has laboured graciously for the good and contentment of her people for fifty years. The function on Saturday was all that could be desired, and, even by those cynics who do not believe in the spontaneity of reverence, and even affection, for a Monarch, it must be ungrudgingly conceded that the proofs of joyous emotion pervading the "masses" were not only abundant, but incontrovertible.

There is always great difficulty in forming an accurate forecast of the practical value and ultimate measure of success of any effort for the public good which is made for the people instead of by them. Whether this "Palace of Delight"—thing of beauty as it undoubtedly is, in many senses—will prove a joy for ever remains to be seen. We know how many well-conceived schemes have failed, at least in the full fruition of their expected results. It is needless, and might be invidious, to particularise; but the fact is beyond question, and the lesson it teaches ought to be submissively learned. The moral seems to be that there should not be overmuch *management* in the endeavour to meet the needs of the masses. Better far let taste develop itself, and then cultivate its growth. Attempts to "force" desired qualities in human nature generally fail, and not unfrequently more harm than good is done by the endeavour. Speaking generally, the scheme of the promoters of the "Palace of Delight" is an admirable one. It is satisfactory to find that the scheme of this new venture—which it would be most regrettable to ruin by any wrongheadedness—is sufficiently broad to include gymnasia and swimming baths. It might with advantage go further. Mr. Walter Besant's idea not only comprised, but made a feature of, dancing. Good might result from a reperusal of this gentleman's admirable and entertaining book. We commend the suggestion to the "o'er gude," who may, with the best intentions, frustrate the beneficent working out of this scheme, as they have marred many others. So far everybody is to be congratulated, and the event of Saturday last is one around which none but loyal and grateful recollections can cling.

THE BOILING POINT OF OZONE.

OZONE, according to the recent careful observations of Dr. Olszewski, boils at a temperature of − 106° C. This curious substance—the nature of which was so long a mystery, and about which so many conflicting hypotheses have been devised—is now becoming well known to us. For the sake of those of our readers who have not been able to follow the details of recent research, we may in a few words summarise the present state of our knowledge. Ozone is a denser form of oxygen. Its specific gravity is 24, that of common oxygen being 16, and that of hydrogen 1. It is highly probable that its molecules contain three similar oxygen atoms. In the concentrated state it is a powerful irritant poison, and it is very unstable, decomposing with explosion and with evolution of heat, and exerting a most powerful action on oxidisable materials. For some time past it has been known that it liquefies under the influence of combined cold and pressure. The liquid is indigo blue, and its vapour in a tolerably concentrated state has a colour which can only be compared to that of an Italian sky. Olszewski has now succeeded in liquefying it at the ordinary atmospheric pressure by exposing it to the intense cold of boiling oxygen (− 181° C.). When cautiously heated the liquid began to evaporate, and when heated to − 106° C. it entered into active ebullition. It is a very dangerous substance to work with.

SANITARY AUTHORITIES AND THEIR DUTIES.

A PAINFUL occurrence has taken place at Ince, near Wigan, in Lancashire. The authorities of Ince have had constructed lately an infectious disease hospital, and from the evidence given at the inquest on a child which was overlain by its fevered mother it appears that the nurse is sixty years of age, and she with her husband, who is fifty-five years of age, have charge of the institution. Mr. Brighouse, the county coroner, held an inquest on the child, and he, considering that the body was lying at a fever hospital and that many of the jurors were married men with families, dispensed with the practice of viewing the body. It came out in evidence that a case of typhoid fever was admitted into the hospital on a Saturday night, late, and that early on Sunday morning the patient gave birth to a child, which was the subject of inquiry. Dr. Hall, jun., who was acting for the medical officer of health during temporary absence from illness, and also the assistant of Dr. Hall, ordered the child to be removed from the woman. The father was appealed to, but he could not take it. The nuisance inspector and the clerk to the board, and also the relieving officer, were appealed to, but in vain, and, as might have been expected from so young a babe being left with a fevered mother, the child was found next morning overlain. The coroner, in summing up, stated that "the evidence, however, had disclosed a very unfortunate state of affairs. The woman in charge of the hospital was practically by herself, and this meant that for seventy-six hours she was kept awake nursing and attending to the wants of these people without any help. All the while communications were being made to the nuisance inspector and the clerk to the local board the woman was left by herself, and no provision seemed to have been made for clothing the child, who had been wrapped up in towels for want of something better. The whole case seemed to have been surrounded with neglect, and two questions to be considered by the jury were, first, as to whether the death was accidental, and then as to whether the management of the hospital was in any way to blame." The jury found a verdict of accidental death, and desired to say the hospital management was bad, and that "the authorities should reconsider the question of the management of the hospital so as to preserve life in the future." This is certainly an unfortunate case. Here we have a sanitary authority providing a hospital for infectious diseases, no doubt at the strong request of the Local Government Board, yet it is inefficiently equipped. Sanitary authorities will spend two or three thousand pounds in building a hospital, but, from a penny wise and pound foolish policy, will begrudge a couple of hundreds for furnishing it, and will grumble at the expense of a few pounds yearly for its proper maintenance. This case will probably teach the adjoining authorities that it is their duty not only to provide a hospital, but to see that it is properly administered, or how can poor people be expected to enter it? Nothing brings sanitary authorities to a sense of their duty so much as a misfortune like this, or a severe epidemic which slaughters hundreds. We would advise all medical officers of health either to have their infectious hospitals efficiently equipped or to have nothing to do with their management. We know the difficulties of providing and maintaining hospitals in

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small local board centres and small towns, but surely a combination of adjoining places would always keep a hospital in use and enable one to be provided worthy of the name and maintained with proper efficiency.

AN UNUSUAL METHOD OF PROPAGATING INFECTION.

DR. A. TEPLIASHIN describes in the *Vrach* (No. 17) a curious epidemic of syphilis affecting the eyes of eight persons who came under his care in the hospital of the Glazovski district of the Viatski province. The conjunctiva was more or less inflamed and the edges of the lids thickened and hardened, with in some cases mucous patches in the neighbourhood of the eyes and mouth. In all cases mucous patches were found on the genitals or round the anus, but the patients entirely denied impure intercourse. As all of them came from two villages, it was evident that some cause must be in existence in their locality to account for this curious epidemic. At last it was discovered that a certain "wise woman" there had, in the exercise of her profession, which is one much esteemed among Russian peasants, treated all these patients for real or imaginary affections of the eyes by licking them with her tongue; this woman had syphilis, which it was interesting to learn had been communicated to her in the same way by another woman. The habit of licking out as much of the conjunctival sac as can be reached by the tongue is very common, Dr. Tepliashin says, in his province, and he is surprised that it does not oftener lead to evil results; but though he has been there during the last eight years, and has seen about 10,000 ophthalmic cases, he has not previously met with any syphilitic affections due to the habit. From subsequent observations made on the spot, it was found that no less than ten males and twenty-four females belonging to these two villages had been infected by the "wise woman." In order to combat the evil as far as possible, a temporary dispensary has been opened in the neighbourhood.

LONDON SEWAGE.

AT the meeting of the Metropolitan Board of Works, on the 13th inst., some further information was vouchsafed to the public in regard to the system of sewage disposal to which the Board has at last committed itself. Little is told which is new, and nothing which is likely to reconcile sanitarians or the public to the scheme, or induce them to accept it as a final solution of the problem. It is now settled that the whole of the London sewage is to be treated at Barking and Crossness, in spite of the very strong adverse opinion expressed in the reports of the Metropolitan Sewage Discharge Commission. The precipitation method adopted is, we think, a good one. It consists in treatment with lime and protosulphate of iron. The precipitate subsides in an hour or two, and a fair effluent is said to be obtained. The experiment, originally tried on a small scale at the Grosvenor-road station, was continued with much larger quantities at Crossness during last year. Nearly a thousand million gallons—that is, about nine million gallons a day—were treated. This yielded 30,614 tons of wet sludge, which on further settlement was reduced to 18,191 tons. Of this 16,747 tons were exposed to pressure in filter presses, and were thereby reduced to 5310 tons of sewage cake, two-thirds of the water being removed by the presses, about the usual proportion. It is said that about 3000 tons of the cake were taken without payment by farmers and others for manurial purposes. The rest, we presume, has accumulated. To all this we have only the old objection to make. The proposed system cannot produce a proper purification of the river. Even if it turns out that this is the best of all possible purification schemes, that the effluent is "fairly clear," and that the sludge and cake will produce no local nuisance, it still remains a fact that the situation of the works is utterly unsuitable. It seems to us doubtful, to say the least of it, whether chemical and mechanical operations upon the sewage of four million persons can be conducted without serious local injury, or at least annoyance; and we are certain that the effluent water, although much less objectionable than raw sewage, is unfit to be thrown into the Thames at the existing outfalls. At present, according to the Royal Commissioners, who had ample evidence before them, the river is polluted with sewage almost up to Teddington. The pollution will now be of a less disgusting character, but still it will remain a disgraceful pollution, to which the people of London ought not to submit. We have always maintained that the proper place for the treatment of London sewage is in Sea Reach, where there are large tracts of land for sewage irrigation, low lands to be raised, no houses to be incommoded, a large volume of water, and close proximity to the sea. To this remedy we shall surely come sooner or later, and then it will be found that the vast expenditure for works and steamers now lightly incurred by the Metropolitan Board of Works will have been absolutely thrown away. To those who wish for further information on the subject we commend the remarks of the Royal Commissioners.

FASTING AND POISONS.

THE advance of rational therapeutics will be characterised by increased precision in instructions as to the mode of taking medicaments, their relation to food, their state of dilution, difference of action according to temperament, and so forth. Fasting is already known to exercise an important influence on the effect of certain substances, and M. Roger has further investigated the influence of the state of hunger upon the power of animals to resist the poisonous action of alkaloids. It was found that such alkaloids as quinine, atropine, or nicotine, were only four-fifths as toxic if introduced during fasting into the peripheral venous system of a rabbit, as compared with their action when introduced whilst digestion is in progress. But if introduced into the portal venous system during digestion the toxicity is only half that during fasting. It is assumed, then, that fasting diminishes the power of the liver to arrest the alkaloid, and this coincides with a diminished power of glycogen formation. Sugar given to the animal three hours before experimentation causes the liver to recover its functions.

PIT WOMEN AND THEIR WORK.

IT is to us very satisfactory to learn that any necessary improvement in the condition of women employed in collieries is likely to be effected without entailing upon them the loss of their employment. The evidence afforded by the deputation of pit women which waited on the Home Secretary a few days ago is worth noting in this connexion. As far as its members were concerned, any detriment to health attributed to colliery labour appears to be imaginary, though we would not be misled by accepting these few selected examples as average types of their class. In the matter of domesticity, also, it is said that they and those whom they represent will stand favourable comparison with their sisters employed in factory work; while their working dress, if not conventional, is not indecent, and it is as womanly as the circumstances of their occupation allow. The hours of labour are not long, and a reasonable interval is allowed at meal times. In this respect, indeed, as well as the possession of a purer atmosphere and a somewhat higher scale of wages, they seem to be more fortunately situated than the majority of factory women. In one particular the women themselves admit that the work is unsuitable to them—

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namely, their having to move railway waggons, a dangerous proceeding, which will probably hereafter be left in the hands of the men. With this exception they are well satisfied with their lot; and if no stronger evidence than has already been produced be forthcoming to prove their incapacity, the question of who shall work at the pit and who shall not can hardly, we think, be dealt with otherwise than by the process of natural selection.

EDINBURGH UNIVERSITY CLUB, LONDON.

SIR ALEXANDER CHRISTISON, Bart, M.D., presided over the last quarterly dinner of this Club, held at the Holborn Restaurant on Thursday, May 13th. Forty-one members and thirty-nine guests were present. The toast of "The Colonies," gracefully proposed by the Marquis of Lothian, K.T., Secretary for Scotland, was received with the utmost enthusiasm, and most eloquently responded to by Sir Saul Samuel (Agent-General for New South Wales), Sir Graham Berry (Agent-General for Victoria), and Sir Patrick Jennings (late Premier of New South Wales). Sir Dyce Duckworth proposed the health of the chairman. A specially interesting feature of the meeting was the presentation by Sir Edward Sieveking, M.D., on behalf of the Club, of a handsome silver candelabrum to Dr. J. B. Potter, on his resignation of the office of honorary treasurer, which he has held for a period of ten years, and in which his labours have been indefatigable and eminently successful, the Club being now in so satisfactory a financial condition as to be able to give a triennial prize of twenty guineas to the University of Edinburgh. Dr. Potter is succeeded in his important post by Dr. J. J. Pringle. Excellent vocal music was discoursed at intervals by Dr. Lavies and a party of friends. The Club now numbers nearly 400 members, and it is felt that this number might easily be increased. The honorary secretaries are Henry Rutherford, Esq., barrister-at-law, 2, Harcourt-buildings, Temple, E.C., and Surgeon-General W. Gerard Don, M.D., Junior Army and Navy Club, St. James's-street, S.W., either of whom would doubtless be glad to hear of Edinburgh graduates anxious to join the Club.

SMALL-POX IN AUSTRALIAN PORTS.

THE Board of Health of New South Wales have issued a report prepared by their President (Dr. H. N. MacLaurin) on the occurrence of small-pox, and the consequent quarantine measures which took place in connexion with the arrival at Sydney of the North German Lloyd's steamship *Preussen* on December 26th last. The steamer having embarked 544 steerage passengers as emigrants at Antwerp, called at Port Said on November 18th, and, although small-pox was prevalent amongst the Arabs there, the passengers were freely allowed to go ashore. The *Preussen* left Port Said on the 22nd, and on December 5th a passenger named Pryce sickened of small-pox. Early on December 15th the vessel arrived at Albany, but the health officer of that place refused to land the patient. So far as can be judged, no other person on board had up to this date contracted the disease, but, having regard to the history attaching to the vessel, all the passengers were landed and moved to the quarantine ground on her arrival at Sydney on the 26th. Small-pox showed itself amongst them on the following day, and there is every reason to believe that it was all contracted after passing Albany. The arrangements on shore appear to do credit to a quarantine station, for the patients can be at once thoroughly separated from those who do not sicken, and measures are taken to make the compulsory stay of twenty-one days as little irksome as possible. During this stay seventy-nine attacks occurred, and thirteen deaths resulted. The report deals specially with the circumstance that nearly all this disease would have been avoided if the first patient had been landed at Albany, and the President presses strongly for united action on the part of the several Australian colonies in the matter of quarantine detentions. That which renders quarantine measures necessary for small-pox in Australia is evidently the habitual neglect of vaccination, and some hope is expressed to the effect that the colony, learning how narrow has been its escape, will not neglect this precaution any longer. The lesson is a serious one, for out of nineteen of the passengers who had never been vaccinated, fifteen had small-pox, nine died, and one lost her eyesight; whereas, out of fifty-four said to have been vaccinated and some revaccinated, only four were attacked and none died. Of those who had previously had small-pox, three were attacked, but without death. We learn that the vaccination stations in Sydney and in the country districts are all but deserted, and the youthful population is described as "practically unvaccinated." We very much fear that the lesson which this incident should teach will largely be thrown away on the population. Experience in Europe has shown, whatever the disease to be dealt with may be, that true preventive measures are far more neglected in countries resorting to quarantine than in those who do not enforce it, and the extent of neglect may often be largely measured by the tenacity with which the quarantining of sick and healthy alike is maintained. The position of the Australian health authorities is admittedly a difficult one. They are powerless to enforce the true remedy against the spread of small-pox, and are hence thrown back upon the enforcement of a detention which affects large bodies of people not suffering from the disease, and which may at any moment, owing to error of diagnosis or otherwise, break down as a preventive measure.

TOXIC EFFECTS OF LEAD.

MR. WYNTER BLYTH has had an opportunity of examining portions of the bodies of two out of five persons who have at different times died more or less suddenly from, as it is believed, the effects of lead poisoning. In one case he separated about a third of a grain of sulphate of lead from the liver and about a thirteenth of a grain from one kidney, besides finding lead qualitatively in the brain. In the other he was able to examine the brain with more minuteness, and estimated that here the cerebrum contained about a grain and a half and the cerebellum about a quarter of a grain of sulphate of lead. Mr. Blyth went on to remark, in the paper he read to the Chemical Society of London on these investigations: "There has hitherto been no reasonable hypothesis to explain the profound nervous effects of the assimilation of minute quantities of lead, but if it is allowed that lead forms definite compounds with essential portions of the nervous system, it may then be assumed that in effect it withdraws such portions from the body; in other words, the symptoms are produced not by poisoning in the ordinary sense of the term, but rather by destruction—a destruction it may be, of important nerve centres."

THE TEMPERATURE OF THE SKIN.

THE experiments of Davy long ago demonstrated irrefutably that the temperature of the interior of the body varied little in man with race, climate, or season; yet it is familiar to all that the temperature of the skin varies considerably in different parts—the extremities, for example, and those parts of the skin in which the circulation is feeble being cooler than other parts. Quite recently some interesting experiments to determine these variations of the surface have been made by Professor Kunkel at Wurzburg. Taking the skin of the face in the first instance, he finds that in men from twenty to thirty years of age it varies from 85° to 89° F., with an approximate average of 88°. The skin of the more exposed parts of the body, as the tip of the nose and the lobules of the ear, in which the circulation is slow and

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feeble, exhibited a lower temperature, not exceeding in many instances 75°, or even descending as low as 71·5°. The skin covering the muscular portion of the body is warmer than that over the bones and tendons. Contraction of the muscles caused the temperature of the superjacent portion of skin to rise one degree or more. The decrease of temperature from the skin to the outer covering in a room at a temperature of 63° was as follows: on the skin 88°, on the linen shirt 82°, on the vest 75°, and on the coat 72°. The highest temperature was found to occur in men in the full vigour of life. As a singular fact, Dr. Kunkel states that children otherwise in perfect health showed a much lower degree of surface temperature—from 77° to 84°—than adults. He does not appear to have followed out Professor Lombard's observations on the temperature of the head.

THE QUEEN'S JUBILEE.

ON the 16th inst. the Queen held a Court at Windsor Castle, at which, amongst others, addresses were presented by deputations from the University of Edinburgh and the University of London. The deputation from the former body consisted of Principal Sir William Muir, K.C.S.I.; Professor Campbell Fraser; Mr. T. Graham Murray; Dr. P. Heron Watson; the Right Hon. the Lord Advocate, C.B., M.P.; Sir Dyce Duckworth; Professor Sir William Turner; Professor Grainger Stewart; Professor Armstrong; and Mr. Taylor Innes. Sir William Muir, Professor Campbell Fraser, and Professor Sir William Turner had the honour of kissing hands. The University of London was represented by Earl Granville, K.G., Chancellor; Sir James Paget; Dr. Wood; Sir John Lubbock, M.P.; Sir William Gull; Dr. Quain; Dr. Weymouth; Dr. Baines; Mr. Osler; and Mr. Arthur Milman, Registrar. Earl Granville, Sir James Paget, and Dr. Wood had the honour of kissing hands.

GUY'S HOSPITAL.

THE *Graphic*, in its issue for the 14th inst., publishes a descriptive account of Guy's Hospital. The article, which is profusely illustrated, commences with a brief sketch of Thomas Guy, the founder of the charity, and traces the progress of the institution down to the present time. The illustrations are, on the whole, judiciously chosen, and comprise, amongst others, portraits of Guy and Hunt, the chief entrance, the chief clinical, Mary, and Dorcas wards, the founder's tomb, the old staircase, and the women's surgery, this last named indicating a tendency towards realism in art which we trust will not be allowed to go to such lengths as to rival the "pictures of horrors" of the Paris Salon. The publication of this brief history of the charity, and its labours by our contemporary cannot fail to attract support to the hospital in its attempt to retrieve its failing fortune.

PYO-PNEUMOTHORAX SUBPHRENICUS.

THE condition simulating very closely a pneumothorax of the right side, but which is due to an abscess between the liver and diaphragm, was first thoroughly described and differentiated by Professor Leyden. A record of such a case has just been made by Dr. Pusinelli of Dresden (*Berl. Klin. Woch.*, No. 20), who points out that the condition is mostly due to perforation of a gastric or intestinal ulcer, and that the diagnosis depends upon the occurrence of abdominal symptoms at the onset, the absence or complete suppression of pulmonary symptoms, the sharp transition from normal vesicular breathing at the apex of the lung displaced upwards by the diaphragm to amphoric breathing on deep inspiration, and the absence of hepatic dulness with marked displacement of the liver downwards. If the diagnosis be correctly made, it is urged that treatment might be directed to abdominal section, the discovery of the ulcer, and its excision. Duodenal ulcers, as the case he details shows, often run their course without symptoms, and may be so little adherent that a slight injury, as a fall on the abdomen, may detach them and cause perforation.

BAD DRAINAGE AND LANDLORDS' LIABILITIES.

BOTH in England and in Scotland it is being made clear to landlords that they will be held responsible for letting houses the drainage of which is in such a state as to induce injury to health amongst the tenants. The letting of a house for human occupation should necessarily imply that the house is held to be fit for occupation, and substantial penalty should be required of a landlord who fails to fulfil his part of the contract. In the case of Gurney *v.* Stroud, tried the other day before Mr. Justice Cave and a common jury, the judge informed the jury that if a house was let furnished, then there was an implied contract by the landlord that it was fit for habitation, and the tenant having shown that soon after he came into possession his wife and children became ill, two of the latter dying, he was awarded compensation to the extent of £175. And in a somewhat similar case which came before Mr. Sheriff Lees at Glasgow, £150 was awarded to a parent as compensation for the loss of a child eight years of age, and for illness in other members of his family, owing to the defective drainage of the house which he occupied.

PERFORATING ULCERS OF THE AORTIC VALVES.

FOR a few years past much attention has been given to the cardiac complications of tabes dorsalis, and every kind of view has been stated as to the possible connexion between the heart lesion and the spinal degeneration. Before the Société Nationale de Médecine de Lyon, M. Teissier exhibited a series of photographs designed to indicate the dimensions and nature of the perforations of the aortic valves observed in ataxic patients. These perforations are accompanied by an extreme thinning of the valve, such as is not met with either in atheroma or syphilis. M. Teissier considers it to be a genuine trophic change, a veritable perforating ulcer of the valves. Moreover, these lesions are found in conjunction with visceral perforations, also attributed to the tabetic influence—e.g., perforation of the trachea and of the œsophagus. In one of his cases of valvular perforation, M. Teissier observed an intestinal perforation the size of a franc piece. The holes in the aortic valves give rise eventually to all the signs of aortic regurgitation.

LIFE INSURANCE.

A CASE recently decided in the Court of Chancery may serve as a warning to any who purpose insuring their lives, and also as a caution to medical examiners. The defendant was alleged to have made a misstatement in having denied that he ever had rheumatism or heart disease, from both of which conditions he had suffered some years previously, and he consequently forfeited his policy and the premiums already paid by him. We do not now enter into the question as to how far a history of rheumatism or its cardiac effects ought to influence the acceptance of a life. Every case must be judged upon its own merits, though undoubtedly a rheumatic taint must often constitute a grave disqualification, notwithstanding the fact that since the introduction within recent years of improved methods of treatment, the dreaded cardiac complication is a less real danger than formerly. It is possible that the full meaning of the perversion of facts may not have been apparent to the offender, but the misstatement could not be condoned on that account. This kind of offence, though perhaps not common, might be illustrated

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by more than one example. We have heard of a case of such downright dishonesty as the production by an albuminuric subject of a fluid other than his own for examination. There is therefore need both for the stringency of companies and for shrewdness on the part of their medical representatives in dealing with the question of life insurance among a certain class of applicants.

DISPENSARIES AND PROFESSIONAL ETHICS.

A GREATLY lauded panacea for the evils of gratuitous medical advice, we all know, is the establishment of provident dispensaries. At this very moment an influential committee, appointed by a public meeting, is considering the best means by which they can be established and encouraged in London; and we ourselves have always been anxious to see such institutions supported by the working classes. But great care is necessary to prevent their being worked in unprofessional ways. And we are constantly receiving circulars, handbills, &c., announcing these institutions and their arrangements and charges. The names of the members of the staff are often included. The general effect of the whole is not to convey a high idea of the value of medical services, or of the methods of competition in the medical profession. We invite expressions of opinion as to the best way of avoiding these evils. We all want to promote thrift and diminish the amount of gratuitous medical relief. The problem is to do so without degrading the medical profession and the popular estimate of medical services.

TYPHUS IN FLINT.

WE regret to learn that the outbreak of typhus fever in Flint still continues, and that it has been found necessary, owing to a sudden increase in the number attacked, to convert the assembly room at Flint Castle into a hospital. The circumstances attaching to this outbreak are very unfortunate. Typhus is so rare that it was hardly recognised as such in the first instance, and hence the disease tended to spread. Dr. Tegid Evans, the medical officer of health, we greatly regret to say, in the performance of his duties, contracted the disease and died. Since then Mr. Spear, of the medical department of the Local Government Board, has visited the town, and has advised the mayor and the corporation as to the action which should be taken to stay the spread of the infection. Fourteen fresh cases are reported to have recently occurred.

DEATHS OF EMINENT FOREIGN MEDICAL AND SCIENTIFIC MEN.

THE deaths of the following foreign medical and scientific men are announced:—Dr. Bernhard Studer, formerly Professor of Physics and Geology in Berne, at the age of ninety-three.—Dr. Ludwig Rohden, director of the recently established Sea-bathing Infirmary at Norderney, at the early age of forty-eight, suddenly, at Gardone, Riviera, from the bursting of an aneurysm into the bronchus.—Dr. Hohl, Extraordinary Professor in the Science Faculty of Tubingen, at the age of eighty-one.

THE BOWER AND KEATES CASE.

THE profession will learn with satisfaction that there is some hope of its soon hearing the end of this case, which well illustrates the delay and the costliness of law. The committee charged with the duty of administering the funds raised to pay the legal expenses of Messrs. Bower and Keates met at Sir William Jenner's on Tuesday night, and reported the termination of litigation. A full statement of the principal facts will shortly be laid before the subscribers, who will be asked to empower the committee to distribute the balance which remains after paying expenses by contributing to the expenses of similar cases or to charitable purposes within the profession. Roughly it may be said that over £1700 were raised in little more than a week, and that a balance of about £500 is left after the payment of expenses.

SPECIALISM IN EXCELSIS!

WE have received a programme of the first annual meeting of the "Association of Genito-urinary Surgeons," which is being held this week at the Laurel House, Lakewood, N.J. The establishment of this Association has been attended with so much success, and commends itself so thoroughly to the more enlightened members of the profession, that many similar ones are shortly to be inaugurated! Among those more immediately to be promoted are associations of "Umbilicologists," of "Rhinologists," of "Tenotomists," of "Depilatory Surgeons," and of "Skin-grafters." The only reason we can perceive why this list should not be indefinitely extended is that surgery as an art would, by such differentiation, speedily be resolved into its constituent elements, and its professors broken up into repellent groups of solemn deliberators on the utility and beauty of the segregation of parts.

VICTORIA UNIVERSITY AND THE YORKSHIRE COLLEGE.

ON the 12th inst. the Yorkshire College made a formal application to the Court of Governors of the Victoria University to be admitted as a College of the University, and the application was referred to the Council for report in accordance with the provisions of the Charter. A further step has therefore been taken towards the fusion of the three colleges of Manchester, Liverpool, and Leeds into one great university, and we hope that no time will be lost by the Council in taking action towards the furtherance of the desired union.

THE BRUSSELS SCIENTIFIC CONGRESS.

THE Surgical Section of the International Congress of Science and Industry, which is to be held in Brussels next year, has given notice that instruments and apparatus of the following descriptions will be specially acceptable:—(1) Apparatus for the treatment of spinal curvature; (2) materials for dressings; (3) gynæcological instruments; (4) instruments for diseases of the urinary tract; (5) instruments for the treatment of glandular enlargements in the pharynx; (6) laryngological apparatus; (7) apparatus and dressings for antiseptic operations on the eye; (8) apparatus for the measurement of the acuteness of hearing.

THE PENJEH SORE.

AT the instance of the inspector of the military medical district of the Caucasus, a special commission has been appointed to proceed to the neighbourhood of Penjeh for the purpose of studying the etiology and characters of the so-called Penjeh sore. Dr. Rapchevski of St. Petersburg has been selected as director of the expedition. Some observations on this affection made by Dr. Suski, and communicated by him to the *Vrach*, were mentioned in THE LANCET of April 10th, 1886. This paper was subsequently (June 12th) referred to by Surgeon Pierson, who pointed out the identity of the Penjeh affection with the well-known Delhi boil, &c.; and, again, by Dr. J. Hickman (THE LANCET, Aug. 28th), who mentioned that he had also pointed out this identity in an Indian journal, and referred to a full geographical account to be found in Hirsch's Geographical Pathology, and also to an article by himself in the *Practitioner* of Jan. 1886.

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THE APPOINTMENTS AT GUY'S HOSPITAL.

THE following are the Assistant-Physicians at this hospital:—Dr. Hale White becomes Senior Assistant-Physician; and, at a recent meeting of the governors, G. N. Pitt, M.A., M.D. Cantab., M.R.C.P. Lond., late Fellow of Clare College and present Demonstrator of Pathology at Guy's Hospital, L. C. Wooldridge, M.D., D.Sc. Lond., M.R.C.P. Lond., late George Henry Lewes and Grocers' Research Scholar, late Croonian Lecturer at the Royal Society and present Demonstrator of Physiology at Guy's Hospital, and E. C. Perry, M.A., M.B. Cantab., late Captain of the School at Eton, Fellow of King's College, Cambridge, and Senior Classic for 1880, and late Demonstrator of Anatomy at Cambridge, were elected to the three vacant Assistant-Physiciancies.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—The Medical Faculty are about to create a new Extraordinary Professorship of Laryngology in connexion with a Polyclinic for Throat and Nasal Affections, for which room has been taken in a private house in the Luisenstrasse. The first occupant of the chair will probably be Professor Bernhard Fränkel. A series of vacation courses intended for practitioners is being arranged. These are to begin on Sept. 26th, and will continue till the end of October.

Bordeaux. — M. Poueson, *agrégé* of the Faculty of Medicine, has been appointed Surgeon to the hospitals of Bordeaux. M. le Professeur Viand has recently read an important paper advocating considerable changes in the system of medical instruction, whereby the theoretical lectures would be given by the *agrégés* and the clinical instruction by the professors.

Cadiz.—Don Manuel Bernal has been appointed Professor of Medical Pathology.

Giessen.—Dr. Max Hofmeier, first assistant in the Royal Gynæcological Clinic in Berlin, has been appointed Professor of Midwifery and Gynæcology. Dr. Hofmeier has just married the eldest daughter of the late Professor Schroeder.

Halle.—Professor Olshausen's former pupils and assistants propose to erect his statue in the Gynæcological Clinic, which has been under his care for the last twenty-five years, as a mark of their affection for and gratitude to their old master.

Madrid.—Don Gabriel de la Puerta y Ródenas, Professor of Pharmacy, has been appointed a member of the Council of Public Instruction, in the place of the late Don Manuel Rioz y Pedraja.

Moscow.—Dr. Hugenberger, having completed his term of office as Director of the Moscow Lying-in Institution, has now retired. His successor will be Dr. Sutugin, *privat docent* in the Military Medical Academy, and one of the Medical Officers of the Duchess of Edinburgh's Hospital in St. Petersburg.

St. Petersburg.—Professor Wenzel Gruber, who has held the Chair of Anatomy for forty years, has resigned.

Würzburg.—One of the recently made Doctors of Medicine is, or was, a "post director," a captain, and a jurist, his age being fifty-six.

THE death is announced from Paris of the eminent French chemist, M. Joseph-Dieudonné Boussingault. The deceased, who was born in 1802, occupied the chair of Agriculture in the Paris Conservatoire of Art and Industry. He was named Commander of the Legion of Honour in 1857, and promoted to the rank of Grand Officer in 1876. M. Boussingault was the author of a large number of papers on physics and chemistry, and of treatises on "Chemistry and Physiology in Agriculture," "Studies on the Transformations of Iron and Steel," &c.

AN influential committee of the inhabitants of the Royal parish of St. Martin-in-the-fields is appealing for subscriptions towards the suitable celebration of the Queen's Jubilee. The money received will be devoted, either by direction of the donors or at the discretion of the committee, to any one or all of the following objects:—Entertainment to children and old people; the purchase of a site of freehold land for the extension of Charing-cross Hospital; a memorial window in St. Martin's Church; the Imperial Institute; and the Church House. A first list of subscriptions has already been published, and each of the above objects seems to be meeting with hearty support.

THE Editor of *Land and Water* has succeeded in inducing M. Pasteur to undertake an investigation into the cause of grouse disease, and asks those interested to co-operate with him in obtaining for the French *savant* the necessary specimens.

AT the last meeting of the Aldershot Military Medical Society, Surgeon-Major Scott, C.M.G., who has recently been studying the Pasteur system in Paris and Naples, gave an account of his investigation.

WE are asked to announce that all drawings to illustrate papers in the Pathological Society's Transactions must be sent to Dr. Coupland, hon. sec., before May 31st.

NEWS has been received from Vienna of the serious illness of Professor Billroth.

THE Cape de Verde Islands are stated to be now experiencing an epidemic of small-pox.

MEETING OF THE GENERAL MEDICAL COUNCIL.

(*Continued from page 1046.*)

THURSDAY, MAY 19TH.

MR. MARSHALL, PRESIDENT, IN THE CHAIR.

The PRESIDENT read a letter from Sir Henry Acland acknowledging the receipt of the address from the Council on his retirement, expressing his gratitude for the kindly feelings embodied therein, and adding that he should always take the warmest interest in all the future proceedings of the Council.

A communication was received from the Privy Council, stating that the Lords of the Council had yesterday passed an order for postponing until June 30th next the "appointed day" named in the Medical Act of 1886, and that the order would be forwarded as soon as printed.

Dr. STRUTHERS proposed the re-election of the existing members of the Executive Committee.

Dr. BANKS seconded the motion.

Mr. SIMON hoped that the members of the Executive Committee would be elected in the ordinary way by ballot, seeing that the Council had been strengthened by the election of five new members.

Dr. FERGUS said all that was necessary was to elect two new members, the existing members holding office till June.

After some discussion the motion was agreed to. A ballot was then taken for two new members of the committee, one for Scotland and one for Ireland, and the members elected were Dr. Heron Watson and Mr. Macnamara. The Business Committee, the Dental Committee, the Pharmacopœia Committee, and the Finance Committee (to which Dr. Humphry was added) were re-elected. The Education Committee and the Examinations Committee were also appointed.

Dr. QUAIN said that the available funds of the Council were exhausted, and there was nothing wherewith to pay the members for their attendance unless the English Branch

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Council advanced it. They were willing to do so, but on condition that the Scotch and Irish Branch Councils made a remittance at an early period.

Mr. SIMON moved, "That the Council delegate to the Executive Committee to exercise the powers and discharge the duties of the Council so far as the Executive Committee shall, in the absence of the Council, find necessary or expedient, except as follows:—First, as to making representations or reports to Her Majesty in Council or to the Privy Council; secondly, as to making general rules or recommendations; and thirdly, as to deciding, under Section 29 of the Medical Act (1858), whether any medical practitioner has been guilty of infamous conduct in a professional respect."

Dr. HAUGHTON seconded the motion.

Dr. A. SMITH thought that all the offences under Sections 28 and 29 should be included in the exception.

Mr. SIMON thought the Executive Committee should have the power of removing from the Register persons who had been convicted of felony; but doubtful cases would probably be referred to the Council for decision.

Mr. MCVAIL saw no reason why the Executive Committee might not make "recommendations."

Dr. DUNCAN suggested that the motion should be deferred till the next meeting of the Council, considering the far-reaching nature of the change proposed.

Dr. HUMPHRY hoped that the matter would not be deferred. The Executive Committee should not have power to interfere with the general principles on which the Council acted, and that was sufficiently provided for in the exceptions named in the motion. It was important to enable the Executive Committee to decide many matters of business ordinarily undertaken by the Council. If that were done it was possible that one meeting of the Council in the year might be saved.

Dr. BRUCE supported the motion, and urged the importance of saving the time of the Council. Dr. Banks, Mr. Carter, and Dr. Heron Watson also supported the motion.

Dr. PETTIGREW thought the matter should be delayed in order that it might have more consideration.

Sir DYCE DUCKWORTH supported the motion, which was then put, and agreed to.

Dr. HAUGHTON moved, in behalf of the Irish Branch Council: "(*a*) That this Council do appoint two assistant-examiners to the Apothecaries' Hall of Ireland. (*b*) That these examiners do examine in surgery. (*c*) That for a term of one year, from July 1st next, and subject to the order of the Council, Sir William Stokes and Mr. Edward Hamilton be appointed. (*d*) That the fee to each assistant-examiner at the stated quarterly examinations shall be five guineas. (*e*) That, in the event of any vacancy occurring among the assistant-examiners appointed by this Council, it be remitted to the Branch Council in the division of the kingdom in which the vacancy has arisen to appoint an *ad interim* examiner or examiners."

Mr. COLLINS seconded the motion, which was agreed to.

Mr. MACNAMARA moved: "That the Council now proceed to appoint Inspectors of Examinations from the following list of persons suggested by the Branch Councils:—By English Branch Council: In Medicine—Dr. Coupland, Dr. Finlay; in Surgery—Mr. McGill, Mr. Pepper; in Midwifery—Dr. Malins. By Scottish Branch Council: In Medicine—Matthew Hay, James A. Russell; in Surgery—Joseph Bell, J. D. Gillespie, D. N. Knox; in Midwifery—A. H. F. Barbour, R. Milne Murray, W. L. Reid, James Stirton. By Irish Branch Council: In Medicine—John Magee Finny; in Surgery—E. H. Bennett, E. D. Mapother; in Midwifery—F. W. Kidd, T. M. Madden."

Dr. BRUCE seconded the motion, which was adopted.

The Council then proceeded to the appointment of inspectors in private, strangers being requested to withdraw.

On the readmission of strangers the PRESIDENT announced that the following gentlemen had been appointed:—For Medicine, Dr. Finlay; Surgery, E. H. Bennett; Midwifery, A. H. F. Barbour.

Dr. GLOVER called attention to the late appearance of the Medical Register, which he said was not published till April 29th. The Medical Directory appeared before the end of the previous year. In former years the Register appeared at various dates in February and March, but never so late as this year. No doubt the circumstances were somewhat exceptional, and certain improvements had been introduced, but he still thought that the appearance ought not to have been so late, and hoped that it would be earlier in future. He was quite sure that the fault did not lie with the Registrar, who took great pains to have the work done not only accurately but promptly.

Dr. QUAIN said that many changes had been required in the Register, and there were great difficulties in bringing out so large a volume. There had also been some delay in the Stationery Office, where the book was printed at a very cheap rate, so that it was impossible to put too much pressure upon them.

Dr. A. SMITH regretted that the matter had been brought before the Council, and thought that the attention of the Executive Committee ought to have been called to the subject. He also thought that there was an undeserved imputation of neglect on the part of the Registrar.

The REGISTRAR said that the work of the Register had materially increased of late years. Some delay had arisen in consequence of the useful addition of dictionary headings, which necessitated another revise. The work was done at a much cheaper rate than it would be done by an ordinary printer.

Sir WM. GULL thought that there ought to be a general expression of entire confidence in the Registrar. He had often been surprised at the admirable manner in which his work was done.

Dr. STRUTHERS expressed his concurrence in the remarks of Sir W. Gull. They ought to take no notice of the pellets of the penny-a-liners of the anonymous London press.

Mr. MCVAIL said he thought that Dr. Glover was entirely justified in the course he had taken.

Dr. GLOVER said he thought that he had carefully guarded himself in regard to their obligation to Mr. Miller, the Registrar. He still thought that he had brought an important matter before the Council. He was not quite satisfied that the late appearance of the Register was unalterable; and if it did not appear sooner next year he should feel it his duty to make the same complaint.

Dr. STRUTHERS, who had given notice of a motion for the consideration of the interim report of the Executive Committee and the suggestions of the Branch Councils in regard to the appointment of inspectors of examinations, said that it had been rendered unnecessary after the motion of Mr. Macnamara. He would only refer to one of the recommendations of the committee, that the inspectors should have their attention specially called to the quality of the examinations, and also to the sufficiency of the means and appliances for testing the qualification of the candidates. There was another matter to which special attention should be called—viz., the quantity of the examinations, that being a point in which they were deficient. There ought also to be a reference to the previous reports of visitors.

Dr. HAUGHTON withdrew a motion of which he had given notice, with reference to the manner of entering on the Register the names of British physicians and surgeons holding foreign diplomas in dentistry.

This concluded the business of the Council.

The PRESIDENT said he thought that the Council might congratulate itself on having settled some very important and difficult questions in such a way as to economise time and labour in the future. Though the session had been a long one, he did not regret the time that had been spent, because he thought that great economy and other advantages would be the result.

MEDICAL ATTENDANCE ORGANISATION COMMITTEE.

THE eleventh meeting of the above committee was held at 5, Lamb's-conduit-street on Tuesday, the 10th inst., Sir T. Spencer Wells in the chair. There was again a good attendance of the committee. The following resolutions were considered:—

1. "That it be an understanding that the resolutions passed on this branch of the subject—namely, relating to the hospitals—are intended as a basis for a conference with hospital authorities previous to the general report being submitted, and not as a final settlement." This resolution was carried unanimously.

2. "That in the opinion of this committee hospital authorities should be requested to consider the propriety of requiring all applicants for relief in the out-patient departments to sign a declaration that, in the case of single

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persons, their average wages do not exceed £1 per week; and, in the case of a family, their joint earnings do not exceed 30s. per week."

To this resolution the following amendment was proposed:—"(1) That in the interest of hospitals, provident and other dispensaries, and of the poor themselves, it is desirable that an agent, well trained and thoroughly conversant with the locality, rates of wages, &c., be employed at general hospitals and free dispensaries to fulfil the following duties: (*a*) To ascertain whether the patients should receive advice and treatment gratuitously; (*b*) to make inquiries on the plan now in force at the London Hospital; (*c*) to refer persons ineligible for free medical treatment to local practitioners, provident dispensaries, or relieving officers. (2). That this proposal be adopted, on the understanding that all patients are eligible for first treatment, and also that those cases which are vouched for by the medical men as of special interest be retained at the hospital."

There was considerable discussion on the resolution and amendment, after which the amendment was carried by a large majority.

The following proposed alterations in the out-patient departments of hospitals was then moved by Mr. T. Holmes:—"1. That both the number of out-patients received each day and the hours for seeing them be limited, so that not more patients be received than can be deliberately attended by the stated officers of the hospital (and used for clinical instruction in hospitals having schools attached), and also that the present abuse of keeping patients waiting for a great part of the day be reformed. 2. That out-patients be not received (except in the casualty department) without a recommendation from some medical authority, whether a dispensary or private medical practitioner, so as to ensure that only persons are received whose medical condition fits them for out-patient treatment. 3. That out-patients be received only for consultation, and not for prolonged treatment, unless the latter be recommended both by the medical authority who sends the patient and by the out-patient physician or surgeon of the hospital. 4. That the casualty department be strictly limited to accidents and street emergencies, and that only accidents attend more than once."

It was resolved that these resolutions should be considered separately at the next meeting of the committee on Tuesday, the 17th inst.

TESTIMONIAL TO MR. FURNEAUX JORDAN.

A MEETING of subscribers to this fund was held on the 12th inst., in the library of the Birmingham Medical Institute, to present Mr. Furneaux Jordan with a Testimonial on the occasion of his retirement from the surgical staff of the Queen's Hospital and from professional life. Mr. J. St. S. Wilders presided, and a large number of the practitioners of Birmingham and the Midlands attended. The presentation, towards which 134 old pupils and friends contributed, took the shape of two large portraits of Mr. Jordan, which were specially prepared at the wish of the subscribers—one to be hung in the Queen's Hospital and the other in the Birmingham Medical Institute; and also a handsome library of books and a cheque for £217. The chairman, in making the presentation, alluded to Mr. Jordan's high renown as a surgeon and a teacher, and to the services he had rendered to his hospital and the profession. Sir James Sawyer, Mr. T. H. Bartleet, Mr. Chas. Sims, Mr. Vincent Jackson, and Mr. F. Underhill also added complimentary remarks; the latter, on behalf of the general practitioners, for whom he spoke, said that they had always found in Mr. Jordan the highest type of a consultant. Mr. Jordan, in replying, expressed his great appreciation of the kindness which had prompted the testimonial. He had been impelled to retire by considerations of health, as professional work could only be carried on by a strain too great for his endurance. He urged his professional brethren to consider whether it was worth while dying in harness,—whether they should not look forward to a short period of rest and enjoyment. Retrospectively, he observed that when he began life he was ambitious to take up the philosophical side of the profession, but he could not succeed in doing anything of the kind. He found practical surgery—the easing of the troubles and pains and anxieties of one's fellow-creatures—much more pressing.

SANITARY LEGISLATION CONFERENCE.

THE third meeting of the Conference convened by the Sanitary Assurance Association, to consider and report upon the Sanitary Registration of Buildings Bill, was held on the 16th inst., the President of the Association, Sir Joseph Fayrer, presiding. At the first two meetings the principle of the Bill was unanimously approved, and six out of the seventeen sections of which the Bill consists were with amendments agreed to. At the last meeting Section 7 was agreed to as follows:—The Local Government Board or corresponding authority shall issue licences in sanitary practice to the following persons and corporations—that is to say, (1) members of the Royal Institute of British Architects, members of the Institution of Civil Engineers, members of the Royal Institute of Architects of Ireland, members of the Association of Municipal and Sanitary Engineers, and surveyors and members of the Surveyors' Institution who are registered in accordance with this Act as qualified in sanitary practice; (2) architects and civil engineers who have been in practice three years at the passing of this Act, and who shall prove their practice has been a *bond fide* one and has included the designing and carrying out of constructive sanitary works; (3) sanitary associations incorporated by licence of the Board of Trade, provided that their certifying officers be registered as qualified in sanitary practice, in accordance with this Act; (4) medical practitioners registered as qualified in sanitary science; (5) persons who are medical officers of health at the passing of this Act; (6) persons who at the passing of this Act held appointments as engineers or surveyors under the Public Health Acts, provided they are members of one of the institutions mentioned in Subsection I. of this section; (7) such other persons as the Local Government Board or corresponding authority may consider qualified after examination. Considerable discussion took place on the eighth and ninth sections, but they were agreed to with merely verbal alterations, and the Conference then adjourned until the 23rd inst.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Reading Urban District.—The borough of Reading has increased between 1881 and 1886 from a population of 42,360 to 48,280, the persons per acre having risen from 20·2 to to 23·0. But the death-rate has fortunately fallen, and last year it stood at 16·8 per 1000; a substantial reduction has also taken place in the zymotic rate and in the infantile death-rate. All these points are brought out in considerable detail by Dr. Shea, who is also able to advert to some of the circumstances which have led to this comparative prosperity in health. The water supply is kept under constant and vigilant supervision, and improvements are steadily being effected in the method of its service. There is a sanatorium for small-pox, and a separate fever cottage. The notification of infectious diseases is also carried out under an Improvement Act, and the information so obtained has materially assisted the efforts to deal with these diseases. Bakehouses, cowsheds &c., slaughterhouses, and offensive trades are kept under supervision, and a code of bye-laws is now ready for application. Some occurrences of typhoid fever led to the water supply being suspected by some inhabitants of the district. Dr. Shea does not think the suspicion well founded, but he presses the importance of efforts to secure the diversion of all sewage about the intakes of the Reading Waterworks.

Reading Rural District.—This district is also under Dr. Shea's medical supervision. It had in 1886 a death-rate of only 12·2 per 1000, and the amount of infectious disease was unimportant. When any occurred, such action as was available was adopted to secure permanent improvement in the sanitary circumstances. The local water supplies are cared for, especially where dairy farms are concerned, and a system of scavenging has been adopted in one of the more populous localities.

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Taunton Urban District.—In his annual report on this district Dr. Alford points to the improvements that have been effected in the water service, and which will soon be completed by the construction of a storage reservoir sufficient to ensure a constant service. Referring to complaints as to enforcing closure of wells, he states in answer that, whereas typhoid fever was once common in the district, it has now well-nigh disappeared. Much has also been done to improve the system of sewers and to secure adequate means of flushing. The corrected death-rate for 1886 was 17 per 1000, and the zymotic rate was only 1·4; infectious diseases being controlled by voluntary notification, isolation in hospital, and subsequent measures of disinfection. The sanitary hospital received 60 patients, the total admissions since its opening having been 593. Of the 60, 46 came from the urban district and 14 from the rural district, and, apart from two cases dying within forty-eight hours of admission, only two instances of death occurred. This hospital has always been worked satisfactorily, and a glance at the year's financial statement with regard to it shows that repayment by patients of the costs incurred is not allowed to stand in the way of the prime consideration of securing isolation in the interests of the health of the public.

Taunton Rural District.—In this district Dr. Alford has complaint to make as to the absence of proper means of drainage and as to defects in existing sewers, and he states generally that although good sanitary work has been carried out yet much remains to be done. The death-rate for 1886 was 15·9 per 1000. Bye-laws are needed to regulate the construction of new buildings, and power should be sought by the authority to make them.

Wokingham Urban District.—Here Dr. Shea reports a death-rate of 19·3 per 1000, but the zymotic rate was only 1·1 per 1000. Small-pox was the only disease that gave rise to anxiety, and the authorities are reminded that the Poor-law hospital is not properly available for sanitary purposes. The water supply is carried into houses needing it, the sewage farms work well, and bye-laws have been provisionally adopted.

Wokingham Rural District.—This district is also in Dr. Shea's area as medical officer of health, and the report is in the main a record of sustained sanitary work. Nine cases of enteric fever occurred in three houses, and a detailed account is given of their sanitary circumstances, the result being that these did not sufficiently account for the occurrence, which in point of causation remained somewhat obscure. The general death-rate during 1886 was 15·3 per 1000.

Whitechapel.—The death-rate for this district in 1886 was 22·5 per 1000, and Dr. Loane holds that it is considerably influenced by the number of common lodging houses within it. These tend at times to become suddenly filled by persons who are certainly not in the best state to withstand disease. Thus, early in the year when liberality was being dispensed at the Mansion House, there was a special influx of people into Whitechapel lodging houses from all parts of the country, and they were people who, whilst adding but little to the birth-rate, tend enormously to increase the sick and death rates. Indeed, whilst the common lodging-house births equal 1·3 per cent. of the total district births, and 38·4 per cent. of the births in the Union Infirmary, the deaths in these registered houses equal 11·9 per cent. of the total district deaths, and 64·5 per cent. of the total infirmary deaths. In this connexion it is interesting to note that in the Whitechapel district there are buildings constructed under the Artisans and Labourers' Dwellings Acts, and also by private enterprise, which accommodate some 6432 persons. These give a mortality of 16·0 per 1000, and contribute only 6·3 per cent. of the total deaths, or about half that which the common lodging houses contribute. And the contrast is the greater when it is remembered how large a proportion of young children to adults there is in the artisan class of dwelling.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5703 births and 3494 deaths were registered during the week ending May 14th. The annual rate of mortality in these towns, which had been 21·6, 20·6, and 20·9 per 1000 in the preceding three weeks, declined last week to 19·7, and was lower than in any previous week of this year. During the first six weeks of the current quarter the death-rate in these towns averaged 20·7 per 1000, and was 2·1 below the mean rate in the corresponding periods of the ten years 1877-86. The lowest rates in these towns last week were 10·7 in Bolton, 12·8 in Derby, 14·9 in Leicester, and 15·3 in Sunderland. The rates in the other towns ranged upwards to 26·2 in Newcastle-upon-Tyne, 26·4 in Manchester, 26·9 in Liverpool, and 29·0 in Huddersfield. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 558, 529, and 548 in the preceding three weeks, declined last week to 500; they included 235 from measles, 136 from whooping-cough, 47 from scarlet fever, 33 from "fever" (principally enteric), 27 from diarrhœa, 20 from diphtheria, and only 2 from small-pox. No death from any of these zymotic diseases was registered during the week in Wolverhampton; whereas they caused the highest death-rates in Sheffield, Huddersfield, and Norwich. The greatest mortality from measles occurred in Sheffield, Manchester, Salford, Newcastle-upon-Tyne, and Norwich; from whooping-cough in Huddersfield, Birmingham, and Blackburn; from scarlet fever in Hull and Oldham; and from "fever" in Liverpool. The 32 deaths from diphtheria in the twenty-eight towns included 9 in London, 3 in Huddersfield, 2 in Liverpool, and 2 in Brighton. Small-pox caused 1 death in Portsmouth and 1 in Cardiff, but not one in Greater London or in any of the twenty-five other large provincial towns. Only 7 cases of small-pox were under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease; 3 new cases were admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 338 and 348 in the preceding two weeks, declined last week to 294, and were 48 below the corrected average. The causes of 74, or 2·1 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Cardiff, Bolton, and in four other smaller towns. The largest proportions of uncertified deaths were registered in Sheffield, Salford, and Liverpool.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 22·5 and 21·2 per 1000 in the preceding two weeks, rose again to 21·5 in the week ending May 14th; this rate exceeded by 1·8 the mean rate in the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 10·8 and 14·6 in Leith and Perth, to 23·6 in Glasgow and 23·7 in Edinburgh. The 536 deaths in the eight towns last week showed an increase of 7 upon the number in the previous week, and included 36 which were referred to whooping-cough, 15 to measles, 12 to scarlet fever, 7 to diphtheria, 5 to "fever" (typhus, enteric, or simple), 3 to diarrhœa, and not one to small-pox; in all, 78 deaths resulted from these principal zymotic diseases, against 95, 89, and 72 in the preceding three weeks. These 78 deaths were equal to an annual rate of 3·1 per 1000, which exceeded by 0·3 the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 36 and 31 in the preceding two weeks, rose again last week to 36, of which 18 occurred in Glasgow, 7 in Dundee, and 6 in Edinburgh. The 15 deaths from measles showed a further considerable decline from the numbers in recent weeks, and included 10 in Glasgow and 5 in Aberdeen. The fatal cases of scarlet fever, on the other hand, which had declined in the five previous weeks from 11 to 2, rose again last week to 12, of which 6 occurred in Glasgow and 3 in Aberdeen. The 7 deaths from diphtheria also exceeded recent weekly numbers, and included 4 in Glasgow and 2 in Paisley. Of the 5 deaths referred to "fever," 2 occurred in Glasgow and 2 in Aberdeen. The 3 deaths attributed to diarrhœa were 10 fewer than those returned in the corresponding week of last year. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had declined in the preceding four weeks from 126 to 106, rose again last week to 120, and exceeded the number in the corresponding week of last year by 17. The causes of 56, or nearly 11 per cent., of the deaths registered in the eight towns during the week were not certified.

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HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 31·3 and 36·6 per 1000 in the preceding two weeks, declined to 24·4 in the week ending May 14th, and was lower than the rate recorded in any previous week of this year. During the first six weeks of the current quarter the death-rate in the city averaged 31·3 per 1000, the mean rate during the same period being but 18·4 in London and 20·1 in Edinburgh. The 165 deaths in Dublin last week showed a decline of of no fewer than 83 from the number in the previous week; they included 7 which were referred to measles, 4 to whooping-cough, 3 to diarrhœa, 2 to scarlet fever, 2 to "fever" (typhus, enteric, or simple), and not one either to small-pox or diphtheria. Thus 20 deaths resulted from these principal zymotic diseases, against 24 and 19 in the preceding two weeks; they were equal to an annual rate of 3·0 per 1000, the rates from the same diseases being 2·3 in London and 1·4 in Edinburgh. The fatal cases of measles, which had been 11 and 6 in the preceding two weeks, rose again last week to 9; the deaths from whooping-cough, "fever," and scarlet fever, on the other hand, showed a decline in each case. The deaths both of infants and of elderly persons showed a considerable decline from recent weekly numbers. Four inquest cases and 6 deaths from violence were registered; and 48, or more than a quarter, of the deaths occurred in public institutions. The causes of 19, or more than 11 per cent., of the deaths registered during the week were not certified.

THE DUBLIN DEATH-RATE.

The Registrar-General for Ireland, in a recent address, stated that, whilst a remarkable reduction in the death-rate had taken place in the English towns during the ten years which had elapsed from the passing of the English Public Health Act, no corresponding reduction had been noticed in Dublin during the ten years which had passed after the enactment of the Irish Public Health Act in 1874. This statement attracted the notice of the Dublin Town Council, and they adopted a resolution drawing the attention of Sir Charles Cameron, the medical officer of health, to the matter, and requesting him to report to the Council on the subject as soon as possible. That gentleman has accordingly drawn up a report, in which at the outset he states that since the corporation have been provided with adequate means for the purpose, they have, apparently with remarkable success, laboured to reduce the high rate of mortality which has so long prevailed in Dublin. It appears to him that a most serious factor in producing the high death-rate in Dublin is the poverty of a large proportion of the population. Another cause of the higher death-rate is the crowding into the city from the country of worn-out and decayed persons who end their days in the hospitals and workhouses. It is a remarkable fact that Dublin, with only one-twentieth of the population of Ireland, contains about two-fifths of all the hospital beds in the country. A fact showing the poverty of the people is that, while 15 per cent. of the deaths in the English towns take place in the workhouses and charitable institutions, in Dublin it amounts to 30 per cent. The returns of the Registrar-General for Ireland show that the death-rate among certain of the poorer sections of society is very great, while among the well-to-do classes in Dublin the mortality is the reverse of excessive. For example, in 1886 the death-rate was only 17·3 among the 30,129 persons composing the "professional and independent classes." Sir Charles Cameron thinks it probable that the stagnant condition of the contents of the city sewers operates injuriously upon the public health. It may not, he remarks, be generally known that the mouths of the sewers are closed for about twelve hours daily by the rise of tidal waters in the river; therefore, during this time all the sewage of the city is impounded in the sewers, except the portion which is pumped out at the two pumping stations. Until the beginning of 1879 the corporation of Dublin were unprovided with funds for the purpose of effecting needful sanitary reforms, and the following are the chief measures which since then have been taken to improve the sanitary state of the city. In 1880 £15,000 were expended in making and improving street sewers; a loan of £100,000 was obtained for paving the streets, and followed by a supplementary one of £13,000. In 1881 a loan of £28,000 was procured for domestic scavenging; and the following year the daily cleansing of the yards and sanitary accommodation of tenement houses was carried out. This service costs £3000 a year; and in 1882 an abattoir was established, at a cost of £15,000. Last year the second of two unhealthy areas was cleared, at a cost of £56,700; while public baths and wash-houses have been erected at a cost of £11,000, and a loan of £20,000 obtained for the erection of dwelling-houses for the working classes. Among minor sanitary loans may be mentioned £3000 for improvement of the sanitary accommodation of tenement houses, £2000 for the ventilation of sewers, and £3000 for pumping works in connexion with sewers; while three new streets have been formed since 1883, at a cost of £90,200.

THE SERVICES.

Surgeon-General W. S. Murray, M.B., has been appointed Principal Medical Officer with the troops in Egypt, vice Surgeon-General J. O'Nial, C.B., who will be placed on the retired list next month under the age clause of the Medical Warrant.

Surgeon U. J. Bourke has been appointed Medical Officer at the Royal Arsenal, Woolwich.

Deputy Surgeon-General J. Landale, M.D., has been appointed to the medical charge of the Sirhind Division.

Deputy Surgeon-General R. W. Meadows has been appointed Principal Medical Officer of the Western District.

INDIA OFFICE.—The Queen has approved of the following promotions among the Officers of the Indian Military Forces, made by the Governments in India:—Surgeon-Major William Smyth Fox, of the Madras Medical Establishment (dated Jan. 4th, 1887), and Surgeon-Major Abraham Nickson Hojel, of the Bombay Medical Establishment (dated April 2nd, 1887), to be Brigade Surgeons.

ADMIRALTY.—Staff Surgeon John Jolliffe has been awarded the Greenwich Hospital Pension of £50 a year for Fleet and Staff Surgeons, R.N., vacant by the death of Deputy Inspector-General F. J. G. T. Forbes.

In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Fleet Surgeon Gerald Molloy has been placed on the retired list, with permission to assume the rank of Deputy Inspector-General of Hospitals and Fleets (dated May 15th, 1887).

The following appointments have been made:—Fleet Surgeon Astley Cooper, to the *Dædalus;* Fleet Surgeon William D. Longfield, to the *Indus;* Fleet Surgeon Godfrey Goodman, to the *Royal Adelaide;* Fleet Surgeon James D. Smith, to the *Rupert;* Surgeon John L. Bagnall-Oakeley, to the *Royal Adelaide;* Surgeon John D. Hewood, to the *Minotaur;* Surgeon Edward J. Biden, to the Plymouth Hospital; Surgeon J. D. Trevor Roper, to the *Foxhound;* Surgeon R. Hickson, to the *Dolphin;* Surgeon W. G. Axford to the *Lion;* and Surgeon F. J. Burns, to the *Pembroke*, additional.

YEOMANRY CAVALRY.—Suffolk: Robert Harry Lucas, Gent., to be Surgeon (dated May 14th, 1887).

ARTILLERY VOLUNTEERS.—1st Cinque Ports: Acting Surgeon Thomas MacQueen, M.B., resigns his appointment (dated May 14th, 1887).

RIFLE VOLUNTEERS.—2nd Volunteer Battalion, the Gloucestershire Regiment: Surgeon C. F. Garrett resigns his commission (dated May 14th, 1887).—6th Lanarkshire: James Wylie, M.B., to be Acting Surgeon (dated May 14th, 1887).—1st Suffolk: Surgeon G. S. Elliston is granted the honorary rank of Surgeon-Major (dated May 14th, 1887).—1st West Riding of Yorkshire: Acting Surgeon T. Deville, M.D., resigns his appointment (dated May 14th, 1887).

THE VOLUNTEER MEDICAL STAFF CORPS.—The Manchester Division: Acting Surgeon William Henry Brownbill Crockwell, from the 16th Lancashire (3rd Manchester Rifle Volunteer Corps), to be Surgeon (dated May 14th, 1887).

THE Pharmaceutical Society held its annual soirée on Wednesday, in the galleries of the South Kensington Museum. The company were received by the President, Mr. Michael Carteigh, and members of Council. A selection of music was played by the band of the Royal Horse Guards, and a concert of glees and madrigals were given under the direction of Mr. and Mrs. Winn. The attendance was very numerous, and a very agreeable evening was spent.

THE annual Court of Governors of the Bath Mineral Water Hospital was held on the 2nd inst., when satisfactory general, medical, and financial reports were presented and adopted.

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Correspondence.

"Audi alteram partem."

THE COLLEGE OF SURGEONS' EXAMINATIONS.

To the Editors of THE LANCET.

SIRS,—As my name is prominently mentioned in your leader of last week upon the examinations at the College of Surgeons, perhaps you will allow me to reply.

I do not retract one word of the evidence I gave before the Royal Commission, and I still say that "one man may be lucky," &c.; and that "I do not know, human nature being as it is, how it is to be avoided." Of course, with a comparatively small number of candidates, as at Cambridge in former years when I examined there, it was possible for the whole of the candidates to pass before my surgical colleague and myself, who read *all* the papers and examined alternately *vivâ voce*. Such a method is impracticable at the College of Surgeons from the large number of candidates, as it is also at the University of London, where my surgical colleague and I divide the papers and candidates, and both of us only read all doubtful papers and examine *vivâ voce* all doubtful candidates, so that no man may be rejected by a single examiner. At the College of Surgeons the Court of "ten examiners of surgeons" is divided into five "tables," and the candidate whose paper goes, say, to A (where it is read and marked by *both* examiners), goes to B, C, D, and E for his *vivâ voce*, and so on. Hence each candidate appears before the whole Court, and no section knows what marks the others have given until they are called out at the end of the examination. It is, no doubt, much to be regretted that the rate of "pluck" has been so high lately—viz, 50 per cent. in January and 51·6 in April; but this is partly due to the fact that in January last 65 men were up for the second time, 23 for the third time, 7 for the fourth time, 2 for the fifth time, and 1 for the sixth time; while in April 60 men were up for the second time, 24 for the third time, 7 for the fourth time, 5 for the fifth time, 1 for the sixth, and 1 for the seventh time—making altogether 98 reappearances out of 246 candidates in January, and 98 out of 269 in April.

Although "the statements of 1881 hold good for 1887," a good deal has been done to improve the College of Surgeons' examination, with the object of gaining "less uncertainty," and even "in the way of diminished stringency." The former has certainly been attained to some extent by increasing the time allotted to the clinical and practical examinations respectively from ten minutes to a quarter of an hour, so that neither candidate nor examiner may be hurried. At the April examination, too, the experiment was tried of taking the two parts of the *vivâ voce* on different evenings, and thus a candidate had twenty-four hours to "pull himself together" after his first "heat." The rule has been established that the "tables" are rearranged every six months, so as to prevent colleagues getting into ruts; and a great deal of care is taken by the College officers in arranging the tables so as to counterbalance any recognised proclivities of certain examiners. Lastly, the practice of referring for only three months candidates who have failed by only one mark of the required fifteen (out of a possible thirty) has been introduced into the College of Surgeons', and through its representatives into the College of Physicians', examinations. As a set-off we have now the power to refer grossly ignorant candidates for nine and twelve months, and the following figures may be of interest:—In January 35 were referred for three months, 82 for six months, 4 for nine months, and 2 for twelve months; in April 43 were referred for three months, 79 for six months, 7 for nine months, and 9 for twelve months.

In conclusion, may I say that the Court of Examiners are but the servants of the Council, which does not hesitate to oust an incompetent examiner. The examinership is not now a life-long office, but is restricted to ten years' tenure, and at the present moment every member of the Court is in active practice as a surgeon and teacher. I could wish that more Fellows of the College would avail themselves of their undoubted privilege to attend the examinations and see how the work is done.

I am, Sirs, yours obediently,

May 16th, 1887. CHRISTOPHER HEATH.

"SUBSTANTIVE *VERSUS* HONORARY RANK."

To the Editors of THE LANCET.

SIRS,—Your article, and the letter of "A. M. D," in THE LANCET of the 14th inst., on the question of the rank of medical officers of the army, place this most unwise and undignified agitation in a true and proper light. Surely the medical staff has a substantive rank of its own. This is defined in such grade by the clear statement of the Secretary of State for War, that medical officers shall rank *as* the corresponding grades of military officers. What could be more explicit? To what end, then, can honorary rank be desired? Is it possible that physicians and surgeons, graduates of universities, Fellows and Members of Royal Colleges, seek to obtain incongruous military titles as prefixes to their names? If there be medical officers who desire such an anomaly, they have lost sight of the respect due to themselves as members of a learned and recognised profession, and they fail to appreciate the position that profession holds in the esteem of all cultured men. Medical officers may, I think, congratulate themselves that only a very few of their number are so strongly imbued with the love of playing at soldiers that they would carry the mimicry into the serious work of life; and it is fortunate that Mr. Stanhope's replies to questions on the subject are so definitely negative that no fear need be entertained that the few will succeed in placing the many in a very ridiculous position. I am, Sirs, your obedient servant,

May 17th, 1887. BRIGADE SURGEON.

To the Editors of THE LANCET.

SIRS,—Your issue of April 2nd, has just reached me. In it, at p. 701, is a letter by "F.R.C.P." That communication—doubtless written with the best of intentions—only too well illustrates the absolute ignorance on the part of our civil brethren of the peculiar position which we army surgeons bear in regard to what are two distinct professions—namely, those of *arms* and *medicine*. I can well understand the difficulty which "F.R.C.P." finds in appreciating the unanimous outcry of the army medical staff against the abolition of relative rank. When I first entered the service, some four years ago, the question of rank was often discussed among the medical officers. In those days no stronger opponent than myself existed against the tendency to ask for real or honorary rank. I took my stand—as "F.R.C.P." does—on the inherent position which that of surgeon gives to a man, and scouted all ideas of, or pretensions to, purely military titles, as being expressive of an undignified and false position for members of the medical profession. A few years of actual experience in the army has convinced me of the folly of my original views. I stand second to none in my respect and love for my profession, and have consistently and strenuously endeavoured to do my work as a good medical officer abreast of his times. In the army that is not enough to hold one's own, although it goes some way towards it. Once in the army, and mixing with army men, the value of military rank asserts itself. Let a man be ever so good a doctor, ever so good a gentleman (in its fullest sense), without rank—I mean military rank, and called by military terms—he is as no one. "If you go to Rome, you must do as Rome does." In the army you must be known by army terms and hold army rank. I write in no captious spirit; on the contrary, I may say I almost regret (being a surgeon) to write so. But the plain term surgeon or doctor is valueless in the army. Whether it is the reflected light from our civil rank and file, I know not, but *surgeon* as *surgeon* carries no weight. It is true we army surgeons are not soldiers in the sense of engaging directly in the operations of war, but we are an integral and important part of an army. On service we undergo the same hardships as the regimental officer; we run similar risks; our duties involve equal dangers to life and limb. We command our own men; we acquire the habits and qualities of the soldier. We have to combine units into disciplined bodies for the purposes of concerted action, and at the same time fulfil the offices and show the talents and judgment of experts. In a word, we are two professions rolled into one. I fail to imagine any higher *rôle* than that of the army surgeon. He is at once a commander of men, an organiser, and a guardian of man's most precious gift—*life*. The last few years have seen a steady increase in the ranks of the

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army medical staff of well-trained, well-educated professional men—men not only adepts in their technical work, but at the same time men of varied talents; men not drawn exclusively from Ireland and Scotland, but men from the *English* schools. This last step of the War Office will check this popularity of the army as a career for able and educated surgeons. An inferior class of men only will enter. No man with any respect for himself or his profession could, or will, enter the army so long as his position is defined as being non-military, and as such secondary to each and every person whose rank is military. We want no blinking at the question, and hazy definitions of position and rank as given in Clause 125A of the last Warrant. If not *actual*, we want *honorary* rank in the army. The question is important, far more so than many of our civilian brethren think. We in the army know where the shoe pinches.

I am, Sirs, your obedient servant,

B.A. OXON., F.R.C.S. ENG.,
Punjab, India. Surgeon, M.S.

*** We fully sympathise with our correspondent in his opinion that a definite military rank is essential in the case of an army medical officer. As we have repeatedly said, the medical officers form an integral part of the army, and are entitled to, and must have, a distinct and clearly defined military rank. But we differ from him in this, that we believe the Warrant, as it is to be modified, will secure that well-defined position. The Royal Warrant in its amended form appears to us to grant a substantive military rank to each grade of military officers. If it should turn out—an event which we consider almost impossible—that the military authorities on any occasion call in question this rank, and the Secretary of State declines to carry out the assurance he has repeatedly given in his place in the House on the subject, we shall be found amongst the strongest supporters of any course which may seem calculated to secure to the medical officers that position to which they are clearly entitled. But, believing as we do that the War Minister will in good faith carry out the views he has expressed, we are of opinion that the positions of the medical officers will be well secured, and beyond the reach of question, under the modified Warrant.—ED. L.

A DOCTOR'S INCOME.

To the Editors of THE LANCET.

SIRS,—The letter I wrote you regarding the income of doctors has excited so much interest that I hope you will allow me further to discuss the possible remedies for the present deplorable state of things.

One of your contemporaries has suggested that 10,000 doctors should emigrate. But how can men emigrate who have no practical knowledge useful in that line of life, who have sunk their capital in their education, who have, perhaps, delicately nurtured wives and young children unfitted to rough it in the bush? I venture to assert that there is no overcrowding in the profession. There is one doctor to every 1550 people, which is none too many. The disease which blights so many of us is not want of work, but want of pay. Too many people evade paying the doctor, or pay him such fees that he cannot live decently. At shilling fees 1550 people ought to give a doctor over £800 a year, whilst I showed before that the gross income even of those who have practices scarcely exceeds £600. Surely this proves that the evil is not overcrowding, but underpayment. Can we remedy this? I will venture to offer some suggestions, though I fear they will be much opposed.

Taking fees in detail, we must own that *5s.* a visit and upwards are adequate payments for doctors. I think quite 10 per cent. of the population pay such fees. We will therefore disregard these. The next grade pay fees which range between *2s. 6d.* a visit and *5s.* These are as much as middle-class people can afford, and enable a doctor to make a fair honest living. These, too, may therefore be fairly set aside. I think they may be reckoned as constituting another 10 per cent. of the population. The remaining 80 per cent. pay, as a rule, such fees that no doctor can possibly live as an educated gentleman may claim to do, on these fees alone. The union, club, and dispensary patients pay, as I showed before, about *6d.* or *7d.* a visit, and the rest of the poor look on these as typical payments, and resent paying more. I will illustrate, by an actual case, the working of the present system, *ex uno disce omnes.* The wife of a retired tradesman joined a medical club, and fell ill. The doctor attended her. Her case was chronic and obscure. The doctor's visits fell to one a week, which the patient considered inattention. Another doctor was called in. This doctor charged *1s. 6d.* a visit (surely a modest sum for half an hour of an educated man's time). This was considered too heavy an expense. The woman obtained a letter for the local hospital and attended as an out-patient for some time. Becoming too weak and ill to go on as an out-patient, she reverted to her club doctor. Finally, she became an in-patient of the hospital, and, I believe, died there. She was attended throughout a long illness, with the exception of one short period, for the sum of *five shillings!* She did not expect a butcher to give her meat or a baker to give her bread for nothing, but that she should expend money on medical attendance seemed monstrous when two doctors were willing to see her for nothing, or next to nothing. Now why were these doctors willing to do this? The dispensary doctor was driven by sheer competition to accept these ludicrous payments or actually starve. The hospital doctor attended her for nothing, because his connexion with the hospital gave him status, and this enabled him to command higher fees from his private patients. But the system which *makes* the hospital doctor *breaks* hundreds of his less fortunate brethren. I would begin, then, by reforming the country hospitals. Let the general practitioner follow his cases to the hospital, and let him receive for so doing exactly the same fees as he would have received for attending the patient at his own home. Let the honorary staff be truly a *consulting* staff. Let them have the honour which they (rightfully) seek, but do not let them do general practitioners' work without pay. Let them meet general practitioners in consultation in the hospital over difficult or obscure cases.

Then we come to the present system of paying the holders of union and club appointments a fixed sum per annum. This has many ruinous effects. In the first place, the largeness of the total conceals from the patients the poorness of the pay. In the second place, it enables the doctor to mass several appointments and keep an assistant (often, alas, unqualified), almost always worse paid than any curate, to do the bulk of the work. In the third place, it often compels men to seek these appointments in order to exclude opponents, who would otherwise divide an already scanty income. Why should not payment be by result in all these cases? Suppose the fee were fixed at *1s.* a visit and *6d.* per bottle of medicine, with extras for mileage and nightwork. Let all members of clubs or parish patients be free to go to any doctor they chose who was willing to attend them at the fee fixed. In the case of clubs the patient might be required to pay a portion of each fee out of his own pocket, to guard against excessive visiting. In the great majority of cases union patients could similarly pay a portion of the fee and the parish the rest. I venture to say this system would not merely add largely to the present income of doctors, but would effectually disabuse the public mind of the idea that they have a moral right to a doctor's services for nothing. My arguments may have seemed to be all for the doctors, and none for the public. They are not so really. It cannot be to the advantage of the public that any trade or profession should work for nothing. Such a trade or profession would be *lean kine* eating up the *fat kine*—that is, the profits made by their fathers in other lines of life. A death-rate of 1122 in the medical, as compared with 842 in the legal and 556 in the clerical, shows an undue waste, which must injure the whole body politic. There is much actual loss, too, from scamped work. For instance, a club patient grew seriously worse through his doctor failing to visit him for four days. He then called in another doctor, who cured him in a few hours. Meanwhile the man had lost five days' work, of the value of *18s. 6d.*—as much as he had paid his club doctor in the past five years probably.

Now, Sirs, how are these reforms (or any others that may be thought better) to be brought about? General practitioners are like amœbæ—structureless, without differentiated brain or mouthpiece. Their nominal leaders really belong to a different profession, for consultants are to family doctors almost precisely as barristers are to solicitors. Where are we to look for leaders? Our next question will

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be to form a combination such as has never yet been attempted by the profession. If that were once accomplished there would be no difficulty left. The union and club authorities would be obliged to accede to any reform demanded with anything approaching to unanimity by the profession. But there is the rub. We are not sufficiently organised to effect combinations. I fear, therefore, reforms are not likely, and that the present system of hard work and poor pay will probably flourish for many a long day, until, in fact, it has become so intolerable that there is a great dearth of candidates for the profession.

I am, Sirs, your obedient servant,

E. PAGET THURSTAN, M.D.

Southborough, Tunbridge Wells, May, 1887.

To the Editors of THE LANCET.

SIRS,—Kindly allow me to make a few remarks upon the letter of Dr. Paget Thurstan in THE LANCET of April 23rd, 1887. He says, "Such is the state of things; what is the remedy?"

There is and will be no remedy unless medical men hold more together. Why do we not have a society similar to the Incorporated Law Society, and determine amongst ourselves not to take any appointment without a meeting of medical men likely to be invited to undertake any appointment, consider the amount of work to be done, fix their own salary, not allowing the steward or secretary to say we give our surgeons "so and so," and then, throwing the result into the hands of the members, to ballot for the surgeon, each one honestly refusing to make any attempt to win over voters? Can there not be some interference on the part of the Medical Council to limit and determine the difference between medical men and chemists as to their several provinces? Numbers of the people, both rich and poor, *consult* chemists, and never send for a doctor until the eleventh hour, to save any difficulty with regard to the death certificate. Until this is done I fear there will be no remedy for the general practitioner.

I am, Sirs, yours obediently,

May, 1887. M.A. Cantab.

THE SOCIETY OF APOTHECARIES.

To the Editors of THE LANCET.

SIRS,—The decision of the Medical Council in reference to the Apothecaries' Society will give general satisfaction to medical practitioners throughout the country, and they cannot but feel very satisfied at the action of their representatives. The important discussion previously to the division will open the eyes of the medical world. Never was a speech made more damaging to the speaker, or more likely to poison the ignorant mind, than that of Sir W. Gull. One benefit, I trust, will arise from Mr. Brudenell Carter's able advocacy of the weak against the strong—namely, that now the Fellows and Members of the Royal College of Surgeons may hope to have his energy and ability directed towards obtaining for them their just rights and privileges from their own College. The Hall has now nothing to fear; and if in the future it sends out as good men as it has done in the past, the public and the profession will have no cause for complaint.

I am, Sirs, yours faithfully,

May, 1887. J. WICKHAM BARNES.

THE COMPULSORY DETENTION IN WORK-HOUSES OF PATIENTS WITH VENEREAL DISEASE.

To the Editors of THE LANCET.

SIRS,—In reference to the above subject, you state in last week's issue that a correspondent calls your attention to the fact that, so far as workhouses are concerned, such powers already exist, and are to be found in Act 30 and 31 Vict., the Poor-law Amendment Act, c. 106, s. 22. Now, when I wrote you fourteen days ago, I was quite familiar with Section 22, and, certainly, one might very well argue that it gives the necessary power; but I find there is considerable uncertainty as to whether it really applies to cases of venereal disease. It is therefore desirable to have a definite and authoritative opinion on the matter, and, if that be adverse, then some other measure must be obtained. In support of what I say, I may mention that quite recently a deputation of influential gentlemen from eleven unions or boards of guardians in the principal naval and military centres had an interview with Mr. Ritchie, President of the Local Government Board, with reference to the repeal of the Contagious Diseases Acts. In his reply, Mr. Ritchie referring to Section 22 of the above-mentioned Act stated: "Well, a question then arises as to what is the meaning of the words 'contagious diseases' in this Act. I have no doubt it might be argued, and argued with very great force, that the disease in question is a contagious disease under this Act; but I understand there is a very considerable element of doubt upon the point as to whether or not medical officers who are really responsible would be justified in certifying that a certain poor person is suffering from a contagious disease under the Act and ought to be detained." This really being the case, Mr. Ritchie proposed to submit the question to the law officers of the Crown, so that at present the matter is *sub judice*. Even when we obtain power to detain patients in Poor-law institutions, there still remains the large number of cases in lock hospitals and other hospitals with lock wards. Surely something should be done in order to deal more satisfactorily with these. I am, Sirs, yours faithfully,

May 17th, 1887. ARTHUR FLINTOFF MICKLE, M.B.

THE UTILITY OF DRUGS IN THE TREATMENT OF DISEASE.

To the Editors of THE LANCET.

SIRS,—I am a general practitioner, and am glad to be able to add have been a successful one for the past thirty years. I desire to make a comment or two on the speech of Sir William Gull at the last meeting of the Medical Council, as reported in THE LANCET of the 14th inst. I am referring particularly to his expressed disbelief in the utility of drugs in the treatment of disease, and his belief in the all-sufficiency of guarding the patients from any "interference with the powers of nature," and keeping him in "a warm bed." Sir William Gull, referring to the share which he bore of the responsibility of conducting the treatment of the Prince of Wales' attack of typhoid fever, stated that during the whole illness his Royal Highness did not take four doses of medicine. Typhoid fever, all properly educated medical men know, requires, as a rule, little or no active treatment. But what if the Prince's illness had been rheumatic fever or malarial fever caught in India (supposing his Indian tour to have taken place): would Sir William still have withheld all treatment by drugs—salicylates in the one case, quinine in the other? I will do him the justice to say I do not believe he would. But is it a fact that the treatment of the Prince consisted entirely in guarding him from interference with the powers of nature, and in keeping him in a warm bed? Was not alcohol freely administered? I do not know; but this I do know, that Sir William regards a full dose of alcohol, two ounces or even four ounces of brandy if necessary at bed-time, as the best sedative for the nocturnal restlessness accompanied by delirium which occurs in typhoid; and I would ask what is alcohol administered in this way but a drug? I am, Sirs, yours truly,

May, 1887. A GENERAL PRACTITIONER.

REPEATED ASPIRATIONS OF THE BLADDER.

To the Editors of THE LANCET.

SIRS,—The case of repeated aspiration of the bladder recorded by Mr. Collier in last week's LANCET is like one published in *l'Union Médicale*, Feb. 26th, 1876. The patient was a man seventy years old, who had retention from enlarged prostate. The bladder was aspirated with a Potain's aspirator sixteen times in nine days, and then at last an instrument was passed. He did well, and no harm came of the repeated punctures. "Yet who would have thought the old man to have had so much blood in him"!

Your obedient servant,

Wimpole-street, W., May 17th, 1887. STEPHEN PAGET.

Two entertainments by amateurs are to be given at the Novelty Theatre on the 3rd and 4th prox., under the patronage of the Prince and Princess of Wales and other members of the Royal Family, for the benefit of the Great Northern Central Hospital.

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LEEDS INFIRMARY POST-GRADUATE CLASS.

(From a Correspondent.)

THE concluding lecture of a most successful course was delivered on Friday last by Dr. Barrs, on Albuminuria, after which Dr. Griffiths, the house-physician, gave a very interesting demonstration in urine tests. The value of this course to the hard-working country practitioner, and, indeed, to others whose time for reading is limited, and whose opportunities are necessarily restricted, will be at once seen by the subjects taken, which were as follows:—Coma and its Causes, by Dr. Clifford Allbutt; Common Deformities, by Mr. T. Pridgin Teale; Some of the Common Diseases of the Stomach and Liver, by Dr. Eddison; Intestinal Obstruction, by Mr. Jessop; Pulmonary Therapeutics, by Dr. Churton; Glaucoma, by Mr. Nunneley; Common Diseases of the Uterus, by Dr. Braithwaite; Gunshot Wounds, by Mr. E. Atkinson; Causes of Retention of Urine, by Mr. M'Gill; Common Diseases of the Larynx and Pharynx, by Dr. Jacob; Diseases of the Anus and Rectum, by Mr. A. Mayo Robson; Common Ear Diseases, by Mr. Hewitson; Injuries of the Head, by Mr. Brown; Syphilis, by Mr. Ward; and Albuminuria, by Dr. Barrs. After each lecture, demonstrations in the wards and in the post-mortem room have been a most valuable, practical, and useful part of the course. Immediately after the lecture a meeting of the members was held, presided over by Dr. Scott of Ilkley, for the purpose of discussing the desirability of a second course, the subjects to be treated upon, the remuneration of the lecturers, the desirability and practicability of admitting qualified men to clinical studies and operative surgery by payment of fee rather than by sufferance (this was introduced by one member, but voted out of order by the chairman), and other matters relating to the success of a future course. The meeting unanimously resolved that another course should be commenced, and that Drs. Barrs and Roberts, the honorary secretaries, who had so satisfactorily framed the last course, should work out and arrange the practical details of the future one, which is to commence on the second Friday in October next, when Mr. Wheelhouse is expected to give the introductory lecture. Although the late class was a comparatively large one (forty-one), there was a general belief expressed that many more gentlemen in the town and surrounding towns and district would take advantage of the next course. It was stated at the meeting that since the formation of the class it had lost two of its members: one by the sudden and lamented death of Dr. Murray of Burley-in-Wharfedale; the other by removal to London of Dr. J. Fletcher Little, late of Ben Rhydding, who, by his characteristic indefatigability, was largely instrumental in the formation of the class.

Before the meeting closed a vote of condolence with the widow of the late Dr. Murray was feelingly proposed, and a resolution passed that the class fee (£2 2*s.*) should be returned to his widow as a mark of respect to his memory. Very cordial and grateful votes of thanks were unanimously and enthusiastically accorded to the staff, specially including Dr. Griffiths, the house-physician, and to the honorary secretaries for their valuable services.

MANCHESTER.

(From our own Correspondent.)

HYDROPHOBIA.

THERE is some ground for fearing that rabies is on the increase in Manchester and surrounding districts. A fortnight ago two boys, who had been bitten by a supposed mad dog at Sale, were sent to Paris for treatment by M. Pasteur. It is satisfactory to note that yesterday, at the county police-court, steps were taken for putting in force the provisions of the Dogs Act throughout this division of the county.

BUILDING BYE-LAWS.

It was a short time ago stated here that the Sanitary Association was directing its attention to the unsatisfactory condition of the building bye-laws of the Corporation. A conjoint deputation from the Association and from the Architects' Society recently waited upon the mayor, urging their amendment in accordance with modern requirements, and there is ground for hope that this matter will now soon receive the attention of the City Council.

NEW SEWERAGE SCHEME.

The River Committee of the Corporation has just presented their report upon the new sewerage scheme for diverting the sewage from the river. It provides for a large and extended system of new sewers, by means of which the sewage will be taken some few miles below the city, and there treated with chemicals to precipitate the greater part of the solid matters, the effluent being still further purified by filtration through soil before it is allowed to flow into the river or into what will by that time probably be the ship-canal. When Manchester has thus set its own house in order, it will be in a position to call upon other offenders to cease polluting the river in its higher courses. The cost of these new works will be something like half a million of money.

ISOLATION IN INFECTIOUS DISEASE.

At the meeting of the City Council last week exception was taken by some members to the expenditure of £7500 for the isolation of patients suffering from infectious disease. The opposition was based upon two grounds: First, that with the exception of small-pox the sending patients with fever to hospital had in no way diminished the prevalence of these diseases; and, secondly, that it was wrong in principle to vote such large sums of money over the expenditure of which they had no control, as the fever hospital was under the management of a charity subject in no way to the supervision of the Corporation.

OWENS COLLEGE.

Owens College has come out very well from the recent pass examination of the College of Surgeons, and the percentage of plucks has not been large. Some few years ago it was the custom to institute a preliminary test examination (as is done in most of the London schools) before allowing men to go up for this examination, but during the late dean's (Dr. Gamgee) time this rule was abolished. The results do not appear to have been detrimental to the college successes. Owens College has lately benefited to the extent of £5000 under the will of Mr. Thomas Jones, who died at Bournemouth, but who formerly lived in this city. He has also made bequests to the Royal Infirmary, the Eye Hospital, the Southern Hospital, the Consumption Hospital, and to most of our local charities, amongst them to one that seldom receives recognition in this way—i.e., the Manchester and Salford Sanitary Association, to which he leaves £200—a most acceptable bequest, as the funds of this Society are not at all commensurate with the work it attempts to do.

THE SCARLET FEVER EPIDEMIC.

This epidemic appears to be slightly abating from the returns published weekly, but the wards of the fever hospitals are still very full of patients suffering from this disease, and measles prevails to an extent almost alarming. In the Chorlton Union alone last quarter 146 deaths were reported, and during the past month 85 deaths occurred in Gorton township. In other parts of the surrounding districts it is equally prevalent.

May 17th.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

NEWCASTLE JUBILEE EXHIBITION.

THIS Exhibition, which was opened here on the 11th inst. by H.R.H. the Duke of Cambridge, under the most favourable auspices, may be said, as is often said here, "to have never looked behind it since." The registered attendance of visitors passing the turnstiles up to yesterday for the five days was 76,296, but as it was impossible to use the turnstiles completely on the first day, and many thousands were admitted otherwise and without counting, it is quite certain that already over 80,000 persons have been admitted. The firework display on the 11th was rather marred by the damp weather, but this has been more than made up for since by the brilliant illumination of the courts and grounds every night. In the exhibits several London houses are represented. In the stand of Messrs. R. McQueen and Son, surgical instrument makers,

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of Newcastle-on Tyne, I noticed a respirator designed for the use of lead workers, by our townsman and late mayor, Mr. Henry Newton, surgeon. Mr. Newton has had much practical experience in the diseases common to lead workers, having been for a long time medical attendant to some of our largest works. The respirator is formed of wire work, with a filtering material capable of being changed with facility. It is distinguished by simplicity and economy in use, and it is therefore no wonder that the chief inspector of factories states "that it is the best thing of the kind he had seen, as it entirely obviates the objection to all other respirators—that of becoming so readily clogged." If Mr. Newton has been so fortunate as to devise a respirator to prevent lead poisoning he will become a public benefactor, for the destruction of health and life in white-lead works here and elsewhere is much to be deplored.

THE NEW FEVER HOSPITAL AT SUNDERLAND.

The foundation of the new Fever Hospital for the borough was laid on Saturday last. The site and building together will cost about £19,000. I will in a future letter give you a general description of the building, which is to contain every modern improvement.

POISONING BY NITRIC ACID.

Last Wednesday the wife of an umbrella maker at South Shields swallowed half an ounce of nitric acid mixed with quicksilver and water at seven o'clock in the morning. She received immediate attention, but died in four hours. The acid solution was used by her husband in plating umbrella handles. At Carlisle also a child has died after twenty-four hours' illness from swallowing nitric acid. The father of the child explained that he had the acid in the house to cure some disease in poultry, it having been recommended for that purpose by some newspaper.

TYPHUS IN THE EAST END OF NEWCASTLE.

Since I last wrote of fresh invasion three cases have occurred in one family and one single case in two other families; all these were removed to the hospital, with one exception (a case dealt with in private practice). One of the cases removed to hospital was the eighth and last member of the family affected. Two cases of undefined type, but strongly suspected to be typhus, have also been removed to hospital. In all of these cases disinfection has been fully carried out. Most of the cases have occurred in the City-road and Sheffield district.

Newcastle-on-Tyne, May 19th.

DUBLIN.

(From our own Correspondent.)

DUBLIN HOSPITALS COMMISSION.

IT is very uncertain whether the various recommendations and suggestions of the commissioners will be adopted. It is a report which will please but few people, and it was a great oversight, as has already been pointed out, on the part of the Government not to have selected at least one medical man as a commissioner, or at all events any important member of the committee connected with the Dublin Hospital Sunday Fund. The truth seems to be that the Commission was appointed to recommend a consolidation of certain of the Dublin hospitals, and also the redistribution of the annual Government grant, the words of the Warrant directing the inquiry to be held naturally leading to these suggestions. This being granted, no great surprise can be felt that the members of the Commission have reported in the way they have done.

VIVISECTION IN IRELAND IN 1886.

A return has just been issued relative to the number of experiments on living animals made in Ireland last year. It appears that the total number of persons holding licences were three, all being medical men, and that all the experiments were carried out in a painless manner. The experiments were seventeen in number, and were directed to the elucidation of diseases of the vascular and nervous systems and to blood poisoning.

HEALTH OF IRELAND.

During the March quarter the births registered numbered 29,054, and the deaths 25,392, the latter representing an annual rate of 20·9 per 1000. The birth-rate for the quarter was 1·0 under the average rate for the corresponding quarter of the past five years; and the death-rate shows a decrease of 1·2. Compared with the returns of pauperism, furnished by the Local Government Board, for the corresponding quarter of 1886, there was a decrease of 1073 in the average number of workhouse inmates on Saturdays during the quarter, and an increase of 2346 in the average number of persons on out-door relief.

The concert recently given in aid of the "Nurses' New Home," connected with the Adelaide Hospital, has realised a sum of over £50, which will be expended in furnishing the Home.

The salary of Dr. Oakshoot, assistant resident medical superintendent of Cork District Lunatic Asylum, has been increased by £25 a year.

J. Cardiff, M.D., has been elected coroner for South Wexford.

Dublin, May 17th.

BELFAST.

(From our own Correspondent.)

THE COUNTY ANTRIM GAOL.

THE Lord-Lieutenant of Ireland has appointed Mr. J. Camac Smyth medical officer of the county Antrim Gaol, in room of the late Dr. John Moore. Mr. Smyth was for some time house-surgeon at the Royal Hospital, where, owing to his kindly disposition and skill, he was a great favourite. For some time he has been acting as *locum tenens* for Dr. Moore at the gaol. The appointment is worth about £200 per annum.

BELFAST CHARITABLE SOCIETY.

I understand that at the last meeting of the board of this Society, one of the oldest charities in Belfast, a resolution was passed approving of plans for a new dining-hall, laundry, and other additions to the present buildings of the Society. The cost of the extensions will be about £3900. The President (Sir John Preston) stated that the board, while able to carry on this valuable work without an appeal to the public, would not forget that the constitution of the Society must be kept up by subscriptions, and he trusted the community would continue as hitherto to contribute to that charity.

BELFAST DISPENSARY COMMITTEE.

At the last meeting of this committee there was a very large attendance, as the principal business was the election of a medical officer for dispensary district No. 1, rendered vacant by the death of Dr. James Barron. There were eight candidates. After several polls the contest lay between Dr. John Barron and Dr. Taylor, the former of whom received 42 votes and the latter 35. The successful candidate is a brother of the late medical officer of this dispensary, who died some time ago of typhus fever.

Belfast, May 17th.

PARIS.

(From our own Correspondent.)

M. VULPIAN.

THE death is announced of Professor Vulpian, who is said to have fallen a victim to septic pneumonia, resulting from an anatomical inoculation. M. Vulpian was born in Paris in 1826. In 1854 he took the degree of Doctor of Medicine, and was then attached to the Museum, where he aided Flourens in his researches upon the nervous system. In 1860 he was successful at the *agrégation* with a thesis upon Infectious Pneumonia. Shortly afterwards he became one of the physicians of the Salpêtrière. The chair of Pathological Anatomy becoming vacant at the Faculty, M. Vulpian offered himself as a candidate, and, notwithstanding the opposition of M. Maret, dean of the Faculty of Theology, who denounced him at the Conseil Académique as an Atheist unfit to direct the education of the young, he was elected by a majority of one vote. A little later his adversaries carried the question to

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the Legislature, laying a petition against his doctrines and teaching before the Senate. In spite of these attacks he remained one of the most popular professors at the School of Medicine, and after having been promoted in 1872 to the chair of Comparative and Experimental Pathology, he was elected in 1875 Dean of the Faculty. Already a member of the Academy of Medicine, the Academy of Sciences admitted him to their number in 1876, and only last year he was elected to the post of Perpetual Secretary, one of the highest honours to which a scientific man can aspire. As a physician M. Vulpian was not one of those practitioners who owe part of their reputation to public caprice. Of somewhat brusque manner, he was quite the opposite of the fashionable doctor, and his opinion was generally sought in obscure and difficult cases. It was M. Vulpian who was called to Frohsdorf for the late Count de Chambord, and it was not until his assent had been obtained that M. Pasteur ventured to inoculate the human subject in rabies. M. Vulpian leaves a large number of works upon medical science. Amongst these may be cited his "Leçons sur la Physiologie Générale et Comparée du Système Nerveux," his "Leçons sur l'Appareil Vaso-moteur," his "Clinique Médicale de l'Hôpital de la Charité," and, lastly, his magnificent "Maladies du Système Nerveux," beyond doubt the most original contribution to the subject in the French language.

DR. FLORAND ON AMYOTROPHIC SCLEROSIS.

Most neuro-pathologists recognise lateral sclerosis as a distinct systematic disease. Leyden of Berlin, however, maintains that the cases of amyotrophic sclerosis recorded by Charcot and others are merely varieties of progressive muscular atrophy and bulbar paralysis, which, in his opinion, are essentially the same disease. In a recent Paris thesis, prepared under the auspices of the eminent professor of the Salpêtrière by Dr. Antoine Florand, the objections of Leyden to the recognition of amyotrophic sclerosis as a nosographical variety are discussed and combated. Concerning the proposition that amyotrophic sclerosis is merely a variety of bulbar paralysis, M. Florand maintains—and this is the chief point of his thesis—that labio-glosso-laryngeal paralysis is one, and sometimes the only, symptom of lateral sclerosis. He thinks, moreover, that in the cases where Leyden did not note spasmodic symptoms these had either passed away or were yet to come; and he considered the muscular rigidity alone sufficient to establish the spasmodic character of these cases. Leyden's objection, that "for the lesion to be considered systematic it is necessary that it should be traced above the pons," is disposed of by a reference to recent researches by Kahler, Pick, Kojewnikoff, Charcot, and Marie, who have been able to follow the lesion of the pyramidal fasciculi through the pedunculi into the hemispheres.

ACTION OF THE LIVER ON POISONS.

M. G. H. Roger publishes the results of his researches with Professor Bouchard on the action of the liver on poisons. Having verified and confirmed the assertions of Heger and Schiff on the modifications which the alkaloids undergo in the hepatic parenchyma, M. Roger shows that the liver transforms also the normal poisons of the organism, including both the products of disassimilation, and the toxic principles which arise from intestinal fermentation. The most interesting and novel point is that the action of the liver on organic poisons only takes place in the presence of glycogen. This is established clearly in the different experimental diseases of the liver, particularly in animals in a state of inanition, where the gradual and parallel decrease in the two functions can be followed day by day. On the other hand, when hyperæmia of the liver is artificially induced by the injection of irritants into the vena porta, both functions are exaggerated; more glycogen is present and a larger quantity of poison is transformed. M. Roger thinks that the glycogen, changed into glycose, combines with the alkaloids, or with ammonia, to form new and less toxic products, such as he has obtained, outside the body, by heating mixtures of glycogen with alkaloids or ammonia in closed tubes. These experiments lead to various clinical deductions, which are reserved for a future memoir.

GERLIER'S DISEASE.

M. Haltenhoff, of Geneva, made a communication at the Academy of Medicine upon a new neurosis termed *vertige paralysant*, first observed by MM. Gerlier and David in agricultural labourers and shepherds residing in the vicinity of Geneva. This affection is characterised by attacks of paralysis of the muscles of the nape of the neck and extremities, with vertigo, lancinating pains, and ptosis. It occurs in persons living in hot and ill-ventilated stables, and is cured by a change of surroundings.

FOREIGN BODY IN THE PLEURA.

At a recent meeting of the Anatomical Society of Paris M. Leudet showed a preparation of the pleura of a patient who had been operated upon for empyema eight years previously. It contained an indiarubber tube a yard and a half in length.

Paris, May 17th.

VIENNA.

(*From a Correspondent.*)

THE PHYSIOLOGICAL CONNEXION BETWEEN THE HEART AND THE LUNGS.

PROF. ERNST VON FLEISCHL, the well-known Vienna physiologist, has recently put forward an ingenious view concerning the influence of the heart beat on the respiratory changes in the lungs. His theory is based on a very interesting, but hitherto unknown, physical phenomenon he had occasionally observed. If a liquid containing an absorbed gas be exposed to negative pressure—to a vacuum—only a small quantity of the gas absorbed can be extracted, ascending in visible bubbles through the liquid; but if the liquid had been shaken by a single blow or impact just before commencing the exhaustion process, nearly the whole of the gas absorbed is rapidly set free, the liquid assuming a froth-like appearance. The quantity of gas thus exhausted is one hundred times larger than that withdrawn without impact. This action of the impact on solutions of gases in liquids is, as I believe, somewhat analogous to the well-known phenomenon of rapid solidification of water cooled below the freezing point, or of instantaneous crystallisation of hot saturated and then slowly cooled solutions of Glauber's salt, also initiated by a sudden impact. At a recent meeting of the Vienna Society of Physicians I had an opportunity to see some of Professor von Fleischl's experiments, which can easily be repeated by means of a hypodermic syringe furnished with a stopcock. By a slow upstroke of the piston the lower portion of the syringe is filled carefully with water which has been exposed to the air for a short time; the orifice is then closed by turning the stopcock. The piston is now drawn upwards as far as possible, and then released slowly and cautiously until it touches the water again. By this exhausting action some gas bubbles are formed, which are to be expelled by opening for a moment the orifice and inverting the syringe. Then the liquid is shaken by a single blow exerted against the piston, or by releasing it suddenly. If a short time (half a minute) after the concussion of the liquid the piston is drawn upwards again as far as possible, the previously clear liquid becomes rapidly white, like an effervescent mixture, by the froth formed by the sudden and copious escape of the gas. In explanation of this phenomenon, Professor von Fleischl suggests that by the impact the physical connexion of the molecules of the gas and of the liquid is altered, and that the real solution of the gas in the liquid is transformed into what he calls a "molecular mixture," wherein the gas molecules, previously closely connected with the molecules of the liquid, are lying free in the interspaces between the molecules of the liquid, from which they can easily be withdrawn if the liquid is exposed a short time after the impact to a vacuum or to the process of diffusion. Now, the blood is also a liquid containing absorbed gases. The entrance of oxygen can be easily explained by the properties of the coloured blood-corpuscles, but the exit of carbonic acid has till now received no elucidation, for the rate of pressure of the alveolar air is not sufficient to secure the diffusion of the gas from the blood serum wherein it is dissolved into the air. The Professor assumes that the diffusion of the carbonic acid of the venous blood into the air of the alveoli is only made possible by the action of the impact imparted to the blood in the pulmonary artery by the systolic contraction of the right ventricle of the heart. By this impact the physical condition of the blood entering the alveolar capillaries of the lungs is changed, the solution of carbonic acid in the serum being converted into a "molecular mixture

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from which the gaseous carbonic acid can diffuse freely through the alveolar walls into the air. He believes also that cyanosis is due to a weak action of the heart muscle, which cannot impart to the blood an impact sufficient for preparing it for diffusional exchange, so that its carbonic acid cannot be fully discharged. This view of the action of the heart on the respiratory changes seems also to be supported by facts of comparative anatomy.

Obituary.

CHARLES ROBERT THOMPSON, M.R.C.S., L.S.A.

WE announced a fortnight since the death, after a carriage accident, of Mr. Charles Robert Thompson, of Westerham, Kent. Such practitioners as Mr. Thompson was are not so rare in country districts as many imagine, but they are far too good to be allowed to disappear from the scene of their labours without a few words *in memoriam*. Those who knew Mr. Thompson even slightly, or who had had the pleasure of even casual relations with him at Westerham, saw quickly that he was a man of the greatest value to the neighbourhood in which he lived. His sound judgment, his large experience, his surgical readiness, and his kindly manner at once made themselves felt, and must be deeply missed by the community which he served so well, and that in succession to an honoured father who had practised in Westerham for over fifty years. Such histories are the very strength and glory of our profession. They constitute an influence in the surrounding country. Mr. Thompson served his generation in various public ways, notably as a churchwarden and as chairman of the Gas and Water Company. He was born at Westerham in 1830. He was educated at Romanoff School, Tunbridge Wells, and afterwards at St. Bartholomew's Hospital, where he took the Bartley Scholarship. His qualifications were those of the College and Hall, taken respectively in 1850 and 1851. He invented the tube trocar, now so much used in paracentesis. Mr. Thompson had suffered at times from attacks of angina pectoris. He leaves a widow, a son, and two daughters to mourn their loss. They may find satisfaction in reflecting on his life and character.

EDWARD NOLLOTH, M.R.C.P., F.R.C.S.,

RETIRED FLEET SURGEON, R.N.

IT is with regret that we record the death of Mr. Nolloth, which occurred on the 29th ult. at his residence at Camberwell. The deceased was the sixth son of the late John Nolloth, formerly Assistant Secretary of the Navy Board, and latterly of Portsmouth Dockyard. He was the first to be appointed on the staff of the Royal Naval Hospital, Malta; the second appointment being Mr. (now Sir Spencer) Wells. He was surgeon of H.M.S. *Victor Emmanuel* (eighty guns) during the whole of the Russian war, for which he obtained the Crimean and Turkish medals and Sebastopol Clasp, 5th Class Medjidie. He was buried in Nunhead Cemetery.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen have been admitted Licentiates of the College:—

Adams, Gerald Wheatley.
Adie, Alexander James.
Barker, Alleyne Hayward.
Barling, Arthur Stanley.
Barton, Francis Alexander.
Batchelor, Charles.
Blomfield, George Wills.
Bower, William George.
Brown, Frank Manson.
Brown, Lewis Henry.
Burke, Harry Morton.
Capes, Robert.
Charlesworth, George Henry.
Chilcott, Arthur Edward.
Cookson, Reginald George.
Comber, Arthur Wandesforde.
Davenport, Cecil John.
Davies, Frederick Mark.
De Carvalho, Alberto Pedro.
Dewsnap, William Frederick.
Fox, George Martin.
Fox, Stephen Charles Gundry.
Frost, Francis Turner.
Garman, Edwin Cornelius.
Gardner, Ernest Frederick.
Gooddy, Edward Samuel.
†Goodman, Roger Neville.
Goodwin, Frederick Charles.
Gowan, Bowie Campbell.
†Green, Conrad Theodore.
Green, William.
Henderson, James Therapland.
Holt, Joshua.
Hood, Charles John Jacomb.
Hosegood, Samuel Price.
Howse, Neville Reginald.
Humphry, Ernest.
Hutton, John.
Jaques, John Warren.
†James, Arthur William.
James, John Angell.
Kelly, Thomas William.
Kirkpatrick, Randolph.
Kitching, John Lea Walton.
Lankester, Francis John.
Lawson, Hugh.
Lewis, John Nicholls.
MacLean, W. W. Laroche.
Macnab, Allan James.
Malpas, James.
Marston, Henry John.
Metzgar, Charles.
†Miley, Miles.
Morison, Frederick William.
Nott, Arthur Holbrook.
Oldham, Montague Williams.
Oliver, Franklin Hewitt.
Oliver, Stuart.
Osmond, Edward Bartram.
Parsons, Charles Octavius.
Paul, Arthur Edmund.
†Peake, William Pemberton.
Pitcairn, John James.
Preston, Frederick.
Pye, Thomas.
Sansom, Harry Arthur.
Scudamore, Charles Edward.
Sen, Chandi Chavan.
Shellawell, William Arthur.
Shute, George Sidney.
Simmons, Harold.
Simson, Francis Taylor.
Smith, Arthur Henry.
Smith, Edmond Symonds.
Solly, Ernest.
Spurrier, Alfred Henry.
Stuart, Thomas Edmund.
Thompson, Edward Eggington.
Thompson, Wilberforce.
Tinker, William.
Todd, Henry Bansall.
Tonks, Henry.
Vincent, Herbert Edmund.
Waites, Richard Foulstone.
Walker, Joseph Eagland.
Ward, Charles Walton.
Warlters, Walter Scott.
Watson, William Robert.
Whiston, Philip Henry.
Wigglesworth, Vincent.
Wilkin, Griffith Charles.
Williams, John T. Creswick.
Young, William Archibald.

† Approved by the Examining Board.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on the 12th inst., the following gentlemen were appointed Examiners:—State Medicine: Dr. Francis S. B. F. de Chaumont, Edinburgh; Dr. Alfred Carpenter, London; Dr. Hubert Airy, Trinity; Sir Charles A. Cameron, Ireland. The following degrees were also conferred:—

DOCTORS OF MEDICINE.—Francis Murray Haig, Trinity; William Arthur Bond, St. John's.
BACHELOR OF MEDICINE.—Edward Noel Nason, Downing.
BACHELORS OF SURGERY.—Francis Murray Haig, Trinity; William Arthur Bond, St. John's.

SOCIETY OF APOTHECARIES.—The following gentlemen, having satisfied the Court of Examiners as to their knowledge of the Science and Practice of Medicine, Surgery, and Midwifery, received certificates entitling them to practise as Licentiates of the Society on May 12th:—

Brodrick, H. E., M.R.C.S., Badwell Ash Hall, Bury St. Edmunds.
Crew, Henry Charles, Shaw-road, Dudley, Worcester.
Danvers, Herbert, Cape Colony.
Rutter, George Herbert, Lady Margaret-road, N.
Scott, Walter Frederick, St. Helen's Gardens, Notting-hill.
Strahan, Samuel Alex. Kenny, Berry Wood, Northampton.
Waites, Richard, Foulstone, The Grove, Ealing.

THE new premises of the City Provident Dispensary were inaugurated on the 16th inst.

KING'S COLLEGE HOSPITAL.—The bazaar in aid of the funds of this hospital has resulted in a net profit of nearly £1200.

MEDICAL MAGISTRATE.—Dr. E. Sparshall Willett of Isleworth, has been recently sworn in as one of the Justices of the Peace for Middlesex.

VACCINATION GRANTS.—The following gentlemen have received the Government grant for successful vaccination:—Mr. P. Swales, Sheerness (eighth time); Mr. J. W. Hayward, Whitstable, Blean Union (third time).

HOSPITAL SATURDAY AT BIRMINGHAM.—The amount collected on Saturday, the 14th inst., reached the gratifying sum of £6125 10*s.* 3*d.*, being contributions from the many workshops and warehouses of the town.

AT the sixth general meeting of the members of the Hospitals Association, held on the 11th inst., Sir Andrew Clark, Bart., President, in the chair, a paper was read by Dr. William Collier on "The Best Means to Prevent the Abuse of Hospital Charity."

DEVONSHIRE HOSPITAL.—The report of the Committee of Management of this institution for the past year states that 2459 in-patients were admitted and 2238 sent away as improved, 49 as no better, 24 at own request, 8 had died, and 121 remained on the books.

AT a meeting held at Plymouth on the 13th inst. it was decided to signalise the jubilee of the Queen's accession by the reduction or removal of the debt on the South Devon and East Cornwall Hospital. A committee was appointed to take steps to give effect to the resolution.

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ROYAL HOSPITAL FOR CHILDREN AND WOMEN.—On the 11th inst., at St James's Hall, Mr. G. A. Sala delivered a lecture on "What I saw in Australia and New Zealand," the proceeds of which are to be placed to the credit of the above hospital.

ST. JOHN AMBULANCE ASSOCIATION.—On May 14th Mr. Stephen Nockolds and his assistant, Mr. MacPhee, of West Cowes, were each presented with a handsome photograph album, by the members of the East Cowes Class, as a token of the esteem and regard in which they are held.

ST. MARY'S HOSPITAL: OPHTHALMIC DEPARTMENT.—We are informed that the eye department at St. Mary's will in future be open on Tuesdays, Fridays, and Saturdays, at 9 A.M.; Fridays being specially devoted to operations and selected cases.

On the 15th inst., a procession of Friendly and Trade Societies in the North-western district was held in aid of the University College and the North-west London Hospitals. A service was held at St. Pancras Church, Dr. Spence, Dean of Gloucester, preaching an appropriate sermon.

HOSPITAL AT DAMASCUS.—Dr. Macinnon, of the Scottish Medical Mission, has recently opened a hospital for poor patients at Damascus. The fanaticism of the Mohammedan population has forced the Government to close it, and Sir W. White is now making representations to the Porte to grant the hospital its protection.

A NEW SWORD HANDLE.—Prof. Braune of Leipzig, after a thorough investigation of the mechanism of the hand, has constructed a new sword handle on anatomical principles, which exactly fits the hand, and can be held with absolute security. It is expected that this improved sword handle will be found very useful, especially by cavalry.

BACTERIOLOGICAL LABORATORIES IN SIBERIA AND RUSSIA.—The Medical Society of Irkutsk, the capital of Eastern Siberia, will soon have a bacteriological station in this city of 40,000 inhabitants. The Kharkov Medical Society has received from the Kürsk Government Assembly 1500 roubles to establish a bacteriological laboratory in Kharkov, and will receive 700 roubles yearly to support the establishment.

SUNDERLAND NEW INFECTIOUS DISEASES HOSPITAL. The foundation stone of this institution, which is situated on an isolated site about twelve acres in extent, was laid on the 14th inst. The building about to be erected includes the administrative block, the laundry, and disinfecting establishment, mortuary, and two fever pavilions. The cost of the building is to be £14,796, and the price paid for the site was £5000.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—The annual dinner of this Society was held at the "Criterion" on Wednesday, the 10th, Dr. Alderson, President, in the chair. There was a large and representative gathering of the members, in addition to numerous guests of eminence in the profession and others. This Society, which was founded but a few years ago, has amongst its members many names well known in the profession, and has done good work during the session which is now passed.

QUEEN'S COLLEGE, CORK.—The following prizes and exhibitions have been awarded at the sessional examinations in the Faculty of Medicine:—Exhibition in Practical Medicine: William Kelleher. Exhibition in Practical Surgery: William J. O'Meara. Practical Anatomy: Third year—James Jackson and J. V. Ryan, equal (1st); E. Jenney and J. Wolfe, equal (2nd). Second year—Wm. O'Donnell (1st); J. Hennessy (2nd). Anatomy and Physiology: Third year—James Jackson (1st); J. Smith and E. Jenney, equal (2nd). Second year—W. O'Donnell (2nd); J. Tracey (3rd). Practical Physiology and Histology: J. Jackson (1st); J. Smith (2nd); J. Macpherson (3rd); J. Wolfe (4th). Surgery: E. Jenney (1st); J. Smith (2nd). Practice of Medicine: W. O'Meara (1st); W. Kelleher and J. Ryan, equal (2nd). Materia Medica: J. Hennessy (1st); W. O'Donnell (2nd); J. Tracey (3rd). Medical Jurisprudence: W. O'Meara (1st); J. H. Wilson (2nd). Midwifery: G. Jenney (1st); C. Porter (2nd); J. Smith (3rd). Practical Chemistry: J. Hennessy (1st); J. Ambrose (2nd); J. Tracey (3rd).

MIDDLESEX HOSPITAL.—The festival dinner on behalf of this hospital, announced to take place on the 18th inst., has been postponed.

CITY OF LONDON TRUSS SOCIETY.—The 80th annual festival in connexion with this Society was held on the 17th inst., the Lord Mayor presiding. During an existence of more than three-quarters of a century the charity has relieved over 425,000 of the suffering poor—9394 in 1886, men, women, and children. In the course of the evening the secretary announced subscriptions amounting to £610.

GREAT YARMOUTH HOSPITAL.—On the 18th inst. the Prince of Wales laid, with Masonic rites, the foundation stone of a new hospital at Great Yarmouth. The building, which will cost about £8000, is being erected on the site of a former hospital, and will consist of a central block of buildings, with north and south wings. Accommodation will be provided for forty beds.

NORTH-WESTERN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—At the monthly meeting of the members of this Association, on the 12th inst., a discussion took place on the regulations for dairymen and others under the Contagious Diseases (Animals) Act, 1886, and the Dairies, Cowsheds, and Milkshops Orders of 1885 and 1886. Several suggestions were made, and it was decided to forward them to the London Society, with the view of getting them incorporated in the new regulations.

THE LONDON HOSPITAL.—To-day (Saturday) the Prince and Princess of Wales, accompanied by their daughters, will open the new Nursing Home of this institution and the new buildings of the London Hospital Medical College, the cost of the latter being about £15,000. The Home, which has cost upwards of £10,000, provides separate sleeping accommodation for 100 day nurses and 50 night nurses, and is probably the most complete establishment of the kind in existence.

MEDICAL NOTES IN PARLIAMENT.

Registration of Dogs in the Metropolis Bill.

IN the House of Lords on the 17th inst. Lord Mount-Temple, in moving the second reading of this Bill, said the muzzle was generally regarded as a failure, and the object of the Bill was to provide that there should be a complete register of all persons who took out licences, each dog having a number to be worn on its collar.—Viscount Cranbrook did not oppose the second reading of the Bill, but suggested that further progress should be postponed until after the report of a commission on the subject, and investigation by committee. The noble lord said there were differences of opinion as to the origin of rabies from irritation and other causes.—Lord Belper stated that rabies, which had prevailed in Notts, had been checked by muzzling, but in a neighbouring county a poor boy was bitten by a mad dog and died. It was therefore desirable to give power to extend provisions against rabies beyond county border.—The Bill was read a second time.

On the motion of Viscount Cranbrook it was subsequently resolved that a Select Committee be appointed to inquire into and report upon the subject of rabies in dogs and the laws applicable thereto.

Monaghan Lunatic Asylum.

In the House of Commons on the 16th inst., in reply to Mr. P. O'Brien, Colonel King-Harman stated that arrangements are being made to have the necessary improvements carried out at the Monaghan District Lunatic Asylum. Diphtheria has not recently broken out, and one of the inspectors who visited the asylum towards the end of last March found the sanitary condition of the patients so satisfactory that only four out of the entire number of 485 were confined to bed.

The Army Medical Service.

In consequence of the lateness of the hour at which Dr. Clarke put his question on this subject on the 12th inst., in our last issue we were unable to give Mr. Stanhope's reply in full. The following, however, were the words used by the right hon. gentleman:—"I have said many times that the abolition of relative rank has not in any way altered the position or status of medical officers, and I have no reason to suppose that these officers are desirous of being called by titles so dissociated from the duties of their honourable profession as those of colonel, major, and captain. These titles are, however, necessary in the case of other departments, whose officers, unlike those of the Medical Department, do not belong to a recognised profession."

Poor-law Officers.

In answer to Mr. Waddy, Mr. Ritchie said that district medical officers and relieving officers are, speaking generally, appointed for life, subject, of course, to the proper performance of their duties, and their salaries cannot be reduced without their consent. It is not the case that there has been, on the whole, a great decrease in the number of paupers during the last few years, although, no doubt, in particular instances this has been so. Neither was it the case, in his opinion, that many of these officers are receiving salaries out of proportion to the duties they have to perform. He could not undertake to suggest that the Royal Commission on the Civil Service should extend their inquiries to the salaries of Poor-law officers, as this would be entirely beyond the scope of their

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labours; but the question of the powers which should be possessed by Boards of Guardians with respect to their officers would receive consideration in connexion with the County Government Bill.

Typhus at Fort Burgoyne.

On the 17th inst., in answer to Mr. Bruce, Mr. Northcote stated that examinations have been made both by the Medical and Engineer Departments without discovering any cause which will account for the recent cases of typhoid fever at Fort Burgoyne. Arrangements have, however, been made for an independent examination by an expert of the Local Government Board, which might, he hoped, result in the discovery and removal of any insanitary conditions. Three companies of the 2nd Battalion East Kent Regiment were quartered in the fort until the 12th inst., when the battalion went to Lydd for training. It is intended if there be no objection on the part of the Medical Department, to accommodate the 4th Brigade of the Scottish Division Royal Artillery in Fort Burgoyne, so far as its construction will permit, the remainder of the corps being encamped close at hand.

The Status of Medical Officers.

On the 19th inst. Mr. William Corbet asked the Secretary of State for War whether he could state why army medical officers are placed on a footing with departmental or non-combatant officers, and disqualified from reckoning time on half-pay towards promotion or retirement, in view of the fact that they are required by the Regulations to go under fire, and, in time of war, do so.

The Secretary for War: There are several reasons why medical officers do not count time on half-pay towards promotion or retirement. In the first place, there is in their case no compulsory retirement (as in the case of combatant officers) at a comparatively early age, for it is desirable to retain the services of trained medical officers as long as possible. Moreover the retiring pay of medical officers is on a more liberal scale than that of combatant officers.

Births, Marriages, and Deaths.

BIRTHS.

BERRY.—On the 12th inst., at Queen's-road, Watford, Herts, the wife of F. Haycraft Berry, M.B.Lond., M.R.C.S., of a son (stillborn).

BREWER.—On the 17th inst., at "Cairo," Richmond-road, Hackney, the wife of Hampton Brewer, L.R.C.P.Lond., of a son.

DE'ATH.—On the 12th inst., at Buckingham, the wife of George Hanby De'Ath, L.R.C.P., M.R.C.S., of a daughter.

GRAHAM.—On the 14th ult., at Bindjey, Sumatra, the wife of John Campbell Graham, M.D., of a son.

HOWSE.—On the 11th inst., at 59, Brook-street, W., the wife of Henry G. Howse, M.S., F.R.C.S., of a daughter.

JOHNSON.—On the 12th inst., at Mickleton, Campden, Gloucestershire, the wife of J. Bovell Johnson, M.D., of a daughter.

KIDD.—On the 7th inst., at Brook-street, the wife of Percy Kidd, M.D., F.R.C.P., of a daughter.

MERSON.—On the 8th inst., at De-la-Pole, near Hull, the wife of John Merson, M.D., of a son.

STEEL.—On the 10th inst., at 11, Nevill-street, Abergavenny, the wife of William Dyne Steel, M.D., of a son.

MARRIAGES.

BURRELL—SPARKE.—On the 14th inst., at the Parish Church, Mansfield, by the Rev. Canon Pavey, John Burrell, eldest son of the late John Marchant, of Hertford, Solicitor, to Marion Guyse, second daughter of Geo. Whitefield Sparke, M.R.C.S.

HOLLINGSWORTH—COOPER.—On the 14th inst., at Southend-on-Sea, Thomas Smith Hollingsworth, Deputy Surgeon-General, retired, late of the 62nd Regiment, to Rebecca Page, third surviving daughter of Joshua Vernon Cooper, of Stoke Newington-green.

LEATHAM—RAWSON.—On March 22nd, at St. Mary's Church, New Plymouth, New Zealand, Henry Blackburn Leatham, M.R.C.S., to Mary Louisa, youngest daughter of Mr. District Judge Rawson.

NASH—PERCIVAL.—On the 12th inst., at the Parish Church, West Haddon, Northamptonshire, William Gunner Nash, M.R.C.S., L.S.A., to Louisa Gertrude, second daughter of Charles Percival Esq., of Fox-hill, West Haddon.

DEATHS.

BEGLEY.—On the 11th ult., at St. Peter's-square, Hammersmith, William Chapman Begley, M.D. Trin. Col. Dub., F.R.C.P., late Superintendent (Male Department) of the County Asylum at Hanwell, in his 85th year.

CROWFOOT.—On the 12th inst., at Beccles, W. E. Crowfoot, J.P., F.R.C.S., aged 80.

HUTSON.—On the 14th inst., at Erlegh, Whiteknights, near Reading, Henry Hutson, M.R.C.S., of Demerara, in his 66th year.

MENZIES.—On the 30th ult., on board the P. and O. steamship *Valetta*, between Colombo and Aden, Alexander Menzies, M.B., C.M., in his 26th year.

TIFFEN.—On the 12th inst., at The Limes, Wigton, Cumberland, Robert Tiffen, M.D., aged 63.

TROUTBECK.—On the 17th inst., at his residence, Finsbury-park (of acute inflammation of the lungs), James Troutbeck, M.B.Ed., L.R.C.S., aged 41.

WOODS.—On the 12th inst., at Heene Villa, Worthing, Francis Benjamin Woods, M.R.C.S., aged 77.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ARMSON, FRANK G., L.S.A., has been appointed Medical Officer for the Youall District of the Lichfield Union.

BRAILEY, W. A., M.A., M.D.Cantab., M.R.C.S., has been elected Consulting Surgeon to the Cardiff Eye and Ear Hospital.

DONNELLAN, PATRICK S., L.R.C.S.I., L.K.Q.C.P.I., has been appointed Medical Officer to the Anchor Line s.s. *City of Rome*.

DOUGHTY, DAVID SOMERVILLE, M.B., C.M.Edin., has been re-elected House-Surgeon to the Dumfries and Galloway Royal Infirmary.

DOWDING, ALEXANDER W. W., M.D. Durh., M.R.C.S., has been appointed Medical Officer for the Fourth District of the Stow Union.

HESLOP, W. J., F.R.C.S.Ed., has been appointed Medical Officer of Health for the Stretford Rural Sanitary District, vice Geo. Pettinger, deceased.

KERR, JAMES, M.B., C.M.Ed., has been re-elected Surgeon to the Dumfries and Galloway Royal Infirmary.

KILHAM, CHARLES S., M.R.C.S., L.R.C.P.Lond., has been appointed Medical Officer for the Fourth District of the Ecclesshall Bierlow Union.

MACDONALD, ALEX. DALL, M.D., C.M.Ed., has been re-elected Physician to the Dumfries and Galloway Royal Infirmary.

M'LEOD, P. B. H., M.D., C.M.Aber., has been reappointed Medical Officer by the Parochial Board of New Deer, Aberdeenshire.

MANN, ALFRED, M.B., C.M.Ed., has been appointed Visiting Surgeon to the Chester General Infirmary.

MARK, LEONARD, L.R.C.P., M.R.C.S., has been appointed Surgeon to the Chelsea, Brompton, and Belgrave Dispensary.

MARSHALL, WILLIAM, M.D.St.And., L.F.P.S.Glas., has been re-elected Physician to the Dumfries and Galloway Royal Infirmary.

MITCHELL, ANDREW, M.B., C.M.Aber., has been reappointed Medical Officer by the Parochial Board of New Deer, Aberdeenshire.

MOXHAM, M. CAMPLIN, M.R.C.S., L.R.C.P., L.S.A., has been appointed House-Surgeon to the Central London Ophthalmic Hospital, vice G. Barker, M.R.C.S., resigned.

PERRY, E. COOPER, M.A., M.B.Cantab., has been appointed Assistant Physician to Guy's Hospital.

PITT, G. M., M.A., M.D.Cantab., M.R.C.P.Lond., has been appointed Assistant Physician to Guy's Hospital.

SCOTT, WILLIAM, M.D.Ed., L.R.C.S.Ed., has been reappointed Consulting Surgeon to the Dumfries and Galloway Royal Infirmary.

SMYTH, JAMES CAMAC, L.R.C.S., L.R.C.P., has been appointed Medical Officer to the County Antrim Prison; also Medical Officer to the Brookfield and Edenderry Spinning Mills and Factories, vice John Moore, M.D., deceased.

THOMSON, ALEXANDER, M.D., L.F.P.S.Glas., has been re-elected Surgeon to the Dumfries and Galloway Royal Infirmary.

WOOLDRIDGE, LEONARD C., D.Sc., M.B.Lond., M.R.C.P., has been appointed Assistant Physician to Guy's Hospital.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

BRIGHTON, HOVE, AND SUSSEX THROAT AND EAR DISPENSARY.—Honorary Dental Surgeon.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark-bridge-road, S.E.—Registrar and Chloroformist. Salary £30 per annum, with additional £20 if the post is held for twelve months.

KILBURN, MAIDA VALE, AND ST. JOHN'S WOOD GENERAL DISPENSARY.—House-Surgeon. Salary £100 a year, with coals, gas, and attendance.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House-Surgeon. Salary £70 per annum, with residence and maintenance in the house.

NEWCASTLE-UPON-TYNE INFIRMARY.—House-Physician. Salary £100 per annum, with board, lodging, and washing.

ONGAR UNION, Essex.—Medical Officer and Public Vaccinator. Salary £75 per annum, with the extra medical fees prescribed by the Consolidated Orders of the Local Government Board and other additional charges in respect of lunacy and vaccination.

ROTHERHAM HOSPITAL.—Assistant to the House-Surgeon. Rooms, commons, and washing in lieu of salary.

ROYAL ALEXANDER HOSPITAL FOR SICK CHILDREN, Brighton.—Assistant Physician.

RURAL SANITARY AUTHORITY OF THE STAINES UNION.—Medical Officer of Health. Salary £75 per annum.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Assistant House-Surgeon (unqualified). Board and lodging, but no salary.

TAWD VALE COLLIERY SICK AND ACCIDENT SOCIETY. Skelmersdale, Lancashire.—Medical man. Salary about £150 per annum.

UNIVERSITY COLLEGE HOSPITAL, London.—Resident Medical Officer.

VICTORIA HOSPITAL FOR CHILDREN, Queen's-road, Chelsea.—Assistant Surgeon in the out-patient department.

WILTON UNION.—Medical Officer and Public Vaccinator. Salary £100 a year (inclusive of all midwifery and surgical fees); vaccination fees to be paid in addition.

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Medical Diary for the ensuing Week.

Monday, May 23.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.

SOCIETY OF ARTS.—8 P.M. Mr. J. M. Thomson: The Chemistry of Substances taking part in Putrefaction and Antisepsis.

Tuesday, May 24.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 1.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.

ROYAL INSTITUTION.—3 P.M. Professor Victor Horsley: The Modern Physiology of the Brain and its Relation to the Mind.

SOCIETY OF ARTS.—8 P.M. Mr. Walter Crane: The Importance of the Applied Arts and their Relation to Common Life.

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8.30 P.M. Dr. George Harley: Comparison between the Recuperative Bodily Power of Man in Rude and in Civilised Life.—Mr. G. L. Gomme: On the Evidence for Mr. M'Lennan's Theory of the Primitive Human Horde.—Mr. Samuel Gason: On the Dieyerie Tribe of South Australia (communicated, with notes, by Mr. J. G. Frazer).

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Dr. Haig: The Relation of a certain form of Headache to the Excretion of Uric Acid.—Dr. Finlay: Three cases of Alcoholic Paralysis (Multiple Neuritis).

Wednesday, May 25.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M.; Saturday, same hour.

BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens will be shown by Dr. Grigg, Dr. Edis, Mr. Lawson Tait, and others. Dr. Routh: On the Various Modes of Treatment to be adopted for the Worst Cases of Uterine Flexions (adjourned discussion). Council at 8 P.M.

Thursday, May 26.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Professor Dewar: The Chemistry of the Organic World.

Friday, May 27.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

SOCIETY OF ARTS.—8 P.M. Mr. J. Berry White: Indian Tea.

QUEKETT MICROSCOPICAL CLUB.—8 P.M. Mr. Underhill: On Spiders.—Mr. B. T. Lowne: On the Larva of Musca Vomitoria.

CLINICAL SOCIETY OF LONDON.—8.30 P.M. Report of the Committee on Joint Disease in connexion with Locomotor Ataxy.—Dr. Robert Maguire: Cases illustrating Acute Dilatation of the Heart produced by Alcoholism.—Dr. H. Handford: Case of Endemic Hæmaturia due to the presence of the Distomum Hæmatobium.—Dr. Dawtrey Drewitt: Case of a Child with a Patch of Lupus, which has been treated partly by Scraping and partly by Salicylic Acid.—Mr. Wm. Anderson: Cases of Hammer Toe. Living Specimens:—Dr. Arthur Davies: A case of Rhythmical Tremors affecting One Limb only.—Mr. George Eastes: Chronic Spasmodic Affection of Inspiratory Muscles, with loud Crowing Inspiration.

ROYAL INSTITUTION.—9 P.M. Dr. Edward E. Klein: Etiology of Scarlet Fever.

Saturday, May 28.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. John W. Hales: Victorian literature.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, May 19th, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
May 13	30·22	N.E.	46	43	91	53	42	·04	Cloudy
,, 14	30·37	N.E.	47	43	100	59	40	·01	Cloudy
,, 15	30·37	N.E.	55	48	101	63	39	...	Cloudy
,, 16	30·21	E.	52	47	97	62	47	...	Cloudy
,, 17	30·04	N.E.	50	47	67	57	47	...	Overcast
,, 18	29·88	W.	55	49	82	61	49	·02	Overcast
,, 19	29·89	S.W.	50	47	...	...	47	·05	Raining

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

THE LATE DR. WILSON FOX.

WE are asked to state that Mrs. Wilson Fox feels deep gratitude to a large number of members of the medical profession for kind letters of sympathy and condolence which have been addressed to her and other members of the family. She begs the writers, at the present time, to accept her thanks, and to understand that owing to the largeness of this expression of sympathy it has been, as yet, impossible to send individual replies. We may take this opportunity of supplying an omission inadvertently made last week in our obituary notice of Dr. Wilson Fox—viz., that he held the office of Physician in Ordinary to the Queen. An obvious typographical error occurred also in the date given as that at which he took his M.D. degree, 1855 being misprinted 1885.

No. 420.—Our correspondent wishes to apply to the regulations generally an answer which was given to a question on one specific point. This is, of course, inadmissible.

Observer has apparently omitted to notice our comments on the case, which appeared in our impression of the 7th inst.

Viator has not enclosed his card.

COCAINE IN AURAL SURGERY.

To the Editors of THE LANCET.

SIRS,—Not having seen mentioned the use of cocaine during the removal of polypi from the middle ear, I should like to state that I have found the operation a painless one after having applied two or three times a ten-per-cent. solution of the hydrochlorate on a probe tipped with cotton wool, the cocaine also acting as a slight hæmostatic—an effect similar to which I have noticed when applied to bleeding and irritable ulcers of lip prior to cauterisation.

I am, Sirs, yours faithfully,

Burntisland, May 16th, 1887. C. BATTEN GRACIE.

UVULATOMES.

To the Editors of THE LANCET.

SIRS,—My attention has just been called to a uvulatome, described in THE LANCET of May 7th, by Dr. Greville MacDonald. Permit me to say that Mathim of this city made for me an identical instrument in the year 1855, and that a plate of it, with a slight modification, has appeared in his annual catalogues ever since that date.

I am, Sirs, very respectfully yours,

Paris, May 17th, 1887. EDWARD WARREN-BEY, M.D., C.M., LL.D.

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THE MOXON MEMORIAL FUND.

PRESIDENT: Sir William Jenner, Bart., M.D., K.C.B., F.R.S. As it is desired soon to close the subscription list, any persons desirous of contributing should forward their subscriptions without delay to the honorary treasurer, E. Clement Lucas, B.S., F.R.C.S., 18, Finsbury-square, E.C., by whom they will be acknowledged. Cheques should be crossed "City Bank."

Sixth List.

Subscriptions announced	£594	0	6	R. Innes Nisbett, Esq.	£1	1	0
F. Wallace, Esq.	3	3	0	W. R. Grove, M.D.	1	1	0
T. A. Titley, Esq.	2	5	0	J. Poland, F.R.C.S.	1	1	0
W. G. H. Hunt, Esq.	2	2	0	G. F. Farr, Esq.	1	1	0
F. Frank, M.D.	2	2	0	J. C. Steele, M.D.	1	1	0
Sir Henry Acland	2	2	0	J. Ewart, Esq.	1	1	0
R. F. Stephens, Esq.	2	2	0	H. Blatherwick, Esq.	1	1	0
A. L. Galabin, M.D.	2	2	0	F. S. Pilkington, Esq.	0	10	6
H. W. Strahan	2	2	0	F. A. Hine, Esq.	0	10	6
A. G. Osborn, Esq.	1	1	0				

Erratum.—The name of *Dr. W. R. Dakin* appeared in the last list as "M. C. Dalton."

Doubtful.—Either course is permissible, though the first-mentioned is perhaps the more advisable.

Mr. R. Thistlethwayte.—The first-named is practically an honours degree.

Dr. Whitelaw Bourne.—Yes, shortly.

SUICIDE OF SCORPIONS.

To the Editors of THE LANCET.

SIRS,—If you will do me the favour of looking into vol. xxi., p. 325, of *Nature*, you will, I think, find that Dr. Bourne's experiments on these creatures have been long since substantially discounted by me. I did not, however, base any memoir or other essay on these. I did not, indeed, think the game worth the candle; and my object in making them at all was to test Goldsmith's assertion that if "a scorpion is placed in the midst of a circle of burning charcoal ..... it stings itself on the back of the head, and in this manner the undaunted suicide instantly expires." It does nothing of the kind. As to Byron's more glowing description or episode—

> "The mind that broods o'er guilty woes
> Is like the scorpion girt by fire.
> * * * * * *
> One, and sole relief she knows—
> The sting she nourished for her foes,
> Whose venom never yet was vain,
> Gives but one pang and cures all pain,
> And darts into her desperate brain;"

and so, it would appear, shuffles off the mortal coil, along with all its throes and woes, &c.—again I say it does nothing of the kind. On the contrary, and as the outcome of hundreds of these experiments—experiments that were carried out by me in the presence or with the co-operation of a score or more of still living officers, not only at the Jannairi ball practice ground at Cawnpore, but also in sundry hill and cholera camps elsewhere in India—I came to the conclusion that this belief or superstition was entirely erroneous. I came to the further conclusion that its poison was all but inert, not only on itself, but also on small birds, bees, &c.; and as to its own individual behaviour in presence of fire, it was both stupid and cowardly. It either slunk away into any corner it could either make or find, or, moving about aimlessly within this circle, it either perished in the same or died without making any sign inside it.

I am, Sirs, your obedient servant,

Auriol-road, W., May 16th, 1887. W. CURRAN.

THE SHOVEL SHOE.

To the Editors of THE LANCET.

SIRS,—You and some of your readers may recognise the signature at the foot of this letter as that of one who has a "craze for cripples," or, to put it another way, of one who has busied himself in Italy and England for the last eight years with the provision of Beaufort arms and legs for the crippled poor. Those who know the Beaufort foot will recollect that to save expense the inventor got rid of an ankle joint by adopting a foot with a curved sole. This item of the invention dates back some forty years—so I learn from the Count de Beaufort. The other day, while driving in Rome, I saw a mule yoked to a cart, which, having an ankylosed pastern joint, was shod with a curved iron shoe. I was so much struck with the arrangement that I made an appointment with the carter to bring his cart and mule to pay me a visit. I made sketches, of which I send you copies. I do not think such a system can have ever prevailed in England; for a horse with a stiff pastern joint would surely be shod. The application of the curved sole to the mule is very imperfect; for the wear on the specimen shoveł shoe ("ferro a paletta") before me appears only from the point to a little short of mid-way of the curve. The result was a deplorable limp. After due inquiry, I find that this system of shoeing is traditional, and that the name of its inventor must remain for ever unknown. Similar drawings to those I send you I submitted to the Count de Beaufort. His only remark was: "How strange that this plan should have been tried on animals so long before it was tried on men, though that dates forty years back."

I am, Sirs, yours faithfully,

HENRY H. MAXWELL,

Rome, May 9th, 1887. Captain R.A.M.C. (Militia).

QUALIFICATIONS FOR PRACTICE IN THE CHANNEL ISLANDS.

ACCORDING to the last law—that of 1875—an English diploma will entitle its possessor to practise in the Channel Islands; but he must previously obtain the permission of the Royal Court.

Dr. James Weaver.—We regret that we are unable to afford space for the series of cases promised, and advise our correspondent to submit his facts and propositions to the judgment of a medical society, where they might be adequately discussed.

Mr. Freeman (Bath).—The paper will appear shortly.

"MEDICAL ATTENDANCE ON THE POOR."

To the Editors of THE LANCET.

SIRS,—I have read with some amusement Dr. Alderson's letter on the above subject, in your issue of the 30th ult. He must indeed be a fortunate general practitioner if he can afford to attend persons with an income of £312 a year as "club" patients, an income which, according to Dr. Thurstan's letter, exceeds that of the average medical man? It is a little remarkable that men who have made their fortunes by consulting practice, men who charge fees from one to two hundred guineas and upwards, should begrudge the general practitioner a poor half-a-crown fee. So anxious do some appear that the British public should not be over-charged, that I believe they would have all medical attendance (except that done by themselves) given *con amore*. Perhaps they will extend their philanthropy still further, and suggest some means of assistance to the new class of paupers they are trying to raise from the general practitioners and their families. Some of the people are, however, beginning to find that the cheapest is not always the best, even in medical matters. The good labourer is always worthy of his hire. And they cannot have their cases carefully gone into by well-qualified men for a fee ranging from twopence to sixpence. I know several cheap surgeries and dispensaries where the patients are habitually attended by men who have never seen the inside of a medical school. There are many dispensaries that have no medical man's name on the door. These are mostly kept by unqualified practitioners, protected by some of our brethren. This is a public matter that should be inquired into by Government, but the much-abused Apothecaries' Hall appears to be the only protector of professional interests and the public health. The Colleges and Universities should prohibit their graduates from establishing branches that they cannot personally superintend.

I am, Sirs, yours obediently,

May 12th, 1887. F. T. S.

Medical Staff.—We do not agree with our correspondent. In the two instances quoted, the military officer was wrong, and if the cases had been brought to the notice of the authorities we have no doubt he would have been properly instructed on the subject—probably in the shape of a reprimand.

Mr. Edwards.—Too late for this week.

THE LATE DR. WILSON FOX.

To the Editors of THE LANCET.

SIRS,—I think your readers would like to know that the late Dr. Wilson Fox was in the habit of placing his beautiful house at Eydal at the disposal of the Bishop of Bedford, for the use of the invalided East-end clergy and their families during the summer months. The liberality, kindness, and delicacy with which this was done will be understood by all who knew him. One might not speak of this while he was living; but now that he is gone, it is impossible to withhold this fact from the record of his goodness.

I am, Sirs, yours faithfully,

Mile-end, E., May, 1887. ONE OF THE CLERGY.

Alpha.—We regret that our correspondent should have received the impression to which he refers in his private note. He is entirely wrong on that point, and we cannot but think that a careful perusal of the various articles in THE LANCET bearing on the interests of the service would convince him of the warm interest we take in it, though we happen to differ from him in some points.

Mr. B. Walker (Spondon).—Yes.

EXCISION OF CHANCRES.

To the Editors of THE LANCET.

SIRS,—I see in your journal of Feb. 19th a notice that Dr. Andronicos claims to have entirely eradicated the syphilitic virus by excising the primary sore. I tried the plan myself in November; but besides excising I carefully cauterised the wound with strong nitric acid. I saw the patient some three months afterwards, and could find no trace of syphilis on him.

I am, Sirs, yours faithfully,

Nagasaki, Japan. C. ARTHUR ARNOLD, M.B., C.M.

BROWN DEFENCE FUND.

To the Editors of THE LANCET.

SIRS,—Will you kindly allow me to acknowledge the receipt of the following additional subscriptions towards the above fund? Amount already acknowledged, £16 15s.; Sidney Jones, Esq., £1 1s.; Dr. J. Macwhirter Dunbar, £1 1s.; J. Quinton Bown, Esq., 10s. 6d.

I am, Sir, faithfully yours,

G. STANLEY MURRAY, M.D.

23, Upper Richmond-road, Putney, May 17th, 1887.

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TREATMENT OF MASTITIS.

To the Editors of THE LANCET.

SIRS,—Permit me through your pages to call attention to a method of treating this affection, first brought before the notice of the profession about nine years ago by a practitioner in the south of England, whose name, I regret to say, I cannot recollect—a method which, if I may judge by the fact that no reference has been made to it in the various articles which have appeared from time to time in your journal, has not received that attention which my own experience leads me to consider it deserves. The gentleman to whom I refer treated this disease first by a ten-grain dose of quinine, and then by a two-minim dose of tincture of aconite, every ten minutes for the space of four hours, continuing the same dose afterwards once every four hours. At the same time extract of belladonna liquefied by glycerine in the proportion of one part to eight was applied locally. Since that time I have always used this method of treatment, latterly without the quinine, and in almost every instance have found it cut short the affection at once, nipping in the bud this painful and troublesome disease. I have found it far more reliable, and at the same time less troublesome, than any other mode of treatment, and I have not seen any alarming consequences from the action of the aconite on the heart. In one case only did the pulse become slow and intermittent, and in this case, a delicate woman, strict confinement to the recumbent posture was maintained for a day or two, and she made a good recovery. All my other cases have led me to consider that little, if any, danger need be apprehended where the heart is sound and there is much pyrexia. Lately I have given the tincture of aconite only once in a quarter of an hour with good results.

I am, Sirs, yours truly,

Rotherham, May 11th, 1887. WM. OXLEY.

COMPLETE SELF-ENUCLEATION OF AN EYEBALL.

To the Editors of THE LANCET.

SIRS,—As reported in your last issue, I recently brought before the Ophthalmological Society the details of a case of self-mutilation in which a woman completely enucleated one of her eyes. If any members of the profession have had any cases under their observation, and will kindly favour me with particulars, I shall be greatly obliged to them.

I am, Sirs, yours faithfully,

15, Stratford-place, W., May 17th, 1887. J. GROSVENOR MACKINLAY.

Dr. A. Hutchison (Loughborough).—Our correspondent can refer with advantage to "Ribot on Heredity," and to Galton's work, "English Men of Science;" also to the chapters on Heredity in the "Dictionnaire des Sciences Médicales." We do not know of any detailed account of the Stuart family.

Mr. J. A. Jones (Tir Caradoc).—The matter shall have consideration.

Dr. H. Leffmann (Philadelphia) is thanked.

Mr. C. J. Bond (Leicester).—Yes.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Hale White, London; Mr. C. Heath; Dr. Fothergill, London; Mr. Bennett May, Birmingham; Mr. W. Curran, London; General Maxwell; Mr. J. Walters, Reigate; Mr. A. Wilkinson, Shaftesbury; Mr. Laurence Humphry, Cambridge; Dr. Hamill, Manchester; Messrs. Maclehose and Co., Glasgow; Mr. R. D. Sinclair, Glasgow; Mr. Turnbull, North Shields; Mr. T. P. Teale, Leeds; Mr. Thistlethwayte; Messrs. Willing and Co., London; Dr. Bullel, Bombay; Messrs. Deighton, Bell and Co., Cambridge; Dr. Sennett, Hamilton, Vic.; Mr. J. L. Stretton, Kidderminster; Mr. C. A. Arnold, Nagasaki; Miss Clark; Dr. Head, Geneva; Mr. Dewhurst, Lambeth; Dr. Branson, Sheffield; Mr. Jacob, Netley; Mr. Armstrong, Harpurhey; Mr. Gracie; Mr. Millman, Ontario; Mr. Harrison, Liverpool; Mr. Kirkby, Leeds; Mr. Wheeler, Manchester; Mr. Botwood, Ipswich; Dr. Harkin, Belfast; Mr. Challis, Brighton; Dr. Heap, Swanage; Dr. Elliott, Clifton; Mr. Gantillon, Cheltenham; Mr. Mills, Glasgow; Mr. Eames, Leeds; Dr. Paramore, London; Dr. Brett, Watford; Mr. M. Judge, London; Mr. W. Coode Adams, London; Dr. J. J. Pringle, London; Surg.-Major Goldsmith, Rewah; Dr. Gooding, Blackheath; Dr. W. B. Hunter, Londonderry; Dr. C. R. Drysdale, London; Dr. Jas. Weaver, Southport; Mr. G. D. Evans, Oswestry; Messrs. Bennett Bros., Salisbury; Messrs. Lumley and Co., London; Dr. Rayner, Hanwell; Messrs. Hopkinson and Co., Notts; Mr. Macpherson, Middlesbrough; Messrs. Wyleys and Co., Coventry; Dr. Reid, Stafford; Dr. Royle, Jersey; Mr. Stanmore-Bishop, Manchester; Dr. A. Hutchinson, Loughborough; Dr. Stanley Murray, London; Mr. Mackinlay, London; Mr. Smith; Mr. Clement Lucas, London; Dr. Jas. Wilson, Haverfordwest; Messrs. Beale and Sons, Brighton; Mr. J. G. Marshall, St. Margarets; Messrs. Brown and Co., Glasgow; Dr. W. Sumpter, Cley-next-the-Sea; Mr. A. F. Mickle, London; Mr. J. W. Teale, Scarborough; Mr. C. S. Jeaffreson, Newcastle-on-Tyne; Mr. Stradling, Watford; Dr. E. Warren-Bey, Paris; Dr. Monro, Penge; Mr. J. Brown, Univadale; Mr. Lockwood, London; Dr. H. G. Taylor, Lancaster; Mr. Juler, London; Dr. Kerr, Leytonstone; Mr. Whiteley, London; Dr. Ridge, Enfield; Mr. Boyd, Handsworth; Dr. Gamgee, St. Leonards-on-Sea; Mr. Reynolds, New Cross; Mr. Lamon, Glasgow; Dr. Bland, Kensington; Mr. Murray, Walworth; Miss Williamson, Scarborough; Mr. Masters, Weston-super-Mare; Mr. Affleck, Manchester; Mr. Davis, Brighton; Mr. R. Kimpton, London; Mrs. Holloway, Worcester; Mr. J. A. Jones, Tir Caradoc; Mr. Bailey, London; Dr. Colquhoun, Dunedin; Mr. G. H. Makins, London; Mr. J. Atkinson, Crewe; Mr. D. C. Trott, Hamilton, Bermuda; L.R.C.P.; C. H.; L.K.Q.C.P., &c.; Alpha; A General Practitioner; One of the Clergy; No. 420; B.A. Oxon., F.R.C.S. Eng., Surgeon M.S.; A. C. B., Pontypool; Beta, Hull.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Steele, Abergavenny; Mr. Immisch, Kentish-town; Mr. Marshall, Bury St. Edmunds; Mrs. Howlett, Westgate-on-Sea; Messrs. Woolley and Co., Manchester; Mr. Gilchrist, Egremont; Messrs. Burgoyne and Co., London; Mr. Essex, London; Mr. Jessett, London; Mr. Logan, Glasgow; Miss Garrett, Winchester; Miss Mason, London; Dr. Tate, Notts; Mr. Hillier, Kennington; Mr. Wood, Pontefract; Mr. Blake, Dublin; Mr. Masefield, Ledbury; Dr. Liveing, London; Mr. Baker, Newport; Mr. Crowfoot, Eccles; Mr. Murrel, Norwich; Mr. Whiting, London; Mr. Davies, Bath; Dr. Kidd, London; Mr. Robinson, Berry Wood; Mr. Hicks, Hendon; Mr. Abbs, Dewsbury; Messrs. Ingram and Co., London; Mr. Forrest, Cambridge; Mr. Jelly; Dr. Davies, Maidstead; Mr. Cocking, Plymouth; Mr. Woolmer; Dr. Anderson, York; Mr. Chambers, Oldham; Mrs. Buschas, Bolton; Mr. Chrismas, Hemel Hempstead; Mr. Barnett, London; Mr. Hughes; Mr. Carter, Exeter; Mr. Hall, Beverley; Dr. Pierce, Liverpool; Mr. Lachmers, Leeds; Mr. Pinder, Broughton; Mr. Bond, Leicester; Messrs. Smith and Son, Manchester; Mr. Hendry, Eastbourne; Dr. Gem, Higham Ferrars; Mr. D'Orsey, London; Mr. Spark, Mansfield; Messrs. Lea and Nightingale, Liverpool; Mr. Lester, Nuneaton; Mr. Chadwick, Manchester; H. J.; Medicus, Hull; Forceps; Medicus, Pentonville; Scotland, Bolton; M.R.C.S.; Oxon.; Omega, London; M.R.C.S., Birmingham; B., Bradford; H. C. S., Beverley; Fortiter; Medicus, Liverpool; Matron, Barnsley; Dragon; Clerical, Manchester; Sister Rona, Kensington; George; Ozone; Beta; Roma; Spes; Medicus, Hove.

Manchester Guardian, Catholic Times, Stock Exchange, Advocate of India, &c., have been received.

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Clinical Notes on STERILITY.

By GRAILY HEWITT, M.D., F.R.C.P.,
PROFESSOR OF MIDWIFERY AND DISEASES OF WOMEN, UNIVERSITY COLLEGE; OBSTETRIC PHYSICIAN TO THE HOSPITAL.

ALTHOUGH it cannot be denied that in a certain number of cases sterility in the woman is due to what may be termed general causes or conditions in other ways unfavourable to the occurrence of conception, yet what is known on the subject of the cure of sterility is consistent with the idea that interference with patency of the passage of the uterine canal constitutes the most common cause of sterility. Hence interest chiefly attaches to the question, What are the abnormal conditions of the cervix uteri and its lower and upper inlet which may interfere with the patency necessary for insemination? Abnormal conditions in the ovaries, in the Fallopian tubes, in the body of the uterus, may cause sterility, but these irregularities are less open to recognition, whereas the cervical canal readily admits of examination. The success which has followed various methods of dilatation, incision, and enlargement of the passage of the cervical canal with the view of curing sterility, amply justifies the amount of attention which has been directed to this part of the uterus in the endeavour to deal with the evil.

One of the latest writers on sterility, Dr. Matthews Duncan, admits the frequent success of treatment of dysmenorrhœa by enlargement of the cervical passage, and the occasional success of the same treatment in curing sterility. But he denies that the enlargement of the passage is the cause of the cure, because, as he contends, the passage is already open. The mechanical dilatation seems "in some mysterious way" to exert a generally beneficial influence under such circumstances. He dwells, however, on the presence of rigidity of the cervix as an important factor in these cases. That dilatation under such circumstances is removal of a mechanical obstruction it seems reasonable to suppose, but Dr. Matthews Duncan denies this. He is in favour of the view, which was, I believe, first suggested by Coste, that the orgasm of coitus tends to produce a patent condition of the cervix. This appears to be the fact, but it follows also that a rigid condition of the cervix would be likely to interfere with this increase in the cervical patency, and would therefore constitute an obstruction.

Although the influence of flexion of the uterus in producing obstruction of the uterine canal has been vehemently denied, clinical facts appear to me to indicate that obstruction may be and is frequently thereby brought about. So far as the question of sterility is concerned, the facts, I believe, are as follows:—Obstruction of the cervical canal at and near the internal os uteri is liable to be produced by marked flexion of the uterus. Under these circumstances the uterine canal becomes flattened out, and the anterior and posterior walls brought into apposition. Such coaptation of the opposite walls of the uterine canal, and affecting the canal for upwards of half an inch according to the acuteness of the bend, more or less, will constitute an obstruction to the occurrence of insemination. The condition of the tissues of the cervix and of the walls of the canal, in fact—will also materially affect the patency of the canal, for if the uterus has for a long time been in a state of flexion, and has become hardened and consolidated in that shape, the obstruction to insemination will be likely to be greater than in a case where the flexion is of recent origin. There will be "rigidity" of the cervix also to a greater or less degree. When the uterus is found doubled upon itself and the greater part of the canal, constituting a curve of an elliptical shape, which is the condition in many cases of acute uterine flexion, there will arise a tendency to coaptation and virtual closure of the canal. This does not necessarily prevent passage of the sound into the uterus, whence it has been argued, but most erroneously as I believe, that there is no obstruction present. In a sense the canal is open, no doubt, and probably in the early stages of the case, the uterus retaining its flexibility and no "rigidity" of the tissues of the cervix present, no obstructive effects may arise, because the organ is still capable of straightening itself during the orgasm produced by coitus. The occurrence of straightening separates the walls of the tube, and for the time obstruction is removed. When later on the uterus is both rigid and flexed, as frequently happens in long-standing cases of flexions, the case is different, and a practically impermeable condition of the cervical canal, at and near the internal os, supervenes. There are, no doubt, many cases in which the uterus is flexed, and the canal more or less decidedly curved, but in which, nevertheless, pregnancy occurs. The presence of flexion of the uterus does not necessarily imply persistent interference with the patency of the canal. But when the degree of flexion is pronounced and the uterus has become hardened and fixed in that particular shape, then in a considerable number of cases the patency of the canal may be so affected that conception is prevented from occurring. Thus the degree of flexion is probably not so important a factor as its irreducibility. If the uterus is firmly set in its flexed shape, the coaptation of the anterior and posterior walls of the canal, which is liable to be present at and near the internal os uteri in such cases, persists, and an obstacle is thus interposed such as may effectively prevent insemination. The induration of the tissues of the cervix, due to sclerotic contraction, which is liable to be observed in long-standing cases, renders the straightening of the canal more and more difficult. If my interpretation of the phenomena observed in such cases is correct, the cure of sterility, so far as the cervix and os uteri are concerned, will be found to be necessarily associated with measures calculated to remove the source of difficulty, and to thus restore the patency of the uterine canal. Numerous records published prove that conception is far more likely to occur when steps have been taken to improve the state of the uterus in this particular than when these steps have been omitted. Forcible dilatation of the cervix by bougies is one of the methods by which this object can be secured, and is more or less applicable in different cases.

It is disputed by some authorities that mere straightening of the canal is of assistance in regard to improving its permeability. This idea is certainly not borne out by my experience, nor is it supported by the facts adduced by those who rely on dilatation alone for the cure of sterility. When the cervix is dilated it is also straightened. Unquestionably, the patency is improved by dilatation, but inasmuch as the procedure in question has the effect also of straightening the canal, it may be doubted whether the benefit is derivable from the dilatation or from the straightening. The simplest case illustrative of the bearing of this question is that in which the uterus is markedly retroflexed. Here the patency of the canal is interfered with, as I suppose, in consequence of the compression of the cervical canal in the antero-posterior direction, whereby it is flattened and its calibre diminished so long as the bending of the organ remains. Now it is possible, as clinical facts show, that the sterility arising in such a case may be cured either by raising the fundus uteri, and thus doing away with the flexion, or by dilating the uterine canal. But if the mere elevation of the fundus is effectual, what becomes of the argument for the necessity for forced dilatation? It is, in view of this fact, more reasonable to attribute the success of the dilatation to the straightening of the uterus, or at least it is very unreasonable to deny the efficacy of the dilatation *qua* the straightening which is its inevitable concomitant. I do not intend to dispute the efficacy of dilatation, but to show the incorrectness of deductions which have been drawn from that success in regard to the remedial power of straightening *per se*, and the matter seems important in estimating and interpreting aright the results of experience of the two methods of dealing with sterility which have been above alluded to.

In illustration of the foregoing remarks I propose to subjoin the following series of cases, which came under notice during a period extending over eight years, and ending about eight years ago. They were not all treated for sterility, but in most of them the absence of procreation was a noteworthy part of the case. In some the sterility was what may be termed "primary"; in others the sterility was "secondary," there having been one or more children born, followed by a cessation of child-bearing. It will be noted that the method of treatment adopted in these cases was limited, except in about three of them, to straightening of

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the canal and maintenance of the proper position of the uterus by a pessary, so that the cases offer evidence of a favourable character in regard to the beneficial influence of this method of dealing with such cases.

CASE 1.—Mrs. J——, aged about twenty-three, from the west of England, married one year and a half, has had dysmenorrhœa for nine years, which came on first after a day's hunting. Latterly the pain continued the whole of the period. Walking produces exhaustion. Uterus severely retroflexed. Treatment by a combined Hodge and stem pessary. Cure of the displacement, and pregnancy followed with a satisfactory result in the birth of a mature child.

CASE 2.—Mrs. ——, aged nineteen, was sent to me from Yorkshire. She had been married fourteen months. Menstruation profuse, spread over too long a period, lately painful, accompanied with sickness. A pessary has been tried, but found not to answer. It appears that four years before marriage the patient had an attack of scarlet fever, as the result of which she did not walk for one year, being so weak, and then was obliged to use crutches. Has had occasional hysterical attacks since the scarlet fever. The os uteri was found soft, and it was thought just possible that she was pregnant. After waiting a little, however, this proved not to be the case. Uterus found retroflexed. A modified Hodge pessary was adjusted. The pessary was worn for a considerable time. I subsequently learned that the patient became pregnant two years after I had seen her, and delivery took place at term.

CASE 3.—Mrs. ——, aged twenty-eight, the wife of an officer in the army, had been married four years; no pregnancy. She first felt pain in the groin four years ago, with dragging pain in back and in legs, which prevented her standing or walking long at a time. Menstruation regular, a little painful; leucorrhœa. Complained also of a burning heat in the head. The uterus is severely retroflexed, the cavity half an inch too long. Reduced easily, but at once returns to flexed state on withdrawing sound. Uterus is also very low in pelvis. Was formerly accustomed to walk four or five miles at a time, even during menstrual periods. The patient underwent treatment, consisting of the use of a pessary, aided by rest and occasional use of sound. The restoration of the uterus to its proper shape occupied some time. One year and eight months after first consultation she became pregnant, and was delivered naturally at full term.

CASE 4.—Mrs. M. G——, aged twenty-two. Married two years. Has been abroad in a warm climate, and had a miscarriage (probably) just after marriage. Had dysmenorrhœa much since marriage. Exertion and walking very productive of discomfort. Was treated by a pessary before marriage (ring pessary). Has also worn it lately, but it is found to slip. A Hodge-shaped pessary was accordingly introduced, the uterus being found retroflexed. She went away and had a child two years and three months after the commencement of treatment. Seen again two years after birth of the child, it was found that she was wearing a ring pessary. The uterus had again become retroflexed, and was now large and heavy.

CASE 5.—Mrs. L——, married one year. Had an abortion eight months ago from horse riding. Uterus retroflexed acutely. Treated by a Hodge-shaped pessary. Pregnancy occurred about a year later; result satisfactory.

CASE 6.—Mrs. C——, aged thirty-two. Had four children, last one year ago. Uterus retroflexed. Patient a great invalid. Treated by Hodge-shaped pessary, rest, &c. The pessary was worn for a considerable time (nearly three years), at the end of which she was found to be four months pregnant and the pessary was removed. Result good.

CASE 7.—Mrs. ——, aged twenty-two, was sent to me from the west of England. She had been married early, and had two children, the last four years ago. Since that time she had suffered from "ulceration." Had formerly a specific affection of the milder type. Suffers from some degree of prolapsus, bearing down, &c. Menstruation occurs every ten or fourteen days; is scanty and painful. Walking causes great pain. Suffers from nausea. Uterus is retroflexed, easily replaced. A pessary on the Hodge principle adopted. Four months later she was again seen; uterus now in good position, although she has been without the instrument for the last three weeks. It was thought best for her to have a pessary a little longer. This patient had another child shortly after the above treatment.

CASE 8.—Mrs. ——, aged twenty-eight, the wife of an officer, a lady from the north of England. Had had two children, the last four years before. She had been ill for two years, suffering from prolapsus. Previously to that time had much to do, and exerted herself too much. Uterus in a state of acute retroflexion, lying very low in pelvis. She was in a state of great prostration, excessively weak and thin, and a complete invalid. The uterus was much hypertrophied. The treatment consisted in careful repositions of the uterus and adjustment of a pessary, with assiduous attention to dietary &c. At first a rather large pessary was required to keep the fundus from descending posteriorly, and it was some time before the patient seemed to make progress, though the discomfort ceased quickly. After about three months she was able to get about, but continued to wear the pessary much longer. Four years afterwards this patient had another child; she had worn the pessary almost continuously, it having been found impossible to dispense with it.

CASE 9.—Mrs. ——, aged thirty-three, sent to me from Norwood. She had had five children, the last five years before; and since that two miscarriages, the last six months ago. Uterus found to be much thickened, and large universally. Much retroflexed; reduction not difficult; returns to flexed state at once. There is not much pain felt in using the sound. The patient was treated by rest and the use of a pessary of modified Hodge shape, but covered with india-rubber, and the pessary rather thick (ten millimetres). She continued to wear this pessary, feeling quite well, and four years later came to me stating that she was then pregnant. I found her still wearing the pessary, and removed it. She was nearly five months pregnant.

CASE 10.—Mrs. ——, aged twenty-three. Has had one child, about two years ago. Suffers from cough and troublesome uterine symptoms. Uterus retroflexed. A Hodge pessary was applied, and the patient had a second child later on.

CASE 11.—Mrs. ——, aged thirty-three, married nearly two years. Took much walking exercise after marriage. Suffers from severe menorrhagia. Is now unfit for exertion and generally ill. Uterus found to be acutely anteflexed, half an inch too long, and fundus enlarged. At first it was considered to be a case of fibroid growth in the anterior uterine wall, and the uterus was dilated in order to gain access to this. But it resolved itself into a case of acute anteflexion. Pregnancy resulted shortly afterwards, and ended favourably.

CASE 12. Mrs. T——, aged twenty, married seven months when first seen. Suffers much, and is very weak and incompetent for exertion. Uterus much anteflexed. Amenorrhœa. Patient treated for some time by general measures; later on treated by a stem pessary, and subsequently by a cradle pessary. Pregnancy occurred first three years after marriage. Later on the symptoms recurred, and the pessary was again employed, with result of a second pregnancy and this sequence of events was again observed. The uterus was in this case apparently thin walled, and the organ became flexed. It is noteworthy that in this case, at a still later period, the patient again applied for relief, and it was then found that the uterus had become retroflexed, and a Hodge pessary was required to place her in a condition of comfort.

CASE 13.—Mrs. ——, aged twenty-seven, married six months. Suffers from menorrhagia and dysmenorrhœa, also pain after walking. Uterus acutely anteflexed. Treated by cradle pessary. Eleven months after first seen was found to be three months pregnant; still wearing pessary, which was then removed.

CASE 14.—Mrs. ——, aged twenty-seven, married seven years. Suffers from dysmenorrhœa and a very sensitive condition of the uterus. Acute anteflexion. Treated by a cradle pessary and use of sound. Treatment continued for about six months. Pregnancy occurred one year and a half later.

CASE 15.—Mrs. ——, from the United States. Had been married for six years, and had been under treatment for uterine disorder for four years. Principal complaint, dysmenorrhœa, which existed from first menstruation. Lately an operation had been suggested. I found the uterus acutely anteflexed, but the flexion was very high up, and the top of the fundus seemed to be enlarged. Entrance of sound difficult at the seat of the flexion. The patient objected to any operation, and the use of a cradle pessary was advised. By means of a cradle with a rather high bridge the flexion was controlled, and the patient made much easier. She continued to use the pessary (removing it at night) for a considerable time, and I saw her occasionally at intervals of two or three years. The passage of the sound finally

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became easier, and nine years after I first saw her, and after fourteen or fifteen years of married life, pregnancy for the first time occurred. The occurrence of pregnancy after so long a continuance of the sterility is especially noteworthy.

CASE 16.—Mrs. ——, aged twenty-six, a lady who had been married nine years, had been under treatment for some time when she consulted me. There had been no pregnancy. Suffering consisted chiefly of a continual severe backache. I found the uterus considerably swollen and much anteflexed. The fundus uteri was very low down in front, and it was exceedingly difficult to raise it from this position. Inquiry appeared to trace this position to a very severe fall in early childhood. The uterus was gradually elevated, and a cradle pessary employed. This occupied much time, and afterwards the uterine canal was periodically dilated by a two-bladed dilator. These measures were finally successful, and pregnancy occurred, followed by a natural delivery three years after I first saw the patient.

CASE 17.—Mrs. ——, aged forty-two. Has been married eleven years; no pregnancy. Menstrual periods too often, and frightfully painful almost always. The uterus appears to be enlarged anteriorly, as if by presence of a tumour. The sound cannot be introduced more than a short distance. Further examination proved that the case was one of severe anteflexion, and the sound was fully introduced. The cervical canal was then dilated from time to time, and a cradle pessary was employed. Nine months afterwards this patient became pregnant, and was seen by me when eight months and a half advanced.

CASE 18.—Mrs. ——, aged twenty-nine, was sent to me from abroad. Had been married ten years and had several miscarriages, the last two years and a half ago. Menstruation very irregular. Has had much travelling of a fatiguing nature. The uterus is markedly anteflexed; the canal very sensitive at internal os. Treated by cradle pessary, with great relief from uterine symptoms. This was removed after some months, but resumed after a long interval. Finally she became pregnant while wearing the pessary, went to her full time, and was delivered of a living child five years after first consulting me and after sixteen years of married life.

CASE 19.—Mrs. ——, aged thirty-two, married seven months. Seen in consultation with my friend, Dr. Murray of Newcastle-on-Tyne. Has suffered from backache severely for some years. Leads a very active life. Menstruation intermittent. Uterus anteflexed, large, congested; the bend of the uterus is high up; sound pretty readily introduced. The patient wore a cradle pessary and the uterine canal was dilated by Dr. Murray. Pregnancy occurred not long afterwards.

CASE 20. Mrs. S——, aged thirty-five, seen with Dr. Burton. Married six years; no pregnancy. Has had treatment for uterine displacement for one year. Suffers from pain and leucorrhœa. Uterus found anteflexed, large; tissues of uterus soft; sound enters pretty easily. Was treated by a cradle pessary. The patient became pregnant, and had a miscarriage five months afterwards. The pessary was discontinued for a time and then again employed. A second pregnancy followed, and there was a threatening of a miscarriage, but this went off and the patient had a living child at full term.

CASE 21.—Mrs. T——, aged thirty-four. Has been married four years. It is thought there was a miscarriage last year. For the last five months she had frequent micturition. Uterus much anteverted, pressing on the bladder. She was treated by a cradle pessary, the uterus being large and heavy. Pregnancy occurred while wearing the pessary one year and a half afterwards, and, I believe, ended satisfactorily.

CASE 22.—Mrs. L——, aged twenty-seven. Had a miscarriage eleven months ago, due to over-exertion. Uterus low down, anteflexed to left side. Os uteri soft; sound difficult to pass. Treated by a cradle pessary. Six months afterwards the patient proved to be pregnant, and with, I believe, a satisfactory termination. The pessary was worn up to about the time of quickening.

CASE 23.—Mrs. ——, aged twenty-six. Has had one child three years ago, since which she has suffered much from backache. Menstruation irregular and painful. Uterus much anteflexed. Wore a pessary for some time. One year later, reported to be pregnant.

CASE 24.—Mrs. ——, aged twenty-seven. Had had two children, the last two years previously. There had been one miscarriage also previous to first child. Some little time ago she strained herself in catching a box, and is now not able to walk; she suffers also from hysterical attacks after exertion. Uterus anteflexed; the anterior lip much elongated. Use of sound a little difficult. A cradle pessary was employed, which enabled her to walk easily. Pregnancy occurred again in three months.

CASE 25.—Mrs. ——, aged twenty-five, the mother of one child nearly three years old. States that she walked too much after her confinement, and has not been well since. Suffers from pain on rising, also from nausea. The periods are long apart. She can walk a little in the afternoon. Uterus acutely anteflexed. Sound very difficult to introduce. Treated at first by an air-ball pessary, then by a cradle pessary. Six months later pains relieved. The pessary continued to be worn for some time, altered in shape occasionally, as much difficulty was encountered in maintaining proper position of the uterus. Two years and a half after commencement of the treatment pregnancy again occurred, the patient having worn a pessary up to that time.

CASE 26.—Mrs. ——, aged twenty-eight. Has had three children, last two years and a half ago. Had a miscarriage eight months ago. Suffering from great depression and hysterical symptoms. Uterus large and much anteverted; os uteri far back. Treated with a cradle pessary for six months. Pregnancy followed shortly afterwards.

CASE 27.—Mrs. ——, aged about thirty-two, the wife of a medical man. Has had two children, the first twelve years and the last three years ago. Suffers much from dysmenorrhœa, menorrhagia, and leucorrhœa. Uterus anteflexed and to the right side; os uteri much congested. General remedies were at first tried, without result. A cradle pessary was then employed. Great relief obtained. Patient had another child soon afterwards. Subsequently the displacement recurred and became very troublesome. The pessary was again successfully employed.

CASE 28.—Mrs. ——, aged thirty-one. Had two children, and two miscarriages since. Menstruation profuse. Has a constant sensation of bearing down. Five months ago she was confined to her bed for a week with pains so severe as to resemble labour pains. Much leucorrhœa and sickness during the last three months, especially in the morning. Feeling of numbness in the lower part of the body. Uterus much anteflexed; it is easy to straighten it, but the flexion immediately recurs. A cradle pessary was adjusted. Six months later she became pregnant. She was advised to be very careful, and the result was good. I saw this patient again five years afterwards. She had had another miscarriage one year after the third child was born, from which I infer that the uterus afterwards resumed its anteflexed shape.

CASE 29.—Mrs. ——, aged about thirty. Has had two children. A year ago had a miscarriage at three months. The ovum, or a part of it, was retained for a month, and puerperal fever occurred. This was in India. Now suffers from pain in the right side, faintings, and general illness. Uterus anteflexed and soft to the touch. A cradle pessary was employed. The patient recovered, and had another child later on.

CASE 30.—Mrs. ——, aged thirty. Had two children, last two years ago; also miscarriage a year ago. Since that time not so well. Has had almost continued loss during last four months. Periods painful. Has had leucorrhœa. Walking very painful. Uterus anteflexed; anterior lip elongated; os crescentic in shape; Nabothian follicles enlarged. A cradle pessary was employed, together with other general treatment. Patient pregnant one year later, the pessary having been removed six months. Now suffering from sickness owing to the pregnancy. Cradle pessary again used to relieve the sickness.

In order to estimate the bearing of these cases on the question of the value of treatment in cases of sterility, the cases must be classified according as they were cases of primary sterility or secondary sterility. Regarding primary sterility, a further division is required into (*a*) cases where no pregnancy had occurred, and (*b*) cases in which pregnancy had occurred but ended in abortion. Respecting the retroflexion cases related, it will be found that three were cases of primary sterility without previous abortion, that in two the patients had had abortions, and that the remaining five were cases in which secondary sterility had existed for a number of years, and was relieved by curing or ameliorating the flexion, which was the assigned cause of the secondary sterility. Regarding the anteflexion cases, nine were instances of primary sterility without abortions, cured by treatment; three were cases in which the patient had been pregnant before, but followed by abortion; and eight

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were instances of secondary sterility, relieved by straightening or partially dilating the cervical canal.

Some of the cases mentioned were instances of primary sterility of very long standing. Thus in Case 3 the duration of the sterility was four years, due to an obstinate retroflexion. In Case 8 there was secondary sterility from retroflexion of four years' standing. In Case 9 secondary sterility of six years from a similar cause. Of the anteflexions, in Case 14 there was primary sterility of eight years and a half's duration; in Case 15—a remarkable one—the sterility (primary) was of upwards of fourteen years' duration; in Case 16 the patient had been married without issue for twelve years; in Case 17 the patient first became a mother at the age of forty-two, after a married life of eleven years' duration; in Case 18 the patient had had several miscarriages and been married sixteen years when she became a mother; in Case 20 the sterility (primary) was of six and in Case 21 of four years' duration; in Case 25 secondary sterility was of three years' duration when treatment commenced.

It will be observed that the occurrence of abortion is noted in some of the cases above related. Sterility is not seldom witnessed in women who are liable to abortions. The fact is one of great importance. Some women are apt enough to conceive, but the pregnancy ends in abortion, and this may occur repeatedly. It is certain that in many such cases the abortion is due to distortion of the uterus, which interferes with the proper expansion of the organ as the ovum grows and expands within it. Abortions may occur primarily, but more commonly it is observed that the subjects of them have had one or more children, and that there is established subsequently a liability to abortion. These latter are cases in which the uterus has become distorted after parturition and has settled down into a confirmed state of flexion, which has not been sufficiently severe to prevent conception, but sufficient to prevent healthy growth of the ovum. Hence, arises secondary sterility. In these latter cases the cure of the sterility by treatment of the flexion is an important argument in favour of the view that the confirmed severe flexion is the cause of the liability to abortion and associated sterility.

The principle of treatment which was adopted in dealing with the above cases was to improve the patency of the cervical canal by straightening it, and the method of procuring this increase of patency, which was most particularly and uniformly carried out, was the elevation of the fundus by employment of a suitable pessary. This latter procedure was the sole treatment carried out in several of the cases, but in some of them other methods were adopted. A stem pessary was used in two of the cases mentioned; in several of them the uterine sound was used as an assistance to the pessary in unfolding the flexion, and thus increasing the cervical patency. So far as these cases go, they prove that the method of treatment adopted was a successful one, and bear testimony to the efficacy of the principle of treatment carried out in these instances. In only two of the cases was dilatation of the cervix systematically carried out, and in these the dilatation was employed to a slight extent only, and not so fully as has been adopted by practitioners of repute during the last three or four years. The above cases were treated by me some years ago. Judging from more recent experience, I conclude that a more extensive adoption of the dilatation method than was carried out in the above series would be profitable, and probably the list of successful instances of the cure of sterility during the period of my practice covered by the above cases would have been longer had dilatation treatment been more largely carried out. The experience above recorded exhibits the utility of mere straightening and rectification of the positions of the uterus. Dilatation has the effect of straightening and replacing the uterus, and it offers the further advantage of getting rid, for a time at all events, of that rigidity of the cervix which is probably a great obstacle to the occurrence of pregnancy when associated, as it so frequently is, with a chronic long-standing flexion. It may be considered, possibly justly, as superior to mere straightening and maintenance of the proper position of the uterus on account of the greater rapidity with which the result is effected; but judging from cases which I have thus treated, the use of a supporting mechanism after dilatation will be found advisable if the permanent restoration of cervical patency is aimed at. For in long-standing cases the uterus may, after full dilatation, return in a few months to its abnormal flexed condition, and the patency of the cervix is liable to be again diminished.

THE BLOOD IN PERNICIOUS ANÆMIA.[1]

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PERNICIOUS or idiopathic anæmia has been recognised as a distinct disease since Addison first described it in 1855, but Dr. Byrom Bramwell appears to have been the first to call attention to the peculiar changes in the blood which are characteristic of this affection. Subsequent observations have in the main confirmed his descriptions, although on certain points there has been considerable difference of opinion; and accordingly when, last year, four cases of pernicious anæmia were admitted into the wards of St. Thomas's Hospital, under the care of Dr. Bristowe (curiously enough, all at about the same time), I seized the opportunity of examining the blood on a number of different occasions, with the results narrated below. The clinical history of these cases is briefly as follows:—

CASE 1.—A single woman, aged twenty-seven, who eleven years previously to admission into hospital had suffered from rheumatic fever and pericarditis. For nine months jaundice had been coming on, although the fæces remained normal in colour. The catamenia had not appeared for the same length of time. The patient was very anæmic, the skin being yellow and moist. The area of cardiac dulness was somewhat increased, and at the base the second sound was reduplicated on the left of the sternum. There was considerable pain in the right hypochondrium. The stools contained an abundance of bile, and there was no trace of bile pigment or acids in the urine. From the time of admission onwards there was an evening temperature averaging 101°, and never falling below 99·2°. After a month in the hospital there was a sudden rise to 103°, accompanied by much pain in the cardiac region, and a faint systolic murmur was found to have developed at the apex. About six weeks after admission the eyes were examined by the then house-physician, Mr. Hutton, who found optic neuritis present in both discs, which were reddened, swollen, and hazy. There were also a number of retinal hæmorrhages. The blood was pale, and coagulated rapidly; the red corpuscles numbered only about 36 per cent. of the normal quantity, and on drying a thin layer of the blood the corpuscles broke down, and crystals of hæmoglobin were formed. The patient was put on liquor arsenicalis (ten minims three times a day), and improvement commenced at once, the patient feeling better, although for a time the anæmia seemed even more marked. Before another month had elapsed the retinal hæmorrhages were becoming rapidly absorbed—those seen, four or five in number, being very ill defined and pale. The blood was also much improved. The red corpuscles (which now reached 60 per cent. of the normal number) no longer broke down, and consequently no crystals could be obtained. The patient went out three months after admission, having made steady progress towards recovery from the time that she was put upon arsenic.

CASE 2.—A leather finisher, aged thirty-two, was admitted in February, 1886, with a history of rheumatism five years previously, and frequent attacks of epistaxis for the past four years. The skin was of a pale yellowish colour; the conjunctivæ very anæmic, but apparently not jaundiced. There was a blowing systolic murmur at the apex, conducted into the axilla, and a faint double murmur at the base. Temperature 100°. On examining the eyes the optic discs were very pale; there was marked red and black stippling of the choroid but no hæmorrhages. The blood was much impoverished, the red corpuscles being present to the extent of 48 per cent. of the normal number only; they were under-sized, light-coloured, and did not run into rouleaux. A number of small highly coloured corpuscles about 2 μ in diameter were seen. Many of the larger corpuscles were of an oval or pyriform shape; they did not tend to break down, but their colouring matter was extruded in an amorphous form. At several subsequent examinations similar appearances were observed. The patient gradually improved, and was discharged on May 1st,

[1] Abstract of paper read before the Medical and Physical Society of St. Thomas's Hospital on February 17th, 1887.

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but has recently been readmitted in about the same state as before.

CASE 3.—The patient was a woman, aged thirty-three, who had never been well since her confinement nine years previously. Her chief complaint was of almost continuous pain in the flanks, sometimes causing vomiting, and of shortness of breath. Though very anæmic she appeared fairly nourished; both the liver and spleen were enlarged and tender, but no enlarged glands were found. The ophthalmoscope showed marked red and black stippling of the choroid in both eyes, while in the left several patches of hæmorrhage were seen. The house-physician notes: "The blood is pale and thin; no increase of white corpuscles; the red are irregular in shape, for the most part oval or pyriform, and are smaller than normal, but there are some even larger than those found in health. In parts the colouring matter seems to have separated out from the corpuscles and to lie in red lines between them." I found the red corpuscles to be 47 per cent. of the normal number. Temperature 100·6°. Later on some œdema of the face and eyelids was noticed, followed by swelling of both legs, which, however, gradually passed off, and under the administration of arsenic the patient improved greatly in colour and appearance, the change for the better in the state of the blood also being very noticeable when she was "presented" after a stay of a couple of months in the hospital.

CASE 4.—A brewer's man, aged fifty-seven, admitted in February 1886, complaining of severe diarrhœa. He had suffered from rheumatism some time previously. He was pale, emaciated, and aged-looking, the skin being very pale and dry. No eruption. Temperature 100°. Several retinal hæmorrhages were noticed in the eyes, and on examining the blood the red corpuscles were found to number only about 40 per cent. of the normal quantity. They were very irregular in shape, and pale, although some which were very minute were dark-coloured. On drying the blood on a slide by spreading it out with a needle, the corpuscles broke down into a uniformly granular-looking mass, which, when the slides were examined the next day, seemed to have disappeared almost entirely, while in its place were seen numberless acicular crystals of hæmoglobin. In parts where a few corpuscles had persisted entire the crystals were seen to be directly derived from them, and by good fortune I was able in some instances to watch the gradual change into perfect crystals, which in these cases were larger than those derived from the broken-down material. The patient went out about a month after admission by his own desire on finding that he had not increased in weight during the previous week. He was not quite so anæmic in appearance as when admitted, and had gained considerably in strength during his stay.

In a fifth case, that of a policeman who came into the hospital some time before the others, the disease appeared to ensue on an attack of malaria, contracted in the Kentish Marshes where he had been sent to prevent prize fights. The blood presented similar appearances to those noted in Case 2, the masses of amorphous pigment being very numerous and exceedingly obvious from their large size, while the corpuscles were few in number, pale, undersized, and irregular in shape. (See Table.)

In connexion with these cases there are two points to which attention should particularly be directed, the first being the pathology of the blood, and the second the effect produced primarily on the blood, and so on the patient, by the treatment pursued.

First, as to the condition of the blood. It has long been known that the *number* of the red corpuscles in severe cases is largely diminished, the individual corpuscles being both smaller and paler than in a normal state. Dr. Bramwell observed, in addition, that their *shape* was liable to great variation, the normal change being from circular to pyriform, this doubtless being due to a diminished consistence of the stroma. He also mentioned the presence of nucleated red corpuscles, which have also been noticed by other writers. But in all probability the nucleation is only apparent, being due to the fact that the hæmoglobin has become accumulated towards one part of the cell, as a very similar appearance can be produced artificially in human blood by the action of tannic acid. The *size* of the red corpuscle is diminished often to a great extent, the diameter usually ranging between 4 μ and 7 μ, although occasionally there are seen some which exceed in diameter the largest of those found in health, the measurement in exceptional cases being even as much as 14 μ. Dr. Hermann Eichorst notes the presence of corpuscles of a very small size, not more than 3 μ in diameter, which differ from the others in that they are globular, instead of the usual biconcave form, while they are also of a much deeper red than normal. Dr. Bramwell admits the presence of these minute corpuscles, but has failed to observe their deeper colour, in connexion with which statement it is curious that I rarely failed to find them. The *number* of red corpuscles present is much reduced, the hæmocytometer showing an average of from 35 per cent. to 45 per cent. of normal. The corpuscles are also apt to change their form as noted above, becoming pyriform or spindle-shaped. When the consistence of the stroma is thus altered, the colouring matter tends to leave the corpuscle, as mentioned in the notes of the cases; but at the same time does not necessarily become dissolved in the blood plasma, at all events entirely, some of it remaining in amorphous masses. This appearance, which was seen in two of the cases, has not, I believe, been observed before. It is also worthy of note that the corpuscles do not form rouleaux, but appear to cohere by their edges, sometimes even appearing to become partially fused with one another. The *colour* of the corpuscles is much less intense than in health, if those of the small globular variety be excluded; the colourific intensity of the blood, as determined by the hæmoglobinometer, being often found to be much less than can be accounted for merely by the diminution in number of the corpuscles. Eichorst describes the liquor sanguinis as being of a serous amber colour, and states that it coagulates with difficulty, but this has not been borne out in these cases; neither can I agree with him that the colourless protoplasmic granules found in normal blood are completely absent, as in each case they were noted as being, if anything, more numerous than usual.

In three of these cases it was found that on rapidly drying a specimen of blood taken from the finger, the red corpuscles readily broke down, sometimes disappearing entirely, while sometimes a coarsely granular appearance was left. These specimens showed after a time, in place of the corpuscles, an aggregation of rhombic crystals of hæmoglobin, the spontaneous appearance of which in anæmic blood has not apparently been previously noticed. The fact of their appearance in this manner without special preparation is the more curious when it is remembered that under ordinary circumstances it is practically impossible to obtain hæmoglobin crystals from normal human blood. From the blood of some of the lower animals crystals may be obtained with the greatest ease, notably from the guinea

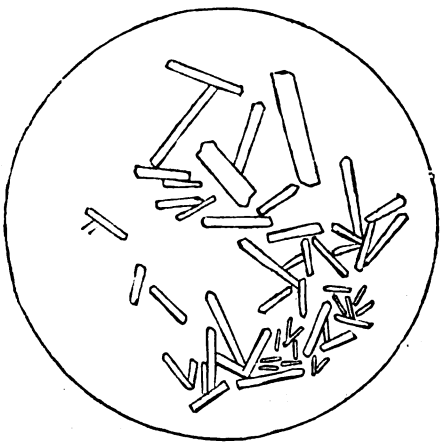
Tabular View of Cases.

No.	Sex.	Age.	Occupation.	Supposed cause.	General appearance.	Retinal hæmorrhages.	Diarrhœa.	Vomiting.	Fever.	Complications.
1.	F.	27	Single	Rheumatic fever	Jaundiced; no emaciation	Yes	No	Yes	Yes	Epistaxis; pain in long bones; systolic murmur.
2.	M.	32	Leather finisher	Rheumatism	Very anæmic, with yellowish tint; no emaciation	No	No	No	Yes	Epistaxis; paroxysmal cough; systolic murmur; albuminuria.
3.	M.	57	Brewer's man	Rheumatism	Emaciated, pale, and aged-looking	Yes	Yes	Yes	Yes	Dry cough; pain in long bones.
4.	F.	33	Married	Pregnancy	Pale, brownish-yellow; no emaciation	Yes	No	Yes	Yes	Œdema of legs; pain in long bones.
5.	M.	47	Policeman	Malaria	Very anæmic; no emaciation	Eyes not examined	Yes	Yes	Yes	Profuse sweating; pain in long bones; hæmic murmur.

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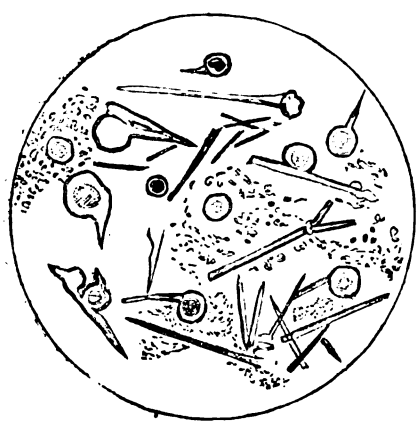
pig and rat or mouse; but human hæmoglobin, being soluble in a much greater degree, is consequently much more difficult to obtain in the crystalline form, the order of solubility, and so of facility of crystallisation, being given by Gautier in the following order for various animals—(1) rat, guinea-pig, squirrel, and then, with a great interval, (2) cat, dog, horse, and man. In two of the cases described above, in which the corpuscles persisted, no crystals were developed, but amorphous masses of brown pigment were seen scattered among the corpuscles, the difference possibly being that in the one case hæmoglobin and in the other hæmatin only was extruded, the globulin then being retained in the stroma. That hæmatin, which is non-crystallisable, and globulin should be capable of dissociation thus is borne out by the presence in old blood clots of pigmented crystals of hæmatoidin, which is apparently identical with iron-free hæmatin. In two

FIG. 1.



Specimen of blood from Case 1. The blood-corpuscles have entirely disappeared, and in their place are seen a quantity of rhombic crystals of hæmoglobin. (Obj., Zeiss D).

FIG. 2.



Showing crystals starting from red corpuscles. (Case 3.)

instances the specimens of which were taken from Case 3, the crystals were seen to be directly derived from the red corpuscles (Figs. 2 and 3), and their formation was watched from time to time. An exactly similar appearance is described by Dr. Lionel Beale as having been witnessed by him in the case of hæmoglobin crystals obtained from guinea-pig's blood, the crystals being comparatively large when springing from an entire corpuscle—smaller when arising from the portions of one which has partially broken down.

Considerable difficulty is experienced in preserving specimens of hæmoglobin crystals as permanent objects. The beautiful crystals from guinea-pig's blood are readily obtained, but, in whatever way they may be mounted, generally lose brilliancy and the sharpness of their angles after a time. Consequently, it was to be expected that human hæmoglobin, being so exceedingly soluble, would not be very permanent, and this unfortunately appears to be the case, as many of my specimens have deteriorated considerably since they were first prepared. The only description of crystals occurring in the blood in disease is apparently that of Charcot, who speaks of small lenticular crystals, named after him, as having been noticed in the blood in leucocythæmia. Gowers states that they are a post-mortem phenomenon, and also adds that they are not peculiar to this disease. These crystals, which Charcot considers to be of a proteid nature, differ in every respect from those just described, one important point of difference being that in these cases of pernicious anæmia the destruction of the red corpuscles was a necessary antecedent to the appearance of the crystals, while in Charcot's cases it was not so.

It is necessary to add a word or two on the treatment of this disease, since the appearances described seem to have a bearing, if only a negative one, on this point. In all the

FIG. 3.



Another preparation also from Case 3.

FIG. 4.



Crystals from red corpuscles of guinea-pig's blood. (After Beale.)

cases arsenic was prescribed in the form of liquor arsenicalis, and with the best results. To Dr. Byrom Bramwell we owe not only some of the earliest descriptions and the first real investigation of this disease, but also the use of this drug in treatment, in support of which may be mentioned the not uninteresting fact that in the cases in which crystals of hæmoglobin were at first obtained none could be found after the patient had been for a few days under the influence of arsenic, even though the blood did not at the same time show any very considerable change in the number of corpuscles or in the amount of hæmoglobin present, while in two or three subsequent cases in which the drug had been administered before the patient was examined, but in which the hæmocytometer showed a percentage of corpuscles as small as that in the cases in which crystals were obtained, none were ever found. These facts appear to show pretty distinctly that arsenic has a very immediate action for good on the blood in this disease, especially as all the patients, notes of whose cases have been given, left the hospital greatly relieved, if not absolutely cured. One of these, it must be

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stated, has lately been readmitted, and it is possible that the disease may reassert itself in all of them after a time, as, it seems, is not unfrequently the case; still, the effect of this drug, at any rate for the time, appears to be little short of marvellous.

In conclusion, my best thanks are due to Dr. Bristowe, to whose kindness I am indebted for permission to make use of the notes of the cases that have been quoted.

York-road, S.E.

CASE OF MYELOID SARCOMA, INVOLVING BOTH SUPERIOR MAXILLARY BONES, TOGETHER WITH THE HARD AND SOFT PALATE;

REMOVAL OF GROWTH WITH THE GREATER PART OF BOTH BONES; RECOVERY.[1]

BY F. BOWREMAN JESSETT, F.R.C.S. ENG.,
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S. G. B——, a married woman, aged thirty-five years, was admitted into the Brompton Cancer Hospital on Oct. 31st, 1886, with a large growth involving the whole of the hard palate, and projecting into the mouth to the line of the teeth on both sides. The patient's grandfather died of epithelioma of the lip; no further history of cancer in the family; father and mother both living and healthy; no history of phthisis or syphilis. She first noticed a lump in the hard palate twenty-one months ago, which grew rapidly until it attained the size of a bantam's egg and projected considerably into the mouth, interfering with mastication and speech. Six months after first noticing the growth she went to Guy's Hospital, where she was operated upon by Mr. Clement Lucas, through whose courtesy I have obtained from Mr. Targett, the surgical registrar of Guy's Hospital, the following particulars:—"She was admitted into the hospital on June 11th, 1885, under the care of Mr. Clement Lucas for a myeloid sarcoma of the hard palate which had existed about six months. On June 16th, 1885, Mr. Lucas excised the tumour with scissors, and then scraped the base, applying tannic acid to stop hæmorrhage; no portion of the hard palate was removed, and on June 28th she was discharged, the wound having granulated nicely." In June, 1886, she was admitted into St. Thomas's Hospital, under Sir W. Mac Cormac, with extensive recurrence of the disease. On examination it proved to be a very vascular sarcoma, with definite myeloid cells and spicula of bone. She noticed the edges of the opening in her palate, the result of the removal of the tumour, swollen and tender about three months after she left Guy's Hospital, and from that time the growth extended rapidly.

State on admission.—There is an irregular mass implicating the whole of the hard palate and the inner aspect of the gums on both sides, as far forward as the first molar tooth; the soft palate is also infiltrated with the disease to within a quarter of an inch of its posterior edge; the growth extends upwards into both nostrils, but more so on the left, where it is seen protruding for some considerable distance, presenting much the appearance of a large polypoid growth. The patient cannot breathe through either nostril. By digital examination of the pharynx, the tumour is felt pressing back upon its posterior wall, and it is impossible to ascertain how high it extends posteriorly. The patient suffers comparatively little pain from the growth, but complains chiefly of the difficulty in eating, the movement of the tongue and capacity of the mouth being limited by the growth (which is the size of a large lemon) projecting into it. There has never been any hæmorrhage. The tumour feels hard but elastic to the touch, is firmly fixed, and appears to extend deeply into the antrum on either side. There is a slight fulness over the left antrum, but the teeth on both sides are very good, and in no degree loosened.

At the urgent request of the patient, I consented to endeavour to remove the growth, although at the time I feared I should not be able to do so without removing the whole of both the superior maxillary bones; but I determined in the first place to endeavour at any rate to leave the infra-orbital plates intact if possible, and I hoped to be able to accomplish this, as from the history of the case it appeared clear that the growth commenced solely from the hard palate or from the alveolar process. On Nov. 9th the patient being placed fully under the influence of an anæsthetic I made a most careful examination of the tumour, but could find little more than I had done previously. The growth, however, extended so far back and appeared so firmly fixed that I had some misgivings as to the result of the operation.

Operation.—I made two incisions, extending from either angle of the mouth, upwards and outwards towards the inner angle of the orbit; I then reflected the flap thus formed, which included the nose, upwards over the forehead, and in this manner thoroughly exposed the whole of the front of the growth and superior maxillary bones. I next, with a fine incision saw, divided both bones about half to three-quarters of an inch above and parallel to the alveolar processes through their whole extent, and, with a raspatory used as a lever, separated this portion of the bones from the upper and remaining halves. Having thus loosened this portion of the bones with the tumour attached, I seized it with the lion forceps, and at the same time introduced the index finger of my left hand into the pharynx behind the growth, and in this manner was enabled gradually to remove the whole of the disease, with the exception of that portion which had grown into the antrum on the left side. This, however, was quite detached, and was subsequently easily removed by means of Volkmann's spoon. There was scarcely any hæmorrhage, and the disease appeared to have been entirely limited to the portion of bone removed, having grown from thence upwards and insinuated itself into the antrum and between the ethmoidal spongy bones. The skin flaps were next brought together with harelip pins and one or two horsehair sutures, and the whole surface dusted over with iodoform. The patient, who stood the operation remarkably well, was returned to bed. She was fed for the first twenty-four hours with nutrient enemata, after which time she took food by the mouth from a feeding-cup with a piece of indiarubber tubing attached, sufficiently long to pass over the root of the tongue.

Nov. 10th.—Patient has passed a good night. Temperature normal.—12th: Patient still doing well. The mouth is kept washed out with a solution of boro-glyceride; there is very little discharge; takes nourishment well.—15th: Two of the harelip pins removed. Wound healthy; no pus.—16th: The remaining harelip pin removed. Wound quite united. The patient from this point made an uninterrupted recovery, and is now (February 24th, more than three months after the operation) quite well. Her speech is peculiarly good; in fact, with the exception of a few letters, she speaks well. There is little or no deformity. She is now being fitted with a plate, by which means it is hoped to enable her to masticate fairly well.

Remarks.—This case represents well one of those rare cases in which the practice of removal of the greater part of both the superior maxillary bones may be practised with advantage. In performing the operation I preferred adopting the primary incision as suggested by Heyfelder, as, from the size of the growth and the uncertainty of its deep attachments, I thought these incisions would afford the greatest possible amount of room for the removal of the tumour, and also in case of deeply seated hæmorrhage occurring during or after its removal these incisions would enable me to obtain the best view of the deep parts. After having fully exposed the tumour by reflecting the flaps upwards, instead of attempting to pass a chain saw through the spheno-maxillary fissure, which in this case would have been impossible to accomplish, I preferred to saw through the maxillary bones from the front, and then by inserting a chisel into the divided bone to separate the alveolar processes and lower part of the bones from the upper. By this means I avoided wounding the growth, which was very vascular, and I was enabled to remove it with its attachment entire. Had I persevered and thrust the chain saw through the spheno-maxillary tissue and sawn through the bone from behind forwards, it is evident that I must have divided the growth as well, and in all probability met with very considerable hæmorrhage. By adopting the method of dividing the bones, I was enabled to preserve the pterygoid processes of the sphenoid bone intact, which is of very great importance. Had the disease extended deeper than it did, by removing the lower portions of the bone by this method it would have been easy by means of

[1] Read before the Medical Society of London.

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the gouge or gouge forceps to remove as much more as might have been necessary. Doubtless, this method of proceeding has been adopted by other surgeons, but I have been unable to find any case so operated on recorded. A point of interest about the growth is its character. The original growth when removed at Guy's Hospital is reported to be myeloid sarcoma. Again, when the patient presented herself at St. Thomas's Hospital the growth was described as a myeloid sarcoma. The appearance of the tumour now, however, has appeared to have undergone a change, for there are only a few myeloid cells to be seen, while the bulk of the tumour seems to be made up of a firm fibrous stroma interspersed with a large number of small round cells. Another interesting point is that when Mr. Lucas removed the growth in June, 1885, he did not remove any of the hard palate. Now, however, the whole of the hard palate is absorbed, having been destroyed by the tumour. There is no doubt the growth commenced in the periosteum of the hard palate, for Mr. Lucas is reported to have scraped the base, after removal of the growth with scissors, and from its point of origin the tumour grew upwards and right and left, absorbing the bony structures as it extended, at the same time pushing its way outwards into the cavities of the antra, and upwards between the ethmoidal spongy bone.

Upper Wimpole-street, W.

A FEW FACTS CONCERNING THE RECENT PREVALENCE OF WINTER DIARRHŒA.[1]

By SHIRLEY F. MURPHY,

LECTURER ON HYGIENE AND PUBLIC HEALTH, ST. MARY'S HOSPITAL.

I HAVE thought that our Society might well have before it a few facts which I have been able to glean concerning the recent prevalence of diarrhœa during the winter months. The subject was first referred to in a paragraph in THE LANCET of Feb. 5th, which also contained the following week a letter from Mr. C. H. Taylor of the West London Hospital, stating that diarrhœa was prevalent in Fulham, Chiswick, and Hammersmith; and the *British Medical Journal* of the same date published a communication from Dr. Norman Kerr telling the same story for the neighbourhood of Regent's-park. Later, other correspondents bore witness to the existence of epidemic diarrhœa in St. James's, Bayswater, Marylebone, Clapham, Lewisham, Penge, Kingston-on-Thames, Kent, and even as far from London as Lancashire and Aberdeenshire. The reports of the symptoms from which the patients suffered fairly well agreed. In all cases there was diarrhœa, in the majority abdominal pain, vomiting, cramps in the limbs, great depression, and a symptom of particular interest -- high temperature. In a few the fact was noted that the patients also suffered from hæmorrhage from the bowels. In many instances the sufferers were attacked in the night, and often in groups, suggesting community of cause. We may assume therefore, in the first instance, that the epidemic, wherever it manifested itself, was of the same nature, and that some of the symptoms to which it gave rise were those not usually met with in ordinary diarrhœa, and that, regarding it as diarrhœa, the disease occurred at an unusual period of the year. We are led, moreover, to conclude that, notwithstanding the area which its operations covered, it is in the highest degree probable that the cause in each locality was the same. And I may go further, and say that this cause was not related to any climatic condition; for, if we examine the dates of outbreaks in public institutions situated near to each other, and therefore subject to the same climatic conditions, we do not find that these dates exactly correspond; and, further, some institutions also in the neighbourhood of those which were invaded escaped altogether. The cause must, nevertheless, be one capable of operating over large extents of country.

My own opportunities for learning some particulars of this illness were practically limited to its behaviour in a special hospital in Central London, which I first visited for that purpose on Jan. 27th. I was informed by the senior house-surgeon, who had taken great interest in the matter, that half the inmates of the institution about two months before had been attacked suddenly with diarrhœa, the patients alone suffering and the staff altogether escaping. On Jan. 25th the incident repeated itself, nearly fifty persons on this occasion being attacked. The distribution of the disease in the hospital is of importance; for again, on the second occasion, the patients were, with trifling exceptions, the only sufferers. The patients are resident in wards situated on three floors; those on each floor taking their meals mostly together. On the first floor are beds for thirty women, on the second floor beds for forty men, and on the third floor twenty-six beds, twenty-one of which are occupied by men and the rest by children. Of the patients resident in the hospital at the time of my visit, I found that on the first floor there were attacked on Jan. 24th (Monday), in the morning one, in the evening three; on the 25th (Tuesday), in the morning two, in the evening six; on the 26th (Wednesday), in the morning one. On the second floor there were attacked on Jan. 24th (Monday), in the evening one; on the 25th (Tuesday), in the morning eighteen. On the third floor there were attacked, on Jan. 24th (Monday), in the evening five; on the 25th (Tuesday), in the morning six. Or, considering those on the different floors together—on Monday, Jan. 24th, ten were attacked; on Tuesday the 25th, thirty-two; and on Wednesday the 26th, one; the majority of the attacks occurring while the patients were in bed at some period of the night.

The most striking circumstance in the outbreak is the almost complete immunity enjoyed by the staff. Of twenty-two persons engaged either in attendance upon the sick or in domestic duties, but two suffered from diarrhœa, and these were nurses, both of whom were attacked in the early morning of Tuesday, Jan. 25th.

To enable the exact incidence of the disease upon the patients to be determined, and for the purposes of further inquiry, I ascertained the condition of health of those who had been discharged from the hospital for some time previously, and in this manner elicited information that no patient who left the hospital before Jan. 24th was attacked. On Thursday, Jan. 20th, three patients were discharged, and on Friday, the 21st, three; on Saturday, the 22nd, six: none of whom suffered. On Sunday, the 23rd, no patients were discharged; on Monday, the 24th, six patients were discharged, three of whom were attacked early the following morning at their own homes. Whatever cause, therefore, gave rise to diarrhœa probably came into operation after the patients left on Jan. 22nd—i.e., after midday dinner on that day. Of patients newly admitted into the hospital, three admitted on Jan. 20th were each attacked; of two admitted on the 21st, one was attacked; and of three admitted on the 22nd, two were attacked. None were admitted on Sunday, Jan. 23rd. Five were admitted on Jan. 24th, all of whom escaped. Two were admitted on Jan. 25th, both of whom escaped. The cause of the outbreak therefore probably ceased to be operative before the patients were admitted on Monday, Jan. 24th—i.e., the cause was operative only some time between midday on Saturday, Jan. 22nd, and midday on Monday, Jan. 24th.

It becomes important, therefore, to ascertain the effect of this cause upon the patients *who were in the hospital at this particular time*, changes by admissions and discharges having taken place before my visit. There were sixty patients in the hospital between Jan. 22nd (Saturday), midday, and Jan. 24th (Monday), midday, of whom forty-three were attacked with diarrhœa, either within the hospital or immediately after their return home, giving a percentage of 76·6. Of the staff I have already said there were twenty-two, of whom two were attacked, or 9 per cent. This difference is so great that I was compelled to regard the condition causing the diarrhœa as one with which the patients must be specially related, and this view was strengthened by the fact that the two affected members of the staff were nurses who may likely enough have come into accidental relation with this condition.

At this period I was not aware that the disease was prevalent in other parts of England, and I was led to examine the incidence of attack upon patients taking milk, water, and other articles of food. Of those who drank unboiled water at their meals there were thirty-three, of whom twenty-five were attacked, or 75·7 per cent., being practically identical with the general average. Of those who drank no water except that which they had in their tea, and which had therefore been boiled, there were twenty-six, of whom twenty-one were attacked, or 80·7 per cent. Drinking water

[1] Read at a meeting of the Society of Medical Officers of Health, May 20th, 1887.

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or abstaining from water did not therefore affect the probabilities of attack. Again, forty-four patients drank uncooked milk instead of beer, and of these thirty-four were attacked, or 77·2 per cent., a proportion equal to the general average. Of fifteen patients who took no milk except in tea, thirteen were attacked, or 86·6 per cent. Drinking or abstaining from milk cannot therefore be said to have affected the probabilities of attack. Nevertheless, the large proportion of attacks among patients, and the immunity enjoyed by the staff, strongly indicated some article of food as responsible for the occurrence. The senior house-surgeon was good enough to prepare for me a complete list of all the articles of food consumed in the hospital. I may at once eliminate from further suspicion the following:—Milk, because the supply was common to staff and patients, because of the evidence already adduced, and also because the same farms supplied milk to another large hospital, which remained free from disease. Water, because it was consumed by staff and patients, and because of the evidence already adduced. The possibility that the local contamination of a cistern was responsible for the outbreak may be set aside by consideration of the fact that separate cisterns supplied the different floors. Tea and salt may be eliminated, because the supply was common to staff and patients. Meat and potatoes, because the supply was common to staff and patients. Beef-tea, because it was only consumed by a few patients. Beer, because those who did not drink beer were also attacked. Bread and sugar, because the same articles consumed by the patients were also supplied to the servants, none of whom were attacked. Rice, because no fresh supply had been received for a long time previously, and the children had been eating rice daily without injury. I may also refer to the fact that other institutions and other parts of the country were invaded, having different milk, water, and meat supplies.

There is but one article of food I am unable to exculpate, and to the possibility of this being the cause of a widespread outbreak I would desire to direct the attention of the Society. I refer to butter, which in the method of its distribution in the hospital in the first instance raises a presumption that it may have been concerned in producing this curious disease. Three qualities of butter were supplied to the institution—(*a*) that provided for the medical officers and matron, (*b*) that provided for the nurses and servants, and (*c*) that provided for the patients. The patients' butter is received on every weekday at 10 A.M., and is used for tea and supper the same day and for breakfast the following day, on Saturdays the supply being increased to last until breakfast on the following Monday morning. If we assume that the butter received for the patients on Saturday, Jan. 22nd, possessed purgative properties, there is ample explanation of the illness of all the patients who suffered from diarrhœa. That all were not attacked at the same time, and that some escaped, may be due to some unequal distribution of the active principle throughout the butter, or perhaps to some difference in the quantity consumed. There remain the attacks of two nurses, who, it may be mentioned, suffered less severely than the patients from this malady. I have no other explanation to offer on this point than that they must have eaten some portion of the bread-and-butter not required for the patients. Those who are intimate with hospital life will know that this is no unusual event. Thus far as to this particular hospital. The difficulty which stands in the way of the acceptance of this theory is the fact that other institutions—many persons not living in institutions, and other parts of the country have also shared in the prevalence of diarrhœa.

English butter is made upon the farm on which the milk is produced, and the few pounds which each farm is able to contribute could not be sufficiently widely distributed to give rise to an occurrence such as that we have under consideration. But the butter which I have been led to suspect was that provided for the patients, and low-priced butters come largely from abroad. In other countries butter is not always manufactured on the farms on which the milk is produced, but large numbers of farms send their milk to central depôts, where, I am told, the milk of hundreds of farms is mixed together, made into butter, and colouring matter added, which always gives to it a uniform colour and flavour. This is sent over in enormous quantities to the English middle-man, who distributes it to local vendors, from whom it reaches the consumers. In this manner any capacity which the milk from any farm might possess to cause diarrhœa would, if due to an organism, have the possibility of being multiplied by admixture of this milk with other milk, and thus its effects might be felt in many places. Or perhaps the method of treatment of the butter in some central depôt might be concerned in conferring upon it this power, or possibly by the development of some chemical poison it might have acquired this special property. The symptoms of the sufferers, indeed, remind us of the observations of Dr. Victor C. Vaughan of Michigan concerning the effects of a ptomaine he found in cream. It is, under any circumstance, conceivable that butter which possesses this property might be distributed through different channels over a large area of country, and thus induce diarrhœa in one district or institution at one time and in another at the same or at a different time.

I have not had the opportunity of extending my inquiries sufficiently to enable me to thoroughly sift the evidence that could be obtained outside the institution with which I was concerned. I therefore prefer to leave the subject where it is, but I may mention incidentally that one large hospital which also suffered heavily received its butter from the same source as that which came under my own observation, and that another suffering very partially required the patients to supply their own butter, thus giving opportunity for it to be procured from many sources, of which perhaps one only was identical with that under suspicion. This difference in the method of supply may perhaps account for the smallness of the number of persons affected in some institutions. I do not wish now to do more than urge—1st, that the nature of the epidemic of which we have recently had experience points to an article of food as the cause; 2nd, that the facts learnt at one institution, where they were carefully observed, point especially to butter; and, 3rd, that any objection to this theory, which is based on the method of distribution of butter made on English farms, falls to the ground when the distribution of foreign and of artificial butters is considered. In conclusion, I would desire very cordially to thank Mr. E. Treacher Collins, whose active assistance has enabled me to ascertain the facts upon which this story is based, and to whose accurate observation I am very greatly indebted.

DEATH FROM IMPACTION OF GALL-STONES.

BY A. GLOVER WILLIAMS, M.D., M.R.C.S.,
SURGEON TO THE BRIXTON DISPENSARY.

ON October 13th, 1886, I was called to see Mrs. B——. She was a woman of dark complexion, with rather an anxious expression, and was markedly jaundiced, the conjunctivæ being of a deep yellow. She was fairly well nourished. I was told that three months ago she was seized with pain below the right ribs, which gradually became intense; it was more or less paroxysmal in character, accompanied by violent sickness, and followed in a day or two by yellowness of the skin. A medical man was called in, who said she was suffering from the passage of gall-stones. She suffered from the pain and sickness at short intervals until three weeks or a month ago, when the pain left her; but the sickness increased, notwithstanding, until she could keep nothing down; the jaundice also deepened. Her friends told me that she had been somewhat addicted to drink. She was under my care from October 26th to November 12th, 1884, and was then suffering from symptoms of gall-stone colic—viz., acute pain in the right hypochondriac region, with sallowness of the conjunctivæ, which did not amount to jaundice; the urine contained some bile, and the fæces were pale—i.e., clay-coloured; the motions were searched for gall-stones, but none were found. In July, 1885, she again came under my notice with the same symptoms. There was no actual jaundice on this occasion, and no gall-stones were found in the fæces. In March, 1886, she had a similar attack, but on this occasion she was jaundiced; the pain then left her suddenly, but her recovery was gradual. She says that her father had some operation performed on his lip, but she does not know what for.

The patient's present condition (Oct. 13th, 1886) is as follows: She has lost all pain, but suffers from constant sickness. She retains nothing; even the medicine is returned. The vomit is of a dark-greenish colour, almost wholly fluid, and about the consistence of thin gruel. The bowels are

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open, somewhat relaxed; motions greyish-white in colour. She is very restless, and gets but little sleep. The urine is very dark, and contains bile. The liver is felt below the ribs; the upper line of dulness is lower than natural (at seventh rib) owing to increased lung resonance, so that the liver dulness only measures vertically three inches in the nipple line. At the junction of the umbilical and right lumbar regions, and about three inches from the edge of the right ribs, a hard mass about the size of a large walnut is felt on deep pressure; it is somewhat tender and quite immovable. Ordered iced milk, milk and soda-water in small quantities with brandy, and a mixture containing bismuth, hydrocyanic acid, and opium.

Oct. 15th: Sickness somewhat less. Has kept a little down. Medicine has not been returned.—17th: Not so well; sickness is worse; has not been able to keep anything down. Ordered nutrient enemata of beef-tea, egg and brandy, three times a day.—19th: Sickness still continues; is very restless; cannot sleep at night. Ordered white of egg by mouth, as well as the enemata, also a pill containing half a grain of opium every four hours.—20th: No diminution in sickness. Ordered an effervescing draught, with hydrocyanic acid and opium.—21st: She is much worse, and in a semi-unconscious condition, from which she can be roused to a certain extent. No sickness since 3 A.M.; pulse frequent and very feeble. Ordered two drachms of brandy every hour. From this condition she never rallied, but, becoming more unconscious, died at 5 P.M.

Necropsy.—Body fairly well nourished; skin and conjunctivæ intensely jaundiced. On opening the abdomen, a good layer of fat was noticed in the abdominal wall. The liver was seen to project about an inch below the edge of the right ribs; it was somewhat larger than natural, and the increase was most marked in the left lobe. On section, the central zone was well marked, the outer being pale. The gall-bladder was small, and adherent to the under surface of the liver; its walls were much thickened. On opening it, it was found to contain about a tablespoonful of thick greenish fluid, and thirteen or fourteen gall-stones, varying in size from a small pea to that of a hazel-nut; most of the stones were marked by facets. The cystic duct was much dilated, and contained two gall-stones about the size of small hazel-nuts. The common bile-duct was much dilated, and was at least as large as a man's thumb. At the point of entrance into the duodenum three large gall-stones were impacted in a triangular fashion, two being in front and one behind; they completely blocked the opening into the duodenum, were of the size of large hazel-nuts, angular, and marked by facets; the remainder of the common duct contained three stones, rather smaller than these. The hepatic duct was dilated, and contained two stones, which were angular and marked by facets. The duct from the left lobe was much dilated, and contained one stone about the size of a large pea; the duct from the right lobe was not much larger than natural, and contained no stone. The spleen was congested and very friable. The kidneys were slightly puckered, and the capsules somewhat adherent. The glands in the lumbar region lying to the right of the bodies of the vertebræ, and behind the duodenum and head of the pancreas, were converted into a hard calcareous mass about the size of a walnut. There was no bile stain on the mucous membrane of the duodenum.

Remarks.—The rarity of death from impaction of gall-stones uncomplicated by other disease alone makes this case interesting, only two cases being quoted in Murchison's "Diseases of the Liver," and these do not occur in his own experience. The diagnosis was in some degree complicated, owing to the small tumour felt at the junction of the umbilical and right lumbar regions. This, which proved to be a calcareous mass of glands, suggested some malignant disease of the pylorus, duodenum, or head of pancreas; but the character of the pain, the interval between the patient's illnesses, and the freedom from symptoms, together with the fact that there was comparatively very little loss of flesh, pointed to gall-stones as the chief element in the case. Another point of interest was the cessation of pain for so long a period before death, without any improvement in her other symptoms. Then there was no enlargement of the gall-bladder, owing to the obstruction of the cystic duct—a point which usually helps the diagnosis. As to the immediate cause of death, it was no doubt due to cholæmia and the exhaustion consequent upon the continued sickness. Bile had evidently not entered the intestines for some time. In conclusion, could anything have been done in the way of an operation (cholecystotomy) in this case? In my opinion decidedly not, as the gall-bladder was small and firmly adherent to the under surface of the liver.

Brixton-hill, S.W.

GOITRE IN ANIMALS.

BY ALLEN THOMSON SLOAN, M.D. EDIN.

THE question of goitre among animals appears to have been little studied, and it is difficult to get any literature on the subject. For my present information I am indebted to the works of St. Lager and Baillarger, and also to the kindness of Principals Williams and Walley of the Veterinary Colleges, Edinburgh, whose opinions, however, are rather opposed to each other. According to St. Lager, the thyroid gland exists in all mammiferous animals, birds, and reptiles. It is wanting among many fish—such as the perch, mackerel, salmon, herring, turbot, and sole; but it exists in the carp, sturgeon, eel, and shark. In many mammals—as the camel, alpaca, nylghau, hartebeest, dog, warthog, porcupine, and kangaroo—the isthmus is wanting, and the two lateral lobes are quite disconnected; whilst in the female carnivora the isthmus is very small in relation to the size of the lateral lobes (Turner).

Naturalists have wrongly applied the term "goitre" to the enlargement of the throat seen in certain reptiles—such as the chameleon, iguanas, lizards, and some species of toads. Among these the skin of the neck hangs down in projecting folds. The term "goitre" has also been applied to the swollen necks found in certain birds—such as the pouter pigeon, the cormorant, the pelican, and some vultures, all of which have enlargement of the throat quite distinct from the thyroid gland. Aristotle, Pliny, Galens, and Ætius have remarked that pigs are subject to swellings of the glands of the neck. Galen expresses himself thus: "Graeci strumas appellant χοιράδες a porcis in quoram gutture adenosi quidam tumores reperiuntur." Paul D'Egine said that these referred to scrofulous tumours, but Pliny, in his Natural History, says positively that pigs are subject to goitre owing to the bad water they drink. Vegèce, in his "Treatise on the Veterinary Art," speaks of scrofulous tumours of the parotid, and goitres which are seen sometimes in mares. Goitre has been seen in dogs and pigs in many parts of Switzerland by various observers. It has been noticed in sheep and cattle in Switzerland, Wurtemburg, the valley of the Danube, in the Himalayas, in Siberia, in Brazil, and the United States. Rudolp and Rupp have seen hyænas goitrous. Gustave Ruddé has seen in Siberia, near the Chinese frontiers, antelopes with goitre. He thought at first they formed a new species, and called it "antelope gutturiosa"; but as he only saw them in districts where goitre also affected man, and not in those where it was absent, he came to the conclusion that it was pathological.

In Russia, Central America, the United States, and in the Canton of Geneva horses have been seen goitrous. M. Baillarger, in a paper read before the French Academy of Sciences,[1] gives the result of his researches undertaken in the departments of the Savoy and of the Isère. In many localities in Maurienne, St. Jean, and St. Michael, he found among mules hypertrophy of the thyroid gland in much greater proportion than among man. In a stable of Modane, out of twenty mules nineteen had goitre. In the department of Isère, out of thirty mules employed in the mining works no less than twenty-three had goitre. In the normal state the thyroid gland of mules is about the size of a chestnut, but in these cases it had attained the size of a hen's or turkey's egg. As a rule, the goitres were very movable and caused no pain; but in three cases they compressed the trachea, and produced breathlessness during strong muscular effort, causing the animals to kick. The hypertrophy affected both lobes of the gland, or one only, and in the latter case more often the left. At Allevard, Dr. Niepce confirmed these observations. The existence among mules of a special tendency to hypertrophy of the thyroid seems to be placed beyond doubt, and does not exist to the same degree among other domestic animals. Horses are often attacked with goitre, but the proportion is much less. In certain conditions, however,

[1] Sur le Goitre des Animaux. Compte Rendu, Académie des Sciences, 1862.

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the frequency is very great. At St. Jean de Maurienne four out of seven horses of the gendarmes were affected with goitre after a residence of less than two years in the place. This case was all the more remarkable because these horses were well fed, carefully groomed, and kept in a well-lighted and well-ventilated stable. After horses, dogs are most liable to hypertrophy of the thyroid. Finally, one finds it in cats, cows, sheep, goats, and pigs. It is impossible not to attach goitre in animals to the same endemic causes which produce it in man. Among a great number of these animals in Swiss localities, it was rare to find a thyroid of normal size. Professors of veterinary medicine have considered goitre excessively rare among animals. I believe this rarity only exists in healthy localities, but it is otherwise where goitre and cretinism are endemic. It is difficult to account for its special prevalence among mules, but it is interesting to note its occurrence among sterile animals, when sterility is one of the characters of cretinism. In regard to cretinism few observations have been made. Raynard has seen in goitrous dogs a stupidity comparable to idiocy, and Rougieux has observed the same degradation in dogs and horses. St. Lager asked several persons who possessed goitrous animals in Savoy, Switzerland, and Piedmont, and all have assured him that the hair becomes rough and coarse, the voice hoarse, and the memory obliterated. They become lazy, and finally reach a state of torpor which it is quite justifiable to compare to cretinism. Most interesting are the above observations when viewed in the light of the recent experiments of Mr. Victor Horsley, who, in showing the relative value of the thyroid gland in different animals, demonstrated how its removal produced sooner or later grave nervous effects in the donkey, pig, cat, and dog, according to the functional importance of the gland in each.[2] Alibert says that sheep and calves not unfrequently die from the effects of goitre.

Observers in India confirm the fact that goitre affects animals in those countries where it is endemic. Thus Mr. Greenhow[3] says: "At Hissaurpore, a village on the Surjoo, about twelve miles distant from Seerora, dogs and other animals are affected with goitre. Mr. Bramley[4] noticed the same curious circumstance in Nepaul, for he mentions, "on one occasion a goat brought forth a kid with a goitre as large as its head." Puppies of a month old, bred from English dogs, are very frequently affected by it, as are also lambs." in 1824 he observed this tumour in camels at Purneah, and crows are likewise said to be affected with it at the same place. Dr. Campbell[5] has seen horses and lambs goitrous on the borders of Gunduk, and also many animals in Nepaul, among others buffaloes. Dr. MacClelland reports its occurrence among dogs and cats in the Himalayas. While Mr. Brett, in his "Surgery of India," says: "Bronchocele is congenital in animals in Nepaul; almost the moment the animal is born it expires"—a fact noted also by Dr. Campbell.

Principal Walley of the Dick Veterinary College, Edinburgh, is of opinion that goitre in animals is an extremely rare disease, and that the cases reported have been generally mistaken for struma. In horses especially it seldom occurs, and these also are very free from struma. The only typical case of goitre he has seen was in a horse belonging to the late Emperor Napoleon, which was bought by Mr. Pender, M.P. for Wick. Owing to the enlarged thyroid the animal was afflicted with "roaring," so its removal was attempted. During the operation, however, the horse in its struggles broke its back, and had to be killed. Mr. Walley thinks that true cases of goitre do occur among pigs, and these of all domestic animals are most commonly affected with scrofula. He considers it rare in dogs and cattle. I have never seen a case of goitre in an animal, but it is interesting to note that in Cumberland, where it exists as endemic disease among man, that cattle are notoriously subject to scrofulous enlargements of the glands of the worst type.

Principal Williams, of the New Veterinary College, Edinburgh, informs me that goitre is prevalent in horses, sheep, and cattle in Derbyshire and some parts of Wales, where magnesian limestone prevails, but that he has seen it pretty common in places quite independent of this. In his practice round about Edinburgh he finds it occasionally occurring in young foals, which fact he associates with bad ventilation. It is sometimes congenital; in one case a mare of his own gave birth to a foal that was goitrous. It is more rare among dogs, though it sometimes affects young ones, disappearing as they grow older and under treatment. About twelve years ago an epidemic of it affected Lord Polwarth's lambs at Mertoun, Berkshire. In his "Principles and Practice of Veterinary Surgery," he writes thus: "Cysts in the thyroid body constitute bronchocele; they are said to be caused by the water which the animals drink, and that if the water be changed they will disappear. But I have some doubt as to the truth of the statement that bronchocele is solely caused by the presence of magnesian lime in the water, as I have seen well-marked cases in young foals and in large flocks of lambs where this could not possibly be the cause. Doubtless, it is found most abundantly on the magnesian limestone formations; but it cannot be denied that low situations, or a damp atmosphere upon elevated situations, will act as causes of bronchocele."

Both these professors have several times seen the thyroid completely destroyed by inflammation and suppuration, and the animal remain afterwards perfectly well. Neither of them have had any experience in regard to removal of the gland, as cases necessitating this operation are hardly ever met with.

Artificial production of goitre in animals.—Various experiments have been made upon animals with the view of artificially producing goitre, but without any trustworthy results. According to St. Lager, both he and Baillarger administered preparations containing carbonate of lime and magnesia to dogs for a period of six months, without any enlargement of the thyroid gland ensuing. The same writer gave dogs and guinea-pigs sulphuret and sulphate of iron and other metallic salts for some months, but with negative results. One day, however, in his own house, he caught a mouse, and to his astonishment it had a goitre, which he thought might have been caused by its eating cinders of a certain coal which contained sulphuret of iron. Accordingly he experimented on a dozen mice, giving them sulphuret and sulphate of iron, baryta, fluorine, and natural bitumen. At the end of three months three only had enlargement of the thyroid perceptible both to sight and touch. These three had added to their food sulphuret and sulphate of iron. Many doctors of Lyons are reported to have seen these animals, but the experiments can hardly be said to be trustworthy or at all convincing. The salts of iron have been long administered in medicine, and for the last few years not only the sulphate but the sulphide of iron have frequently, and for lengthened periods, been given in the treatment of anæmia, with none other than a beneficial effect.

Edinburgh.

[2] Brown Lectures. THE LANCET, Dec. 18th, 1886.
[3] Indian Annals of Medical Science, vol. xii.
[4] Calcutta Medical Trans., 1833. [5] Ibid, 1835.

GENERALISATIONS REGARDING THE

PATHOLOGY OF ABNORMAL GROWTHS IN MAN AND ANIMALS, AND THEIR EXPLANATION ON THE EVOLUTION THEORY.

By ALBERT GRESSWELL, B.M., B.A. OXON., M.R.C.S.

No branch of comparative pathology has received more careful study than that which deals with the mode of growth and variations in the histological structure of the various tumours, malignant and benign. In these short notes I propose to restrict myself to a cursory survey of the etiology of abnormal growths, not criticising views which are generally held, and not dealing with the actual or immediate cause, but suggesting a general basis which may be regarded as the ultimate cause to which such abnormal manifestations may probably be traced. In order to clearly explain my meaning and to illustrate it more fully, some remarks of my brothers, Dr. Astley and Professor George Gresswell, may, in the first place, be mentioned.

It may be said that all new formations, as instances of which the enchondromata may be taken, are characterised by the preponderance of cellular elements. These are, of course, variously modified. They may fibrillate, and, further, may be at length calcified; but very rarely, if ever, do they develop into the highest forms of tissue, the muscular and the nervous (Buhl). This latter fact is only to be expected, since the tissues of most important specialisation must necessarily be those which are produced, so to speak, with greatest difficulty. It is a familiar fact that all the tissues of organisms are to be regarded as having their origin in cells. Similarly, too, new formations in man and

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animals are also traceable to the proliferation of cells. Necessarily, the cells become more or less modified so as to become almost, if not quite, indistinguishable from their parent cells. New formations of all varieties are, I hold, to be looked upon as reversionary in nature, and are clearly traceable to a remote ancestral condition, when the primary importance of cells as units not greatly modified, distinct and uncombined into aggregates or but imperfectly and incompletely combined, was far greater in the respect of individual power than it can be, where each cell is dependent on the activities of other units, with which it is combined as in the higher forms of life.

As illustrating my theory, let me briefly consider some points regarding the enchondromata. Enchondroma myxomatodes presents structural features such as are met with in the notochord of the vertebrate animals. The cells of some enchondromata are stellate, their processes uniting into a network. A like condition of cellular structure is met with in the Selachii, which may be regarded as the root forms of the vertebrates. Again, enchondromata are most common in the limbs, and especially in their distal extremities; and, since the original condition of the vertebrate limb is represented in the selachii as a multitude of cartilaginous rods arranged in a definite manner (the rods increasing in number towards the distal extremity of the pro-pterygium, the meso-pterygium, and the meta-pterygium), we are perhaps justified in looking upon these facts as showing to us homologous relationship. Corroboration is seen in the frequency with which cartilaginous bodies develop in connexion with certain joints of the limbs in man and animals. These bodies are either single or multiple, and they are of all sizes up to that of a small apple. Cruveilhier figures a number of rounded cartilaginous bodies in the elbow joint. Mr. Smith removed over 200 loose rounded cartilages from the knee joint of a man at St. Bartholomew's Hospital. He also operated on a woman, aged twenty-eight, who had for six years presented a tumour in the upper third of the right arm, immediately beneath the skin. The tumour was pyriform, tapering towards the axilla. It was three inches and a half long, and two inches in diameter at its thickest part. It was encapsuled, and within the capsule there were found one large mass of cartilage and twelve or more detached lobulated bits of cartilage. There were also similar detached nodules of cartilages in the axilla. The limbs, in fact, of the higher animals may have therefore dormant germs of the ancestral rods of cartilage; indeed, cartilage cells have been found in the synovial tufts of some joints. From such centres some of the above-mentioned cartilages had apparently developed. Supernumerary fingers have been referred to the multifid condition of the rays of the selachian fin. New formations of capillary vessels are generally congenital, and they are much commoner in the skin of the head and neck than elsewhere. These facts might suggest the possibility that they bear homologous relations to the vessels which develop about the epiblastic involutions lining the visceral arches of the lower vertebrata. Dr. D. A. Gresswell recently saw a nævus, the distribution of which seemed to afford some corroboration for such a speculation concerning the homology of nævi. It extended in a snake-like form down the right side of the neck; it was distinctly raised, and it passed with a tapering extremity into the external auditory meatus, down which it extended for a considerable distance.

It will be seen that the view which Dr. D. Astley Gresswell pointed out, and which we now wish to lay stress upon, is that one of the primary properties of cellular organisms was that of multiplying by processes of fission and gemmation. This characteristic, originally possessed by independent units, is still, in greater or less degree, a feature of those units which, when combined in various ways, make up the tissues and organs of higher forms of life. At times, and under special circumstances, which, in the present state of our knowledge, in many instances can only be roughly traced, this ancestral tendency of the cells to divide and multiply on their own account shows itself once more with something of its old vigour, and then new formations of various kinds result. When the bloodvessels are invaded by pathogenic micro-organisms, may it not be that, as previously pointed out, a kind of warfare, so to speak, goes on between the blood cells and the vegetal germs, and that when the latter gain the victory the man or the animal dies; whereas in cases where the blood-cells possess the power of strong resista[illegible] the sufferer also withstands the deadly effects of the foe? In some instances, then, the fertility of cells in the way of reproduction would be highly serviceable to the man or animal, while in others such power of multiplication is manifestly most destructive. Is it not a great question if we should not, in our investigations of disease, search most diligently into all those conditions which would enable us both to control and to facilitate the growth and multiplication of cells?

Louth, Lincolnshire.

CASE OF

OSTEOPHYTES OF THE ARACHNOID.

BY F. H. M. BURTON, M.S. DURH., M.R.C.S.,
SURGEON, ARMY MEDICAL STAFF.

ON Nov. 28th, 1886, W. R——, a private in the 1st Battalion of the Royal Welsh Fusiliers, aged twenty-seven, who had served for a period of six years and three months in India, was detained in the Bhamo Field Hospital, suffering from ague. During his service in Burmah he had been twice in hospital for simple continued fever, and in May was invalided to Darjeeling from Mandalay, returning to duty in Bhamo early in November.

On admission, the patient was treated with quinine and a saline diaphoretic. He remained in bed during the day, and at 6.30 P.M. took some beef-tea. At about 9.30 P.M. a comrade's attention was attracted by his loud breathing and attempts to vomit. When I saw him he was lying on his back. On speaking to him he appeared to follow me with his eyes, but was otherwise unconscious. His pupils acted to light, and the conjunctivæ were sensitive; the teeth were tightly clenched, the right forearm was flexed at the elbow, and the fingers flexed on the hand, the right arm, forearm, and hand all being in a state of tonic rigidity, and the left arm and both legs in a state of flaccidity; occasionally both arms were jerked up in a spasmodic manner. Temperature 101·4°; pulse regular and good; breathing slightly stertorous; skin perspiring profusely. He had vomited a little bilious fluid.

On the morning of Nov. 30th, at 7.15 A.M., when I again visited the patient, he was suffering from clonic convulsions



Drawing exact size of osteomata.

of the muscles of the head, neck, trunk, and arms; the right leg was affected at intervals. Temperature 101·6°; skin perspiring profusely; quite unconscious. The clonic convulsions lasted considerably over two hours, and became very violent, the head being drawn to the right; and once the man uttered a shrill cry when the convulsions were most violent. As nothing could be given by the mouth, an enema of bromide of potassium was administered. At 11.30 A.M. the convulsions had ceased, and the patient lay passive in bed. Temperature 107·4°; pupils contracted to the size of a pin's head and fixed; breathing stertorous; pulse irregular and rapid. The temperature afterwards fell to 106·6°, there was loud stertorous breathing, the pulsation gradually ceased, the pupils became dilated, seminal emission occurred, and death ensued at 2.15 P.M. The patient had been altogether fifty-three hours and thirty-five minutes under observation.

Necropsy.—General aspect of body: A well-nourished man, but decided malarial cachexia. Cadaveric rigidity well marked in lower extremities, passing off in the upper part of the body. Brain and membranes: On removing the skull-cap, some half-dozen small osteomata, from the size of a pea downwards, were found symmetrically arranged on either side of the groove for the superior longitudinal sinus, and growing as excrescences from the inner surface of the frontal bone, composed of compact bone (see accompanying drawings); owing to the close adhesions in this situation the dura mater was torn in taking off the skull-cap. After opening the superior longitudinal sinus from the cristi galli of the ethmoid to the torula Herophili, the falx cerebri were detached from the cristi galli, and the dura mater and the parietal layer of the arachnoid stripped off from before backwards. Immediately behind the fissure of Rolando of the left hemisphere, and over the

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upper part of the ascending parietal convolution, the visceral and parietal layers of the arachnoid were strongly adherent; there was a small patch of freshly effused lymph on the pia mater, and flat osteophyte (made up of two pieces closely bound together side by side) of the size of the thumb-nail, one-seventh of an inch thick, growing from the arachnoid and pressing upon the brain, its under surface being very rough and having several spiculæ. An inch and a half in front of this growth was another three-quarters of an inch long, one-tenth of an inch thick, and one-fifth of an inch broad, with sharp needle-like extremities, curved downwards; this was situated at right angles to the falx cerebri. Between the two growths the membranes were much thickened and there were signs of old inflammation. A similar set of growths (three in number), in the same position as the first one described, were found growing in the arachnoid over the right hemisphere, but extending over about twice the surface occupied by those on the left hemisphere, and having several very sharp and needle-like spiculæ, all curved down on to the pia mater. The visceral and parietal layers of the arachnoid were adherent in the situation of the growths, as on the left side, but there was no sign of recent or active inflammation on this side of the brain. The upper surface of the dura mater was normal. There was no fluid in the subarachnoid space or ventricles of the brain, and no other signs of inflammation of the membranes or of the brain. The superficial veins of the right side of the brain were somewhat congested, and the right lateral, superior and inferior petrosal sinuses were full of dark tarry blood. Thoracic cavity: The right lung was firmly bound everywhere to the chest walls by old adhesions. There were some old tubercular deposit in the upper part of the pleura. The lung itself was œdematous, but otherwise healthy. The left lung was œdematous, and some old tubercular deposit existed in the upper part of the pleura; otherwise healthy. Heart normal. Abdominal cavity: Gall-bladder full of thick reddish bile. Spleen enlarged and soft. Pancreas normal. The stomach contained some ounces of thick bile, and the mucous membrane was covered with thick, stringy, sticky mucus. Duodenum full of thick bile. Jejunum normal. The ileum contained much bilious fæcal matter. Colon and rectum normal. Kidneys normal.

Remarks.—The growth of osteophytes from the arachnoid is a sufficiently rare pathological condition to justify the publication of the above case. There was no history of syphilis; there were no symptoms by which cerebral disease could be diagnosed till the fatal attack, when the symptoms of pressure on, and irritation of, the cortex of the left hemisphere of the brain were well marked. In my opinion the fever suffered from was malarial, and merely caused an exacerbation of the chronic disease, and determined the fatal irritation and inflammation.

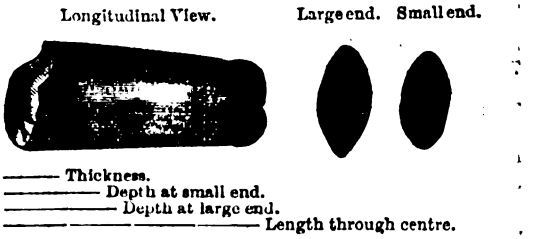
Bhamo, Burmah.

FOREIGN BODY IN THE AIR PASSAGES.

By CHARLES BOYCE, M.B., C.M. EDIN.

THE following case is interesting as showing the length of time which a foreign body of the size shown by the accompanying diagrams may remain in the air passages without producing any untoward symptoms.

On October 20th last P. C ——, aged twenty, whilst driving home on a very dark night through a narrow lane smoking a briar pipe with a vulcanite mouthpiece was thrown out of his dogcart and rendered insensible, the pipe he was smoking being lost. For some time he lay insensible, and became cold and wet from the restoratives used by the surgeon who saw him at the time. When he recovered consciousness he was carried home and seen on the following day by my assistant, Mr. Macartney, and myself. His condition was as follows: There was considerable ecchymosis of the face and eyes, slight nasal catarrh, but no difficulty of breathing or impairment of expansion, resonance, or respiratory sounds, vesicular breathing being apparently equal over both lungs at repeated examinations. Examination of his throat showed nothing beyond relaxation of the fauces and elongation of the uvula. No laryngoscopic examination was made. There was no cough or shortness of breath; no pain or uneasiness, except on lying down in bed at night, when the breathing became whistling. This was the reason of my careful examination of the lungs, as I feared the development of some inflammatory trouble. As no improvement occurred in his condition, I advised him to go to Brighton for a change of air, cautioning him against going out at night or exposing himself to cold. When he had been some time there, one morning (Dec. 13th), whilst eating his breakfast, he swallowed a small fishbone, which caused a violent fit of coughing, during which he brought up part of the vulcanite mouthpiece of the pipe he was smoking at the time of the accident, the shape and exact size of which are figured in the dia-



grams. At the time of the convulsive cough a deep-seated pain at the sternal end of the right clavicle was experienced.

Remarks.—The most notable feature in this case was the absence of any serious symptoms; in fact, it was only whilst in the recumbent posture that any symptoms occurred pointing to the presence of a foreign body, and as the patient was quite unaware of what had happened to the mouthpiece of his pipe, the real condition was never suspected. I should be inclined to say that the foreign body lay crosswise in the trachea at its bifurcation, and that whenever he assumed the horizontal posture its position became slightly altered, so as to project more or less into the bronchi, causing the whistling breathing, and the pain at the right sterno-clavicular articulation which was felt at the time of its expulsion. Had it been in one of the bronchi, we should have expected far more serious symptoms from the size of the body, and the dyspnœa which was observed only on lying down would have been difficult to explain. The termination of the case was most fortunate for the patient, especially when we consider the size of the body expelled. Mr. Durham in Holmes' "System of Surgery" (3rd edition) gives the results of a number of cases of foreign bodies in the air passages, from which it appears that of those in which no operation was performed death resulted in about 40·94 per cent.

Maidstone.

OVARIAN TUMOUR FOLLOWING INJURY; OPERATION; RECOVERY.

By JAMES WILSON, M.D., F.R.C.S. ENG.

MISS L——, aged eighteen, gives the following history:—About three years ago she struck her left side against a door, felt faint, had severe and continuous pain for two years, and thought she could feel a lump at the seat of injury. About a year ago the swelling began to increase, with complete cessation of the pain. Bowels costive; menstruation irregular, periods varying from a fortnight to two months. She consulted a medical man, who treated her for indigestion and flatulence.

On examination the chest was found to be normal. Urine free from albumen. Slight œdema of feet and ankles. Family history of phthisis. Temperature normal; pulse 130 per minute. On examining the abdomen, it was found exceedingly enlarged, with distinct fulness on left side. On percussion, dulness extended from the pubes to the sternum. Resonance in flanks, but more marked on right side. Distinct wave of fluctuation in every direction. Per vaginam the uterus was normal, save that it was markedly depressed.

On March 3rd, under the A.C.E. mixture, ovariotomy was performed. The abdominal walls were thin, tense, and free from adipose tissue; hæmorrhage slight. On opening the abdomen the tumour was found to be non-adherent. It was tapped and about two gallons of fluid withdrawn, when a dense fibro-muscular tumour, weighing about 2½ lb., was removed with the cyst wall. The pedicle was tied with China silk. The other ovary was found enlarged and cystic, and was also removed. The abdomen was cleared of a little ascetic fluid with sponges. The abdominal wound was

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stitched with silver wire, and iodoform powdered over the surface. No spray was used. The patient recovered from the anæsthetic in an hour after the operation. There was slight sickness, but no pain. Ice was given. Temperature 100° in the evening.

March 4th.—The patient has slight headache and pain. About two drachms of blood passed by Fallopian tubes. Natural sleep. The only unpleasant symptom was suppression of urine. Temperature 100·5°. Ordered milk, ice, and champagne in teaspoonful doses.—5th: Patient comfortable; temperature 99·2°, pulse 100. The napkin had a urinary odour.—6th: Patient slept well the previous night, and at 7 A.M. one pint of urine was drawn off by catheter. Wound healthy, and apparently healed. Temperature 99·2°.—7th: The patient has slight bladder irritation, and passes urine without the aid of the catheter. Temperature normal, pulse 98. Takes milk and champagne freely.

The case had an uninterrupted recovery, except that the bowels were obstinate, and there were severe griping pains for several hours on the eighth day. Three weeks after operation the patient was perfectly well, and able to move about freely.

Haverfordwest.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

MIDDLESEX HOSPITAL.

THREE CASES OF SARCOMA COMMENCING IN CONNEXION WITH THE SCAPULA, THE THIGH, AND WITH THE FEMUR; RESULT.

(Under the care of Mr. J. W. HULKE.)

WHILST cancer (anatomically defined) is not often seen before the end of the third decade of life, sarcoma does not observe such restrictions, but attacks alike the young and persons in advanced age. But this statement is subject to the limitation that the melanotic variety rarely occurs before middle life, and glioma (regarded also as a variety of sarcoma) in its most frequent seat—the retina—has a strong predilection for infancy and early childhood. Youth and early adult life furnish a large proportion of cases of sarcoma originating in connexion with the motor apparatus, and under the circumstances incidental to these life-phases the disease usually runs a rapid course and manifests great malignancy. In the first and second of the following cases exarticulation at the shoulder and hip joints, ensuring a more complete removal of the tumour, would have offered a prospect of longer immunity from recurrence; but in neither instance would the patient accept this measure. The occurrence of secondary tumours within the skull, noticed in the third case, in which the primary tumour was in the thigh, is well illustrated by two preparations in the Middlesex Hospital museum taken at an interval of a couple of years from the same patient, a young adult: one a persistent sarcoma of the tibia, for which the leg was amputated; the other preparation a part of the brain, with five sarcomatous knots in the pia mater.

CASE 1. *Sarcoma originating in connexion with the structures attached to the coracoid process of the scapula; excision; recurrence; a second operation; some months later, death.*—In July, 1885, a milliner aged twenty-four, an anæmic blonde with flushed cheeks, was admitted for a swelling lying below the outer third of the left collar bone. It had a roughly hemispherical outline; its consistence was firm, yet elastic; it was evidently beneath the pectoralis major muscle: it was not attached to the clavicle or to the humerus; it moved with the scapula, with the coracoid process of which it appeared to be closely connected. No differences in respect of force, volume, and time were noticeable in the wrist pulses. No loss of muscular power and no impairment of sensibility of surface were observable in the limb. She complained of a dull aching pain in and about the swelling. The patient, a native of a northern county, said that she had been in London about a year, in the course of which her health, good before, had failed; she had become delicate, liable to faint, subject to palpitation and nervousness, and for the last three months had not menstruated. Nearly at the same time when her courses stopped, whilst washing before a mirror, she first noticed the swelling. A few days later she showed it to a doctor, who, regarding it as glandular, directed her to paint it with iodine. This had not, however, any curative effect; the swelling continued to enlarge, and then, pain supervening, she was advised to enter the hospital. The swelling was manifestly not of an inflammatory nature. There were not any grounds for considering it gummatous. Its rapid growth, its elasticity, its connexion apparently with bone, together with the woman's age, concurred in suggesting sarcoma. On July 20th the tumour was exposed by an incision following the interval between the pectoralis major and deltoid muscles. When the borders of these were retracted, it became apparent that whilst a small part of the tumour cropped out above the upper border of the pectoralis minor muscle, the chief mass of it was covered by this muscle. The latter was therefore divided; the axillary vessels, which were found displaced inwards by the mass, were drawn aside, and the deep connexions of the mass, which were found to be, as had been suspected previously, with the fibrous structures, attached to the coracoid process, being next divided, the removal of the mass was accomplished. The patient quickly recovered, and on Aug. 11th was able to be sent to a convalescent home in Sussex. When next seen, on Nov. 16th following, she complained of a slight uneasiness about the upper end of the scar, but nothing palpable was discoverable there. On Feb. 22nd, 1886, she returned, complaining then of severe pain in the shoulder and down the back and the inner side of the arm. A mass of some size could now be felt beneath the scar, but not implicating it, lying deeply beneath the axillary vessels, which it displaced inwards. The left radial pulse was weaker than the right. Two days later (Feb. 24th) the tumour was laid bare by an incision following the inner border of the scar. Its principal mass was found wedged in between the chest wall, the neck of the humerus, and the scapula. The axillary vessels and the brachial plexus ran through a groove in its anterior surface; the circumflex nerve pierced its substance. During the extrication of the axillary vessels and the nerve cords, a thin fascial capsule which enclosed the tumour was ruptured, which rendered the clean and entire removal of it less certain than it might otherwise have been. By March 15th the large wound had cicatrised, she left her bed, and by the 22nd appeared convalescent. She did not, however, recover strength, was low spirited, and she often complained of pain about the shoulder. On March 30th some hæmorrhage was detected in the neighbourhood of the coracoid process. She went for a few days into the country, and on her return on the 22nd of April a recurrence of the sarcoma was unmistakably present. A large ill-defined mass projected forwards the pectoralis major muscle, filled the armpit, extending thence upon the dorsal aspect of the scapula, and upon the back of the upper arm. She had much severe pain in the arm and in the shoulder, and she complained of some shortness of breath. The left side of the chest was now found less resonant and the respiratory sounds feebler than on the right side—changes which Dr. Cayley, who made this examination, regarded as suggestive of implications of lung by the new growth. This visceral implication placed the case beyond further surgical aid; she therefore returned home, where she lingered until the end of February of this year, death occurring about twenty-eight months after the first recognition of the swelling. Mr. R. Williams, the hospital pathologist, reported that the primary tumour and the recurrent mass both exhibited the fine structures characteristic of sarcoma.

CASE 2. *Sarcoma in the upper third of the thigh; excision; death from chest implication some months later.*—A bookseller's assistant, aged twenty-four years, was admitted into the hospital on Jan. 1st, 1884, with a swelling in the upper part of the front of the thigh, reaching very near to the groin, evidently involving the adductor muscles, and displacing outwards the superficial femoral vessels. Its figure was lobulated; its outline seemed definite. It was not fixed to the femur. He had been very active, and much addicted to football playing. For about eighteen months he had had pain in the thigh, which had been attributed to a sprain.

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One doctor had told him it was due to muscular rheumatism, and another had pronounced it to be sciatica. About thirteen months after the first occurrence of pain the swelling appeared. Its increase had been rapid. The diagnosis was sarcoma. On May 7th the tumour was exposed by an incision nine inches long down the front of the thigh. The superficial femoral vessels were first disengaged; they ran in a groove in the outer aspect of the mass, and the separation of the vein was rendered difficult owing to the close adhesion of the paravenous connective tissue to the new growth. The saphena vein, the upper end of which near its termination was expanded into a large sinus, and also closely adherent to the tumour, was clamped with two pairs of pressure forceps and the intermediate adherent part excised. In the dissection required to liberate the deep aspect of the mass, it became evident that this was wedged in between the superficial and the deep femoral vessels. The tumour appeared to have begun in the adductor longus muscle. After its removal the deep femoral artery was seen exposed in nearly its entire course. The extensive and very irregular wound was washed out with a chloride of zinc solution (twenty grains to the ounce); two long and wide drainage tubes were inserted, and the edges brought together with silk sutures. Iodoform was freely applied. A compressive pad of boric-acid charpie with an outer gauze completed the dressing. All movement of the thigh was prevented by a Liston's long splint. The subsequent course was marked by absence of fever. By June 19th the large wound had quite closed, and a week later he left the hospital. The pathologist, Mr. R. Williams, reported the tumour to present the structure of sarcoma. The patient died at home in the following autumn of a chest affection, which the doctor in attendance said was due to the occurrence of tumours in the lungs.

CASE 3. *Sarcoma of the upper part of the thigh spreading into the pelvis; secondary tumours on and in the skull and orbit and in the lungs.*—On Aug. 26th, 1885, a clerk, aged twenty-five years, was admitted on account of an affection of the right thigh. The upper third of the thigh was very obviously swollen; its girth exceeded that of the left thigh by three inches. The swelling was caused by a deeply situated mass which implicated the upper part of the thigh bone. Below, it subsided so gradually that its limit in this direction could not be precisely defined. Above, its boundary was irregular. At the inner side of the thigh in the adductor region the mass appeared to be connected with the body and the symphysis of the os pubis, external to which it dipped beneath Poupart's ligament into the iliac fossa, forming there a rounded knob. Yet more externally it passed below the anterior superior iliac spine into the buttock, involving the gluteal muscles and concealing the great trochanter. Behind this last-named process was an old scar, as of a former abscess. The thigh was kept flexed on the trunk at about 80°. Flexion could be carried much further without discomfort, but extension gave pain and it caused rotation of the pelvis. The patient stated that in childhood he had been an in-patient under the care of the late Mr. C. De Morgan for hip disease; that he had recovered, retaining a useful limb, having fair mobility of the thigh; and that he had remained well until about eighteen months previously, when he began to suffer severe paroxysmal pain in the thigh, which he had himself attributed to a fall occurring some six months before. For some weeks he was treated for sciatica, without relief. The characters of the swelling, together with its history, were thought to indicate sarcoma, probably periosteal, originating in the femur. The extension of the new growth into the pelvis forbade exarticulation at the hip joint.

Indisposed to regard his condition as being beyond the aid of surgical operation, he left the hospital on Oct. 9th. One week later he was readmitted, being then much weaker and greatly worn by the increasing intensity of the pain in the swelling. This latter also had become larger. Three days later (Oct. 19th), on waking in the morning, he found the sight of the right eye imperfect, and his eyeball appeared to be very slightly more prominent than the left. A few days after this proptosis was unmistakably present. He lingered until Dec. 15th.

At the examination of the body, made on the following day, Mr. R. Williams found a large sarcomatous tumour embracing the upper part of the femur. It displaced but did not otherwise implicate the large femoral vessels. It involved the brim of the pelvis, and secondary masses were present upon the front of the lumbar part of the vertebral column. A single nodule of sarcoma was found in the base of each lung. A thin diffuse layer of sarcoma existed beneath the scalp over the apex of the lambdoidal suture, and two masses were present within the skull—one beneath that just mentioned, the other anterior to it in relation to the coronal suture. These intra-cranial masses apparently arose in the cerebral membranes; there was not any gross perforation of the bones of the vault of the skull, and by the unaided eye no continuity between the extra- and the intra-cranial masses was discernible. A nodule of sarcoma of the size of a walnut was discovered in the middle fossa of the skull, from which it passed into the orbit surrounding the optic nerve, and displacing forwards the eyeball.

NORWOOD COTTAGE HOSPITAL.

MULTILOCULAR OVARIAN TUMOUR, WITH UMBILICAL HERNIA, COMPLICATED WITH STRONG PELVIC ADHESION; RECOVERY.

(Under the care of Dr. JOHN H. GALTON.)

E. S——, aged fifty-four, was admitted on Nov. 29th, 1886. She had been married for twenty-five years; no children or pregnancy. No family history of tumours. Eight years ago she first noticed a swelling in the middle of the abdomen (umbilical hernia). Six months ago general swelling of the abdomen was first perceived. She has now a large ventral hernia just above the umbilicus, which is included in its walls. It measures fifty-two inches and a half round the hernial protrusion, and forty-nine inches and a half above it. Dulness and distinct fluctuation are present all over the abdomen, except in the right hypochondriac and umbilical regions, where it is resonant. On internal examination, there is a small fibroid on the anterior lip of the uterus, a large mass in front, and a smaller behind in the posterior uterine wall; slight coffee-coloured uterine discharge, not offensive. For the last six months she has been unable to keep down solid food.

On Dec. 2nd, at noon, chloroform was administered by Mr. S. Sidney-Turner, and Drs. Miller and Hetley and Messrs. Gandy and Plimmer assisted. The abdomen was opened by an incision five inches long below the hernial protrusion, through very thick and fat abdominal walls. On passing the hand into the abdomen upwards, some coils of intestine were found adherent to the cyst and forming the ventral hernia. On separating these, the cyst wall gave way, and some of the clear fluid contents were discharged into the abdomen and externally. The cyst was then tapped with Spencer Wells's trocar, and drawn gradually outside the abdomen, anterior omental adhesions being separated. After tapping several secondary cysts and freely opening them with scissors, the tumour was found to be held to the right brim of the pelvis by a strong and thick adhesion. This was torn through, upon which copious hæmorrhage immediately followed, filling up the pelvis and pouring out of the abdomen. A large sponge was firmly fixed upon the pelvic brim, the tumour drawn out, and the pedicle transfixed and tied with silk ligature. An adhesion on the posterior wall was then tied with catgut, two pieces of bleeding omentum were tied and cut away, and, after much difficulty, the vessel in the pelvic adhesion was secured and tied with silk. The uterus had a fibroid of the size of a walnut on the anterior wall, and another of the size of a mandarin orange on the posterior wall. The pelvis and peritoneum having been well sponged out, the wound was closed by four deep thick silver wire sutures and four superficial thin silver wire, and dressed with green protective and carbolic gauze, secured by strapping and flannel bandage over the whole. The quantity of fluid was five gallons, the weight of solid 3 lb. 4 oz. The operation lasted two hours, one of which was occupied in searching for the bleeding vessels. At 2 P.M. the pulse was 84, and the temperature 95·8°. She was ordered twenty minims of tincture of opium every three hours. At 8 P.M., pulse 104; temperature 96·8°; slight hiccough; ordered ice to suck.

Dec. 3rd.—Pulse 106; temperature 99°. In twenty-four hours nineteen ounces of urine were drawn off. Quite free from pain. At 12 o'clock the patient was ordered a teaspoonful of kreochyle every hour (she cannot take milk). At 8 P.M. the pulse was 110; temperature 100·4°. Has passed urine naturally once.

4th.—Pulse 104; temperature 100°. Passed a good night; no pain; the tincture of opium repeated every six hours.

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Ordered a teaspoonful of kreochyle every two hours; beef-tea one ounce every two hours.—8 P.M.: Pulse 104; temperature 100·6°. Beef-tea causing nausea, the patient was ordered one drachm of an extract of beef, to alternate with the kreochyle.—3 P.M.: Passed flatus freely; urine thirty-five ounces in twenty-four hours.

5th.—Pulse 94; temperature 98·2°. Changed outer flannel bandage, as urine had been passed in sleep. Abdominal walls move freely in respiration.—8 P.M.: Pulse 100; temperature 100·8°. Passed forty-two ounces of urine in twenty-four hours.

6th.—Pulse 84; temperature 99°. Bowels acted freely under her. Ordered raw meat sandwiches and rice soft-boiled in beef-tea.—8 P.M.: Pulse 104; temperature 100·2°. Ordered one drachm of brandy every two hours. Passed thirty-five ounces of urine in twenty-four hours.

7th.—Pulse 84; temperature 98·2°. Was sick this morning after eating bread-and-butter. Ordered whiting, and one ounce of brandy every three hours. Dressed wound; all united; no discharge at any part. Good abdominal respiration, but much swelling (flatulent) at the upper and right side of the abdomen. Passed twenty-five ounces of urine in twenty-four hours.

8th.—Pulse 84; temperature 98·8°.—8 P.M.: Pulse 96; temperature 99·4°. Passed thirty ounces of urine in twenty-four hours.

9th.—Removed all deep and superficial sutures, applied strips of plaster, pad of dry lint and bandage. Passed thirty ounces of urine. Ordered fowl and ale.

From this time the progress was uninterruptedly good so far as the abdomen was concerned, but a troublesome bed-sore had formed. The slough separated on Dec. 19th, and disclosed a large and deep wound, which slowly healed, and she was discharged cured on Jan. 22nd, 1887.

Remarks.—One point of interest in the case was the resonance of the umbilical hernia mass with the dulness over all the rest of the abdomen. This was explained at the operation by the collapsed state of the afferent and efferent portion of the intestine which led to the coils in the sac. The strong adhesion of the back of the tumour to the pelvic brim did not admit of ligature before division, but the fact that it rested upon bony structure and not upon bowel admitted of its being torn forcibly, without other risk than the severe hæmorrhage which followed.

HERTFORD GENERAL INFIRMARY.

A CASE OF REMOVAL OF THE COCCYX; REMARKS.

(Under the care of Mr. WILLIAM ODELL.)

FOR the notes of the following case we are indebted to Mr. H. G. Shore, house-surgeon.

A housemaid, aged twenty, was admitted on March 3rd with the following history. Last July she fell and injured the bottom of her spine. She had also a second fall on the ice last December, and the coccyx was again injured. Since July she had felt pain at each catamenial period, but for the last five weeks the pain had been excessive and continuous when in the sitting position; there was also slight momentary pain on coughing. The pain and distress of late became so great that the patient begged to have the bone removed.

On examination per rectum, the coccyx was found to be bent at a right angle, in-curved, and pressing upon the rectum. It could be straightened at its lower part, but would not remain in position. On March 9th, the bowels having been previously freely relieved by a dose of castor oil, followed by an enema, the patient was placed on her left side and ether administered. An incision was then made from the end of the sacrum over the coccyx to its extremity, the parts being divided down to the bone, from which all ligamentous and muscular structures were then removed. The coccyx was separated at its junction with the sacrum, to which it had become ankylosed at an obtuse angle. There was rather copious hæmorrhage at one time during the operation, but it was controlled by applying sponges soaked in very hot water. A piece of gutta-percha tissue was put in for drainage, the wound closed with silver sutures, and dry boracic lint applied. In addition to the ankylosis with the sacrum—the result of previous fracture—the coccyx was found to be broken about an inch from its extremity, the lower part being freely movable. To avoid moving the dressing the urine was drawn off until the 11th, when the patient passed it herself by turning upon her face Half a drachm of laudanum was giv[illegible] night, and the bowels kept from acting until the 14th, when a dose of castor oil and a soap enema were given. The gutta-percha tissue was removed on the 13th and the sutures on the 15th. The wound healed almost by first intention; the patient made an uninterrupted recovery, and was discharged cured on April 7th.

Remarks by Mr. ODELL.—From the time of the operation until May 2nd the patient was entirely free from pain or even inconvenience when sitting, all the distressing symptoms which rendered the operation necessary had disappeared, and there was no pain or difficulty in defecation.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

The Relation of a certain form of Headache to the Excretion of Uric Acid.—Alcoholic Paralysis.

AN ordinary meeting of this Society was held on Tuesday last, Mr. G. D. Pollock, F.R.C.S., President, in the chair.

Dr. ALEXANDER HAIG communicated a paper on the Relation of a certain form of Headache to the Excretion of Uric Acid. Previous papers by the author on the influence of diet in this headache, and its clinical relationship to gout, are referred to. An investigation of the urine was undertaken with a view of testing the relationship to gout. Meat and cheese were taken with the object of bringing on a headache, for purposes of experiment. The relation of this headache to the excretion of uric acid at first appeared equivocal, but definite results were obtained on separating the urine excreted *during* the headache from that before and after. There appears to be retention of uric acid before the headache, excessive excretion during the headache, and diminished excretion after the headache. The excess during balances the diminution before and after; there is no absolute excess of uric acid; hence the previous equivocal results. During a headache there is little or no alteration of the excretion of urea. The relation of the uric acid to the urea is important, and is greatly altered during the headache. When, as the result of *plus* exercise, there is a large excretion of urea and uric acid (though in their normal relation), headache is not far off; and if anything causes the uric acid excretion to fluctuate, headache will be present during its excess and absent during its diminution. This fluctuation in the excretion of uric acid does not affect the urea, is temporary and transient, and there is proof that urates may accumulate, while the kidneys are quite sound. The theory which best explains everything in this connexion is that of diminished alkalescence of the blood. Does gout consist in a diminished power of forming ammonia to neutralise acids, resulting in a permanent diminution of the alkalescence of the blood? The influence of meat diet and beer in this respect, and the well-known connexion of fourpenny ale with gouty deposits, are referred to. A dose of acid, either introduced from without or formed internally, may cause temporary retention of uric acid, and so lead to headache. Beer will do this. Retention possibly does not explain everything, as the excess during the headache appears to exceed the previous retention. There may be temporary excessive formation as well, hence the good effect of salicylate of soda, which diminishes the formation of uric acid. The good effect of a meal on this headache is due to the fact that it increases for a time the alkalescence of the blood. Hence also the good effects of a somewhat vegetarian diet and alkalies in its treatment. The relation here shown between the headache and the excretion of uric acid has an important bearing on the pathology of gout and other diseases connected with uric acid, in demonstrating the way in which temporary retentions of uric acid may be occasioned, and in supporting the theory of diminished alkalescence of the blood, as a cause of these retentions.—Mr. G. D. POLLOCK related his personal experience of headache. The urine passed during the attack was always pale and clear. Bilious vomiting used to terminate the attack. Calomel soon afforded relief.—Dr. CHEADLE congratulated Dr. Haig on his valuable paper. He doubted, however, whether irregular excretion of uric acid would explain all headaches. Women who were not large meat eaters suffered from this headache. After railway journeys or anything

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causing vibrations the headache could hardly be due to faulty excretion of uric acid. He knew a boy who journeyed from Ireland to Eton and always had a prostrating headache, the result of this journey. The scent of strong flowers—e.g., hyacinth—also caused a headache. He (Dr. Cheadle) also suffered from megrim if for one hour he remained in an ill-ventilated room. A good dose of wine would sometimes cause megrim to disappear, and this seemed to militate against the views advanced.—Sir DYCE DUCKWORTH referred to the two classes of large eaters and drinkers, and those who could not eat or drink to excess without suffering soon from headache and other symptoms. This latter class had a smaller margin for the disposal of excess of food, and he supposed that Dr. Haig belonged to this class. He thought that the author deserved great credit for so painstaking an investigation.—Dr. PERCY KIDD was conscious of at least two sorts of headache: one for which no remedy is useful; the other brought on by obvious causes, and easily relieved by stimulants and other means.—Dr. WARD thought there were three sorts of headache, in his own experience. Tiny little chalk stones from the joints of the hands were obtained at the age of fourteen, when the real megrim began. The nervous headache was probably quite distinct in its causation from that which arises from inspecting a picture gallery or from excitement. This latter kind may be relieved by a dose of strychnine. Other headaches experienced by him were amenable to sal volatile. Bottled beer is less liable to cause headache, owing to the soda added. A specific gravity of 1030 was also noticed, followed by a copious deposit of urates. Sometimes a decided exaltation of spirits preceded the severe form of headache.—Dr. HINGSTON FOX inquired as to the method of estimating uric acid best adapted for clinical work.—Dr. HAIG had noticed the light colour of the urine, but this seemed to have no relation to the amount of uric acid. He explained his views of the relation of diminished alkalescence of the blood as causing a retention of uric acid.

Dr. DAVID W. FINLAY read a paper on three cases of Alcoholic Paralysis (multiple neuritis). The three patients, all married females, came under the care of the author in the Middlesex Hospital in the course of last year. The first case, E. F——, aged twenty-eight, a confirmed drunkard, had suffered from weakness in the knees for more than a year. To this succeeded difficulty of walking, and numbness in the hands and arms, soon followed by paralytic symptoms. In the hospital she lay helpless in bed with the legs flexed, rambled in her talk, and had delusions. The muscles of the arms and legs were much wasted, and she had double wrist drop and foot drop, with much pain on pressure or passive movement, and abolition of plantar and patellar reflexes. She had complete control over the bladder and rectum. Abundant large and small râles were heard over both lungs, and the epigastrium receded during inspiration. The liver was enlarged. On electrical examination the muscles of the legs and arms generally showed the reaction of degeneration. The optic discs were normal. She gradually got worse and died on the seventeenth day after admission. The urine was normal, and the temperature hectic throughout. Post mortem, the lungs were found to be the seat of tubercular disease, and the liver was large and fatty. On microscopic examination the cord and spinal roots were normal; all the nerves examined showed advanced degenerative changes, and the extensor carpi radialis longior muscle was crowded with connective tissue nuclei and round cells. The second case, M. J. P——, aged twenty-eight, had a history similar to the other, and the symptoms were much the same as regards the nervous system. There was less degenerative reaction, however, and less wasting. The temperature was seldom above normal. The liver was enlarged, but the lungs were not diseased. At the post-mortem examination the brain and its membranes appeared normal; the cord on section seemed somewhat atrophied in the grey matter, but no other change was noted. Under the microscope the cord did not present such a typically healthy appearance as in the former case. The greater number of the large cells in the anterior cornua were shrunken, the branching processes were less clearly defined, and many had dropped out of their places, leaving holes in the section; but the results were probably due to comparatively unsuccessful preparation. Most of the nerves examined showed changes similar to those found in the other case, but these were less strongly marked, except in the anterior tibial nerve. The spinal nerve roots were sound. The third case, E. C——, aged forty-three, resembled the other two as regards the history and many of the clinical phenomena, differing, however, in result, slowly progressive recovery having taken place. She has regained the use of her limbs, can now walk and dress herself without help, and has lost her delusions. The reflexes, however, have not yet returned, and her feet and legs have lately become œdematous. Reference was made generally to the clinical and pathological history of the disease, and particularly to the history of the individual cases as excluding the idea of causes other than alcoholism being concerned in the production of the symptoms. The frequent coexistence of tubercular disease was also discussed, and reference made to a recent paper by MM. Pitres and Vaillard in this connexion. The paper concluded with a few remarks upon the treatment of the case which had recovered. Microscopic specimens and drawings were shown.—Dr. HALE WHITE said that the cases bore out a clinical observation he had made, that the alcohol concentrated its action on one set of tissues, and those chiefly where the inflammation commences. The vessels were thickened secondary to perivascular changes. The change in the muscle was peculiar. In syphilitic and alcoholic neuritis he had observed no secondary influence on the skin. The bladder and the rectum were usually not affected, and this was rather to be surprised at.—Dr. HADDEN remarked on the legs being not very uncommonly in a state of flexion, and was glad to find this observation corroborated. Cutaneous hyperæsthesia was not marked, and as a rule he had not found tenderness of the nerves. Perforating ulcer, œdema, erythema, falling off of toe-nails, bullous eruption, and other trophic lesions he had observed in alcoholic paralysis. In five fatal cases he had examined the spinal cord was normal. In four there was phthisis also. Lancereaux had detected a slight sclerosis in the antero-lateral columns of the cord. The tendency to label all cases as alcoholic should be deprecated; other causes might cause the same grouping of symptoms.—Sir DYCE DUCKWORTH had had four cases in women during the last six months. The history of alcohol was not always easy to elicit. He had no doubt that alcohol did pick out certain tissues and act in certain lines. The condition of the muscular fibre was new to him. Muscular hyperæsthesia was to be observed, and he had noticed tenderness of the peripheral nerve trunks.—Dr. ORMEROD had noticed tenderness of the nerve trunks, and also one case at least of cutaneous tenderness. The muscular tenderness might be ascribed to an inflammatory condition. The infiltration of leucocytes could hardly be explained on the degenerative theory of the nervous changes. He had also observed the flexion of the legs. It would be important to have a guide to prognosis. The mental condition was an important point, was often characteristic, and might serve to differentiate cases of peripheral neuritis. The patient possessed great aptitude for giving circumstantial accounts of occurrences that have never happened. Mistaking the identity of places—e.g., supposing that the hospital was Newport Market—was also a feature in the mental condition.—Mr. JESSOP referred to the state of the optic nerves. If alcohol gives rise to amblyopia, these were the cases to investigate. The French ascribed the central scotoma to alcohol, and the English to nicotine. A case of central scotoma for red and green in a woman, who, however, smoked, was mentioned.—Dr. FINLAY said the vision was normal. The perineuritis might lead to degeneration by shrinkage of connective tissue, causing degeneration by pressure. He had satisfied himself that there was nerve tenderness.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

A MEETING was held on May 6th, Dr. Alderson, President, in the chair.

Clinical Cases.—Mr. KEETLEY showed a case of Excision of Epithelioma of the Fauces, affecting the adjacent parts of the palate, tongue, and maxilla, with previous ligature of the external carotid; Mr. EDWARDS, a case of Recent Suture of the Patella; Mr. WAINWRIGHT, a case of Suture of the Patella; and Mr. DUNN, a case of an Albino.

Some of the Rarer Forms of Rectal Fistulæ.—Mr. EDWARDS read a paper upon this subject. He first drew attention to the difference of opinion existing between surgeons concerning the question of dealing with the sinus which extends upwards by the side of the bowel from the internal opening

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of a complete fistula. He considered that the treatment should depend upon the position of the sinus to the muscular coat of the bowel; if submucous it should be laid open, but if submuscular it is better to leave it, thus avoiding the risk of incontinence due to division of the fibres of the internal sphincter. A cure may be looked for after the frequent injection of the sinus with tincture of iodine. After touching upon some of the more frequent errors in diagnosis and operative treatment, the author pointed out that there seemed to be a definite relation between the internal and external orifices of a fistula. For fistulæ having their external orifices situate behind a plane passing transversely through the centre of the anus usually have their internal aperture in the middle line dorsally, while those with their external orifice in front of this plane generally terminate in an internal opening immediately opposite, thus forming a simple, straight, complete fistula. The author then spoke of horseshoe fistulæ, which he defined as being a fistula with one or more external orifices on either side of the anus, with an internal one in the middle line behind. He said that not only were the descriptions of this form unsatisfactory, as found in most special works on the rectum, but the operative measures, when mentioned, left much to be desired. Surgeons of the present day when operating upon horseshoe fistulæ either slit up the sinus on both sides of the gut, thus dividing the sphincter in two places, or they content themselves with the division of one sinus, hoping that the other may heal of itself, with or without the insertion of a drainage-tube. The operation recommended in these cases, and for which the author said he had to thank his colleague and friend, Mr. Goodsall, was as follows:—Complete division of the sphincter in the middle line dorsally, laying open the abscess cavity and internal opening, and the subsequent slitting up of each lateral sinus from the external orifice to the central dorsal incision. By this means the whole of the fistulous track would be laid open and the sphincter would only suffer one division, and this in the most favourable manner—viz., at right angles to its fibres, thus avoiding all risk of subsequent incontinence, which so often happens after the operation as usually practised. In conclusion, the author related two interesting and rare cases: one of fistula completely encircling the bowel, and the other of fistula originating in the pelvi-rectal space—i.e., between the bowel and levator ani muscle.—Mr. WHITMORE referred to that form of incomplete internal fistula which was associated with phthisis, and remarked that rectal fistulæ should always be operated upon early.—Mr. KETTLEY related the case of a married lady from whom he removed a growth the size of a Spanish nut from the submucous tissue of the rectum; the operation was followed by a fistula, which was treated by division of the sphincter, and a complete cure resulted.—Mr. BENHAM narrated some cases of rectal fistulæ which he had treated with success by injecting carbolic (1 in 20) solution.—Mr. S. BENTON made some remarks upon the blind internal horseshoe fistula, which he said Mr. Edwards had not mentioned.—Mr. CHAPMAN had used pure carbolic successfully in three cases of rectal fistula.—Mr. EDWARDS, in reply, said that no reliance could be placed upon the cure of a case with carbolic injections. The experiment could be tried, but division of the sphincter was usually called for. In phthisis the patient derived benefit by having his rectal fistula operated upon.

Some Points in the Selection and Administration of Anæsthetics.—Dr. HEWITT read a paper upon this subject, and said that he wished to limit his remarks to the consideration of the following points:—1. The best method of administering nitrous oxide and ether, either in succession or in combination. 2. The prevention of vomiting during or after the administration of an anæsthetic. 3. The danger of inducing general anæsthesia in persons so suffering from obstructive dyspnœa. 4. The possibility of dangerous symptoms occurring from the administration of opium or morphine prior to chloroform, ether, or other anæsthetics. He exhibited an apparatus which he had used for three years in hospital and private practice. It consisted of a Clover's portable ether inhaler fitted with a special form of face-piece, and with a bag capable of holding two gallons of gas. By means of this apparatus any desired combination of nitrous oxide and ether could be given. The amount of gas in the bag was always sufficient, when administered with the face-piece shown, to anæsthetise a patient before gradually admixing the ether vapour; and the whole apparatus was portable and could be changed before entering the room in which the operation was to be performed. By means of this apparatus there was no sudden transition from nitrous oxide to ether as when face-pieces were changed during the administration. Vomiting could be prevented by rapid and deep anæsthesia. In a large number of cases he had given half a grain of cocaine in half an ounce of water shortly before the administration of an anæsthetic. This was done with the object of lessening the sensibility of the gastric mucous membrane. Vomiting after anæsthetics was best prevented by keeping the patient upon his side, and by moving him as little as possible. The danger of inducing anæsthetic sleep in persons suffering from obstructive dyspnœa was then considered. Patients in this condition were dependent for their existence upon an increased activity of their respiratory mechanism, and failure of respiration was very likely to ensue under chloroform or ether.—Mr. LLOYD showed an improvement in ether inhalers, which consisted in a bag of very fine indiarubber, the cost of which would be found to be so immaterial that one could be used for each patient anæsthetised. The bag would, of course, take the place of the ordinary bag as used at present, and would be destroyed after use; thus the ether apparatus could not become a source of infection by either the tubercle bacillus or any infectious disease.—Mr. DAVIS said that chloroform was the best anæsthetic in ovariotomy.—Mr. MACKINLAY remarked that he always insisted upon a patient being deeply under the influence of an anæsthetic before dividing the optic nerve in enucleation of the eyeball. Partial anæsthesia, he thought, was in such cases fraught with some danger.—Mr. ALDERTON related the case of a man who died under ether, who had been admitted for a small operation upon the mouth. He deprecated the custom of admitting patients into hospitals, and hurriedly operating upon them without preparing them.—Dr. HEWITT replied.

On the Association of Mitral Stenosis with Gout and Granular Kidneys.—Dr. G. N. PITT read a paper on this subject, upon which it was not possible for a discussion to take place, owing to the shortness of time.

Mr. DUNN showed the following pathological specimens: (1) Sarcoma of the Os Uteri; (2) Sarcoma of the Dura Mater; (3) A Kidney and adjacent parts, showing a large Extravasation of Blood into the Peri-renal Tissue of the Left Side.

Mr. BENTON showed a Pedunculated Growth removed from the rectum of a man forty-six years of age.

ACADEMY OF MEDICINE IN IRELAND.

Malignant Disease of the Stomach, &c.—Fibro-Sarcoma of the Orbit.—Trephining for Epilepsy.

AT the meeting of the Pathological Section held on March 11th,

The PRESIDENT showed specimens of Malignant Disease of the Stomach, Pancreas, Liver, Kidney, &c., taken from a young man aged twenty. The patient was admitted into Sir Patrick Dun's Hospital on Jan. 11th, and died on Jan. 22nd. Two years previously he was attacked with heartburn, retching and vomiting, and epigastric pain. At the post-mortem the stomach was found to be greatly distended; pylorus constricted, and its walls dense and white; a mass of new growth in edge of falciform ligament, and one or two nodules on the liver; walls of gall-bladder invaded by the neoplasm; cavity small, containing green mucus; cystic duct occluded; dense mass of new growth, involving stomach, pancreas, right kidney, &c., and extending back to the spine. Left kidney healthy on section; right kidney invaded by neoplasm; portal vein pervious; abdominal aorta constricted by surrounding mass of new growth; right upper surface of diaphragm studded with white nodules. An immense number of round, flattened nodules all over each lung, and also internally, radiating from root. Heart and pericardium normal.

Mr. SWANZY exhibited a Fibro-sarcoma, about the size of an ostrich's egg, which he had successfully removed from the orbit of a boy, aged eleven years, and which had a history of four years and a half. The eyeball had become dislocated upwards under the upper lid, by which it was completely covered, and sat on the top of the tumour, but retained its consensual motions to a slight extent, notwithstanding its very abnormal position. Owing to the presence of the tumour, the orbit had become much increased in size, measuring 7 cm. vertically, 6·5 cm. horizontally, and 4·5 cm.

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in depth. The patient, who was exhibited, made a perfectly good recovery.

Mr. M'ARDLE read a paper on Sarcoma, detailing cases which showed the deterioration of the different tissues of the body, apparently as a result of the disease. He noticed in all his cases a great diminution of the red corpuscles of the blood, and a slow and incomplete coagulation of that fluid. In these cases he met with spontaneous fractures, and on examining the bones he found them brittle, and the red marrow in a state of fatty degeneration. In seeking an explanation of the decrease of red corpuscles in the blood, he concluded that the destruction of the red marrow of the bones led to a diminution of their manufacture. He explained the emaciation of the patient by the lessened oxygenating power of the blood, which, in some of the cases, looked like serum, so poor was it in corpuscles.

Mr. W. I. WHEELER gave a description of a Calvaria and Brain after Trephining for Epilepsy, and exhibited specimens.—Mr. STORY asked what was the use of trephining for epilepsy if the seat of the affection were, as Mr. Wheeler had said, the medulla oblongata or the pons. Epilepsy was interesting from an ophthalmic point of view. It was known that after epileptic seizures the patients frequently had either transitory or permanent affections of their field of vision, and it was a curious fact that these affections took the form of concentric limitations of the fields of vision of both eyes. It was well known to those present that when a patient suffered from a lesion at one side of the brain, whether caused by a tumour or otherwise, his visual apparatus was damaged, but the effect produced was that there was a loss by both eyes of one half of their field of vision, the halves lost corresponding to the visual centre on the side of the brain affected. But after epileptic seizures the limitation was concentric, though also affecting both sides; and the explanation of this which had been put forward assumed that the seat of the epilepsy was not in the medulla or the pons, but in the cortical centres.

Secondary Suture of Ulnar and Median Nerves.—Excision of the Knee Joint.

At the meeting of the Surgical Section held on March 18th, Mr. J. H. SCOTT read a paper on Nerve Suture. The subject was a young man, aged twenty-one. He sustained an injury to the palmar surface of right forearm, about an inch and a half above the wrist joint, by putting his hand through a plate of thick glass. The accident occurred four months prior to admission into the Adelaide Hospital. There was distinct evidence, from the condition of the hand, that the ulnar and median nerves had been completely divided, without any attempt at regeneration. On April 16th, 1886, eighteen weeks subsequent to the injury, the ulnar nerve was sutured, three catgut ligatures being introduced to bring the freshly-cut surfaces together. Five days after the operation sensation had markedly improved. The patient returned to the hospital in the following August, being desirous of having a similar operation performed on the median nerve, on account of the success of the former procedure. The median nerve was consequently sutured on Aug. 31st, almost ten months having elapsed since the injury. Three weeks after operation the patient could distinguish the touch of a pin's point anywhere in the area of distribution of the median nerve. Mr. Scott stated that the result so far has been very satisfactory, nutrition of parts becoming rapidly normal. Judging from present appearances, there is every hope that the hand will become perfectly restored to usefulness.—Sir WILLIAM STOKES recalled a similar operation by Mr. Wheelhouse of Leeds, who related the details at the meeting of the British Medical Association in Bath. A man, having fallen accidentally on the sharp edge of a scythe, sustained a deep wound on the back of the thigh, followed by paralysis both of motion and sensation. About eighteen months after the accident Mr. Wheelhouse cut down on the sciatic nerve, which he found completely divided, and brought the ends together by sutures. There had been extreme muscular atrophy; but after the operation the man was soon enabled to return to his ordinary avocation as a field labourer. Thus was proved the efficacy of the operation, despite the lapse of a long interval since the injury. Dr. Scott's case was a further illustration of the great importance of nerve suture.

Mr. W. THORNLEY STOKER read a paper on some Elements of Success in Excision of the Knee Joint. He considered that the results of excision of the knee had been too favourably stated, and that many cases recorded in their early history as having been cured, had later on shown a return of disease. Age had been over-estimated as an influence for good or evil in this operation. Three things were to be regarded as of superlative importance in the prospect of success in excision of the knee—(1) complete removal of all diseased structures; (2) relative permanence of dressing; and (3) thorough fixation of parts. With regard to the first, he laid great weight on the careful removal of diseased synovial membrane, the commonest seat of tubercular foci, and the most troublesome to extirpate. In speaking of the second, he dwelt on the necessity for all oozing to have ceased before the dressings were applied, and argued against the use of Esmarch's bandage. He advocated the use of dry dressings, and the performance of the first dressing two or three weeks subsequent to operation. Speaking of the third point, Mr. Stoker recommended the use of Dr. Heron Watson's splint as modified by Mr. Thomson, and opposed the use of plaster-of-Paris as a retentive apparatus. He described the method of "dowelling" which he had devised as a means of securing the bones, and which he had found most satisfactory.—Sir WILLIAM STOKES said the plan of fixation of the bones devised by Mr. Thornley Stoker should be welcomed by every operating surgeon as superior to any other method of bone suture. Speaking of dowelling from the experience of his cases, he negatived the production of irritation or of suppuration in the part operated on.—Mr. FRANKS, taking *seriatim* the three points raised in Mr. Stoker's paper, said, with regard to the first, he concurred as to the removal of the synovial membrane, failure being mainly due to leaving foci of disease either therein or in the tissues round the joint. As to the second, the dry dressings were of inestimable value in keeping the part at rest without the discomfort of repeated dressings. He himself provided drainage by turning in little tongues of skin at the angles of the wound and stitching them to the back part of the soft tissues, without leaving any foreign body in the wound except the silver wires. As to the third point, he employed the dowels in one case, which afterwards failed from other causes. At the same time, the dowels kept the bones in good apposition, and brought about satisfactory union. Still, while the fixation of the bones was satisfactory, he was not prepared to say that the dowels were better than the wire sutures.—Mr. Croly, Mr. Lentaigne, Dr. Kennedy, and Mr. Thomson also spoke.

Prevention and Treatment of Disease.—Latent Typhoid Fever fatal through Cardiac Thrombosis.

At a meeting of the Medical Section held on March 25th, Dr. C. F. KNIGHT read a note on the Prevention and Treatment of Disease. A fever may abort at any time—spontaneously or by the administration of therapeutic agents. Acute articular rheumatism may be treated by one of seven plans—viz., alkaline, quino-alkaline, mint-water, salicylic acid and salts, salicin, chalybeate, and eclectic. Advantages of alkaline treatment: First, rapidity of action; second, absence of cardiac complications; third, rapid defervescence. Quinine, an antipyretic and antiseptic, must be given with greater regularity, and in sufficient doses to produce satisfactory results. A tolerance may exist. In 1883 the author gave the largest quantity of quinine ever recorded to one patient—viz., in twenty-four hours, 131·25 grains; five grains subsequently produced cinchonism. Temperature analogous to septicæmia. Quinine may fail to reduce temperature; alkalies rarely do. The author believes that mint-water, salicylic acid and salts, and salicin influence the disease, because they are antiseptics. Cases where rheumatoid fibro-ankylosis of vertebræ and joints exists are well treated with small doses of salicylate of sodium, assisted by massage. As to the pathology of acute articular rheumatism and other diseases, the manifestations may be due to organisms in the blood, which are destroyed by antiseptics, and cannot live in a strongly alkaline medium. Source of organisms: 1. Outer world, through ingesta, or by gases inhaled. 2. May arise in digestive or respiratory tract, as by germs introduced, or coalescence of organisms, which separately are innocuous. Do normal digestive ferments ever give rise to morbid processes? Means of combating disease, dietetic, hygienic, and therapeutic; farinaceous food causes a rise in temperature in febrile affections. Therapeutic agents to include—1. Abortives. 2. Inhalation of gases. 3. Antiseptics, as turpentine, in acute croupous pneumonia. 4. Rectal in-

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flations of medicated vapours, which was advocated as a means of combating disease, fevers, phthisis, and cholera in 1873. 5. Atomised liquids, a spray of a solution of cuchlorine, cooling and grateful in fevers, and where thirst is a prominent symptom. The best abortive for diphtheria, croup, mumps, and the exanthemata is red iodide of mercury, prescribed in hospital in these diseases since the commencement of 1884; dose, one-sixteenth of a grain thrice daily in the form of pilules, first dose a double one. Children bear this treatment well. In adults it may cause colic; if so, allay with an opiate, which increases action of mercurial. Opportunity for trying this treatment now offers in the present epidemic of scarlatina. The author requests physicians to adopt this plan, and to communicate the results of their observations to the Academy.—The PRESIDENT expressed his dissent from Dr. Knight's views as to the superiority of the alkaline over the salicylate treatment of acute rheumatism, and drew attention to the fact that some patients in rheumatic fever continue to suffer from the pains, no matter what drug is administered, until milk is excluded from their dietary.—Dr. KNIGHT, in reply, urged the desirability of resorting to therapeutic agents, which appeared to act as abortives, instead of trusting solely to isolation. There was a distinction between salicylic acid and salicylate of soda, and he spoke of cases treated with the acid and not the salt.

Dr. A. MONTGOMERY read a case, communicated by Surgeon-Major R. HARMAN, A.M.S., of latent Typhoid Fever, which proved suddenly fatal without the disease having been recognised during life. The patient, a dragoon of splendid physique, aged forty, was admitted to hospital for slight eczema of the left leg, which readily yielded to treatment. He never complained of any symptoms, abdominal or otherwise, except a slight cough, for which the usual remedies were applied; the temperature was taken on several occasions, both morning and evening, without finding any rise above normal. However, on the sixteenth day from his admission, after being up and about as usual, he vomited about a pint of fluid resembling coffee grounds, and expired immediately afterwards, being quite conscious and free from pain to the last. A post-mortem made three hours after death revealed a dense fibrinous clot, of a pale amber colour, occupying the right auricle and ventricle, firmly adherent to the endocardium and tricuspid valves, and extending into the vena cava and pulmonary artery. The parietal and visceral peritoneum was covered with thick masses of recent lymph, and the peritoneal cavity contained about two pints of semi-purulent serum. Just above the ileo-cæcal valve, the ileum, on the anterior free surface of the bowel, presented an oval open gangrenous ulceration, about three inches in length and half the circumference of the bowel in breadth, destroying all the coats of the bowel; and although opening freely into the peritoneal cavity, there was no extravasation of the intestinal contents. There was another gangrenous patch about six inches higher up, and Peyer's patches exhibited every stage of the disease.—Dr. FINNY said the case brought forward by Surgeon-Major Harman was one of great interest and rarity. In enteric fever, until the post-mortem examination was made, it was difficult, if not impossible at times, to give an accurate diagnosis, and sometimes during life the ulcerating process may advance unnoticed until marked by a gush of hæmorrhage. The present case revealed an interesting clinical fact, that the patient had marked pathological lesions of several hours', if not days', duration, without having presented any subjective symptoms. There was no evidence that death was caused either by thrombus of the heart or embolus of the pulmonary arteries. The action of the peritoneal inflammation, as it became developed, produced weakness in an already fatty heart; and the clot found in the right ventricle was really the result of a failing heart in the death agony, and not the cause of death.—Dr. JOHN WILLIAM MOORE concurred in the conclusion that the pathological appearances in the intestine were those of enteric fever.—Dr. DUFFEY said that his reading of the case was that death was due to simple collapse, the result of perforation of the intestine—a view which was borne out by the history of the case. There was nothing in the lung to suggest that death should be attributed to pulmonary thrombosis. Cardiac thrombosis was an uncommonly rare lesion.—Dr. KNIGHT said the case presented the characteristics of general septicæmia, of which enteric fever might be regarded as a variety; but the enlargement of the viscera and the intestinal ulceration did not constitute sufficient evidence of its being one of true septicæmia. In gynæcological cases adhesions were found without any history of severe attacks of pain or serious inconvenience to health.—The PRESIDENT said that he considered this case one of typhoid fever, but it was rare indeed to have such a normal temperature and an entire absence of severe symptoms before the fatal termination.—Surgeon-Major HARMAN, in reply, said the temperature was taken by the ward master, an intelligent non-commissioned officer, about a dozen times, by means of the ordinary clinical thermometer, in the axilla, and it was never above 99°. There was softening of the mesenteric glands. The clot found in the heart was of a pale colour, and firmly adherent to the endocardium.

MIDLAND MEDICAL SOCIETY.

A MEETING was held on April 13th, Mr. Lloyd Owen F.R.C.S.I., President, in the chair.

Talipes Calcaneus.—Mr. EDWARD FREER showed two cases of Talipes Calcaneus that he had treated by tenotomy at the Orthopædic Hospital. The section was made obliquely, and the tendon sutured by kangaroo-tail tendon, as suggested by Mr. Walsham. The results in both cases had been highly satisfactory, no signs of relapse having occurred after a period of six months from the operation. This was performed with antiseptic precautions, the feet being extended to their utmost and retained there by plaster and an anterior interrupted splint. Mr. Freer pointed out the necessity of ascertaining before operating whether there was sufficient nerve power in the paralysed limb to prevent a recurrence, and also the advantages of galvanism and massage for some time after.

Ruptured Brachial Plexus.—Mr. MORRISON showed a man, aged forty-six, who was admitted into the General Hospital, under Mr. Bartleet, on Dec. 27th last. He had fallen a distance of forty feet upon some loose bricks, and had sustained fracture of the right upper ribs, right clavicle, and lower jaw, together with rupture of the brachial plexus, and probably laceration of the inner coats of the axillary artery, on the same side, with occlusion of the vessel. There was emphysema of the chest wall, neck, and right upper limb as low as the wrist. For about ten days he remained in a critical condition, with collapse of the right lung, bronchitis, and delirium; but eventually he convalesced and became an out-patient; the upper limb, however, remaining paralysed, both as regards motion and sensation in the area of distribution of the brachial plexus. The limited movements that remain appear to be imparted by the trapezium. Anæsthesia of the limb is complete, excepting in the part supplied by the intercosto-humeral, descending branches of the cervical plexus, and possibly also by some filaments of the circumflex. Pulsation in the axillary artery ceases abruptly below the clavicle. The right pupil has remained persistently smaller than the left, indicating lesion of the sympathetic in the neck. Massage and galvanism are being used to the limb.

Dr. SUCKLING showed a woman aged forty, who presented the appearances of Myxœdema in a typical form. He also introduced a patient who had been successfully treated by trephining for Jacksonian Epilepsy. Dr. Suckling also exhibited a number of Sphygmograms.

Mr. JOHN TAYLOR read a paper based on a series of twenty-three consecutive cases of Abdominal Section.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

A MEETING was held on Friday, April 15th, Mr. Hatherly, President, in the chair.

Dr. HANDFORD showed the following cases:—Neuritis of the Ulnar Nerve following typhoid fever; Empyema in a man aged forty-one, cured by opening and drainage; Aneurysm of the Arch of the Aorta, with Paralysis of Left Vocal Cord, in a man aged forty-three; Aneurysm of the Arch of the Aorta, with Paralysis of Left Vocal Cord, in a man aged fifty-six.

Dr. HANDFORD also showed a case of Aneurysm of the Aorta for Dr. Ransom.

Mr. ANDERSON reported a case of Bullet Wound of the Brain, and showed the specimen.

The PRESIDENT read a paper on Infant Feeding for Dr. Marshall.

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Reviews and Notices of Books.

A Text-book of Medicine for Students and Practitioners. By Dr. ADOLF STRÜMPELL. Translated from the Second and Third German editions by HERMAN F. VICKERY, A.B., M.D., and PHILIP COOMBS KNAPP, A.M., M.D., with Editorial Notes by FREDERICK C. SHATTUCK, A.M., M.D. London: H. K. Lewis.

THE readiness with which our American *confrères* undertake the translation of the best German works deserves to be widely recognised. Had it not been for their enterprise and devotion many such writings would have remained practically unknown to the English practitioner, who has derived so much instruction from their perusal. One involuntarily calls to mind the work of Niemeyer, which on its first appearance fascinated the medical world. There was a thoroughness of treatment and a freshness of style about that book which could not fail to impress the reader, and which gave the work a widespread popularity; but text-books are apt to fall behind the times, and require in these rapidly progressive days to be constantly renewed and re-edited if they are to retain their popularity; and they are apt to lose their original uniformity and spontaneity of expression by being refurbished at the hands of others. If only therefore as an exposition of modern medicine from the heart of "young Germany," we should welcome this edition of Dr. Strümpell's admirable text-book. Its publication will, however, increase considerably the difficulties of choice before teachers and students by adding another text-book upon medicine of high merit to those already in existence.

So far as it has been possible for us to judge, Dr. Strümpell's work will bear favourable comparison with others of the same class. It is not the mere compilation of an industrious student, but it bears ample evidence of the independent observation and thought which add so much to the force of an author's teaching. The author, too, is already well known in clinical medicine. His contributions to neurology are widely known and acknowledged, and this fact must render the chapters in the present work dealing with diseases of the nervous system especially valuable. They form, indeed, an admirable treatise in themselves, covering a wide field in a masterly manner. Nevertheless, Dr. Strümpell shows that his attention has not been wholly engaged by this department. The rest of the work is written with as much evidence of personal knowledge as that dealing with diseases of the nervous system. That he is thoroughly imbued with the importance of modern researches into the etiology of disease is evident in the chapters which deal with the acute specifics. "The cause of typhoid fever must be sought," he says, "in some specific organised pathogenetic poison," and he considers that the bacillus discovered by Koch and Eberth is apparently that poison; erysipelas is "a disease of the skin excited by the presence of a specific pathogenetic micrococcus" (p. 57). "Beyond a doubt the diphtheritic poison is organised" (p. 62); but the difficulties of its isolation are admitted, and the proof of its presence is said to be as yet inconclusive. Even more dogmatic is the following statement with respect to cholera, which would hardly be subscribed to by Dr. Klein. Dr. Strümpell says (p. 73): "Some time ago it had become evident that the real cause of cholera consists in the infection of the system by a specific micro-organism. Koch was, however, the first to succeed in the search for the poisonous agent"; and after giving Koch's views upon the comma bacillus, he goes on to say, "These statements have been since confirmed by all competent investigators, while the various alleged refutations of Koch's results have all proved erroneous." These extracts suffice to show the spirit in which the author writes, and there is something to be said for the adoption of clearly defined views upon the etiology of specific diseases such as are afforded by bacteriology. An English author would, however, have expressed himself more cautiously—though perhaps not to more advantage in imparting clear ideas to the student. The fact is that upon this vast question of etiology we have arrived at a period when opinions and facts are strangely commingled, and we have to break away from old ideas before we can place ourselves in a position to assimilate the new.

The system employed in the description of diseases is orderly, and the arrangement of facts is good. It is a novel, but decidedly beneficial, departure to find the symptomatology of such a disease as typhoid fever, for instance, described side by side with descriptions of the anatomical lesions. Some of the subjects also are introduced by chapters giving a general survey of the anatomical and physiological facts underlying the morbid conditions subsequently dealt with—a plan which is followed to the fullest extent in the section of diseases of the nervous system.

We have little doubt that this work will be favourably received in this country, as it has been in Germany, where within a few years it has run through three editions. Its value has been decidedly enhanced by the pains taken by the editor, Dr. Shattuck, who has made several additions—particularly in the subject of "Treatment," and elsewhere—that contribute to its completeness. The translation has been well executed, and the book produced in a single well-printed volume. We have no hesitation in recommending it to students; whilst there must be many practitioners who will be glad to have the opportunity of becoming familiar, through its pages, with the present standpoint of scientific medicine.

Nervous Diseases and their Diagnosis. By H. C. WOOD, M.D., LL.D. Philadelphia: J. B. Lippincott and Co. 1887.

Diagnosis of Diseases of the Nervous System. By C. W. SUCKLING, M.D., M.R.C.P. London: H. K. Lewis. 1887.

NOTWITHSTANDING the abundance of works and books on diseases of the nervous system, we think that good reasons may be found in both the present books to justify their existence. The chief excellency of Dr. Wood's book is its suggestiveness, and of Dr. Suckling's its conciseness. We shall illustrate our remarks in commenting on the books before us by selecting for special treatment one subject in each, taken not at random, but as fairly representing the general character of each work.

Dr. Wood is perhaps best known in this country for his work on Chorea, and we shall examine his article thereon. The first statement is not one to which we can attach any importance: Acute general chorea is usually due to St. Vitus's dance. Whatever is, is. In the definition of St. Vitus's dance, Dr. Wood says "there is often a distinct loss of muscular power." Our own way of writing this sentence would be, "there is always loss of power of volitional movements." Dr. Wood thinks enough evidence may be adduced to prove the existence of reflex chorea. In our belief, in most cases of "reflex" chorea the special irritant—e.g., intestinal worms—is but one of many causes of the chorea, the main cause being the irritable state of the motor centres. We concur in the statement that "an acute chorea may be intimately associated with minute cerebral embolism, and also with other lesions of the brain, among which lesions may be especially mentioned the peculiar alteration of the ganglionic cells of the brain, noted by Meynert as pervading the whole organ in a case of chorea." At the same time, we cannot but think that chorea may coexist with defects in the "motor" cells, without these being recognisable by any means of research at present known to us. Indeed, a page or two further on Dr. Wood clearly states the case. Chorea of pregnancy, hysterical

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chorea, electric chorea, rhythmical spasms, local choreas, chorea of stumps, chorea in internal inflammations, and habit choreas are other varieties recognised by Dr. Wood, and it is in thus boldly naming various varieties that we see the suggestiveness which is the leading feature of the book. We cannot, however, agree with all that the author states under these various headings, and are inclined to think that his shots are often wide of the mark. For example, we can see no striking analogy between the chorea that may accompany internal inflammations and that twitching which goes by the name of paramyoclonus multiplex. Our recommendation of Dr. Wood's book cannot be to students, but to those who have already acquanted themselves with neurology it will doubtless afford much interest and some instruction.

Our selection from Dr. Suckling's book is the chapter on Diseases of the Peripheral Nerves, consisting of thirty-one pages, and there is a great deal of information imparted in this brief space. "Qualitative electrical changes are always present in severe cases, the faradaic response being lost and the reaction of degeneration present," is not sufficiently clearly put for a student to understand; it would have been better to say that qualitative electrical changes are always present in well-marked cases, the reaction to faradaism being diminished or lost, the reaction of degeneration being usually present (see p. 144). Bearing in mind that we look for faults as well as excellences, we cannot but object to the looseness of such an expression as the "myeline and axis cylinders being broken up" (p. 263), though we may admit that in the space occupied a better description could scarcely be expected. But the truth is, we look in vain for ground for any serious criticism of Dr. Suckling's little book, and we feel bound to give it the warmest reception; our only doubt about its fulfilling all the demands likely to be made upon it by the student or practitioner is that it may not be so clear and lucid to them as it is to neurologists, for of course one versed in any subject is apt to see more in a simple statement than another who has no previous knowledge of it. To students and practitioners who have read other works this production will prove extremely valuable in time of need: to the former just before examination; to the latter in every-day practice.

Tumeurs de l'Ombilic. Par le Dr. FRANCIS VILLAR, Ancien Interne des Hôpitaux de Paris. Avec 7 Photogravures. Paris: J. B. Baillière et Fils. 1886.

CRITICS of specialism and its abuses have often prophesied that some day a surgeon would rise up and take the umbilicus under his special care, and devote all his energies to the treatment of the maladies, real and imaginary, of this square inch of the human frame. The essay before us shows that such a forecast was by no means an impossible exaggeration. Dr. Villar has written a very interesting account of the tumours of the umbilical cicatrix, excluding hernia, and anyone who will read it will be likely to admit that his time has not been misspent. The classification of these tumours is simple and useful. The distinctions between the two kinds of fungous tumours or polyps of the umbilicus met with in infants are clearly drawn. The commoner variety is a mass of granulation tissue arising subsequently to and in connexion with the separation of the cord—a lobulated growth, secreting pus, sometimes curable by caustics, and not containing any special structure. The rarer form is an adenoma, a truly congenital growth developed from the omphalo-mesenteric duct, discharging mucus, and being very thickly studded with tubular glands—a growth only to be cured by excision. Cases of dermoid and sebaceous cysts, of fibroma, papilloma, myxoma, and sarcoma—all of them very rare—are recorded, and a large part of the essay is devoted to a study of cancer. It is shown that primary cancer of the umbilicus is nearly always epithelioma, while secondary cancer is as commonly carcinoma. The primary form has a marked tendency to invade the peritoneum and spread in a mushroom-like mass over the inner surface of the abdominal wall. On the other hand, carcinoma of the abdominal wall or of any of the abdominal viscera has a special tendency to infect the umbilicus, so that in any case of cancer of the umbilicus other malignant growths should always be looked for. These and many other interesting and important facts, together with details of diagnosis and treatment, are well discussed, and a bibliography completes the whole. Like many of his countrymen, Dr. Villar is not well acquainted with the medical literature of this country, from which he could have collected additional cases and observations.

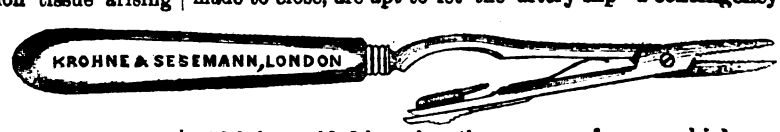
The Asclepiad. No. 14, Vol. IV.

DR. RICHARDSON, writing on the phenomena of Palpitation, with and without intermittency of the Heart and Circulation, believes that all persons who suffer from intermittent pulse have occasional attacks of palpitation, but that some persons have palpitation who are not liable to ntermittent action. Speaking of the causes of palpitation, Dr. Richardson thinks that "the worst mischief of all is the practice of carrying to bed the anxieties and annoyances of the labours of the day." He believes that more than half the cases of palpitation of the heart occur from this one mistaken and foolish practice. The practice is, we grant, foolish and mistaken, but it should not be forgotten that the practice itself may be due to disorder of the chief organ of mind. The clinical aspects and relations of palpitation and intermittency, as studied with the sphygmograph and cardiograph, are dealt with in a very interesting manner. The article on Winter Palaces of Health and Camps of Health at Home forms the subject of some editorial observations on another page of our present issue. "John Arbuthnott, M.D., F.R.S., the Medical Scholar," is the subject of the biography and portrait—an autotype from an oil painting by Jervas, in the possession of the Royal College of Physicians. The fac-simile autograph of John Arbuthnott has been reproduced from the Register of St. Andrews University, where it was inscribed on Sept. 11th, 1696. This number contains the third chapter on "Practical Biometry, or the Measurement of Life in Health and Disease," and treats of the relationship to insurance of life. If we cannot altogether subscribe to the distinctions drawn by Dr. Richardson, we can at least admire his originality in making classes according to particular external characteristics: (*a*) the atheromatous, (*b*) the alcoholic, (*c*) the arcus senilis expressions. The fourth chapter deals with the various temperaments in relation to the measurement of life for insurance.

New Inventions.

BRYANT'S TORSION FORCEPS.

ALMOST any kind of artery forceps may be used for twisting the end of an artery, whether it be spring forceps provided with a spring catch or sliding bolt, or pressure forceps with the usual scissors handle. The spring forceps, however, in whatever manner they may be made to close, are apt to let the artery slip—a contingency which is avoided in using the pressure forceps, which are made on the principle of a lever. The latter, however, owing to the scissors-shaped handle, are not convenient for twisting. By the direction of Mr. Bryant, Messrs. Krohne and Sesemann, of Duke-street, Manchester-square, have constructed for him the forceps (of which the accompanying woodcut is an illustration) on the lever principle, to which a handle is centrally attached. At the end of the lever is placed a bolt, which is readily governed by the thumb for opening and closing the forceps. The handle permits of easy rotation.



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THE LANCET.

LONDON: SATURDAY, MAY 28, 1887.

WE regret that the committee which was appointed by the General Medical Council to consider the best methods of increasing the practical element in medical education should have made a report without taking any evidence from practitioners, pupils, and teachers. If some further time and consideration had been devoted thereto, we are sure that the report would have been more complete and satisfactory, and would have had greater weight with the profession than it can now have. The question of pupilage with a general practitioner is far too important to be dismissed with the mere opinion that the advantage to be derived from personal instruction was of too great value to be altogether sacrificed: an opinion held, without doubt we should suppose, by every member in the profession, and which reads as a truism so obvious that it was surely almost unnecessary to solemnly record it in a report. But what does the committee suggest for its being carried into practical effect? A term of six months spent in personal pupilage is suggested, not necessarily six consecutive months, but six in all, and that the six months should be taken during the long vacation, and after the examinations in anatomy and physiology have been passed. Such a suggestion as this is so very crude that, if a little more consideration had been bestowed upon it, it would never have been put into a report from so important a body as a committee of the General Medical Council. Pupilage is worth something or it is not. If worth nothing, let it pass away, as it is now doing throughout England; it has never existed to any great extent in Scotland. But if it secures a something of importance in medical education, surely the suggestion of six months in long vacations being devoted to it is insufficient. Personal instruction in "the routine of medical life and its accessories" is valuable in proportion to the earliness of the time in the pupil's education that it has taken place. It is the moulding and forming of habits, manners, and modes of observation and thought that should be secured by such routine, as well as the knowledge of common diseases and their treatment, and these must be secured early or not at all. Pupilage, to mean anything of value, must mean a pupilage of at least a year under a practitioner's guidance and tuition, and that year must be the first year of medical study; and this is distinctly recognised by the Royal College of Surgeons of England, which permits a student to begin his professional education as a pupil of a legally qualified surgeon holding the appointment of surgeon to a hospital, general dispensary, or union workhouse, or where such opportunities of practical instruction are afforded as shall be satisfactory to the Council. The only objection to an imperative instead of a permissible pupilage is that it must lengthen the time devoted to professional education, and so increase its cost; for we cannot seriously take into consideration as a worthy substitute six odd months in vacations in the latter half of the student's curriculum. Moreover, he only gets two long vacations between his second and his final examinations; and if he is, as he should be at this time, a clinical clerk or dresser to in-patients, he will probably get a freedom from his duties for only a week or ten days consecutively; for hospitals know no long vacations, and even visiting physicians and surgeons must find their substitutes when they take their month's holiday. If a student can afford an extra year, it can be well spent with a good general practitioner, who has patients among all classes, and this is the best way, perhaps, of commencing a professional education; but, at the same time, a knowledge of chemistry, physics, and more especially of the biological sciences, must be secured. These are very important parts of the medical curriculum, and may, along with a routine knowledge of common diseases and their usual remedies, be acquired early.

IN the last number of the *Asclepiad* Dr. B. W. RICHARDSON advocates a great national effort for establishing in our own islands a system of Winter Palaces of Health and of Camps of Health at home. The first part of the idea is not new, for he proposed it in 1865, in a memoir which he then wrote on the Medical History of Bath, but he now adds another suggestion for utilising the high grounds of the country into what he calls "Camps of Health." The argument in favour of this new project is stated in a very simple manner. The library of the writer, a room eighteen feet square, has been kept, he tells us, during the whole of the past winter well ventilated at all times with fresh air warmed to 64° F. What can be thus effected on a small scale can be extended to any required degree; it is all a mere matter of engineering skill, the details of which are well understood and easily mastered. His proposal is to extend the plan by erecting in suitable localities a series of palatial residences which shall include, in a closed square, magnificent grounds covered in with glass, and fitted with playgrounds, tennis courts, subtropical gardens, and everything that can contribute to the health and pleasure of the invalids who require a resort from inclement seasons in a genial and summer climate at their own doors. The proportions are supplied for one of these Palaces of Health on a minor scale, so as to afford one hundred residences in fifty substantially built houses of two storeys surrounding a square of gardens and grounds accessible by four grand entrances. Each of the houses, divided into an upper and a lower flat, would be sixty feet deep from the front, twenty-five feet wide, and fitted with every convenience for the residence of an invalid, with every room and part at an equable and adjustable temperature. The two sets of residences would accommodate at least one hundred invalids comfortably and luxuriantly, with their attendants and friends. On the roofs would be four galleries or terraces, covered in glass and laid out with flowers, each gallery twenty yards wide and about one hundred yards long, in all a promenade of nearly a quarter of a mile. The square, covered at a great height with an arch of glass, like the Crystal Palace, would be the inner garden, kept always at an equable temperature, and arranged for exercises of every kind suitable for the sick. Add to the whole a library, a reading-room, a lecture-room, a concert-room or

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theatre, a gymnasium, the most approved baths, including the Turkish bath and the swimming-bath, with a pump-room at which the different artificial or imported mineral waters could be obtained, and it must indeed be a fastidious invalid who could not for health's sake spend the months of December, January, February, March, and April in such a Palace of Health. In this palace it is urged there need be no monotony, nor one whit less of good exercise, than is obtainable at foreign resorts, while the immense advantage would be secured of entire freedom from treacherous winds, and the other accidents of atmospheric variability which the best climate within easy reach of Great Britain fails altogether to secure. How these advantages are to be had is next considered, and it is contended that in the palaces foreshadowed, we could in these days "command climate." In such a palace we could make our own electric suns to shine, if we wished them, by night as well as by day; we could filter the air from every kind of impurity, and by the effect of electric discharges set at defiance fog, cloud, and storm. By the same means we could make the air what we pleased in respect to its physical influence on the life of man and on vegetation. We might even utilise an east wind for the value of the oxygen it contains, whilst we might take out of it its fatal sting, and turn it into any quality of wind we liked so soon as it had entered our territory. We might make it dry or moist, keen or soft, bracing or relaxing, as we wished.

Dr. RICHARDSON still suggests that Bath is the centre in which this advancement should first be established. The climate and position generally are favourable to the experiment, and the history of the city as a health city is very commendable; but most important of all is the flood of heated water from the springs, which now flows away into the Avon, and which would be priceless as a means of helping to sustain the summer climate of the Winter Palace and Garden of Health. There are, however, many other sites in England, in Scotland, and in Ireland, in which Palaces of Health could be constructed on a much grander scale; sites in which valleys of great extent ready for roofing, if we may so say, and for being laid out in a vast expanse into Winter Palaces, wait only the hand of man "to become in all their natural beauties gardens of perpetual summer, with miles of park verdure and pleasance." For Camps of Health at high levels, Dr. RICHARDSON suggests the utilisation of certain of the old Roman encampments which form such striking points in the history of our country. These, he shows, are ready for immediate transference into his design. Into this matter we cannot now enter, but we offer the idea generally as a "practicable ideal" for our readers to con over. It would afford good work for the profession were it realised; but, above all, it would, as its proposer says, be patriotic in its bearing, by encouraging native labour, creating a wholesome diversion, and inaugurating a new era of national progress.

WE have already referred to the means at the disposal of the General Medical Council for maintaining the standard of proficiency to be required from candidates at qualifying examinations, and we pointed out that the Medical Act of 1886 requires the Council to appoint inspectors of examinations for those bodies which were before the passing of the Act legally qualified to grant diplomas in respect of medicine and surgery, or which have since entered into combination with other bodies for this purpose. We stated, moreover, that when, in the absence of such combination, the Council has appointed assistant examiners, these examiners were required to secure at the examinations the maintenance of such standard of proficiency in medicine, surgery, and midwifery as is required from candidates at qualifying examinations. As yet the Council have only appointed examiners in surgery to assist the Society of Apothecaries, and presumably they intend to send to the examinations of the Society the inspectors in medicine and midwifery whom they have recently appointed; it remains, however, a matter of grave doubt whether they have fully complied with the intentions of the Act in adopting this course. The point will probably not be raised at the present time, but it would become of much importance if the Council were at any time to receive from their inspectors a report that the examinations were insufficient. If the Council are satisfied with the accuracy of this report, they must of necessity communicate their views to the Privy Council, who are empowered to deprive the examining body of its right to conduct further qualifying examinations. The question would then undoubtedly be raised whether the Medical Council had themselves fully exercised the powers they possess for securing the maintenance of a standard of proficiency. It is lamentable that the position assumed by the Royal Colleges has created another complete qualification in London; it is some satisfaction, however, to observe that the undesirable element of cheapness will not be held out by the Society of Apothecaries as an inducement to candidates. The Society propose to apply to Parliament for power to increase their fees on the ground that the sum which might be an adequate payment for a licence in one part of the profession was inadequate for a licence in all parts of the profession. The granting of the licence of the Society will therefore we trust, be independent of competition based upon pecuniary considerations. The future alone can show whether the alliance of the Society with the Medical Council will sufficiently enhance the value of the qualification to make it acceptable to the profession.

The appointment of committees, which finally engaged the attention of the Council, gives rise to matter for comment. In their constitution sufficient regard has not been had for the relative population of the profession in the three kingdoms. Both in the Finance and Education Committees England only shares equally with Ireland and with Scotland; and, again, in the strengthening of the Executive Committee an Irish and Scotch representative only were added. The proportion of direct representatives assigned to the three countries must be regarded as some indication of the relative influence which it was intended should be exercised by the different countries in the work of the Council, and certainly in the constitution of the committees England has, therefore, been left somewhat at a disadvantage.

The delay in the publication of the Medical Register was the subject of some discussion at the close of the session. The early appearance of the volume is undoubtedly very desirable, but it deserves to be stated that there is no room for criticism of those who are engaged in its compilation. It is, indeed, but right that we should refer to the

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ndebtedness of the profession to the Registrar, Mr. W. J. C. MILLER, whose admirable services have contributed in a large legree to the efficiency of the work of the Council.

THE progress made in hygienic researches by the application of bacteriological methods has been nowhere better exemplified than in the investigation of air. Dr. PERCY FRANKLAND has pursued the subject in this country with much profit, and there has lately appeared in the Philosophical Transactions a paper by Professor CARNELLEY, Mr. HALDANE, and Dr. ANDERSON of Dundee, which should be carefully studied by sanitarians. The investigations here described consisted in the analysis of the air of dwellings as regards carbonic acid, organic matter, and micro-organisms, the carbonic acid being estimated by the method of PETTENKOFER, the organic matter by that of CARNELLEY and MACKIE, and the micro-organisms by that of HESSE. As regards dwellings, their inquiry involved a comparison between houses of from one to four rooms and upwards, and the composition of the air within these tenements with that without. As an example we may cite from one of the numerous tables the following figures, which represent the average quantities in one-roomed houses, relatively to those in houses of four rooms and upwards (which are taken as 1): cubic space per person, 0·11; carbonic acid, 2·0; organic matter, 4·4; micro-organisms, 6·7 (bacteria 6·9, moulds 3·0). The carbonic acid, organic matter, and micro-organisms all diminish in quantity as the cubic space per person increases from 100 to about 1000 cubic feet; but beyond this capacity there is a slight increase in these impurities, which is attributed to inadequate ventilation of the larger rooms. An instructive comparison is made of mortality statistics with the composition of the air of these dwellings—the death-rate increasing in proportion to the rise in impurity of the air, there being a very rapid increase in the death-rate among young children, and the mean age at death being very greatly lessened. The death-rate from phthisis is lower in those living in one- and two-roomed houses than in those living in three rooms, but this anomaly is readily explained when the early mortality of the former from other diseases is considered. Thus the death-rate per 10,000 from (1) diarrhœa, acute bronchitis, broncho-pneumonia, and meningitis is—for dwellers in four rooms and upwards 19·6, for those in three rooms 27·6, for those in two rooms 39·7, and those in one room 59·8; from (2) phthisis the rates are respectively 13·0, 27·6, 24·4, and 14·6. The inquiry also showed the effect of impure air in promoting pulmonary disease; and as regards infectious disease the mortality from measles and whooping-cough seemed distinctly connected with the class of house, whilst, contrary to expectation, no such relation held for diphtheria. The memoir also enters fully into the subject of the composition of the air of schools, of mills and factories, and of the Royal Infirmary, Dundee, and proves that the determination of carbonic acid alone is not a sufficient indication of the purity of a sample of air. We can only mention the very exhaustive study of the conditions which influence the excess of organic matter and micro-organisms, and the proofs of the superiority of mechanical over natural ventilation, but may state that the authors give as "standards of purity" the occurrence of 10 vols. of carbonic acid per 10,000 in the air of dwelling rooms, and of 13 vols. per 10,000 in that of schools—or an excess over outside air of 6 vols. in the one case, and 9 vols. in the other. These limits should not be exceeded. Nor should the excess of organic matter within the house over that of the air outside be equivalent to more than 2 vols. oxygen per 1,000,000; and the excess of micro-organisms should not be more than 20 per litre. Of these three classes of impurities, the carbonic acid (in the amounts mostly present) is the least deleterious to health, being compensated for by increased frequency of respirations; but the "organic matter" probably has a great effect in lessening the health and predisposing to disease; whilst micro-organisms, apart from specific infection, may be responsible for broncho-pneumonia, so frequent and fatal a complication of the prevalent bronchial catarrh and other affections. The paper concludes with suggestions of remedies—especially the adoption of mechanical ventilation in the Board schools of Dundee, and improved ventilation by means of open grated windows in landings in block tenements; other recommendations, such as the avoidance of keeping lamps burning at night, the adoption of cleanliness, attention to frequent renewal of air as of more importance than the size of the rooms, and the construction of windows so that they can be freely opened at intervals to allow a good current of air to be sent through the rooms, are such as will commend themselves to everyone.

WE drew attention in our issue of April 30th to the question of the dissemination of infection through the agency of rags, as it has been met with in the United States. In this country the subject has been fully dealt with in the reports of the Medical Officer of the Local Government Board. The report for 1881 contained an account by Dr. PARSONS on the influence of cotton and linen rags in this respect, and there is now issued in pamphlet form[1] an account of the danger of such dissemination by means of woollen rags. These rags come mostly from abroad, being mainly landed at the ports of Goole, Hull, London, and Liverpool, and they largely find their way to the "shoddy" manufacturer, by whom they are ultimately used for weaving into cloth or into "linseys." Pure woollen rags, unless dyed, undergo no process which can be held with certainty to destroy infection; but rags of mixed cotton and wool are exposed either to sulphuric acid, or are treated in a stove in an atmosphere of hydrochloric acid gas in such a way that the cotton fibre is destroyed. But no real trust, as regards disinfection, can be placed in these methods of dealing with the rags. In the process of flock-making various kinds of woollen rags and carpets with a backing of hemp are used. At times exceptionally filthy rags stained with blood and excrement are used, and in some cases hardly any attempt at cleansing or purification is resorted to. On the other hand, an attempt has been made to deal with them effectually by disinfection under steam pressure. Inquiry on a wide scale as to the possibility of mischief resulting to those engaged in the various processes of manufacture to which these rags are subjected brings out certain valuable information. In the first place, the occupation, like others of a dusty character, was found to affect some workers so generally that the illness they suffered from acquired

[1] Eyre and Spottiswoode, East Harding-street, E.C.; A. and C. Black, Edinburgh; Hodges, Figgis, and Co., Dublin.

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the definite name of "flock fever." But infection seems rarely to have been brought about. A few cases of small-pox amongst those who had been handling woollen rags in the making of "shoddy" were heard of, but Dr. PARSONS referring to the common belief that woollen articles are more likely to retain infection than cotton or linen ones, shows that this does not apply to the processes of manufacture of these several classes of rags; whereas it is well known how commonly calico rag sorters at paper mills are affected with small-pox. Indeed, the latter articles in the form of sheets and underclothing come into closer contact with the bodies than woollen articles, &c., and are hence more likely to receive infection; and it is the sorters of white rags for the best class of writing papers that suffer most. Still, certain cases of infectious disease were heard of amongst woollen rag sorters, upholsterers, and users of rag waste as manure, which were believed to be due to retained infection in the rags. The precautions suggested are as follows: Every rag-worker should be efficiently vaccinated and revaccinated. Avoidance of dust should be aimed at, especially in the direction of improved cleanliness and ventilation of premises. A moist heat of some 220° F. should be applied to the rags. This process should preferably be carried out in the bale, and the best methods of effecting it have been fully indicated in Dr. PARSONS's report on methods of disinfection in a recent report of the Medical Officer of the Local Government Board.

Annotations.

"Ne quid nimis."

A TEACHING UNIVERSITY IN LONDON.

IT is evident, from the activity displayed by the various bodies affected by the movement in favour of establishing a Teaching University in London, that the crisis in its history is not far off. The Special Committees of the Senate and Convocation of the University of London have recently met and exchanged their views on the proposed reconstitution scheme, so that we shall soon expect to see Convocation summoned for its discussion. Many of the graduates will strongly oppose the formation of Faculties composed of representatives of affiliated colleges, and, even should they be unsuccessful in their resistance, the powers of these Faculties are so limited that they cannot satisfy those who think that teachers should have practical control in a university. The scheme may not be passed by Convocation, or, if passed, it will only make some minor, but in our opinion necessary, changes in the University. It solves neither the general university question for the metropolis nor the special one of degrees for average medical students, as in other centres of medical education. The proposals of the Association for promoting a Teaching University for London must find greater favour with those interested in metropolitan education. A university which aims at providing for the student in all the subjects included in its Faculties the best attainable teaching, with the necessary aids and appliances, which requires attendance on a definite course of teaching as a necessary preliminary to graduation, and which secures to the teacher a direct and adequate representation in its councils and share in its administration, cannot fail to enlist the sympathy of the teachers in the metropolis. University and King's Colleges have now formally agreed by their Councils to petition for powers to form (with any other efficient college in the metropolis) such a university on the lines of the Victoria University, and we understand that, as a result of this decision at University College on the 21st, Lord Kimberley has resigned the office of President of the College. Lord Kimberley is also a member of the Senate of the University of London, and had therefore to choose between his University and his College. Powers will be asked to grant degrees in the Faculties of Arts, Science, and Medicine, and to add other Faculties. The difficulties of the medical degrees question are referred to in the petition, and a union with the Royal Colleges of Physicians and Surgeons of England, with a due recognition of the medical schools of London, is suggested as the proper means for overcoming these difficulties. Meanwhile, the Royal Colleges are engaged in preparing a charter and petition, asking for powers to grant degrees in Medicine only, and have declined to pay any attention to those who deprecate the severance of professional degrees from general academic influences, and think that the conferring of degrees should only be undertaken by a real university. Certainly the present time seems favourable, by a judicious combination and a little mutual forbearance, for the formation of a true metropolitan university.

EXTREME FREQUENCY OF PULSE AFTER PARACENTESIS.

AN interesting case in which extreme frequency of the pulse followed puncture of the abdomen for ascites, is reported and discussed in the *St. Petersburger Medicinische Wochenschrift* by Professor Dehio of Dorpat. The patient was a man aged fifty-six, with cirrhosis of the liver. In addition to a considerable degree of ascites, there was general œdema and an old-standing hernia, but no heart mischief could be detected, and the pulse was 86, regular, and of moderate tension. Immediately after the operation the man felt better and was able to breathe more easily, and a slight rise of the pulse was then noted. The next day the face was pallid, and the patient complained of giddiness and prostration. The radial pulse had become 162, thready, and weaker; the second sound of the heart could scarcely be heard. This condition continued without any great alteration for five days, the pulse rate varying from 180 to 150. No rise of temperature occurred, and the respiration was about 24. At Professor Kobert's suggestion two milligrammes of coronilin were introduced subcutaneously, which was shortly followed by a reduction of the pulse rate to 80. A few hours later, however, it rose again to 182. The next day, without any repetition of the coronilin, and indeed without any assignable cause, the pulse sank to 84, and did not again rise to any remarkable extent. From this time, however, the patient's general condition became worse, and he died eighteen days later. The necropsy showed fatty degeneration of the heart and general diffused arterio-sclerosis. There was some hæmorrhagic pachymeningitis and a good deal of clear fluid in the ventricles of the brain, the cerebral substance being of moderate consistence, without any softening and containing less blood than usual. The cerebellum and medulla were in the same condition. The cause of the extreme frequency of the pulse was evidently not the disease of the heart and vessels, as this still existed at the time of death, or eighteen days after the pulse had resumed its normal rate. It must be looked for in the anæmia of the medulla, which doubtless followed the operation. Dr. Dehio proceeds to discuss the question whether this anæmia affected the heart by stimulating the accelerator (sympathetic) centre or by paralysing the inhibitory (vagus) centre, and strongly inclines to take the latter view, quoting Nothnagel, who, in a recent article, says that when an extreme frequency of pulse is found associated with regularity of the intervals between the beats, a weak cardiac impulse, and an absence of other symptoms, or the existence of such as point to an incomplete emptying of the ventricles

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paralysis of the inhibitory apparatus is indicated. Exactly these conditions existed in this case, as shown by its history and the sphygmograms obtained, which were of a hyperdicrotic type. Traube has also described a case of this rare condition. An old man, with phthisis, was unable to sit up in bed from the extreme frequency of pulse produced by the anæmia which the upright posture caused in the medulla, which, according to Traube, induced paralysis of the inhibitory apparatus, "the action of which is more easily suspended than that of the respiratory and vaso-motor centres." Another reason given by Dr. Dehio for the view he takes is that it is hardly possible that stimulation of the accelerator apparatus should have been kept up for so many days without any sign of the centre becoming fatigued, the interval between the pulse beats not having altered at all. The fact was that when the abdomen began to refill the medulla became engorged with blood and the vagus resumed its proper functions. Nothnagel has pointed out the analogy between the sudden loss of regulating power of the vagus, and the sudden loss of consciousness in epilepsy and fainting which is produced by very slight interference with the blood distribution.

HOSPITAL WEEK OF THE JUBILEE YEAR.

THE mere list of speakers who have promised to take part in the public meetings is enough to show how deep is the interest taken in Hospital Sunday. These meetings will be held in various parts of the metropolis. The speakers include Sir Wm. Plowden, K.C.S.I., Mr. Spurgeon, the Bishop of London, Sir Andrew Clark, the Lord Mayor, the Prime Minister, Rev. Dr. Allon, Mr. Henry Irving, the Duke of Argyll, the Duke of Westminster, Mr. Richard Chamberlain, the Dean of Westminster, Cardinal Manning, Lord Randolph Churchill, the Duke of Cambridge, and the Rev. G. S. Reaney. A cause which can command advocates so varied and so distinguished should have great success. The list of places at which the meetings are proposed to be held, with the proposed date and hour of the meeting, will be duly advertised. We urge upon all our readers to do their part to make the meetings effective. When the Prime Minister of England can steal half an hour from his toils to plead the cause of hospitals, and when some of the busiest men in the city can find time to organise such a set of meetings, it is the least that any benevolently disposed person can do to aid in every possible way to make them a success. Many fear that the Jubilee year will interfere with this great collection. This is to pay a poor compliment to the Jubilee, which can have no worthier memorial than the doubling of the sum usually raised for hospitals on Hospital Sunday.

POLYMORPHISM OF THE FUNGUS OF THRUSH.

CULTIVATED in gelatine, M. Audry finds that the fungus of thrush gives rise, at the end of five or six days, to a large number of small secondary masses, white and mammillated, in juxtaposition to the original growth introduced. On agar-agar at a higher temperature the vegetation is more rapid, but the mammillated aspect is less obvious. The multiplication is still more rapid when glycerised agar is employed, and on potato its growth is also successful. In these various cultivations no spores were found, but cells of oval form, of greater or less dimensions, arranged in a chain, in the angles of which secondary cellules may arise in mycelial expansions, altogether similar to yeasts. But sown in bouillon these organisms turn the liquid turbid at the end of two or three days, and a sediment of whitish flakes, consisting of agglomerations and mycelium of cellules—the true oidium albicans,—is found. In wine the mycelial growth flourishes; an acid medium favours their multiplication, which borax prevents. The form of bacterium aceti has not been discovered in these cultures. Thus the pathogenic organism of Muguet develops in two different fashions. In liquid bouillon it throws out profusely mycelial expansions, and is in the heyday of its vigour; it is then a saccharomyces. In a solid medium, on the other hand, it retains its condition of an oidium, being but slightly different from certain fungi; in this state it may be regarded as the spore of which the mycelium has remained in an embryonic state.

PENSIONS TO MEDICAL MEN AND THEIR WIDOWS.

ALL men should insure their lives early. All medical men especially should do so: first, because they should set a good example; secondly, because their lives are a little more precarious than other men's lives. But for all men early life insurance is a good thing. It implies some forethought. It can be done for a moderate sum, and it is a thing well over. We confess to something like shame at the frequent recurrence of painful cases of want of foresight and forethought in medical men who have allowed themselves to live and die without making any provision for those whom they leave behind,—apparently content that they should appeal *in formâ pauperis* to the pity of those who have their own burdens to bear and their own families to provide for. There is something almost mean in this conduct, especially in days when it is comparatively easy to make some provision. It is not for us to indicate or select the particular method. Medical men in London and the neighbourhood are almost without excuse in this matter with the Widows and Orphans Fund to subscribe to. For others there are the multifarious systems of the different offices for life insurance, some of them on very easy and favourable terms. Lastly, there is what is called the Non-forfeiture system advocated by Mr. E. C. Garland of Yeovil, and worked by the Edinburgh Life Office, by which by a certain annual payment a man may receive a certain sum at sixty or at death; and by which, further, in the event of his ceasing to pay premiums at any age, he will still, it appears, receive at sixty a larger sum than he has paid in premiums. Particulars of this system may be obtained in any individual case by application to the secretary, Edinburgh Life Office, 11, King William-street, E.C. But we repeat our contention, that a man who is living contentedly without having made provision for his family in the event of his death is acting discreditably.

MURDER OR HOMICIDE.

THE practice of criminal abortion is a kind of villainy the enormity of which we have no wish to minimise. To take away the life of an undeveloped infant, unless it be to save the more important life of the mother, is in itself an inexcusable piece of wickedness. To risk the mother's safety in doing so clearly aggravates the crime, and there are circumstances in which such an offence may even be regarded as murder. It is rather, however, in most cases, one of those misdeeds which lie just on the borderland between homicide and murder, and its exact significance must often be difficult to define. In a case recently tried at Warwick Assizes two persons were sentenced to death, though with a recommendation to mercy, for having caused the death of a young woman by procuring abortion. Here the evidence available seems to have amounted to proof of murder; yet it is, we confess, somewhat difficult for us to reconcile our ideas to such a supposition. Murder implies either a design to kill or the employment against the person of means capable of killing, with a reckless disregard of their worst possible effects. It is, we should say, virtually impossible that two persons desirous of hushing up a scandal by causing abortion should directly contrive the death of a third, the subject of this operation. When we come to the question of reckless procedure, the mere fact of the operation undoubtedly goes far to prove a criminal dis-

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regard of consequences, and is in itself highly illegal. Nevertheless, we have still considerable difficulty in accepting the view that this in itself is enough to prove a graver crime than culpable homicide. It is at least doubtful whether some concession should not in such cases be allowed to the criminal on the ground that, while doing wrong, he has blundered through unskilfulness beyond his intention, or even his apprehensions. He goes about his malpractices, it is true, with his eyes open both to its dangers and its illegality, yet he must in his own interest endeavour to prevent the worst consequences. These are, as a rule, not impossible of prevention, whatever the uncertainty and difficulty of arriving at such a result. If it were otherwise, induction of abortion in any case would be impossible. Consequently, the abortionist, bad though he is, must in many cases be excused from such utter recklessness as would render him distinctly guilty of murder. We should remember, too, that the subject of his unscrupulous attempt is usually a consenting party, not a mere victim. These considerations have, doubtless, weighed with the jury in recommending the prisoners above mentioned to mercy; and, though we do not know of any injustice in the sentence, we are disposed to think that they may very fairly be urged as a plea for its commutation.

PATHOGENY OF GASTRIC ULCER.

THE precise pathogeny of chronic ulcer of the stomach is one of those undetermined questions which have led to considerable speculation, with comparatively little profit. The position, form, and nature of the ulcer have done more than any positive demonstration of the vascular lesion to favour the current doctrine of its dependence on arterial blocking. But everyone knows the difficulties in the acceptance of this view, not the least being the comparative frequency of the disease in the female sex, and the great preponderance of cases where the ulcer is solitary and seated on the posterior surface near the lesser curvature. Dr. Decker of Würzburg has the last word on the subject (*Berl. Klin. Wochenschrift*, No. 21), and he advances evidence in support of the initial lesion being traumatic, or rather thermal. Thus, he believes that the contact of hot thickened fluids with the gastric mucosa excites hyperæmia, which becomes localised, and may lead to venous stasis and hæmorrhage in a limited territory, with all the subsequent necrotic changes. He supports his view, not only by reference to the clinical history of cases of gastric ulcer (he points to the great prevalence of gastric ulcer among cooks, who habitually test the flavour of their dishes when very hot), but by two experiments on dogs into whose stomach food heated to 50° C. was introduced. In one of the animals a patch of hyperæmia, with hæmorrhage between the gastric mucosa and muscularis near the lower curvature, was found; in the other, a deep ulcer of characteristic shape and position had been produced.

BOARDING OUT OF PAUPER CHILDREN.

SOME recent statements as to the condition of children boarded out at Denmead by the St. Pancras Board of Guardians seem, at first sight, calculated to discredit that mode of bringing up pauper children. At one place, it was stated, four children were found sleeping in one room with a thatched roof. A woman named Sylvester had six children of her own, two from Mr. Barnardo's Homes, and one from the St. Pancras guardians. These boys were described as sleeping three in a bed, and "covered with festering sores." Four were in a deplorable state, and had no doctor attending them. An old man with six shillings a week had four boys boarding with him—two from Mr. Barnardo's Homes and two from St. Pancras. When visited, the boys were standing at their dinner round a table one eating out of a broken gallipot and another out of a broken basin. The only food which they were seen to have by the visitor consisted of pieces of pork rind and of bread and potatoes. The whole family used one towel, which did not seem to have been washed for two months. These statements have, however, been very largely disputed or refuted. Mr. Barnardo has had the boys from his school brought up to be inspected, and he declares that they are quite well and free from sores, save one boy who has constitutional eczema, and even he is much better than when he went away. The agent from Mr. Barnardo, making a surprise visit on the very night the statements were published, found the beds and clothing clean. All the children appeared to have had ample food. The vicar of Denmead, Mr. Greene, describes the reports as grossly exaggerated, and attributes the eruptions noticed to children affected with itch sent down from St. Pancras. But Mr. Clarke, the medical officer, denies that any child with the slightest indication of disease has left St. Pancras, and his carefulness is vouched for by Mr. Millward, clerk to the St. Pancras Board, in an interview with the representative of the *Pall Mall Gazette*. It seems right to conclude that a system which has been found on the whole to work well should not be condemned on such doubtful statements as have gone the round of the press. But it is evident that the system requires close supervision, either by the guardians themselves or by some one person or number of persons in whose vigilance and wisdom they can place confidence. Mr. Millward spoke favourably of the system, and said the St. Pancras guardians had nine districts in various parts of England to which they sent children to be boarded out.

THE MICROBES OF PNEUMONIA.

PROFESSOR WEICHSELBAUM of Vienna, in the course of a review of the discoveries made concerning the etiology of acute pneumonia (*Centralblatt f. Bacteriolog.*, Nos. 19 and 20), refers to his own researches, which are of much interest. Dealing with material from 129 cases, which comprised not only primary croupous pneumonia, but also lobular and secondary forms, he distinguished four kinds of bacteria. The most common was a diplococcus, mostly of an oval shape, sometimes occurring in small chains, and having a capsule which stained faintly. Its cultures had some resemblance to those of streptococci; and when injected into the pleural cavity of rabbits caused a fatal result in from one to two days, with bilateral lobar or lobular pneumonia, pleuritic exudation, and often also peritonitis and pericarditis. This microbe is identical with Fränkel's pneumococcus, but differs from Friedländer's, which does not affect rabbits, but does affect guinea-pigs. It was found ninety-four times in the 129 cases, seventy-eight times in genuine croupous pneumonia, but also in secondary and lobular pneumonia. A second variety, far less frequently present, was the streptococcus pneumoniæ, distinct from other forms of streptococci, and occurring in secondary (lobar or lobular) pneumonia when the primary disease was excited by a streptococcus. It was also met with in other forms of secondary pneumonia, and even in primary lobar pneumonia, associated or not with the diplococcus. Less frequently still (viz., in nine cases only) did he meet with an organism identical with Friedländer's pneumococcus, which Weichselbaum styles "bacillus pneumoniæ." He found this not merely in lobar croupous pneumonia, but even in lobular pneumonia, and three times in association with the diplococcus pneumoniæ and a streptococcus. Lastly, the staphylococcus pyogenes aureus was found in five cases, either alone or in company with the diplococcus, and always in secondary inflammation. In several observations these various microbes were also detected in the exudation of inflammatory processes complicating the pneumonia—as

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pleurisy, pericarditis, peritonitis, meningitis, &c., and once in the blood and splenic pulp. Weichselbaum concludes from these facts that genuine croupous pneumonia is in most cases caused by the diplococcus pneumoniæ; but undoubtedly in a few the bacillus pneumoniæ seems to be the sole agent. Clinically, he observes in a footnote, these latter cases seem to run an exceptionally malignant course. Acute lobular pneumonia, and the pneumonias (lobar or lobular) which are secondary to other infective diseases, may be due to either of the four above-named organisms, either alone or combined. Therefore the pneumonic virus is not a single entity, but, just as in acute inflammations of connective tissue, several kinds of bacteria may be the cause of the morbid process.

LONDON WATER SUPPLY.

THE report of General A. de C. Scott, the water examiner for the metropolis, gives an account of the chemical composition of the different waters, which still contain a large amount of chlorine, and discusses the methods of collecting water adopted by the different companies, mentioning that the Grand Junction and other companies have constructed in the beds of gravel and sand which overlie the London clay, in the bottom of the river valley, open-jointed distributing and collecting conduits, the former being used to convey the river water to the gravel or ballast beds, and the latter placed at a lower level to collect the water after it has passed through the ballast, and convey it to the well of a pumping engine, by which it is lifted into the reservoirs for ordinary filtration and distribution. At Hanbury, near Sunbury, a brick-lined tunnel, 1550 feet in length, has been driven through the clay underlying the gravel, and from the tunnel vertical pipes lead to the base of the gravel, from which pure water flows into the tunnels. The gravel beds in this locality form, General Scott says, a valuable source of supply, the importance of which should be recognised. It must, however, he adds, be borne in mind that this, like all shallow sources of water in porous subsoils, is liable to become fouled by extension of population over the surface; and if houses with a system of cesspools were built on the gravel area adjoining the works of the water companies, the purity of the supply therefrom might become seriously endangered.

ACTION OF HYOSCINE ON THE EYE.

DR. O. WALTER of Dorpat has published a series of observations on the action of hyoscine on the eye. This body produces some toxic effects very similar to those produced by atropine—viz., dryness of the throat and dilatation of the pupils—but, unlike atropine, it causes drowsiness and languor; it also sometimes causes nausea and giddiness. Until lately little has been known of the effects of hyoscine on the eye, but within the last few months two other Dorpat students, working under Professor Kobert's direction, have paid some attention to the subject—one of them, Dr. Sohrt, having published a paper on the general, therapeutic, and physiological effects of hyoscine. Hirschberg and Emmett had, however, remarked the mydriatic action of this subject. Dr. Walter experimented on animals by instilling hyoscine into one eye and atropine into the other, and found that a drop of an exceedingly attenuated solution produced distinct dilatation, acting both on the pupil and on the accommodation much more rapidly than atropine. The dilatation passed off more quickly than that produced by atropine, but the paralysis of accommodation persisted about as long as that produced by an equally strong solution of atropine. No decided effect was remarked on the intra-ocular pressure, but in patients with chronic glaucoma the regular application of hyoscine certainly produced an improvement in the sight and an enlargement of the field of vision. Slight toxic symptoms were produced by two drops of a 1 per cent. solution. The author recommends repeated applications of a weak solution in preference to a single application of a strong one.

THE HEALTH OF THE GERMAN CROWN PRINCE.

THE news that Dr. Morell Mackenzie had been hastily summoned to Potsdam to see the Crown Prince has attracted the attention of English readers to his Imperial Highness's illness, and naturally excited some alarm, which we hope may be groundless. It appears that for some time the Crown Prince has suffered from hoarseness and laryngeal irritation, which a stay at Ems did nothing to mend. A laryngoscopic examination revealed the presence of a growth from one of the vocal cords, and it was feared that it was malignant in nature. Under these circumstances Dr. Morell Mackenzie was summoned to the illustrious patient, and he, to solve all doubts, removed a portion of the growth with laryngeal forceps, and submitted it to Professor Virchow for microscopical examination. We are glad to see it stated that his report was to the effect that the growth is not malignant. This has allayed the grave fears that had been entertained in some quarters.

ALLEGATIONS AGAINST THE HOVE SANATORIUM.

IT is a great pity that persons who evidently do not properly understand the general principles on which infectious hospitals ought to be established should publicly condemn a hospital which, in their own district, has been erected in order to protect the population against infection. But this is what has been done at Hove. We, of course, do not refer to complaints as to such matters as dampness of plaster, ill-fitting doors, &c. These are at times noticeable in new buildings, and where sea-sand is used on walls the former condition is by no means uncommon. Such faults should obviously be remedied; but the work can be done quietly without wholesale condemnation of the hospital. The more important matters complained of are such as, if wrong, cannot easily be remedied, and to these we would draw attention. The alleged defaults, it was stated, had led to the institution being the very reverse of what it should be. First, complaint was made of the distance of one block from another, which rendered the passage of attendants difficult. We cannot assume that an ordinary attendant, properly clothed, could not be expected to pass from one block to another; otherwise how can tradesmen, doctors, and other people who have to go to the hospital face such weather as is supposed to exist in what is admittedly a breezy spot? Apparently it was considered that nurses and attendants should be running to and fro between the ward blocks and the administrative building. But that is precisely what ought to be hindered. A nurse, when told off to her ward duty, should remain in her ward until her time for duty is over, and then, putting on such out-door clothing as may be necessary during cold weather, she should return to the administrative cottage, which is her home. She will thus suffer no more than if she dressed for a walk in the same breezy place. So, also, the food supplies should three times a day be brought in a properly covered apparatus to each ward block by a suitably clothed person. What is wanted is, above all things, to prevent communication between ward blocks containing different infectious fevers, and to keep the several buildings aerially quite distinct. Another objection raised is that the nurses must take their food in the infected wards. They certainly have no need, and the place must be badly administered if they are allowed to do so. A proper administrative building has been provided where the nurses are expected to live when off duty, to eat, and to sleep. Then, again, it is said there are no rooms or conveniences for an attendant in the isola-

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tion block. A special room for a nurse is no more needed than in the case of a nurse who is looking after a private case in a house, and, what with the separate rooms and conveniences for nurses in the administrative block, we do not see what more could be wanted. Enough has been said to show how unfortunate this publicity has been. Some details of repair apparently want seeing to; but before such hospital provision is condemned in public again, it would be better that those who criticise it should visit other modern infectious hospitals built on approved systems, and learn what their experience has been.

TRANSPLANTATION OF HUMAN BONE IN A CASE OF UNUNITED FRACTURE.

On March 28th M. A. Poncet of Lyons read a paper before the Académie des Sciences on a case in which he had transplanted a piece of bone for ununited fracture of the tibia. The patient, aged nineteen, had sustained a compound fracture of the tibia about the middle of the shaft thirteen months previously; this had been followed by necrosis. On Jan. 19th half of the first phalanx of the big toe, measuring about one inch in length and half an inch in width (the articular ends having been removed), from the recently amputated limb of a healthy man aged forty-three, was inserted between the fragments after having been soaked in sublimate solution for three minutes. Antiseptic precautions were taken and the graft did well, but at the end of two months the tibia was still movable, and M. Poncet decided to resect the fibula and tibia. It was then found that there had been very little loss of substance on the part of the graft, which was united firmly to the lower fragment of the tibia by fibrous tissue, but was separated by about a quarter of an inch from the upper fragment by weak fibrous material.

PROFESSOR BILLROTH.

WE regret to learn that the distinguished Vienna surgeon is dangerously ill, and that his condition excites the anxious fears of his friends and medical attendants. He is suffering from a severe attack of bronchitis; this in itself would not occasion serious alarm in a man of his age—fifty-eight—and robust nature. Unfortunately, it is complicated with weakness of the heart, which adds to the gravity of his condition. Our Vienna correspondent, however, as will be seen by his letter, printed in another column, mentions the publication of a bulletin which favours the indulgence of a hope of the recovery of the great surgeon—a hope which will be shared by surgeons all over the world.

A MEDICAL PRACTITIONER A CO-RESPONDENT.

ON Saturday last, in the case of Pittis *v.* Pittis and Wiley, in the Divorce Court, we regret to note that a member of our profession was the co-respondent. The respondent, Mrs. Pittis, was the wife of Mr. Richard Roach Pittis, a solicitor and the town clerk of Newport, Isle of Wight. They were married in 1881 and lived happily until a year or two ago. In 1883 Mr. Thomas Ormsby Wiley came to Newport as an assistant to another medical man, and afterwards succeeded him. Mr. Wiley became the medical attendant of Mr. and Mrs. Pittis, who had no children till 1886. It was not till the year 1885 that the petitioner had reason to think that Mr. Wiley's visits to his wife were too frequent and of something more than a professional character, and not indeed till a much later period that he doubted the behaviour of his wife. Then, however, evidence was unmistakable, and when the cause came into court the case against Mr. Wiley was so complete that he did not appear, and no defence was attempted. It was proved that he had taken advantage of his professional position and encouraged an interchange of visits with the respondent for which there was no excuse. These visits were at such times and in such circumstances as to be inconsistent with the innocence of either party. The judge spoke in the highest terms of the conduct and bearing of the petitioner, and in a very different way of the conduct of the medical man. The jury agreed to a verdict without leaving the box, and awarded damages to the amount of £1200, and the judge ruled that the petitioner should have the custody of the child. It is humiliating to think that a medical man should be found in such a position. While it is our part to defend medical men who in the discharge of their duties are exposed to the slander of the malicious and the extortionate, it is not less our duty to denounce in the strongest terms those who do not demean themselves in a manner consistent with the character required in the members of a profession where purity and highmindedness are so essential to the public welfare.

MEMORIAL PORTRAIT OF SIR WILLIAM JENNER, BART., K.C.B., M.D., &c.

NUMEROUS friends and many former pupils of Sir William Jenner have, for some time past, desired that there should be an enduring memorial of one so generally and so highly esteemed, and who has attained to so distinguished a position in his profession. With this object a preliminary meeting has been held, and Sir William Jenner has consented to sit for his portrait to Frank Holl, Esq., R.A., to be presented to Sir William by the subscribers; a replica to be presented to the Royal College of Physicians, and to University College, London.

In order that as many as possible of Sir William Jenner's friends and former pupils may take part in the memorial, it has been decided that any sum, however small, may be subscribed, and that the names only, and not in any case the sum subscribed by each, be published. A committee is in course of formation, and anyone desiring that his name be added thereto should signify the same without delay to one of the following:—Dr. C. J. Hare, 15, Manchester-square, W.; G. D. Pollock, Esq., 36, Grosvenor-street, W., hon. treasurers; Dr. J. Russell Reynolds, 38, Grosvenor-street, W.; Sir Henry Pitman, M.D., 28, Gordon-square, W.C., hon. secretaries, to any one of whom subscriptions may be paid.

DEATHS OF EMINENT FOREIGN MEDICAL AND SCIENTIFIC MEN.

THE deaths of the following foreign medical and scientific men are announced:—Professor Carl Friedländer, a brief account of whose labours will be found in another column.—Professor J. E. Areschoug, the well-known Swedish botanist, in his seventy-seventh year.—Dr. A. de Waal Malefijt, a distinguished Haarlem surgeon.—Professor Castorani, the Naples ophthalmologist.

THE EDUCATION OF CHEMISTS.

THERE can be no doubt as to the benefits which have accrued from the Pharmacy Acts of 1852 and 1868. And there can be no reasonable objection to an extension of these Acts in the direction of giving power to enlarge the education of chemists, so long as the distinction between it and that of medical men is kept clearly in view. It is vain to charge the Medical Council and eighteen or twenty subordinate bodies with the duty of upholding the standard of medical education if Parliament with its other hand sanctions a *quasi*-medical education in chemists. We trust, therefore, that care will be taken in the Pharmacy Act now before Parliament to give no such sanction, and to eliminate from the curriculum of chemists such subjects as are the proper study of medical men. We have good reason to

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elieve that the best teachers of pharmacy appreciate ıe limitation of their duties, and, while giving the clearest ıstruction as to the nature and character of drugs, most ıefully avoid disquisitions on their medical uses and ıerapeutical properties.

THE "TEAR" OF PUBLIC LIFE.

SURELY the sort of life lived by members of the House of ommons just now is *tear*, not wear. The worry of it all bad enough, but the wretched squandering of energy in ll-night sittings, which has come to be the rule rather than he exception of late, is little, if at all, short of suicidal. nless there be an entire change of tactics shortly, there will e a hideous roll of mental and physical wrecks to chronicle. he "tear" is already telling very seriously on many valuable ves, and before long the mischief in progress will make itself anifest. We think it in no way beyond our province, as n organ of the profession whose business it is to advise the ublic on matters of health, to warn those whom it may rgently concern that there is a real and instant peril that, nless something be speedily done to spare Ministers and embers of the House of Commons the fearful and prolonged train to which they are now, and have been for some time ast, subjected, there will be a catastrophe which men of all arties and ways of thinking and acting in politics cannot ail to regret.

INNERVATION OF THE PYLORUS.

THE state of the pylorus has been observed under various rtificial conditions by M. Dobbert, who has employed bags f caoutchouc filled with air and introduced within the yloric ring of rabbits; the variations in the movements of he pylorus were written on a kymograph, with which the aoutchouc bag was put in communication by means of ubes and tambours. M. Dobbert finds that the pylorus is in a state of continual tonus, and at the same time may exhibit nder certain conditions movements of further contraction nd dilatation, apparently induced in a reflex manner. ocal anæmia and electrical excitation of the vagus and of he spinal cord at the point of origin of the tenth dorsal pair ause increased tonicity of the pylorus, whilst local asphyxia nd electrisation of the upper part of the spinal cord have the pposite relaxing effect. The tonus is sometimes increased, ometimes diminished, by excitation of the splanchnic.

ST. MARY'S HOSPITAL.

ON the 19th inst. Sir E. H. Sieveking was elected Consulting Physician to St. Mary's Hospital, and Dr. J. Braxton Hicks Obstetric Physician. Dr. Lees, the senior out-patient physician, fills the vacancy caused in the staff of in-door physicians. Mr. Edmund Owen was formally re-elected Surgeon to the institution, and Dr. Walter Pearce was appointed Assistant Physician.

PNEUMONIA IN THE HELDER GARRISON.

DR. H. A. JANSEN, a Dutch military surgeon, reports an interesting series of cases of croupous pneumonia occurring during his term of duty at the military hospital of Helder. Though in five years he only saw three cases in private practice, the number admitted into hospital with this affection was forty-seven. The cases came exclusively from two rooms in the barracks, the occupants of the other parts of the building and of the married men's quarters, which were close by, entirely escaping. The climatic influences and the exposure on sentry duty were of course shared by the whole garrison alike; so that it is very difficult to account for the apparently exceptional susceptibility of the occupants of the two rooms, the hygienic and other conditions being at least as satisfactory as in other parts of the barracks. It should be remarked that a large proportion of the cases were far from typical, some of them presenting several of the appearances of enteric fever. As a rule, however, the symptoms were not very severe. Two out of the forty-seven died. In the rare instances in which the pyrexia was very marked antipyrin was given, with satisfactory results. Other cases were treated with an acid mixture, together with brandy, musk, and camphor where there was much prostration.

PROFESSOR HYRTL.

THE illustrious Vienna anatomist, Hyrtl, who has for some time been suffering from cataract, has had the right eye operated on by Prof. Fuchs, apparently with great success. The left eye is also affected, and will shortly have to be operated on. Prof. Hyrtl is seventy-five years of age. He has the sympathy and good wishes of medical men in every country, who have all, probably, whether they are aware of it or not, profited more or less by the excellent use to which he put his organs of vision in his earlier days.

SEA WATER FOR STREET WATERING.

ON the 12th inst. at Bournemouth an important inquiry took place at the instance of the Local Government Board with respect to an application from the Bournemouth Commissioners for sanction to borrow £9000 for works of street watering and sewer flushing. The scheme was opposed by the local Gas and Water Company, no objection being raised by the ratepayers. Evidence in favour of the proposal was given by the Bournemouth surveyor, the borough engineer of Portsmouth, the borough surveyor of Great Yarmouth, the consulting analyst for the county, and Mr. Kinsey-Morgan, medical officer of health for Bournemouth; and a shareholder in, a director of, and the secretary to the Water Company, opposed it. The Local Government Board will shortly come to a decision on the matter; we have frequently supported the suggested use of sea water for such purposes, and cordially hope that the London Board's decision may be in favour of the promoters of the scheme.

THE WIDOWS AND ORPHANS OF MEDICAL MEN.

THE admirable Society for the Relief of Widows and Orphans of Medical Men, whose generous rules leave every medical practitioner in the metropolitan district without excuse for not providing something for his own widow and orphans if need be, and for not lending a helping hand to less fortunate practitioners if there be no such need, will soon have completed a century of useful existence. Next year will be the centenary of its foundation. We are glad to hear that its officers propose to celebrate the event in a manner worthy of the great and good objects of the Society. We shall welcome the occasion, and trust that it will excite much attention on the part of medical men to the subject of provision for widows and orphans.

CHEMISTS AS MEDICAL ADVISERS.

MR. WILLIAM CARTER lately held an inquest on the body of a woman who had died without medical attendance, and with only the advice of a chemist. He said it was a great pity that persons should consult chemists instead of medical men. He said the evil was increasing and it was time something should be done to lessen it. It caused a great number of unnecessary inquests and much expense to the country. This is a serious view of the matter; but it is the least serious one. There can be but little doubt that many such deaths might be obviated by proper medical care and attendance, which can be had in every parish

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for nothing if the patient is too poor too pay. The coroner's remarks are opportune at this moment when a Pharmacy Bill needs to be amended in such a way as to preserve a broad distinction between the education of medical men and that of chemists.

GASEOUS RECTAL MEDICATION IN PHTHISIS.

A FRESH series of observations by M. Perret appears to result in conclusions in general harmony with other recent trials of the method. He states that the gaseous injections have no microbicidal action; they can modify the bronchial phenomena and diminish expectoration, also influence nutrition for good, especially in the apyretic forms, like other medicaments, and hence are of value in relieving particular symptoms. The outcome of this appears to be that they are as good as, but no better than, other bronchial remedies.

FOREIGN UNIVERSITY INTELLIGENCE.

Basle.—Dr. M. Gottschau, Professor of Topographical Anatomy, has resigned.

Berlin.—Dr. B. Fraenkel has been raised to the status of Extraordinary Professor lecturing upon laryngology. Dr. Jürgens, first anatomical assistant in the Charité, has been appointed Curator of the Pathological Institute. His post as first assistant will be filled by Dr. O. Israel. Dr. Matthias Schulz, director of the Royal Vaccination Institute, has been appointed to assist Professor R. Koch in giving instruction to all the students in vaccination.

Buda-Pesth.—Dr. O. Pertig has qualified as *privat docent*.

Prague (Bohemian University).—The names of Dr. Schwing and Dr. Bubesca have been selected for the vacancy caused by the death of Professor Streng.

Tübingen.—Dr. Walcher, *privat docent*, has been appointed to the post of Superintendent and chief instructor in the Stuttgart Midwives' School, in place of Dr. Fehling recently appointed Professor of Midwifery at Basle.

THE members of the Society for the Prevention of Hydrophobia and Reform of the Dog Laws are preparing for submission to the Government a comprehensive Bill intended to abrogate all existing laws affecting dogs, and place their hygienic control and general management upon clear and well-defined lines. The co-operation and advice of all interested in this question are invited by the secretary of the Society, but the fact that the Duke of Beaufort is its president, and that several professors of the Royal Veterinary College are on its committee, is sufficient proof that the true interests of dogs are being cared for, as well as the public protection.

WE regret to hear that throughout the county of Lincolnshire petitions are being signed protesting against the proposed pension of £600 to Dr. Palmer, who has for many years acted as medical officer to the County Lunatic Asylum; Gainsborough having taken the initiative, the other boards are following suit. The reason given for the protest is the present depressed condition of agriculture, but it is to be hoped that Dr. Palmer will not be deprived of the reward of his long and faithful services to the county.

WE understand that the restriction which has been hitherto imposed upon the President of the Medical Board at the India Office with respect to practice in the case of sick officers or *employés* of the Indian Government on the active list has now been withdrawn by the Secretary of State for India in Council, this decision having been officially communicated to Sir Joseph Fayrer in a letter bearing date May 23rd.

THE charges of criminally assaulting two female patients, brought against Mr. Ralph Hodgson, a medical practitioner of Lewisham, were investigated at the Central Criminal Court on the 24th and 25th inst. In the first case the jury returned a verdict of not guilty, a decision which was received with applause; and in the second, no evidence being offered, a formal verdict of acquittal was recorded. We congratulate Mr. Hodgson on having succeeded in vindicating his character from a charge which of all accusations is the most difficult to disprove, and most fatal to those against whom it is made.

THE death of Mr. H. F. Gisborne is announced as having occurred, in his seventy-ninth year, at his residence in Derby on the 25th inst. The deceased was a justice of the peace for the county and borough, and consulting surgeon to the Derbyshire General Infirmary. For upwards of fifty years Mr. Gisborne was intimately associated with public affairs in Derby, and was the ninth member of his family who, during the last 200 years, had filled the civic chair.

THE Cavendish Lecture will be delivered at the West London Hospital on Friday, June 3rd, at 8.30 P.M., by Sir Andrew Clark, the subject being, "On a frequently successful and speedy Method of treating Hay Fever."

THE dignity of Knight Commander of St. Michael and St. George has been conferred on James Hector, M.D., Director of Geological Surveys and Curator of the Colonial Museum for the Colony of New Zealand.

MR. F. BOWREMAN JESSETT, F.R.C.S. Eng., has been elected one of the vice-presidents of the Surgical Section of the International Medical Congress to be held at Washington in September next.

MR. EDGAR M. CROOKSHANK, M.B., has been appointed Lecturer on Bacteriology at King's College, London.

THE LONDON HOSPITAL.

LAST Monday the first lecture of a course on Chemical Pathology, arranged to meet the requirements of fourth year's students, or those who have recently qualified, was given at the London Hospital by Dr. Ralfe. The lecture, which was introductory to the course, dealt with the Relations of Humoral Pathology to Therapeutics. The history of humoral pathology was traced back to the teachings of Galen, and the domination of the idea of black and yellow bile, and their respective influence on the fluids of the body. The general distrust of the Galenic doctrines, or, rather, disgust at their dogmatism, was then alluded to as setting in at the end of the fifteenth century, as preparing the way for the acceptance of the teaching of the iatro-chemical school in the sixteenth century. The rise of the two great schools—the anatomical and the chemical—was then described; how at first there was a hearty union between them, and great anatomists like Sylvius, Willis, and Vieussens, who were also great chemists; how the schools became rivals, and at last deadly enemies. It was interesting to observe, said the lecturer, that the more speculative school—the chemical—was from the first associated with Germany, whilst the more practical—the anatomical—found its chief adherents among the Latin races. He defended the iatro-chemical school against the charges brought against it. The real cause of its failure was its being unable to verify its facts, neither chemistry nor physics being sufficiently advanced to render assistance. Having drawn attention to the importance of applying chemical analysis to animal physiology, the iatro-chemists could do no more than wait till chemistry was sufficiently

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advanced to afford further assistance. Although pathological chemistry was eclipsed for more than a century and a half, it did not die. It was fortunately preserved by the Dutch School of Medicine, which during the whole of the eighteenth century exercised a potent influence over medical thought. It was this school that first made pathological anatomy a science, and took the anatomist from the dissecting-room to the deadhouse. Dr. Cullen, who was a pupil of Boerhaave's at Leyden, was next to see that scientific chemistry, advanced as it was by that time, might play the same part to pathology that anatomy was then doing, and from that time chemistry, no longer attempting to dominate medicine with its speculative views, consented to work as a servant, and chemical pathology has, in consequence, become a recognised science based on experimental facts. "*Chymia egregia ancilla medicinæ, non alia pejor domina.*" One great result of Cullen's teaching was the creation of a school of medicine at Edinburgh, which soon distanced its Dutch rival, and became at the commencement of the century the leading school of medicine in Europe. Dr. Ralfe then proceeded to enumerate the chief results obtained by this union of scientific chemistry with practical medicine during the present century, and remarked that everything was tending to a new alliance with the anatomical school, to unite in work for the common good. After paying a tribute to the work done by Prout, Golding Bird, Bence Jones, and others, the lecturer eulogised Dr. Garrod as the Nestor among the humoral pathologists of the day. Chemical pathology owed him much, not only for the brilliant discoveries he had made and their practical utility, but for the cautious manner and sobriety with which he had advanced his generalisations, and which had conferred such credit on the young and rising school.

ST. GEORGE'S HOSPITAL.

A VERY successful gathering took place at this Hospital on the occasion of the opening of the new physiological laboratories and class room. On May 18th, in addition to the present students, there was a very large attendance of old St. George's men and other friends of the hospital. An interesting address was delivered by Mr. G. D. Pollock, in which he reviewed the various changes and improvements he had witnessed, both in the medical profession generally and in the hospital in particular, during the past fifty years. Congratulating the medical school on its good fortune in having secured the services of Dr. Delépine as lecturer and general superintendent of the physiological department, Mr. Pollock referred at length to some remarks which Dr. Delépine had made to him with regard to this department, over which he now presides: "For a number of years physiological facts have been taught in the form of dogma, the student remaining in ignorance of the simplest methods of demonstrating facts. Hence the facts and the theories arising from them were received on the mere authority of the discoverer, this being taken as equivalent to actual demonstration, and the result was but too often erroneous teaching." Great stress was laid by Dr. Delépine upon the fact that this new laboratory is so fitted and arranged that any student with proper industry can work out for himself all questions which fall within the curriculum, and that it is independent work of this kind which is so profitable. Mr. Pollock then proceeded to give a sketch of the hospital as it was when he entered the Medical School, and dwelt, amongst other advantages which the present student enjoys, upon the fact that house-surgeons, dressers, &c., held their appointments free of charge, an inestimable boon in the case of the house-surgeon or house-physician, who holds his appointment at St. George's for twelve months. Mr. Pollock then introduced the question of increasing the number of house-physicians and house-surgeons in order to meet the daily augmenting work of the hospital. Such a plan for adding to the resident staff would, Mr. Pollock said, receive his hearty support, as conducing alike to the welfare of the patients and the better education of those who are to form the rank and file of the medical profession. Mr. Pollock concluded an instructive address with a few words of advice to the students, and a graceful compliment to the dean of the school, Dr. Wadham. Those present, at the request of the dean, then proceeded to inspect the new laboratory, where Dr. Delépine made a few physiological experiments with a view of showing the capabilities of the building for the purpose for which it was intended. A subsequent adjournment to the museum for refreshments concluded the meeting, which had been agreeable and satisfactory to all concerned.

MEDICAL ATTENDANCE ORGANISATION COMMITTEE.

AT a meeting of the above committee, held on Tuesday, May 24th, the following resolutions were carried unanimously:—

1. "That it is desirable that hospitals should enter into arrangements for co-operation with provident dispensaries in their neighbourhoods, and that a subcommittee be appointed to prepare a scheme defining the relations that should subsist between them." The following were appointed as a sub-committee to consider this resolution: Sir Spencer Wells, Drs. W. Ord, Gilbart Smith, W. E. Steavenson, J. Grey Glover, Walter Smith, F. H. Alderson, and J. C. Steele; Mr. W. G. Dickenson, Mr. W. Bousfield, Lieut.-Col. Montefiore, and Mr. W. G. Bunn (secretary).

2. "That the governing bodies of hospitals be requested to consider the advisability of attaching a provident branch to the out-patient departments." This resolution having been passed, it was also resolved that the chairman (Sir Spencer Wells) should select a subcommittee to consider the best means to carry it out.

The next meeting of the committee will be held on Tuesday, June 14th.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Jarrow Urban District.—Under the Jarrow Improvement Act 140 notifications of infectious disease were heard of during the past year, and much useful work was done by excluding scholars from houses infected. One section of the Act contains a useful prohibition. It enacts that no person shall cease to occupy any house within six weeks of the occurrence of a case of infectious disease therein without having the house disinfected to the satisfaction of a medical practitioner, or intimating the nature of the disease to the owner; and breach of this provision led to the infliction of a fine during the year. Typhus was twice imported, but it did not spread, and Dr. Munro attributes the low "fever" death-rate of the town, even in such a period of privation as has been gone through, to the considerable sanitary improvements which have been brought about. Amongst the more prominent additions to the sanitary defences of Jarrow is the completion of an excellent hospital for infectious diseases. During a previous year it was found that the bye-laws as to drainage for new buildings had not been observed, and the method of dealing with such cases gave rise to much discussion. As a matter of fact, in any town where much building is going on it is nearly the work of a single officer to see that building bye-laws are duly observed, for constant supervision during the process of building is imperatively necessary.

Bristol Urban District.—Dr. D. S. Davies, who during the last six months of 1886 held the post of medical officer of health in succession to his father, gives an excellent summary in his annual report of the various sanitary circumstances existing in Bristol. On many points details are given which must be of great local value. As regards the water-supply, it is stated to be, in point of quality, above suspicion; but it is to be regretted, in connexion with a special charge which the company have the power to make as to each closet flushing apparatus, that the majority of the out-door closets throughout the city are dependent on hand flushing. As regards the sewers, Bristol is a city without sewer ventilation, and Dr. Davies supports our contention that roadway ventilators are injurious. Much is being done in the direction of efficient house drainage, but additional

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powers are needed, under bye-laws, as to securing proper foundations for houses. In one respect we regret to see so little advance in Bristol. Scarlet fever caused no less than eighty-nine deaths last year—a fatality which indicates a vast amount of sickness. There is a fever hospital, and yet the admissions numbered nine only. It is difficult to understand the grounds on which this hospital is administered as it is, for one of the regulations for admission not only reminds patients that a charge not exceeding £1 a week will be demanded of each such patient, but it goes on to add that this payment "will be enforced" in all cases where such patient or person is able to pay. Anything more calculated to prevent the use of a hospital built and maintained at the cost of the rates, professedly for the public protection, it is almost impossible to conceive, and it is, we assume, largely owing to this statement as to the enforced payment of a comparatively paltry sum of money that so little is done by way of isolation to stay the spread of a disease so fatal and so costly to the community suffering from it. Happily, authorities generally understand that the public interests demand isolation at almost any reasonable cost, and the question of procuring repayment is rarely entertained to any noteworthy extent.

Spilsby Rural District.—In connexion with an account of the infectious diseases which have come under notice during the past year, Dr. F. J. Walker refers to the advantages of notification, isolation, and disinfection. As regards isolation, he believes that the plan hitherto adopted, of taking cottages as hospitals as occasion may require, will still answer the purposes of the district; and it would appear that disinfection is limited to such work as can be carried out in the absence of an efficient disinfecting apparatus. The general description of the several localities in the district affords indication of action needed in the direction of providing proper water, sewers, privies, &c., and of the want of action as regards houses that are a nuisance from dampness or otherwise. The death-rate for 1886 was 17·45 per 1000.

Bedford Rural District.—Dr. Prior calculates the death-rate of this district at 16·27 per 1000 for 1886, and he then proceeds to give some account of the infectious diseases that have prevailed during the year. Small-pox has been held at bay during ten years, and it is earnestly hoped that, even with the risk of fresh importation, this disease may soon become extinct in the district. Diphtheria was to some extent prevalent in Kempston, and owing to the absence of a hospital belonging to the sanitary authority one case was isolated in the Poor-law small-pox building in the workhouse grounds. Dr. Prior presses upon the authorities in the Bedford Union the necessity for some central hospital on the block system, and adapted to serve the requirements of their districts.

Wem Rural District.—Dr. Giles reports that scarlet fever was widely prevalent in the district during the last six months of 1886, and he refers to the need for notification of such diseases. He points to the strange anomaly that if a farmer can trace the loss of one of his pigs to the fact that a neighbour has failed to give notice of the existence of infectious disease on his premises the latter is subject to a heavy fine, but if the farmer only loses one of his children from a similar cause there is no penalty. In Wem itself good results have followed from the new arrangements as to the removal of town refuse. In Shawbury the need for a proper supply of water is pressing. Throughout the district the death-rate was 18·9 per 1000.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5701 births and 3594 deaths were registered during the week ending May 21st. The annual rate of mortality in these towns, which had been 20·9 and 19·7 per 1000 in the preceding two weeks, rose again last week to 20·3. During the first seven weeks of the current quarter the death-rate in these towns averaged 20·6 per 1000, and was 1·9 below the mean rate in the corresponding periods of the ten years 1877-86. The lowest rates in these towns last week were 12·3 in Wolverhampton, 14·2 in Leicester, 14·9 in Sunderland, and 15·2 in Halifax. The rates in the other towns ranged upwards to 28·1 in Preston, 28·8 in Oldham, 29·2 in Norwich, and 31·1 in Manchester. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 548 and 500 in the preceding two weeks, rose again last week to 532; they included 237 from measles, 158 from whooping-cough, 48 from scarlet fever, 47 from diarrhœa, 22 from diphtheria, 19 from "fever" (principally enteric), and only 1 from small-pox. No death from any of these zymotic diseases was registered during the week in Wolverhampton; whereas they caused the highest death-rates in Newcastle-upon-Tyne, Norwich, Salford, and Oldham. The greatest mortality from measles occurred in Newcastle-upon-Tyne, Manchester, Oldham, Salford, and Norwich; whooping-cough in Birmingham, Oldham, and Blackburn; and scarlet fever in Preston, Salford, Halifax, and Blackburn. The 22 deaths from diphtheria in the twenty-eight towns included 12 in London, 2 in Liverpool, 2 in Salford, and 2 in Oldham. Small-pox caused 1 death in London, but not one in any of the twenty-seven large provincial towns. Only 5 cases of small-pox were under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease; no new case was admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 348 and 294 in the preceding two weeks, further declined last week to 289, and were 25 below the corrected average. The causes of 79, or 2·2 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bradford, Cardiff, and in four other smaller towns. The largest proportions of uncertified deaths were registered in Hull, Halifax, Sheffield, and Huddersfield.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 31·3, 36·6, and 24·4 per 1000 in the preceding three weeks, rose again to 25·4 in the week ending May 21st. During the first seven weeks of the current quarter the death-rate in the city averaged 30·4 per 1000, the mean rate during the same period being but 18·5 in London and 19·5 in Edinburgh. The 172 deaths in Dublin last week showed an increase of 7 upon the number in the previous week; they included 8 which were referred to measles, 6 to whooping-cough, 5 to scarlet fever, 4 to "fever" (typhus, enteric, or simple), 1 to diarrhœa, and not one either to small-pox or diphtheria. Thus 24 deaths resulted from these principal zymotic diseases, against 19 and 20 in the preceding two weeks; they were equal to an annual rate of 3·5 per 1000, the rates from the same diseases being 2·5 in London and 2·4 in Edinburgh. The fatal cases of measles, which had been 11, 6, and 9 in the preceding three weeks, were 8 last week. The deaths from scarlet fever, whooping-cough, and "fever," on the other hand, showed an increase upon recent weekly numbers. The deaths of infants corresponded with the number in the previous week, while those of elderly persons showed a further decline. Three inquest cases and 5 deaths from violence were registered; and 51, or nearly a third, of the deaths occurred in public institutions. The causes of 17, or nearly 10 per cent., of the deaths registered during the week were not certified.

ZYMOTIC DISEASE IN AUSTRIAN TOWNS.

We recently called attention to the high rates of mortality that prevailed during last year in the Austrian towns, having a population exceeding 10,000 persons. The forty-nine towns embraced by this return had an estimated aggregate population of rather more than two millions and a half in the middle of 1886; and the mean death-rate in the year was equal to 31·7 per 1000, against 20·9, which was the mean rate in the twenty-eight large English towns, with an estimated population of more than nine millions. Thus the average population of the forty-nine Austrian towns was little more than 50,000, while the English towns had a mean population more than six times as great. A comparison of the mortality from the principal zymotic diseases in the Austrian and English towns throws considerable light upon this marked difference of mortality. The deaths from the principal diseases of this class caused a mean death-rate of 5·11 per 1000 in the Austrian towns, whereas in the English towns it was but 2·88. Small-pox caused 1015 deaths in the Austrian towns, equal to 0·38 per 1000, while only 70 deaths from this disease occurred in the twenty-eight English towns, giving a rate of but 0·01. The rates from measles and scarlet fever in the Austrian towns differed but slightly from the rates in the

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English towns; while that from "fever" was 0·33, against 0·23 in the English towns. The death-rate from whooping-cough, however, which was 0·53 in the English towns, did not exceed 0·21 in the Austrian towns. Diphtheria and croup caused 2233 deaths in the Austrian towns, equal to a rate of 0·83, which was more than five times the rate in the English towns. It should be borne in mind that in the disease classification now used in England croup is not classed with diphtheria, but, after due allowance for this cause of difference, diphtheria mortality is undoubtedly very much greater in Austria than in England. In Trieste and in sixteen other smaller towns the death-rate from diphtheria in 1886 exceeded 1 per 1000; and in a smaller town, Drohobucz, with a population of 18,896, the death-rate from this disease exceeded 3 per 1000. The mortality from diarrhœal diseases also accounted for a considerable proportion of the excess of mortality in the Austrian towns. The mortality from these diseases, which did not exceed 1·16 per 1000 in the English towns, was equal to 2·62 in the Austrian towns: it should be noted that 0·22 was referred to cholera; but if this be excluded, the diarrhœal rate in Austria was more than double the rate in the English towns. The Austrian return also shows a remarkable excess of mortality from inflammatory diseases of the respiratory organs and from phthisis, the rates from these diseases being equal to 3·75 and 6·38 per 1000 respectively. The Registrar-General's Annual Summary does not give similar information for any of the large English towns except for London, where the rate from diseases of the respiratory organs last year was 4·41 and that from phthisis 2·01 per 1000 respectively. Thus inflammatory diseases of the lungs and phthisis caused a death-rate in the Austrian towns greater by 3·71 per 1000 than the rate in London. The return also affords conclusive evidence of a marked excess of infant mortality. It may therefore be safely assumed that the startling excess of mortality last year in the Austrian cities was mainly due to high rates of zymotic and infant mortality, and to excessive fatality of diseases of the respiratory organs and of phthisis, thus affording conclusive evidence that the excess may be attributed to defective sanitary condition, such as prevailed in most of our largest English towns less than half a century ago.

Correspondence.

"Audi alteram partem."

THE COLLEGE OF SURGEONS' EXAMINATIONS.

To the Editors of THE LANCET.

SIRS,—The very large proportion of failures at the examination in Surgery at the Royal College of Surgeons is too important a matter to be allowed to drop from the notice of the profession, and it is to be hoped that the prominence you have given to it will be the means of eliciting the opinions of those best able to judge. I do not propose to ask whether the fault lies at the door of the students, of their teachers, or of their examiners, although it is doubtful if the teaching of surgery were ever carried out with greater care and thoroughness than now, while the students of to-day are certainly not less industrious than their predecessors. Having often availed myself of the privilege of Fellows of the College to be present at the surgical examination, I will ask to be allowed to mention one or two features of the examination which, I believe, account in some measure for the distressing proportion of failures.

I think all examinees will admit that *vivâ voce* examination is more trying and embarrassing to a candidate than is a written paper, and the fact that the paper only carries one-third of the total of marks at the College of Surgeons makes this examination an unusually severe test. I am aware that very strong arguments are urged in support of the present system, and I do not suggest that it should be altered; but I submit that every care should be taken to diminish the evil of the system, and to eliminate from the *vivâ voce* examination the elements of chance which all must admit are very prone to characterise it. Special pains ought to be taken to put a candidate at his ease by commencing the examination with some simple questions. It is obvious that a "time limit" introduces a special difficulty, and it seems to be a pity that there are no means by which the examiners can prolong the examination of slow students or shorten that of obviously quick and proficient ones.

Another difficulty that candidates have to contend with is the low scale of marking. It must often be impossible to decide whether a given candidate should have two or three or four out of a possible five, and for the simple reason that twenty-five or thirty-five out of fifty really represent the value of his answers. This is a matter that might be easily altered, and I cannot help thinking that it would tend to make the examination more satisfactory. But, Sirs, these are, after all, minor points, and I would submit that the main requisite is, as you mention in your article, greater attention to the art of examining. It should be more generally recognised than it is that it is not an easy matter to examine well and so to frame questions as to at once show the examinee their purport. So far as my experience goes, the main complaint of candidates at the College of Surgeons is that they mistake or quite fail to understand the meaning of examiners' questions, and I am confident that there is much that is just in this complaint. If examiners would prepare for the examination with a tithe of the care they demand of the students, I should confidently anticipate a marked diminution in the percentage of "plucks," and a fair approximation of the result of the examination to the actual state of the students' knowledge.

I should like to add, in reference to Mr. Heath's letter, that his statement that the standard of the examination has been lowered of late is quite contrary to the general impression in metropolitan medical schools, and is quite opposed to the confident opinion of at least one of his colleagues in the Court. Mr. Heath's explanation of the large percentage of failures in the recent examinations is hardly satisfactory, for, of course, the number of reappearances is dependent upon the number of men "plucked" at previous examinations.

I am, Sirs, your obedient servant,

May 24th, 1887. A. PEARCE GOULD.

To the Editors of THE LANCET.

SIRS,—Your leader of May 14th has, I am sure, been read with pleasure by many who are interested in the welfare of the College of Surgeons, and especially by those who have had a practical experience of its late final examinations. Having undergone this experience on four occasions (the fourth only being a "lucky" one), a few remarks from a candidate's point of view may be of service, if taken together with the letter from the pen of Mr. Christopher Heath, contained in THE LANCET of last week. Credited with two years profitably spent under the old apprentice system at a county infirmary—twenty-one months of provincial and fifteen months of metropolitan hospital attendance on the one hand, against three rejections at the Royal College of Surgeons' final examination on the other, —I have, needless to say, long since come to the conclusion with Mr. Heath, that at this examination "one man may be lucky, &c."; but many will not agree with him when he goes on to say that he fails to see, "human nature being as it is, how it is to be avoided." Again, Mr. Heath writes that "a good deal has been done to improve the College of Surgeons' examination, with the object of gaining less uncertainty, and even in the way of diminished stringency." Yet in the preceding paragraph he tells us that (notwithstanding these improvements) the rate of "pluck" was in January 50 per cent., and in April 51·6 per cent.—a percentage which he attributes to an unusually large number of "reappearances" in January and April. But why should a man who has the misfortune to be referred, and has spent that term of reference in honest work at his hospital, be more likely to fail than one who has never experienced the examination, especially when a second appearance is so common? The obvious conclusion to be drawn from these statements seems to be that, whatever improvements have been made, they have not remedied the evil. Your leader above referred to, I believe, rightly attributes the uncertain results of these examinations to the "comparatively high value set upon the oral examinations," and especially to the fact that the "personal equation plays a prominent part" in the result. To this may be added the different standards which exist at the various tables, and the fact that in the clinical examination one candidate may be given six or seven or even nine cases to diagnose, whilst

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another is kept during the same time at two. He who makes a correct diagnosis in four out of seven cases has an advantage over his more unfortunate fellow-candidate who succeeds only in one of two cases. When there is more uniformity, not only in the number of clinical cases allotted to each candidate, but also as regards the nature of the questions in the oral examination, and above all in the method of marking in that department, then, and not till then, may we expect uniform results. By all means let a high standard of proficiency be maintained, but if this can only be done by the sacrifice of justice, the sooner means are taken to remove what is becoming a cause of reproach to the College the better, not only for the College, but for all who have the honour to hold its diploma.

I am, Sirs, your obedient servant,

May, 1887. M.R.C.S.

ON THE ADMINISTRATION OF CARBONATE OF LIME AS A MEANS OF ARRESTING THE GROWTH OF CANCEROUS TUMOURS.

To the Editors of THE LANCET.

SIRS,—Dr. Hood's interesting paper in THE LANCET of May 7th encourages me to communicate some details of a case under my own observation which, I think, are to a great extent corroborative of his testimony as to the probable value of lime in cancer.

Rather more than four years ago, my late partner, Dr. Wilson Iles, performed an amputation of the left breast for scirrhus of unusually rapid growth. The patient, an unmarried lady aged forty-two, was stout and of florid complexion. I was not present at the operation, but I chanced to look in just as the tumour was being examined, and although I had no reason at that time for taking special notice of the matter, I distinctly remember the characteristic "apinoid" section as the mass was laid open. A preparation of this was made, but it has unfortunately been mislaid or lost. I discovered, however, amongst Dr. Iles' microscopic slides one which exhibits some large diptychal cells, which, if I am not mistaken, came from the same specimen. Not the least doubt, as far as I know, was entertained as to the nature of the tumour, but I had no personal connexion with the case until two years later, when I was consulted by the patient, after long delay and hesitation on her part, about the other breast. This presented a tense, incompressible, lobulated enlargement at the lower and outer part, deeply attached, the skin partially adherent and the nipple retracted, with dilatation of the superficial veins and induration of the axillary glands. There was no ulceration and no pronounced constitutional cachexia, but the expression was careworn and anxious. She complained of acute lancinating pain, radiating from the nipple, and it was only to obtain such temporary relief from this as would allow her to sleep at night that she appealed to me, since she declared most positively that nothing would induce her even to listen to the suggestion of another operation. Neither she nor I doubted for a moment that the cancer had recurred, though from the increased rapidity of its growth, as well as from certain sensations elicited by palpation, I was led to suspect that it was rather of an encephaloid than a scirrhous character. I prescribed a little chloral and sundry anodyne applications, which were varied from time to time, being of little or no effect. For several months I had no conversation with the patient, but I judged from her physiognomy that the disease was making its usual hideous progress. Shortly after this, at a meeting of the West Herts Medical Association, I heard from Dr. Hood of the calcined oyster-shells. Greatly impressed with the desirability of affording so simple and innocuous an agent a trial, I sought out the lady, and, disregarding her prohibition ever to mention the subject, I told her that there was a remedy which might cure her if she would steadily persevere with it for at least a year, which might fail, but which could not possibly in either event do her any material harm. Obtaining her promise to take this regularly without further question, I supplied her with a quantity of dried carbonate of lime, adding thereto 2½ per cent. of the phosphate, to imitate the product of the shells as nearly as possible. I have since been told by Professor Attfield that the true proportion should have been about 1 per cent. Of this she was to take as much as would lie heaped up on a sixpence three times daily, in a dessertspoonful of milk; stirred up in a larger quantity of fluid, a great part of the powder settles before it can reach the lips, and is apt to be overlooked at the bottom of the cup, while a dessert-spoon is introduced bodily into the mouth and the milk hides the disagreeable appearance of the lime. Last week I examined the breast for the second time. The lime has been administered now for nineteen months, with very rare omission of the daily doses. During that time I have purposely avoided any allusion to the matter, and have congratulated myself on the patient's own reticence. But I have remarked that her countenance has been more placid and content during the past year, and that she has long since ceased to write to me for soothing lotions or liniments. The growth of the tumour is undoubtedly arrested. I do not like to say positively that its bulk is diminished, because I took no actual measurements, and two years is a long time to retain a mental impression which may be relied upon for comparison, but I am decidedly of opinion that it is smaller. Whether this and the result generally proceed from simple mechanical diminution of vascularity, or more remotely by alteration of nutrient innervation, I do not pretend to know; but there is certainly a healthier aspect of all the surrounding tissues. The implication of the skin and retraction of nipple still persist, of course, but no tenderness remains, or the slightest appearance of any proneness to ulceration. I should add that there is no apparent evidence of calcification.

It is somewhat curious that burnt and powdered oyster-shells are held in great estimation as a remedy for various ailments and injuries in many parts of the world. Certain tribes of South American Indians make pills of this substance, which they swallow as a preventive of hunger on long journeys, and it was thought at one time, like chopped-up hair, to augment the sustaining virtues of pemmican.

I am, Sirs, yours truly,

Watford, May 14th, 1887. ARTHUR STRADLING, M.R.C.S.

THE TREATMENT OF RINGWORM.

To the Editors of THE LANCET.

SIRS,—During the early part of my medical career, I served the time-honoured apprenticeship of five years. The family consisted of the usual number of adults and two little children. These children were unfortunate enough to catch ringworm of the scalp (nobody knew how), and notwithstanding the application of every known or suggested remedy, they managed to keep the disease for nearly three years. It was with peculiar pleasure, derived from old reminiscences and experience, that I read your recent leading article on the subject, which so accurately detailed all the troubles incident upon that nasty disease. Now the nature of the disease is well known, and you will think I make a bold assertion when I say that the disease is to be cured with one application, and without the unsightly shaven head.

In the first place, the remedy must be in the hands of the medical attendant alone; secondly, procure a rough brush of the prescribed pattern, best represented by a penny gum brush with the bristles cut very short; then take a sufficient quantity of pure glacial carbolic, warm and liquefy it in a watch glass, and then rub it into the roots of the hair until all is thoroughly touched and no further application is necessary; but the head may be washed from time to time, when necessary, with a lotion of sulphurous acid. The principle is to destroy the spores of the fungi which cause the disease. Have clothes disinfected.

I am, Sirs, yours truly,

Leamington, May, 1887. F. E. WILKINSON, M.D.

RANK OF MEDICAL OFFICERS IN THE ARMY.

To the Editors of THE LANCET.

SIRS,—Although the subject of the rank of medical officers in the army has been lately well ventilated in your columns, perhaps you will kindly let me trespass very briefly on your space to endorse most thoroughly the views so clearly and tersely put forward last week by "Brigade Surgeon." I have recently had opportunities of discussing the question of honorary rank with many senior officers of the department, and I am glad, for our credit's sake, to find that one and all scout the notion of purely military titles being thrust

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on us. Speaking, then, for many of my brother officers, I say, we do *not* want to be captains and colonels; we do *not* want to sink our profession by adopting titles utterly incongruous; we do *not* want (putting it plainly) to become the laughing stock of the army. I should like to assure students and others who contemplate entering the medical service of the army that they need not for one moment be dissuaded from doing so by this question of rank. If a medical officer is a gentleman in the true sense of the word, as well as a careful, painstaking professional man, he is sure of the respect and esteem of his military brethren; his status and rank as an army surgeon are accorded him, and he need never wish to sail under false colours. This is my experience after twenty-five years happily spent in Her Majesty's service. I am, Sirs, yours obediently,

May 24th, 1887. ARMY SURGEON.

THE UTILITY OF DRUGS IN THE TREATMENT OF DISEASE.

To the Editors of THE LANCET.

SIRS,—As a general practitioner, I cannot allow Sir Wm. Gull's remarks, made at the meeting of the General Medical Council on May 12th, to pass unnoticed. For a man of his position, thought so highly of by the public as he is, to make the statements that "people did not get well by drugs," and that "it was the duty of the medical man not to give drugs," was, to say the least, injudicious, not to use a stronger term. It would be absolutely wasting the space of your valuable paper to argue against such utter nonsense, as the value of drugs in certain diseases is beyond all question. Sir Wm. Gull said that the Prince of Wales, when suffering from typhoid fever, did not have four doses of medicine; but we know that, of all severe diseases, typhoid fever is the one above all others that requires little or no medicinal treatment. Sir Wm. Gull also considers a warm bed when you are sick better than all the general practitioners. It would be interesting to know whether he considers a warm bed when you are sick better than all the consulting physicians, because, if he does, it is quite evident he has found a panacea for all ills—viz., a bed and a warming pan. I am, Sirs, yours truly,

Streatham, S.W., May 24th, 1887. GEO. STEELE PERKINS.

ENTERORAPHY.

To the Editors of THE LANCET.

SIRS,—I should not have ventured to trespass on your space, after your full account of the meeting at the Medical and Chirurgical Society, had not the time at my disposal for replying to the discussion been so limited that I was forced to omit, or pass very rapidly over, points which deserved much more notice. I shall be glad if you will allow me the opportunity of making these clearer. And, first, the objection raised as to the respective length of time taken by the performance of Lembert's and my own suture. Is it reasonable to compare the time taken to use Lembert's stitch by a surgeon accustomed to use it with the time taken by the same surgeon in using mine, to which he is not accustomed? Moreover, the risk to the patient in these operations is not so much in the length of time which the entire operation absorbs, although that is important, as in the length of time during which the bowel is outside the abdomen, and exposed. This dangerous time I claim to be far shorter during the use of my stitch than with any other, for whilst my own can best be done with only the cut ends exposed at the level of the skin wound, the whole of the rest being reduced, no other stitch can safely be used in this position; in which case the bowel wall lying outside is further irritated by the constant friction produced by the removal and replacement of warm towels, sponges, &c., to say nothing of the ever-varying temperature to which it is thereby subjected. With regard to the total penetration of the bowel by the stitch, as opposed to the partial one of Lembert, I should like to point out that sutures are useful for two reasons, the latter of which appears to be overlooked: first, as a means of approximating tissues designed to unite; and, secondly, as a means of exciting plastic inflammation in those tissues, and thereby securing their union. Union of the intestine has two distinct stages, in each of which distinct tissues are involved; in the choice of a method of suture regard should be had to both. The first epoch is occupied by the union of the peritoneal surfaces; this is apparently immediate, or almost so, but temporary. During this period the plastic lymph effused covers in any sutures which may be used; but the point here is that, in so far as stitches and knots irritate a peritoneal surface, so far and so much adhesion from effused lymph is to be expected. Now, whilst this is wanted between the opposed surfaces of divided ends, it is not wanted between these and the peritoneal surfaces of viscera and abdominal wall around, where adhesion would be harmful. It will readily be appreciated that whilst the knots in Lembert's stitch are outside the bowel, and so tend to excite such production of plastic lymph on the neighbouring surfaces, forming subsequent adhesions, which will be more or less permanent in proportion to the length of time during which these sutures remain *in situ*, in my stitch the knots and threads are separated from the new-formed peritoneal sac by the whole thickness of the bowel, and therefore can have no such action. Inasmuch as all sutures pass at last into the lumen of the bowel, and not into the peritoneal cavity, it is unnecessary to speculate whether or not they could do any harm there. But the secondary or permanent union takes place by connective tissue formed partly from the cellulo-fibrous layer of Gross, and partly from the subserous layer. Gross himself, in describing his experiments on animals and their results, pointed out that the main permanent union was due to the action of the cellulo-fibrous layer, and the microscopical sections shown by me demonstrate perfectly this fact, as well as the share taken by the subserous layer. Now, bearing in mind the second reason for the use of sutures, is there not an advantage in the passage of the suture through both these layers in the production of a firm and satisfactory result? The comparison between the ligature around an ovarian stump and these sutures is manifestly no parallel at all. The conditions are absolutely different. In the one a stump is left which is no longer to have any further office to perform in the economy; and the more thoroughly this is bound down by adhesion, so long as no band is formed under which a loop of bowel may be caught, the better. In the other, an attempt is made to restore the *status quo ante* in an organ, one great essential in the efficiency of which is its complete freedom of movement: in proportion as this is obtained will the operation be really successful. It will be seen at once that this comparison will not hold water. Moreover, in any case in which symptoms of sudden obstruction appeared, would not the fact of a previous ovariotomy, other things being equal, lead the surgeon to suspect internal strangulation under a band resulting therefrom?

This letter is already too long, or I should have liked to answer also the objection to operations on dogs; but doubtless such answer is perfectly apparent.

I am, Sirs, yours truly,

G. STANMORE BISHOP, F.R.C.S. Eng.

Manchester, May, 1887.

FORK SWALLOWING.

To the Editors of THE LANCET.

SIRS,—Cipriani, to whom you referred in a recent number, while imitating the exploits of a juggler in swallowing a fork, some sixteen years ago, allowed it to pass into his œsophagus beyond his control. After various attempts at extraction, made by himself, his friends, and his wife, he was, on the following day, transferred to the Ospedale de Santa Maria Nuova, where also all efforts at removal were unavailing. Several ingenious instruments were invented for the purpose, but failed. He remained in the hospital for five weeks, suffering more or less inconvenience, moral as well as physical, for the public were divided in opinion, some proclaiming him only a fool, others an impostor. A year or so afterwards, having produced severe pain, hæmorrhage, and other untoward symptoms, it was ascertained that the fork had effected its exit from the stomach, and passed into the intestines, accompanied with a relief to the more urgent phenomena; motion, however, occasioned severe suffering. He now wandered from place to place, a subject of interest to some, of ridicule to others, till three or four weeks ago he was attacked by acute pleurisy of the right side, terminating in effusion, and was admitted into the Ospedale di San Giovanni di Dio. Recovering from this, attention was again directed to "the

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fork," which was discovered in the right iliac fossa, pointing obliquely upwards to the left side. It was evidently fixed in this situation, for palpation effected no change in its position, and considerable enlargement could be detected in the immediate neighbourhood. After long hesitation, he consented to an operation, which was performed by the distinguished surgeon, Professor Rosati, aided by his skilful assistant, Dr. Catani. An incision was made extending from an inch and a half below the umbilicus perpendicularly down to the pubes, and after considerable difficulty the fork was extracted from the ascending colon, the blunt end pointing upwards. There had been long and constant inflammation, as was proved by the great thickening of the bowel, adjacent tissues, and the firm adhesion of the colon to the abdominal parietes. The bowel was opened, the edges secured to the abdominal integuments, and the wound dressed in the usual way. The fork measured twenty-two centimetres, and presented but little erosion; for though the plating had disappeared, the extremities retained their original defined outlines. The time could not be calculated which it had taken in reaching its ultimate destination, but probably many years, judging from the condition of the surrounding textures. The patient bore the operation well, and was very anxious to secure possession of the fork as conclusive evidence against his detractors. There has been no fever or unfavourable symptom, and the wound is nearly healed, there remaining only a small fistulous opening communicating with the intestine. I will not take up your space by any remarks on this strange history of the journey of a fork.

I am, Sirs, yours truly,

Florence, May 9th, 1887. WILLIAM WILSON, F.R.C.P. Lond.

A SUGGESTED IMPROVEMENT IN ETHER INHALERS.

To the Editors of THE LANCET.

SIRS,—The object of this letter is to call attention to the fact, as it appears to me, that the arrangement of anæsthetic inhalers has not kept pace with discoveries in medicine, at all events of the bacteriological branch, and to suggest one remedy which seems to me successful so far as Clover's ether inhaler (than which I know none better) is concerned. Almost as soon as I commenced to administer ether, it struck me that for patient after patient to respire air from a bag which in the meantime had not been cleansed was certainly an indelicate proceeding. If patients were aware that they were doing so, many of them would object to submit to it. But it was not until I was one evening listening to a discussion on tubercle at the West London Medico-Chirurgical Society that it occurred to me that this repeated use of the same bag was also possibly injurious, for most believe now in the tubercle bacillus, and practically there is, it seems to me, every facility for its getting into the air-bag of an ether inhaler, such as Clover's, supposing the patient using it to be suffering from phthisis, possibly undiscovered. Again, patients may be anæsthetised while developing infectious zymotic disease, and I am not sure that in this way such diseases may not have been propagated. If these premisses are conceded, what is the remedy? I am informed by an eminent physiologist that the ether would not render the bacillus or germ inert. Well, then, the apparatus should be cleansed. This is not difficult, except as regards the air-bag, and the improvement I would suggest is an india-rubber bag the same size as that now in use, but of as thin a material as possible (it could scarcely be made too thin), so that it may be of so little cost that there would be no hesitation in throwing it away after use, a new one being used for each patient. Messrs. Maw, Son, and Thompson, of Aldersgate-street, have been very kind in preparing samples of the proposed bag for me. It would be possible to keep, say, half-a-dozen of the ordinary bags going—turning them inside out after use, cleansing and drying them before use again; but this would be less certain and more troublesome than renewing the very much cheaper bag which I have described. I am, Sir, yours obediently,

RICKARD W. LLOYD, M.R.C.S.,
Anæsthetist to the West London Hospital.

Russell-road, Kensington, W., May, 1887.

VACCINATION GRANT.—Mr. T. H. Tidswell, of Morecambe, Lancaster, has received the Government grant for successful vaccination (fourth time).

LIVERPOOL.

(From our own Correspondent.)

THE ASSIZES.

THE criminal business of the Spring Assizes for South-west Lancashire has just concluded, having been of nearly three weeks' duration. The medical officers of H.M. Prison at Walton will have a considerable addition to their already large experience of corporal punishment, Mr. Justice Day having ordered the punishment of the "cat" in many cases, combined with a comparatively short term of imprisonment. There were no convictions for murder, but two very aggravated cases of manslaughter: one in which a man set his wife on fire; another in which the prisoner kicked his wife to death. Among the other cases was that of a man charged with throwing a stone at a policeman, which struck him in the left eye. He was taken to the Royal Southern Hospital, where he was attended to by Dr. Dixon, and subsequently on his discharge from the hospital by Mr. F. W. Lowndes, surgeon to the police, and Mr. E. A. Browne, of the Eye and Ear Infirmary. The worst effects of the injury were observed posteriorly, the choroid and retina being torn across. Very little sight remains, the officer being only able to distinguish night from day. The prisoner was acquitted.

HOSPITAL SATURDAY.

The total amount advised to the treasurer up to May 21st was £2132. More returns have still to be made, and it is expected that this sum will be considerably increased.

THE WEATHER.

The unseasonable weather which has prevailed elsewhere has been especially marked here. It may be doubted whether any predecessor of this merry month was ever celebrated with so much influenza, winter clothing, and fires. It has influenced the mortality returns, as might have been expected, elderly people suffering severely from the effects of so unseasonable a spring after a long and trying winter.

Liverpool, May 25th.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

NEWCASTLE EXHIBITION.

ALTHOUGH the weather has been anything but favourable for our Exhibition, the attendance for the past week was over 76,000. There is one circumstance acting adversely—namely, the great strike in the coal trade, which has gone on now for nearly seventeen weeks, causing a cessation of employment to over 20,000 persons; but at last there appears a prospect of this great dispute being arranged. Very little, I fear, is thought of its effect on the medical profession, but it is a heavy loss to all having colliery appointments, as of course there is no pay, and the doctor has more to do, with the exception of accidents, than when the miners are working. Among the models at the Exhibition of interest, I might mention the model dwelling erected under the superintendence of the Model Dwelling Sanitary Committee, to illustrate principles of design, construction, sanitation, decoration, and furnishing—an example of a healthy, convenient, comfortable, and complete detached residence. The model of the floating hospital on pontoons lately described in this correspondence and constructed for the Tyne Port Sanitary Commission, is also full of interest as regards hospital sanitation, and is itself the best hospital model I have ever seen.

THE PRUDHOE CONVALESCENT HOME.

The annual meeting of this Convalescent Society has just been held at its noble home at Whitley. Drs. Philipson and Baumgartner read the reports, which showed that the number admitted during the year had been 1469; of that number, 446 were from Northumberland, 486 from Newcastle, 529 from Durham, and the remainder from Yorkshire and Cumberland. Of the whole number, 1272 were cured, 149 were greatly relieved, 15 were somewhat better, 29 were *in statu quo*, and 4 died. It is pleasant to add that, although the expenses of this beneficent institution had been very

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heavy, the financial year had closed with a substantial balance in the hands of the treasurer. Dr. Philipson may well be proud of the position of an institution to which he has devoted years of labour.

DEATH CERTIFICATES: A CAUTION.

At the Newcastle police court last week, Mr. W. Hardy, a gentleman in practice here, was summoned by the superintendent registrar of Newcastle and district for making out a certificate contrary to the Registration of Births and Deaths Act of 1874. It was shown that Mr. Hardy had not seen the deceased during his life, but he was attended for him by his assistant. It was pleaded that, although there had been some irregularity, it was the practice of some practitioners, when their assistants attended, to sign the certificates, and that the deceased did actually die from the complaint stated in the certificate. The bench, however, held that it was a very irregular practice, and inflicted a fine of £2 and costs. But it should be remembered that often great pressure is put on practitioners by the poor to give them certificates, which are often granted out of pure good nature without fee or reward. Medical men here will, however, do well in future to protect themselves from being placed in a false position and undergoing a very troublesome prosecution.

MEASLES IN THE NORTH.

There is a pretty extensive epidemic of measles at Seaham Harbour. Many adults have been attacked also at Morpeth, where the infant mortality is said to be so severe as to have become a subject of pulpit reference.

Newcastle-on-Tyne, May 24th.

EDINBURGH.

(From our own Correspondent.)

PRESENTATION TO DR. JOSEPH BELL.

LAST week Dr. Joseph Bell was presented with his portrait at a large meeting of his friends and admirers. The presentation was made in the hall of the Royal College of Surgeons, which was well filled, and the meeting was of an enthusiastic character. In opening the proceedings, Dr. Littlejohn referred to the family name borne by Dr. Bell as a household word in the history of surgery in Edinburgh, and spoke of the services rendered to the school and to the public by him during his thirty years' connexion with the Royal Infirmary. This connexion was inaugurated in 1856, when Dr. Bell entered the institution as a dresser, and ended last year, when he retired with the rank of senior surgeon on the acting staff. Mr. Fleming spoke of the warm enthusiasm and respect with which the students regarded their old teacher, and of their appreciation of his great powers as a clinical lecturer. The portrait was then unveiled amidst great applause, and was formally presented by Dr. Argyll-Robertson, President of the College of Surgeons, who presided. Dr. Joseph Bell then expressed his thanks in a few happily framed sentences. The picture is an excellent likeness painted by Mr. J. Irvine, and bears the inscription: "Presented to Joseph Bell, M.D., F.R.C.S.E., on the termination of his appointment as surgeon to the Edinburgh Royal Infirmary, by numerous students of the School of Medicine, and by many professional friends in town and country. 1887."

POST-GRADUATE COURSES.

A meeting of the committee that arranged the series of post-graduate courses held in September and October of last year was summoned for Monday last, when the programme for the course for the coming autumn was discussed and provisionally settled. The demonstrations which were so highly appreciated last year are to be repeated, and their scope in some instances considerably extended. A number of additional courses not included in last year's programme will probably be added to this year's list. The arrangements for the course will be finally completed and published at the end of the present month. The time selected is the same as that adopted last year—viz., the last week in September and the first two weeks in October, a period previously found most fitting the convenience of the lecturers and of those attending their demonstrations.

Edinburgh, May 24th.

DUBLIN.

(From our own Correspondent.)

THE QUEEN'S BIRTHDAY HONOURS.

IN celebrating Her Majesty's Jubilee, it is sincerely to be hoped that the profession in Ireland will not be overlooked in the dispensing of birthday honours, and that both the medical and surgical branches may receive that recognition from Her Majesty's advisers which they are undoubtedly entitled to. Successive Governments have treated the leaders of the medical profession in this country in a niggardly and ungenerous manner, and no excuse can any longer be made for the systematic ignoring of their claims to State honours. Scattering distinctions broadcast in England, and to a less extent in Scotland, while Ireland has been markedly neglected, can scarcely be regarded with equanimity by the members of the profession in this country. Confining my remarks at present to the surgical branch, there is one—a leading member of it—possessed of the highest surgical talent, gifted with great eloquence, and in every respect well fitted to receive a mark of Her Majesty's favour. Need I mention the name of Sir William Stokes, the President of the Royal College of Surgeons in Ireland, whose term of office has been filled in an exceptionally brilliant manner, and who has well deserved the highest honour which the Fellows of his College have conferred upon him. His claims for recognition cannot be disputed, and I am confident they will be favourably considered by Her Majesty's advisers.

ROYAL UNIVERSITY OF IRELAND.

The medical degrees obtained by the successful candidates at the spring examinations of this University were conferred last week by the pro-Vice-Chancellor, Sir Robert Kane.

ROYAL COLLEGE OF SURGEONS.

A meeting of the Fellows will be held on Saturday, June 4th, to receive the report of the Council for the past year; and on the following Monday the annual election of office-bearers for the ensuing year will take place. In addition to the names of candidates already mentioned for a seat on the Council may be added that of Mr. William Frazer, for many years a member of the Court of Examiners of the College.

THE QUEEN'S JUBILEE: BANQUET BY THE INCORPORATED LAW SOCIETY.

Sir William Stokes, President of the Royal College of Surgeons, responded to the toast of "The Medical Profession" at the banquet given by this Society on Monday last in honour of Her Majesty's Jubilee. He said that it was deserving of recognition, not alone on account of the fact that its great aims and objects were the alleviation of suffering, but also because it furnished an arena for the cultivation of all the sciences which might directly or indirectly tend to promote human good; and there was another reason—because it counted among its ranks so many who are devoted to works of mercy and of charity, and who are and had been true citizens and loyal men. It was a subject of congratulation to him that his tenure of office as President of the Royal College of Surgeons had been contemporary with two great events—the Jubilee year, and the union recently formed between the two great medical corporations, the King and Queen's College of Physicians and the Royal College of Surgeons. This union he looked upon as an official recognition of the fact that the barrier which had been erected years ago by foolish men, separating medicine and surgery—a barrier productive of much mischief, which tended to promote division, and which kept the two professions powerless and weak—had been shattered by the unerring artillery of common sense. Now that this union had been effected, they might look to the realisation of that which was their great aim and object—this mutual overlapping of their work, which would lead to unity in medical science.

MEDICAL MAGISTRATES.

Brigade Surgeon T. Barnwell, retired A.M.D., has been placed on the Commission of the Peace for co. Dublin.—T. J. Stafford, M.D., of Tangier, Boyle, has been appointed to the Commission of the Peace for co. Roscommon.

Dublin, May 24th.

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BELFAST.

(*From our own Correspondent.*)

QUEEN VICTORIA CONVALESCENT HOME FOR CHILDREN.

A SHORT time ago the committee of the Children's Convalescent Home in connexion with the Belfast Hospital for Sick Children made a request, through Mr. Wm. Ewart, M.P., to Her Majesty the Queen, soliciting her patronage and permission to use her name in connexion with the Home. An answer has now been received to the effect that Her Majesty has been graciously pleased to command that the said institution shall be known as "The Queen Victoria Convalescent Home for Children." The amount required to build and endow the home is £3300, and already the sum of £1240 8*s*. 5*d*. is announced as received or promised. A pleasing feature in this movement is that the working men are co-operating with the committee, and have arranged to have collections in the various manufactories in and around Belfast.

ACCIDENT TO MR. STEWART OF GLASSLOUGH.

About three weeks since, Mr. Stewart of Glasslough sustained a fracture of the leg in the neighbourhood of the ankle joint, and, after an attempt at saving the limb had been made, it was found necessary to amputate. Mr. Hall and Mr. Young of Monaghan, Mr. Palmer of Armagh, and Mr. Huston of Tynan have been attending him, and I understand he is doing well. About the time the accident occurred arrangements were being made to present him with a testimonial, a sufficient indication of his popularity in the dispensary district of Glasslough, and this has now been done.

BELFAST ROYAL HOSPITAL.

From the report presented at the quarterly meeting held on May 23rd, we learn that during the past three months there were 499 in-patients, 233 medical and 216 surgical; while during the same period 3260 out-patients received treatment. The expenditure of the hospital up to the end of April has been £5938 0*s*. 3*d*., and this added to the debt at the close of last year of £1048 8*s*. 2*d*. makes a total expenditure of £7086 8*s*. 5*d*. The receipts from all sources have been £9804 4*s*. 4*d*., but of this sum the bequests (£3500) have been invested, so there remains an excess of expenditure over income at the end of April of £682 4*s*. 1*d*. The board state that the hospital is in all its departments in a most efficient condition. As explained before, one of our merchant princes, Mr. Foster Green, has offered to build a wing for the treatment of consumptive cases on condition that a sum of £15,000 is raised to endow the hospital, so that this department would not be a drag on the institution. Between £7000 and £8000 have been raised, and it is hoped that before the end of the year, the time up to which Mr. Green's offer extends, the remainder will be subscribed.

Belfast, May 24th.

VIENNA.

(*From our own Correspondent.*)

THE ILLNESS OF PROFESSOR BILLROTH.

THE state of Professor Billroth, who is suffering from bronchitis capillaris and pneumonia catarrhalis, was very serious on Friday last. There was considerable debility of the heart's action, and a catastrophe was feared. But after inhalations of pure oxygen the patient had rallied by the next day. The bulletin just published is confirming the hope of a speedy recovery of the illustrious surgeon. He felt himself greatly relieved, the appetite was good, and he slept soundly for some hours.

THE VIENNA HOSPITAL QUESTION.

A great deal of public excitement was recently caused by a speech of an Austrian deputy, Herr Pernerstorfer, on the bad condition of the Vienna General Hospital. An endless series of grievances relating to the bad boarding and nursing of the patients was animadverted upon. The Government was induced to order an inquiry on the state of the affairs, and the physicians of the General Hospital have been examined by a commission consisting of officials of the Government (*Statthalterei*). So far as I can gather, the statements made by Herr Pernerstorfer on the mismanagement prevailing in the General Hospital seem to be proved by the evidence obtained from the physicians of the hospital. The examinations are continued daily. By a decree of the governor of Lower Austria the introduction of a book of grievances in all public hospitals has been ordered. But it is hoped that this impracticable measure will soon be withdrawn. The director of the hospital, Herr Hofrath Hofmann, has not as yet asked to be relieved of his duties, as had been reported by the daily newspapers, but having suffered some time ago an apoplectic attack, he obtained sick leave for Baden, near Vienna.

NEW TREATMENT OF GRANULO-FUNGOUS INFLAMMATIONS.

In the clinical wards of Professor Albert I had recently occasion to see some cases exhibiting very favourable results of a new method for treating granulo-fungous inflammations, which seems to deserve the attention of medical practitioners. By theoretical considerations and by experiments made on animals, Dr. Gustav Kolischer, one of the pupils of Professor Albert, has been induced to try the local application of phosphate of lime in cases of fungous disease. The results obtained by this treatment were in all cases highly satisfactory. The medicament, which is prepared by adding phosphoric acid to the water in which the phosphate of lime is dissolved, was administered by injections into the diseased parts, or by dressings impregnated with the salt. The majority of the patients treated with phosphate of lime were children between six and twelve years of age. There were two cases of white swelling of the elbow, with ankylosis, fever, and pain; after six weeks they were cured, with perfect freedom of movement. In another case of fungous disease of the knee with pain, the mobility was partly restored after four weeks' treatment. With similar results some cases of caries manus in children and adults were treated. The most remarkable case was that of extensive destruction of the knee joint by granulo-fungous inflammation in a boy twelve years of age, with hectic fever, severe pains, necrosis, and large cavities in the bones. The cavities having been stuffed with phosphate of lime gauze, recovery proceeded quickly; after three weeks the cavity was filled with fair granulations up to the surface, and the fever and pain ceased. The use of phosphate of lime proved also very efficacious in a case of tuberculous fistula of the rectum, which resulted in perfect recovery. But this remedy has some disadvantages. It exerts a slightly irritating effect, and causes pain, which continues during the first six hours after its application, and is followed by fever, which lasts a day or two.

A NEW AUSTRIAN PHARMACOPŒIA.

As nearly twenty years have elapsed since the Austrian Pharmacopœia was revised, the Minister of the Interior has appointed a commission of physicians and pharmacologists to prepare a new (seventh) edition. Among the new remedies to be recognised in this edition will be acid. pyrogallicum, amylium nitrosum, the bromine salts, antipyrinum, chrysarobinum, cocainum, hydrargyrum tannicum, cortex condurango and C. quebracho, lithium carbonic., mentholum, naphthalum β, naphthalinum, physostigminum salicyl. and sulf., thymolum, vaselinum, pilocarpinum hydrochl.

Vienna, May 22nd.

SCIENCE *EN FÊTE:* THE CONGRESS OF HYGIENE AT FLORENCE.

(*From our own Correspondent.*)

As if sensitive to the charge of a distinguished compatriot that "the Italians are a carnival people," the Florentines, amid the gay and imposing ceremonies that have made their city the resort of the artistic world for half the month of May, have introduced a scientific foil to the festive monotony, and in a "Congress of the Hygienic Societies of Italy" have at once relieved and heightened the enjoyment of the brilliant commemoration of Rossini and Donatello, of the historic *cortège* and tournament, and of the crowning solemnity of all—the unveiling of the façade of their glorious cathedral, the Santa Maria del Fiore. On Sunday, the 8th, in the Hall of the Istituto di Studii Superiori, the sanitary associations of the peninsula held their first Congress, and its promoters have every reason to be

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gratified with the success they have earned. The hall itself, almost severe in its purely academic aspect, was adorned with the insignia of the leading hygienic societies of Italy—those of Brescia, Padua, Turin, Palermo, and Florence herself being conspicuous in the *trofeo*. A numerous and distinguished audience, including many ladies, more than filled it, as the President, Professor Paoli, opened the proceedings, indicating the signal services vouchsafed to the common weal by a sound and well-organised hygiene, and dwelling on the advances Italy has yet to make if she intends to assume her proper place in the State system of Europe. The usual congratulatory speeches and telegrams having been heard from the various representatives of the Government and of the learned societies, the audience rose to visit the "Esposizione d'Igiene"—a splendid assortment of sanitary apparatus and appliances, for which the spacious rooms of the Palazzo Fenzi had been hospitably thrown open. Much interest was taken in the mechanism of Professor G. Koster for the analysis of atmospheric air, a series of experiments being performed to illustrate its efficacy; while attention was equally attracted by the various systems of domestic convenience, from latrines to filters, devised by Italian officers of health.

In the afternoon sitting Professor G. Pacchiotti, who represented Turin, read an elaborate paper on the "Vaccinazione Anti-rabica" of Pasteur, in which he described the methods pursued by the French pathologist, reviewed the results, favourable and unfavourable, on the patients, and concluded by giving a guarded estimate of the system, maintaining that on the whole the good achieved was more than the risk incurred. An animated and discursive conversation ensued, in which Professors Ruata, Calovolo, and Luciani took the chief part.

Monday's proceedings included a discussion of the principal clauses of the New Code of Public Hygiene submitted to the Senate of the kingdom by the Prime Minister Depretis; after which the topics ranged from Italian sanitation in general to that of Florence in particular, and concluded with an interesting conference on the dispensary doctors of Italy, their qualifications and responsibilities, and the need for a higher remuneration of their services, especially in the remoter communes. The demand for a Minister of Public Health was urgently represented by the *conferenziere*, Dr. Benizzardi of Brescia, and the discussion received important contributions from Dr. Faralli of Florence and Professor Pacchiotti, the latter urging the claims of duly qualified lady doctors on the recognition of the State, and arguing that their possession of a diploma in medicine or surgery entitled them to the same offices and remuneration as similarly qualified men. The "Free Exercise of Pharmacy" was another keenly canvassed topic, ending in an almost unanimous consensus in favour of the exclusive rights of the pharmacists. In the evening a great banquet was held in the Sala Cornelio, at which a series of toasts, all tending to the fraternisation of the hygienic societies throughout the peninsula, were eloquently given and heartily acknowledged.

On the 10th, Dr. Bonizzardi, representing Padua, opened the day's business by demonstrating a method of his own for "The Easy Distinguishing of the Carcases of Animals dead from Epizootic Disease." He was followed by Dr. Busi, representing Palermo, on "Cremation as practised in Florence," and by Professor George Koster on the "Carbonic Acid of the Soil and Air of Florence;" after which a visit to Professor Koster's laboratory and observatory and to the Ophthalmological Clinique of Professor Paoli (President of the Congress) closed the proceedings for the forenoon. In the afternoon interesting papers were read by Dr. d'Ancona on "Rural Dwellings"; Dr. Bonizzardi on the "Drainage of Cities"; and by Dr. A. Bianchi on the "Selection of Troops for Service in Tropical Africa." This last led to a very keen discussion, in which Professor Pacchiotti took an able part. "Orders of the day" (as is usual in continental congresses) were thereafter moved and carried, and with a few appropriate remarks Professor Paoli declared the Congress dissolved—the second to be held at Brescia in the autumn of 1888.

THE VACCINATION ACTS.—The Gloucester Board of Guardians has, after a long discussion, decided, by 20 votes to 18, that nineteen persons who were reported for not having their children vaccinated should not be prosecuted, and that in future the vaccination officers shall not take proceedings in case of default without the direct sanction of the board.

Obituary.

JAMES TROUTBECK, M.B.

WE recorded last week the death of this gentleman, who was stricken down by pneumonia when apparently enjoying most robust health. James Troutbeck was a Cumberland boy, and as such was educated at Appleby Grammar School. After completing his school education there he commenced his medical studies at the Edinburgh Infirmary, and supplemented them by a great deal of work at the Carlisle Infirmary for three years. Here he was a great favourite with all; his kindness and gentleness endeared him to the patients, and his diligence and cheerful disposition made him an excellent servant of the institution. He subsequently came south and entered upon general practice at Bushey, and for some years worked laboriously at it. Leaving there, he recently took a practice at Finsbury-park. On Saturday, May 14th, he was in his usual health and retired to bed early. During the night he was seized with severe pain in the chest, and remained in-doors on a couch all Sunday. On the Monday he went into the City and saw his solicitor, and then consulted a surgical friend under the impression he had injured his ribs. It was found, however, that there was pneumonic consolidation of his left lung, and from his general condition grave fears were entertained, which were only too quickly realised; for during the next night he became unconscious and died at midday on Tuesday. His frank generous nature and his unvarying kindness had endeared him to a large circle of patients and friends.

KARL FRIEDLÄNDER.

AT Meran, in the Austrian Tyrol, in his fortieth year, has just died this able pathologist, leaving behind him a high reputation for what he did, and a still higher one for what he was expected to do. Beyond the strictly scientific "inner circle" he was little known; he was never in professional practice; he was a pathological anatomist pure and simple. A native of Brieg, in Silesia, he graduated as Doctor in Medicine in 1869. In 1874 he was assistant in the Pathologico-Anatomical Institute at Strasburg under Professor Friedrich von Recklinghausen—a post which he held for five years. In 1879 he removed to Berlin, where, in the Friedrichshain Hospital, he filled the modest position of assistant superintendent of post-mortem examinations. In the academic scale he never rose higher than a *privat docent*, and only a few months ago obtained the title of Professor, without, however, an official chair. He published from time to time the results of his investigations, his best known book being his "Mikroskopische Technik," a favourite manual with the beginner and even the proficient in microscopy. His other publications include "Researches on Local Tuberculosis" (1873); on "Lupus" (1874); on "Epithelioma and Carcinoma" (1877); and on "Hypertrophy of the Heart" (1881). In the recent investigations into micro-organisms he took an energetic part, his special contribution to the subject being his discovery of a micrococcus, for which he claimed a distinct pathological *rôle* in pneumonia, and which he first described in Virchow's *Archiv*. (1882). This minute germ integer is now referred to in the nomenclature of bacteriology as "Friedländer's coccus." In the fortnightly *Fortschritte der Medicin* he continued his microscopic work with equal energy and ability, and raised that periodical (published by Fischer, in Berlin) to the front rank among German scientific journals. The last number was published the day after its editor's death, which is announced by a few touching words of regret by Drs. Fürbringer, Hahn, Gottstein, and Kornfeld. *Multis ille bonis flebilis occidit.*

SAMUEL R. MOREWOOD, A.B., M.B. (T.C.D.).

WE regret to have to announce the death of this gentleman, which took place on May 26th after a short illness. Mr. Morewood for the past eight years has been medical officer of the Dispensary, Draperstown, co. Derry, and medical attendant of the constabulary. Mr. Morewood was a licentiate of the Royal College of Surgeons of Ireland

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and a graduate in Arts and in Medicine of Trinity College, Dublin. He succeeded his father, who for thirty-two years was medical officer in Draperstown, and it is worthy of note that the same appointment was held by his grandfather for a period of twenty-seven years, so that for the greater part of a century members of the family have been in practice in Draperstown. Mr. Morewood's death, occurring at an early age (thirty-five), has caused very deep sorrow in the neighbourhood where his family have been so long held in the highest respect, and universal sympathy is felt for Mrs. Morewood and the members of his family. The funeral took place on Wednesday.

THE SERVICES.

Deputy Surgeon-General D. A. C. Fraser, M.B., the Principal Medical Officer of the South-Eastern District, has joined the Southern District for duty at the Royal Victoria Hospital, Netley, in succession to Surgeon-General W. S. Murray, whose appointment to Egypt we noticed last week.

Deputy Surgeon-General T. Tarrant, M.D., has handed over his charge at Bangalore and joined in Madras for duty.

ARTILLERY VOLUNTEERS.—3rd Volunteer (Duke of Cornwall's) Brigade, Western Division, Royal Artillery: John Quick, Gent., to be Acting Surgeon (dated May 21st, 1887).—1st Forfarshire: Robert Soutar, M.B., to be Acting Surgeon (dated May 21st, 1887).—1st Dorsetshire: Surgeon C. W. Parkinson resigns his commission; also is granted the honorary rank of Surgeon-Major, and is permitted to continue to wear the uniform of the corps on his retirement (dated May 21st, 1887).—5th Durham: Richard Brown, M.B., to be Acting Surgeon (dated May 21st, 1887).

Medical News.

COLLEGE OF PHYSICIANS IN IRELAND.—At the May examinations the following obtained licences in Medicine and Midwifery of the College:—

MEDICINE.—John Theodore Abbott, Alfred William Bewley, William Grounds Booth, Charles Edward Boyce, William Mitchell Branson, Thomas E. Burrowes, Frederick Norris Burwell, Harry Cartmell, Edward Joseph Cotton, Charles Edward Dawson, Robert Harper Dickson, William Dunbar, Julius Martin Ehrhardt, Cornelius Gerald Fitzgerald, Robert Alexander Flynn, Arthur Goff, William Robert Graves, Henry Bertram Greene, Robert William Harley, John G. Harries, Joseph Thomas Harty, John Henry Lister, George John Lough, Charles John Lyons, William McGeagh, James Magauran, James Hastings Morgan, Oliver Norris, Joseph Edward O'Meara, Andrew William Orr, Pierce Hugh Power, Hugh Roberts, Henry Harlow Sales, Harry Paynter Sloggett, John Edwin Slott, Harry William Smith, Timothy Thaddeus Teahan, George Thorpe, John Westwood, and Thomas Owen Williams.

MIDWIFERY.—John Theodore Abbott, William Grounds Booth, William Mitchell Branson, Harry Carmel, Robert Harper Dickson, Cornelius Gerald Fitzgerald, Robert Alexander Flynn, Arthur Goff, William Robert Graves, Joseph Thomas Harty, George John Lough, Charles John Lyons, Arthur Kennedy Mc Cutcheon, James Magauran, James Hastings Morgan, Oliver Norris, Harry Paynter Sloggett, John Edwin Slott, Harry William Smith, and Thomas Owen Williams.

SOCIETY OF APOTHECARIES.—The following gentlemen, having satisfied the Court of Examiners as to their knowledge of the Science and Practice of Medicine, Surgery, and Midwifery, received certificates entitling them to practise as Licentiates of the Society on May 19th:—

Baxendell, Arthur, Rose Hill, Denton, Lancs.
Clark, Percy John, Margaret-street.
Cockerton, Herbert, St. George's Hospital.
Crowther, Astley Brodie, Laurel Bank, Luddenden, Manchester.
Date, W. Horton, St. Leonard's-place, Moseley, Birmingham.
Elias, James. Essex-road, Sale, Manchester.
Ewbank, William Withers, Hilgrove-road, Hampstead.
Wood, Frederic Charles, Hutton, Brentwood, Essex.

KING'S COLLEGE HOSPITAL.—The annual festival dinner in connexion with this Hospital was held on the 23rd inst., the Lord Mayor presiding, when a list of donations amounting to £1786 was announced by the secretary.

METROPOLITAN CONVALESCENT INSTITUTION.—By the permission of the Duke of Westminster a meeting in support of the interests of this institution was held at Grosvenor House on the 23rd inst. During the forty-seven years in which the charity has been in active operation more than 100,000 patients have been admitted to its benefits, the number last year being 4500.

THE Hospital Sunday collection at West Hartlepool was held on the 22nd inst.

VICTORIA HOSPITAL, BOURNEMOUTH.—At a meeting of the Hospital Committee a few days since it was announced that the subscriptions to the fund being raised for the erection of a hospital in celebration of the Queen's Jubilee had amounted to about £5000, and there was a like sum available for the same purpose from the old Dispensary Committee.

THE sum of £1000 having been offered by Mr. John Geddes towards the building of a new infirmary for Southport, a committee has been appointed to report upon the character, convenience, and structural arrangement of the present infirmary, which is said to be very inadequate to the demands made upon it.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—At the children's service on the 22nd inst. at Berkeley Chapel, Mayfair, the offertory, which amounted to considerably over £100, was collected on behalf of the children's Jubilee tribute for the erection of a new wing to this institution, of which Her Majesty is patron.

AT the forty-second annual meeting of the governors of and subscribers to the Birmingham and Midland Ear and Throat Hospital on the 23rd inst., it was reported that during the past year the income had amounted to £615, a sum which exceeded the expenditure by £129. The total number of cases registered at the hospital during the year was 3243.

DEVON AND EXETER HOSPITAL.—At the annual meeting of the governors of this institution, on the 19th inst., it was reported that during the year 1391 in-patients and 1932 out-patients had been treated. The ordinary income amounted to £7159, as compared with £7252 for the previous year, and the expenditure to £7908, as compared with £8106.

IN an action recently brought in the Loughborough County Court by two medical practitioners for the recovery of fees for professional attendance, the question of the reasonableness of the charges was submitted to Dr. Banfield of Leicester and Dr. Paul of Loughborough. The arbitrators ruled that the charges generally were exceedingly moderate, and one or two items having been struck out, judgment was accordingly given for the plaintiffs.

HOSPITAL FOR EPILEPSY AND PARALYSIS, REGENT'S PARK.—At St. George's Hall on Thursday evening, in aid of this hospital, a grand variety entertainment was given. Not the least interesting part of the varied programme was a gavotte, danced, in costumes of the period, by four ladies and four gentlemen. The entertainment was the first of a series which the friends of the hospital are promoting, with the object of raising a fund of £2500 for the purchase of the lease and the extinction of the debt with which the hospital has for some years been burdened. The hall was well filled, and the performances much applauded.

THE BRITISH MEDICAL TEMPERANCE ASSOCIATION.—The eleventh annual meeting of the British Medical Temperance Association was held at 11, Chandos-street, Cavendish-square, on Tuesday last; in the unavoidable absence of the President, Dr. Norman Kerr took the chair. The annual report stated that there are at present 350 members (all total abstainers), and 72 associates (abstaining medical students). Dr. Kerr read an account of the work of the Dalrymple Home for Inebriates since its establishment three years and a half ago: 103 cases had been admitted, of whom 85 have been discharged, and of these 36 are known to have done well. Dr. Walter Pearce read a paper on a case of acute cardiac dilatation due to alcohol. Dr. J. J. Ridge also showed experiments proving that quantities of alcohol under 2 per cent. promote the growth of bacteria in decomposing fluids, while the same quantities had been proved to be injurious to the growth of constructive protoplasm. — The annual meeting of the Central Irish Branch of the Association will be held in the Royal College of Surgeons, Dublin, on Tuesday, June 7th, at 4.30 P.M. The chair will be taken by the President of the Branch, Deputy Surgeon-General F. L. G. Gunn. Brigade Surgeon F. E. McFarland (President of the North of Ireland Branch), Dr. T. Collins, Dr. Lunn, Mr. R. Morton, F.R.C.S., and Mr. Learson will speak. The meeting is open to all members of the medical profession

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LONDON HOSPITAL.—The ceremony of opening the Nursing Home and new library and other college buildings at this hospital was performed on the 21st inst. by the Prince and Princess of Wales, in the presence of a large and influential assembly.

THE Association for Preventing the Adulteration of Butter in Amsterdam has offered a prize of 1000 florins for the best means of detecting any foreign elements in natural butter made from the milk of the cow.

TOTTENHAM HOSPITAL.—The new wing (Samuel Morley Memorial Wing) of the above institution will be formally opened by the Princess of Wales at 3 o'clock this day (Saturday). This recently completed part of the hospital contains two children's wards, with fourteen cots each; sisters' dining-room; on the first floor, wards for paying patients in separate rooms, and "cubicals"; on the second floor, the operating room, which is reached by a hydraulic lift.

PARKES MUSEUM.—On June 1st and two succeeding Wednesdays, Dr. B. W. Richardson will deliver a course of lectures at the Museum, Margaret-street, on the Medical and Scientific Aspects of the Temperance Question. A very successful series of sanitary demonstrations to the medical profession has just been held in the Museum. The closing demonstration was given on the 23rd inst. by Mr. Percival Gordon Smith, of the Local Government Board, which related principally to the construction and ventilation of houses. On the 19th inst. a lecture was delivered by Major Jamarock Flower, C.E., on "The River Lea," in which he gave a description of the geology of the watershed area and of the navigation of the river from the Danish epoch till the present time.

THE FRENCH HOSPITAL.—The Prince of Wales was present on the 23rd inst. at an assault-of-arms at Willis's Rooms, given in aid of this institution. In the twenty years that the hospital has been open it has given relief to 1400 in-patients and over 100,000 out-patents. A new building, to accommodate double the number of patients, is to be erected shortly in Shaftesbury-avenue, and to this the Queen has given her patronage and a handsome subscription to the building fund. The entertainment on the 23rd was under the patronage of M. Waddington, the French Ambassador, and the company present included many of the leading French and Italian residents in London.

ROYAL UNIVERSITY OF IRELAND.—The following Honours have been awarded to candidates at the recent examinations of the University:—Second Examination in Medicine: Second Honours, Eleonora Lilian Fleury and Thomas Jones; Second Class Exhibition (£20), Eleonora Lilian Fleury. M. B. Degree Examination: First Honours, Ambrose Edward Birmingham; Second Honours, Edmond Joseph M'Weeny and William Westropp White. First Class Exhibition (£50), Ambrose Edward Ignatius Birmingham; Second Class Exhibition (£25), E. J. M'Weeney. M.Ch. Degree Examination: First Honours, John Wallace Watson; Second Honours, William Baird M'Quitty. M. A. O. Degree Examination: First Honours, William Westropp White and William Baird M'Quitty; Second Honours, Eaton William Waters, Edmond Joseph M'Weeney, and Jerome Barry. Doctor of Medicine: Second Honours, W. W. White. Bachelor of Medicine: First Honours, Ambrose Edward Ignatius Birmingham; Second Honours, E. J. M'Weeney. Master of Surgery: First Honours, J. W. Watson; Second Honours, W. B. M'Quitty. Master of Obstetrics: Honours, 1st Class, W. W. White and W. B. M'Quitty; Second Class, E. W. Waters, E. J. M'Weeney, and Jerome Barry.

THE LEVEE.—At a levée held on the 21st inst. at St. James's Palace by His Royal Highness the Prince of Wales on behalf of Her Majesty, the following amongst other presentations were made:—Surgeon J. F. Henry Bottrell, Volunteer Medical Staff Corps; Surgeon-Major George R. Barnes, 3rd Surrey Rifle Volunteers; Surgeon Robert Hippisley Cox, Coldstream Guards; Surgeon Herbert Collier, M.D., Royal Naval Artillery Volunteers; Surgeon William Collingridge, M.D., Volunteer Medical Staff Corps; Staff Surgeon A. G. Delmege, on appointment to Royal yacht *Osborne*; Surgeon A. P. H. Griffiths, Medical Staff, on his return from active service; Dr. J. de Burgh Griffith, of Melbourne; Surgeon Charles H. Hartt, Volunteer Medical Staff Corps; Surgeon Henry St. George Standish Hore, Medical Staff; Hon. Surgeon Edmund Distin-Maddick, Royal Naval Artillery Volunteers; Mr. Alexander O. Mackellar, chief surgeon to the Metropolitan Police Force; Surgeon George Hutchinson Milnes, R.N.; Inspector-General D. M'Ewan, M.D., R.N., on promotion and appointment as Honorary Physician to the Queen; Deputy Inspector-General H. F. Norbury, C.B., R.N., on promotion; Surgeon Herbert Innes Pocock, Medical Staff; Dr. Smith, Vice-President of the Royal College of Surgeons of Edinburgh and Surgeon Dentist to the Queen in Scotland; and Sir William Stokes, President of the Royal College of Surgeons of Ireland. Amongst those present at the levée were the following members of the medical profession:—Drs. M. Baines, Brodie, H. M. Chester, W. M. Collins, Fleming, Ralph Gooding, Lowe, William Moore, Minter, J. D. Macdonald, Poore, W. S. Playfair, Henry J. Strong, Quain, Mark Tanner, Thorne Thorne, George Wilks, Shapurji Aspaniarji Kapádiá, Rastamji Dhanjibhai Sethna, and Mr. Navoroji Manekji.

VICTORIA HOSPITAL FOR CHILDREN.—The twenty-first annual Court of Governors of this institution at Chelsea was held on the 18th inst. Mr. Martin R. Smith, the chairman, remarked that the new out-patients' wing had been completed nearly a twelvemonth, and that about 38,000 children had been treated during the past year.

THE offertory at the special jubilee service held at St. Margaret's Church, Westminster, on the 22nd inst., which has been forwarded to the treasurer of the Westminster Hospital, amounted to £123.

POPLAR HOSPITAL FOR ACCIDENTS.—The thirty-second annual festival in aid of the funds of this institution was held on the 20th inst., Mr. Sydney Buxton, M.P., presiding. The committee desire to extend the Samaritan Fund for assisting patients who have left the hospital and require medical appliances, and also to establish in connexion with the hospital convalescent homes where patients can be sent. They are anxious, too, if possible, to obtain sufficient funds to sever the in-patient department from that for out-patients. At present, in consequence of insufficient accommodation, the out-patients have to be seen in the basement of the building. Over 9000 patients were treated during last year, the number having nearly doubled in five years. During the evening subscriptions amounting to £1405 were announced by the secretary.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—The annual general meeting of this Society was held at Berners-street on May 18th, Sir James Paget, Bart., President, in the chair. The annual report for 1886 was read by the secretary, from which it appeared that the number of members was 343 (twenty less than in 1885); only five new members had been elected, sixteen had died, and nine resigned or ceased to be members. The Society had lost two vice-presidents during the year by the deaths of Mr. Cooper Forster and Dr. Harvey Kempton Owen. The number of widows receiving grants was sixty-four—the same as in 1885; but the number of orphans had been reduced from nine to six, and there were three orphans receiving grants from the Copeland Fund. Five widows had been elected and one orphan. Five widows had died or become ineligible for further assistance, and three orphans had ceased to receive relief, having reached the age of sixteen. The amount distributed in grants had been £2750, and the expenses had been £243. Owing to the want of funds the directors had not been able to make any present to the widows and orphans last Christmas. Two legacies had been received—one of £50, from the executors of Miss Anne Lyne, per Dr. Stokes; another of £300, from Dr. Harvey K. Owen, V.P. The funded property had been increased by the purchase of £146 Metropolitan Consolidated Stock. Mr. Mould was elected a vice-president in the place of Dr. Iliff, deceased, and the following gentlemen were chosen directors in the place of the six senior, who retired by rotation—viz., Dr. Birkett, Dr. H. M. Duncan, Mr. Langton, Dr. J. M. Bright, Dr. F. de Havilland Hall, and Mr. Malcolm Morris; and Mr. Ware, Dr. Quain, Dr. John Clarke, and Mr. Fuller were elected trustees of all the funded property of the Society. A special grant of £26 was made to one widow. Votes of thanks to the editors of the medical journals were carried unanimously, for their kindness in assisting in making known the objects of the Society. It was resolved that the centenary of the Society should be celebrated next year by a dinner. A vote of thanks to the chairman closed the proceedings.

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BOOKS ETC. RECEIVED.

BAILLIÈRE, TINDALL, & COX, King William-street, Strand, London.

Stricture of the Urethra, its Diagnosis and Treatment facilitated by the use of new and simple Instruments. By E. Distin-Maddick, F.R.C.S.Ed. pp. 151, Illustrated by Original Wood Engravings.

Inoculation for Rabies and Hydrophobia. By Surgeon-General C. A. Gordon, M.D. pp. 127.

CHURCHILL, J. & A., New Burlington-street, London.

Abdominal Surgery. By J. Greig Smith, M.A., F.R.S.E. pp. 606, Illustrated.

Practitioner's Handbook of Diseases of the Ear and Naso-pharynx (Third Edition of the "Aural Surgery"). By H. Macnaughton Jones, M.D., M.Ch. pp. 176.

The Student's Guide to the Diseases of Children. By Jas. Frederic Goodhart. Second Edition. pp. 692.

FISCHER G., Jena.

Lehrbuch der Allgemeinen und Speciellen Pathologischen Anatomie. Von Dr. Ernst Zeigler. Zwei Bände. S. 499—1020, mit 1099 Abbildungen.

FÜSSLI & Co., Zurich.

Bad St. Moritz im Oberengadin. Von Dr. C. Veraguth. S. 161.

GRIFFIN, C., & Co., Exeter-street, Strand, London.

A Practical Treatise on Diseases of the Eye. By Dr. E. Meyer. Translated by Dr. Freeland Fergus, M.B. pp. 637, with numerous Illustrations and three coloured Plates.

HAMILTON, ADAMS, & Co., Paternoster-row, London.

What can a Mother do to Preserve her Children's Teeth? By H. C. Quinby, L.D.S.R.C.S. pp. 59, with Illustrations.

HOGG, J., Paternoster-row, London.

The Cookery Primer, for School and Home Use. By Agnes C. Maitland. pp. 158. Price 1s.

JOHNSON, C. J., Chicago.

A Manual of Weights and Measures, with Rules and Tables. By Oscar Oldberg, Pharm. D. Second Edition, revised. pp. 216.

KEGAN PAUL, TRENCH, & Co., Paternoster-square, London.

Three Lectures on the Anatomy of Movement. Delivered at the Royal College of Surgeons. By Francis Warner, M.D. &c. pp. 135, with Illustrations.

LEWIS, H. K., Gower-street, London.

Indigestion, Biliousness, and Gout, in its protean Aspects. Part I.: Indigestion and Biliousness. By J. Milner Fothergill, M.D. Second Edition. pp. 323.

Manual of Bacteriology. By Edgar M. Crookshank. M.B.Lond., &c. Second Edition, revised and considerably enlarged. pp. 439, Illustrated with Coloured Plates and Wood Engravings.

LONGMANS, GREEN, & Co., Paternoster-row, London.

Social Arrows. By Lord Brabazon. Second Edition. pp. 414.

The Health of Nations: a Review of the Works of Edwin Chadwick. With a Biographical Dissertation. By B. W. Richardson. In Two Volumes. pp. 377—440. price 28s.

MURRAY, JOHN, Albemarle-street, London.

Letters from a Mourning City (Naples, 1884). By Axel Munthe. Translated from the Swedish by Maude V. White. pp. 289.

PENTLAND, YOUNG J., Edinburgh.

Elements of Pharmacology. By Dr. Oswald Schmiedeberg. Translated under the Author's supervision by Thomas Dixson, M.B. pp. 223.

Diseases of Women. By Dr. F. Winckel. Translated by Dr. J. H. Williamson. With an Introduction by Theophilus Parvin, M.D. pp. 674, with Illustrations.

The Principles and Practice of Operative Surgery. By Stephen Smith, A.M., M.D. New and thoroughly revised edition. pp. 877, Illustrated with 1005 Woodcuts.

PUTNAM'S SONS, New York and London.

Sphygmography and Cardiography, Physiological and Clinical. By A. T. Keyt, M.D. Edited by A. B. Isham, M.D., and M. H. Keyt, M.D. pp. 229, Illustrated.

REDWAY, GEORGE, London.

Ambulance Sermons: being Popular Essays on Medical and allied Subjects. By J. A. Austin, M.D. pp. 384.

SWAN SONNENSCHEIN, LOWREY, & Co., Paternoster-square, London.

The Fungus-Hunter's Guide. By W. Delisle Hay, F.R.G.S. pp. 157, with Illustrations.

TRÜBNER & Co., Ludgate-hill, London.

Carlsbad, its Thermal Springs and Baths, and how to use them. By J. Kraus, M.D. Third Edition, revised and enlarged. pp. 138.

UNWIN, FISHER, Paternoster-square, London.

The Massage Case. By Cyril Bennett. Two Vols. pp. 240—228.

WREDEN, F., Braunschweig; WILLIAMS & NORGATE, London.

Lehrbuch der Kinderkrankheiten. Von Dr. Adolph Baginsky. Zweite nerbesserte und vermehrte Auflage. S. 902.

Zur Geschichte der Phosphornekrose. Eine Streitschrift von Dr. F. Ris in Kloten (Scheuchzer, Bülach).—Transactions of the Obstetrical Society of London, Vol. XXIX.—Die Massage in der Gynäkologie; von Dr. P. Profanter (Braumüller, Wien).—The Carbonic Acid, Organic Matter, and Micro-organisms in Air, more especially of Dwellings and Schools; by Professor Thomas Carnelley, D.Sc., J. S. Haldane, M.A., M.B., and A. M. Anderson, M.D. (Trübner).—Index Medicus, Vol. IX., No. 4.—The Hunterian Oration; by W. S. Savory, F.R.S.—Stato attuale delle nostre Conoscenze sulla Natura della Malaria; nota del Socio Corrado Tommasi-Crudelli.—By Wm. Hunter, M.D.Ed.: The Duration of Life of Red Blood-corpuscles after Transfusion; Intra-peritoneal Transfusion of Blood and the Fate of Absorbed Blood.—New Commercial Plants and Drugs, No. 10; by Thos. Christy, F.L.S., &c.—Notes on Rescue Work; by Arthur Brinckman (Palmer). — Aetiologisches und Anatomisches über Lungenochwindsucht; von Dr. Johannes Orth.—De la Jugulation de la Fièvre Typhoïde au Moyen de la Quinine et des Bains tièdes; par le Dr. G. Pecholier.—Observations on Milk Scarlatina; by Prof. Brown; and Report on a Disease in Cows in its Relation to the Scarlatina Epidemic in the N.W. District of London in 1885; by Prof. Axe.—Magazines for June: Good Words, Sunday Magazine, Leisure Hour, Sunday at Home, Boys' Own Paper, Girls' Own Paper.—Mr. *Punch's* Victorian Era: an Illustrated Chronicle of Fifty Years of the Reign of Her Majesty the Queen (Bradbury & Co.)

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BAILEY, T. RIDLEY, M.B.Ed., has been reappointed Medical Officer of Health to the Bilston Union.

BISHOP, WILLIAM, M.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer for the Fifth District of the Bridge Union.

BUTTER, JOHN KERR, M.D., C.M.Aber., has been appointed Medical Officer for the Cannock District of the Cannock Union.

CANT, WILLIAM EDMUND, M.D., F.R.C.S., has been appointed Assistant Surgeon to the Central London Ophthalmic Hospital.

CARLESS, ALBERT, M.B., has been appointed Ophthalmic Clinical Assistant to King's College Hospital.

COX, A. H. LISSANT, M.R.C.S., L.R.C.P., has been appointed House-Surgeon to King's College Hospital.

GALLOWAY, WALTER, L.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer for the Birtley District of the Chester-le-Street Union.

HENSLEY, A. E., M.R.C.S., L.S.A., has been appointed Assistant House-Physician to King's College Hospital.

JEPSON, EDWARD CANE, F.R.C.S.Eng., L.S.A., has been appointed Medical Officer to the Durham Union Workhouse, vice Boyd, resigned.

KERR, WILLIAM SMITH, M.D.Glas., L.R.C.S.Ed. (and not James Kerr, M.B., C.M.Ed., as stated in our last issue), has been re-elected Surgeon to the Dumfries and Galloway Royal Infirmary.

LYON, THOMAS M. M., M.B., C.M.Ed., has been appointed Medical Officer for the Ford District of the Glendale Union.

MACNAB, ALLAN J., M.R.C.S., L.R.C.P., has been appointed House-Surgeon to King's College Hospital.

MAIR, R. S., M.St.And., F.R.C.S.Ed., has been appointed Physician to his Highness Prince Malcom Khan and the Persian Embassy, vice Vincent Ambler, deceased.

MARIETTE, ERNEST P.A., M.R.C.S., L.S.A., has been appointed House-Accoucheur to King's College Hospital.

OWEN, J. V., M.R.C.S., L.S.A., has been appointed House-Surgeon to King's College Hospital.

PEDLEY, R. DENISON, L.D.S., M.R.C.S., has been appointed Assistant Dental Surgeon to the National Dental Hospital, Great Portland-street, W.

PHILLIPS, JOHN, M.R.C.S., L.S.A., has been appointed Medical Officer for the Llanboldy District of the Narberth Union.

REYNOLDS, H. S., L.R.C.P., F.R.C.S.Ed., has been appointed Medical Officer for the Codnor-park District of the Basford Union.

SANDERS, CHARLES, M.B.Lond., M.R.C.S., has been appointed Medical Officer of Health for the Borough of West Ham, vice Deane, resigned.

SKELLY, WILLIAM, B.A., M.D. Q.U.I., L.R.C.S.Ed., has been appointed Medical Officer for the East District of the Poplar Union.

STEPHENS, R. J., L.S.A., has been appointed Assistant House-Accoucheur to King's College Hospital.

WHEATLEY, JAMES, M.R.C.S., L.S.A., has been appointed House-Physician to King's College Hospital.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the principal Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

ANCOATS HOSPITAL, Manchester.—Junior Visiting Surgeon. Salary £50 per annum, with board and laundry service.

CAMBERWELL PROVIDENT DISPENSARY, S.E.—Four Medical Officers.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.—Anæsthetist.

EASTBOURNE UNION.—District Medical Officer. Salary £85 per annum, with the usual extra fees.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark-bridge-road, S.E.—Registrar and Chloroformist. Salary £30 per annum, with additional £20 if the post is held for twelve months.

GROVE HALL, Bow, E. — Assistant Medical Officer to large private asylum. Salary at the rate of £120 during the first year; afterwards of £150. Board, lodging, and washing.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident Clinical Assistant.

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ERPOOL NORTHERN HOSPITAL.—Assistant House-Surgeon. Salary £70 per annum, with residence and maintenance in the house.
TROPOLITAN FREE HOSPITAL, Kingsland-road, Shoreditch, E.—Dental Hospital.
LLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich-road, S.E.—Senior Resident Medical Officer. Salary £60 per annum, with furnished apartments, board, attendance, and washing.—Junior Resident Medical Officer. Salary £30 per annum, and like accommodation.
BAR UNION, Essex.—Medical Officer and Public Vaccinator. Salary £75 per annum, with the extra medical fees prescribed by the Consolidated Orders of the Local Government Board and other additional charges in respect of lunacy and vaccination.
EN'S COLLEGE, Birmingham.—Co-Professor to share the duties of the Chair of Surgery.
YAL COLLEGE OF SURGEONS OF ENGLAND.—Professors and Lecturers.
YAL WESTMINSTER OPHTHALMIC HOSPITAL, King William-street, West Strand, W.C.—House-Surgeon.
YAL UNITED HOSPITAL, Bath.—Resident Medical Officer. Salary £100 per annum, with board and lodging.
MARY'S HOSPITAL, Paddington, W.—Secretary. Salary £300 per annum, with board and residence, or £360 without.
IETY OF APOTHECARIES, London.—Twelve examiners.
INES UNION.—District Medical Officer. Salary £65 per annum, exclusive of the authorised fees for surgical and midwifery cases.
AMFORD HILL, STOKE NEWINGTON, &c., DISPENSARY.—Resident Medical Officer. Commencing salary £105 per annum, with an allowance of £50 for fuel and light.
YD VALE COLLIERY SICK AND ACCIDENT SOCIETY. Skelmersdale, Lancashire.—Medical man. Salary about £150 per annum.
TORIA HOSPITAL FOR CHILDREN, Queen's-road, Chelsea, S.W.—Resident Medical Officer. An honorarium of £20 for the first six months, and £30 for the second six months, will be given, and board and lodging in the hospital provided.
ITEHAVEN AND WEST CUMBERLAND INFIRMARY.—House-Surgeon. Salary £120 per annum, and £30 a year for dispensing, with furnished apartments and attendance.

Births, Marriages, and Deaths.

BIRTHS.

RER.—On the 21st inst., at Glenavon, Stoke Newington-common, N., the wife of Thomas Furze Clarke, M.R.C.S., of a daughter.
N.—On the 13th inst., at Churchill Court, Worcestershire, the wife of Ernest Harrold Fenn, Surgeon, Grenadier Guards, of a son.
.—On the 22nd inst., at Gay-street, Bath, the wife of Arthur H. W. Fox, M.B., F.R.C.P.E., of a daughter.
ERTSON.—On the 16th inst., at Roehampton, S.W., the wife of A. Milne Robertson, M.D., of a son.

MARRIAGES.

TLEY—FENWICK.—On the 21st inst., at the Cathedral, Newcastle-on-Tyne, by the Lord Bishop of the Diocese, assisted by Canon Lloyd and the Rev. G. Fenwick (brother of the bridge), William Crump Beatley, M.D., to Frances Mary, daughter of J. G. Fenwick, J.P., of Moorlands, Gosforth, Newcastle-on-Tyne.
DWOOD—MCCANN.—On the 20th ult., at St. Mary's Church, Aston, Roger Alan Birdwood, M.B.Camb., M.R.C.S., to Agnes, youngest daughter of the late Hugh McCann, of Birmingham.
LER—WACHER.—On the 19th inst., at the Parish Church, Herne, Walter Fowler, M.A., M.B., B.C.Cantab, F.R.C.S.Eng., to Alice, fifth daughter of William Wacher, Esq., of Eddington, Herne.
CHANT—SPARKE.—On the 14th inst., at the Parish Church, Mansfield, by the Rev. Canon Pavey, John Burrell, eldest son of the late John Marchant, of Hertford, Solicitor, to Marion Guyse, second daughter of Geo. Whitefield Sparke, M.R.C.S.
AR—EDMONDS.—On the 17th inst., at St. John's the Divine, Richmond, William Henderson Starr, M.R.C.S., L.R.C.P.Lond., Army Medical Staff, to Helena Mary, daughter of Henry Edmonds, of Kew.

DEATHS.

MIE.—On the 20th inst., at Stanhope-gardens, Queen's gate, S.W., Patrick Gammie, Surgeon-General, aged 73.
KESON.—On the 12th inst., at Balisera, India (of fever), W. Whiteside Paterson, M.B., C.M., M.R.C.S., youngest son of the late Andrew Paterson, of Carston, Ayr, in his 25th year. (By telegram.)
ERS.—On the 13th inst., at South Kensington, William Hinds Rogers, M.R.C.S., of Yealmpton, South Devon, aged 64.
ELL.—On the 30th ult. (of septicæmia), at Lahore, India, Ella Mary Tickell, aged 23, eldest daughter of Henry J. Back, L.R.C.P., M.R.C.S., of Clapton-common, London, the beloved wife of Charles Tickell, Esq., C.S., of Mardan, Punjab, India, youngest son of the late Lieutenant-General Tickell, C.B., of Cheltenham. Deeply lamented.
EN.—On the 12th inst., at The Limes, Wigton, Cumberland, Robert Tiffen, M.D., aged 63; also on the 15th inst., Ann, his wife, aged 59.
NER.—On the 18th inst., very suddenly, Thomas Aubrey Turner, M.R.C.S.E., of 8, Alexandra-road, Finsbury-park, eldest son of the late Rev. T. B. Turner, of Kingston, Jamaica, aged 42. R.I.P.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, May 26th, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
May 20	29·35	W.	47	45	93	55	45	·33	Raining
,, 21	29·78	W.	49	43	99	57	39	·11	Fine
,, 22	29·81	W.	48	44	87	55	40	·15	Cloudy
,, 23	30·06	N.E.	49	45	99	62	41	·03	Cloudy
,, 24	30·22	N.	55	51	80	61	48	...	Fine
,, 25	30·25	N.E.	50	47	88	59	46	·02	Cloudy
,, 26	30·16	N.E.	56	51	110	65	46	...	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

BLENNORRHAGIA.

R. J. M. (Belfast).—A succinct study on the etiology and treatment of this disorder is given by Dr. Ulisse Malusardi in the *Gazzetta Medica di Roma* of May 1st. His conclusions, set forth as the result of special clinical experience, are these:—1. Gonorrhœa (or blennorrhagia, as he prefers to call it) is a specific local affection, the principle of which consists invariably in the presence of a parasite (*gonococcus*) in the secretion. 2. This infective principle of blennorrhagia with its parasitic basis must be constantly treated from the beginning with antiseptic remedies. 3. Injections of hydrochlorate of cocaine are the sovereign antidote to nocturnal erection or chordee. 4. The use of warm baths, even prolonged, is not contra-indicated, as it materially allays the patient's sufferings and facilitates resolution. 5. Incomparably the most powerful and least hazardous antiseptic is corrosive sublimate in doses increasing from 0·5 per cent. to 1 per cent., after the action of iodoform has been proved to be inefficacious. 6. In the local sequelæ of blennorrhagia advantage is often derived from the use of the sulphate of zinc, combined with that of corrosive sublimate. Tobacco is not forbidden in such cases by Dr. Malusardi, who, on the contrary, agrees with the French specialists in "never having repented of allowing its use."

M.D.—The method referred to is not one to be commended. The proper course would have been for the gentleman to send a card to each of his patients announcing the removal.

J. M. L. is referred to a general notice at the head of this column.

NON-SACCHARINE ALCOHOLIC DRINKS.

To the Editors of THE LANCET.

SIRS,—It occurs to me that you may by an annotation or a short article make known a want and get it supplied. The want I refer to is an alcoholic drink which does not contain sugar. This is especially needed for diabetic and gouty persons; and, except unsweetened gin, which is unpleasant to many, I know of no form of alcohol which is free from sugar. Unsweetened whisky would be especially valuable, and it is almost impossible to get any. Sugar-candy, or sugar in some form, is added to nearly all whisky, to give it roundness and mellowness. Brandy contains a good deal, and even claret a small quantity. I am afraid my letter alone will do no good; but if you recognise the want and make it known it will cease to exist.

Believe me, Sirs, yours truly,

May 21st, 1887. F.R.C.S.

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LEECHES.

J. S. C. (Leeds).—The first to employ leeches was Themison, a physician of Laodicea and contemporary of Pompey. He was also the founder of the sect of the Methodici, and is often cited as an authority, especially by Caelius Aurelianus. Dr. Greenhill distinguishes him from the Themison satirised by Juvenal (x., 221), who, it being then the custom with artists of every kind to assume the name of celebrities in the same walk, no doubt called himself after his distinguished predecessor. This assumption of names is one of the many difficulties besetting the historian of ancient medicine.

W. P. F.—We fear that the universities named are, under the circumstances, all practically closed to our correspondent. Cases such as his show very clearly and very painfully the disadvantages under which the London student at present labours.

J. C. should consult one of the old-established firms of surgical instrument makers.

Mr. Larchin.—Dr. Murrell's book.

THE POLLUTION OF THE THAMES.

To the Editors of THE LANCET.

SIR,—The Metropolitan Board of Works profess that at last they are about to run a satisfactory effluent into the Thames. They carefully avoid, however, to state on what grounds they consider it satisfactory, and it is only by supplementing the figures which they have published by one or two more which their chemist, Mr. Dibdin, has communicated to the Institution of Civil Engineers, that it is possible to ascertain definitively what they now propose to do. Mr. Dibdin states the strength of the sewage now turned into the Thames at 87 grains of foreign matter per gallon. Captain Calver stated it in his report at 265·50 grains, at two hours after high-water, and 189·0 grains at two hours before low water. But let us take Mr. Dibdin's figures, and also his statement that the "pressed cake," which is the most unobjectionable form into which the matter removed from the sewage is converted, contains 58 per cent. of water. It is easy on these data to calculate that the treatment described in the recent report of the Finance Committee of the Board of Works removes 31 grains per gallon of foreign matter from the sewage, and and thus turns into the Thames an effluent containing 56 grains of impurity per gallon, which is, in fact, only a very slightly diluted sewage. Indeed, out of 20 grains of organic matter in solution only 2·6 grains are removed by precipitation. As the result of this very minute improvement, 30 tons 16 cwt. of foul sludge are produced from each million gallons of sewage. Tanks are erected, at a cost of £106,000 for the north of the river alone, to allow this sludge to subside; by which process it is reduced to 18 tons 6 cwt. of drier and thicker sludge. It is this product which it is now proposed to boat away to sea. Its amount, on a daily outflow of 160,000,000 gallons of sewage, is 2928 tons. The total solid matter removed from the sewage is under two tons per million gallons. This is increased by the method now accepted by fifteenfold, and by more than ninefold after the cost of a second subsidence. If this is satisfactory to the Metropolitan Board of Works, the satisfaction will hardly be shared by the frequenters of the Thames, or by the ratepayers of London. I am, Sirs, yours obediently,

May 20th, 1887. M.INST.C.E.

A DOCTOR'S REAL HOLIDAY.

To the Editors of THE LANCET.

SIRS,—Any middle-aged practitioner must have met with many men who have gone on for years practising until they have at last broken down from worry, work, and *ennui*. Why do not some of our worn and weary brethren copy the clergy, and go far away for three or six months' complete change? I have known more than one doctor work on till compelled to give up practice, and then linger on in misery to himself and a trouble to his friends through years of invalidism. A local clergyman was worn and done up; he left for fourteen months, returning well. I have often known a clergyman go away for six months, and hundreds of the clergy, even in these days of poverty and anti-tithe agitation, go off for two months. But our medical brethren, who have so much worry and night-work, so few holidays, so little society, are just the men who cling to work till the last, and yet many doctors have good private means, and some have lucrative and easy enough practices in addition. There are hundreds of middle-aged and experienced men, who would do the kind of work I am alluding to. I am sure that a fee of fifty guineas would secure for three or four months a competent *locum tenens*, glad to look after a first-class practice and to do full justice to it. Such a course of action would add years to many a weary practitioner's life, and secure that holiday for him that he of all men most needs.

I am, Sirs, yours truly,

May, 1887. S. U. M.

NEW SOUTH WALES.

To the Editors of THE LANCET.

SIRS,—I shall feel much indebted to any of your readers who are conversant with New South Wales if they will give me any information as to the diseases which are most prevalent there. Also, if drugs and instruments are to be easily obtained at any of the large towns; or what drugs and surgical instruments it would be advisable to take out, and any other hints and suggestions will be thankfully received by,

Yours faithfully,

May 23rd, 1887. VIATOR.

"DR. PEACAN'S TREATMENT OF CHOLERA."

IN our issue of the 14th inst. we published an annotation on this subject. Our attention has since then been called to the fact that, excepting some surplusage in after-medication, Dr. Peacan's method of treatment of cholera is in principle, and also in practice, identical with the plan proposed some years ago, and commented on by us at the time, by Dr. Alexander Harkin of Belfast. To this latter observer, who in 1884 published a paper read by him in 1884 before the Ulster Medical Society, in which his theory of the causation and cure of the disease is expounded, must be ascribed the merit of originality, Dr. Peacan's success in cholera treatment being a striking proof of the soundness of Dr. Harkin's views tested in a different hemisphere.

Etiquette should receive the visit of the neighbour alluded to without prejudice. Time will show if his delay in calling arises from unfriendly or discourteous motives.

Surgeon will find in THE LANCET of Dec. 6th, 1884, p. 1030, a letter which will inform him on the points he mentions. Appeal should be made to the commissioners.

THE BROWN DEFENCE FUND.

To the Editors of THE LANCET.

SIRS,—We, the undersigned, crave your permission for a few remarks in connexion with the above case. Having allowed a fair time to elapse since attention was called to the matter by the letter of Dr. Bates, Dr. Broadbent, and Mr. Sydney Jones in your issue of April 9th, and finding only an inconsiderable response to the appeal, we think we might invite further notice to the case. Up to the present date the sum of only £20 9*s.* 6*d.* has been received, which goes a short way indeed towards defraying the law costs, amounting to over £160. Mr. Brown being personally known to us, we believe we can confidently state that he became involved in the matter through no indiscretion or imprudence on his part. Indeed, his position was one in which any member of our profession might find himself at any moment, and as he can ill afford to be at such a serious loss, we solicit help on his behalf. As we believe many of his professional brethren would contribute a small amount where they cannot spare much, we desire to make it known that we will gladly receive any contributions, however small, as it is apparent to us that if even a limited number of the medical practitioners of the country would each give half-a-crown, or even less, the whole sum required would be paid off many times over. In conclusion, we might say (should it be wished by those contributing) that the donors will be acknowledged without the amount being specified. Hoping we shall not make this appeal in vain, and thanking you for the interest you have shown in the matter and the courtesy you have extended to us.

We remain, Sirs, faithfully yours,

ROBEY & ROBEY, 129 & 143, St. John's-hill, New Wandsworth.
J. H. T. CONNOR, 49, St. John's-hill, S.W.
R. F. FRAZER, 185, Lavender-hill, S.W.
M. G. BIGGS, 101, Northcote-road, S.W.
MABYN READ, Clapham Common-gardens, S.W.
J. T. BOYD, 73, St. John's-hill, S.W.
JAMES E. LAWRENCE, East-hill, S.W.
T. A. IVES HOWELL, 14, High-street, Wandsworth, S.W.
G. STANLEY MURRAY, Meadow-side, Putney.
RICHD. R. W. ORAM, Cremyll, Wandsworth Common.
R. H. A. HUNTER, Clifton House, Battersea.

May 23rd, 1887.

To the Editors of THE LANCET.

SIRS,—Kindly insert the following:—Amount already acknowledged £19 8*s.* 6*d.*; Arthur Ives Howell, Esq., £1 1*s.*

I am, Sirs, yours faithfully,

G. STANLEY MURRAY, M.D.

23, Upper Richmond-road, Putney, May 23rd, 1887.

MEDICAL ATTENDANCE ON THE SICK POOR, NOT PAUPERS: A CORRECTION.

To the Editors of THE LANCET.

SIRS,—If "F. T. S." will kindly refer to an annotation in THE LANCET of April 23rd, he will find at p. 791 that you mention in your notice of my paper on the medical attendance of the sick poor: "One feature of Dr. Alderson's views is the suggestion of a graduated scale of payment varying from 6*s.* to 30*s.* per year for single persons, or 30*s.* to £6 per year for families;" and if "F. T. S." would refer to the original pamphlet (and I should be pleased to send him one), he would read at p. 9, "a patient whose income is £150 a year could easily pay out of it from £3 to £8 for medical attendance." There is no allusion to an income "of £312." Although at a much increased rate on the principle of health insurance, as I mentioned in my pamphlet on "The Wants of the General Practitioner," I would even attend patients of a much higher social position and of larger incomes. The £6 per week which has caused your correspondent "F. T. S." "some amusement" is a clerical error. What I meant to have written was that I was willing to attend a patient (with a family) for £6 per year, whose wages averaged £3 per week. I noticed this error directly I read my letter in print, but the mistake appeared to me so obvious that I did not care to trouble you by asking a correction, which I am now anxious to do, for it is this class, whose income is under £3 a year, that requires aid in providing medical skill when illness overtakes its members. I am, Sirs, your obedient servant,

May 21st, 1887. FRED. H. ALDERSON.

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MEDICAL PRACTICE IN THE NEW WORLD.

To the Editors of THE LANCET.

IRS,—In the expectation that some one nearer home would be able to e the information asked for by "A Constant Reader" in your issue of rch 19th, I have refrained from writing; but as THE LANCET for ril 9th has just come to hand without anyone giving the desired ormation, I will endeavour to help him.

s regards the Western States, there are many good openings in them, in Washington Territory, Oregon, California, Colorado, &c. In all hem British diplomas entitle the holder to registration. Drugs can obtained with little or no difficulty in almost any part of the country. regards the climate, some sections of the country, as California and orado, suit certain cases of lung disease admirably. Near the coast the ct is bad on cases coming to the country, though natives of the place not suffer much from chest affections. In British Columbia, before mencing practice a new-comer must present himself before the dical Council, produce a degree from a recognised college or university, s an examination in all the primary and final branches, and pay a fee £20 and an annual fee of £2 10*s*. These regulations apply to all alike, mattter what qualification they hold. In this province, moreover, enings are rare, the proportion of doctors to population is about 1 to , while in some places, as Victoria and New Westminster, the pro- tion is as low as 1 to 600, or less. The climate is not particularly table for lung diseases, except some cases which do well in the untains. I am, Sirs, yours sincerely,

W. A. DE WOLF-SMITH, M.D.

New Westminster, British Columbia, April 26th, 1887.

G. T.—1. The holder of a real American or continental degree is warranted in using the title attaching to the degree on his plate, &c.; but t is not a sufficient title in cases of medical certificates. The mere se of it after other and recognised British titles is not necessarily llegal.—2. We know of no means of ascertaining whether any given erson is possessed of any degree which he professes to have than by nquiry of the authorities or inspection of the rolls of the university.

R.C.P. would probably obtain much of the information he desires by pplying to Messrs. Moore and Co., Houndsditch.

AN URGENT CASE.

To the Editors of THE LANCET.

SIRS,—About five years ago you were kind enough to allow the late . A. P. Stewart and myself to make an appeal in your columns for two lies, sisters, who have had to maintain for about twenty years their ther, Mr. Charles Gaffney, who practised at Buntingford before he s overtaken with insanity. The case is well known to the benevolent ieties of the profession, and has repeatedly been generously assisted them. But it still continues in all its hard facts. The brother has to maintained from home, and the sisters, to support him and them- ves, have to keep a boarding-house. Their increasing age and the rdness of the times have landed them in straits which I do not like to scribe; but they are still holding up. Their account of the help of ends, including some who had little to give them, is reviving reading. ey are extremely needy and equally deserving. I shall be pleased to the medium of any sums which any of your readers can spare for m, and to acknowledge the same in your columns.

I am, Sirs, your obedient servant,

5, Highbury-place, N., May, 1887. JAMES GREY GLOVER.

lagator (Norwich).—Dr. Pietro Canalis, assistant in the laboratory of general pathology in the University of Turin. His paper, entitled Contribution to the Study of the Development of the Experimental Pathology of the Supra-renal Capsules, with six Illustrations," was recently presented by Professor Bizzozero to the Royal Academy of Sciences of Turin, in the "Atti" of which it will shortly be published.

r. D. C. Trott.—It would be better, we think, to address the communication to the editor of the journal in which the correspondence referred to appeared.

Pierrepoint.—The letter is of the nature of an advertisement.

HERNIOTOMY IN YOUNG CHILDREN.

To the Editors of THE LANCET.

SIRS,—In your last issue, page 1029, Mr. Lionel Stretton reports a case which he successfully performed herniotomy in a child four weeks old, d states that he has "been unable to find any account of operation in young a child." A moment's reference to Sections 954:2 of the dical Digest and Appendix will point to a case by Mr. Macnamara in 79, aged three weeks, and to another by Mr. Hazlewood in 1884, also ed three weeks, both reported in your valuable journal.

I am, Sirs, obediently yours,

Boundary-rd., N.W., May 21st, 1887. RICHARD NEALE, M.D. Lond.

THREADWORM.

To the Editors of THE LANCET.

SIRS,—Will any of your readers kindly suggest a mode of treatment r an obstinate case of threadworm in an adult, all the usual remedies ving failed, including many changes of climate?

I am, Sirs, yours obediently,

May 17th, 1887. M.R.C.S., &c.

SWEATING OF THE FEET.

A Sufferer.—The question has been repeatedly noticed in our columns. The following is the reply made to a correspondent in our issue of July 7th, 1877, p. 37:—"The complaint is not easily cured. The patient in question should not walk so much as to induce these foot-sweats. Tonic doses of quinine with mineral acid and well-regulated dress should be recommended. Great relief is sometimes afforded by a foot-wash made by adding half an ounce of solution of subacetate of lead, diluted with water enough for a foot-bath. Hebra recommends an ointment composed of equal parts of lead plaster and linseed oil spread on linen, and wrapped round the feet, renewing the application every third day for nine days. Laced shoes are preferable to boots."

Dr. Ridley Bailey.—There are several good filters in the market, amongst which it is not easy to indicate the best. The ease with which the apparatus may be cleansed, and the efficiency of the filtering material, are of course the chief points to be kept in view in purchasing a filter.

Hertford.—We know of no other societies of the kind at present in existence than the one mentioned.

A WARNING.

To the Editors of THE LANCET.

SIRS,—I shall be glad if you will allow me through THE LANCET to warn my professional brethren that an impostor is going about soliciting alms representing himself to be Mr. Wm. Ashton Patchett, late of Shaw, and stating that he is a widower with two children, and entirely destitute. To confirm his statement he produces some original testimonials from Sir W. Roberts, Mr. H. Lund, &c., which were given to me when I was a candidate for a hospital appointment seventeen years ago, and which by some means he has obtained possession of. I have come to the conclusion that the scamp must be a man who acted as assistant to me for a few days some time ago, and who stole not only the testimonials, but a number of my medical books also. I am informed that in London he has only too successfully imposed upon several benevolent medical gentlemen. I hope this warning may nip in the bud the rascal's extortions. I am, Sirs, yours faithfully,

Shaw, May 18th, 1887. W. A. PATCHETT, M.R.C.S. Eng., L.S.A.

L.K.Q.C.P.I., L.M.—We are not prepared to recommend the particular steps to be taken; but it is obviously right that in public papers, posters, &c., there should be no misstatement, and our correspondent would be justified in objecting to the description and title given as inaccurate. In answer to the third question, our correspondent, with the qualifications mentioned, can recover in medical and midwifery cases, but not in surgical ones.

R.—Our correspondent should consult his legal adviser. A great deal might turn on the details of the course taken in the past by the respective parties.

INTESTINAL OBSTRUCTION CAUSED BY IMPACTED GALL-STONE.

To the Editors of THE LANCET.

SIRS,—In your issue of April 30th Dr. Allen reports a case of operation for intestinal obstruction caused by impacted gall-stone, and states that he can find no such case on record. I beg to refer him to a similar case published by me in THE LANCET for 1881. A previous case by Mr. Bryant is also on record. Both of these were fatal. I think also one or two cases have been published since, but do not remember the particulars of them.

I am, Sirs, yours truly,

Reigate, May 13th, 1887. J. WALTERS, M.B., &c.

CHRONIC RHEUMATIC ARTHRITIS.

To the Editors of THE LANCET.

SIRS,—Can any member of the profession kindly inform me what drug he has found most efficacious for relieving pain and promoting sleep in a case of chronic rheumatic arthritis? An elderly person has had this affection for the past two years, and now suffers a good deal at night from pain in the joints and sleeplessness. A great variety of medicines have been tried, including potass. iodid. and potass. bromid., but latterly with very little effect. Morphia cannot be given owing to the patient having a weak heart.—I am, Sirs, yours truly,

May 24th, 1887. MEDICUS.

Dr. Haddon (Melrose).—We shall be glad to receive the paper, and to give it our attention.

TREATMENT OF TÆNIA SOLIUM.

To the Editors of THE LANCET.

SIRS,—I should be much obliged if you would insert this letter in your next issue, on the chance that some of your numerous readers might be able to help me. I have a patient suffering from tænia solium, and have tried all kinds of remedies, but fail to do more than get rid of small quantities. I have used kousso in full doses, extract of male fern, and pelleterin. Any hints would oblige.—I am, Sirs, yours very truly,

May, 1887. PUZZLED.

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COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Savage, London; Mr. Barwell, London; Dr. Bateman, London; Mr. Lawson Tait, Birmingham; Dr. Cosgrave, Dublin; Mr. Hulke; Dr. Graham Brown, Edinburgh; Dr. Collier, Oxford; Dr. Handford, Nottingham; Mr. Patchett, Shaw; Surgeon-Major Stevenson, Karauli; Mr. Henry Lee, London; Mr. W. M. Hardy, Newcastle-on-Tyne; Messrs. Lea and Nightingale, Liverpool; Mr. L. Stephens, Holdsworth; Mr. Fitzroy Benham, London; Dr. F. E. Wilkinson, Leamington; Dr. Stanley Murray, Putney; Mr. J. T. Maclagan, Edinburgh; Messrs. Maple and Co., London; Mr. L. G. Smith, Tottenham; Messrs. Hopkinson and Co., Notts; Mr. Lockwood, London; Dr. M. J. Lewis; Messrs. Bush and Co., London; Dr. Wilkinson, Shaftesbury; Mr. Wilding, Church Stretton; Dr. R. Neale, London; Mrs. Johnson; Messrs. Waterlow and Co., London; Dr. F. H. Alderson, London; Messrs. Mertens and Co., London; Dr. Whipham, London; Major Ormond; Messrs. Condy and Co., London; Mr. H. H. Graham, London; Messrs. Mitchell and Co., London; Mr. W. Curran; Mr. W. Fuller, Stoke; Mr. Bates, New York; Surgeon-General Stewart; Dr. Easmon, Accra; Messrs. Smith and Son, Birmingham; Mr. F. B. Jessett, London; Messrs. Grace and Co., Bristol; Mr. Meadows, St. Leonards; Messrs. Imhof and Co.; Mr. Greenwood, Stamford; Dr. W. Duncan; Messrs. Iliffe and Son, London; Mr. Fox, Birmingham; Mr. Goldsmith, Sutna; Mr. A. King, Margate; Dr. Haddon, Melrose; Prof. Axe; Dr. Branthwaite, Twickenham; Mr. Blackett, London; Mr. Bunn, London; Mr. Fuge, Taunton; Mr. Woodland, London; Mr. Moullin, London; Mr. Lewis, Birmingham; Mr. Russell, Liverpool; Mr. Unsworth, Liverpool; Mr. Bonton, Norwood; Mr. Brearley, Batley; Mr. Dewhurst, Lambeth; Mr. Botwood, Ipswich; Mr. Roe, Manchester; Dr. Benthall, Southsea; Mr. Freeman, London; Mr. Holmes; Messrs. Brown and Co., Glasgow; Dr. Buck, Clapton; Messrs. Warren, Bristol; Mr. R. Freeman, London; Mr. Jeffery, Eastbourne; Messrs. Bennett and Co., London; Dr. Russell Reynolds, London; Dr. Hillery, Plympton; Dr. Thomas, Glasgow; Mr. Silcock, Bath; Mr. W. Lund; Mr. Barren, Manchester; Mr. W. P. Reynolds; Mr. Jas. Swain, Bristol; Mr. G. S. Perkins, Streatham; A Country Practitioner; Pro Bono Publico; M.Inst.C.E.; Alpha; F.R.C.S.; Ambulance; H.M.M. Staff; One who owed much to Wilson Fox; M.R.C.S.; M.D.; Viator; Physician, Southsea; Etiquette; S. U. M.; F.R.C.S.E., Bromley; Secretary, Bradford; M.D., Hampstead-road; A Guy's Man; Puzzled.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Bland, London; Mr. Brown, York; Mr. Briscoe, Bolton; Messrs. Tunnicliff and Co., Hanley; Mr. Masters, Weston-super-Mare; Messrs. Farwig and Co., London; Dr. Dowding, Haughley; Messrs. Burgoyne and Co., London; Messrs. Thorn, London; Mr. Morse, Exeter; Mr. Bone, Portsmouth; Dr. Collier, Cranbourne; Dr. McLintock, Shrewsbury; Mr. Whiteley, London; Miss Thompson, Oldham; Mr. Hamel, Tamworth; Dr. Taylor, Newcastleton; Mr. Campion, Louth; Miss Selby, Surbiton; Dr. Edwards, Harrold; Capt. Blount, Chelsea; Mr. Klein, Manchester; Mr. Smith, Bromley; Dr. Swansea, York; Mr. Munday, Swindon; Mr. Haines, Lincoln; Mr. Bishop, Calne; Mr. Harrison, Liverpool; Mr. Cornish, Manchester; Mr. Jones, Bristol; Mr. Corwen, Bridgewater; Mr. Kitcher, Whitehaven; Mr. Webster, Darlington; Mr. Featherstone; Messrs. Deeks and Co., London; Mr. Lownds, Sunderland; Suburb; Epilepsy; M.O.H.; Dr. M., London; Medicus, Blandford; H. R., Shrewsbury; M.D., Oxford; Medicus, Leeds; M., Cheltenham; Locum, Bristol; Galen; Superintendent, St. John's-wood; A. Z., Handsworth; Ozone; A. T.; L. W.; Medicus, Furneaux Pelham; S. R. B., Brighton; Alpha, Manchester; B. A. S., North Luffingham; B. B. B.; Oxon; Kappa; E. R. H., Egham.

Light, Barnsley Independent, Southend Standard, Isle of Wight County Press, Newcastle Daily Chronicle, Jubilee Souvenir (illustrated), &c., have been received.

Medical Diary for the ensuing Week.

Monday, May 30.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M. and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M; Thursday, 2.30
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.

Tuesday, May 31.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 1.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.
ROYAL INSTITUTION.—3 P.M. Professor Victor Horsley: The Modern Physiology of the Brain and its Relation to the Mind.

Wednesday, June 1.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M.; Saturday, same hour.
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Mr. Lockwood, Dr. Bluett, Dr. Malins, and others.—Dr. Cullingworth: A case of Cesarean Section.—Dr. Champneys: On the Separation and Expulsion of the Membranes.—Dr. Walter Griffith: On Tubo-ovarian Cysts.

Thursday, June 2.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL INSTITUTION.—3 P.M. Professor Dewar: The Chemistry of the Organic World.

Friday, June 3.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—8 P.M. Mr. H. Percy Dunn will show the specimens which have been added to the Museum of the West London Hospital during the session.—Mr. F. Swinford Edwards: A collection of Urinary Calculi.—The President: An Hypertrophied Heart.—Dr. P. S. Abraham: Microscopical Sections of Ossification of the Cauda Equina.—Brigade-Surgeon W. Curran: Sketches of Aortic Aneurysm and Sarcoma of the Lung.—Dr. Bullock: A Skull from a case of Hereditary Syphilis.—Sir Andrew Clark: A Frequently Successful and Speedy Method of Treating Hay Fever.
ROYAL INSTITUTION.—9 P.M. Mr. David Gill: The Application of Photography to Astronomy.

Saturday, June 4.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. John W. Hales: Victorian literature.

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Lectures
ON
INJURIES OF NERVES.

Delivered at the Royal College of Surgeons,

BY ANTHONY A. BOWLBY, F.R.C.S. ENG.,
SURGICAL REGISTRAR AND DEMONSTRATOR OF SURGICAL PATHOLOGY AT ST. BARTHOLOMEW'S HOSPITAL, HUNTERIAN PROFESSOR OF THE ROYAL COLLEGE OF SURGEONS.

LECTURE III.

SYMPTOMS OF COMPLETE SECTION OF A NERVE TRUNK.

MR. PRESIDENT AND GENTLEMEN,—The symptoms of nerve injuries of all kinds have much in common, but considering that those caused by bruising, pressure, partial division, &c., possess some points of difference from cases of simple division, I shall at present treat of the latter alone.

The *pain* caused by division of a nerve trunk does not appear to be very severe, for, judging by the accounts of patients, no further pain than that caused by the skin wound seems to attract attention in at any rate the larger number of cases. Numbness and tingling frequently cause more anxiety than does the actual pain.

The *shock* following on an injury to a nerve trunk is not a very noticeable feature in patients met with in civil practice, though Mitchell records many cases of gunshot wounds in which it was present.

The *loss of muscular power* and of the *sense of touch* are symptoms of far greater import than either of the foregoing. With regard to the former, it may be said at once that the muscles supplied by the divided nerve become absolutely powerless, and remain so as long as the divided nerve ends continue ununited; their functions may be to a certain extent supplied by surrounding muscles, as insisted on by Létiévant, but they themselves undergo a rapid atrophy and degeneration, which is the cause of many deformities, and which affords a sure evidence of the injury that has been sustained.

Sensation may be affected in many ways; there may be loss of sense, of touch, of pain, of temperature, and of weight, anæsthesia, hyperæsthesia, and various abnormal sensations, such as pricking, tingling, numbness, &c.

The *thermal sense* is generally lost in proportion to the loss of the sense of touch and over the same area; in very many cases, however, in which complete anæsthesia is not present, there is no power to discriminate between heat and cold. The amount of loss may be easily determined by making the patient dip the fingers into water of different temperatures, or else by touching the skin of the affected part with some steel implement which has been heated to a certain degree in hot water.

The *anæsthesia* which follows nerve section is generally to the patient the most obvious result of the injury he has sustained, but the exact extent to which it is present requires an immense amount of time and care to estimate. The best mode of estimating the acuteness of the tactile sense in different parts of the body is to measure the distances at which the two points of a pair of compasses can be detected as such, but, in addition, the power of localisation must be duly noted. For general purposes it is best to try roughly to find the presence or absence of anæsthesia over a given area by means of lightly touching the skin with the point of a pencil or penholder, and then proceed to map out the exact amount of anæsthesia with a pair of compasses and a rule. The patient should always be placed in such a position that it is impossible for him to see the hand of the surgeon or the area which is under observation; he should not be allowed to move the finger or other part touched, for thereby the muscular sense comes to the aid and falsifies observations; the impact of the instrument used should be very light, for, as Létiévant has shown, a patient can frequently discern friction on an anæsthetic surface by means of vibrations carried by the tissues to surrounding healthy nerves. The distances at which the points of a pair of compasses can be detected as such have been given approximately by physiologists, but are almost valueless in testing the sensation of the hand of a working man, in whom the cuticle is so thickened and horny as to be insensible to slight contact of any kind. It must also be remembered that the distance at which the two points of the compasses can be distinguished varies according to whether they are applied in the long or transverse diameter of a digit.

The readiness with which a patient can recognise *friction* when applied to an anæsthetic finger requires more than a passing notice, for it is liable to become a very fertile source of deception. I have often seen the sensory power of a presumably anæsthetic area tested by rubbing the part with the finger while the patient's eyes were averted, and almost always with the result that the stimulus was correctly perceived, and that a returning sense of touch was diagnosed by the investigator. Such a conclusion is entirely erroneous, for, as Létiévant has pointed out, any person can perceive friction applied even to the finger of another person when held between the bases of two fingers of his own hand; i.e., the vibrations are conveyed to, and appreciated by the nerves of the surrounding digits. How much more must this be the case when, as in the case of median division, healthy nerves exist on the same finger to which the friction is applied. Friction should therefore never be used as a test of sensation. For the same reason, the part which is being examined should never be pushed, or thrust away from the position in which it lies. This, I think, needs no further explanation.

If, then, the parts supplied by the terminal branches the divided nerve be tested with every care, it will before quently found they are not completely anæsthetic even cases of complete section of the trunk. A careless examination in such a case might readily lead to the belief that the nerve had not been divided, and that such operative measures as might otherwise have been considered advisable were no longer necessary. The merit of first drawing attention to this condition is due to M. Richet, in a case observed by him in 1867, and since that date the theory of nerve "anastomosis" has been so largely accepted that some authors—e.g., Létiévant, Arloing, and Tripier, and others have applied it to explain symptoms, many of which were undoubtedly due to true regeneration. Now, in far the larger number of cases it becomes very difficult to say for certain whether the power of distinguishing touch is really due to regeneration or to nerve anastomosis, and only an examination of the divided ends can set the matter at rest. In others, where the section has been very recent, and the distance separating the upper from the lower end precludes the possibility of union, any tactile sense must be referred to the influence of nerve anastomosis. On the other hand, in many cases a careless examination will lead the surgeon to the conclusion that all sense of touch is absolutely lost, and that the part is completely anæsthetic; consequently, there are not a few who deny the presence of any tactile sense in the paralysed part, and who therefore discredit the theory of "nerve anastomosis." From my own observations, I can have no doubt that in many cases of neurotomy a *complete anæsthesia* is certainly present, and that there are all grades of gradually increasing sensation, till we reach a point at which it becomes exceedingly difficult to say for certain that the tactile sense is not due to a regeneration of the divided nerve. The extent to which this supplementary sensation is developed varies according to the nerve divided, and even then is by no means constant.

There are now recorded a sufficient number of cases to render it certain that very acute sensibility *may* be retained after section of nerves supplying definite skin areas, and I will only mention that on the Continent unequivocal instances, verified in some by post-mortem examination, have been detailed by Richet, Leudet and Delabost, Baudens and Israel. Two other cases quite as interesting have been recorded in England by Savory and Butlin, and these I will venture to quote in greater detail.

In THE LANCET of August 1st, 1868, Mr. Savory describes a case of neuroma in which he excised a considerable portion of the musculo-spiral nerve with the tumour. The following is his description of the state of the parts after the operation: "From the time of the operation the muscles of the back of the forearm were paralysed, and the hand dropped forward from the wrist. But when testing the sensibility of that portion of the skin of the hand which is supplied by branches of the radial nerve, we were not a little astonished to find that it was but slightly impaired. When the skin upon the outer part of the back of the hand or over the back of the thumb and forefinger was slightly

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pricked, the man cried out sharply. He could distinguish in the same region two points of contact, when they were not less than an inch apart, both in the long and tranverse axis of the hand. When they were closer than this, on any part of the back of either hand or forearm, he confused them, and, indeed, in comparing the sensibility of this region with that of the inner portion of the back of the hand and two inner fingers, or with the corresponding part of the opposite hand, no very striking difference could be detected. All portions too, of the back and sides of the middle finger appeared equally sensitive. He could distinguish also between the contact of hot and cold bodies in this region as well as in other parts. He always remarked the distinction between the touch of a cold steel sound and one that had been previously dipped in hot water. When desired to experiment on himself by touching, scratching, or pricking the different parts, he repeatedly declared either that he could perceive no difference of sensibility or that the radial portion of the dorsum of the hand was rather more sensitive than the other half. These observations were carefully repeated in various ways day after day, with a uniform result; indeed, the man at last got tired of them, concluding, no doubt, that the existence of acute sensibility had been abundantly proved. It need hardly be said that in many of these experiments the man was blindfolded and otherwise prevented from forming any idea of what we did except through the sense of touch. Now, what is the interpretation of this remarkable fact? All anatomists will agree that, so far as ordinary dissection goes, the skin on the outer half or thereabouts of the back of the hand, and of the back of the thumb, forefinger, and outer portion of the back of the middle finger, is supplied only by branches of the radial nerve; and when any variation is witnessed in the distribution of this nerve to the back of the hand, it is almost always that it supplies more than the usual portion of integument, going on sometimes to the ring finger. I cannot doubt, therefore, that in this instance the parts in question were supplied in the usual way, only through the branches of the radial nerve. But then how could these parts retain sensibility after the removal of some inches of the nerve trunk? I can only account for it thus: We know that in the forearm just above the wrist some small branches of the external cutaneous nerve communicate with the radial, and it may be that at this junction the radial receives filaments from the external cutaneous which so pass down to be distributed with the filaments of the radial even to the skin of the hand. This seems to me the most probable view of the matter—indeed the only reasonable one."

The next case was reported by Mr. Butlin in vol. xxv. of the Pathological Society's Transactions:—"D. D——, aged thirty-two, was admitted into St. Bartholomew's Hospital with a broken back, in June, 1873, of which he died three or four days after admission. There was noticed on his left arm, three or four inches above the wrist, a long oblique scar, apparently the remains of a tolerably deep and severe wound; the ring and little fingers were exceedingly contracted, the little finger especially drawn in towards the palm. Neither of them could be at all straightened; the skin covering them was tense and glazed. The muscles of the ball of the little finger were atrophied to an extreme degree, and contracted. The interossei and abductor indicis, the abductor pollicis, and the inner head of the flexor brevis pollicis were in the same condition. But, so far as could be ascertained by careful examination, there was no loss of sensation, feeling being as complete in one hand as in the other. The history which he gave of this (for he was in complete possession of his faculties until shortly before his death) was as follows:—Fourteen years previously his forearm was wounded, and he was in the hospital for fourteen weeks. At the time of admission, and for some time afterwards, the hand was 'numb' on the inside. He regained feeling in it before he went out; his fingers became drawn down afterwards. A post-mortem examination showed that the ulnar nerve had been completely divided about three inches and a half above the wrist; the upper portion was firmly united to the anterior surface of the tendon of the flexor carpi ulnaris; the lower portion was united to the same tendon, but to its posterior and external aspect. No communication whatsoever could be discovered between the extremities of the divided nerve, which were not only far apart, but also on a totally different plane. The upper portion showed very little atrophy, even when examined with the microscope. About three-fourths of an inch above its point of union with the tendon was a large bulbous swelling, similar to the swelling found at or about the ends of nerves in stumps. The lower portion of the nerve was exceedingly atrophied. Sections examined microscopically showed that it was composed almost wholly of connective tissue, but here and there could be seen small points which had deeply coloured with carmine, and which resembled axis cylinders."

The manifest care expended on a thorough investigation of the recorded cases, and the high reputation of many of the surgeons under whom the patients happened to be placed, leave little or no room for doubting the reality of the retention of a certain amount of sensation in the area supplied by the divided nerve. The more care, then, is necessary in arriving at the conclusion that in the case of any injury regeneration and reunion of the divided ends have occurred; for if the surgeon disregard the possibility of a supplementary nerve supply, he is apt to refer any signs of returning sensation to a reunion of the nerve, and not to its true cause. In addition, then, to testing the tactile power and amount of anæsthesia, it is necessary to note the presence or absence of paralysis and of trophic changes. If coincidentally with a gradually returning sense of touch the nutrition of the part improves, if previous trophic lesions pass away, and if—what is most important—the atrophied muscles resume their normal bulk, their reaction to faradaism, and their contractile power, it may fairly be considered proved that a reunion of the divided nerve has occurred. But in the absence of these additional symptoms of regeneration, *a simple return of sensation does not afford sufficient proof of new nerve formation.*

With regard to the extent to which this supplementary sensation (*sensation supplée* of Létiévant) may be present, Létiévant writes: "These supplementary sensations are very imperfect; but, in proportion to the length of time which has elapsed since the section, they undergo by use a greater development. They are modified by certain local pathological conditions. Thus, after certain nerve divisions practised chiefly for neuralgia, there is produced a sort of local stupor which masks the supplementary sensibility for a few days. Sensibility is restored as this stupor is dissipated." With these remarks, my own experience would lead me to agree, and I would only add that in other cases the supplementary sensation appears to be most marked immediately after the nerve section, and that it subsequently disappears. The manner in which this supplementary sensibility is kept up is thus stated by Richet: "As both the loops and filaments which end in the touch corpuscles are compound, containing fibres from the median, radial, and ulnar nerves, section of one of these trunks is powerless to deprive of sensibility the corpuscles, which are the essential organs of touch." This is *à propos* of a division of the median. Arloing and Tripier in the *Annales de Méd. Vét.*, 1876, express much the same opinion, and state that after division of three out of the four collateral nerves on the toe of a dog, sensibility still remains, but is destroyed by dividing the other nerve. This, however, is certainly not applicable in its entirety to the human subject, as there can be no doubt that in many cases—e. g., after division of the median at the wrist—the fingers are in parts frequently entirely anæsthetic. Israel in the case quoted by him is inclined to ascribe the cause of the supplementary sensation to a chance union of the proximal ends of the injured nerves with another nerve which was yet intact; this condition, however, is not essential for the presence of supplementary sensation. Mr. Savory, with more probability, refers this condition to what I may call the "coarse anastomoses" in contradistinction to Richet's explanation; and in the case of injury to the musculo-spiral, on which he bases his arguments, instances the union of small branches of the external cutaneous with filaments of the radial nerves. No difficulty need be found in accepting either Richet's or Savory's explanation. It has been proved that the nerves can transmit currents equally well in either direction; and considering the comparatively small bonds of union which exist, and the fact that they do not enlarge as do the collateral vessels after ligature of an artery, the imperfections of the supplementary sensations will not excite surprise.

In addition to simple inability to perceive the contact of various bodies with the skin, there is often found a want of power to localise correctly the exact spot touched. Frequently a patient will perceive that some part of the hand is being touched, but on being asked to name the finger or spot of contact he makes mistakes. Thus, on pricking the back of the finger he fancies that it is the front which is

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being experimented on, or else another finger, or even the palm or back of the hand. There seems to me to be no particular law as to this transference of sensations; sometimes the patient fixes on a spot which is really devoid of sensation, at other times on a sound digit.

The sense of pain as evinced by pricking or pinching is generally lost in proportion to the amount of anæsthesia, but in a considerable number of cases all sense of pain is absent, and yet there is not complete anæsthesia. The reverse is rarely the case. In my opinion this is due to the fact that a more intense impression is necessary to give rise to pain, and that a proportionately perfect nerve supply is requisite, while the sensation of touch can be more or less clearly perceived even when the nerve paths are more or less damaged. In rare cases the skin may be in a hyperæsthetic condition; this I think only occurs in cases of incomplete section, in conjunction with neuritis as a rule, but sometimes apart from this in the *neighbourhood* of trophic lesions.

The *muscles* supplied by the divided nerve are paralysed by its section, and the subsequent changes that take place in them have been already described. It remains, however, to notice the deformities which result from their atrophy. The exact method by which the altered condition of a muscle after nerve section causes contractions and deformities appears to be very imperfectly understood. It is generally spoken of as if it were an active contraction either of the muscle itself or else of the degenerated tissue which takes its place. I believe that this view is not correct, and shall endeavour to prove my assertion. The muscle undergoes atrophy; it shrinks and grows smaller in every diameter, but not with any degree of force sufficient to cause actual deformity. No; the whole secret of the process lies in the fact that *the muscle shrinks only so long as it is unapposed*. If, therefore, its origin and insertion be unduly approximated *during the process of atrophy*, they will remain in such a condition when the atrophic changes have ceased, not because they have been drawn together by such changes, but that the atrophy found them in a certain position and fixed them there. For instance, after section of the median nerve in the upper arm it is very common for permanent flexion of the digits to ensue, but the reverse is not the case after the division of the musculo-spiral; the fingers and wrist are not then extended, but, on the contary, are flexed. Whence the difference? I think it is easily explicable. When the hand is paralysed, or when it is simply not in use, the fingers naturally lie in a position of flexion, and in this position they are gradually fixed by the atrophic changes. There is evidently no active contraction, for if it occurred in the flexors in the case of division of the median, the same result ought to follow in the extensors on section of the musculo-spiral, and hyper-extension of the fingers and wrists would result. This condition is prevented, however, by the naturally bent position of the hand, and by the frequent exercise of the flexors. Similarly, after infantile paralysis the most common deformities are equinus and bent knee. But in many cases the whole of the muscles of the lower extremity are equally paralysed. Why, then, are not the leg and foot sometimes extended? Simply for the very good reason that both of them, either in sitting or walking, but more especially the former, naturally fall into the position in which they are subsequently fixed by the shrinking of the muscles, which occurs at a period when from the nature of the illness the patient is kept from active exercise.

I am, then, very strongly of the opinion that the "irresistible power of contraction of the paralysed muscles" described by some authors has no existence in fact, but am quite willing to allow that when shrinking has once occurred the muscles cannot be artificially restored to their normal length. There is, however, one form of active contraction which is sometimes very troublesome—namely, that which is due to the unbalanced action of the unaffected muscles; it may produce a real deformity, though not, I think, very frequently.

The changes in the electric irritability of divided nerves appear to commence very early after section. MM. Cossy and Dejeune found that after section of the sciatic in guinea-pigs, the excitability of the peripheric segment is diminished on the second day, and after the third is entirely lost. Leegard (in the *Archiv für klin. Med.*, 1880), says that at first the irritability of the divided nerve—i.e., of its distal end—is slightly increased in some cases, but not constantly; and he agrees with the above observation, that by the third day it no longer reacts to electricity.

The electrical condition of the muscles has been already referred to in speaking of trophic changes, and the extent to which a muscle will respond to electrical stimuli after nerve lesions has been made by some authors a point of great importance in the prognosis of such injuries. It must not, however, be thought that the absence of all reaction to the proper stimuli in any way indicates that motion is permanently lost, for, as we shall see presently, if the continuity of the nerve be re-established, regenerative changes will take place in the muscle, at any rate for a considerable time after the date of the original lesion. But although the failure of a muscle to react to electrical stimuli is not by any means to be considered an indication that it is beyond recovery, the behaviour of the muscle to the electric current nevertheless affords the most valuable evidence as to its connexions with its trophic nerve centre. On examining a muscle in a natural condition with a galvanic current, it will be found that the kathodic closure contraction (K.C.C.) is greater than the anodic closure contraction (A.C.C.), a condition which is briefly expressed by the formula K.C.C. > A.C.C.

It has been shown by Erb[1] that in a muscle separated from its motor nerve this reaction undergoes a marked change, the A.C.C. becoming first equal to and then greater than the K.C.C., a reaction which, together with other electrical conditions, goes to make up the so-called "reaction of degeneration." This alteration in the electrical irritability of the muscle is well and briefly put by M. Nicaise.[2] He says: "During the first fifteen days the faradisation curve becomes gradually depressed. After the third week, the muscle is no longer excitable, at least through the skin. Towards the sixth week, in favourable cases, the excitability reappears, and gradually increases until it reaches the normal reaction. But the galvanisation curve follows an entirely different course. During the first fifteen days it follows the faradisation curve; but from the third week, when the interrupted currents have no longer any effect, the galvanic reaction is exaggerated, the curve is raised, soon exceeding the normal, and reaches its maximum when the other is at its minimum. At the moment that repair begins to take place the phenomena follow an inverse order; and at the same time that the faradic curve is raised the galvanic curve is lowered, and both gradually return to the normal level. If, instead of a favourable case, we suppose a case in which the regeneration of the nerve does not occur, there is no ascent of the faradic curve, and the galvanic curve, after being elevated, falls again to the normal, and then continues to sink until the reaction becomes *nil*."

The above paragraphs form a very accurate summary of the conclusions arrived at by Erb and other experimenters. The care with which the results have been recorded leave no doubt in my mind as to the accuracy of the observations, and it only remains to notice, before proceeding further, that these conclusions are the result of experiments on animals, and not of clinical observations on man. These experiments I have not myself repeated, both on account of the difficulty encountered in carrying them out in this country, and also because I have no doubt that the conclusions arrived at are correct. Moreover, inasmuch as I am interested more particularly in the nerve injuries of man, I have found that I could better occupy my time by examining the electrical reaction in the muscles after nerve injuries such as are met with clinically. And here I would point out again that the changes that occur in the nerves or in the parts supplied by them, as noted by experiments on animals, do not necessarily find their exact counterpart in similar conditions in man. This is a point that is duly appreciated by Nicaise, who says, after concluding the paragraph I have quoted, "Do the same phenomena occur in man as in animals which are made the subject of experiment? Precise observations are not sufficiently numerous to permit this fact to be definitely affirmed. A minute study of these electric phenomena in the traumatisms of nerves is, then, necessary before we can apply in all certainty to man the results observed in animals."

With this I entirely agree, but have so far searched in vain amongst the now numerous recorded cases of nerve injury for any information on this point. My own observations, however, lead me to disagree with Erb, in some particulars at least, and I would take the present opportunity of acknowledging the valuable assistance I have received in the examination of patients from Dr. Steavenson, electrician

[1] Handbook of Electro-Therapeutics.
[2] Article in Ashurst's Encyclopædia of Surgery, vol. iii.

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to St. Bartholomew's Hospital. I have found that in cases of nerve section in man the faradic excitability of the paralysed muscles has disappeared with much greater rapidity than in animals, for, whereas Erb states that it gradually fades and finally disappears in the third week, I have found absolutely no reaction to the strongest currents as early as the third or fourth day. In one case only excitability persisted until the eighth day.

With regard to the galvanic current, there is, again, a marked difference between the conditions in men and animals. In the latter the galvanic irritability of the muscles is said to become greatly increased at the second week, and in the third week the excitability is so great that contractions are excited by the current evolved from only two or three cells. Such is not my experience. I have never seen but once, and then it was doubtful, the least increased excitability. On the contrary, I have found that the galvanic irritability diminished rapidly, so that in two or three weeks, at a time when theoretically excitability should be at its height, strong currents produced but slight fibrillar contractions, which were also very slow and wavy. And, whereas by experiment the date of the final disappearance of galvanic excitability has been fixed at about eight or ten weeks, I have found it to vary in man from about the third to the sixth week.

With respect to the alterations in reaction to the kathodal or anodal closure currents, my own observations are in accordance with those of others. In about a week or ten days I have found that the anodal closure contraction was either equal to or greater than the kathodal closure contraction. This reaction is of great value from a diagnostic point of view, and is also most reliable. Considerable care is nevertheless requisite in investigating the affected muscles.

The next point for consideration is the permanency or otherwise of these altered reactions. Supposing that at the end of a few weeks all electrical excitability has disappeared in the paralysed muscles, when must we look for its recurrence, and in what way does its absence influence the prognosis? To this it may be answered that, if the divided nerve does not reunite, the electrical irritability will not return; but that, if it does reunite, *voluntary power will return before electrical excitability*. The first sign of repair as regards the muscles must not, then, be looked for in the electrical reactions, but in the return of function; and the continued absence of electrical irritability is not to be looked upon as sufficient ground for a bad prognosis. Voluntary power often returns many months or even a year or more before electrical excitability—a fact which is difficult to explain, but of which I cannot have the slightest doubt.

Does faradic or galvanic excitability return first? I cannot answer this question quite so definitely as some of the others. In some cases both have returned at the same time; in others the muscles have contracted to the faradic current whilst yielding no response to galvanism. I have never seen galvanic irritability return before faradic. In most of the cases I have observed, the galvanic reactions, when they first reappeared, were normal in quality; but in one case, where they did not return until six months later than the faradic reaction, the reaction of degeneration was well marked. The following notes of cases illustrate most of these points.

CASE 1.—James D——, aged thirty-four, divided his ulnar nerve on April 7th. 9th: No reaction to faradism of ulnar muscles; good reaction to galvanism of ditto. 14th: No reaction to faradism; very slight reaction to galvanism.

CASE 2.—Geo. H——, aged thirty, divided his ulnar nerve on May 8th. 11th: Muscles supplied by ulnar nerve react to faradism; galvanic current, A.C.C. = K.C.C. 13th: Complete loss of faradic contractility in all muscles supported by the ulnar nerve; very slight reaction to galvanism.

CASE 3.—Emile M——, aged forty-seven, divided his ulnar nerve at the elbow on Feb. 22nd, 1884. 25th: Faradic current; no reaction of muscles supplied by ulnar nerve.

CASE 4.—John S——, aged thirty, divided his ulnar nerve at the wrist on Feb. 23rd, 1885. 24th: Faradic current; all muscles react. Galvanic current, K.C.C. > A.C.C.; no increased irritability; ulnar muscles paralysed. 26th: Faradic current; slight reaction of interossei. Galvanic current, A.C.C. = K.C.C.; no increased irritability. 27th: No change. 28th: Faradic current; marked diminution of excitability. Galvanic current in third interosseous muscle, A.C.C. > K.C.C.; other interossei as before. March 1st: Faradic current, only the faintest contraction. Galvanic c[illegible] A.C.C. > K.C.C. 4th: No reactions to faradism. The faintest tremor to galvanism.

CASE 5.—Henry B——, aged forty-seven, divided his ulnar nerve on Feb. 6th. 20th: Complete loss of both faradic and galvanic contractility.

CASE 6.—Annie B——, aged twenty-seven, divided her median nerve at the wrist on September 27th, 1885. On account of her hand being entirely covered with antiseptic dressings I was unable to examine the condition of the muscles until the third week. On October 20th there was found to be no reaction to faradism in either the opponens or abductor pollicis. The same muscles gave the reaction of degeneration to the galvanic current (A.C.C.>K.C.C.), but instead of there being marked excitability there was great loss of galvanic irritability, and the contractions were slow and wavy. Oct. 30th: The muscles supplied by the median nerve require eighteen more cells to cause a contraction than do those of the other hand, and then scarcely react.

It will thus be seen that after nerve section the paralysed muscles usually fail to contract to the faradic current after the third or fourth day. That at the same time, tested by the galvanic current, A.C.C. = K.C.C., and later on A.C.C.>K.C.C. In from three to six weeks there is complete loss of all electric excitability.

In support of my statement that voluntary power returns before electric excitability I append the following extracts from cases I have observed:—

CASE 1.—J. C——, aged seventeen, divided his musculo-spiral nerve on March 25th, 1883. On April 28th the operation of secondary suture was performed. On July 27th there was some return of power in the previously paralysed extensor muscles, but no return of electric excitability. On Nov. 16th there was almost perfect restoration of power, but no reaction to galvanism or faradism. On March 25th, 1884, one year after the injury, there was complete restoration of voluntary power, but still no electric excitability. Oct. 9th, 1884: Wrist extensors and extensor ossis metacarpi pollicis react to faradism and galvanism, but the extensors of the phalanges of the fingers and thumb do not react.

CASE 2.—T. M——, aged twenty-four, divided his median nerve on July 20th, 1882. On May 5th, 1883, the divided ends were sutured. Nov. 26th, 1883: Return of power in opponens and abductor pollicis. No reaction to galvanism or faradism. March 28th, 1884: Muscles quite as good as on other hand; very slight reaction to a strong faradic current. Sept. 22nd, 1885: Reactions normal to faradism and galvanism.

CASE 3.—W. W——, aged nineteen, divided his ulnar nerve at the wrist. Seven months later the divided ends were sutured. In five months there was a return of voluntary power in the interossei and muscles of the ball of the little finger. A year later this hand was quite well, but there was yet no reaction to electrical stimuli.

CASE 4.—C. R——, aged eleven, divided her ulnar nerve in the forearm. Three months later secondary suture was performed. Muscular power began to return in about eighteen months. Six months later the muscles supported by the ulnar nerve reacted to faradism, but not to galvanism. After an interval of another six months galvanic irritability was restored, but the reaction of degeneration was well marked.

RESECTION OF AN IRREDUCIBLE AND GANGRENOUS INTUSSUSCEPTION.

WITH A CONSIDERATION OF THE TWO CHIEF METHODS OF TREATMENT: INFLATION AND ABDOMINAL SECTION.[1]

BY LAWFORD KNAGGS, M.A., B.C. CANTAB., F.R.C.S. Eng.

THE patient, aged five years and a half, a strong healthy boy, had been suffering from a cold for a week. His appetite had been small, and the bowels had not acted satisfactorily, a scanty evening motion taking the place of the usual morning one. On November 9th he came down to breakfast, looking pale and complaining of stomach-ache. A domestic aperient was administered, and after breakfast he vomited; but the bowels being moved only twice, and very inefficiently, a second aperient was given, and immediately vomited. The pain continued, and was

[1] Read before the Leeds and West Riding Medico-Chirurgical Society, February 4th, 1887.

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subsequently described as of a spasmodic character, but not very severe. The vomiting became frequent, and any attempts to take food caused retching. I saw him in the evening. The vomited matter was white and frothy. In the right iliac fossa could be felt what seemed to be thickened and solid coils of intestine, unlike anything elsewhere. The spot was tender, and to it he referred his pain. As I was manipulating these coils something seemed to move under my fingers, and I was unable afterwards to distinguish what I had previously felt. The manipulation gave pain, and caused retching. Temperature 98°; pulse 90. I concluded that what I had felt was probably an intussusception which had resolved under manipulation, and I ordered four minims of tincture of opium in one drachm of water every four hours; no food to be taken by the mouth. I saw him again later, and, the vomiting and pain continuing, I substituted subcutaneous injections of morphia with atropine for the opium. The tumour had not reappeared.

Nov. 10th.—Vomiting stopped after the subcutaneous injections, and he had slept fairly during the night. There was now a lump on the right side below the umbilicus, dull on percussion, somewhat pear-shaped, with the stalk sloped towards the right flank. It could not be indented by pressure; it was tender. There was no action of the bowels, but flatus had been passed. The rectum was empty. A very small quantity of urine had been voided. Tongue moist. Temperature 98°; pulse 100-110, good. The dose of morphia and atropine was increased, and he was kept well under its influence throughout the day, being allowed beef-tea by the mouth, but fed regularly by the bowel. In the evening he vomited some brown-looking fluid not unlike beef-tea—not offensive. The lump remained unaltered, and showed through the rectus as a prominence.

11th.—Passed a good night; pulse 120; tongue moist; no vomiting. Tumour less distinct, but perceptible and dull. The A.C.E. mixture was administered, and the bowel inflated with Lund's insufflator. Air could be felt under the fingers placed upon the tumour; this disappeared gradually, and the abdomen became generally distended and resonant, but there was no feeling suggestive of resolution having taken place. In the afternoon Mr. Teale and my father saw the case with me. All doubt as to the nature of the tumour had been set at rest by the passage of a pint of fetid dark-brown liquid fæces, having a reddish tinge due to blood. It was thought to come from above the obstruction, and, in the absence of any distinct tumour, to indicate that probably partial or complete reduction had resulted from the inflation. The operation therefore was to be repeated in the morning. The child passed an easier night under the morphia and atropine, but woke every half hour, complaining of "that awful pain." Two motions of the same dark fetid character, but now containing mucus as well as blood, were passed.

12th.—He is evidently worse. Pulse 140, compressible; tongue dry, slightly brown, and covered with sordes; features pinched. Inflation was repeated, but with no more satisfaction. With a view to operation, he was now fed by the mouth; so that with nutrient enemata, each containing one drachm of brandy, every three hours, and champagne, brandy-and-water, calves' foot jelly, chicken broth, and essence of beef by the mouth, he had taken a considerable amount of nourishment and stimulants before he was again seen by Mr. Teale at 7.30 P.M. His condition then was much improved, but his pulse was 146, his temperature 99·4°, his tongue dry, and he was incoherent and rambling. He had passed another liquid motion containing more blood and mucus than the previous ones, and much more offensive.

It was now thought that the risks were greater if no interference was attempted, and so it was decided to operate, and if it became necessary to remove the intussusception to attach the open ends to the abdominal incision in order to economise time, and so tend to lessen the shock. With Mr. Teale's assistance, my father giving the anæsthetic—A.C.E., for which ether was eventually substituted,—I opened the abdomen by a median incision three inches long, and at once found the tumour lying rather deeply on the right side. There was considerable difficulty in getting it to the surface without undue traction, and when this was accomplished nothing could be made out until the whole mass was drawn outside the abdomen. It was nearly a foot in length and curved, and proved to be an intussusception into the small intestine, in which it was very tightly strangled, the outer layer being arranged around the upper part in collar-like rolls. The intussusception passed through the ileo-cæcal valve, and for three or four inches into the large intestine. It was quite loose here, and for two or three inches in the adjoining part of the ileum, and it could be easily pushed back at this part, but the mass was so tightly gripped above, that prolonged and steady traction, both at the upper and lower ends of the tumour, had not the least effect upon it. Moreover, there were several dark-coloured patches upon the outer layer, where the pressure was greatest, suggestive either of gangrene or blood beneath. The attempt to reduce the invagination was abandoned, and the intestines protected by lint wrung out in carbolic lotion. Following a suggestion of Mr. Teale's, with the object of saving as much bowel as possible and avoiding a subsequent union of small with large intestine, I made a transverse opening in the ileum three inches above the valve, and through this pulled out the lower part of the invagination. A ligature was applied to it high up and the free end removed; it was black and offensive. I then found that there was a small perforation about an inch below this incision through which blood and mucus could be squeezed from inside, so I made the section of the gut an inch nearer the colon than I had intended. Before doing this I clamped the bowel above and below the invagination with Treves' clamp, and ligatured the mesentery to the tumour half an inch from the bowel with five or six ligatures. The tumour was then removed between the clamps and its attached mesentery cut through. At this stage the patient's state became very serious, and it was deemed advisable to conclude matters as quickly as possible. The upper end was attached to the abdominal incision by deep sutures passed through the abdominal wall, and the peritoneal and muscular coats of the bowel, and by superficial ones between the skin and the mucous membrane. To do this the clamp had to be removed, and the open end was held by a pair of Knowsley Thornton's pressure forceps, an instrument that proved extremely useful, completely closing the gut and allowing it to be manipulated quite out of the way of my fingers. On removing it to put in the superficial sutures, a small piece of sponge effectually prevented any escape of fæces. The lower end was then fixed, the incision closed, a dressing applied, and the child put back to bed. He was then pulseless, but soon came round from the ether, and after stimulant had been administered by the bowel and under the skin, a small pulse could be felt. He was very restless, never rallied, and died about an hour and a half after the operation.

The success that has attended inflation in cases of intussusception has been so satisfactory that it is not surprising it has now become recognised as the first operative procedure which should be attempted. The ease with which it can be carried out, the simplicity of the means for its performance which can be so readily extemporised, are likely to render it a very popular method with practitioners, who may be so situated as to be beyond reach of the ordinary hospital requisites needed for serious operations. A clear appreciation of the dangers to which any operation is subject by no means makes it less useful, but rather enhances its value by ensuring a more thoughtful intelligence in its performance. I feel therefore tempted to try to bring out clearly the dangers to which forcible distension of the bowel by air or water is liable; the more so because of the usual text-books Fagge's "Medicine" is the only one in which I have found special reference to them, and I believe that there exists a very general opinion that if inflation does no good, at least it can do no harm. The following eight cases show that there are two great dangers in the operation: injury to the bowel, even to the point of rupture, and shock:—

CASE 1. (Mr. Bryant.)—Boy, aged six months. During inflation the abdomen became generally distended; no air escaped per rectum. The child became almost pulseless. Post-mortem: Fæcal extravasation. "The left half of the transverse colon and splenic flexure were constricted and perforated." A second opening was found lower down in the sigmoid flexure. (Harveian Lectures, 1884. This is probably the same case as that alluded to by Dr. Fagge and Mr. Howse in the Med. Chir. Trans., vol. lix.)

CASE 2. (Mr. Symonds.)—Boy, aged five months. During inflation the abdomen became suddenly distended, and when opened brownish mucus was found inside the peritoneal cavity. Perforation had occurred in a portion of the invaginated bowel, which was easily reduced. (Not published.)

CASE 3. (Mr. John Thomas.)—Boy, aged five months. The tumour could be felt per rectum. About nine ounces of water were injected, when a rumbling noise was heard in the abdomen. No air returned. Post-mortem: In the pelvis

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was half a tumblerful of water. (THE LANCET, Dec. 25th, 1886.)

CASE 4. (Dr. Tyson.)—Case where oil was found in the abdominal cavity after death. (*Brit. Med. Jour.*, Dec. 3rd, 1881.)

CASE 5. (Dr. Moxon.)—Child, aged seven months. After inflation and enemata the colon had partially given way in several places. (Med.-Chir. Trans., vol. lix. Probably the same case is recorded by Mr. Bryant in the Harveian Lectures.)

CASE 6. (Mr. Bryant.)—Boy, aged seven months. The bowel between the intussuscepted portion and the sigmoid flexure was partially ruptured in many places. The peritoneal covering was cracked and turned out, and in the sacculi the longitudinal muscular fibres were torn and the transverse separated. (Harveian Lectures.)

CASE 7. (Mr. Bryant.)—Child, aged seven months. The bowel was inflated, and the child became collapsed, convulsed, and died. (Harveian Lectures.)

CASE 8.—Dr. Fagge and Mr. Howse mention a case of an adult in which a large injection of seven pints injudiciously administered was supposed to have caused the death of the patient. (Med. Chir. Trans., 1876, vol. lix.)

In one only of these cases was the age not stated, but of the remaining seven it is interesting to note that in all three cases in which rupture occurred the age of the patient was only a few months; that the two in which the bowel was seriously injured were only a month or so older; and that six of the seven in which harm resulted were children less than eight months old. Admitting the greater frequency of invagination in young children, these figures point strongly to the conclusion that the intestines of infants are not well suited to bear great distension. Nor is this astonishing when we bear in mind their thinness and delicacy.

What bearing have these facts upon the question of the administration of an anæsthetic during inflation? In adults anæsthesia is dispensed with, that the operator may obtain information from the sensations of his patient and regulate the continuance of the operation by them; but in infants insensibility is usually deemed advisable to ensure the proper application of the method, and by the abolition of spasm to improve the chances of its success. Admitting that a surgeon is not likely to obtain much information from the intelligent co-operation of a conscious child forcibly subjected to inflation, yet if it is anæsthetised there is the very obvious danger that the distension may be carried to too great an extent in consequence of the inability of the patient to feel or to express any discomfort. Now it has been pointed out that to employ inflation when sloughing of the invaginated gut is in progress is sure to result in disaster; but in considering the applicability of this method to any particular case, it is necessary to bear in mind that the only certain sign of sloughing is the passage of portions of gangrenous gut, that acute symptoms do not mean the onset of gangrene, but probably the commencement of conditions which will end in gangrene if the patient survive long enough, and that in cases in which gangrene has been supposed to exist the facts have as often as not been found to belie the supposition. The operation, then, is only contra-indicated in those cases in which there is certain evidence of sloughing in the passage of portions of gangrenous intestine. Sometimes, quite distinct from gangrene of the invaginated intestine, there are other conditions of the tumour, or having some connexion with it, which predispose the patient to suffer injury from forcible distension of the bowel. Such conditions are gangrene, ulceration, and perforation of the outer layer from outward pressure of the tumour, or ulceration of a neighbouring part of the bowel, a not very uncommon accompaniment of intussusception, and which is sometimes thought to be the exciting cause, and at others may be produced by the invagination. The following instances will illustrate these conditions:—

CASE 9. (Dr. Charlewood Turner's case.)—There was found ulceration of the cæcum, into which the apex of the tumour had passed. (Path. Soc. Trans., 1881.)

CASE 10. (Mr. Henry Morris's case.)—On the sixth day the outer layer of an intussusception of the small intestine was found gangrenous from pressure, and almost perforated in three or four places. (Path. Soc. Trans., 1877.)

CASE 11. (The case reported above.)—On the fourth day a minute perforation existed in the outer layer at a place where the tumour was easily reducible, and several places very suggestive of commencing gangrene where the invagination was tightly grasped.

Though perforation in Dr. Turner's case did not take place till three days after the employment of large injections had been discontinued, yet their existence must have rendered forcible distension a very hazardous proceeding, and I feel that it was a piece of good fortune that no harm resulted in my own case.

(To be concluded.)

ON THE

CHEST DISEASES AFFECTING WORKMEN AT COPPER WORKS.[1]

BY H. A. LATIMER, M.R.C.S., L.S.A.,

SURGEON TO THE SWANSEA HOSPITAL, THE MORFA AND PORT TENNANT COPPER WORKS, &C.; PRESIDENT OF THE SWANSEA MEDICAL SOCIETY.

I HOPE I shall meet with approval in bringing before the notice of the profession a diseased condition with which many practitioners are brought into occasional contact, and which forms a large part of the practice of others who, like myself, are engaged in attendance on persons who labour in one of the special industries of this country. I allude to the chest complaints set up in those who are employed in the manufacture of copper and yellow metal—staple industries of the town of Swansea and its neighbourhood. I am compelled to adopt a somewhat indefinite nomenclature for the title of my paper, because, by the very nature of the pathological changes induced in the chest primarily, and in the general system secondarily, I am prevented from giving a definite title to the matter under consideration. Thus, for instance, I should be failing in my purpose were I to speak of chronic bronchitis, or of chronic interstitial pneumonia, and so on, when dealing with the matter at issue; for either of these diseases, alone or together, form only links in the chain of morbid conditions which are set up by the pulmonary irritations caused by the oft-repeated inhalations of noxious substances, whether gaseous or mechanical, which act as the irritants and disease-producers amongst the workmen who labour under such exposures. Indeed, for many years past, I have been in the habit of alluding to the cases which form the subject matter of this paper as examples of "copperman's chest," a title which perhaps fails to convey to the uninitiated any sense of pathological entity, but which is sufficiently comprehensive to carry with it to the minds of students a knowledge of what condition the sufferer is in. I venture to say that no practitioner who has the care of workmen engaged in the manufacture of copper will disagree with me in thus denominating a class of disease with which he is brought into familiar contact.

What, then, may one expect to find in the "copperman's chest"? Two things will always be found, at least; and these two things are bronchial disease and interstitial pulmonary change, both more or less pronounced in character. As time progresses other organs than the lungs become affected, and the sufferer presents a very storehouse of symptoms for the consideration of his medical attendant. I think I shall best deal with the matter by a description of a patient of mine who is now under my treatment, as his case is a very typical one and well adapted for my purpose.

S. T——is now fifty-six years of age, and has been engaged in copper works since eight years old. He has always been a very steady and abstemious man. He started as a labourer's help, became a labourer engaged in discharging coal and ore, moved on to be a furnace-man, then worked in the refinery, and finally became what is known as a "gaffer" or foreman. His family history has a well-marked phthisical taint in it. At different periods he contracted colds like other people, and the colds always affected the chest; but there was nothing notable about this circumstance until the last ten years or so, since which time he has been more or less a sufferer from cough and shortness of breath. During this period his colds would take the course to which I am now well accustomed in men of his class—viz., they would be characterised by chronicity of process and by resistance to ordinary remedies for that class of disease. For some years past he has never been free from some shortness of breath and cough. For the past twelve months he has been quite unable to work, as he has suffered from

[1] A paper read at the Swansea Medical Society on October 29th, 1886.

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increasing shortness of breath with dyspnœa on exertion, from asthmatic attacks, from drenching perspirations by day and by night, from great disinclination for food and inability to digest the same, and from constantly increasing weakness as a result of those troubles. The heart beats feebly and frequently in its efforts to pump the blood through the lungs, and, under the presence of constantly increasing resistance there, has become overloaded, so that its right side has failed to empty itself, and there is venous regurgitation. The stomach and other abdominal viscera, being overloaded with retarded blood, and so passively congested, are affected with catarrh, and the kidneys are with difficulty excreting a scanty urine, which is loaded with albumen. S. T——'s case is on all fours with many others that I have witnessed, and, in reply to my frequent advice that he should shift his quarters and his employment at an early period in treatment, I have been told, "What can I do, sir? I am too old now to start afresh, and my state of health is not such as to commend me to any other employers of labour than those for whom I have worked for many years past." And so it happens that the sufferer drifts into the condition of confirmed and fatal disease.

I have said that all the cases present at least two conditions—viz., those of bronchitis and chronic interstitial pulmonary changes. There is a wide variance, however, in the type of the former complaint. With many persons the bronchitis remains to the end the main morbid condition, and loud rhonchi—sonorous or mucous in character—indicate the chief foci of disease. This bronchitis becomes chronic, and, emphysematous changes occurring in the lungs, the tubes yield here and there, and form large bronchiectatic cavities, from which great quantities of offensive sputum are discharged at different times. The condition is one which is prone to mislead inattentive observers, who are apt to regard the bronchiectatic cavities with their surrounding layers of condensed lung tissue as being vomicæ caused by the ravages of tubercular phthisis. But the extensive character of the morbid condition, as well as the duration of the disease, and the concomitant conditions of emphysema and cardiac trouble, are sufficient to negative such a view of the case, even if we exclude the information given us by careful physical examination of the patient. One such patient as I have now been describing died under my care last year. For many years past he had been confined to the house in the winter months suffering from dyspnœa, gastric catarrh, and all the bronchial disease just spoken of. With the first cold winds of the year he would be affected, the breathing at once becoming much obstructed, the cough gaining rapidly in force and frequency, and the attacks of dyspnœa becoming more and more severe, until orthopnœa would declare itself and he would have to pass the greater part of the twenty-four hours in a sitting position. Here, as with S. T—— and all my other patients affected with the disease, the heart became more and more affected with incapacity to pass the current of blood through its chambers, and so there ensued venous engorgements and dropsical affections. This heart failure plays a most important part in the later stages of illness, and in by far the greater number of those under my observations has been the immediate cause of death, through asthenia and syncope.

I will now deal with the question of the alterations in the lungs proper, which at all times are to be found in these cases. I would premise that the changes in these organs are not secondary to inflammatory attacks there, either as lobar or lobular pneumonias, but that they are from the first a prominent feature in the chest symptoms complained of by the sufferers. In the early stages of illness, occurring, for most part, many years before the patients are reduced to a condition of permanent invalidism, one finds on auscultation marked increase of duration in the expiratory breath sound, with a lessening of the volume of the respiratory murmur generally. It is very evident that the normal elasticity of the lung tissue is impaired. This impairment, once produced, remains as a permanent condition, and it needs only a catarrhal influence, whether atmospheric or irritant, to throw the whole breathing apparatus out of gear. I know a number of workmen who are sure to appear at my surgery on the first frost or prevalence of east winds, suffering from severe cough with difficulty of breathing, and these men are the ones affected in the way I have just described. Under the influence of these miserable circumstances the sufferers become, as a rule, despondent and bad-tempered. I am not disposed to regard this despondency as due altogether to their actual sufferings; on the contrary, I attribute it largely to the functional disorders of their digestive organs induced by the vascular disturbances there to which I have already adverted. Moreover, the very nature of the complaint, coupled with the fact that those affected are compelled to continue under the adverse influences by which it was contracted, are sufficient to account for much that is unsatisfactory in the results of treatment. When the bronchitis predominates, very satisfactory results often follow one's attendance, but in the lung disease proper drugging yields but very poor returns.

So far I have not spoken of the exciting cause of this chest mischief, and I will now deal with this matter. I find that the parts of the works which seem to be most injurious to those engaged in them are the calcining and the yellow metal departments. In the process of calcination or roasting, the rough copper ores which are in combination with different proportions of other metals, such as iron and sulphur, tin and arsenic, together with earthy matters, are heated in an appropriate furnace to such a pitch that the volatile ingredients are disengaged in the gaseous form, "whilst the metals that possess a strong affinity for oxygen become oxidised." Much dust also is flying about, and so a calcining furnace and its neighbourhood is a very rough corner of the works. The yellow metal workers suffer still more than the calciners, for the place in which they are working becomes at the moment of casting quite enveloped in fumes and particles of volatilised metal, which are necessarily drawn into the lungs when breathing. I may remark in passing that I have met with well-marked cases of "brassfounders' ague" amongst those yellow metal workers. But the injurious influences of the works are not limited to the calcining and the yellow metal departments; on the contrary, the whole range of furnaces at which the metal is smelted, and the mill in which it is rolled, all contribute to the general fund of irritation.

Now I come to the question of the duration of life in those affected with "copperman's chest." This is by no means short, although most of those who are sufferers by their occupations become prematurely old. It is no exception for men to live up to a good age, having been troubled with the various ailments I have spoken of for thirty years and onwards. The thing varies in degree, and although many men die at a comparatively early age from acute chest attacks grafted on chronic disease, a great many go on from year to year, suffering each winter from distressing coughs, shortness of breath, cardiac and gastric disturbances, &c., to such an extent that life is more a burden than a pleasure to them. I suppose the very conservatism of the pulmonary changes which form the product of the constant irritation to which they have been exposed serves them in good stead, and is a great bar to sudden and severe inflammations which would have the effect of terminating life. The keynote of the pathology of the subject is evidently irritation; and we all know what results when mechanical irritation affects the lungs and bronchial tubes: the former become affected with "a progressive fibrosis," whilst the latter take on dilatation and ulceration. The lung fibrosis becomes more and more confirmed; the "fibro-nucleated tissue [I now quote from Green] which constitutes it is developed from the walls of the alveoli, from those of the bronchi, and from the interlobular tissue; which new growth, as it increases, and from its tendency to contract, gradually replaces and obliterates the alveolar structure." Hence ensues permanent dyspnœa, aggravated at times and under various irritations into attacks of asthma. The very density of the lung, now occupied largely by fibrous tissue, is a bar to the presence of much blood in the parts, the capillaries being to a very great extent obliterated. Following this obliteration comes imperfect aeration of blood and all its concomitant troubles; whilst, on the theory of "collateral fluxion," the blood present in the body has to find some new channel of distribution other than its ordinary one, or submit to curtailment. We shall see that this last fact is well worth noticing, with a view to treatment directed against symptoms arising in consequence of it.

I have drawn special attention to the cardiac disturbance in these cases. It shows itself in the form of rapid and irregular action, and, in the later stages, by manifest incompetency to carry on the current of the circulation. On examining the pulse, it will be found to be irregular in force and rhythm—circumstances due, I take it, to disturbances of the vaso-motor nervous system. One can easily understand that the heart disturbance and incom-

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petency are due to failure in coping with the extra difficulty it finds in propelling the retarded blood through the pulmonary capillaries, and that, just as in kidney cirrhosis, but in a different way, it is disturbed in its function. In kidney disease, hypertrophy of the heart often ensues; in these cases of interstitial pneumonia, due to copper smelting, the force of the heart's action is not augmented, but its frequency is, whilst the rhythm of its contractions is disturbed or abolished. May not the fact of the aeration of the blood being interfered with, and, through this disturbance of aeration, the general functional health of the body, have as much to do with enfeeblement of nervous control and heart contraction as the mere mechanical difficulty in propelling a blood current with an organ of ordinary capacity has? I cannot remember ever having met with a case of hypertrophy of the heart where there has been pronounced "copperman's chest"; on the contrary, in the majority of cases, I have found the condition of debility prevailing to which I have just drawn attention.

One can easily see, from the foregoing, that there is no royal road to *treatment* in the complicated state of "copperman's chest." To my mind, susceptibility plays a very important part here as in other diseases. I believe the majority of cases originate during the existence of a catarrh, and that the irritations have not much power of doing permanent mischief when the breathing apparatus is in a healthy condition. Acting on this theory, I do what I can to keep workmen affected with recent chest troubles at home, and on the funds of their clubs, as I regard an abstinence from work at such a time, in such an atmosphere as obtains in copper smelting, as a prophylactic measure of the first value. I cannot say that I have found any one drug to prove of especial value in treatment. I had hoped much from iodide of potassium, but have been disappointed. Belladonna, morphia, ipecacuanha, cod-liver oil, and digitalis are all serviceable in their turn, when indicated. The treatment, in fact, resolves itself after a while very much into one of combating symptoms; and the main point is to keep the patient as jealously guarded from adverse atmospheric influences as is possible. As with all people affected with organic visceral disease, chilling of the surfaces, whereby blood is diverted into the deeper-seated parts, is to be carefully guarded against; and it is a *sine qud non* in bad cases that the patient shall be kept in-doors during the prevalence of the cold or changeable seasons. The patients are most sensitive barometers, and, just as the column of mercury in a weather glass runs up and down with the varying atmospheric pressure, so they continually alter under the same influences. Box them up ever so much in comfortable quarters, they will still respond to the weather outside. The one special point in treatment is to act freely on the bowels occasionally. This gives marked relief, not only to the discomfort of flatulence from which they are prone to suffer, but to the very breathing itself. In bad cases where attacks of dyspnœa have prevented sleep, and when bromide and other soporifics have failed to give relief, a timely dose of jalapine or of white mixture has often proved a veritable sleep-inducer by tranquillising the system and allowing repose. It is well to bear this matter in mind, for the purgative often gives relief when not directly indicated.

Swansea.

CASE OF SLOUGHING OF THE SCROTUM, UNCONNECTED WITH URINARY EXTRAVASATION.

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AND
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IN connexion with the cases published by Mr. Morrant Baker under the above heading in THE LANCET of July 25th, 1885, and also of June 5th, 1886, the following notes may be of interest.

Private J. P——, aged forty-one, was admitted into hospital on the morning of June 4th, 1885. At the time of admission there was considerable swelling of the scrotum and perinæum, with a dark thin [illegible] of discolouration on the anterior surface of the scrotum. The appearance was very suggestive of extravasation of urine. The scrotum, however, was not tense, though much increased in size; the movements of the man's body as he was lifted into bed conveyed a tremulous motion to the œdematous scrotum. There was fulness in the perinæum, which was rather more tense on the left than on the right side. Pulse 120; temperature raised. Tongue clean; cardiac sounds clear, and the physical signs of the lungs normal. The urine contained rather more than a trace of albumen. The patient is a strongly built, well-nourished man, but has been a rather hard drinker. He stated that he had a fall on the buttocks on June 2nd whilst going downstairs, and that on the following day the scrotum commenced to swell. He had since then, he stated, had a little difficulty in passing urine, but there was no history of stricture. A medium-sized catheter (Sir H. Thompson's) passed into the bladder without difficulty. This was withdrawn and No. 11 passed readily. It was thought advisable to tie in the catheter for a time. He was ordered to have some warm fomentations applied to the scrotum, and to take tincture of cinchona with dilute nitro-hydrochloric acid. In the evening it was evident that the scrotum would slough. Twelve or fourteen incisions were made in the scrotum, which was tenser than in the morning. The œdema was spreading to the penis, where an erysipelatous blush was present. A large amount of serum, perfectly free from any urinary odour, drained away. Temperature 104·5°; pulse 122. Poultices applied to scrotum.

June 5th: Temperature 103°; pulse 105. The penis is more involved. Several incisions made. Evening temperature 103·2°; pulse 114. Fresh incisions necessary.—6th: Temperature 103·6°; pulse 112, rather small. Tenderness felt on pressure above the groins, inflammation spreading to the subcutaneous tissue of the abdomen. Ordered one grain of opium, to be repeated in six hours, with strong beef-tea, eggs, and brandy. Evening temperature 103·4°; pulse 112. The patient showing a tendency to be very drowsy, the opium was not repeated. An incision has been made above the right groin, and incisions also into the subcutaneous tissue of the penis. Warm hip-baths with Condy's fluid ordered.—7th: Temperature 101·7°; pulse 106. Patient's aspect improved. Portions of the skin of the penis have sloughed. Evening temperature 102·9°; pulse 112. Charcoal poultices applied.—10th: Temperature 101°; pulse 100. Yeast poultices ordered. Evening temperature, which has been lower for the last two days, has risen to 103°; pulse 107.—11th: Temperature 101·6°; pulse 112. Patient's general condition improved. Nearly all the sloughs have come away, comprising the scrotum (with the exception of a fringe of tissue on each side, which much resembles in its shape and irregular border a cock's comb), the septum scroti, and the loose subcutaneous areolar tissues of the perinæum. The two testicles, enclosed in their coverings of fascia, hang down completely denuded of cutaneous and dartos tunic. Evening temperature 102·9°; pulse 120.—12th: A little arterial hæmorrhage occurred from a vessel at the back of the wound, which was secured with a ligature. Temperature 101°; pulse 90. Evening temperature 101·4°; pulse 80.—13th: The surface of the wound is becoming clean, and looks healthy. Iodoform is now dusted over the surface. A liberal allowance of brandy and light nourishment ordered. Temperature 99·1°.—19th: Temperature still raised slightly at night. The discharge from the wound is decreasing. The incision above the right groin having closed, there is now some accumulation of pus. A drainage tube inserted; glycerine and carbolic acid applied as a dressing to the testicles.—24th: The fringes of skin are granulating from the bottom on the inner surface, and adhering to the testicles.—28th: The testicles appear much contracted, and are being gradually drawn up towards the groins. Granulations cover the cords and testicles.—July 1st: Deep-seated suppuration above the right groin, causing slight rise of temperature.—5th: Five skin-grafts were placed on the penis, which had lost a very considerable part of its cutaneous covering.—12th: Second grafting of four pieces of skin.—17th: Six of the grafts have taken. The wounds are healing fast.—27th: The patient is able to eat solid food, with a pint of ale. The wounds are dressed with sanitas. During the process of healing the testicles have gradually been retracted, and are now drawn up close to the external openings of the inguinal canals, and covered over by the thick adipose layer situated here. The fringes of skin left from the scrotum have been during the past ten days pressed over the wound by means of pads, and the

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two granulating surfaces have united. A triangular surface is left covered with granulations between the edges of these fringes of skin.—30th: Two skin-grafts applied to the granulating surface. The testicles are now gradually coming down into the newly formed scrotum.—Sept. 14th: The wound is healed with the exception of a square half-inch.—30th: The patient was discharged from hospital, and shortly afterwards returned to duty.

At the present time (August, 1886) the man is in his usual health and performing his duties as a soldier. The urine is found on examination to be free from albumen.

Wellington Barracks, S.W.

PUERPERAL APOPLEXY IN A YOUNG WOMAN;

LIFE MAINTAINED FOR FOURTEEN HOURS BY ARTIFICIAL RESPIRATION.

BY N. WHITELAW BOURNS, M.D.

MRS. E——, aged thirty, engaged me to attend her in her first confinement, which she expected about the end of March. She was a rather thin, anæmic-looking woman, and a great sufferer from chronic rheumatic arthritis, causing distortion of the finger joints. She informed me that the articular trouble had been much better during her pregnancy; she otherwise enjoyed fairly good health. At 3.30 A.M. on February 18th I was called, and told by the husband, a medical man, that she appeared in her usual health up to midnight, when she retired to her bedroom, having entertained some friends during the evening. Her husband joined her about 1 o'clock, and found her complaining of pain in the epigastrium, for which she took a little bicarbonate of soda. The bowels had acted before going to bed, and urine had been passed freely. About 1.30 A.M. she complained of constant pain over the abdomen, and was given a grain of opium in a pill; but the pain continuing, a vaginal examination was made by her husband, and as he found the os externum dilated to the size of a shilling, he thought it well to send for the doctor and nurse. The patient was then begging for chloroform to relieve the continuous abdominal pain. I reached the room at 3.45 A.M., and found her quite unconscious, lying on her back, rather high in bed, with her left hand apparently supporting her head. On examination I found the os slightly dilated, and with some difficulty made out a vertex presentation. There was no vaginal discharge. Pulse about 90, and regular; respirations natural; pupils equal, not contracted, reacting to light. I carefully watched her for some little time, and saw that she continued in the same state, with occasional uterine expulsive pains, during which she held her breath, and moved her legs up and down in bed. As the urine voided before going to bed had been thrown away, I passed a catheter, and found the bladder empty; but upon withdrawing the instrument, a couple of drops of deeply blood-stained fluid escaped from its eye. Feeling alarmed at the condition of the patient, I sent for Dr. Clement Godson, and shortly afterwards found the pulse much slower—not more than 60 to the minute—and rather full; pupils equal, slightly dilated, and not reacting to light. No appearance of paralysis of the muscles of the face. The breathing for a few respirations was inclined to be stertorous, and at 6.15 A.M. she gave a couple of sighing inspirations, and then stopped breathing. No pulse at the wrist. The heart could be felt over the præcordial region, but the action was very feeble. I at once set up artificial respiration, and the heart soon began to improve, so that when Dr. Godson arrived, soon after 7 o'clock, he was able to count the pulse in the radial, and made it 96 to the minute. We discontinued the artificial respiration, but within two minutes the patient became markedly cyanosed and the pulse almost imperceptible. Artificial respiration was again started; hypodermic injections of ether and enema of brandy given, and the galvanic battery freely used. The fœtal heart was listened for, but could not be heard. Dr. Godson passed a catheter and drew off about three drachms of dark blood-coloured fluid; he found the os dilated to the size of a two-shilling piece. Enemata of peptonised beef-tea was given, and the respiration kept up by a staff of neighbouring medical men, who kindly lent their services. No change took place in the condition of the patient up to 2.30 P.M., when we had the advantage of a consultation with Drs. Playfair and Godson, and the diagnosis of cerebral hæmorrhage was maintained. However, artificial respiration was continued until past 8 o'clock, when reluctantly we had to admit that the case was hopeless, and on discontinuing our efforts life was soon extinct.

For the following post-mortem report I am indebted to Mr. Colby of St. Bartholomew's Hospital. Examination nineteen hours after death:—Rigor mortis well marked. Heart: Some excess of pericardial fluid, a patch of recent lymph as big as a shilling over the front of the ventricles near the apex. No valvular disease; no atheroma of the aorta. Lungs: Œdema of both lower lobes. Liver: Capsule stripped off easily in the neighbourhood of the right kidney. Kidneys: Some irregularity and thinning of the cortex. Surface smooth. Capsule of right came off very easily, and the organ was engorged. Ureters free. Bladder empty. Brain: Under the meninges and on the surface of the left hemisphere was a clot as large as a crown piece, covering the upper end of the fissure of Rolando; on the parietal region of the right hemisphere a similar but smaller clot. In the left hemisphere was a clot as big as a duck's egg, continuous with that on the surface, and lying outside the external capsule, but compressing both the basal ganglia and the convolutions. The right hæmorrhage was superficial.

There are, I think, several points of interest in connexion with the case. Had parturition actually set in before the hæmorrhage occurred? Again, were the uterine efforts in any way owing to the cerebral clot? I am inclined to think that, considering the aspect of the case before the loss of consciousness, and the condition of the os, the first step in the case was commencing parturition. Next as to the diagnosis; this was admitted by all to be a point of great difficulty, as the age and appearance of the patient, the onset of the attack, the absence of any paralysis, facial or ocular, and the fact of the catheter drawing off only a little sanguineous fluid, all point to other than cerebral causes. Lastly, the length of time life was maintained by artificial respiration is, I think, very interesting, if not unique, as there cannot be the least doubt that any interruption of artificial respiration between 6.15 A.M. and a few minutes past 8 P.M. must have resulted in immediate death. It would also be interesting to know how long life would have been maintained if sufficient relays of medical men could have been procured to continue artificial respiration. In conclusion, I may say that both Dr. Playfair and Dr. Clement Godson look upon the case as a most unusual one, and well worthy of being placed on record.

West Brompton.

A CASE OF

OVARIOTOMY, FOLLOWED BY SECONDARY INTRA-PERITONEAL HÆMORRHAGE; RE-OPENING OF THE ABDOMEN; RECOVERY.[1]

BY HENRY W. FREEMAN, F.R.C.S.I., L.R.C.P. LOND.,
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LIZZIE D——, aged twenty-two, a fine, tall, young, single woman, the eighth child of a family of nine, was admitted into the Royal United Hospital, Bath, on July 21st, 1886, with an abdominal tumour. She had menstruated painfully for five years, the menses having ceased four months before admission. She stated that a swelling on the right side of her abdomen had been noticed for fifteen or sixteen months, and it had gone on increasing solidly towards the left side, accompanied by some œdema of the legs. Her general appearance, however, was that of a healthy woman, and, but for the mechanical weight in carrying about the tumour, she had little to complain of, and had done her work as a domestic servant up to the day of her admission.

On examination, the abdomen was found to be occupied by a smooth, hard, semi-elastic growth, a little uneven at its upper margin, and extending from the *left* side of the pelvis to four inches above the umbilicus; dull all over on per-

[1] Read at the Bath and Bristol Branch of the British Medical Association, Dec. 9th, 1886.

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cussion, with no definite fluctuation anywhere. The flanks were resonant, and the fingers could be carried between the tumour and the pubic rim. The abdominal circumference measured thirty-five inches and a half. Her excretory organs were healthy. The cervix uteri was pointed and pushed backward in the direction of Douglas's pouch; the uterus was fixed, the sound passing in to the extent of an inch and a half only. A rough, harsh friction sound was heard over the right lobe of the liver, and an extensive adhesion was diagnosed.

On Aug. 19th the patient was operated upon, under ether and antiseptically, and a large single solid cystoma was seen on opening the abdomen. An extensive adhesion was found over the right lobe of the liver, which was broken down and ligatured with chromic silk. The tumour was solid and unyielding, and before it could be raised from its bed free incisions were made and quantities of semi-solid gelatinous matter got away. Other small adhesions were treated in the usual way. The pedicle which involved the *left* ovary, *not* the right, was broad, thin, and so short that it was strained upon when the solid growth was moved in the abdomen. The pedicle was transfixed with the Staffordshire knot, clamped, and subsequently cut off with a bistoury. The peritoneal toilet was carried out by the aid of a Leiter's irrigator with warm water, and much sponging for cleaning out the abdomen was consequently avoided. An eight-inch Keith's glass drainage tube was inserted through the lower angle of the wound down into Douglas's pouch, and guarded antiseptically. Chromic acid sutures for the abdominal parietes were used as usual, and the patient was put to bed in an apparently satisfactory condition, with but little shock or collapse. Four hours afterwards, on visiting my patient, although the nurse reported favourably of her, a glance on removing the dark window-blind told me all was not right: the face was pale, pulse rapid, and the surface of the body was getting cold and clammy. On examining the tube and dressings no discharge was seen, but on carrying the rubber tube of a suction syringe through the glass tube straight into Douglas's pouch an ounce and a half of pure venous blood was brought up. Dr. Cave (the resident physician) quickly joining me, it took but a few seconds and a whiff of ether and chloroform to reopen the abdomen, when, to my dismay, we found the intestines were swimming in blood, and the whole abdomen filled with fluid and clot. Brandy was quickly injected into the rectum, the cavity rapidly cleared out, the pedicle seized and inspected, and the tied adhesions examined closely, but we could not make out the bleeding spot. When the stump of the pedicle was raised no venous oozing could be detected; when it was dropped back again into the abdomen oozing took place again and again into Douglas's pouch, but the blood came *not* from the stump. The pedicle was found securely ligatured; nothing came from it. On carrying a light into the pelvis, blood was seen to ooze from a small valvular rent in that portion of the left broad ligament between the stump and fundus of the uterus, but only when the pedicle was in a dependent condition and lying in the pelvis; it stopped at once as soon as it was raised and held up. Evidently a rent had been made in the pampiniform plexus of the left broad ligament, and it was at last picked up, transfixed in two places, and tied in halves. The abdomen was again minutely cleaned out with the irrigator, the wound closed, and the tube replaced; but the patient was pulseless and apparently moribund. A large wash-hand basinful of blood and clot had been cleared out of the abdomen. Iced champagne and peptonised milk with brandy, a teaspoonful every twenty minutes by the mouth, and nutrient enemata and suppositories by the rectum, were ordered, and in two hours, although blanched and restless, the pulse was felt beating feebly 168 to the minute, and she asked for sips of hot tea. Three hours after this vomiting set in, with thirst of course, but no headache or gaping. She dozed at short intervals during the night, and secreted four ounces of urine. Dr. Goodridge saw her with me at noon. Pulse 150; temperature normal. Strong doses of digitalis were advised. Retching, with constant vomiting, compelled us to abandon drugs by the mouth for a few hours; but on the morning of the second day, the pulse having gradually fallen during the night to 120, we gave her small doses of calomel and extract of opium by the mouth frequently, which brought away some bilious stools on the evening of the same day; she passed flatus freely, and expressed herself as feeling more comfortable. She took and retained her nourishment now. The rectum was washed out periodically to avoid tenesmus and septicæmic absorption. Her pulse fell on the fifth day to 108, the temperature not exceeding 100°; the glass drainage tube was emptied of about an ounce and a half of pure sweet serum, and on the sixth day it was withdrawn and the wound closed with stout silver wire. The parietal sutures were removed on the tenth day, except the silver one at the site of drainage, and she was then practically convalescent, with a pulse of 100, and temperature normal. Only one parietal suture suppurated, and that was due to the China twist not being prepared. She subsequently did well, sat up at the end of the month, and left the hospital five weeks after the operation. She menstruated six weeks after the operation and monthly since, without discomfort. The tumour weighed 10 lb.

Remarks.—It perplexed me very much at the time to explain how that small rent took place in the left broad ligament which caused all this hæmorrhage; and I believe when the solid weighty tumour was lifted out of its bed, the pedicle being thin, short, broad, and ribbon-like in structure, it was pulled upon and split before the ligature was applied. The clamp succeeded the ligature, it will be remembered, as previous clamping might have caused the rupture when the ligature knot was being tied. The ligature stump when dropped down bled, and when held up stopped, giving us the impression it was the cut pedicle that bled; but it was *not* so. A vein of the left ovarian or pampiniform plexus had been opened obliquely, and Rivington in the *Journal of Anatomy* has shown that these veins of the broad ligament communicate freely with the uterine plexuses and sometimes have imperfect valves; but on the *left* side it is commonly absent, the valve being found in the left renal vein, about a quarter of an inch from the entrance of the former vessel; and further, Bland Sutton, in demonstrating the remains of the meso-nephros or Wolffian body, in his splendid work on the Evolution of Pathology, points out, that this curious plexus of veins called the pampiniform plexus, are, in reality, the dilated tortuous venules, which originally administered to that very curious structure the paroöphoron. The bleeding was entirely venous, but the coagula were fragmentary, small, and thin, contrasting markedly with uterine clot in parturition. How far the interference with perfect coagulation is due to a closed serous cavity or to the lymph spaces of the peritoneum with their open stomata I am not prepared to say. We closely examined the right ovary that remained, and it was found shrivelled up, and atrophied like a piece of old wash leather; yet the patient has menstruated freely several times since the operation, which leads one to consider how far the Fallopian tube plays an active part in this phenomena.

Now, as to the character of this semi-solid tumour. Bland Sutton has so recently arranged his facts that it is difficult to dispute the origin of parenchymatous ovarian cysts from corpora lutea, and he describes them as arising in this way from infancy up to the end of sexual life, and ripe follicles are frequently present in the ovary before birth. In vol. xxxvi. of the Pathological Society's Transactions he describes the transverse section of a mare's ovary, showing a corpus luteum, the interior having broken down into two small cysts, and this explains the origin of many of those cysts so common in the ovaries of full-grown mares. It is a curious fact, and I have seen it often during the past ten years, that nearly all mares, after they attain the age of ten or twelve years, have cysts present in their ovaries, which probably arise from corpora lutea. You may demonstrate this statement more commonly even in cows than horses, and the primitive condition in the former animals of the ducts of Gaertner, the analogue of the vas deferens in the male, explains the frequent presence of cysts about the upper portion of the vagina. I have a strong impression the colloid tumour of this woman arose from a corpus luteum. Again, what becomes of the ligatured pedicle after the operation? It becomes encysted, we admit; lymph or clot forms on its surface; but how is it nourished, or does it slough? I shall risk the view that the everted peritoneum *above* the ligature bends downward, and joins the nearest point *below* the ligature, and so maintains its vitality. In Sir Spencer Wells's statistics we find that in his first 500 operations there were *no* deaths from hæmorrhage, but twenty from exhaustion, while in the second series of 105 there were only eight from exhaustion and two from hæmorrhage; but he adds the probability that some of the first series of deaths were also partly due to bleeding, but the fact was not established by examination. Keith's mortality from shock

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and hæmorrhage was 3·6 per cent. Lawson Tait does not mention any deaths from hæmorrhage in his later statistics.

I wish to draw attention towards the use of the glass drainage tube in all abdominal sections, and I am aware that in the hands of Mr. Lawson Tait drainage is never used if the abdomen can be properly cleansed and dried. Keith still places great reliance on his Koeberlé's drainage tubes. Spencer Wells doubts their success, although I am under the impression he drained the peritoneal cavity in his earlier operations. Mr. Knowsley Thornton considers them only necessary in 2 per cent. of cases done antiseptically, and 10 to 15 per cent. of cases without antiseptics. Quite recently, however, Mr. Lawson Tait has pointed out how remarkable is the influence of the drainage tube in arresting hæmorrhage into the peritoneal cavity: for if the cavity is kept dry by frequent withdrawal of the blood, the bleeding, as from torn pelvic adhesions, will stop; but if drainage is not kept up the bleeding will probably prove fatal. This is a strong point in favour of the tube. In my own cases of laparotomy I have been struck with the little irritation produced by the glass tube in the abdomen. It has been kept it in for eighteen days in an hysterectomy and for a week in an ovariotomy; but care must be taken that the end drops easily into the bottom of Douglas's pouch, and is not displaced above the promontory of the sacrum. In the case recorded the glass drainage tube saved the patient, by immediately confirming the suspicion of secondary hæmorrhage, and minutes meant in her case her existence. In complicated cases with purulent cysts the utility of the thing is admitted; but for the beginner in abdominal surgery, we would venture to say, Use Keith's drainage tubes, and always do so if in doubt. It will be a safeguard to your patient and a comfort to you for the first hours after the operation, as it brings the doings of the peritoneal cavity within touch of your special senses.

Bath.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

CASE OF CHRONIC INTERSTITIAL NEPHRITIS.[1]

BY C. H. ROBINSON, F.R.C.S.I.,

MEMBER OF THE COURT OF EXAMINERS OF THE ROYAL COLLEGE OF SURGEONS IN IRELAND, LECTURER AT THE LEDWICH SCHOOL OF MEDICINE, ETC.

THE lady, aged fifty-five, whose case is described in the following brief notes, was under my observation for years, the signs of the malady from which she suffered commencing with hypertrophy of the heart, followed by albuminuric retinitis, epistaxis, and finally cerebral hæmorrhage, which terminated fatally last November. In the autumn of 1885 the sight of her eyes became considerably affected, and on examination by the ophthalmoscope hæmorrhagic retinitis of both eyes was found to be present. At this time the urine passed was copious in quantity, pale in colour, of specific gravity 1006, and on one occasion only was I able to detect any albumen, and then only the merest trace. At various intervals it was carefully examined, with a negative result. Under appropriate treatment (which included the administration of the perchloride of mercury in combination with the iodide of potassium, the bowels being kept open by occasional doses of Friedrichshall water and a spare dietary enforced), the sight after several weeks was restored, and the specific gravity of the urine gradually became normal. In January, 1886, I was sent for in consequence of a severe attack of epistaxis, which was arrested by plugging the anterior nares and applying an ice-bag over the cardiac region. In October of the same year I attended her for uræmic vomiting, and in the following month she called at my house about three o'clock, and when leaving complained of a numbness in the right leg. She wished to proceed into town, where she had some business to transact; but I persuaded her to go into the waiting-room, and in a couple of minutes there was complete anæsthesia as high as the knee. She remarked that she had dreaded this, and expected to be paralysed. I had to leave her for a few minutes, and then found the right arm paralysed as well as the leg, also the face on the same side. Her articulation now became impaired, but she could put out her tongue, which was directed to the right side. I had her removed to her own house, where, on arrival, although unable to speak, she appeared to be in a semi-conscious state. About seven o'clock the same evening she was perfectly unconscious; the pupils contracted; pulse 78; temperature 95°; respiration fairly quiet, occasionally stertorous. During the night she exhibited Cheyne-Stokes' respiration; the pulse gradually got higher; the temperature went up to 100°, then to 102°; while the face and neck were greatly congested. The eyes, which were now dilated, had that peculiar fixed stare so characteristic in serious attacks of cerebral hæmorrhage. The right arm was very rigid, but gradually relaxed. Death took place about thirteen hours after the first seizure, being preceded by a violent trembling.

Some, perhaps, might regard the fatal result in this case as due to uræmia, in which occasionally hemiplegia has been shown to occur;[2] but the absence of convulsions and the rapid increase in the temperature would, I believe, show such an opinion to be erroneous. Albuminuria may exist, it is well known, without nephritis, but the converse of this is comparatively rare. Where no trace of albumen can be detected in the urine, but the general symptoms point to interstitial nephritis being present, the test recommended by Feltz and Ritter, as modified by Prof. Bouchard, it is said will decide the matter.[3] The urine of a healthy person when introduced into the circulation of the rabbit by injection into the veins of the ear kills the animal in the proportion of 50 grammes per kilogramme of weight. But that of albuminuric subjects can be tolerated in much larger doses, and in one case mentioned by M. Dieulafoy a rabbit of two kilogrammes, for which a toxic dose of healthy urine would be 100 grammes, exhibited no discomfort until 260 had been injected, and even then recovered.

Dublin.

[1] Read before the Medical Section of the Academy of Medicine in Ireland.

[2] Revue de Médecine, Nov. 1885. THE LANCET, 1887, p. 703.

NOTES ON A CASE OF HÆMOPERICARDIUM FROM RUPTURED CORONARY ARTERY.

BY J. W. BATTERHAM, M.B. LOND., F.R.C.S.

ON March 9th, 1887, I was called to a lady who had died suddenly. The following was the only history obtainable from the friends of the deceased. She was seventy-five years old, and had suffered for "some time" from "slight fits," in which she "struggled" and lost consciousness for a few minutes. These fits were usually preceded by sickness. About noon on the day of her death she complained of pain in the left mammary region, and took a Gregory's powder. She then had lunch, which consisted only of a little beef-tea. Her servant coming into the room about an hour after lunch found her sitting in a chair dead. The deceased's face was pallid. She appeared to have vomited just before death, as some brownish fluid containing gritty particles (apparently the beef-tea and Gregory's powder) was seen staining her chin and the front of her dress.

The necropsy, performed twenty-four hours after death, showed the heart enveloped in about four or five ounces of dark clot. There was no rupture of the heart or great vessels. On the posterior surface of the heart was a slight subpericardial ecchymosis, covering an area about the size of half-a-crown, situated on the interventricular groove about an inch from the apex of the heart. A fine aperture with ragged edges was discovered in the pericardium covering the centre of this ecchymosis. On vertical section through this aperture, a few small clots were seen in the muscular substance of the hypertrophied left ventricle. The largest was about the size of a small pea, and was situated immediately beneath the minute aperture in the pericardium above described. The coronary arteries were tortuous and thickened, their coats containing numerous calcareous plates. On dissecting out these vessels, the left, after running down the anterior interventricular groove and turning round the apex to the back of the heart, was found to terminate in two main offsets, which surrounded the area of hæmorrhage. Two small twigs were traced into the clots,

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but were of too small size for any rupture of their walls to be detected. These, I imagine, were the chief source of the hæmorrhage. The heart weighed 12¾ oz. Its muscular tissue was firm, and of good colour. The thickness of the right ventricular wall was one-eighth of an inch, that of the left (at its thickest part) half an inch. The valves were normal in appearance; the aorta was healthy. The other thoracic and the abdominal viscera were normal, with the exception of the kidneys, which were small, red, and granular, and showed a marked diminution in the cortical substance. The head was not opened.

From the post-mortem appearances, it may, I think, be concluded that the "fits" from which the deceased had suffered were probably of uræmic origin. The pain in the chest felt for a few hours before death may have been due to the rupture of fine branches of the left coronary artery into the myocardium, while the perforation of the pericardium and subsequent hæmorrhage into the pericardial sac, resulting in fatal syncope, may have been induced by an act of retching.

Hæmopericardium is not a very uncommon condition. References to between eighty and ninety cases may be found in the first thirty-five volumes of the Pathological Society's Transactions. The most frequent causes are rupture of the heart or aorta, occasionally from violence, but more commonly the result of disease. Seven cases due to rupture of an aneurysm of a coronary artery are referred to in vol. xxii. of the Transactions. Scurvy has also given rise to hæmorrhage into the pericardial cavity. On reference to Neale's Digest, I find that a case of hæmopericardium arising from a ruptured coronary artery is narrated in the *Medical Times and Gazette* for 1862 (vol. i., p. 317). In this instance the patient, a woman aged sixty, lived six days after the appearance of the symptoms, of which præcordial pain, dyspnœa, a small, frequent, but regular pulse, and coldness of the extremities appear to have been the chief. A case of purulent pericarditis in which a rupture of a coronary artery was found is quoted in Ranking's Abstract for 1861 (vol. ii., p. 85).

St. Leonards.

OTITIS MEDIA HÆMORRHAGICA.

By K. B. BULLEL, M.D.

CASES of pure and simple otitis media hæmorrhagica I think, are rare. Dr. Roosa mentions two cases, and Burnett only makes a passing allusion to the disease in his work on Diseases of the Ear. This is in itself a sufficient inducement to me to place the following case before the profession.

Mrs. C ——, aged forty-two, mother of nine children, and in a fair state of health, was placed under my treatment for an acute attack of pain in the left ear. Previous history: She had been suffering from the pain in the ear for the past ten days. The pain at first was of an intermittent nature and confined to the ear only. For the last two days it had been very severe, constant, and radiating all over the left side of the head and face. She complained of a feeling of fulness and acuteness of hearing on the affected side. The act of mastication and deglutition aggravated the suffering. The parts were very sensitive to touch. There was occasional paroxysmal aggravation of the severity of the pain. Along with these symptoms there were pyrexia, restlessness, and insomnia. On examination I found the left tympanic membrane uniformly congested and slightly bulged at the anterior and inferior quadrant. The right membrane was slightly in-drawn, and the naso-pharynx congested. The severity of the pain and a bulged appearance of the membrane induced me to suggest the operation of paracentesis, with a hope that that would relieve the suffering of the patient. The operation was performed at once. To my surprise, there was a gush of blood through the puncture in the membrane and the side of the nose, and nearly two drachms flowed freely. The intensity of the pain and sense of fulness were immediately relieved. From this time until complete recovery of the patient, which took nearly a week, not a drop of blood or muco-purulent matter escaped through the puncture in the membrane; the latter healed up in five days. Subsequent examination of the urine showed no trace of albumen in it. It is nearly four weeks now, and on examination of the ears I find no trace left as to where the membrane was punctured. In my opinion this case can be called a pure and genuine "otitis media hæmorrhagi ca."

Bombay.

CASE OF PLACENTA PRÆVIA.

By B. WALKER, L.R.C.P. ED.

ELIZABETH B——, aged thirty-three, has had seven children, of whom two only survive, the rest having died in infancy, at ages varying from two weeks to three years and a half. Two of these were born at the eighth month. There was no history of syphilis, and no hæmorrhage had occurred at previous labours. She had reached the seventh month of pregnancy, which had advanced normally. She went to bed as usual, and on awaking at 1 A.M on April 15th found the bed very wet. A neighbour was called in, and I was with her in half an hour after her awaking. I found her in a pool of blood on the bed; she must have lost about a gallon, for it had sunk through the mattress and deluged the floor, and her nightdress was saturated up to the armpits. On examination, the vagina was found to be filled with clots, and blood was flowing freely. The os was about the size of half a crown, and complete placenta prævia was present. Introducing the hand into the vagina and detaching the placenta, a vertical presentation was found, and with two fingers in the uterus and the right hand on the abdomen, combined version after Braxton Hicks's method was quickly and easily performed, and a foot brought down, thus plugging the cervix and causing the hæmorrhage to cease, the whole being done in five minutes. The woman was left comfortable on the bed, a dose of ergot and strychnine having been given, for there had been no expulsive pains hitherto. At 9 A.M., as far as labour was concerned, things were *in statu quo*. On calling at 1 P.M. I found the woman delivered (child stillborn) and the placenta expelled without any hæmorrhage. The woman made an uninterrupted recovery.

This case is very like the one recorded by Mr. Taylor in THE LANCET of April 30th (p. 875). The only object in adding this is to call attention to the long time (nearly twelve hours) before delivery was effected after version. After bringing down a foot, and the hæmorrhage having ceased, it seemed much safer to leave nature to finish the delivery than by traction on the child to empty a uterus which had shown no signs of physiological action—to empty it, and possibly to reawaken the hæmorrhage. In some cases the life of the child, though only at the seventh month, may be a consideration, but in this instance the mother's safety was of paramount importance, and would be in most cases, and entitled to the first place. The patient had, besides, an interesting history. In October, 1882, she had the lower half of the left scapula removed for a sarcomatous growth (her mother died at the age of thirty-seven from "internal tumours"), leaving her an arm little impaired for use. (See THE LANCET, vol. i., 1885, p. 203.) About three years ago, on becoming pregnant, a large ulcer—or rather two—and fungating growths, larger than an orange, attacked the outer side of the right calf. They healed quickly when she was put to bed. When pregnant again, seven months ago, another deep ulcer formed outside and behind the external malleolus. This lasted through the pregnancy, but is now reduced to one-half its size, and healing rapidly; besides this, an ugly sore formed over the sternal end of the right clavicle, which healed after a time. On each occasion it was feared the sarcomatous growth was reappearing, but the termination of pregnancy has hitherto been followed by the quick disappearance of the sores. The growth removed consisted of round cells with one large or two smaller nuclei, and of unipolar nucleated cells.

Spondon.

NOTE OF A CASE OF SUDDEN DEATH FROM PULMONARY APOPLEXY.

By W. HENRY KESTEVEN, M.R.C.S., L.S.A.

R. F——, aged sixty-five, was found lying on his left side on a staircase, with his head crushed against the wall and bent upon his right shoulder. At an examination of the body, made seventy-five hours after death, the brain was found to be healthy, though somewhat congested. The heart was healthy, and contained a small quantity of fluid blood in the left ventricle; none in the right. The lungs were adherent to the walls of the chest, and extensively infiltrated with tubercular deposits. The trachea and both bronchi contained blood. The source of this blood was

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found to be in the left lung, the whole of the interstitial tissue of which was charged with extravasated blood. No distinct cavity or large clot was found in the lung, nor was it possible to find the vessel which had given way, though several branches of the pulmonary artery were traced. The bronchial tubes and tubules were full of blood. No blood had escaped from the trachea into the mouth or into the pharynx.

The case seems to be one of those described by Niemeyer as causing death suddenly, before hæmoptysis can occur, by blocking up the bronchi with blood and so suffocating the patient. It is recognised by the author just named as a very rare form of disease.

Holloway-road.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

VICTORIA HOSPITAL FOR CHILDREN.

TWO SUCCESSFUL CASES OF OPERATION FOR CLEFT PALATE IN CHILDREN OF TWELVE MONTHS OF AGE; REMARKS.

(Under the care of Mr. H. H. CLUTTON.)

THE age at which operations for the cure of cleft palate should be undertaken has caused considerable discussion in the past, and there is still much diversity of opinion about it. The operation has been performed on a child of only four days old, but unsuccessfully, and it is not often attempted on children of twelve months old, and could only be successful in such cases as are here recorded. We agree with Mr. T. Smith's remarks:[1] "None but very general rules can be laid down as to the best time for operating, since each case must be judged on its own merits, and every surgeon will be guided by the results of his own experience." We would refer our readers to Mr. Clutton's remarks on the cases.

The first case (for the notes of which we are indebted to Dr. Moline, the medical registrar) was a girl of twelve months old, who was admitted in August, 1886. She was a healthy-looking, well-nourished baby, brought up by hand, as she could not take the breast. The cleft involved only the soft palate, and there was no other abnormality. On Sept. 2nd, the infant being under chloroform, the edges were pared and brought together with fine silk sutures. A lateral incision, chiefly through the pillars of the fauces, was made on each side to relieve tension. On Sept. 8th a few of the sutures were removed under chloroform. On the 15th the remaining sutures were removed in a similar manner. The palate was entirely healed and closed, with the exception of a small aperture near the hard palate. She left the hospital a few days afterwards. When seen again a few months later this opening had closed, and the line of union was scarcely perceptible, the uvula even having its natural form. The mother also said that the baby's cry had a much more natural sound than it had before the operation.

The second case, for the notes of which we are indebted to Mr. Wills, the house-surgeon, was a boy of eleven months of age, who was admitted on Jan. 17th, 1887. This was not such a healthy-looking child as the last, and was therefore kept in hospital on careful diet for a month before attempting any operation. With care the infant could take the bottle, but the food easily returned through the nose. The child had no other deformity, nor was there any history of this or any other abnormality in the family. The cleft involved the hard palate and a very small portion of the hard. The two halves seemed fairly thick, and not too far apart. On Feb. 10th, the child being under the influence of chloroform, Mr. Clutton pared the edges, and, finding that part of the cleft which involved the posterior edge of the hard palate too fixed to be successfully brought together by the simple operation, made a lateral incision on each side close to the gum, and raised a muco-periosteal flap from the bone, by the method generally known as Langenbeck's. The whole cleft was then very easily united by fine silk sutures. The pillars of the fauces were partially divided with a pair of curved scissors, as in the previous case, to relieve tension, and the operation was concluded on Feb. 20th. The sutures were all removed under chloroform, when the palate was found perfectly united from one end to the other.

Remarks.—It is obviously a great advantage, if the voice is to obtain its natural sound, that the operation should be done at as early an age as possible. If, however, it fails, any subsequent operation is made more difficult. It is, therefore, of great importance that only the simplest cases should be undertaken at this early age; and even amongst these success will greatly depend upon the thickness of the divided palate which is to be united. A healthy child at twelve months of age may have the simplest cleft in its palate, involving only the velum, and yet the tissues on each side may be so thin as to give a very poor prospect of success after operation. The circumstances which induced Mr. Clutton to operate at so young an age in these two cases were—the simple character of the cleft, the abundance of the tissue on each side, which would afford a thick bond of union, and the healthy condition of the children. The nursing after the operation which the child is likely to obtain has also to be considered, for with constant crying success is impossible. These two children were scarcely out of arms during the ten days succeeding the operation, and the success that was thus obtained speaks volumes for the care and trouble which was devoted to them by the nurses at the Victoria Hospital.

[1] Heath's Dictionary of Surgery: art. Cleft Palate.

LEEDS INFIRMARY.

RUPTURE OF BLADDER; OPERATION; DEATH FROM PERINEAL HÆMORRHAGE; REMARKS.

(Under the care of Mr. T. PRIDGIN TEALE.)

FREDERICK S——, aged twenty-five, was admitted on Dec. 6th, 1883, having been violently assaulted two hours previously. He had been kicked in the abdomen and perineum during a quarrel, and when admitted complained of pain in the lower part of the abdomen and of inability to pass urine. There was tenderness of the abdominal wall, with tension of muscles, but no visible bruising at either seat of injury, and the patient was under the influence of alcohol. The retention was relieved by a No. 10 catheter, a few drops of blood preceding the flow of urine. The catheterism was repeated twice at intervals of six hours. There was, moreover, such an absence of collapse or alteration of look, pulse, or temperature, that the nature of the case was not suspected by the resident staff. On the following morning he was seen by Mr. Teale, who, observing a tympanitic abdomen, with dulness of the flanks, and being told that the more recent catheterism had only drawn off an ounce or so of urine, suspected rupture of the bladder.

At midday, after consultation with his colleagues, who agreed in the diagnosis of ruptured bladder, Mr. Teale operated. Having first opened the perineum in the median line and introduced into the bladder an indiarubber drainage tube, cut short at the wound, and stitched to its edges, Mr. Teale opened the abdomen between the umbilicus and pubes. A large quantity of pale straw-coloured fluid was found, in which the intestines floated freely, and without any trace of inflammation or congestion. At first the rent could not be seen or felt, owing to the collapsed state of the bladder, but on injecting through the perineal drainage tube a weak solution of carbolic acid a vertical rent was detected in the posterior surface of the bladder, not far from the apex, and fully an inch in length. The rent was closed by six fine catgut sutures, so inserted as to bring the peritoneal surfaces into contact without perforating the mucous surface, and the abdominal wound was closed without the insertion of any drainage tube. There was more oozing of blood from the peritoneal wound than usual, and shortly after Mr. Teale left the hospital Mr. Robson was called to the patient, who explored and then plugged the perineal wound. Some hours after there appeared to be some fresh oozing of blood, and the man became alarmingly anæmic from loss of blood, and died the next morning at seven o'clock.

At the post-mortem examination, the rent in the bladder

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was found to be perfectly water-tight, and there was no peritonitis.

Remarks by Mr. TEALE.—The hæmorrhage from a simple median perineal wound was so unusual that one can only look upon it as an unfortunate coincidence, possibly the result of the kick in the perineum, of which no visible bruising gave warning. In another case of ruptured bladder, I should not think it necessary to insert the perineal tube, partly because the recent experience of others shows that such a course is not needed, and partly because it is a question whether on the whole suprapubic drainage would not be more satisfactory.

SAMARITAN HOSPITAL FOR WOMEN, NOTTINGHAM.

CASES OF ABDOMINAL SECTION; REMARKS.

(Under the care of Dr. TRUMAN.)

CASE 1. *Parovarian cyst.*—Jane S——, aged twenty-four, was admitted on May 19th, 1886. The menstrual periods commenced at the age of fifteen, and were painless until the last four or five years. The nature of her work requires frequent exercise of her strength in lifting heavy weights. Owing to pain in the lower part of her body she has been unable to go to work for the last six weeks.

On examination per vaginam, there was found a rounded swelling in the right lateral fornix, the size of a cocoanut, perfectly resistant and unyielding to pressure. Uterus pressed against the os pubis; its cavity not lengthened. The swelling felt solid, and it was suggested that it was due to a pedunculated myoma. In reference to this, Dr. Walter mentions the close resemblance of the physical signs, in a case of parovarian cyst, to those caused by a myoma attached to the posterior wall of the uterus. In the present case, however, the normal length of the uterine cavity, the absence of metrorrhagia, &c., pointed rather to the existence of a small ovarian cystoma.

An operation was performed on June 15th. In the right half of the pelvic cavity, and not at all rising above the brim of the pelvis, was a unilocular cyst, perfectly unadherent, and with a long narrow pedicle crossing over to the left side of the uterus. By aspiration were removed twenty fluid ounces of a perfectly clear and white liquid, of specific gravity 1006, containing neither fibrin nor albumen, but abounding in chlorides. The cyst was then drawn out, and the pedicle, three-quarters of an inch in diameter, secured by the Staffordshire knot and divided, when it was seen to spring from the *left* broad ligament, the cyst having fallen over into the *right* half of the pelvic cavity. The ovaries were healthy, and were not removed.

The patient made a good recovery, and was discharged on July 10th. She is in full work, and menstruation has been painless since.

CASE 2. *Dysmenorrhœa.*—Mary H——, aged thirty-two, was admitted on July 21st, 1886. The menstrual period began at fourteen. She has had severe dysmenorrhœa for eight or nine years, and was latterly dismissed from one of the metropolitan hospitals as incurable. The periods are regular, lasting seven days, with great loss, small clots being frequently observed. The pain never ceases in the intervals, but is intensified at the periods. The patient has great difficulty in walking a hundred yards, and this always increases the pain. She has been unable to work at all for the past two years, and is thus, much against her will, dependent on her friends for support. The situation of the pain is the left ovarian region, and this pain is increased if she lies on the left side.

On examination, the uterus was found slightly retroflexed. In the situation of the left broad ligament was a swelling the size of a walnut, freely movable, and exquisitely tender, nausea being caused when it was pressed between the two index fingers, one internal and one external. There was no tenderness. In the right ovarian region there was no pain except in the above-named spot.

On July 24th an operation was performed. The appendages were removed on both sides; the left ovary was enlarged and becoming cystic.

The patient was discharged cured on Aug. 24th. After a time spent in recovering her strength, she returned to work. She can now walk a couple of miles, and can work, if necessary, for fourteen hours a day. Although both ovaries were completely removed, there is a discharge of blood every month unaccompanied by pain.

CASE 3. *Hæmatosalpinx* (?).—Mrs. H——, aged thirty-two, was admitted on Dec. 7th, 1886. Has had four children; no miscarriages. First labour ten years ago; forceps were applied for five hours and a half. She was in bed for two months afterwards. Ever since has had more or less pain in the right iliac region. Has also had four attacks previously to the present one; these attacks came on suddenly and kept her in bed for three or four months. Her last child, fourteen months old, is at the breast. For the last eight months Mrs. H—— has menstruated regularly, and the periods have been longer than usual. A month ago she had sudden pain in right hip and pubic region, with vomiting and faintness; has been in bed since. Has had great difficulty in emptying the bladder.

On examination, the cervix was found jammed close to the pubic bone; the cervix was that of an unimpregnated uterus, but with a deep laceration. The right half of the pelvis was occupied by a tense, fluctuating tumour, continuous with a swelling above the pubes. This tumour stretched over to the left side, but the left half of the pelvis was not so closely filled up as the right. There was great tenderness to touch externally and internally. Temperature 100·2°. An operation was urgently needed on account of the partial blocking up of the urethra. This, however, had to be deferred; the woman was suckling, and the sudden weaning of the child made her very feverish. Pain was considerable, and had to be combated by opium. On re-examination on Dec. 29th, it was seen that the abdominal swelling was larger, and that, in addition to steady increase since the 7th, it had rapidly increased during the past forty-eight hours, and the woman was losing colour. There was marked dulness in the hypogastric region, and that mostly on the left side. The swelling felt per vaginam when first seen was principally on the *right* side; it was now on the *left;* and to the extreme left of this elastic swelling was felt a more resistant body.

The diagnosis was not very clear, but seemed to be one of three things: an ovarian cyst, with twisted pedicle, and consequent hæmorrhage into its cavity; an extra-uterine fœtation; or a hæmatosalpinx, the latter accounting the more readily for the history of four preceding attacks, if small hæmorrhages be supposed to have taken place. It was evident that hæmorrhage was actively going on at the present time, and the operation was performed on Dec. 30th. The pelvic cavity exhibited the following condition of things. The left half was occupied by a large swelling, consisting mainly of blood clot. The uterus was enlarged about three-quarters of an inch in all three dimensions. Between it and the rectum was the tumour, semi-fluctuant, and from three to four inches in diameter; by its upper surface it was free, but by the other surfaces it was adherent. The wall of the tumour was formed of (1) a strong, thick, fibrous investment, so firmly adherent to the bowel that it had ultimately to be separated by the knife, and passing upwards to the left cornu of the uterus, where it showed a large, ragged rent, and (2) of a layer of plastic lymph, which limited the contents of the tumour. This layer broke down with a touch and blood clot escaped. The finger was passed round the tumour and adhesions were pretty easily broken down. The solid part of the tumour sprang from the left cornu, and apparently was the left ovary; it was ragged and torn, and contained a cavity two inches across. The rest of the tumour consisted of blood clots and dark fluid blood. The blood clots were of two kinds, fresh and red, and old and decolourised (fresh blood coinciding with fresh pain and swelling on the 28th and 29th). In these clots were found a membranous cyst, very thin, and about three-quarters of an inch in diameter, and two small bean-shaped bodies half an inch to three-eighths of an inch long. The clots were cleared away, and the part of the growth springing from the uterus tied and removed. That part of the fibrous investment that was adherent to the bowel was tied and divided, leaving a margin half an inch deep attached. The posterior surface of the uterus was left freed, but covered with a rough layer of lymph. A glass drainage tube was inserted to the bottom of the posterior cul-de-sac.

The case went on well. The drainage tube was removed on Jan. 3rd, and the patient discharged on Feb. 1st.

Remarks by Dr. TRUMAN.—A question arose whether this might not have been a case of early tubal pregnancy. Dr. Handford, physician to the Nottingham General Hospital, most kindly examined the relics for me. He says: "All the tissues, besides the clot, are so infiltrated and sodden with blood

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that it is unusually difficult to recognise the parts. I have made some sections, but the nature of the material is very unfavourable for making good sections. In the first place, I have failed to find anything fœtal, unless the small sac, which you suggest formed the envelope of the embryo, is of that nature. I would suggest that a sac that size could not be part of an ovum more than from four to six weeks old, and that the outer surface should be most distinctly shaggy and villous from the villi of the chorion. I do not think that at that early period the amnion would separate from the chorion so as to form a smooth surface. But if it is not a fœtal envelope, I cannot say at all what it is. The two bean-shaped bodies are undoubtedly not fœtal. They consist, in greater part, of blood clot; there is no trace of the cellular structure which makes up the whole of the early embryo, and there is a small quantity of adult adipose tissue which finds no place in the embryo till much later. The large mass with the peritoneal covering, and large cyst with an irregular mass projecting into it, I take to be explicable as follows:—The irregular mass projecting into the cyst seems to be an ovary much torn up and damaged by interstitial hæmorrhage. I cannot find any Graafian follicles, so that I cannot be sure; but at any rate, I can say that the tissue is adult, and not fœtal. There is much fibrous tissue, both white and elastic, and a considerable number of non-striped muscular fibres, with many large bloodvessels. I think I can trace going to it the round ligament, and the Fallopian tube, the extremity of which has, I conclude, taken part in forming the cyts into which the ovary projects. I would suggest as not unlikely a tubo-ovarian pregnancy, rupturing at about four to six weeks. At this time the ovum would be very small, and the embryo, being entirely cellular, would easily become disintegrated."

CASE 4. *Ovaritis.*—Mrs. T——, aged thirty-one, was admitted on Jan. 7th, 1887. Has always been regular, and the periods were painless up to her marriage, three years previously. Has never been pregnant. Three weeks after marriage had severe dysuria and white discharge; this lasted three weeks. Ever since then has had, a week before the period, swelling of the breasts, with secretion of clear liquid. This goes off when the menses appear. Periods since marriage have come on every three instead of four weeks, but the duration has gradually decreased. Has had ovarian pain also, and this has much increased in the last twelve months. Has never done a day's work without pain since three weeks after marriage. Pain in lower part of the abdomen was at first relieved by lying on the abdomen, or by elevating the knees; but this is not the case now. For the last twelve months she has been unable to do her household work; any slight jar, such as walking, brings on the pain. Sexual intercourse is most painful, and she is unfitted for all her duties. There is an adenoma of the left breast, and in both breasts there is an abundance of clear serous fluid, in which colostrum corpuscles may be seen under the microscope.

On examination, in the left lateral fornix was a solid, movable tumour, the size of a chestnut, very sensitive; in the right half was a thickened and sensitive spot, but no movable tumour. In Douglas's pouch was an enlarged Fallopian tube.

An operation was performed on Jan. 20th—ovaries and tubes removed on both sides. On left side, the ovary was loosely adherent to the part surrounding it; on right side, the ovary was much freer. The left ovary contained a false corpus luteum. The right ovary was healthy, but the Fallopian tube was blocked up and distended. The free surface of the appendages was everywhere covered by flakes of organised lymph. There was a good deal of bleeding, and a drainage tube was used, which was removed on the 25th. The case was discharged cured on Feb. 12th. This was evidently a case of chronic ovaritis following gonorrhœa.

Remarks.—The operations were done with strict antiseptic precautions, but without the spray. In the second case the temperature rose on the first and second days to 100·6°, and on the ninth to 102°. With these exceptions, the temperature never rose above 100° in any of the four cases.

ON the 31st ult. a Local Government Board inquiry was held at Highgate respecting an application by the Hornsey Local Board to borrow £7663 for works of sewerage and public improvement. There was some opposition to the scheme, but ultimately the inspector intimated that he should report favourably upon the application.

Medical Societies.

CLINICAL SOCIETY OF LONDON.

Acute Cardiac Dilatation from Alcoholism. — Endemic Hæmaturia.—Lupus treated partly by Scraping and partly by Salicylic Paste.—Hammer Toe.

THE last meeting of the session was held on the 27th ult., Dr. W. H. Broadbent, President, in the chair. The report of the committee on Charcot's Joint Disease and of that on Myxœdema have been completed, and will be published in the ensuing session.

Dr. ROBERT MAGUIRE read a paper on Acute Dilatation of the Heart produced by Alcoholism. Alcoholism produces acute changes in the nervous and circulatory systems. The latter are not usually of serious moment, but may occasionally be important, as shown by the two cases here given. The first patient (aged twenty-three), when applying for treatment, showed œdema of the legs and some ascites. The pulse was small, weak, and of low tension, beating at the rate of 140 per minute. The heart beat was diffused, apex outside nipple not lowered, and epigastric pulsation excessive. Cardiac dulness was extended vertically and laterally. The cardiac sounds were short, weak, and spaced, and a slight systolic murmur was heard. There was dyspnœa, but no abnormal pulmonary sounds. The urine was excessive in quantity, and of low specific gravity. There was no history of rheumatism or of previous cardiac symptoms, and, after excluding all other causes, it seemed clear that the dilatation of the heart was produced by alcoholism, of which the patient gave a pronounced history. Under treatment by cardiac tonics the symptoms and the enlargement of the heart entirely disappeared. The second patient, aged forty-three, when first seen, had œdema of the legs, tremor of the tongue and hands, and complained of nervousness and want of sleep. The pulse was small, feeble, and easily compressible. The after-beat of the heart was outside the nipple line, and was somewhat diffused. The transverse dulness of the heart was increased in extent. The cardiac sounds were short and sharp, but no murmurs were to be heard. As in the previous case, no cause could be found for the dilatation of the heart, other than acute alcoholism, of which the history was clear. Under treatment the symptoms entirely disappeared. The mechanism by which alcoholism produces the dilatation is probably not by increasing the peripheric resistance, but by poisoning the heart muscle itself, so causing it to give way before a normal, or even a reduced, arterial tension.—Dr. BROADBENT said the subject of the paper was novel to him, but it was not easy to understand how the dilatation was produced, unless it were aided by the imbibition of large quantities of alcohol without food, thus increasing peripheral resistance.—Dr. ORMEROD asked what form of alcohol had been taken, for Leyden had noted similar conditions to follow beer-drinking.—Dr. STEPHEN MACKENZIE said that he agreed with the view taken by Dr. Maguire, though pyrexia should be borne in mind as a cause of myocardial dilatation; also actual myocarditis may occur under various circumstances.—Dr. EWART said that beer-drinking, though very common, could hardly be the explanation, unless combined with other causes. He had not observed dilatation to commence in the left ventricle, nor considered that it was due to toxic effects. With dilatation of the heart or of any of the cavities he would expect to find an increased (and enfeebled) rate of the heart's action, and this might not correspond to the pulse rate.—Dr. HINGSTON FOX remarked that a single testing for albuminuria would be insufficient to exclude it.—Dr. MAGUIRE, in reply, said gin was the alcohol consumed. The urine had been carefully examined. Also, he had been careful to eliminate any possibility of peripheric resistance being operative in the causation of the dilatation, and even after recovery arterial tension was not in excess.

Dr. HANDFORD communicated a case of Endemic Hæmaturia that he had had under observation for a year and three-quarters. The patient was a fresh-complexioned, healthy-looking man, aged twenty-four. He had gone to Natal at the age of twenty-one, and had remained there for three years and a half. He first passed blood in the urine on the voyage home. While in Natal he enjoyed good health, except for two attacks of dengue. When first seen in

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November, 1885, he complained of pains in the loins, occasional discomfort in micturition, and the passage of blood in the urine. Numerous ova and embryos of the distomum (bilharzia) hæmatobium were discovered in the urine, and are still to be found, though in much smaller numbers, at the present time (March, 1887). The following were the points of chief clinical interest raised:—1st. Can the parasite multipy within the human body, or is an "intermediate host" necessary? 2nd. In the latter case, and in the absence of reinfection (and the conditions for reinfection are not known to exist in this country), what is the "expedition of life" of the parasites, and may the host reasonably expect to outlive his guests? 3rd. Is any parasiticide treatment useful? 4th. What is the method of infection? What precautions should be recommended with a view to prophylaxis?—Dr. SHARKEY had examined specimens from Cairo, showing ova in the kidneys, lymphatic glands, and even in the skin.—Dr. COUPLAND had observed them in specimens, sent by Dr. Kartuliz, in the lungs.—Dr. HANDFORD said in this country it would be a waste of time to try to discover the (probable) intermediate host.

Dr. DREWITT read a paper on the case of a child in whom a patch of Lupus had been divided for treatment into two parts, of which one part had been treated with salicycle acid and creasote, and the other by scraping. An unusual opportunity was thus offered of comparing the two methods. There had been altogether eight applications of Unna's plaster of salicylic acid and creasote during one month, each application having been preceded by washing the patch with a solution of cocaine. At the end of that time the granulation nodules had all suppurated out, leaving little pits surrounded by unhurt, healthy skin. There had been no return of the disease in either part. Unna claimed for the salicylic acid treatment that it removed old bands. This it had failed to do in this case—in fact, some new, thin bands had been formed; but still the scars left by the salicylic acid were smaller and less hard, and had less tendency to contract, than those left by scraping, and, judging from this case alone, there is distinct evidence in favour of the salicylic acid treatment of lupus. The case was shown with a drawing.

Mr. W. ANDERSON read a paper on a case of Hammer Toe, with some remarks upon the deformity. The patient, a youth aged nineteen, had been suffering from hammer toe, presenting the usual characters, and affecting the second digit of the right foot. The history showed that the condition had been noticed from early infancy, and that an aunt and two cousins on the parental side had been similarly affected. The deformity was treated by removal of the head of the first phalanx, which was exposed by a longitudinal incision through the integuments and extensor tendon. The toe was straightened, and healing took place by first intention. The following points with reference to the disease, as illustrated by an analysis of twenty cases, were then brought forward: 1. The complaint is peculiarly one of early life, the period of commencement, in genuine examples, appearing to range between infancy and the age of twenty-one. 2. The lesion is almost always limited to the first phalangeal joint of the second toe, but occasionally appears on the metatarso-phalangeal joint of the great toe (which developmentally must be regarded as belonging to the interphalangeal series). The cases described as "hallux flexus" by Mr. Davies-Colley a few weeks since are of this nature. 3. True hammer toe is often bilateral, but when this is the case one foot is commonly attacked several years before the other. 4. A history of an inherited tendency to the disease may often be obtained. 5. The development of the complaint does not appear to be affected by either sex or class, or to be connected with any special constitutional diathesis. 6. There is no good reason to believe that it is caused by ill-made boots. There is, of course, no doubt that the distortion is sometimes associated, probably as a mere coincidence, with evidences of the habitual use of misshapen foot covering, but in many cases the normal form of the foot is preserved, and there is no reason to believe that the shoemaker has ever been at fault. 7. The essential pathological lesion is a contraction of the plantar fibres of the lateral ligaments and of the glenoid plate, probably the result of a peculiar form of chronic inflammation. Secondary changes of form occur in the articular surfaces, particularly in the cartilage, and may lead to a trigger-like action of the affected joint during forcible flexion and extension. The muscles, tendons, and fasciæ take no part in the etiology, but may be secondarily affected. 8. The treatment recommended is removal of the head of the first phalanx in the manner described. Two specimens, one lent by Mr. Shattock, and some drawings were shown to illustrate the pathology of the affection.—Mr. W. ADAMS said that a study of the dissections would show that it was the fault of the lateral ligaments. Division of these ligaments should be practised, not amputation, between the ages of twelve and eighteen. Mr. Anderson's suggestion was a very valuable one. The pathology still remained obscure.—Mr. NUNN considered that a defective development of the spinal cord was the cause of the deformity. A case of a lady with a hammer toe had a son who did not develop the condition till thirteen years of age.—Mr. R. W. PARKER had seen many cases in young children, even infants, so that the foot covering was not a cause. It was difficult to see why accidental causes should affect the second toe so frequently. Removal of the toe was his practice.—In reply to Mr. Broadbent, Mr. ANDERSON said that he did not know whether the condition was more common in town or country children.

The following living specimens were shown:—Dr. Arthur Davies: A case of Rhythmical Tremors affecting only the Right Arm. Mr. George Eastes: Chronic Spasmodic Affection of Inspiratory Muscles with Loud Crowing Inspiration. Mr. Bernard Pitts: Congenital Scoliosis with other Malformations. Mr. Battle: Osteotomy for Congenital Talipes. Mr. Black: Double Congenital Dislocation of Hip.

ACADEMY OF MEDICINE IN IRELAND.

Exhibition of Specimens.—Treatment of Vesico-vaginal and Vesico-uterine Fistulæ.

AT a meeting of the Obstetrical Section, held on April 1st, Dr. ALFRED SMITH exhibited an Encephalocele. The interesting point was the enormous size of the child, which was 21 in. long and 11 lb. in weight. This was perhaps because the brain had ceased to require food, and the additional supply went to the other parts of the body. The child had come to its full term.

The PRESIDENT exhibited a Multicular Ovarian Cyst, which was peculiar in consisting of two very large cysts and one smaller one, which were all connected by a common isthmus, so that at the operation he first thought it was a case of double ovarian tumour. A large quantity of the cyst fluid escaped into the abdominal cavity, which was therefore washed out with very weak carbolic acid solution. The woman's urine for some days contained a very large quantity of indican, but she made a typical afebrile convalescence.

The PRESIDENT also exhibited a Malignant Growth which had been removed from the cervix uteri by Schroeder's operation. The patient was a strong, stout, healthy, florid-looking woman, and the only symptom was menorrhagia, which had lasted for eight months. The old method of removal was by putting an écraseur round the base of the tumour. The woman had a perfectly afebrile convalescence.

Dr. MORE MADDEN read a paper on the Treatment of Vesico-vaginal Fistulæ. In the present communication the writer confines himself to those more difficult and exceptional cases of vesical fistula consequent on parturition. Amongst these Dr. More Madden includes all cases of vesico-vaginal or vesico-uterine fistula in which the loss of tissue or the position and character of the rupture are such as to preclude the restoration of the former structural integrity of the parts, and in which either new vesico-vaginal or vesico-uterine walls must be built up by plastic operation, or else a new condition of the parts must be established. In most of the instances of vesico-uterine fistula that have come under Dr. More Madden's observation the patients had been delivered instrumentally, and, moreover, were pluriparæ in whom the uterine walls had been previously softened and disintegrated by imperfect involution. In the latter cases there are, as a rule, but three courses available in the way of operative treatment—viz., tracheloraphy in the first instance, followed by a plastic operation on the disruptured vesico-uterine walls; secondly, closure of the os uteri, so as to convert the uterus into an appendix to the bladder; or, thirdly, the same result may be obtained in some cases by turning the cervix into the vesical wound, within the closed walls of which it may be included. In this connexion Dr. More Madden refers to a case in which, after the

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normal aperture of the uterus was thus closed, nevertheless the patient subsequently again became pregnant. In some exceptional instances, however, of destruction from sloughing of the entire vesico-vaginal septum, none of the reparative operations usually recommended are feasible or effectual, and in such cases the advisability of closing the vaginal orifice, so as to thus afford a possible restitution of retentive power, becomes a question for consideration. Against Simon's operation for this purpose must be recognised the consequent liability to fatal renal disease which Dr. Emmet holds to be an inevitable result of its performance. Nor should it be lost sight of in this connexion that in some instances the most extensive vesico-vaginal fistulæ may in course of time become cured without any operation by the occurrence of senile atresia of the vagina—a fact of which two cases have come under Dr. More Madden's observation.—Dr. ROE said it was the experience of most of them that in all cases that occurred of vesico-vaginal fistula the deliveries had been effected by instruments. But it would be wrong to let it go forth as the opinion of the Section that the instruments were the cause of these fistulæ. He believed that in the majority of cases the fistulæ were the result of sloughing.—Dr. HORNE said that Dr. Madden, in his paper, had divided fistulæ into two great classes. As regarded the first of these, they were all agreed that where the bands of adhesion were not very great, and the edges of the denuded surfaces could be easily brought together, there could be no hesitation about performing the operation. The great question was whether it should be performed when the loss of tissue at the base of the bladder had been so great that, whether the bands were divided or not, it was not possible to bring the edges of the wound together.—The PRESIDENT said, when they looked back upon the history of vesico-vaginal fistula, it was extremely interesting to find that a disease which at one time was considered almost incurable could now, except in the worst cases, be cured with absolute certainty; and they should never cease to hope that some day even the severer cases should be brought within the power of the gynæcologist. No person in modern times, with the exception of Marion Sims, had done so much to show them how this disease ought to be treated as the late Professor Simon. It was most desirable to draw the attention of young men to the conditions he had laid down as necessary for the cure of these cases. First of all, broad freshened surfaces were required; secondly, all tension should be taken off the edges; lastly, the edges should be brought accurately together by plenty of stitches. Dr. Roe had opened an interesting question as to the etiology of those cases. When he (the President) was first studying them he was under the impression that it was in cases of first childbirth that vesico-vaginal fistula occurred most frequently. But he had not found that most of the cases of the disease that came from the country were cases of first birth; on the contrary, the majority of the women had borne children before; and he thought the occurrence of the disease in them was to be explained by the tediousness of their labours. These considerations point to the fact that it was not great pressure but prolonged pressure that caused vesico-vaginal fistula. Dr. Horne had drawn attention to the circumstances under which stone was likely to form in the bladder. When the bladder was in its normal condition it was emptied from the lowest point, and then its contents could be always cleared out. But in some cases the opening between the bladder and the vagina was high up in the former, and the result was that there was a pocket up to the level of where the fistula was, which was constantly full of unchanged urine. The salts of that urine were then deposited, and stones formed.—Dr. MORE MADDEN replied.

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

THE eighth ordinary meeting was held on May 25th, in the Faculty Hall.

Dr. ROBERT POLLOK exhibited a small Pediculated Polypus which he had removed from the os uteri of a patient who had been supposed to be suffering from prolapsus and had been wearing a pessary, and afterwards read "Notes of Difficulties occurring in eleven years' private Obstetric Practice (2000 cases), with the Treatment adopted." The difficulties alluded to include adherent placenta, funis presentation, anencephalic fœtus, dystocia from obstructing tumour, placenta prævia, post-partum hæmorrhage, puerperal eclampsia, and extra-uterine pregnancy. A discussion followed, in the course of which the diagnosis in the latter case was called in question by Dr. Abraham Wallace, and the author's views as to treatment were freely criticised.

Notices of Books.

The Essentials of Bandaging, with Directions for managing Fractures and Dislocations, for administering Ether and Chloroform, and for using other Surgical Apparatus. With a Chapter on Surgical Landmarks. By BERKELEY HILL, M.B. Lond., F.R.C.S., Professor of Clinical Surgery in University College, Member of the Court of Examiners of the Royal College of Surgeons of England. Illustrated by 144 Engravings on Wood. Sixth Edition, Revised and Enlarged. London: H. K. Lewis. 1887.—This is a deservedly popular book, so much so that a sixth edition has been called for. The whole has been revised, and to some small extent the book is enlarged; but on looking through it we notice some few points in which further improvements could easily have been introduced. The descriptions of bandages and splints are practically unaltered, but we are glad to notice that Mr. Hill gives a caution as to the danger of sloughing following the use of the graduated compress in the treatment of a wound of the palmar arch, and recommends the enlargement of the wound and double ligature of the vessel instead. He might have added that if the bandage affixing the compress is loosened after twenty-four hours without displacement of the compress, the danger of sloughing is obviated. Mr. Tweedy has written a short account of Retinoscopy, and Dr. Poore has added a description of Catheterism of the Larynx. We are surprised that no account of the many convenient uses of the triangular bandage is given; we miss also a description and proper illustrations of the various simple slings for the hand and arm. The old account and woodcuts of reduction of dislocations of the hip by pulleys are still left in, and considering that this mode of reduction is now rarely, if indeed ever, used by an educated surgeon, it would have been more useful to replace these diagrams by others of the modes of reduction by manipulation. A still stranger instance of "survival" under many revises, is the account of the mode of administering a hypodermic injection. We should suppose that there was hardly any room for difference of opinion as to the best way of performing this trifling operation, and that everyone did it by gently pinching up a fold of skin and thrusting in the needle parallel to the surface. But Mr. Hill recommends the surgeon to choose the arm (not the forearm), and to steady the skin "by putting it on the stretch with the left thumb and fingers, while the point of the cannula, held at right angles with the surface, is thrust quickly, with a slight rotatary motion, completely through the skin. We must add one further criticism, and it is in regard to the application of Scott's dressing to a joint. The ointment is called "mercurial ointment," and there is no allusion to the fact that it should be a special preparation of mercury and camphor.

Congenital Club-foot: its Nature and Treatment; with especial reference to the Subcutaneous Division of the Tarsal Ligaments. By ROBERT WILLIAM PARKER, Surgeon to the East London Hospital for Children, and to the Grosvenor Hospital for Women and Children. London: H. K. Lewis. 1887.—Mr. Parker has, in conjunction with his friend and co-worker Mr. Shattock, studied the pathology of club-foot, and the present *brochure* is an amplification and practical application of the paper already published in the Transactions of the Pathological Society. Mr. Parker's views are the outcome of painstaking study of the anatomy of club-foot, and are worthy of the most careful consideration. Put briefly, his teaching is that the cause of congenital

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club-foot is malposition in utero, preventing the proper developmental changes in the foot; that not only are muscles at fault, but bones and ligaments too; that in severe cases the shortened ligaments offer great and, it may be, insuperable obstacles to the correction of the deformity, and are the cause of the frequent relapses after tenotomy; that tenotomy should be often supplemented or replaced by division of the shortened ligaments—syndesmotomy as it is called. We believe that Mr. Parker has made a valuable addition to our knowledge and our means of surely remedying one of the commonest of deformities. The book is, however, weak on its clinical side. The pathological argument is complete, but not a case is given to show the practical value of the treatment recommended. We are well aware that the loading of *brochures* with accounts of cases is a vulgar device of unscientific writers, but none the less is it to be wished that Mr. Parker had recorded one or two of the cases in which he has practised syndesmotomy. The book is excellent, but it needs a clinical appendix.

Druitt's Surgeon's Vade-Mecum; a Manual of Modern Surgery. Edited by STANLEY BOYD, M.B., B.S. Lond., F.R.C.S. Eng., Assistant-Surgeon and Pathologist to the Charing-cross Hospital, and Surgeon to the Paddington-green Hospital for Children. Twelfth Edition, with 373 Wood Engravings. London: Henry Renshaw; J. and A. Churchill. 1887.—This is an old friend, but in its new form shows none of the decadence of age, but all the vigour of youth. Mr. Stanley Boyd has amply justified the confidence placed in him by the publishers, and we most heartily congratulate him upon the success of this, which, we believe, is his first literary effort of an important kind. Every part of the book shows signs of careful and judicious revision, and while the well-known characteristics of Druitt's book, which have been appreciated by many generations of students, are preserved, all the chapters have been brought well up to date. The most important alteration made in this edition is the incorporation of a good account of antiseptic surgery in all its branches, and of the changes introduced into pathological views by the recent discoveries of the important *rôle* played by micro-organisms in many morbid processes. The arrangement, the illustrations, and the size of the book have been improved, and it is in every way a trustworthy text-book. The twelfth edition ought to do more than maintain the reputation Dr. Druitt earned.

A Treatise on Chemistry. By Sir H. E. ROSCOE, F.R.S., and C. SCHORLEMMER, F.R.S., Professors of Chemistry in the Victoria University, Owens College, Manchester. Vol. III. Part III.: The Chemistry of the Hydro-carbons and their Derivatives, or Organic Chemistry. London: Macmillan and Co. 1886.—This, the third part of the third volume of the great work which the Manchester professors have in hand, is, after all, only another small instalment, and leaves almost any amount to be completed. The present volume "commences the consideration of the complicated but most important series of bodies known as the aromatic compounds"; in fact, it deals with benzene and its simpler derivatives, including, of course, the phenol and aniline. It is quite equal in value to the preceding volumes, which is saying a great deal. The section on benzene itself is a model of scientific writing; it is eminently practical, with good working directions and clear illustrations, and yet the scientific idea is never lost sight of throughout. As in the previous volumes, unusual prominence is given to the history of each important compound. It is not universally recognised that such history is essential for the true comprehension of the present views. We trust there will be as little delay as possible in the issue of the remaining volumes. The book will remain a landmark in the history of English chemistry. It is unnecessary to praise it, for every chemist in England knows and values it.

Brain: a Journal of Neurology. Edited for the Neurological Society of London by A. DE WATTEVILLE. Part 37. April, 1887. London: Macmillan and Co. 1887.—This, which is the first number of *Brain* since it has been converted into the organ of the Neurological Society, is almost wholly occupied with an elaborate paper by Dr. Bastian, read before that Society, upon the Muscular Sense, its Nature and Cortical Localisation. It would be impossible, within the space of a brief notice, to detail the points laid down by Dr. Bastian, whose argument is directed largely against the doctrines enunciated by Dr. Ferrier. The interest of the subject is heightened by the publication of the full text of the discussion which followed upon the reading of the paper, and was joined in by Dr. Ferrier, Mr. Sully, Dr. Ross, Sir J. Crichton Browne, Dr. Hughlings Jackson, Professor Horsley, Professor Haycraft, Dr. Mercier, and Dr. de Watteville, and the reply of Dr. Bastian to the criticisms of these gentlemen. Beyond this subject, the journal contains a Critical Digest on Peripheral Neuritis by Dr. Pierson of Dresden, and an abstract of a paper by Landouzy and Déjérine on Progressive Atrophic Myopathy involving the Face.

The New Sydenham Society's Lexicon of Medicine and the Allied Sciences.—The thirteenth part of this dictionary, which is edited by Henry Power, M.B., and Dr. Leonard W. Sedgwick, has just been issued. It extends from "Her" to "Ilm," and its publication is another step towards the completion of a work that will in the future be of immense value to those who are fortunate enough to possess it.

Pen and Pencil. Glasgow: Maclure, Macdonald, and Co.—Several numbers of this recently established illustrated weekly newspaper have been forwarded to us. Each part contains eight pages, and with several a supplement is also issued, of high class illustrations and interesting letterpress. As a means of implanting and encouraging the love of the beautiful and refined we are glad to afford it a hearty welcome.

ROYAL MEDICAL BENEVOLENT COLLEGE.

AT the annual general meeting of the governors of the Royal Medical Benevolent College at Epsom, held on May 25th, Mr. Hird, who has filled the office of treasurer for many years, resigned in consequence of giving up practice in London. He was unanimously elected a vice-president, and received a most hearty vote of thanks for his services. Dr. Holman, of Reigate, on the recommendation of the council, was elected as the new treasurer. He is well known in the profession, and has been an earnest supporter of the College for a lengthened period.

The aid given by this institution to the aged and helpless by pensions, the education free of all cost afforded to the children of the less prosperous members of the profession, and the really first-rate education given to sons of any medical practitioner for £55 a year, are all so many reasons why every member of the profession should support the College, and yet we are grieved to say not one-fifth of our number give anything. It is not, perhaps, sufficiently known that the College has several good scholarships to the universities. It has seven free medical scholarships to the metropolitan hospitals, besides numerous other minor exhibitions. With Dr. Jonson, Sir Edward Sieveking, Mr. France, Sir Joseph Fayrer, Sir Trevor Lawrence, M.P., Mr. Morrant Baker, Mr. Page, Mr. Malcolm Morris, Dr. Frederick Taylor, and Mr. Propert, the son of the founder, on the Council, we cannot but hope that the new treasurer and his colleagues may receive a generous pecuniary support to enable them to carry on the charitable objects of the institution with no niggard hand, and, at the same time, to be shown such confidence by sending pupils there as may secure a triumphant success for their efforts to place Epsom College in the front rank of the schools of the country.

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THE LANCET.

LONDON: SATURDAY, JUNE 4, 1887.

THE lecture delivered by Dr. KLEIN last week at the Royal Institution placed before the public the complete evidence upon which is based the opinion that the infection of milk with the virus of scarlet fever may result from a disease of the cow. Although the papers which have from time to time appeared in the reports of the Medical Officer of the Local Government Board have indicated the insufficiency of the more commonly accepted methods of milk infection to account for this infection, and although, therefore, it was seen that some condition of the cow herself might be responsible for this occurrence, it was not until the publication of Mr. POWER'S investigation into scarlet fever caused by milk coming from a farm at Hendon that evidence was obtained that the disease was due to a particular affection of this animal.

It will be recollected that the appearance of scarlet fever among the drinkers of milk from one and another shed on this farm coincided with extraordinary exactness with the appearance of a disease among the cows inhabiting these sheds, and that further proof that the cow and the human disease were related was afforded by Dr. KLEIN, who discovered in certain sores on the udders of the affected cows a streptococcus which, when inoculated into calves, caused the same disease as that from which the cows at Hendon suffered; and that, further, the changes in the viscera of these animals resembled those which are found in the human subject after death from scarlet fever, and that the same micrococcus was discovered in their blood and tissues as was found in the Hendon cows.

Since this time an outbreak of scarlet fever at Wimbledon, again due to milk, gave opportunity for Dr. KLEIN to extend his inquiry. A monkey, one of the milk drinkers and a sufferer from its infective properties, had died, and an examination of its body by Dr. KLEIN left no doubt that the cause of death was scarlet fever. From the blood of this monkey he obtained by cultivation the same micrococcus as that found in the Hendon cows. Again, some tins of condensed milk which were under suspicion of having produced scarlet fever in a number of persons who had partaken of it were forwarded to Dr. KLEIN, with the result that among other organisms the same micrococcus was distinguished. The action of this microbe was tested on animals, and communicated to them the same disease as that observed at Hendon. Dr. KLEIN finally directed his attention to persons suffering from scarlet fever, and discovered in the blood of the general circulation a species of micrococcus which, on cultivation in nutritive gelatine, agar-agar mixture, blood-serum, and other media, proved to be in every respect identical with that obtained from the Hendon cows.

The identity of the human and the animal organisms having been thus far established, both were tested on animals and the results compared. Mice, especially wild mice, when inoculated or fed with the streptococcus, both animal and human became affected exactly in the same manner. The majority of them died between seven and twenty days afterwards, the post-mortem examination revealing great congestion of the lungs and congestion of the liver, spleen, and cortical part of the kidney. From the blood of these animals, taken directly from the heart, cultivations were made, and the existence of the same micrococcus proved. For the remaining experiments calves were employed. Four being fed and four being inoculated with cultivations from cases of human scarlatina, all eight animals developed the disease, both cutaneous and visceral, identical with that produced in the calves that had been infected last year with the micrococcus from the Hendon cows. And, lastly, from the blood taken from the heart of calves thus inoculated with human scarlatina, was recovered by cultivation a micrococcus possessing all the characters of that of the Hendon cows and of the cases of human scarlatina.

The evidence is therefore complete, and we may accept as an assured fact that the conclusions to which Mr. POWER'S investigations of last year pointed were absolutely correct. It is impossible to exaggerate the importance of these observations, both in the saving of human life which they will ultimately effect, and in the security they will give to the interests of agriculturists when further knowledge of the bovine disease enables it to be more easily recognised, and its nature to be better understood. Unfortunately it may yet be some time before the practical lessons which are taught by Mr. POWER'S and Dr. KLEIN'S work are turned to useful account.

While Dr. KLEIN has been thus engaged in the completion of this chain of evidence, another department of the State, the Agricultural Department of the Privy Council Office, has been employed in the production of a document which will excite considerable surprise. The Privy Council had ordered an inquiry into the subject matter of Mr. POWER'S report, but the investigation proved abortive, for we learn from a letter addressed to the Privy Council by Professor BROWN that, owing to the alarm which was occasioned among dairy farmers by the publication of the report of the Local Government Board, it was found impossible to obtain any information from them of the existence of the disease among their herds. Nevertheless, the department appears to have felt the necessity of publishing a report, and they have therefore issued one by Professor AXE, who inspected the Hendon cows at the instigation of the British Dairy Farmers' Association, but arrived upon the scene at a time when, to use his own words, "the eruption on the teats and udder, which was the characteristic feature of the complaint, had in the majority of cases altogether disappeared." Professor AXE has therefore based his description of the malady also upon "information obtained from the farmer and his herdsmen, as well as from other dairymen to whose herd the disease spread." It is obvious from this statement that Professor AXE has from the beginning assumed that the malady of the Hendon cows was identical with that of other herds, which, he states, without giving his source of information, had been associated with those introducing the scarlatinal disease upon the farm; these other herds do not appear to have been seen by Professor AXE at the time of their illness, and the description must be, therefore, based upon his own

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limited experience of the Hendon malady, and upon the observations of dairymen of the ailment or ailments of other herds, which may have been suffering from one or more of the vesicular diseases which attack the udder of the bovine animal, and which are perhaps affections totally different from that with which Mr. POWER was concerned. Subsequently Professor AXE proceeded to ascertain whether the milk of these other herds had communicated scarlet fever to the drinkers of their milk; and, failing to find evidence of this occurrence, he appears to have concluded that the malady of the Hendon animals was not responsible for the scarlet fever which Mr. POWER investigated.

So serious a conclusion needs to be supported by evidence which will enable some opinion to be formed of its accuracy, but, strangely enough, although adopted by a department of the State, no opportunity is given for such judgment to be arrived at. In the first instance, it is most important to know how far we may trust the observation of the dairymen upon whom Professor AXE relies for information as to these other herds, and we are not even told when inquiry was made of them, and, therefore, whether dependence is being placed upon the memory of these people long after the event. In the second instance, no information is given which would enable anyone to judge of the sufficiency of the inquiry as to the effects of drinking the milk of these herds, nor even is the statement advanced as to the period when inquiry into this branch of the subject was made. There is, indeed, much reason for believing that these steps were not taken until more than a year after the termination of the Hendon outbreak, when all clue would likely enough be lost, and, if so, the publication of this paper sadly needs justification.

Since the publication of Dr. BUCHANAN'S official report and Dr. KLEIN'S lecture at the Royal Institution, the subject is, so far as its scientific position is concerned, outside the region of controversy. The evidence conclusively establishes that the cow malady caused human scarlatina.

THE Anti-vivisection Society of London is still so far alive as to have its May meeting, which was held last week; but it would seem from the report of the proceedings that there is not much animation about it. The chief object of the speakers seemed to be to convince themselves and their audience that the great majority of medical men are against this practice. If by this is meant that the sentiment of humanity in the medical profession is strong, and is painfully touched by the necessity for experiments on animals, we readily admit and accept so just a compliment. We have never erred from the line of a regretful admission of the necessity for, and the undoubted value of, experiments on animals, with a strong request that as far as possible they should be rendered painless. The late Editor of this Journal was known for his love of animals, and his intolerance of anything but kindness to and consideration for them; and in this, as in so much else, he represented accurately the profession. In this sense, then, we will allow that the medical profession feels strongly on the subject of vivisection, but only in this sense. To represent the profession as longing for an overwhelming expression of public opinion—to say as Mr. HAWEIS did, that it is difficult to get at the real opinions of medical men, or, as Dr. HAUGHTON did, that doctors, even of the highest eminence, are afraid to express views which happen to be in opposition to those of the medical profession, is to make statements which are inaccurate, and which refute each other. The medical profession is a liberal profession; it is bound by no creed; it swears by no master; it is confronted daily and nightly with enormous suffering, which enters neither into the imagination nor the experience of ordinary men. Not only has it to face this suffering, but it is expected to mitigate, if not to abolish it. It is this which makes the medical man tolerant of what is called vivisection, which in his hands is a merciful business. What is it that permits men to abuse vaccination so glibly, and clamour for its abolition? Chiefly the fact that by the very beneficence of the operation they disparage they never see small-pox. Experience of this terrible disease would send the race of anti-vaccinators to the nearest vaccination station. So with anti-vivisectionists, they do not see disease, and are not responsible for its treatment. But medical men are. They know, moreover, the solidarity of men and animals in the matter of disease, and that their pathology is so far common that discoveries which benefit men will also, in most cases, benefit the lower animals. These animals, indeed, so far have been large gainers by the discoveries made with the help of experiments on animals, as in the case of anthrax. To read the speeches and the books of anti-vivisectionists, one would think that animals had no diseases, and no interest in the progress of the art of medicine. No assertion could be more at variance with truth, or even with the Scripture which tells us that the "whole Creation groaneth and travaileth in pain." Let the enormous mass of disease in animals be realised, and it will appear but fair to them, as well as to men, to make them parties to those great discoveries by which disease is to be averted. We will not depart from that studied moderation of language which has characterised British men of science in urging for the right to perform careful and, wherever possible, painless experiments on animals, with a view to a deeper knowledge of life and of the things that destroy it and save it respectively. We confess to finding it hard sometimes to preserve this moderation and to be perfectly cool with an opponent who may be willing to shoot an animal and thereafter to eat it, but who objects to the physiologist or the physician performing an operation that may save herds of animals and thousands of human beings. But moderation has its reward, and in regard to this very subject has had its reward already. We may respect the motives of men who object to an experiment on a dog even if it is to save the life of a man, but we cannot admit their sense of proportion or their intelligent interpretation of Holy Writ, which very clearly indicates the different value of the life of man as compared with that of animals.

SINCE the true nature of the tubercular virus was revealed by KOCH, there has been a constant endeavour to bring the accepted facts of clinical observation into harmony with that discovery. The range of tuberculous disease has been widely extended, and especial prominence given to that form which in its abundance far exceeds all others—we

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mean pulmonary phthisis. According to the knowledge gained of the invariable coincidence of the bacillus of tubercle and of phthisis, we are bound to include the lung affection in the same pathological category as that of other tubercular disease in any part of the body. When, therefore, we speak of the etiology of phthisis, we mean the etiology of tuberculosis; and when we indicate the fact of inheritance as one of the most striking of the etiological factors in phthisis, we must add the liability to the transmission of any one of the several forms of tubercular disease. This is so obvious that it barely needs to be pointed out, and yet we venture to think that it is sometimes lost sight of. It is not the pulmonary disease that is inherited, but the tuberculosis, of which the pulmonary affection is but one manifestation; and the fact that we habitually speak of "inherited *phthisis*" is merely because that is the most common of all tubercular disease. If, therefore, we seek to discuss the influence which the bacillary doctrine has had upon the problem of the inheritance of phthisis, we must embrace in our view the whole range of tubercular disease. The question, then, is whether tuberculosis, like syphilis, can be directly transmitted from parent to offspring; and if the answer is in the negative, we must be prepared with a satisfactory alternative to explain the undoubted influence of heredity in the etiology of the disease.

The subject is surrounded by difficulties, and we can hardly wonder that the medical world is divided in opinion upon it. Professor ORTH has recently drawn prominent attention to it,[1] but current literature abounds with references to it. It is simple and easy to evade the question by implying, as VIRCHOW did thirty years ago, that it is not tuberculosis that is transmitted, but only a special vulnerability of tissue or organ; and this explanation may probably be the true one, unsatisfactory as in some respects it is. Still, before accepting it we are bound to see how far it can be supported by facts, and how far it harmonises with the central fact of all—viz., the organised virus, the bacillus. The analogy with syphilis, in many particulars so striking, is hardly borne out in this question of inheritance. That the parent imparts the syphilitic virus to his or her offspring, either directly from the germ or sperm cell or through the medium of the placental blood, is absolutely proved by the existence of congenital and fœtal syphilis. Now, in tuberculosis there is hardly a single well-authenticated case on record of the disease being present in the fœtus or the new-born. The one or two instances of fœtal tuberculosis are not beyond suspicion of being examples of syphilis with widespread visceral lesions, and perhaps the only indubitable case is that of a calf which JOHNE records. But even if there were more cases to be substantiated, it is plain that, as compared with syphilis, they would form but an infinitesimal proportion in the whole number of cases of inherited tuberculosis; and the possibility of accidental infection *in utero* would be quite a legitimate explanation for such a rare occurrence. At any rate, it would be more legitimate than the endeavour to clench the analogy with syphilis by assuming that inherited tuberculosis is always latent, and that what is the exception in the former disease is the rule in the latter. The positive arguments in favour of direct transmission are mainly based upon such facts as those adduced by LANDOUZY—viz., the detection of bacilli in the vesiculæ seminales of tubercular subjects, without actual disease of those organs, and the experimental inoculation of tuberculosis in guinea-pigs by the injection of the spermatic fluid from a tubercular subject. In face of the transmission of syphilis, it cannot be contended that it is impossible for the sperm cell or germ cell to be primarily infected; but the proof of such infection is wanting in the case of tuberculosis, or is at least so meagre as to be unimportant. In his very suggestive work just published, Mr. CANDLER,[2] who adopts the malarial doctrine of tuberculosis, says: "In syphilis the microbe is in the blood from the beginning to the end of its parasitism, in phthisis the irruption of the bacillus into the blood is the first scene of the last short act in its career as a parasite in the one host. Hereditary syphilis therefore, in addition to its being clearly established, may be readily apprehended, but hereditary phthisis in the sense implied would appear to be a physical impossibility."

Nevertheless, in spite of the absence of evidence of congenital tuberculosis, and the fact that inherited phthisis delays its appearance mostly till puberty has been passed, the occurrence of infantile tuberculosis is by no means so rare as is generally believed. In a paper read at the Copenhagen Congress, Dr. HELLER showed that whereas out of a total of 1300 post-mortem examinations in infants and children he had met with only one case of tubercular disease as early as nine weeks of age, yet the proportion increased with considerable rapidity as the age advanced, even in the first years of life; and M. LANDOUZY has contributed from his recent experience at the Tenon Hospital, Paris, details of no fewer than seven fatal cases of tuberculosis in infants ranging from six weeks to twelve months, among twenty-three cases of death during the first quarter of this year.[3] It may be admitted that infantile tuberculosis is common (although infantile phthisis is exceedingly rare) without necessarily concluding that the disease has been directly inherited—that is, that it is congenital. There is always a possibility of post-uterine infection by the milk of a tubercular mother or by exposure to the vitiated surroundings of a home inhabited by infected parents. It is more reasonable to admit acquired disease than to assume that during fœtal life and for a few weeks subsequently the disease remained dormant. From these and other considerations, we are almost impelled by the bacillary doctrine to believe that the old assumption is the true one—viz., that inheritance of phthisis (and of tuberculosis in its widest sense) is not an inheritance of the disease itself, but of a special proclivity of tissue to the disease. It is the soil that is suitable for the growth of the bacillus, and not the bacillus, that is transmitted. As KOCH says, "hereditary tuberculosis is explained most naturally by supposing that the infective germ itself is not inherited, but rather certain peculiarities favourable to the development of germs which may later on come into contact with the body; in fact, it is the predisposition to tuberculosis which is inherited." The same conclusion is reached by Professor ORTH, and it

[1] Aetiologisches und Anatomisches über Lungenschwindsucht. Berlin: Hirschwald. 1887.)

[2] The Prevention of Consumption. (Kegan Paul and Trench, 1887.)

[3] Rev. de Méd. May, 1887.

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is the one which is most in consonance with experience; but, as Professor ORTH remarks, it by no means gets rid of the fact that the disease is infective.

IN our last issue we referred briefly to the recommendations of the Practical Education Committee of the General Medical Council on the question of pupilage, and pointed out how inadequate was the suggestion of a six months' pupilage taken in the long vacations after the passing of the examinations in anatomy and physiology. We regret that the part of the report which deals with the final examinations is equally unsatisfactory. Its recommendations are unworkable. It is suggested that the extension and searching power of the clinical examinations would be facilitated "if the 'final' or qualifying examination were divided into two parts, of which the ultimate should consist mainly of clinical work and the personal application of diagnosis, prognosis, and treatment to set cases, leaving to the penultimate the testing of the knowledge possessed by the candidate of the other subjects contained in the curriculum of school work. It is also recommended that there should be an interval of at least twelve months between the two parts of the final examination, and that this interval should be passed in such occupations as will involve the charge of patients under the supervision of competent persons recognised by the authorities of the school at which the candidate has been educated, which authorities should be responsible for the genuineness of the evidence afforded of the candidate's diligence and care of such number of cases in medicine, surgery, and midwifery as the examining body shall deem expedient." We have every sympathy with attempts to make the qualifying examinations as thoroughly practical in medicine, surgery, and midwifery as is possible, and should have welcomed and supported any proposals which would have really secured this object, or even tended towards this end. For example, the committee might have pointed out that those examining bodies which only require a certificate of attendance on *six* cases of labour were doing very little to secure an efficient practical knowledge of obstetrics, and this is the less pardonable because everyone must recognise the impossibility of a really practical examination in this branch of the medical art. In Ireland the regulations of the examining boards on this question are more stringent than in England, where attendance on twenty cases at least is insisted on by all the present authorities; but in Scotland only six cases are required by any qualifying body, whether University or Faculty. Practical midwifery is at a minimum; theoretical midwifery has to be cultivated to its highest point of excellence by the unfortunate pupil. "Two courses of midwifery of fifty lectures each are reckoned equivalent to one course of one hundred lectures, provided they embrace different departments of obstetric medicine." Again, it would have been worthy of consideration whether operations on the dead subject should not be made compulsory in every surgical examination, as well as the application of bandages and the marking out of the surgical landmarks on the living body. In medicine, should not every candidate be compelled to go through a strict examination both at the bedside and in the out-patient room, and thus have his knowledge tested both of severe and common cases of disease? And could not his therapeutical knowledge be readily and thoroughly examined into at the same time? By such suggestions the practical element in medical education would quickly be increased, for every student is keen enough on learning what he knows will be required of him by the examiner. But the recommendation of a twelve months' interval between two parts of a final examination is quite outside the practicable. There is now a compulsory two years' interval between the second and the qualifying examination at the Conjoint Board, and this interval would, by the adoption of the recommendation referred to, be extended to three years between passing the second examination and obtaining a licence to practise; for if the penultimate part of the examination into the theoretical knowledge embraced in the later part of the curriculum is of any value whatever, it cannot take place until after the present interval of two years. Theoretical surgery and medicine, midwifery, forensic medicine, and pathology, to say nothing of hygiene and mental diseases, cannot be studied under two years, and adding another year compulsorily to the curriculum is impossible, both on the score of time and expense. Another year devoted to medical study is the most valuable boon that can be given by the parent to his son, but his examinations must be finished for him to obtain the greatest benefit from it. His time can then be wholly devoted to the practical element, and he can follow with every advantage the special departments of his hospital, where he can see any number of common diseases, whether of the eye, ear, throat, or skin, gynæcological or exanthematous, and quickly become skilled in their diagnosis and treatment. A year spent thus might not be less profitably employed than in the charge of patients under the supervision of competent persons recognised by the authorities of the school at which the candidate has been educated. Moreover, how could the authorities of a school guarantee the thoroughness of any supervision exercised by practitioners outside their own body? We cannot hope that any improvement in the practical element of medical education will be the outcome of this report, and we are sorry that the committee did not more fully consider the questions involved before they drew it up and allowed it to be entered on the Minutes of the Council.

Annotations.

"Ne quid nimis."

THE SUPPLEMENTARY CHARTER.

ELSEWHERE we publish an abstract of the petition of the Royal College of Surgeons to the Queen for a Supplementary Charter. We have practically discussed all the points contained in it so often that it is needless to do so again on the present occasion. We cannot refrain, however, from pointing out a feature which appears to have been recently introduced by the Council apparently for the purpose of keeping control to some extent over the election of the Council. In the last clause it will be noticed that the Council desire to obtain the power to compel a certain number of Fellows to be present *in propriâ personâ* in order to legalise the election by voting papers, this number of Fellows to be such "as the Council may from time to time think fit to direct." It is clear that, if election by voting

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paper is to be legalised by Charter, it should be unconditional of any such absurd regulation as the Council appear anxious to introduce. Such a restriction can serve no useful purpose; if it do serve some special purpose, not obvious to outsiders, then the number of Fellows who are to attend personally should be fixed by Charter, and ought not to be allowed to depend on the pleasure of a body like the present Council, who have so persistently ignored all the representations which have been made to them from time to time by the body corporate. There is one other point we may briefly allude to—viz., the proposal to empower the Council to elect annually to the Fellowship ten Members instead of two, as under existing rules. Unless a very different class of men are to be elected to the Fellowship from those originally contemplated, this rule will be useless; for the Council have, so far, not always availed themselves of their present power of electing two Members to the highest grade. We view with disfavour any plan which, on the one hand, tends to depreciate the intrinsic value of the Fellowship, or which gives the Council the means of bestowing, at all largely, a qualification which should be reserved strictly for those who have rendered special service to surgery in one way or another. For the latter purpose, the powers already possessed by the Council seem quite adequate. It would be a waste of time, under present circumstances, to discuss at greater length the abstract in question. We must wait the course of events, and trust to the outspoken wishes of the Fellows and Members, and to their respective deputations which are to wait upon the Lord President of the Council for the purpose of laying them properly before him.

UNIVERSITY COLLEGE AND A TEACHING UNIVERSITY FOR LONDON.

THE arguments which we have so frequently put before our readers as to the advantages which would be obtained by medical students if a Teaching University were founded in London, were well summarised in the speech made by Sir George Young at the distribution of prizes at University College on the 1st instant. The inefficient character of the changes suggested by the Senate of the University of London, and the necessity for the establishment of a local University in London as well as an Imperial Examining Board, were ably pointed out. It is obvious that the movement for establishing a Teaching University in London will go on, and that University and King's Colleges must take the chief, if not the entire, responsibility for forming the Faculties of Arts and Science, and the other medical schools must combine with these to form a Faculty in Medicine. Such changes cannot be foreshadowed without exciting the jealousy of the University of London, which can hardly be expected to look with equanimity on the secession of its two largest and oldest London Colleges so soon after that of Owens College. It is therefore not a matter of surprise that several members of the Council of University College, closely identified with the existing University, have followed the example of Lord Kimberley, the President, and resigned their seats on the Council.

METROPOLITAN ASYLUMS BOARD.

AN interesting report by the Chairman of the Metropolitan Asylums Board has been published, giving an account of the work performed during the fifteen months ending March 25th of the present year. Mr. Galsworthy is able to congratulate the managers on the comparative absence of small-pox from London, and properly claims that some portion of this freedom from disease is due to the existence of opportunities for the isolation of infectious persons. He comments upon the endeavours of the managers to acquire the legal recognition of the position which it has involuntarily assumed in providing hospital accommodation for all classes of the population. Deputations to successive presidents of the Local Government Board on this subject have, he says, only resulted in the adoption of incomplete measures, in consequence of which the Metropolitan Asylums Board has been called upon to do the work of vestries and district boards, but without any legal recognition of responsibility. The proposal that the sanitary authorities should enter into contracts with the Asylums Board for the purpose of the treatment of all classes of the infectious sick has led to no other result than the passing of the Act of 1879 giving permission for this purpose—a permission which, it is needless to say, has not been acted upon. This class distinction between those who are paupers and those who are not leaves London in an unfortunate position with regard to the provision of hospital accommodation; Mr. Galsworthy's suggestion, therefore, that the Local Government Board should introduce a Bill into Parliament with a view to putting an end to these difficulties is one which should receive general support. Among the important arrangements made by the managers during the past twelve months in connexion with the treatment of infectious disease are the adoption of a regulation whereby the services of medical superintendents and assistant medical officers appointed to any infectious hospital will be available for any other hospital of the managers, and the appointment at the hospitals of duly qualified medical men to act as clinical assistants. The first is obviously needed in the interests of the public service, for without such power of transference of officers the managers are compelled to retain a staff at institutions which are for months absolutely empty; the second is necessary to enable medical men to study more thoroughly the diseases which are to be found in the hospitals of the Metropolitan Asylums Board. We note with pleasure that a committee has been appointed by the Board for the purpose of increasing the value of the statistical information which is obtained from every institution. Small-pox and vaccination statistics specially need to be carefully recorded, and an improvement of the methods adopted will lead to valuable results.

ABSENCE OF FREE HYDROCHLORIC ACID IN THE GASTRIC JUICE.

THE diagnostic value of the absence of free hydrochloric acid in the gastric juice in cases of malignant disease of the stomach is discussed at some length in a recent paper by Dr. V. G. Nechaieff of St. Petersburg. For the detection of free hydrochloric acid no less than thirteen different tests have been proposed. Of these he considers the following to be the most useful:—1. A solution of tropeolin in water, as proposed by Edinger; this has of itself a yellow colour, but when brought into contact with a solution containing 0·01 per cent. of HCl it becomes a dark cherry red 2. Methyl violet becomes blue on the addition of 0·025 per cent. of HCl. 3. Congo paper shows a blue tinge on being immersed in a solution containing 0·025 per cent. of HCl. 4. A mixture of three drops of liquor ferri perchloridi with the same quantity of carbolic acid in twenty cubic centimetres of water shows the presence of lactic acid or its salts by becoming yellow; but if free hydrochloric acid is also present the reagent becomes colourless. This is therefore an excellent test for free hydrochloric acid, when lactic acid or the lactates are present. Dr. Nechaieff advises that all these tests should be applied in each case. He found that in cases of carcinoma of the stomach, and apparently in carcinoma of the œsophagus, absence of free hydrochloric acid constituted the rule and its presence the exception, and is disposed, therefore, to think that its absence affords a practically useful diagnostic sign in cases where cancer of the stomach or œsophagus is suspected. Thus, in seven cases of carcinoma of the pylorus, though 142 exami-

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nations were made, free hydrochloric acid was never found, though lactic acid invariably existed; and, again, in 105 examinations of four patients with carcinomatous stricture of the œsophagus no free hydrochloric acid could be detected. In a case of cancer of the rectum, however, the presence of free hydrochloric acid in the contents of the stomach was very distinct.

CERTIFICATES OF DEATH.

IN a recent annotation respecting the Toxteth-park poisoning case, it was suggested that all cases in which, from the sudden character of the death or other suspicious circumstances, the medical attendant had a doubt as to its being a death from natural causes, should be referred by him to the coroner of the district. No doubt a difficulty is created by the wording of the 20th section of the Births and Deaths Registration Act of 1874, which is as follows:—

"In the case of the death of any person attended during his last illness by a registered medical practitioner, that practitioner shall sign and give to some person required by the Act to give information concerning the death a certificate, stating, to the best of his knowledge and belief, the cause of death."

A correspondent wishing to know whether he or any other medical practitioner could refuse to give a certificate, communicated with the Registrar-General, from whom he received, through the secretary, a reply of which the following is an abstract. After quoting the section of the Act just given, the letter adds:—

"The duty of the medical practitioner is thus very clearly explained by the 20th section of the Act, which admits of no other interpretation..... The medical practitioner under the circumstances described in the Act has no option in the matter; he cannot withold the certificate. He can of course, if he sees fit, himself communicate with the coroner or police with regard to any suspicious circumstances which may have come under his notice when in attendance during the last illness of the deceased; but he may safely leave this duty to the registrar, who in his 'Regulations' is directed to report to the coroner (on a form provided from this office) all deaths caused directly or indirectly by violence, or which have been attended by suspicious circumstances, as well as sudden deaths, and every death the cause of which is stated to be unknown."

It is unfortunate that the Act takes no cognisance of those cases in which it is very difficult, if not impossible, to give a certificate, and in which it would be, medically speaking, much better not to give one. For instance, a practitioner might be in doubt as to whether the cause of death were due to "English cholera" or "irritant poisoning." How is the certificate to be so worded as to induce the registrar to refer the case to the coroner without prejudice to the medical attendant should his suspicions be unfounded? We are by no means so assured as the Registrar-General would appear to be of the safety of leaving this discretionary power to the district registrar. Coroners have frequently complained, and with too much reason, of the delay which often occurs before they receive information of a death in which an inquest has to be held. This delay must be increased, if not caused, by presenting for registration a certificate useless for that purpose, and which must be referred to the coroner—more especially if these officials reside in country districts far from each other. The question is not without its difficulties, but these will be more easily surmounted by meeting them at once, and not shifting them on to the shoulders of others. It will surprise many readers of THE LANCET to learn that they cannot refuse to give a certificate of death, even when such can only be a merely formal one to be passed on by the registrar to the coroner. The obviously better course would be for the medical attendant himself to refer to the coroner every case in which he had doubts as to the propriety of giving a certificate—not necessarily because an inquest was called for, but because the coroner is the authority to whom all such cases ought to be referred, and who is the official responsible for making full inquiry and for the results thereof.

THE GENERAL MEDICAL COUNCIL.

IMMEDIATELY after the termination of the session of the General Medical Council, the printed Minutes of the Council, of its Executive Committee, and of its English Branch Council, including the Transactions from Feb. 25th to May 20th, were published. The volume contains information of the greatest value to the profession and to those interested in its government. In it will be found, in addition to the President's address, all the communications which have taken place concerning the appointment by the Council of assistant examiners to the Apothecaries' Societies of London and Ireland; also a statement of a case and opinion by the Attorney-General and the Solicitor-General in regard to the combination of licensing bodies under the new Medical Act, as well as the proceedings relating to the appointment of inspectors of examinations. Among other documents of interest is the report by a committee on practical education, to which we referred at length in our last number. The early appearance of this volume, with an excellent index, will be appreciated by those interested in medical education.

OXYGEN AS AN ANTIPYRETIC.

AT the last session of the Royal Academy of Medicine of Madrid, the President introduced an innovation by allowing Señor Don Dr. Francisco Valenzuela, a non-member, to read a paper. The subject was "The Effect of Oxygen of High Tension upon the Animal Organism," and the amount of original investigation reported in it may well serve to justify the President of the Academy in departing from the time-honoured custom of confining the papers and speeches to academicians. Don Valenzuela began his researches by submitting rabbits to pure oxygen at various pressures. No effect on the temperature was produced at a lower pressure than 760 mm., or five times the ordinary tension of the oxygen in the atmosphere. Under this, however, a rabbit whose initial temperature was 38·7° C. after an hour's sojourn in the chamber presented a temperature of 37·9° C. At still higher pressures of pure oxygen greater falls of temperature occurred. The highest tension at which experiments were made was 1520 mm.; this reduced a rabbit's temperature in an hour from 38·4° to 32·2°. The general effect on the animals of oxygen at the higher tensions was to produce a temporary torpor, and they came out of the chamber covered with moisture; in a very short time, however, they entirely recovered their ordinary condition. Some experiments were also made on the effect of oxygen of high tension on the febrile state, by inducing septicæmia in rabbits and comparing the course of the disease in those which were subjected to the action of oxygen with that in others kept under ordinary atmospheric conditions, with the general result that pyrexia appeared to be reduced by the sojourn in the oxygen chamber. In one case two rabbits were each inoculated with a cubic centimetre of serous fluid with a putrid smell from a dead body. One of them was then subjected for two hours to the action of oxygen of a tension seven times higher than that which it has in the air. Four hours subsequently the temperature showed a reduction of 1·7° C., the temperature of the other rabbit at the same time being 3° C. higher than the normal. The next day the body heat of the first rabbit was 1·5° C. and the second 3·1 C. above the normal. The first was replaced in the oxygen chamber under the same pressure, and for the same length of time as before,

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which reduced the temperature 2·2°—that is to say, to 0·7° below the normal. On the third day it was only 1° C. above the normal, while the second rabbit died. No further treatment was resorted to, and on the fourth day the first rabbit had regained its normal physiological condition. It was found in the various experiments made that when a small quantity of septic matter only was introduced, a single session in the oxygen chamber was sufficient to destroy the effect of the virus, but that if a high degree of sepsis was induced the poison was only partially destroyed by a single session. Dr. Valenzuela then made some observations on patients. A young man was attacked by pneumonia, affecting both lungs, on April 26th. On the morning of the 27th the temperature was 39·5° C., and in the evening 40·4°. He was then put into the pneumatic chamber containing pure oxygen at a pressure of 950 mm., or six times the ordinary tension of atmospheric oxygen, for an hour, after which his temperature was 1·7° C. lower. The next morning it was 39·2°. A second session in the chamber produced no immediate reduction, but four hours later the temperature was 39·0°. That evening it was 39·5°, and it gradually returned to normal, though no further sessions in the oxygen chamber were ordered. The man made a rapid recovery. Dr. Valenzuela likewise mentioned some other cases of pneumonia and tuberculosis on which the oxygen treatment appeared to have a beneficial action.

THE CROWN PRINCE OF GERMANY.

WE are glad to be able to give in fuller detail this week an account of the Crown Prince's illness. It appears that in January his Imperial Highness began to suffer from slight hoarseness, and early in March Professor Gerhardt discovered a warty growth attached to the left vocal cord, which he treated by touching with the electro-cautery. Its size having been reduced by this means, the Prince was advised to go to Ems, where he remained about six weeks. On his return he was found to be no better as regards his hoarseness, and the growth had somewhat increased in size. Professor Tobold was then called in, and after a consultation with the Emperor's and Crown Prince's physicians, Von Lauer and Wegner, it was thought that the growth was of a malignant nature, and at their request Dr. Bergmann's opinion was sought. He was inclined to confirm the diagnosis. It was decided that an external operation was necessary, but whether it was to be excision of the larynx or thyrotomy was not settled definitely. In consequence of the strong feeling at Court that this operation ought not to be done unless absolutely unavoidable, on account of its attendant danger to life and great impairment of voice, even if successful, Dr. Bergmann declined to take the responsibility as the operator, unless the impossibility of the removal of the growth by inter-laryngeal methods was confirmed by Dr. Morell Mackenzie. Immediately on arriving in Berlin on Friday, May 20th, a consultation was held, at which Dr. Mackenzie met all the medical men above mentioned. On making a laryngoscopic examination, Dr. Mackenzie found a sessile growth about the size of a large split pea, but in shape more elongated, attached to the posterior portion of the left vocal cord on its inner and upper surfaces. He urged that the more serious operation should not be performed before a portion of the growth had been removed for microscopic examination. This had not been done because it was considered impossible owing to its small size and sessile character. The following morning another consultation was held, at which Dr. Mackenzie succeeded in removing with forceps a piece of the growth about the size of a tare. Professor von Virchow, having examined microscopically the portion taken away, pronounced it to be a benign growth. He said that the epithelial cells were increased in size and number. He further stated that, as the portion removed included a complete section of the growth and the surface of the vocal cord beneath, as clearly demonstrated by the presence of some of the longitudinal elastic fibres of the latter structure, he considered that there was no reason to suppose that any remaining portion of the growth was of a cancerous nature. Professor von Virchow also said that he thought the thickening was the result of chronic inflammation, which accorded with the history of the case. Dr. Mackenzie leaves London for Berlin on Sunday night, and we shall hope to hear that he has been successful in removing the entire growth, which is the source of so much trouble to his Imperial Highness and of so much anxiety to others.

TERRIER'S NEPHRECTOMY.

THE last word has not yet been said upon the relative advantages of the lumbar and the abdominal methods of nephrectomy. Each has its merits and its demerits, and M. Terrier has attempted to combine the merits of each without the corresponding demerits in a new method of operating. It consists in making a vertical lateral incision over the front of the kidney through the abdominal wall. The peritoneal cavity being opened, the diseased organ and the opposite one can be explored; and if the surgeon decides to proceed with the operation, he makes a clean vertical cut through the peritoneum over the kidney on the outer side of the colon, and strips up the serous membrane from the front of the kidney. By carefully suturing the cut edges of this visceral peritoneum to the edges of the abdominal wound, the field of operation is completely shut out from the general peritoneal cavity. Before doing this, the surgeon proceeds with the removal of the kidney. The vessels having been secured, the cut edges of the peritoneum are united as described above, and the ureter can be brought out at the lower end of the wound, which is then partially closed, a large drain being left in. The advantages of this method of operating are the facilities it affords for determining the condition of the opposite kidney, abundant room for extracting the kidney, ease in dealing with the pedicle, satisfactory drainage of the wound, which is rendered extra-peritoneal, and the freedom from risk of contaminating the peritoneum by the divided ureter. Terrier records the two cases in which he has practised this operation in the *Revue de Chirurgie* for May. One of them, in which there was hydronephrosis of the organ, was successful; the other, a case of malignant disease, was fatal. This method of operating certainly deserves further trial.

ANTI-VACCINATION.

THE article which we published recently on the instructions to public vaccinators issued by the Local Government Board is the subject of a letter in the *Echo* by Mr. William Tebb, a prominent leader of the anti-vaccination party, who, referring to our statement that "the amount of sickness and death which is prevented by this operation (vaccination) is almost incalculable," proceeds to say: "No evidence is produced to establish the truth of this wonderful salvation, for the very sufficient reason that there is none to produce, as all the available evidence both from England and the Continent points in an opposite direction." The anti-vaccinationists know too well that an assertion such as this appearing in the public press and left uncontradicted must have its effect amongst those persons who would never think of learning the lessons taught by every small-pox hospital, by the Registrar-General, by the Local Government Board, and by the State Departments of other countries. We have no reason to anticipate that any Government would deprive the country of the benefits resulting from the administration

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of the Vaccination Acts; but the efficiency with which these Acts can be carried out is largely dependent upon the willingness of the people to protect their children by vaccination against small-pox. Under these circumstances, it becomes a serious question whether greater effort should not be made to combat such false statements as that to which we refer, and to enlighten the public as to the dangers of small-pox, and as to the immunity from this disease which is conferred by vaccination. It is indeed lamentable that a few anti-vaccinationists should be permitted to poison the public mind by assertions absolutely devoid of truth. The press, which publishes the letters of anti-vaccinationists, is not less open to those who are cognisant of the enormous saving of life which is effected by vaccination. There is no class of men who could better undertake this duty of the education of the public than medical officers of health, and no better service could be rendered by these officials than the constant delivery of lectures in their districts, which would thus enable the information, now too much confined to official publications, to be generally known. The Society of Medical Officers of Health are now considering changes in the constitution of their body which will add to its power of usefulness, and we would venture to suggest that the course we have indicated is one which they might readily adopt. They would be able to make clear to the public the absurdity of a story told in the same number of the *Echo*, that an unfortunate baby, who subsequently to vaccination suffered from diphtheria and whooping-cough, did not contract these diseases from its vaccination, and they would thus prevent the growth of an opinion based upon these fallacious statements. We do not doubt that if this method had been earlier adopted, we should have found the death-rates from small-pox much lower than they have hitherto been.

PARALYSIS OF CONVERGENCE IN TABES DORSALIS.

AN interesting case of paralysis of the movement of convergence of the eyes occurring at the commencement of tabes dorsalis, in a man aged thirty-six, has been placed on record by Dr. de Watteville in the *Neurologisches Centralblatt* (No. 10), and the facts of the case are also vouched for by Dr. James Anderson, whose examination corroborated the loss of knee jerk, loss of the light-reflex of the pupil, and the presence of accommodation, lateral and vertical movements of the globes, with perfect action of the eyelids. Loss of this function of converging the eyelids has been recorded as an isolated symptom, and as complicating Basedow's disease. Dr. de Watteville states that he knows of no observation in which this loss of convergence has been chronicled during the early stage of tabes, but he quotes Dr. Gowers' Manual, vol. i., p. 298: "Rarely there is loss of the movement of convergence associated with loss of accommodation, although the internal recti may act in the movement towards one side."

"WAKING NUMBNESS."

THE author of this communication to the *American Journal of the Medical Sciences* (April, 1887) proposes as a convenient designation for the "hitherto undescribed neurosis" the name of "narkophypnia," a suggestion which we trust will not receive general support. There is, he states, nothing but the sensation of numbness in these cases, no paralysis of motion or sensation, no change in temperature of the affected part, the surface is not blanched or mottled, and there is no tenderness on pressure. One case has been under observation six years; the patient, a professional man, aged forty-three, wakes up with a sensation of numbness which may involve both hands, arms, shoulders, thorax, and tongue. The sensation lasts no longer than one minute.

THE GORDON MEMORIAL.

EVERYONE who wishes well to the youth of the country will have learnt with satisfaction that the Gordon Boys' Home has, during its short but useful past, fully justified its claim to a continued existence. In the report submitted last week to the Council of this institution it was shown that the accommodation hitherto provided at Fort Wallington is fully occupied—a sufficient proof that the benefits afforded within its walls have been appreciated. Order, at one time somewhat difficult to establish, is now satisfactorily maintained, and, in spite of a considerable necessary outlay, self-help and economy have materially reduced the amount of working expenses, while the assets of the Home derived from funded property have largely increased. Just at this time, however, a large additional expenditure will be required for building purposes in connexion with the formation of the permanent establishment between Bagshot and Woking. This work has already been begun, and it is hoped that by next winter 160 boys will be in occupation of the new quarters. It is hardly requisite to remind our readers that the means at the disposal of the Council are still limited. They do not suffice to meet the whole cost of this scheme of extension. A greater sum than the available yearly income, indeed, is required to maintain the educational machinery in a thoroughly efficient state. The public are therefore invited to contribute in aid of this very deserving project. We cannot do better than advise them to accept the offer, and thus to prove at once their sense of what is really most practical in philanthropy, and their esteem for the memory of one who freely and most worthily spent his all and himself in their service. We note with particular interest that the new arrangements include the erection of a small detached infirmary, and for this purpose £1000 will be required. No part of the contemplated changes is more clearly desirable or even essential to the success of the scheme as a whole. No school of this kind can possibly be complete without its hospital, and the fact that this will be a separate building in the new Home is an additional guarantee that the management of affairs is in careful hands.

A POULTRY DEALER'S DEN IN THE EAST-END.

THE sanitary inspector of the Whitechapel District Board of Works has discovered a house in Spitalfields where the floor, bed, tables, and chairs were bespattered with filth due to the killing, drawing, and plucking of ducks and fowls. In the yard, in cages that did not seem to have been cleaned, there were a number of live poultry. The occupier of the house was a foreign Jew who deals in poultry. The odour of the rooms is described as most sickening, and the drainage arrangements as in a truly horrible state. Other rooms in this house were sublet and greatly overcrowded. Poverty, overcrowding, and defective drainage are bad enough of themselves, and too often characterise the houses where foreign Jews crowd together in the East-end of London. In this case, however, we have an additional grievance; and, at first sight, it seems difficult to explain how, under such unpropitious circumstances, a trade in poultry can possibly be established. Why should purchasers patronise this overcrowded and obnoxious private house instead of going to the market or to a clean shop? A ready explanation, however, can be given. It is a question of "Kosher" meat. The Jew must not eat poultry killed in the ordinary manner, and this poultry dealer buys live stock only, which he despatches in accordance with the rules laid down by the rabbi, and thus is able to trade with the Jewish community. The grievance may therefore be referred to the Jewish Board of Guardians and the Sanitary Committee they appointed shortly after the revelations we published concerning the sanitary condition

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of the sweaters' dens in the East-end of London. The Jewish laws affecting the slaughtering of animals for human food were conceived with a view to the preservation of health. The poultry dealer in question may have observed the letter of these laws; but surely the condition of his house as described by the sanitary inspector is not in keeping with the spirit of the law. This obvious fact will commend itself to the more educated section of the Jewish community; and, for the health and credit of their race, measures will doubtless be taken by the Jews themselves to abate the nuisance.

THE FIELD OF VISION IN NEUROSES AND DURING THE MENSTRUAL PERIOD.

DR. L. FINKELSTEIN has drawn attention in a recent work to the effect of various neuroses and of menstruation upon the functional activity of the organs of sense, especially of the eye. Thus he found, from a large number of observations taken in Professor Merzheievski's clinic for nervous diseases in St. Petersburg, that in epilepsy, hysteria, neurasthenia, delirium tremens, and during menstruation the field of vision is perceptibly diminished in a concentric manner. In epilepsy the internal radius of the field is usually most affected. This diminution in the field of vision commences before the fit, simultaneously with the premonitory giddiness, headache, &c. The greatest diminution is, however, observed immediately after the fit; by the next day the field has always resumed its normal extent, no permanent effect having been detected in any of the cases examined. The field of vision for colours presented various anomalies, the diminution being most marked in the case of green, less for yellow and red, and least of all for blue. With regard to menstruation, it was found that the field begins to diminish from one to three days before the period, reaching its extreme limit on the third or fourth day of the flux, and returning to the normal about the seventh day. It varies in degree directly with the general condition of the woman and with the amount of blood lost. Here the diminution of the field of vision for different colours does not appear to vary, as in the case of epilepsy.

CHARGES AGAINST MEDICAL MEN.

IT is to be hoped that the almost uniform unsuccess of actions brought against medical men charged with offences against women, said to be committed in the course of the discharge of their professional duties, will lead women to be more careful in bringing such charges, and hysterical moralists to be more chary of stimulating women to fancy themselves injured. We would not say a word calculated to diminish carefulness on the part of medical men. Rather would we advise double caution in their professional relations with women. For example, we think it highly indiscreet in a medical man to administer an anæsthetic to a female patient without the presence of a third party. Also we think it very inconvenient and unfit that a medical man should have a habit of seeing patients in his bedroom. Such indiscretions perhaps show only the confidence of medical men in their own uprightness; but they are not to be approved for all that. Still, when all care is taken, our profession, from its very nature, will be exceptionally exposed to such attacks and actions as those under notice. The presence of third parties is a desirable condition of all consultations, but it is manifestly often impracticable, and the main stay of the profession must be on its own character and the delicacy of its own sense of honour and purity. Fortunately, there is a widespread confidence in the profession—a belief that it realises its responsibilities and appreciates the obligations imposed on it by the very interests with which it is trusted. This confidence is shown not only by the verdicts of juries, but by the observations of judges, and by the generous and respectful tone of articles in our lay contemporaries called forth by recent cases. We have been very much struck with this tribute to the profession, which may well lead every medical man to be doubly careful not to do anything that will lower the high standard of professional honour and morals, and it may well lead the medical bodies to deal boldly in expelling those who discredit their diplomas. The rarity of the necessity for such action on the part of the medical bodies is the best proof that the profession is still sound at heart and true to its great ethical traditions, which embrace "whatsoever things are true, whatsoever things are pure and of good report."

LONDON WATER SUPPLY.

A CONTEMPORARY, commenting on the machinery for the prevention of injury to health from London water supply, observes that, now there are half a dozen chemists and a Government water examiner engaged in this duty, if anything goes wrong the fact is not likely to escape notice. We have no doubt these gentlemen will do all in their power, but the staff is deficient in the one officer who could render most signal services to London; there is ample need for the employment of an engineer and of analytical chemists, but the subject which requires the most serious study is the effect of water upon the health of its drinkers. A medical man, skilled in sanitary science, is alone competent to undertake this duty, and Londoners should not rest satisfied until their interests are protected by the strengthening of the staff in this direction. The risks to London from the present methods of supply deserve to be immediately investigated, and every fact concerning them known; it will be little satisfaction to water drinkers if this should only be undertaken after a repetition of the calamitous experience of the year 1866.

COVERING WOUNDS WITH PLASTER.

AT an inquest held in the Southwark Coroner's Court last Friday a point was brought out which is of some importance as bearing on the treatment of recent wounds. A schoolboy running out of the school gates fell and cut his forehead. The wound was strapped with plaster, and everything appears to have gone well for four days. Then shivering came on, and was followed by drowsiness deepening into insensibility, and death resulted two days later. After a post-mortem examination, it was decided that the fatal issue was due to blood-poisoning brought on by neglecting to cleanse and dress the wound, the plaster never having been removed from the time of its application. In commenting on cases of this kind one naturally allows somewhat for the possible effects of shock occasioned by the primary injury, which, without amounting to any gross lesion, might yet materially influence the final result. Be this as it may, however, enough has been shown in evidence to enable the coroner to assign to the death in question a more direct connexion with the wound itself. The practice of plastering over recent cuts is very usual; it is also one which in numerous instances has proved injurious. Apart from any question of blood-poisoning, indeed, the mere tension of retained discharges is an inevitable source of mischief where this custom is adhered to. The simple rule in surgery which provides for the free escape of pus where such is likely to form is one of which we need not remind any qualified practitioner. Accidents due to neglect of this rule are chiefly liable to occur when a wound has been treated either by the injured person himself or by a practising chemist. In such cases plaster is the first resource, and is apt to be used rather well than wisely.

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NEALE'S MEDICAL DIGEST.

THE second edition of this work, the first edition of which formed the seventy-fifth volume of the New Sydenham Society's publications in 1877, affords a means of ready information regarding such discoveries, new doctrines, and different methods of treatment in each department of medical science as are likely to be of interest to the practitioner. An appendix to the work has now been published, including the years 1882-3-4-5 and the early part of 1886. Originally intended for the daily and hourly use of the busy practitioner, there is hardly a case that one is called upon to attend in which valuable suggestions cannot be obtained by a simple glance at the pages of the Digest. We have already noticed Dr. Neale's work, but are induced again to call our readers' attention to the work for this reason: weekly, nay daily, we receive from correspondents queries, the answers to 99 per cent. of which are contained in this volume. All of us are conscious of valuable time having been lost in searching back numbers and wrong volumes of periodicals for what, after all, will most probably be missed, and to obviate such loss we can recommend to our readers no better method than reference to the Digest and its first Appendix.

SEASONAL RELATIONS OF CHOREA AND RHEUMATISM.

IN his paper on a partial study of the seasonal relations of chorea and rheumatism in the *Medical News* of Nov. 13th, 1886, Dr. Morris J. Lewis finds that while the chorea tracing shows a strong tendency to keep pace month by month with the irregularities in the storm tracing, that of rheumatism, while also strongly resembling the latter, may be seen to be exactly one month later, looking as if the effect of the meteorological changes was immediate in the case of chorea—as it is now acknowledged to be in some varieties of neuralgia—and preparatory only in cases of rheumatism. "From the close relationship known to exist between these two diseases one might be led to suppose that the rheumatism tracing would precede, or at least accompany, that of chorea, instead of following it, as this study seems to show."

ADULTERATION OF OIL AND LARD.

OLIVE OIL is adulterated extensively, and lard is also adulterated. These are among the latest discoveries of the daily papers, and for a day or two they have attracted some feeble indignation in the public mind. "How fraudulent—how disgraceful!" say a few, and then pass on to some other novelty. Of course, oil and lard are adulterated. No one who knows anything of the trades doubts it. Dishonest vendors are making profits freely by their dishonesty, but nothing noxious is sold to the public, and as for the fraud, who cares? Certainly not the Government, who are too busy to think of such things, and certainly not the public, who are too apathetic to care about anything that does not come before them with a flourish of trumpets. The British consul at Leghorn has recently made some strong remarks on the barefaced frauds now openly perpetrated in Tuscany and England. Not only is olive oil freely adulterated with the cheaper oil of cotton seed, but the well-known flasks and cases are now sent empty to London to be filled with cotton seed oil and sold in England as olive oil of fine quality. It may well be asked, Is there no possible remedy for such audacious swindling? Of course there is; the remedy is simple enough. The adulterations of olive oil can easily be detected, and fraudulent vendors might easily be punished if it were not for the absurd difficulties which are engendered by our English law. Give us a more stringent Adulteration Act, which shall not only confer greater power upon local authorities, but compel them to exercise it, and such frauds would soon become matters of history. At present, however, there seems little chance of such an upheaval of commercial morality.

LEUCOCYTOSIS AND NEW GROWTHS.

ALMOST any sudden or rapid change in the organism appears to be attended with an increase in the white blood corpuscles. In fevers, inflammations, and especially suppurations, a leucocytosis may always be detected. A careful paper on this subject was communicated to the Royal Medical and Chirurgical Society by Mr. T. P. Gostling two years ago. Hayem has recently read a paper on the leucocytosis accompanying the development of neoplasms. A cubic millimetre of blood should yield normally 6000 white blood corpuscles, but the numerical fluctuations are greater for white than for red blood corpuscles. Hayem, assisted by M. Alexandre, draws the following conclusions:—Scirrhus and encephaloid cancers are accompanied by a slight increase in the number of white blood corpuscles. The leucocytosis is much more marked with osteo-sarcoma and lympho-sarcoma. Epithelioma has the least influence in inducing an increase in the white corpuscles. Hayem believes that the leucocytosis may prove of diagnostic service, and mentions a case of doubtful epithelioma of the foot in which M. Alexandre counted 14,000 white globules per cubic millimetre; it was thought during the life of the patient, from this circumstance and from the absence of inflammatory complications, that the disease might be cancerous. The case terminated fatally after operation, and the necropsy revealed several visceral neoplasms of encephaloid structure

ANOTHER DEATH ON A TRICYCLE.

CLOSELY following the death of Prof. Hack of Freiburg on a tricycle, a well-known inhabitant and parochial official of Plumstead has met with a similar end. On the Queen's birthday he rode out into the country, and after having ascended a hill near Sidcup, and while going steadily along a level road, smoking according to his usual practice, he was seen to fall from the machine. The bystanders appear, unfortunately, to have attempted to raise him into a sitting posture against the bank, and he died in a few minutes. According to the published report of the inquest, the medical evidence was to the effect that "all the organs of life were healthy, and that death had been the result of syncope produced by over-exertion after a hearty meal." The deceased was fifty-five years of age. Healthful as cycling is for those who are young and strong, with an unimpaired condition of the circulatory organs, it becomes a dangerously severe exercise for persons who, besides being somewhat advanced in life, have any cardiac or arterial mischief, and if indulged in to the point of riding up hills immediately after a heavy meal fatal consequences may very easily ensue.

THE LATEST CURE FOR CONSUMPTION.

THE recent observations of Dr. Kolischer upon a new method of treating tuberculous disease of joints, which were described by our Vienna correspondent last week, appear to have excited considerable attention. The method, based on the fact that tubercle deposits do sometimes undergo spontaneous "cure" by calcification and fibroid changes, was an endeavour to excite such retrogressive change artificially. The results obtained in the few cases at present thoroughly treated were certainly striking, and were declared by Professor Albert to surpass any other plan of treatment yet in vogue. It is now said that Dr. Kolischer contemplates applying the same method to the treatment of visceral tubercle, and once more the world is agitated by the

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alleged discovery of a "cure for consumption." We would counsel a little patience before accepting even the possibility of being able to artificially arrest the progress of pulmonary phthisis by the administration of acid phosphate of lime or any other salt. At the same time, we would by no means discountenance a fair trial of any plan which, as in this case, is based on rational grounds. Perhaps between the varied efforts to discover germicidal agents on the one hand, and drugs to render the tubercular neoplasm obsolete on the other, we may one day arrive at some panacea. There is not much, however, in the recent history of the treatment of phthisis to render us very sanguine of such a result being attained.

CLINICAL SOCIETY.

AT the last meeting of the Clinical Society a vote of thanks to the Committee for its report on the connexion of joint disease with locomotor ataxy was proposed by Dr. J. G. Glover, seconded by Dr. Ormerod, and agreed to with acclamation. The President said that the report was a most valuable one, and would reflect great credit on the whole Society. The names of Sir James Paget (chairman of the committee) and of Mr. Bilton Pollard (the hon. sec., on whom it is understood a considerable amount of work fell) were specially mentioned in the vote of thanks. Mr. Bilton Pollard thanked the Society on behalf of the committee, and said that the report comprised the results of observation of a large series of cases of joint disease in locomotor ataxy and of ordinary osteo-arthritis, and, so far as the cases allowed, he thought the report went far in the direction of settling points raised in the debate.

VACCINATION IN NATAL.

THE precautions necessary to be observed against small-pox epidemics appear to be sadly neglected in Natal. At the last half-yearly meeting of the Vaccine Board it was stated that forty-eight births had been registered in the Newcastle division during the latter half of last year, and, as far as could be ascertained, not one of these children had been vaccinated.

A CASE OF HYDROPHOBIA.

A CASE of hydrophobia was admitted into St. Thomas's Hospital on May 16th. The boy, aged six, was bitten by a dog over the left eye two years ago; the wound was not treated in any way; he was quite well until the evening of the 15th ult., when he was observed to be rolling on the floor, and soon refused food and drink. He was admitted on the evening of the 16th, the symptoms then being a peculiar jerky inspiration with a condition of great terror and excitement. He soon developed well-marked symptoms, having general convulsions on attempting to drink, and constantly ejecting saliva from his mouth. He was quiet and sensible between the paroxysms, complaining of toothache on the left side. He died on the evening of the 17th from cardiac and respiratory paralysis.

NO MEDICAL EVIDENCE.

AN inquest was held on May 24th by Mr. William Carter, at York-street, Lambeth, touching the death of Sarah Clara Watson, aged fifty-one years. From the evidence, it appears that the deceased had been addicted to habits of intemperance for twenty years. On the day of her death she called up her son, and complained of feeling ill. A glass of wine was given to her, and immediately afterwards she fell prone on to her bed, and appeared to sink into "a sound sleep." Two hours later it was discovered she was dead. No medical man was sent for, nor was any medical evidence called for at the inquest. The deceased appears to have manifested some delusions shortly before her death, and it is not at all improbable that she had delirium tremens, and that she died from sudden failure of the heart's action—an issue not very uncommon in that affection. Moreover, long indulgence in alcohol is calculated to produce fatty degeneration of the heart's substance, and this may have conduced to the fatal event. At the same time, we cannot but think that a medical man should have been summoned when the deceased was found to be dead, or apparently dead, and that the case was one in which a post-mortem examination should have been made. In every case of sudden death, where the cause is not obvious, the jury should have something more than probabilities to guide them.

NEPHRO-LITHOTOMY IN AUSTRALIA.

DR. W. GARDNER, surgeon to the Adelaide Hospital, reports a successful case of nephro-lithotomy, which is of special interest as the first case in which this operation has been performed in Australia. The patient was a man twenty-three years of age, who dated his troubles from a fall, which was immediately followed by hæmaturia. For three years he suffered from pain in the left loin and testicle, hæmaturia, and frequent micturition. There was marked tenderness of the left kidney. Dr. Gardner cut down on to this organ from the loin, found a stone in it, and removed it. The calculus was composed of oxalate of lime. The patient made a good recovery. It is satisfactory to find that the value of this operation is appreciated in our far-off colonies, and that they are supplied with surgeons so alive to the advances made in Europe, and so well qualified to give their patients the benefit of them.

INFANTILE DIARRHŒA.

THE latest recommendation for the treatment of the "green diarrhœa" of infants is that of M. Hayem, who has tried with much success the hydrochloric and lactic acids, the latter being preferred. A teaspoonful of a 2 per cent. solution of lactic acid is given after each stool, as much as from forty to sixty centigrammes a day being taken by the infant. M. Lesage has investigated the stools and has discovered a microbe, which will probably receive more attention. The activity of this microbe is diminished by acids, hence the explanation of the value of the above treatment.

MR. LUND, F.R.C.S.

WE regret to hear that Mr. Lund, whilst engaged last Saturday in his duty as an examiner in the Final Fellowship, was seized with a slight attack of an apoplectic nature. We are very glad, however, to be able to state that he is now so far recovered as to be able to leave his bed, and will after a few days' rest probably be able to resume his professional duties.

DEATHS OF EMINENT FOREIGN MEDICAL AND SCIENTIFIC MEN.

THE deaths of the following foreign medical and scientific men are announced:—Dr. Emil Huber, Extraordinary Professor and First Assistant in the Leipsig Pathological Institute.—Dr. Ferdinand Hauska, Emeritus Professor of Medical Jurisprudence in Vienna.—Professor Hamernik, of Prague, in his seventy-seventh year.—Dr. Jewell, Professor of Neurology and Mental Diseases at the Chicago Medical College.—Dr. Alexander Ecker, Professor of Anatomy in Freiburg.—Dr. François Vleminckx, secretary of the Brussels Medical Federation.

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FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—Professor Senator has succeeded Professor Henoch in the charge of the clinic for children's disease, Professor Henoch being obliged to retire on account of ill health.

Buda-Pesth.—Drs. Jendrassik and Moravcsik have qualified as *Privatdocenten;* also Dr. Pertik, Prosector of the new City Hospital.

Leipsig.—Dr. Winkler, of the Freiburg Bergakademie, has been appointed Professor of Chemistry, with the charge of the physico-chemical laboratory, in succession to Professor G. Wiedemann.

MESSRS. LONGMANS AND CO. announce as almost ready for publication the following amongst other new books and new editions:—A Text-book of Elementary Biology, by R. J. Harvey Gibson, M.A., F.R.S.E., Demonstrator of Biology in University College, Liverpool; Modern Theories of Chemistry, by Professor Lothar Meyer, translated from the fifth German edition by Messrs. Bedson and Williams; a new edition of Huth's Marriage of Near Kin; Electricity for Public Schools and Colleges, by W. Larden, M.A.; and Elements of Physiological Psychology, by George T. Ladd, Professor of Philosophy in Yale University.

IT is satisfactory to learn that the Home Secretary has advised Her Majesty to commute the sentence recently passed upon the two prisoners at Warwick Assizes for having caused the death of a young woman by procuring abortion. As we remarked last week, heinous as is the offence of criminal abortion, there are yet certain features in connexion with this case which seem to show that justice will be satisfied with a less penalty than the highest the law can inflict.

ON Wednesday, at the French Academy of Medicine, Sir T. Spencer Wells was elected Corresponding Foreign Member, "*à la presque unanimité des suffrages*"; and last month he received the diploma of Honorary Fellow of the German Society of Surgery, conferred at their sixteenth Congress.

WE are requested to inform subscribers to the Jacob testimonial that the presentation of the address and purse of 500 sovereigns will be made at 5 P.M. on Monday, June 6th, at the Royal College of Surgeons, Dublin.

MR. A. MARMADUKE SHEILD, M.B., B.S. Cantab., F.R.C.S. Eng., assistant surgeon to Westminster Hospital, has been elected an assistant surgeon to Charing-cross Hospital.

THE ninth annual congress of the American Laryngological Association was held at New York on the 26th ult. and two following days.

UNIVERSITY COLLEGE, LONDON.

THE distribution of prizes by the Faculty of Medicine of the London University College took place on Wednesday, when Sir George Young, Bart., presided. There was a large attendance of professors and students. After the reading of the report by the Dean of the Faculty and the presentation of the prizes,

The CHAIRMAN addressed the students. He congratulated the recipients of the prizes, and after referring to the past work of the College and the loss sustained by the death of Dr. Wilson Fox, he alluded to the establishment of the Victoria University, its general objects, and its effects on the London University College. He pointed to the fact that a number of medical students in London were in the habit of going to the provinces to qualify by residence at some other school for the attainment of the degree which the authorities of the school had power to give. Admitting that there were teachers elsewhere as eminent as those in London, why should he hesitate to say, when it was universally acknowledged, that there was no medical school in the kingdom which could claim a higher tradition of successful teaching than their own, that the general hospitals of London with their eleven medical schools afforded a field for study which it was ridiculous should be deserted for other fields under the stress of artificial regulations? Not only were medical schools dependent upon hospitals, but hospitals were dependent upon them. Each school had to provide not merely the clinical teaching which the hospital wards supplied, but scientific instruction of a multifarious and costly character. When a school was a constituent of a general college the instruction was ready to hand, but elsewhere it was too often improperly provided. Most of the lesser schools had lately acknowledged their insufficiency, and had entered into an arrangement with the Government School of Science at South Kensington to get that part of their work done for them. To that arrangement the Council of the College took exception on account of its exclusive character. A remedy for the existing evil was needed which should put an end, not to wholesome emulations, but to the mischief which proceeded from their excess, which would enable other schools, without fear of losing ground, to permit their students to come to the London University College for scientific instruction, and which should bring together the teachers and administrators of the schools to concert, on equal terms, on a common platform, with the University, means for the improvement of medical education. Considerations of that nature had led to the movement for a Teaching University in and for London, which had now been brought to a practical stage of definite proposals and a formal programme. They asked that the same privilege which had been conceded to the country colleges through the Victoria University should be conceded to them. They wanted a degree giving authority, in which their administrators and teachers should have their due share of influence. They wanted a new institution—a federation of the University colleges and medical schools in the London district—whereby measures might be arranged, in concert, for the promotion of university education. They could not go to Manchester, or so far give up their position and history as to apply for admittance to the offspring of their offspring. To do so would be to accept a position in a university of an imperfect type, when the perfect type of a localised university was open to them. If the population of this vast metropolis was not sufficient to support a university, what population was? The last report of the Senate Committee of the London University had been carefully considered by the College, but its proposals did not amount to the foundation of anything analogous to a Teaching University for London. They were limited to the admission on the Senate of eight representatives of bodies called Faculties, which were again to be composed of the representatives of the teaching institutions throughout England sending up students to the University examinations. There was also a provision for Boards of Studies, and there was to be an addition to the preamble including among the purposes of the University "the promotion of regular and liberal education throughout Her Majesty's dominions, and especially in the metropolis and its neighbourhood." There was, finally, a proposition that the University was to be at liberty to found professorships and lectureships provided they were not of a kind likely to compete with the University College. The proposals, however, were of a very meagre character: nothing was done for the organisation of university education in London. The Boards of Studies, the Faculties, and the new members of Council did not belong to London, but to England at large, and they could not meet the evils that had been pointed out. They tended to interfere with the position of impartiality which the University was bound to maintain. By mixing up the system of an Examining University with the system of a Teaching University they ran the risk of spoiling the work the University was doing, and they were quite certain not to do well the work that was waiting to be done. The real work of a Teaching University was not merely to provide for, but to commend to its students, the best methods of study under the best teachers; in the Examining Univer-

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sity the degree was only the mark of attainment. The two systems were not compatible. But if mutually destructive when blended in one institution, there was room for them both. There was plenty of room for an Examining University in the British Empire. Even though a certain proportion of its candidates from London institutions were withdrawn, there would still be plenty of candidates for its degrees, and plenty of honour attaching to them. But why should institutions like the London University College be for ever debarred from the right to confer, under proper guarantees, the honour of a public degree? They asked that a charter to confer degrees upon all persons who had undergone a regular course of study in a college or medical school of the University, and had passed the required examinations, should be granted to a suitable governing body upon which the governing bodies of University College, of King's College, and of the teaching staff, not merely of those Colleges, but of other medical schools, should be represented. To this end they sought an alliance with the Royal Colleges of Physicians and Surgeons, thus offering guarantees to other medical schools that their interests would be respected. It had been objected that the degrees of the London University having been kept at a high standard, the degrees of the new University would not be kept as high. He did not deny that it was one of their objects that degrees should be more easily obtained by London medical students. There was always some work thrown away in preparing for the best of examinations, and in preparing for an examination against which great objections were urged, which was arranged independently of the teachers who prepared for it, the amount of friction and wasted work was considerable. Assuming that a London degree represented higher attainment than an Edinburgh or a Cambridge degree, that was an excellent thing for the University and for those who attained its degrees, but it was a bad thing for the much greater number who gave up all hopes of a degree, but who might have been stimulated to meritorious exertions for a prize which was within the reach of effort. It was a still worse thing for youths who ran away to Newcastle, because they foresaw that in country practice they would be at a disadvantage beside the Newcastle men. The next objection was that the professors wanted to "brand their own herrings," that the defects of their teaching should be concealed by the Government stamp, which was placed in their own power to confer. That accusation was a mistake. The University system to which more than any other the accusation applied was that of the University of London. Again, it had been urged that the establishment of a new University with power to confer degrees with a licence to practise was objectionable as increasing the number of bodies conferring such licences. The remedy would be easy if a cordial alliance could be established with the Royal Colleges. There would be no interference with their prerogative and no addition to the number of licensing bodies. There was at present a movement on foot at the College of Physicians for a single Faculty university in London, or an institution in the nature of a university to confer medical degrees alone. That movement appeared to the London University College to be part of its movement. Regarding it as a separate movement the College could not look upon it altogether with approval, as it would be fatal to its medical school; but if the movement of the Colleges of Physicians and Surgeons could be brought into line with that of the University College, then, indeed, they would have obtained a very large part of what they sought. No doubt there were great difficulties to be encountered. Some of their number, including their President, and others who had held high office, had thought it their duty to withdraw from the Council of the College. They had, however, encouraging assurances from influential quarters of sympathy with the movement, and they would, no doubt, soon be in a position to fill up satisfactorily their depleted ranks. Those who remained were not discouraged; they were now unanimous amongst themselves; they had the unanimous support of the professors; they had the unanimous voice of King's College, once their rival but now their cordial ally; they had friends in the press, in every medical school in London, and every university in England. They believed in the future capabilities of the institution, and they desired to make it greater than it was at present, more splendid, more efficient, and in that aim they expected to succeed, because they were not labouring only for their own aggrandisement, but towards the foundation of a university which would be of incalculable benefit to the cause of education in the mighty metropolis in which they lived. (Loud applause.)

On the motion of Mr. ERICHSEN, a vote of thanks was passed to Sir G. Young for his address.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

WE have received from the Secretary of the College for publication the subjoined abstract of the petition to the Queen for a Supplementary Charter. Copies may, we understand, be obtained on application by Fellows and Members of the College.

The following are the purposes for which the application is about to be made:—

1. To enable the College to hold "lands, tenements, rents, and hereditaments" of an annual value not exceeding £20,000, instead of £2000 as by present Charter.

2. To enable the Council to determine by rules and regulations, instead of, as at present, by bye-laws, the conditions of admission to the Fellowship by examination; and to determine by bye-law, instead of by Charter, the fees payable for such Fellowship.

3. To empower the Council to elect to the Fellowship Members of twenty years' standing, not exceeding ten (instead of two) in each year, on the payment of the same fee as required for the Fellowship by examination.

4. To authorise the election by the Council of any number of persons, not exceeding two in each year, whether a Member or Members of the College or not, having, in the opinion of the Council, to be ascertained and expressed in such manner as the Council may from time to time think fit and direct, rendered distinguished service in the advancement of surgery or the sciences allied thereto, such persons to be and be called Honorary Fellows. Such Honorary Fellows not to pay any fee, and to be ineligible to vote for the election of members of the Council.

5. To provide that Fellows may vote in the election of the Council either in person or by voting papers, such papers to be signed, authenticated, and delivered in such manner as the Council shall from time to time think fit and direct. No election of members of Council to be valid unless there shall be present at the meeting for the purpose of such election such number of Fellows as the Council may from time to time think fit and direct.

6. To render Fellows of ten (instead of fourteen) years' standing eligible for election as members of Council, and to abolish the restriction in regard to their practising as apothecaries.

7. To simplify the mode of nomination of Fellows, candidates for election to the Council, by requiring in each case only one nomination paper to be signed by three Fellows.

8. To dissolve the Midwifery Board.

9. To enable the Council to increase the number of members of the Board of Examiners in Dental Surgery, and to require that those members of the Board described as "persons skilled in Dental Surgery," who shall in future be elected, shall be persons registered under the Dentists Act of 1878.

May 23rd, 1887. EDWARD TRIMMER, Secretary.

HEALTH OF ARMY HORSES.

THE annual statistical and general report of the principal veterinary surgeon of the army, for the year 1886 has just been issued, and is of a very satisfactory character. The mean strength of the army horses at home was 12,393; the admissions on the sick list during the year were in the proportion of 628 per 1000; the deaths from all causes were 18·8, of which 12·5 were the result of disease and 6·3 were destroyed for various causes. The proportion cast and sold amounted to 87·5, and the constantly non-effective from disease and injury to 38·0 per 1000 of the strength. Compared with the preceding year's results, the admissions were slightly higher, the deaths and constantly non-effective were identical, and there was a slight decrease in the number cast. The Royal Engineers furnished the highest proportion of cases, amount-

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ing to 825, and the Life Guards the lowest, being only 428 per 1000. The highest death-rate (25·3) was in the Heavy Cavalry, and the lowest (14·4) in the Field Artillery. The increase in the admissions has been chiefly from diseases and injuries of the locomotive apparatus, particularly contusions, sprains, and diseases and injuries of the feet; there has also been an increase in diseases of the digestive apparatus, especially colic, and in strangles and epizootic fever. Only one case of glanders occurred; it was in a remount of the 13th Hussars at Colchester, which had just joined from Ireland, where, it is believed, the disease was contracted. The 2nd Life Guards in Regent's-park Barracks had 65 cases of epizootic fever, being in the ratio of 247 per 1000 of the strength, and nearly half of the admissions from this cause in the whole force. The only other stations at which it prevailed to any extent were Canterbury and Aldershot, which respectively had 20 and 45 cases, or 53·7 and 21·9 per 1000 of strength. Dr. Fleming does not assign any reason for this outbreak in the 2nd Life Guards, but he remarks: "It will be noted that the Regent's-park Barracks, London, continues to be by far the unhealthiest of all the stations for mounted corps in the United Kingdom, the average sickness from zymotic diseases being 24·71 per cent., the next highest being Canterbury, with 5·37 per cent., and the next Aldershot, with 2·19 per cent." Previous reports, however, do not quite bear out this statement about the Regent's-park Barracks, and it is noteworthy that in every year in which they have been recorded as furnishing such cases they have been occupied by the 2nd Life Guards. The immunity of the 1st and liability of the 2nd Life Guards to these diseases is a subject worthy of investigation. A case of rabies occurred in a horse of the 1st Life Guards three months after he had been bitten at Wormwood Scrubbs, although cauterisation of the wound had been immediately resorted to. The highest annual ratio of admissions occurred among the four-year-olds, and the deaths among them were twice as high as at any age up to seventeen—results in accordance with those of previous years.

The proportion of horses cast has been lower than in any of the preceding four years, but their average service has also been lower, having been only seven years and seven months, while in previous years it has usually been a little over nine years. Nearly one-third were cast for "old age." The average price received for them was £10 0*s.* 9*d.*, which, although a trifle higher than in 1885, was considerably under the prices of preceding years.

In addition to the information respecting the horses in the United Kingdom, the report contains, for the first time, returns of the horses, mules, and camels in charge of the veterinary officers in Egypt and in Natal. The results for the animals in Egypt are shown in the following summary:

	Average strength.	Ratio per 1000 of strength.			
		Admitted.	Died.	Destroyed.	Total loss.
Horses ...	1191	822	18·5	24·3	42·8
Mules... ...	948	340	9·5	9·5	19·0
Camels ...	615	1691	297·5	42·3	339·8

The admissions of horses were not excessive, considering the circumstances under which they were employed; two-thirds of the cases were of injuries and diseases of the locomotory apparatus and surgical diseases and accidents. Digestive diseases, chiefly colic, were next in frequency, and then general diseases, of which more than half were returned under the heads of anæmia and asthenia. The most fatal diseases were those of the digestive apparatus, causing eleven deaths, of which four were from colic and four from enteritis. The colic "was, in many instances, due to the horses eating sand, usually with their food." There were only nine cases of glanders, which were, of course, at once destroyed. Considering the great prevalence of this disease in Egypt, the army horses appear to have been very fortunate.

The mules furnished a very low ratio of cases and of deaths. The diseases from which they suffered were much the same as those of the horses, but they had only two cases of glanders.

The history of the army camels, as shown by these returns, is a very melancholy one. The proportion of cases and of deaths was extremely high. Of the former, two-thirds were cases of sore back from the saddles, and one-fifth was returned as asthenia and exhaustion. Surely there must have been gross neglect somewhere to permit of such results. Of 209 camels which died or were destroyed, 178 are accounted for under the head of asthenia and exhaustion. On this disgraceful state of matters Dr. Fleming prudently refrains from comment.

The strength of animals employed by Government in Natal is stated at 732 horses and mules, but the numbers of each are not given separately. The cases among them amounted to 759, and the total mortality to 142·0 per 1000 of the strength. Of the ninety-one animals which died, sixty-one were returned under the head of anthrax, and seven of intestinal calculus caused by the horses eating sand. Of "anthrax" Dr. Fleming says that "in some parts of the most fertile portion of the Cape and Natal colonies it is impossible to keep horses during the summer season, nearly all perishing from this plague." Of seventy-one army horses and mules attacked during the year under review, only ten recovered. The Government has sent out a veterinary officer, who has gone through a special course of training, to investigate the nature of the disease "and to attempt its suppression by the adoption of the method of protective inoculation with attenuated or modified virus, introduced by Pasteur and others so successfully in the case of European anthrax." We shall look forward with much interest to the result of these experiments.

In addition to the information on the subject of the health of the army animals at home and abroad, the report gives an interesting account of the good work going on in the Army Veterinary School at Aldershot. The instruction given in it is not confined to the veterinary officers, but is open to any officers of the garrison who may choose to avail themselves of it. A considerable number have taken advantage of it, and there can be no doubt that the knowledge thus acquired may prove most useful in a campaign and in the colonies. The school is also turned to account in training a body of farriers to act as veterinary assistants or subordinates—a system which has already been found to work advantageously on service in Egypt and South Africa. Dr. Fleming has given some details of his proposed farriery reorganisation, which appears calculated to diminish the labour and increase the efficiency of the department; and also a short but interesting article on winter shoeing, which we recommend to the attention of all who require to use their horses in winter, whatever the weather may be. The careful manner in which the report has been drawn up, and the practical character of the suggestions it contains, are worthy of Dr. Fleming's reputation, and the satisfactory state of health of the army horses reflects credit upon the department over which he presides.

ARMY MEDICAL STAFF DINNER.

THE annual dinner of medical officers of this department was held at the Holborn Restaurant on June 1st, Sir Thomas Crawford, K.C.B., in the chair. The following officers and guests were present:—*Inspectors-and Surgeons-General:* Lawson, Balfour, Gordon, C.B., Ker Innes, C.B., Sir T. Longmore, C.B., Massy, C.B., Manifold, Fraser, Mackinnon, C.B., Irvine, Hendley, C.B., Ekin, C.B., Muschamp, and Fuller. *Deputy Inspectors-and Surgeons-General:* Swettenham, Laing, Fox, Fraser, Reade, C.B., Marston, Roberts, Veale, Watts, Sly, and Don. *Brigade Surgeons:* Ashton, Herbert, Wade, Inkson, Warren, Prescott, Gribbon, Maunsell, Wright, Leask, Mackinnon, Lloyd, Adcock, Tomlinson, Clarke, and Anderson, C.I.E. *Surgeons-Major:* Lane, Churchill, Hensman, Staples, Maunsell, Scott, C.M.G., O'Dwyer, McNalty, Nash, Beattie, Johnston, Macartney, Morgan, McSwiney, Macrobin, Frazer, Roe, Clery, Williamson, Ash, Donovan, Buske, Allin, Miller, Gormley, Scott, and Powell. *Surgeons:* Ligertwood, Fenn, Ryan, Tuthill, Kirkpatrick, Seymour, Clark, Flood, Harwood, MacNeece, Baker, Twiss, Sloggett, Porter, Johnston, Reade, Semple, Carte, Sheldrake, Zimmerman, Bostock, Hale, and Minniece. *Guests:* Sir Charles McGrigor, Bart., Sir J. W. Reid, K.C.B., Sir William Mac Cormac, Inspector-General Dale, Dr. Glover, and Messrs. Pollock, Holt, and Hart.

The health of the Director-General of the Department was proposed in very warm terms by Sir William Mac Cormac. In reply, Sir Thomas Crawford said that he was ambitious

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mainly to effect two results—first, to hold high the standard of professional efficiency and character in the army, and, secondly, to approximate more and more the military and the civil branches of the medical profession.

HYDROPHOBIA AND THE PASTEUR INSTITUTE.

ACCORDING to the report of the late Dr. Vulpian, the secretary, the number of persons subjected at the Institute to the Pasteur treatment during the fourteen months from the end of October, 1885, to the end of December, 1886, was in all 2682. Of this number 2164 had been bitten by animals known for certain to have been mad at the time of biting, and the remaining 518 by animals suspected to have been mad. Of the 2164 bitten by animals undoubtedly mad and treated according to Pasteur's method, 29 persons died, representing a proportionate mortality of 1·34 per cent. Of the 518 bitten by animals presumed to be mad, and subjected to Pasteur's treatment, only 2 died—i.e., 0·36 per cent. The statistics of rabies before the discovery and application of the Pasteur method give the proportion of mortality from that disease among the persons affected by it as at lowest 16 per cent. If, then, this percentage be correct, the cases of mortality amongst the 2164 persons in the state described, had they not been treated by the Pasteur method, would have been, not 29, but 346. With respect to the most dangerous cases, the report states that there were 48 persons bitten by mad wolves, 186 persons bitten on head or face by animals known to be mad, and 28 bitten on head or face by animals presumed to be mad. Of the 48 in question 7 died—i.e., a mortality of 14 per cent. The mortality in similar cases before the Pasteur method is ascertained to have been 60 to 80 per cent. Moreover, in three of the 48 persons symptoms of rabies had actually appeared before the application of the treatment, and their deaths may therefore be left out of account, thus reducing the mortality of this class under the Pasteur treatment to 8 per cent., as against 60 per cent. to 80 per cent., without this treatment. Of the 186 above specified, the number of persons who died was 9, or 4·83 per cent., as against 88 per cent. without the Pasteur treatment. That is, out of the 186, 163 would have died but for this treatment, whereas under its employment only 9 died. Lastly, of the 28 above specified, only 1 died—i.e., a mortality of 3·57 per cent. For some months past M. Pasteur has modified his method, and in the most serious cases has applied, not simple, but intensive treatment. And whereas out of the 136 specially serious cases in which the simple treatment was applied 9 died, in 50 specially serious cases in which intensive treatment was applied no mortality whatever is stated to have followed.

BIRMINGHAM MEDICAL BENEVOLENT SOCIETY.

THE sixty-fifth annual general meeting of the Birmingham Medical Benevolent Society was held on May 27th, Dr. James Johnston in the chair, there being a good attendance of members. Dr. Thomas Savage, hon. sec., read the annual report of the directors, which stated that during the past year the Society had accomplished its usual amount of work in a quiet, unostentatious manner. The invested funds at the end of 1886 amounted to £10,978. During the year fifteen annuitants had received grants varying in annual value from £10 to £40. The roll of benefit members contains 272 names, the total receipts during the year reached £615 2*s.* 4*d.*, and grants had been made to the amount of £465. A new annuitant, a member of the Society, had been added to the list, and a grant of £40 a year had been made. The widow of a deceased member had also been made an annuitant. Since the commencement of the present year the widow of a deceased member had died. She was in receipt at the time of her death of £25 a year, and had received a total of £837 10*s.* from the funds of the Society. Her husband had paid as a member of the Society seventeen guineas. Twelve new members had been elected, and six had died. Mr. Alfred P. Evans (West Bromwich) was appointed president; Dr. Charles Warden, president elect; Mr. Arthur Oakes (Birmingham) and Mr. J. Arthur (Henley-in-Arden), vice-presidents; Dr. Marriott (Leamington), Mr. Priestley Smith, and Mr. Wm. Thomas were added to the directorate; Mr. Bartlett and Sir James Sawyer were reappointed treasurers, and Dr. Thomas Savage was re-elected honorary secretary. The members afterwards dined at the Grand Hotel, under the chairmanship of Mr. A. P. Evans.

WILLS OF MEDICAL MEN.

THE will of Surgeon-General William Rutherford, M.D., C.B., honorary physician to the Queen, late of 325, Vauxhall-bridge-road, who died on March 24th last, was proved on April 27th by Mr. Peter Ronaldson and Mr. George Ronaldson, the executors, the value of the personal estate in the United Kingdom amounting to upwards of £49,000. The testator bequeaths £500 to the Dublin Lying-in Hospital, and numerous legacies to relatives and others. The residue of his property he leaves between the children of his late first cousin Thomas Shirreff Rutherford, and three of the children of his late first cousin George Rutherford.

The will and codicil of Dayrell Joseph Thackwell Francis, M.D., F.R.C.P., formerly of Northampton, and late of Wethersell Grange, Cranleigh, were proved on April 26th by Herbert Howard Keeling, Mrs. Marian Howard Francis, the widow, and the Rev. Edward Howard Francis, the son, the executors, the value of the personal estate amounting to over £30,000. The testator, after giving legacies to sons and to his trustees, leaves all his real estate and the residue of his personal estate upon trust for his wife for life or widowhood, and then for his children.

The will of John Jackson, M.D., a retired officer of the East India Company in their Bengal establishment, late of 5, Brunswick-terrace, Brighton, who died on March 31st last, was proved on April 23rd by Mr. Herbert William Fisher and Mr. Charles Nottige Macnamara, the executors, the value of the personal estate amounting to over £15,000. The testator gives all his household furniture and effects and £500 to his wife, £50 to each of his executors, and several legacies to brother and sisters. He also leaves £10,500 upon trust, to pay the income to his wife for life, and, after her death, upon the trusts of the marriage settlements of his three daughters. The residue of his property he bequeaths to his wife absolutely.

Letters of administration of the personal estate of Thomas Allen, M.D., late of 11, Keppel-street, Russell-square, who died on March 21st intestate, were granted on April 28th to Mrs. Emma Allen, the widow and relict, the value of the personal estate amounting to upwards of £14,000.

The will of Mr. George Curme, late of 9, Cornhill, Dorchester, surgeon, who died on January 2nd last, was proved on March 10th by Mr. Decimus Curme and Major-General Joseph Hanwell, the executors, the value of the personal estate amounting to £8500. The testator bequeaths all his household furniture, wines, &c., and under his marriage settlement gives his houses in Cornhill and £3500 consols, to his daughter; his surgical books and instruments and his Ross's microscope, with all the fittings, to his nephew, Mr. Decimus Curme; and legacies to servants. His estate at Whitchurch and the residue of his personal estate he leaves upon trust for his daughter for life, and after her death, subject to certain conditions, to Decimus Curme and his sons.

The following legacies have recently been left to hospitals and other medical institutions:—Mr. George Henry Johnson, late of 10, Addison-crescent, Kensington, £105 each to the Chelsea Hospital for Women, Queen's Elm, Brompton; the Metropolitan Free Hospital, 81, Commercial-street; St. George's Hospital, Hyde-park-corner; the West London Hospital, Hammersmith; St. Mary's Hospital, Paddington; the North London or University College Hospital, Gower-street; and the Middlesex Hospital.—Mr. Robert Cocks, late of Wilby House, Ladbroke-terrace, Notting-hill, £200 to the Gloucester Hospital.—Mr. John Bowie, late of the Beacon, Exmouth: The testator gives and bequeaths all such parts of his personal estate and property as may be lawfully bequeathed for charitable purposes to the treasurer for the time being of the Brompton Hospital for Consumption and Diseases of the Chest.—Mrs. Margaret Round, late of East-hill House, Colchester, £100 to the Colchester Hospital.—Mrs. Maria Newen, of 1, Hyde-park-terrace, £300 each to the

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Brompton Hospital for Consumption; St. Mary's Hospital, Paddington; and the Cancer Hospital, Fulham.—Mr. John Marsden, late of Whitebanks, Chesterfield, Derby, £100 to the Chesterfield and North Derbyshire Hospital and Dispensary.—Mr. T. E. Jones, late of Whitefield House, Wilmslow, Chester, and of Manchester, £500 to the Montgomeryshire Infirmary at Newtown; £300 each to the Manchester Southern Hospital, Clifford-street, the Royal Eye Hospital, St. John's-street, Deansgate, Manchester, and the Home for Consumption and Diseases of the Throat, St. John's-street, Deansgate; and £200 to the Manchester Institution for Diseases of the Eye, Byrom-street; the residue of his property he gives to the Manchester Infirmary.—Mrs. Margaret William Tryon Cumberland, of Enham Lodge, Lillington, Warwickshire, £300 each to the North-West London Hospital and the Samaritan Free Hospital, Seymour-street, and £100 each to the Hospital for Women, Soho-square, and the Warneford Hospital, Leamington.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Derby Urban District.—Mr. Iliffe, in his annual report for 1886, draws a comparison between the state of the borough of Derby, as regards its appliances for improving public health and the prevention of disease, in 1877 and the year now reported on. The additions made to the security of the borough have been substantial, and they have, of course, not been made without a corresponding cost. But whereas the death-rate in 1877-81 was 21 per 1000, it has been 18·2 for the period 1882-86; the scarlet fever deaths per 1000 have fallen from 43·2 to 10·5, and the diarrhœa deaths from 37·2 to 32·0. Enteric fever has unfortunately had its downward course checked by the milk epidemic of 1884, a calamity for which it is held that the sanitary circumstances of the borough were not responsible. Unfortunately the experience of 1886 does not quite bear out this view. Derby was one of the districts inspected under the survey instituted by the Local Government Board in view of the cholera prevalence in Europe, and it is gratifying to note that Mr. Iliffe found material advantage from the co-operation of Mr. Spear in the task of improving such conditions as specially called for amendment. These related essentially to sewers, house drains, and midden privies; and, naturally enough, water supplies from local wells in such a place as Derby came under condemnation. Enteric fever was far too common in Derby in 1886, and, after a somewhat exhaustive consideration of the conditions leading to it, the conclusion is arrived at that it was mainly due to the contamination of the air by means of the deposits in midden privies. Under such circumstances any epidemic beginning with milk has its spread favoured. During the year a total of 336 cases of infectious diseases was notified; and the authority made final arrangements for erecting a new infectious hospital in the place of the wooden one heretofore serving almost exclusively for small-pox.

Wavertree Urban District.—Although the death-rate during 1886 was not excessive in Wavertree, having been 16·0 per 1000, yet the list of infectious diseases given by Dr. Harvey shows how much an infectious hospital is needed. Typhoid fever of a bad type occurred; scarlet fever often led to two, three, and four cases in the same house; and eleven cases of diphtheria occurred. Dr. Harvey recommends a small hospital in or near the district. Preferably, it should be in the district. There is too much tendency to profess to make use of hospitals in adjoining districts; whereas, as a matter of fact, the mere existence of the hospital elsewhere than in the district it is intended to serve often tends to prevent its use. Unless Wavertree can find such a hospital close to its own boundaries, it had better build a small one within its proper limits.

Runcorn Rural District.—Dr. Adams tabulates at length the instances of infectious disease occurring in his district, and the action taken with regard to each. An outbreak of typhoid fever at the Overton Grammar School House at one time caused anxiety, and led to a strong condemnation of the prevailing sanitary conditions. These were, however, fully remedied. Much of the action taken in this direction is materially facilitated by the early notification of disease which is given by an increasing number of medical practitioners. Great difficulties are experienced as to the water supply of Frodsham, and the blame for this is thrown on the central authority who, it is alleged, oppose every scheme submitted to them. The last attempt to deal with the subject has again been opposed on the ground that the supply in question was precarious in quantity and doubtful in quality—a decision in which Dr. Adams does not concur. In this he is supported by the county analyst, and by the result of experiments as to the quantity of water available. The death-rate for 1886 was 17·05 per 1000.

Friern Barnet Urban District.—The sewerage system does not appear to be as yet in working order in this district. When it is, it may be hoped that the complaints as to sewer emanations from ventilators, and as to which charcoal trays are admitted by Mr. Stott to be no proper remedy, will cease. Foul ditches should then also be done away with, the more so as at present they are associated with the prevalence of diphtheria and pneumonia. Some time since, Hornsey proposed to erect an infectious hospital close to this district. Opposition came from Friern Barnet, but now that the hospital is to be erected, joint action with Hornsey is suggested. The general death-rate for 1886 was 13·0 per 1000 living, but the zymotic rate was as high as 2·1, diarrhœa, due to defective sanitary conditions, being a cause of the excess.

Middlesex and Herts Combined Districts.—In his preliminary report on this combined district, Dr. Saunders refers to the fact that the repressive measures for the purification of rivers has been a conspicuous failure, and he is inclined to attribute this to the circumstance that attempted and actual legislation has been based on the assumption that trade pollutions were of the greatest consequence, and should be the first point of attack; whereas such pollutions are not nearly so serious as those which are brought about by the discharge of sewage into streams. And he next urges that, if our rivers are ever again to be clean, work must be done in their tributaries and in the sewer ditches which so often exist in rural and semi-rural districts. On the entire district the death-rate during 1886 was 16·4 per 1000, and the infantile deaths amounted to a rate of 116 under one year of age to every 1000 registered births. In the detailed descriptions of the several districts, attention is drawn to their most pressing sanitary wants. At times, as in Barnet, scavenging by the authority is urged; in other cases the need for keeping filth out of ditches the water of which is used for domestic purposes is dealt with. In the Watford rural district a serious epidemic of enteric fever took place in the London Orphan Asylum, the cause of the disease being set down as due to milk. In the Hendon rural district diphtheria at Little Stanmore again drew attention to the need for sewering the village; and at London Colney, in the St. Albans rural district, the school closets are reported as being in a scandalous state. This latter is a matter which should be brought under the notice of the Education Department, who can bring pecuniary considerations to bear upon school authorities. In some of the districts substantial improvements have been effected, some of these being of a permanent character; and we are glad to notice that the Albury Hospital, belonging to the Berkhampsted rural authority, has again served its intended purpose of preventing the spread of infection.

Epping Rural District.—The work done in connexion with infectious diseases is well set out in tables by Mr. Fowler, the action taken in each case being duly recorded. Diphtheria has been a serious cause of mischief in this district for some years past, and Mr. Fowler feels sure that it has not been due to any one specific cause, but that, having once been introduced, it has been spread by a variety of favouring insanitary conditions. Progress is fortunately being made as to water provision, and some good work has been done in the matter of drainage. The sanatorium has only been used for small-pox, no special demand having occurred for isolation in other cases. The death-rate for 1886 was 16·2 per 1000.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5787 births and 3621 deaths were registered during the week ending May 28th. The annual rate of mortality in these towns which had been 19·7 and 20·3 per 1000 in the preceding

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two weeks, further rose last week to 20·4. During the first eight weeks of the current quarter the death-rate in these towns averaged 20·6 per 1000, and was 1·7 below the mean rate in the corresponding periods of the ten years 1877-86. The lowest rates in these towns last week were 15·7 in Sunderland, 16·1 in Wolverhampton, 16·3 in Portsmouth, and 17·1 in Leicester. The rates in the other towns ranged upwards to 25·7 in Halifax, 26·0 in Preston, 29·5 in Huddersfield, and 32·3 in Manchester. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 500 and 532 in the preceding two weeks, were last week 522; they included 251 from measles, 143 from whooping-cough, 52 from scarlet fever, 31 from diarrhœa, 23 from diphtheria, 22 from "fever" (principally enteric), and not 1 from small-pox. No death from any of these zymotic diseases was registered during the week either in Wolverhampton or in Halifax; whereas they caused the highest death-rates in Salford, Manchester, and Norwich. The greatest mortality from measles occurred in Sheffield, Newcastle-upon-Tyne, Birkenhead, Salford, Manchester, and Norwich; from whooping-cough in Newcastle-upon-Tyne, Plymouth, Nottingham, and Preston; and from "fever" in Cardiff and Derby. No death from small-pox was registered either in London or in any of the twenty-seven large provincial towns. Only 4 cases of small-pox were under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease; no new case was admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 294 and 289 in the preceding two weeks, rose last week to 333, and exceeded the corrected average by 44. The causes of 79, or 2·1 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Preston, Norwich, and in three other smaller towns. The largest proportions of uncertified deaths were registered in Huddersfield, Sheffield, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 21·5 and 21·3 per 1000 in the preceding two weeks, rose to 22·6 in the week ending May 28th; this rate exceeded by 2·2 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 18·0 and 20·1 in Leith and Edinburgh, to 24·8 in Aberdeen, 25·9 in Perth, and 27·4 in Greenock. The 564 deaths in the eight towns last week showed an increase of 32 upon the number in the previous week, and included 43 which were referred to whooping-cough, 19 to measles, 10 to diarrhœa, 6 to scarlet fever, 4 to "fever" (principally enteric), and not one either to small-pox or diphtheria; in all, 82 deaths resulted from these principal zymotic diseases, against 78 and 72 in the preceding two weeks. These 82 deaths were equal to an annual rate of 3·3 per 1000, which exceeded by 0·4 the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 31, 36, and 42 in the preceding three weeks, further rose last week to 43, of which 14 occurred in Glasgow, 7 in Edinburgh, 7 in Dundee, 5 in Greenock, 4 in Leith, and 4 in Perth. The 10 deaths attributed to diarrhœa also showed an increase upon recent weekly numbers, and exceeded by 2 the number in the corresponding week of last year. The fatal cases of measles, which had declined in the five previous weeks from 30 to 10, rose again last week to 19, of which 15 occurred in Glasgow and 3 in Aberdeen. The 6 deaths from scarlet fever corresponded with the number in the previous week, and included 2 in Glasgow, 2 in Edinburgh, and 2 in Aberdeen. Of the 4 deaths from "fever," 2 were returned in Glasgow and 2 in Aberdeen. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 106, 120, and 126 in the preceding three weeks, declined again last week to 109, but exceeded the number in the corresponding week of last year by 23. The causes of 71, or nearly 13 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 24·4 and 25·4 per 1000 in the preceding two weeks, declined again to 24·1 in the week ending May 28th. During the first eight weeks of the current quarter the death-rate in the city averaged 29·7 per 1000, the mean rate during the same period being but 18·6 in London and 19·6 in Edinburgh. The 163 deaths in Dublin last week showed a decline of 9 from the number in the previous week; they included 17 which were referred to measles, 3 to "fever" (typhus, enteric, or simple), 3 to whooping-cough, 2 to diphtheria, 2 to diarrhœa, and not one either to small-pox or to scarlet fever. Thus the deaths resulting from these principal zymotic diseases, which had been 19, 20, and 24 in the preceding three weeks, further rose last week to 27; they were equal to an annual rate of 4·0 per 1000, the rates from the same diseases being 2·9 in London and 2·2 in Edinburgh. The fatal cases of measles, which had been 9 and 8 in the previous two weeks, rose last week to 17, and exceeded the number in any previous week of this year. The deaths from both "fever," and whooping-cough showed, however, a decline from the numbers in the previous week. The deaths of infants and those of elderly persons were also fewer than those returned in the previous week. Three inquest cases and 3 deaths from violence were registered; and 46, or more than a quarter, of the deaths occurred in public institutions. The causes of 25, or more than 15 per cent., of the deaths registered during the week were not certified.

HEALTH OF STOCKHOLM.

In the Registrar-General's recently issued Annual Summary it was shown that in twenty-four of the largest European cities, having an estimated aggregate population of more than ten millions of persons, the mean death-rate during last year was equal to 27·2 per 1000, and exceeded the mean rate in the twenty-eight large English towns by no less than 6·3. It appears that the rates in these European cities ranged from 21·4 in Christiania, and 21·9 in Stockholm, to 33·0 in Prague, 35·0 in Marseilles, 37·8 in Buda-Pesth, and 38·0 in Trieste. The medical officer of health for the city of Stockholm has just issued a summary of the mortality statistics in 1886 for that city, and it may not be without interest to note a few figures bearing upon the mortality of one of the European cities showing for last year the lowest death-rates. The estimated population of Stockholm in the middle of last year was 213,762 persons. The birth-rate was 30·5 per 1000, and 2·7 below the mean rate in the twenty-eight English towns. More than 26 per cent. of the births were illegitimate, whereas the proportion in London does not exceed 4 per cent. With so high a rate of illegitimacy it is not surprising to find a rate of infant mortality out of all proportion to the death-rate at all ages. The return before us shows that the death-rate under one year was equal to 242 per 1000 living at this age; measured in another way, the deaths under one year were in the proportion of 218 per 1000 of the registered births, whereas the mean rate in the twenty-eight English towns did not exceed 169 per 1000. This high rate of infant mortality, in conjunction with the low death-rate at all ages, shows that the rate of mortality among adults in Stockholm was very low. The mortality from the principal zymotic diseases in this northern city was not on the whole high. No death from small-pox and only one from measles was registered, and the deaths from whooping-cough, scarlet fever, and enteric fever do not yield a high rate. The death-rates from diphtheria (including croup) and from diarrhœal diseases showed, however, a considerable excess, compared with the mean rates in the English towns. The aggregate deaths from the principal zymotic diseases gave a death-rate last year of 3·7, against 2·9 in the English towns, more than the whole excess in Stockholm being due to the greater fatality of diarrhœal diseases. Diseases of the respiratory organs and phthisis were somewhat less fatal in Stockholm last year than in London; while the death-rate from violence considerably exceeded the mean rate in the English towns. It is evident that, but for the terribly high rate of infant mortality, due to the markedly excessive proportion of illegitimacy, Stockholm would take a still higher place among the healthiest cities of Europe.

ON the 28th ult. the Princess of Wales, accompanied by the Prince of Wales and the Princesses Louise, Victoria, and Maud of Wales, opened the "Samuel Morley" memorial wing of the Deaconesses' Institution and Hospital at Tottenham.

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Correspondence.

"Audi alteram partem."

THE COLLEGE OF SURGEONS' EXAMINATIONS.

To the Editors of THE LANCET.

SIRS,—In the concluding paragraph of my letter to you last week I made a reference to Mr. Heath's statement "that the standard of the examination has been lowered of late." Mr. Heath has written to me to say that he "can find nothing in his letter to justify" such a reference, and to assure me that he has "never said so," and that he does "not believe or wish it." Mr. Heath's *ipsissima verba* in his letter to you were: "A good deal has been done to improve the College of Surgeons' examination, with the object of gaining 'less uncertainty,' and even 'in the way of diminished stringency.'" I was under the impression that this expression "diminished stringency" implied that it was easier to pass the examination now than formerly, but Mr. Heath informs me that he referred to the practice of rejecting candidates for three months only, and he is anxious to have this stated in your columns. But this "diminished stringency" has what Mr. Heath calls the "set off"—that the examiners have now the power to refer candidates for nine or twelve months.

I am, Sirs, your obedient servant,

May 31st, 1887. A. PEARCE GOULD.

To the Editors of THE LANCET.

SIRS,—"Audi alteram partem" is your motto, and I should be glad if you could find space in your columns for a letter dealing with the large "referred list" from a candidates' point of view. An ounce of fact is worth a pound of theory, and I believe I can lay before you some facts which may throw a little light on the problem.

Of the candidates for the recent examination for the final Fellowship of the College of Surgeons, four—whom I know personally—came before the same examiner at one of the pathology tables. Three out of the four were referred—a result which will, I think, not be wondered at, when you consider how their examination at that table was conducted. No. 1 was examined for the whole twenty minutes on concussion and compression of the brain. No. 2 was questioned about syphilis of bone, and then about hip-joint disease. No. 3 was questioned the whole twenty minutes on fractured base of the skull, and No. 4 was asked precisely the same subject as No. 3. With regard to the actual questions asked of these candidates, I am able to reproduce only a few. No. 2 was asked, "How do you classify hip-joint disease?" Answer: "Arthritic, acetabular, and femoral." "Oh, nonsense," replied the examiner, "I never heard of such a foolish classification." The candidate then used the phrase "rarefactive osteitis." It was not accepted, the examiner remarking, "Why do you use such long words?" No. 4 candidate was questioned on the treatment of fractured base, and replied, "Perfect rest and slop diet." "What slops?" was the next question. "Milk, and beef-tea." "Yes; how much?" "Oh, four or five ounces every two or three hours." "That is, twelve meals of five ounces; why you would bring about the very mischief you are trying to avert—viz., meningitis."

Now, Sirs, these facts give rise to several questions. 1. I would ask, Is it fair that a candidate should be examined during the whole time at one table on one subject only? I submit that if the examiner found Nos. 3 and 4 weak on fractured base, he ought to have given them no marks (if he liked) for that subject, and then to have passed to other matters, to give them a chance of making up. I submit that every man has a weak point, and I assert it is unfair, when an examiner has found that weak point, that he should press the candidate on it to the total exclusion of all other subjects. 2. What is a candidate to do who is not allowed to use a classification of diseases found in what is admittedly the best text-book? And how can he be expected to clothe the science of to-day in any other garb than the ordinary scientific language of the day? Thirdly, with regard to the food for a patient with fractured base, why did the examiner purposely take the greatest frequency and the largest amount, and then bring out a total which is obviously absurd, and couple it with the remark quoted? It would seem as though he were bent on making the candidate appear as foolish as possible, and were trying to find his weakness instead of his strength. Making the worst possible case from a candidate's answer is *not* the proper way to examine.

This letter can, I am aware, have no possible influence on the fate of the three unfortunates; but I hope it may have some little influence in drawing attention to some stumbling-blocks in the path of the candidates which, by very little consideration on the part of the examiners, can be most easily removed.—I am, Sirs, your obedient servant,

London Hospital, May, 1887. FRED. J. SMITH.

To the Editors of THE LANCET.

SIRS,—Few of us can look back upon our student days without recalling personal instances of the "luck" of examinations. The subject is by no means new, but, on the contrary, is a source of perennial discussion and complaint, unfortunately with but little or no improvement. It seems to me that the method of selecting examiners from the ranks of successful practitioners is far from satisfactory; it is not always the most successful surgeon or most brilliant operator that makes the best examiner even in surgery, much less in anatomy or any allied branch. I can see no theoretical objection, at any rate, to the creation of a special class of examiners, who should spend the *whole* of their time in making examinations which should be more frequent and more thorough. It would then be possible for the examiners to go from school to school as a board of inspection, or even to conduct the primaries at the schools, so as to take account of the school records and inspect the actual work of the candidates. The latter, although examined more frequently by the College authorities, would save, at any rate, by a diminution of the class examinations, for which at present they get no credit at the College.

I am, Sirs, your obedient servant,

May 29th, 1887. M.D., M.R.C.S.

THE TREATMENT OF RINGWORM.

To the Editors of THE LANCET.

SIRS,—While most cordially agreeing with your article and the first part of Dr. Wilkinson's letter on the above subject, I cannot allow such a statement as he has made to go unchallenged by one who has also seen a little of this troublesome complaint. I refer to the following: "I make a bold assertion when I say that the disease is to be cured with one application"; and then the one application is said to be warmed glacial carbolic acid. Surely Dr. Wilkinson would not advise this treatment for all varieties of ringworm, both recent and chronic, and at any age: Ringworm constantly spreads over half or even two-thirds of the scalp—would Dr. Wilkinson use glacial carbolic acid to a large portion of the head or to a young child? I trust none of your readers will attempt such an experiment. Of course, carbolic acid is a well-known and good application for small places of recent ringworm if used with care; but I warn everyone against using it to a large surface, as it may cause unpleasant results and even scarring. Secondly, I cannot agree that one application of carbolic acid always, or generally, cures even recent ringworm. What would be the use—as Dr. Wilkinson suggests—of washing the head from time to time with a lotion of sulphurous acid (an excellent remedy) if the one application of carbolic had already destroyed all the fungus? I do not even suggest what is the best treatment for ringworm; but I do think that, when such a strong application as glacial carbolic acid is advised in your columns for such a common complaint, there should also be given full directions with regard to the size of the places, and the variety of the disease it is to be applied to; whether for recent or chronic ringworm, and if for chronic, whether for patches only, or for that most troublesome variety where there are no distinct bare places, but only stumps and groups of stumps. Such disseminated cases undoubtedly often remain uncured, in spite of the application of every known remedy, even for years. Each variety of this disease requires special treatment, and every treatment requires special instructions to be given with it. Applications that would be most proper and perhaps successful, if used to a

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small patch of recent ringworm, would be both useless and unjustifiable if applied to a large surface of chronic ringworm or to the disseminated variety. I do not for a moment think I can cure ringworm more quickly than other men; but I do maintain that no end of cases are said to be cured when the disease is only in its most ordinary chronic form. Thus the doctor who certifies such cases to be well gets the credit of quickly curing ringworm; while those who refuse to certify if there are any diseased stumps remaining (and it is often most difficult to detect them) are thought not to be able so successfully to cope with the disease.

I cannot close without a few remarks upon your most excellent leading article, especially about the fact that "probably not 3 per cent." of hospital cases "are seen to their complete recovery," if it ever take place before puberty; and thus, to poor people, ringworm is "practically incurable in chronic stages." It is, as you remark, "of the first importance that the appearances in the more chronic forms of ringworm of the scalp should be readily recognised." There is no doubt whatever that children still suffering from this disease are frequently sent back both to public and private schools, even with medical certificates. After a long experience with regard to "certificates," I most fully endorse every word you say. Scarcely a week passes but I examine children for admission into private schools who have obtained certificates from medical men that they are free from ringworm, but who are still suffering from it in a most chronic form. Medical men of the highest professional standing often make the mistake of thinking ringworm is cured because the hair is growing freely on the affected places. There is no greater fallacy, for the most obstinate forms of this disease are those where the hair has grown again on the places, but where a few diseased stumps are still to be detected with a lens among the long hairs. The diagnosis of chronic ringworm is easy enough provided the medical man knows what to look for. My advice is to take no special notice of scurf, or whether the long hairs are growing firmly or not. Scurf may exist in patches and long hair may come out easily without ringworm being present; and, again, there may be severe chronic ringworm, and yet the long hairs on the patches may be quite firm and but little scurf may exist. The only diagnostic sign of any value is the presence, or the absence, of short broken-off diseased hairs called stumps. Ringworm rarely exists (except in the earliest stages) without a few broken-off hairs being visible; and certainly if there are any left the case is not cured, and the child may give the disease to others. Diseased stumps can generally be easily recognised, without the aid of the microscope, by noticing whether they break off on attempted epilation with a pair of forceps. If the stumps break off easily, leaving the root part behind in the follicle, there is but little doubt the case is one of ringworm; but if they come out with the roots entire and atrophied, it may be alopecia only: the microscope will settle the question.

I trust my long experience with this most troublesome and often intractable complaint will excuse these somewhat dogmatic remarks.—I am, Sirs, yours obediently,

Christ's Hospital, May 27th, 1887. ALDER SMITH.

ECONOMY IN THE WARDS.

To the Editors of THE LANCET.

SIRS,—The embarrassed condition of the funds of many hospitals, large and small, has led to all sorts of expedients for cutting down working expenses. Reform in our expenditure is becoming a favourite cry, and the shifts that many institutions have had, perforce, to resort to for some time past will become almost universal. There is one department in which I am sure great saving with a little care might be effected, and that is in connexion with the materials employed in antiseptic dressings. I was brought up at the feet of Gamaliel, so to speak, under a master who enforced the most rigid attention to every detail of Listerism, and woe betided the unfortunate dresser who omitted the smallest portion of the mystic ceremonies that were pursued at every bedside—such washings, and purgings, and scaldings, and sprayings, that one left the hospital daily with one's hair and skin impregnated with pungent odours, that were ineffaceable, and which were carried out to the theatre or dinner party, to the disgust of one's neighbour and the discomfort of oneself. On leaving London I became house surgeon to a country infirmary, where sepsis and poultices were the order of the day, and stinking stumps and fetid fractures rendered the wards almost unbearable. By the courtesy of the visiting staff I was allowed to act the part of the proverbial new broom, and certainly I did make a clean sweep of some of the smells. But when the bills came in for the gauze and the salicylic wool, the pounds-shillings-and-pence argument came into play with the board, who could not be made to understand the abnormal rise in their expenses. Our finances were limited, and I had to cast about to see in what direction a saving could be made. In fear and trembling, I first discarded the salicylic wool, substituting ordinary wadding, with no evil results; then, in a rash moment, I dispensed with the gauze, using instead Gamgee tissue, but without the wounds becoming septic; then the green "protective" went the way of the gauze, and a strip of carbolised oiled lint took its place; and, lastly, to the intense relief of my cracked and frozen fingers, I abandoned the spray. In fact, I gradually threw overboard every detail of Listerism as then practised, without the least bad result. Accidents of the most serious kind were frequent, it being a great railway centre; and, with compound fractures and tolerably frequent injuries requiring amputations, the test was ample and sufficient. I can unhesitatingly affirm that with a preliminary cleansing with a solution of carbolic or corrosive sublimate—of course, seeing that all the instruments were carefully cleaned—amputations were performed without the spray, the wound covered with iodoform powder, two or three thick pads of Gamgee tissue applied, outside that a quantity of oakum with a common calico roller, and the results were as uniformly satisfactory, and perhaps more so, than we had before under the more complex and certainly far more expensive system of prepared dressings; in fact, the simpler the dressing used the better the wounds seemed to do. I could quote a dozen cases of the most serious injuries where it was of vital importance to exclude suppuration, and where, with no more precaution than careful ablution and a sufficiency of soft absorbent material for dressing, primary union took place without a rise of temperature or the least discomfort to the patient. I found wood-wool by far the best dressing; its cost was very little, and pads of it covered with old linen formed an all-absorbing covering. The saving to the hospital was immense; indeed, we could not have afforded Listerian dressings as then practised. I am not advocating a return to the old days of water dressings, &c.; I firmly believe in antiseptic dressings, but I am perfectly sure that in our hospitals, daily and weekly, pounds are wasted in precautions that could be dispensed with. I have carried out the same treatment in private practice, and with the aid of iodoform, common lint, and tenax, have secured as good surgical results as we used to do with layer on layer of gauze, protectives, prepared wools, and special bandages. The hospital I speak of was not in a particularly healthy town, and our sanitary arrangements at one time were very bad. I know it is said that these results cannot be obtained in London. That that is erroneous is shown by some of the remarkable results achieved by men who use far less precautions than I did. Of course, where economy is no object (and I judge that there are very few hospitals where that could be said), or in those where a certain formula for wound dressing is obligatory, this economy of dressings is not to be expected; but I am sure that, were the actual cost of the materials employed in some of our wards during a year published, the figures would astonish the natives and foreigners alike. I am, Sirs, yours obediently,

June, 1887. J. G. MARSHALL, M.B. Cantab., M.R.C.S.

THE UTILITY OF DRUGS IN THE TREATMENT OF DISEASE.

To the Editors of THE LANCET.

SIRS,—In my green and salad days I, like many others, fell away from the scholastic belief in the utility of drugs, my apostasy to a great extent being due to a blind hero-worship and following of the investigations of Sir William Gull into the treatment of rheumatic fever. Does he still hold that the temperature in this fever cannot be lowered by salicine, and that it matters not to the result whether we use this valuable and certain antipyretic or give

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mint-water? Must we now shut our eyes to the brilliant investigations of Brunton, Murrell, Frazer, Rutherford, Fothergill, Garrod, and a host of other recent writers, who without doubt show that this epoch in the history of practical medicine is more remarkable than any other for the unbounded and intelligent faith which scientific practitioners have in the utility of drugs in the treatment of disease? Is this warm bed to replace the surgery, and the warming-pan the hypodermic syringe? Everyone must admit that it is bad to give too much medicine, but what is worse than the trade mark on the prescription is the taint of empiricism. This, we hope, is passing away.

We now know how quinine cures neuralgia; how the bromides and chloral give sleep; how digitalis may be given so as to act on the kidney, strophanthus on the heart, amyl on certain peripheral blood areas, pilocarpine on the sweat glands, ergot on the arterioles of the lungs and uterus, &c. By the light of this more exact and fuller knowledge we have come, by slow but sure steps, to believe more implicitly than our fathers did in the action of remedies, and to ignore that panacea of ignorance, "expectancy." Our drugs are purer and more elementary, our prescriptions simpler and more scientific; and, with his hypodermic syringe and the long array of accredited alkaloids, the physician not only trusts more to the action of his remedies, but even dares to look forward to the time when his art will be based on scientific certainty. It may or may not be true (for it is still *sub judice*) that vaso-motor pathology justifies Sir William's beautiful theory of arterio-capillary fibrosis; but no one can deny that to vaso-motor therapeutics the general practitioner owes much of that calm faith and comfort at the bedside which is the aim of all true rational medicine. I am a general practitioner and dispense my own prescriptions, but I claim as high a platform as any consultant, be he who he may, who is content to ignore the light which is now flooding the field of therapeutics.

I am, Sirs, yours truly,

JAMES MORE, M.D.

Rothwell, Northamptonshire, May 29th, 1887.

THE CONTAGIOUS DISEASES ACTS IN INDIA.

To the Editors of THE LANCET.

SIRS,—In your issue of April 16th, page 792, you furnish a few remarks on this topic. The following facts emphasise in a remarkable degree the gist of your observations. Lock hospitals were introduced into India in 1866. Following their establishment the ratio of venereal disease in the army fell in a most remarkable manner, so much so that in 1873 the ratio per mille was 166·7; from then till 1877 the reduction was stationary. From 1877 to 1884 there appeared a steady increase in the ratio. This increase was made the reason for a determined onslaught on the existence of lock hospitals. It was chiefly in consequence of the discredit thrown on these institutions by the late Sanitary Commissioner with the Government of India, in his yearly statistical comments, that an experimental *reduction* in their number was ordered to take effect from the early part of 1885. It was then that we saw a truly marvellous increase in the venereal ratio. The excess of the 1885 rate over that of the preceding ten years was 192·0 per mille in the experimentally unprotected stations and 61·2 in the protected. The outcome of this experimentally closing of some of the lock hospitals in 1884-5 was that 130·8 per mille of the troops in cantonments where the lock hospital was closed contracted disease; the same, had the hospital been left open, would have escaped. So conclusive have these facts been that the Government of India have recently reopened all the lock hospitals which had been experimentally closed. It is probable that several causes exist for the relative increase of venereal disease in the Indo-European army apart from the closure of some lock hospitals. They appear to be—(1) a larger proportion of young men in the ranks; (2) a larger number of inexperienced men; (3) a lesser number of married men; (4) the increase of cold weather manœuvres; (5) the improved general health of the army, which is consistent with greater prevalence of sensual desire. Factors though these may be, their existence in no way vitiates the value of lock hospitals in the cantonments of India, but rather points to the necessity for the continued establishment of every precaution against venereal risks.

I am, Sirs, yours faithfully,

R. H. FIRTH, F.R.C.S. Eng.,
Surgeon, A.M.S.

Dagshai, May 2nd, 1887.

MR. WARRINGTON HAWARD'S CASES OF TRANSFUSION.

To the Editors of THE LANCET.

SIRS,—In a recent number of THE LANCET there appeared a communication from Mr. Warrington Haward, describing a method of transfusion which he had successfully employed in a case of hæmorrhage. Mr. Haward is evidently under a misapprehension as to the authorship of the method in question. In June, 1883, my friend, Mr. J. M. Cotterill, was good enough to perform transfusion on a patient of mine. This he did, with complete success, by the method which Mr. Haward has carefully described. Recognising the great merits which this method possesses, Mr. Cotterill strongly recommended it to other surgeons here, who, like himself, have since frequently performed it with marked success. While Mr. Annandale, Mr. John Duncan, and many other surgeons, here and elsewhere, who have since that date performed transfusion by Mr. Cotterill's method, have testified to its ease and safety, it is here well recognised that the credit is due to Mr. Cotterill for having brought the method under the favourable notice of the profession.

I am, Sirs, yours faithfully,

Edinburgh, May 24th, 1887. J. GRAHAM BROWN, M.D.

"A DOCTOR'S INCOME."

To the Editors of THE LANCET.

SIRS,—Dr. Paget Thurstan, in his letter of May 21st, suggests that county hospitals are one of the causes which contribute to the under-payment of the great mass of the medical profession. With this suggestion I entirely agree, but altogether dissent to his proposed remedy. Dr. Thurstan suggests that the general practitioner should be allowed to follow his cases to the hospital, and should receive for so doing exactly the same fees as he would have received for attending the patient at his own home. He forgets that a large proportion of the inmates of our hospitals are men, and that their families, deprived of the weekly wages, have great difficulty in providing the daily loaf, and would be quite unable to pay a doctor remunerative fees. Again, a large percentage of the patients are drawn from the surrounding villages, making it impossible for the country practitioner to drive often several miles to the neighbouring town, quite out of his usual round, to visit his patient in the hospital. It is not the in-patient departments of our county hospitals which injure the general practitioner, but the out-patient. In the present day the wives and daughters of small farmers, tradesmen, and well-to-do working men are most frequently allowed to attend the out-patient department without any questions being asked them. They have learnt and are teaching others to seek their county hospitals when they are well enough to make the journey, and to fall back on the country practitioner when they are too ill to leave their own homes. The remedy lies with the medical profession. Throughout the kingdom we have our medical societies, which meet at various intervals during the year. Why should not this question of hospital abuse and other similar questions affecting the profession at large be freely discussed at such meetings? If this were done, hospital physicians and surgeons would realise more fully than they yet have the gross injustice they inflict on the general practitioner by treating in their own out-patient rooms at the hospital, without making any kind of protest, patients who are well able to pay their own doctor moderate fees which would remunerate him for his services. I would further suggest that it would be a good opportunity, now that the subject is exciting a great deal of interest, to arrange for a discussion of the question at the next annual meeting of the British Medical Association in August.

I am, Sirs, yours truly,

WM. COLLIER, M.D.,
Hon. Physician, Radcliffe Infirmary, Oxford.

May 24th, 1887.

To the Editors of THE LANCET.

SIRS,—The happy idea of Dr. Paget Thurstan in bringing out so lucidly the inner life of the profession deserves all praise. But there is a point not brought out fully in his letters to THE LANCET. I mean the estimate put by the

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public generally, and those classes who are addicted to the habit of visiting the out-patient rooms of hospitals particularly, upon the value of a doctor's services. A case occurs in my practice just now which deserves publication. Nearly three months ago I was called from dinner to assist a brother practitioner at a confinement by the husband of the patient, with the request that I would be prepared to administer chloroform, and *go at once*. The man seemed to resent the slightest delay, and scarcely allowed me to walk. It was a difficult case; great force was required to bring the head into the world with the aid of forceps, and the patient was under chloroform a long time. Last Thursday I called and reminded the husband that I had received no remuneration for my trouble and care, and requested him to send at his convenience *half a guinea*. Last evening I received a note to this effect: He did not acknowledge his liability. His wife had contracted with my friend to be attended for a guinea. He had fetched me at the request of their doctor, and I must look elsewhere for the money, adding, "*as for 10s. 6d., I should have thought 2s. 6d.*" The man is in good business and dresses well. Comment is not needed.—Very faithfully yours,

Kingsland-road, May 15th, 1887. GEO. LOCKE, M.R.C.S.

To the Editors of THE LANCET.

SIRS,—I have read Dr. Paget Thurstan's letter in your issue this week with interest, and I may add a suggestion to those already made—i.e., hospital physicians and surgeons attached to schools should be kept to their own special work (consultation), not only in the out-patient department but also in a private capacity. Loud outbursts of indignation are heard should some indigent general practitioner in a semi-starved condition, and driven to his wits end for the needful, issue to the denizens of his local slums a circular that he gives advice and medicine for 6*d.*, and competes with hospitals and chemists; but would anything be said should a consultant publish bulletins in *The Times* newspaper as to the state of an illustrious patient's health? Where is the line of advertising to be drawn? Under the present condition of things the medical profession is divided into two classes by the so-called higher and lower standard, which division is only with regard to fees, not practice, and is as wide as the gulf which separated Dives from Lazarus; for since there is no chance to rise from one status to the other except by the Chinese fallacy examination, interest, and money, why should we of the lower grade be robbed and ruled by an oligarchy who will not allow us to have a voice in the management of our own institutions? It is an old saying that "Charity begins at home," and while there are so many of our poorer brethren, it seems hard that all remuneration should go to the fortunate few. I am, Sirs, yours &c.,

May 23rd, 1887. M.R.C.S.E.

ACTION OF HYOSCINE ON THE EYE.

To the Editors of THE LANCET.

SIRS,—In an annotation in your issue of last week (May 28th) under the above heading, you mention some recent observations of Dr. O. Waller of Dorpat and others on this alkaloid. In THE LANCET of Dec. 4th, 1886, Mr. Tweedy, in an article entitled "On the Mydriatic Properties of Hydrobromate of Hyoscine," described some comparative experiments which I made for him between hyoscine and atropine, and in which all the facts noted by Dr. Waller had been observed. I am, Sirs, yours truly,

E. TREACHER COLLINS.

Royal London Ophthalmic Hospital, Moorfields, June 1st, 1887.

COLLEGIATE LECTURES.—Dr. Leonard Charles Woolridge commenced his course of three lectures on "Physiology of Nutrition" in the theatre of the Royal College of Surgeons on the 1st inst., and will be succeeded on the 8th inst. by Professor Christopher Heath, F.R.C.S. Eng., who will deliver three lectures on "Certain Diseases of the Jaws." The annual course of lectures will be brought to a close by Professor Henry Power, F.R.C.S. Eng., who will deliver three lectures on "The Relations of Ophthalmic Disease to Affections of the General System," commencing on June 17th. The lectures will commence at 4 P.M. precisely each day.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

NEWCASTLE EXHIBITION.

OUR Exhibition continues to increase in popular interest, and, notwithstanding gloomy and at times wet weather, the attendance is upon the whole very satisfactory. Yesterday, being Whit Monday, 45,000 passed in, making the total attendance since the opening on May 11th over 250,000. I should not omit to mention the model of the new infectious diseases hospital for the borough at Heaton, and now nearly complete. Last week a deputation from the Corporation of Nottingham, with Dr. Whitelegge, their medical officer of health, came over to see the hospital. They were received by the Sanitary Committee of our Corporation and the medical officer of health, Mr. H. E. Armstrong. They expressed themselves as being well rewarded for the trouble of the journey by the inspection of the building. Visitors to Newcastle should by no means omit to see the museum of the Natural History Society, which is a few steps from the Exhibition and on the same road. It is well known to be one of the best collections of natural history objects in the kingdom, and is frequently visited by foreigners. It has lately received some interesting additions, including a fine specimen of the echidna, porcupine ant-eater. This animal, which is peculiar to Australia, greatly resembles the hedgehog, but a little examination shows that it differs much from the spiny hystrix. The echidna is about a foot in length, and its body is covered with strong spines. The head consists of a long tapering snout, like the bill of a bird, from which it protrudes its long slimy tongue, and captures its food in the same manner as the great ant-eater. The limbs are short and strong, and the forelegs are armed with large and powerful claws, with which the animal burrows into the ground very rapidly. It is very apathetic, and tries to get out of sight quickly. It also rolls itself like a hedgehog, and in this way defends itself from attack. Another late addition, which, though not perhaps of great importance from a scientific point of view, possesses an interest peculiarly its own on account of its association with a name dear beyond Northumbria, Grace Horsley Darling. It is a collection of shells, crustacea, and birds' eggs, gathered on the Faroe Islands by Grace Darling and her father, and was bequeathed to the museum by her sister, Miss Thomasine Darling, who lately died at Bamburgh.

FEVER IN NEWCASTLE

At a late meeting of the Newcastle Sanitary Committee, the medical officer of health, Mr. H. E. Armstrong, reported that during the past fortnight there had been 1 case of small-pox, 7 of typhus fever, 14 of enteric fever, 1 of continued fever, 27 of scarlet fever, and 2 of diphtheria—a total of 52 cases. As regards the outbreak of typhus in the east end, it appears that there have been altogether 38 cases, all of which, with the exception of one, have been removed to the Fever Hospital. The solitary patient, who refused to go, caused a good deal of trouble by his obstinacy, and was the means of infecting two or three people who nursed him, each of whom had to be taken to the hospital.

Newcastle-on-Tyne, May 31st.

EDINBURGH.

(From our own Correspondent.)

THE VOLUNTEER MEDICAL SERVICE.

SUCH has been the success attending the formation of an ambulance corps amongst the students of the Edinburgh School, that it has now been decided to proceed further in this invaluable movement, and to raise a corresponding company from amongst the citizens of Edinburgh. The students' company, raised two years ago in response to the earnest appeals of Surgeon-Major Evatt, and commanded by Mr. C. W. Cathcart and Dr. Sims Woodhead, is constantly kept at its full strength; it has received official recognition and a definite status at the War Office, and it now takes part in all the movements carried out by the Volunteer regiments to which it is attached, in which both officers and privates

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display much enthusiasm and devotion to the work they have undertaken. Although the new citizens' company will not possess the technical knowledge of the medical students that makes their corps so specially effective, it will probably be largely recruited from men who have taken some interest in the ambulance classes held in Edinburgh during the last three years; and starting on this basis some careful training in their work and frequent practice cannot fail to make the new corps a valuable addition to our Volunteer establishment.

THE ETIOLOGY OF SCARLATINA.

The announcement of Dr. Klein's discovery of a microbe that bears a causal relation to scarlatina has been received with great interest in Edinburgh; the more so since it has been known for some months that an elaborate research on the same subject was in progress towards completion in the laboratory of Professor Chiene. The matter was taken up by Dr. Jamieson, of the City Fever Hospital, early in the course of the recent epidemic in Edinburgh, and he and Dr. Edington, assistant to the Professor of Surgery, are reported to have isolated the *materies morbi* in the form of a small bacillus, whose life-history, physiological and pathogenic characteristics they have accurately defined. I hear that their paper has been for some weeks in the hands of the publisher, and that its immediate appearance is anticipated. There is a general curiosity here to know whether their results and those of Dr. Klein will be found to agree.

THE ROYAL INFIRMARY.

By the will of the late Mr. Archibald, of Edinburgh, a sum of £1000, free of all duties, has been left to the general funds of the Royal Infirmary.

ST. ANDREWS AMBULANCE ASSOCIATION.

A demonstration of ambulance work, under the auspices of the Scottish Association, is announced to take place in the Waverley market next week, and elaborate preparations are in course of completion, which should give it great interest in the eyes of the public. Recent cases of street accidents and of disasters in large manufactories have clearly shown the value of the work done by the Association. In particular, the Portobello police force have been of late complimented for their efficient treatment of a compound fracture that was found admirably treated on "first aid" principles on its arrival at the Royal Infirmary.

Edinburgh, May 31st.

DUBLIN.

(From our own Correspondent.)

THE QUEEN'S BIRTHDAY HONOURS.

LAST week I drew attention to the paucity of State honours doled out to the medical profession in this country by successive Governments. I now wish to add that, as regards the medical branch practising in Dublin, there is a leading physician whose claim ought in no way to be forgotten. I refer to Dr. William Moore, a physician of the highest eminence, who has filled numerous important positions in a manner not to be surpassed, and who is regarded with the greatest esteem by his professional brethren. Dr. Moore also holds the high position of Physician in Ordinary to Her Majesty in Ireland. These are considerations which ought to have due weight with Her Majesty's advisers.

HEALTH OF DUBLIN FOR 1886.

The death-rate in the city of Dublin for 1886 was 28·4 per 1000, while in 1885 it was 30·69, and in 1884 it was 29·96. The deaths due to zymotic diseases amounted to 823, or a decrease of 188 as contrasted with the year preceding. It appears from the annual report by Sir Charles Cameron, the efficient medical officer of health for Dublin, that one of the most serious factors in the Dublin mortality bills is pulmonary consumption. This malady caused 984 deaths in 1886, 988 in 1885, and 999 in 1884. It is remarkable that while the general and zymotic death-rates are declining, the mortality from constitutional diseases shows no decrease. It is satisfactory to learn that a substantial reduction in the death-rate of Dublin has taken place within the last six years, and the reduction has been mainly in the mortality caused by infectious diseases—those which sanitation can most effectually deal with. With our present underfed, poorly-clothed, and badly-housed working population, we can hardly expect that the death-rate from all causes can be reduced to that of the prosperous cities of England. It is, however, some consolation to reflect that in 1886 we had the lowest mortality since registration of deaths commenced in Dublin, that our zymotic death-rate was well below the average in English towns, and that our general mortality was less than the average general mortality of the chief continental cities. The mortality due to constitutional diseases is, however, still excessive in Dublin; but the measures for lessening it must be sought for in the domain of political economy as well as in that of hygeia. As Sir Charles Cameron points out, just in proportion as the people are well fed, well clad, and well lodged, will they, by reason of their higher vitality, be able to resist the assaults of both constitutional and infective diseases.

M. PASTEUR'S TREATMENT OF HYDROPHOBIA.

The guardians of Thurles Union some time since sent to Paris a youth named Hayden, who had been bitten by a mad dog, to undergo treatment by M. Pasteur. Attenuated virus was daily injected on twenty-nine occasions, and Hayden was to leave Paris on a certain day for home. On April 19th he arrived at the institute, and on May 17th arrangements were made that he should return to Ireland. The day after he left the institute the boy went out for a walk, and on his return to his lodgings he complained of pain in the stomach, which was followed by vomiting and convulsions, death taking place thirty-six hours afterwards from hydrophobia.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

A meeting of the Fellows is to be held to-day (Saturday), to receive the annual report of the Council, when the following motion by Sir Charles A. Cameron will be under consideration:—"That the College regret the failure of the attempt to unite the Colleges of Physicians and Surgeons and the Apothecaries' Hall for the purpose of holding examinations. The College is of opinion that a fresh attempt to effect this tripartite combination should be now made—the Medical Council having recognised the Apothecaries' Hall as a medical corporation; and should such an attempt again fail, the College considers that the Council should, if possible, form a combination with the Apothecaries' Hall."

Dublin, May 31st.

PARIS.

(From our own Correspondent.)

CURABILITY OF LOCOMOTOR ATAXIA.

M. BABINSKI related at the Society of Biology the cases of several ataxic patients who had been cured. One of these patients, after having suffered for ten years from violent lightning pains, which prevented him from undertaking any kind of employment, at least three times a week, has been cured for the last five years. In another case the symptoms set in with violent pains, disseminated anæsthesia, and urinary and fæcal incontinence. During ten years the disease steadily increased, then grew gradually less severe, and for the last four years the patient has been quite well. The third observation is, however, the most interesting, inasmuch as the anatomical proof of the recovery from previous disease was obtained. The patient was a woman whose symptoms comprised grey degeneration of the optic nerve, lightning pains, gastric crises, and abolition of reflexes; no incoördination. M. Charcot has frequently shown this woman at his lectures as a typical example of tabes fruste. The pains, after existing for twenty-five years, completely disappeared. The patient died five years later of pneumonia. The post-mortem examination of the cord showed unmistakable lesions of locomotor ataxy; but, with the exception of blindness, recovery had taken place from all their consequences. Dr. Brown-Séquard said that he had long been convinced of the possibility of such recoveries, but he was happy to find the evidence brought forward by a school opposed to his doctrines. It proved conclusively, as he had always taught, that lesions of the nervous centres do not give rise to symptoms, as destructive lesions

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)ut by an inhibitory action on other parts. In reply o a question, it was stated that one of the patients had been to Lamalou ten years in succession, and had always returned improved. The others had been treated by revulsives. Dr. Brown-Séquard observed that it was important o apply revulsive treatment, not to the back, as was generally done, but to the lower extremities. The cord is acted upon in this way by all the sensory nerves, and the effect greatly increased. He quoted the case of a medical man, who was cured of locomotor ataxy by circular blisters around the leg and thigh. The same treatment is also of the greatest value in epilepsy with aura.

TREATMENT OF INTESTINAL OBSTRUCTION.

An interesting discussion has been provoked at the Société de Chirurgie by a paper by Professor Verneuil on the Treatment of Intestinal Obstruction. The practical conclusions would seem to be that if the course of events does not give rise to immediate anxiety, medicinal means, such as purgatives, enemata, rectal douches, and electricity, should be tried in the first instance. These means should not, however, be relied upon too long, as thereby time is lost and they exhaust the bowel. M. Marc Sée's case of recovery by the use of rectal douches forty-five days after the onset of the symptoms is entirely exceptional. A surgical operation being decided upon, two choices are open, each having its special indications—laparotomy or artificial anus. When the diagnosis is easy and the obstruction is known to result from chronic disease, such as cancer, there is no question as to the treatment to be preferred. An artificial anus must be made, either on the right, as advised by M. Le Dentu, or at the iliac flexure, as counselled by Professor Verneuil. When the symptoms have set in acutely and there is good reason to believe that they depend upon an obstacle that can be removed by reasonable exploration, laparotomy should be resorted to. In a great many instances of acute and subacute obstruction of the bowels the Society recognised that a diagnosis was impossible, notwithstanding the opinion of M. Desprès that it ought to be made ninety-nine times out of a hundred. Opinions were divided as to the best treatment. M. Verneuil would treat symptoms and make an artificial anus; MM. Trélat and Le Fort prefer laparotomy; and if a short exploration prove fruitless, the operation should be transformed into enterotomy.

THE INSTITUT PASTEUR.

It is said that M. Pasteur has once more modified his method of anti-rabic inoculations. For simple wounds he has returned to the first system of mild attenuated virus. For bites about the face and head, and severe bites about the body, more virulent medullæ are used, but these do not attain the virulence indicated by M. Pasteur in his last communication. The last three deaths are: Ph. Hydram, aged fifty-six, bitten on October 5th, and treated from the 10th to the 21st of the same month; died on April 21st of rabies. J. B. Gachet, twenty-five years of age, bitten on April 4th, treated from the 10th to the 20th, and died on May 2nd. J. Hayden, aged eight, bitten on April 16th, treated from April 22nd to May 15th; died on the 18th.

THE BURNING OF THE OPÉRA COMIQUE.

It is to be hoped that the catastrophe at the Opéra Comique will lead to some practical improvements in the Paris theatres. This is a subject which comes up every time a large and fatal fire takes place; but like the periodical typhoid fever scare, it is forgotten as soon as the balls for the benefit of the sufferers are over, and the persons who fatten upon charity organisations have closed the accounts of the transaction. It is somewhat ghastly that one of the official medical advisers to the administration of the Opéra Comique should be the Professor of Public Health at the School of Medicine. Perhaps this calamity will prompt him to ascertain whether there are any other duties attached to the post than those which consist in applauding the actors once or twice a month, and occasionally prescribing orange-flower water for a lady of the troupe suffering from her *nerfs*. The papers publish a note upon an examination of the blood of the victims, said to have been made at the Morgue by M. Brouardel, and which would show that death occurred in three different ways—(1) from fright; (2) from asphyxia by carbonic acid; (3) by asphyxia from carbonic oxide. Apparently no one was crushed to death, which is scarcely likely.

HYPNOTISM IN THE PARIS HOSPITALS.

Although hypnotism is not practised here on as large a scale as at Nancy, there are some cases which medical men visiting Paris should see. MM. Charcot, Luys, Dumontpallier, and Mesnet have the most interesting subjects at the present moment, the last-named gentleman having a woman under his care in the Salle St. Martine at the Hôtel Dieu who was confined without consciousness during the hypnotic sleep.

Paris, June 2nd.

EGYPT.

(From our own Correspondent.)

RABIES AND HYDROPHOBIA.

THESE diseases are almost unknown in Egypt, but the fact that the police in Cairo have during the last eight months destroyed 5233 street dogs has been construed by some lay journals into a belief that a large number of persons had been bitten by rabid dogs, and had died of hydrophobia. Pariah dogs, which act as scavengers in the native quarters of the town, are destroyed in considerable numbers every year, and the extra energy of the police during the past winter was only caused by various complaints of householders who were kept awake at night by sleepless mongrels, which had become far too numerous. Griesinger, Larrey, Watson, and many other writers say that rabies and hydrophobia are quite unknown in Egypt, but Fleming notices that travellers have asserted the presence of rabies here. Most of the cases reported during the last five years have been very doubtful, though some have been observed by European doctors in Cairo and Alexandria. An argument employed to prove the existence of the disease is that the Bedouins have a well-known remedy for bites, consisting of a hard pointed root, which certain of their "medicine men" thrust into the fire and then cauterise with it the wounds of the bitten.

CASE 1.—In December, 1882, a Swiss doctor near Cairo was called hurriedly to see an Egyptian gardener, whom he found lying on the ground, much excited, foaming at the mouth, and being held by three men. He had occasional convulsions, during the intervals of which he bit the doctor in the back of the hand while his pulse was being felt, and within half an hour he died, and was buried without a necropsy. The doctor then heard that twenty-eight days previously the man had been bitten in the forehead by a cat, and for the last three days had been unable to drink. Until three days before he had been quite well, though formerly troubled with asthma. The cat was killed after it had bitten a soldier through his trousers, and its body was not examined. The doctor and the soldier have never suffered from their bites. The man apparently bit the doctor to show his hatred of a Christian. In May, 1886, twelve women and children were bitten by a wolf in the early morning near Cherbin. The wolf was seen standing over a small child gnawing at its head, and the child died fifteen days after from its injuries. It was proposed by two native inspectors to return this case as hydrophobia, but their opinion was rightly overruled by an English veterinary surgeon. The other eleven bitten people recovered satisfactorily.

CASE 2.—Again, in May, 1886, a cat in Upper Egypt bit two natives, who were sent to Paris to be treated by M. Pasteur. This case rests on the evidence of M. Piot, an able French veterinary surgeon, who disinterred the cat two days after burial and inoculated two rabbits from it. The two rabbits died from either rabies or septicæmia.

CASE 3.—In August, 1886, an authentic case of dumb rabies was certified by English veterinary surgeons as occurring in a suburb of Cairo in a terrier belonging to the Army of Occupation. The terrier was kept under observation, but unfortunately escaped one night, and was found dead in the desert the next day.

CASE 4.—In October, 1886, three Syrian children in Cairo were bitten by a dog, of which nothing is known. Six weeks later, Dr. Grant was called to see one of these children, aged six, who had a scar from the bite at one angle of his mouth, and was then complaining of fever and of a burning sensation in the throat. The medicine prescribed could not be swallowed, and the child passed a

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very excited night, leaping incessantly in and out of bed, and refusing to drink a chloral draught. Early next morning the boy was seen, with a frightened harassed air, sitting at the far corner of a large bed, like a monkey, and again complaining of his burning throat, his temperature being still raised. He trembled all over when water was called for, but had no convulsion until it was brought near him. He was thirsty, but absolutely refused to try to drink, though after some shuddering he could extend two fingers at arm's length, touch the water, and then apply his fingers to his tongue. An attempt at hypodermic injection induced so many convulsions that it was abandoned. The same night the boy was seen again by Dr. Grant, two colleagues, and a French veterinary surgeon. The boy was then extremely excited, and could only be kept on the bed if his mother sat upon it with him. When a light was brought he dodged round his mother to avoid it. A touch of the hand induced convulsions, and each of the doctors singly tried, but failed, to inject morphia. The boy died the following morning, but there was no necropsy. The other two children were then sent to M. Pasteur for treatment, and have remained well.

CASE 5.—In January, 1887, the dog of an Austrian woman bit her in the nose, and she has undergone M. Pasteur's treatment with success. The dog died presumably of rabies. From the pons Varolii of the dog's brain two rabbits were inoculated in the eyes by Mr. Littlewood, and cerebro-spinal fluid was further injected under the skin of their thighs. Fourteen days after one rabbit died without symptoms of rabies; the lungs were very congested, but there were no other important facts noted at the necropsy. The second rabbit on the fifteenth day suffered from marked photophobia, hiding itself from the light, facial paralysis, and convulsions of the whole body. Death occurred six hours after these symptoms were first seen. All the organs were found deeply congested and the bladder was full of urine. Mr. Littlewood believes that this second rabbit died of inoculated rabies. Unfortunately, no thermometrical observations were made to test the rapid loss of heat which seems pathognomonic of the Pasteurian inoculations.

CASE 6.—On Feb. 15th, 1887, an Egyptian was bitten by a wolf, of which nothing is known, in a village near Tantah. Thirty-seven days later, on March 24th, a Greek doctor certified that this man had died of hydrophobia. He complained of headache and was delirious, and refused to drink for two days before death, and on the day preceding death he fell down some steps, but without injuring his head. At the necropsy, the lungs were found gorged with blood and inflammation in the membranes of the brain. The larynx, pharynx, intestines, and kidneys were normal. From the brain of this man two rabbits were inoculated, as in the last case. They were fed on bran instead of clover, and both became thin and wasted, one of them dying of starvation. At the necropsy great atrophy was seen, but no congestion of the organs. The second rabbit was then returned to a clover diet, at once improved in health, and is now perfectly well.

The Sanitary Department now does all that it can to encourage bitten people to bring the dogs to be watched, instead of their being at once killed. Since October last more than a dozen dogs have been kept under observation for periods exceeding one week, and, so far, in every case the dogs have proved to be healthy. The above record of six cases, including doubtful ones, represents all the returns of hydrophobia in Egypt during the last twenty years.

RELAPSING FEVER.

Occasional small outbreaks of this fever have been reported this year by native doctors in Lower Egypt, but they have not been verified by any skilled observer. During March and April there were eight cases reported from an overcrowded prison at Damanhour, of which one died.

ELEPHANTIASIS.

M. Innes, Curator of Museums at the Medical School, believes that he has recently discovered a bacillus which is special to the erysipelatous elephantiasis of the Arabs. The bacillus, coloured blue by methylene and not affected by the Ehrlich method for colouring the leprosy bacillus, occupies in masses the connective tissue which forms the scrotal or other tumour. Under a microscope of 1200 diameters it appears straight, slightly swollen at its middle, and tapering at both ends. But this investigation will require much subsequent confirmation. The eggs of the filaria sanguinis hominis are rarely found in cases [illegible]hantiasis in Egypt.

BLIND AND DEAF SCHOOL IN CAIRO.

This school is deserving of praise because it is entirely under native direction, and because the houses and all their contents are scrupulously clean. Of the blind, there are now thirty-one boys and twelve girls, who learn reading, writing, arithmetic and geography, besides mat and chair making, silk weaving and carpentering. Most of the children were suffering from extreme corneal opacities after granular lids. On the deaf and dumb side there are nine boys and eight girls being taught by deaf teachers.

Cairo, May 21st.

MEDICINE AMONG THE MOORS.

(From a Correspondent.)

THE mantle of Avincenna or Adul Axis has not fallen on the shoulders of the modern Moorish doctor. The leaders of scientific research and progress during the dark ages have not advanced, but, on the contrary, they have materially retrograded. Superstitions have gained ground; scientific precepts have been forgotten; astrology is still associated with medicine; and for the little skill occasionally displayed, and a few good local remedies, we have, as an offset, an appalling prevalence of crude ignorance and savage superstition that can scarcely be exceeded, even in the most barbarous parts of the world. The Moorish "medicine man"—we can hardly call him doctor—certainly displays some skill in couching for cataract. He has also an original method of curing irritation of the eyes due to the presence of foreign bodies: with much skill he passes his tongue over the open eye of the patient, and thus, without irritating, removes the sand, grit, &c. For cupping, the Moor also makes good use of his mouth: a cow's horn is placed over the part, and from a hole at the point of the horn the operator sucks out the blood &c. But the Moor who ventures on such treatment will, with equal confidence, prescribe gold dust, or the scrapings from the horn of a rhinoceros, as an emmenagogue; and will give an idle man ants to eat, or suggest that a coward should try and procure for his meal a little lion's flesh. The fumes of the burning bodies of animals are supposed to be a good remedy for anæmia.

In such matters the Jews of Barbary, who form an important section of the population of Morocco, are as superstitious as the Moors with whom they live. Though naturally a gifted and highly intelligent race, the Jew is as prone as the Moor to attribute his ailments to the intervention of evil spirits. If a man is ill, it is customary to place a dagger under his pillar so as to intimidate the evil one. At the birth of a child, the father, if he is a Jew, takes a big and sharp sword with which he cuts and slashes about the room in the hope of destroying the evil spirits that may be seeking to retard his wife's convalescence or that menace the child's future. Should this be considered insufficient, the pots and pans are violently struck together, and everyone helps to make an alarming noise under the impression that it will frighten illness away. This disturbing method of warding off the dangers of the situation is continued till the seventh day, or the time of circumcision. When, on the other hand, there is no family, the empiric practitioners of this country have propagated the very convenient belief that a sapphire, an emerald, a pearl, and some coral ground into powder and mixed with alcohol, constitutes an effective drug for the cure of barrenness. It is needless to say that the patient is not allowed to grind up the precious stones herself, but must confide them to the care of her medical adviser.

Nevertheless, by the side of these absurdities there are some good remedies employed. The Moors, for instance, use the actual cautery, and, by freely applying red-hot irons to the skin, often succeed where in more civilised practice the mustard poultice or the blister fails. Excellent syrups are made for coughs and colds by simply boiling figs, dates, and raisins; while the huge, thick, prickly pear leaf, when cut in two and heated, is a very good substitute for the linseed poultice. The same leaf, put on a plate and covered with brown sugar, will make a very good cough lozenge when the sap oozes out and mixes with the sugar. For fracture, the limb is dressed with splinters and tow soaked in honey. The honey, of course, attracts a multitude of flies, and thus

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augments the annoyance the patient has to endure; but, nevertheless, some skill is sometimes shown in the dressing of wounds. A plant, vulgarly known among Europeans in Morocco as the "donkey's fig," and called by the Arabs the "Feghouz elhmir," is much used in jaundice. Cut in two and held to the nose, it will cause a violent irritation of the nasal mucous membrane, followed by a copious discharge, which it is thought relieves jaundice.

The henna sold for staining the heels of the foot and the nails of the hand a bright orange red, which among Arab women is a favourite method of ornamentation, is also employed as an astringent for eruptions on the heads of infants. The root of the wild grenade, or assouak, is effective as an astringent for the lips and gums, and it imparts a marvellous whiteness to the teeth. For the purposes of a purgative the Arabs generally resort to a decoction of senna and honey. The "khol," or sulphate of carbon, with which the women black their eyelids, is used not only from motives of coquetry, but to help to cure slight ophthalmia. This latter reason is said to account for the fact that men also occasionally paint their eyes. It is strange, however, that this painting is especially prevalent on festive days, notably during weddings. Is it only when their powers of vision are more or less affected that Moors make up their minds to incur the pleasures and dangers of matrimony? Such a supposition is not a complimentary reflection on the personal appearance of Moorish women; but, nevertheless, men even in Morocco do not care to admit that they paint merely to satisfy their personal vanity.

Undoubtedly the fatalist theory of the Mahomedan religion is chiefly responsible for the deplorable ignorance prevalent on all medical matters. The Moor considers it more or less wicked to avail himself of the science of the Christian. For instance, at Tangier the Minister of Foreign Affairs has been urged over and over again to have some false teeth. He, however, invariably replies that, if God has thought fit to deprive him of his teeth, it is not for him to set at defiance the will of the Almighty by putting in false teeth. In the same manner, the actual Governor or Bashaw of the Province of Tangier obstinately refuses to avail himself of the advice of any European practitioner, though his health is in a very precarious condition. This fatalistic resignation has been combated with much energy by the Bashaw's European friends, as they greatly value his life, and fear it will be difficult to find a successor equally energetic in putting down abuses. Nevertheless, the Moors will very rarely follow the advice of European doctors. With the exception of a few rough remedies to relieve pain, they generally prefer to trust in Allah, or else resort to necromantic practices.

THE SERVICES.

Deputy Surgeon-General Jas. H. Thornton, C.B., I.M.S., has been awarded an Indian good-service pension from Dec. 8th, 1886, in the room of Col. Sir F. B. Norman, K.C.B., Bengal Staff Corps.

ADMIRALTY.—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Surgeon Robert Arthur Simpson, M.B., has been allowed to withdraw from Her Majesty's Naval Service with a gratuity.

The following appointments have been made:—Fleet Surgeon William Graham to the *Unicorn;* Fleet Surgeon Henry A. Clone, to the *Durham* (to date from May 28th); Staff Surgeon Matthew F. Ryan, to the *Tamar;* Staff Surgeon Henry Beaumont, to the *Invincible* (to date from May 28th); Staff Surgeon Michael Roman, to the *Rover* (to date from May 28th); Surgeon Alexander N. French, to the *Agincourt;* Surgeon James Rogers to the *Pembroke;* and Surgeon Charles F. Newland, to the *Invincible* (to date from June 2nd).

ROYAL NAVAL ARTILLERY VOLUNTEERS (London Brigade). Alex. Stewart Brown, to be Surgeon (to date from May 28th, 1887).

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET.—The thirty-fifth anniversary festival of this institution was held on the 25th ult., the Marquis of Ripon presiding. Since the establishment of the hospital in 1854, 400,000 out-patients and 24,000 in-patients have been treated, the numbers last year being 15,000 and 1100 respectively. A list of subscriptions and donations amounting to upwards of £1500 was during the evening announced by the secretary.

Medical News.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on the 26th ult. the following degrees were conferred;—

DOCTOR OF MEDICINE.—Henry Lewis Jones, Gonville and Caius.

BACHELOR OF SURGERY.—James Kerr, St. John's.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At recent meetings of the Court of Examiners the following obtained the Fellowship of the College:—

Thomas Higgins. | John H. Scott.

SOCIETY OF APOTHECARIES.—The following gentlemen, having satisfied the Court of Examiners as to their knowledge of the Science and Practice of Medicine, Surgery, and Midwifery, received certificates entitling them to practise as Licentiates of the Society on May 26th:—

Dean, Henry Percy, Anson-road, Tufnell-park.
De Renzi, Arthur Castriot, The Chaplain's House, H.M. Prison, Wandsworth.
Clark, Calvin Worcester Day, Regent-square.
Harris, Worsley John, Bennett-park, Blackheath.
Johnson, Harold Jossé, Bishopsgate-street.
Mausell, H. Rosser, Lynchmere, Maberley-road, Upper Norwood.
Read, Henry George, Finsbury-square.
Servaes, Francis Charles, Northern Hospital, Liverpool.
Thomas, John Lewis, Brynmowr, Breconshire.
White, Charles Percival, Furnival's-inn, Holborn.

VACCINATION GRANT.—Mr. Julius Cæsar, Minster in Sheppey, has received the Government grant for successful vaccination (first time).

THE War Department has granted a piece of land at Woolwich for the erection of a hospital in commemoration of the Queen's Jubilee.

ON the 26th ult. the Metropolitan Counties Branch of the British Medical Association held a highly successful conversazione at the South Kensington Museum.

THE Danish corvette *Dagmar*, which has been on a cruise in the North Sea with cadets, has put into Sheerness Harbour with three cases of diphtheria on board. The patients were admitted to Melville Hospital, Chatham.

THE SALE OF POISONS.—Cases are occurring almost every week which show the urgent need of reform in the Sale of Poisons Act, and of the greater stringency in the enforcement of the provisions already in existence.

BEQUESTS.—The late Mr. G. Woods Maunsell has left £50 to the Adelaide Hospital, Dublin. Mr. Wm. Magrath has bequeathed £500 to each of the following institutions—viz., Mater Misericordiæ, Vincent's, and Jervis-street Hospitals.

EAST LONDON HOSPITAL, SHADWELL.—The annual court of governors of this institution was held on the 31st ult., when it was reported that 16,012 patients had been attended during the year, making 178,644 since the opening of the institution in 1868. The receipts for the past year amounted to £7053, against £6699 during the preceding year, and the total expenditure was £6803.

ASSOCIATION OF PUBLIC SANITARY INSPECTORS.—On the 28th ult. the second provincial conference of the members of this Association was held at Eastbourne. Papers on health, drainage, and sanitary questions generally were read and discussed, amongst those present being Dr. A. Carpenter, Mr. G. A. Wallis, Mr. Toms, and Mr. Walter Grant. After the conference the Association visited the places of interest in the town.

PRESENTATIONS.—Dr. Lawton Roberts has been presented with a copy of Keith Johnston's "Royal Atlas of Modern Geography," a case containing an inkstand, a pen-stand, and a pair of candlesticks by the men employed at the Plaskynaston Collieries, in recognition of his services as medical officer, and with an electro-plated tea and coffee service by the members of the ambulance classes for his services as instructor.——Dr. Davidson of Wartle has, on the occasion of his golden wedding, been presented with a marble timepiece and a purse of 100 sovereigns as a mark of the esteem and respect in which he is held throughout

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the district.——Mr. John Blackburn of Barnsley has been presented with a silver drinking-cup by the police of the Staincross Division of the West Riding of Yorkshire, in recognition of his services as teacher of the ambulance class.—Mr. Charles Sanders has been presented by the members of his ambulance class with a handsome edition of the works of Charles Dickens.—Mr. W. Jenner Reid has, on the occasion of his leaving Esher, been presented with an illuminated address and a purse of over fifty sovereigns by the inhabitants of that village, as a token of their regard and regret at his departure.—On the 28th ult. Mr. Jordan Lloyd was presented, as a wedding present, with a cheese dish and a butter cooler by the sisters and nurses of the Birmingham Queen's Hospital, and also by the past and present resident officers of the institution, who had been associated with him in the work of the hospital, with a silver salver and an illuminated address.

THE Jubilee celebration of the National Hospital for the Paralysed and Epileptic (Albany Memorial), Queen-square, will take place on July 7th, when the Duchess of Albany will open the wards hitherto unoccupied, including the ward for children which bears her Royal Highness's name, thus raising the total number of available beds to 180. A show of roses and other flowers by Paul and Son, of Waltham-cross, with additional attractions, will be provided.

ON the 27th ult. an alarming and destructive fire occurred at the private asylum known as Brooke House, Clapton High-road. One of the inmates was, unfortunately, burned to death. An inquest was held on the body of the deceased, and the jury, who returned an open verdict, appended a rider to their verdict complimenting Dr. Adams, the proprietor of the asylum, and the members of his staff for the promptitude they had displayed in endeavouring to extinguish the flames.

LONDON TEMPERANCE HOSPITAL.—The annual public meeting of the supporters of this institution was held on the 27th ult., under the presidency of the Rev. Canon Ellison. During the twelve months ending April 30th, the number of in-patients treated was 737, the deaths amounting to 57, or 8·4 per cent. During the 14 years in which the hospital has been in existence more than 4000 in- and 26,000 out-patients have been received. The income for the year was £5075, leaving after payment of expenses a balance in hand of £38. The debt on the hospital amounts to £6500, and until this is paid it is not considered prudent to open to the public the whole of the 120 beds which the building contains, of which 60 only are at present in use.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The following Examiners have been elected for the ensuing year:—Anatomy: J. Barton, F. A. Nixon, W. T. Stoker, R. L. Swan. Surgery: C. B. Ball, E. S. O'Grady, W. Thomson, A. F. Tobin. Physiology and Histology: E. D. Mapother, J. A. Scott. Medicine and Therapeutics: M. A. Boyd, R. A. Hayes. Chemistry, Physics, and Medical Jurisprudence: J. D. Pratt, S. H. Webb. Midwifery and Gynæcology: J. J. Cranny, S. R. Mason. Ophthalmology: A. H. Benson, H. A. Swanzy. Diploma in Midwifery: J. J. Cranny, H. Croly, W. Roe. Public Health: E. Flinn, E. Lapper, W. Parry, H. Tweedy. Preliminary Education: F. Davys, R. Morton, H. C. Tweedy.

INSTRUCTION TO VOLUNTEER MEDICAL OFFICERS.—On Wednesday, May 25th, the last of a course of six lectures to Volunteer medical officers was delivered by Dr. Walter Pearce in the Parkes Museum. Dr. Farquharson, M.P., occupied the chair, and there was a large attendance of medical officers and of members of the Volunteer Ambulance Department. Surgeon Stewart, M.D., Middlesex Yeomanry Cavalry, moved a vote of thanks to the chairman, which was seconded by Surgeon Stokes, London Rifle Brigade. Dr. Farquharson, in reply, said that he took much interest in the subject of the lecture, especially in the rations of the soldier. He hoped that ample opportunity would be given for the discussion of the Army Medical Estimates in the House of Commons, and that he should be ready to put forward the grievances of the Volunteer regimental surgeons, and their deprivation of pay and allowances while under instruction at the Medical Staff Depôt at Aldershot.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

ANCOATS HOSPITAL, Manchester.—Junior Visiting Surgeon. Salary £80 per annum, with board and laundry service.

BIGGLESWADE UNION, BEDFORD.—District Medical Officer. Salary £120, with extra medical fees, as allowed by the Local Government Board.—Medical Officer for the Union Workhouse and Infirmary. Salary £40 a year.—Medical Officer for the Contagious Diseases Hospital. Salary £40 a year.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Resident Clinical Assistant. Board and lodging are provided free of cost, but there is no salary attached to the post.

QUEEN'S HOSPITAL, Birmingham.—Honorary Surgeon.

ROYAL ALEXANDRA HOSPITAL FOR SICK CHILDREN, Brighton.—Assistant Physician.

ROYAL UNITED HOSPITAL, Bath.—Resident Medical Officer. Salary £100 per annum, with board and lodging.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William-street, West Strand, W.C.—House-Surgeon.

STAINES UNION.—District Medical Officer. Salary £65 per annum, exclusive of the authorised fees for surgical and midwifery cases.

TOWNSHIP OF TOXTETH-PARK, Liverpool.—Assistant Medical Officer for the Workhouse and Infirmary. Salary £100 per annum, with rations of a first-class officer and separate apartments.

VICTORIA HOSPITAL FOR CHILDREN, Queen's-road, Chelsea, S.W.—Resident Medical Officer. An honorarium of £20 for the first six months, and £30 for the second six months, will be given, and lodging in the hospital provided.

WESTMINSTER HOSPITAL, S.W.—Assistant Surgeon.

WHITEHAVEN AND WEST CUMBERLAND INFIRMARY.—House-Surgeon. Salary £120 per annum, and £30 a year for dispensing, with furnished apartments and attendance.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

BARNARD, ARTHUR JOYNSON, M.R.C.S., L.R.C.P., has been appointed Senior House-Surgeon to the Royal Albert Edward Infirmary, Wigan, Lancashire, vice John Buchanan, M.D., resigned.

BIDWELL, L. A., M.R.C.S., L.S.A., has been appointed Assistant House-Surgeon to St. Thomas's Hospital.

BOND, W. A., M.A., M.D., B.C.Cantab., has been appointed Clinical Assistant in the Throat Department of St. Thomas's Hospital.

BOWEN-JONES, L.M., M.R.C.S., L.R.C.P.Lond., has been appointed Physician to the Carmarthenshire Infirmary, Carmarthen.

BROOK, W. F., M.R.C.S., L.S.A., has been appointed Assistant House-Surgeon to St. Thomas's Hospital.

BROWN, C., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant in the Ear Department of St. Thomas's Hospital.

BULSTRODE, H. T., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant in the Throat Department of St. Thomas's Hospital.

CALVERT, J. T., L.R.C.P., M.R.C.S., has been reappointed Clinical Assistant in the Skin Department of St. Thomas's Hospital.

CLARKE, THOMAS, L.R.C.P.Ed., L.F.P.S.Glas., has been reappointed Medical Officer of Health for the Pewsey Rural Sanitary District.

DUNCAN, H., L.R.C.P., M.R.C.S., has been appointed Clinical Assistants in the Skin Department of St. Thomas's Hospital.

EDWARDS, WILLIAM LLOYD, M.R.C.S., L.R.C.P.Lond., has been appointed Physician to the Carmarthenshire Infirmary, Carmarthen.

ELLIS, DONALD M., M.R.C.S., L.R.C.P.Ed., has been appointed House-Surgeon to the Teignmouth Infirmary and Convalescent Home, vice A. D. Owen, M.R.C.S., L.S.A., resigned.

HALL, H. S., M.R.C.S., L.R.C.P., has been appointed Junior House-Surgeon to the Royal Albert Edward Infirmary, Wigan, Lancashire.

HARRIS, ARTHUR W., M.R.C.S., L.S.A., has been appointed Assistant Medical Officer to the Infirmary of the Holborn Union.

HAWKINS, H. P., M.R.C.S., L.S.A., has been appointed Resident House-Physician to St. Thomas's Hospital.

HESLOP, WILLIAM JOHN, L.K.Q.C.P.I., F.R.C.S.Ed., has been appointed Medical Officer of Health for the Stretford Urban Sanitary District, vice Pettinger, deceased.

HINNELL, J. S., M.R.C.S., L.S.A., has been appointed Ophthalmic Clinical Assistant to St. Thomas's Hospital.

HUTTON, J. S., M.B.Lond., L.R.C.P., M.R.C.S., has been reappointed House-Surgeon to St. Thomas's Hospital.

JONES, H. S., L.R.C.P., M.R.C.S., L.S.A., has been appointed Clinical Assistant in the Ear Department of St. Thomas's Hospital.

LESLIE, W. MURRAY, M.B., C.M.Ed., has been appointed Public Vaccinator to the Poplar Union.

MACIVOR, H. J., L.R.C.P., M.R.C.S., has been appointed Resident House-Physician to St. Thomas's Hospital.

MACKINTOSH, ANGUS, M.D., L.F.P.S.Glas., has been reappointed Medical Officer of Health for the Chesterfield Rural Sanitary District.

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MCLEAN, CHARLES J. R., M.B., C.M.Ed., has been appointed Medical Officer of Health for Yeadon, near Leeds.

MASTERMAN, GEORGE FREDERICK, L.K.Q.C.P.I., M.R.C.S., has been reappointed Medical Officer of Health for the Stourport Urban Sanitary District.

NISBET, J. TAWSE, M.B., C.M.Ed., has been appointed Honorary Assistant Medical Officer to the Liverpool Infirmary for Children.

SANSOM, H. A., L.R.C.P., M.R.C.S., has been appointed Assistant House-Physician to St. Thomas's Hospital.

SMYTH, H. J., L.R.C.P., M.R.C.S., has been appointed Non-Resident House-Physician to St. Thomas's Hospital.

SOLLY, E., L.R.C.P., M.R.C.S., L.S.A., has been appointed Resident Accoucheur to St. Thomas's Hospital.

STAPLE, JAMES D., M.R.C.S., L.S.A., has been appointed Assistant House-Surgeon at the Stockport Infirmary, Stockport, vice A. J. Turner, M.D.Lond., M.R.C.S., resigned.

STAVELEY, W. H. C., L.R.C.P., M.R.C.S., has been appointed House-Surgeon to St. Thomas's Hospital.

STEVENSON, ROBERT, L.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer for the Third District of the Hunslet Union.

SUTTON, THOMAS S., M.R.C.S., L.S.A., has been appointed Medical Officer for the Second District of the Bridge Union.

WHITE, ERNEST WILLIAM, M.B.Lond., M.R.C.P.Lond., M.R.C.S., has been appointed Resident Medical Superintendent of the City Lunatic Asylum, Stone, vice Jepson, resigned.

WINFIELD-ROLL, G., M.B., B.C.Cantab., L.R.C.P., M.R.C.S., has been appointed Ophthalmic Clinical Assistant to St. Thomas's Hospital.

Births, Marriages, and Deaths.

BIRTHS

BIGGER. — On the 26th ult., at Queen's-park-gardens, Streatham-common, the wife of W. G. Bigger, M.B., M.Ch. Roy. Univ. Irel., M.R.C.S., of a daughter.

CRAWSHAW.—On the 25th ult., at 23, Trafalgar-square, Ashton-under-Lyne, the wife of S. Crawshaw, M.R.C.S.Eng., of a son.

CRITCHETT.—On the 29th ult., at 21, Harley-street, W., the wife of Anderson Critchett, of a daughter.

DAVIES.—On the 22nd ult., at Delabeche-street, Swansea, the wife of W. T. F. Davies, M.B., B.S.Lond., of a son.

GILBART-SMITH.—On the 22nd ult., at Harley-street, W., the wife of T. Gilbart-Smith, M.D., of a son (prematurely).

RAW.—On the 23th ult., at Rutland House, Oakfield-road, Anerley, S.E., the wife of William E. St. M. Raw, L.R.C.P., M.R.C.S., L.S.A., of a daughter.

RIVINGTON.—On the 31st ult., at Finsbury-square, the wife of Walter Rivington, B.A., M.B., M.S.Lond., F.R.C.S., of a son.

STEAVENSON.—On the 27th ult., at 39, Welbeck-street, Cavendish-square, the wife of W. E. Steavenson, M.D.Cantab., of a son.

TWEEDY.—On the 24th ult., at Gardiner's-row, Dublin, the wife of H. C. Tweedy, M.D., of a son.

WHITTLE.—On the 30th ult., at 65, Dyke-road, Brighton, Elizabeth, wife of Ed. Geo. Whittle, M.D.Lond., of a daughter.

MARRIAGES.

KENYON—LAW.—On the 26th ult., at St. Matthew's Church, Cheltenham, John Edward Kenyon, F.R.C.S., to Georgina Elizabeth, eldest daughter of the late Rev. Henry Law, Vicar of Chepstow, Monmouthshire.

LLOYD—HAMPSON-SIMPSON. — On the 1st inst., at Edgbaston Parish Church, by the Rev. Cresswell Strange, M.A., Vicar, Gordon Lloyd, M.S., F.R.C.S., of 22, Broad-street, Birmingham, to Marian (Minnie), eldest daughter of Mercer Hampson-Simpson, Esq., of Priory-road, Edgbaston.

STOCKER—HODGKINSON.—On the 2nd inst., at St. Luke's, Westbourne-park, by the Rev. R. J. Knowles, M.A., Vicar, George Bertram, youngest son of the late James Stocker, Esq., of Guy's Hospital, to Alice Mary, eldest daughter of the late Lieut.-Col. Cadman Hodgkinson, 28th Regiment, Bombay Native Infantry.

STURRIDGE—HAMER.—On the 2nd inst., at Wallasey Church, Cheshire, by the Rev. A. E. P. Gray, Peter Frederick Sturridge, M.R.C.S., L.R.C.P., of Kendal, to Mary Ada, second daughter of Charles Marshall Hamer, of Liscard, Cheshire.

DEATHS.

CHEESE.—On the 30th ult., at The Terrace, Hurlingham-lane, Fulham, Frederick Cheese, M.R.C.S., aged 47.

COATES. — On the 29th ult., at Dunedin, Bournemouth, Gilbert Herbert, seventh son of the late W. Martin Coates, aged 31.

COOK.—On the 28th ult., at Chepstow-place, Bayswater, John Henry Cook, M.D. (formerly of the Minories).

GAMMIE.—On the 20th ult., at Stanhope-gardens, Queen's-gate, S.W., Patrick Gammie, M.R.C.S., Surgeon-General, aged 73.

MILNE.—On the 27th ult., at Bridge of Allan, N.B., Henry Milne, M.D., late of Banff, N.B., in his 76th year.

PRITCHARD. — On the 31st ult., at Hastings, George F. Pritchard, L.K.Q.C.P.I., M.R.C.S., of Bruson House, Teynham, Kent, aged 47.

VOGAN.—On the 24th ult., at St. Mary Elms, Ipswich, after a short illness, Emma Jane, the beloved wife of James Norman Vogan, F.R.C.S., in her 22nd year.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

Monday, June 6.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS. — Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M; Thursday, 2.30.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE. — Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.

ANATOMICAL SOCIETY OF GREAT BRITAIN AND IRELAND. — 5 P.M. Meeting at the Medical Society of London, Chandos-street, Cavendish-square, W. Report of Committee and Election of Officers.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—8 P.M. Mr. F. Henri Weiss: On the Destruction of a Permanent Tooth Pulp by an Alveolar Abscess attached to a Deciduous Molar. — Mr. Storer Bennett: (1) Dental Abnormality in a Lower Jaw from a subject who is supposed to have lived in the Stone Age; (2) Extraordinary Example of Perverted Tooth Development.—Mr. Bridgman: Case of Irregularity.—Prof. Victor Horsley: Epileptiform Neuralgia of the Fifth Nerve treated by Avulsion of the Nerve.

Tuesday, June 7.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 1.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.

ROYAL INSTITUTION.—3 P.M. Rev. J. P. Mahaffy: The Hellenism of Alexander's Empire—Macedonia and Greece.

Wednesday, June 8.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET. — Operations, 9 A.M.; Saturday, same hour.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Christopher Heath: Certain Diseases of the Jaws—Cystic Diseases of the Jaws.

ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Mr. G. Massee: Monograph of the Genus Lycoperdon. — Profs. T. Rupert Jones and C. D. Sherborn: Remarks on the Foraminifera, with especial reference to their Variability of Form, illustrated by the Cristellarians.

EPIDEMIOLOGICAL SOCIETY OF LONDON. — 8 P.M. Annual General Meeting. Dr. George Turner: Diphtheria.

BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens will be shown by Drs. R. T. Smith, Edis, Granville Bantock, and others.—Mr. Lawson Tait: The Principles of Flap-splitting in Plastic Surgery.

Thursday, June 9.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Rev. J. P. Mahaffy: The Hellenism of Alexander's Empire—Egypt.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM. — 8.30 P.M. Living and Card Specimens at 8 P.M.:—Mr. W. J. Collins: Extensive Hæmorrhage into Blind Eye with Coarctation of Retina.—Mr. Higgens: Unusual Form of Coloboma of Iris.—Mr. G. B. Walker: (1) Sequel to case of Exophthalmos; (2) Sequel to case of Cyclotomy in Glaucoma.—Mr. Story: Experimental Demonstration on the Pathology of Glaucoma.—Mr. Silcock: Sequel to case of Central Choroidal Hæmorrhage. Papers:—Mr. Story: Case of Complete Blindness of Right Eye with Temporal Hemianopsia of Left Eye.—Mr. Hill Griffith: On the Permeability of the Suspensory Ligament by Organised Substances.—Mr. Brailey: Recurrent Choroido-Retinitis in region of Macula Lutea.—Mr. Nettleship: Two cases of Quinine Amblyopia.

Friday, June 10.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Christopher Heath: Certain Diseases of the Jaws—Tumours of the Jaws.

ROYAL INSTITUTION.—9 P.M. Mr. Thomas Hodgkin: Aquileia the Precursor of Venice.

Saturday, June 11.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Rev. J. P. Mahaffy: The Hellenism of Alexander's Empire—Syria.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, June 2nd, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
May 27	29·97	N.	47	46	...	54	45	·17	Raining
,, 28	29·92	N.	52	50	78	58	47	·10	Overcast
,, 29	29·94	N.E.	52	49	83	59	46	·04	Overcast
,, 30	30·01	E.	53	51	75	62	47	·02	Overcast
,, 31	30·08	E.	56	54	111	70	51	...	Cloudy
June 1	29·96	E.	55	53	93	65	50	·02	Overcast
,, 2	29·77	E.	52	50	...	56	50	...	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

MEDICAL STUDENTS AND THE JUBILEE.

ON the occasion of the recent celebration of the birthday of the Emperor of Germany the students of Berlin turned out in force to show their loyalty to their sovereign. In a few days we shall be celebrating the completion of our Queen's fifty years' reign; but as yet we have not heard that the medical students of London, a large and important part of the community, are making any attempt to take formal part in the celebration. Our attention has been called to this omission by two correspondents, who suggest that a congratulatory address be drawn up and signed; that the students of all the hospitals should turn out in evening dress, with white flowers in their button-holes, and should march in procession to Her Majesty, drawing up outside the palace; and that a deputation consisting of one representative from each hospital should present the address, the whole force, on the return of the deputation, giving three cheers for their Queen. If anything of this sort is to be done, there is no time to be lost. What is done must be done promptly. The idea is worthy of consideration.

Justice.—A medical man under promise not to practise as a surgeon and apothecary within ten miles of a given centre is clearly also prevented from practising as a *physician*, a term which does not now bear the restricted meaning which it had fifty years ago, but embraces a great part of the cases of ordinary practice.

Beta.—The qualifications mentioned are sufficient for the recovery of midwifery fees, either singly or combined.

Junior.—Nothing is definitely known on the points mentioned.

THE INCOME TAX.

To the Editors of THE LANCET.

SIRS,—I wish to get information on the following point, and perhaps some of your readers may be able to help me. I took over a practice in the autumn of last year, but did not take the book debts with it. Notwithstanding this, the surveyor of taxes required me to pay half my predecessor's income tax; but I refused to do so. He then called upon me to give a statement of my book debts, though my bills cannot be sent out till midsummer, and on this return, when he gets it, he proposes to base his assessment. I should say my actual receipts for six months ending March 31st are less by £10 than the working expenses. Can I be required to pay on debts that have not yet been claimed, but on which when paid I shall have to pay income tax for the year following? What is the best course to take?—I am, Sirs, yours obediently,

May, 1887. A COUNTRY PRACTITIONER.

THE CASE OF MR. CHARLES GAFFNEY.

DR. GLOVER begs to acknowledge the receipt of the following sums towards helping the Misses Gaffney in maintaining their brother:—J. G. G., £2 2s.; J. A., £1 1s.; H. S. H., £1 1s.; Omega, 10s.

Mr. G. Schofield (Bournemouth).—The appointment is not a public one.

TREATMENT OF TÆNIA SOLIUM.

To the Editors of THE LANCET.

SIRS,—In answer to "Puzzled," I beg to forward the following observations:—

During my stay in South Africa I treated many cases, myself included, and always with success. The great point in the treatment of tapeworm is to expose the head, which is attached to the intestine by its hooklets. So long as the head be covered with fæces no medicine will do much good. My treatment is as follows:—The day before giving the worm medicine I allow no food of any kind except plain beef tea, or other very thin soup, and very little even of these. The first morning I give one drachm of compound jalap powder, which generally operates three or four times during the day, and effectually clears out the bowels, bringing away at the same time large portions of the worm. The patient, of course, keeps quiet in the house. On the second morning, on an empty stomach, I give a draught consisting of from two to three drachms of oil of turpentine and one drachm of oil of male fern in sweetened emulsion. After an hour or so I give a dose of castor oil. It will not be long before the whole of the worm with its head will have passed, which will be found on proper examination of the stools. The patient can then take his usual diet, and the following day will be well. I have never known this treatment to fail. The above doses, of course, are intended for adults. The frequent failure of the oil of male fern as an anthelmintic is, I believe, attributable to the smallness of the dose exhibited, less than a drachm for an adult being useless. I may here state that I believe every native in South Africa to be infected with one or two tapeworms. I am, Sirs, yours faithfully,

Cheltenham, May, 1887. FRED. A. A. SMYTH, M.D.

To the Editors of THE LANCET.

SIRS,—In reply to "Puzzled" I write to say that it is useless to rely upon any of the reputed remedies for tapeworm, unless the patient is in the first place well purged, and afterwards properly dieted. The plan I have adopted, and which I have never found to fail, is, supposing the patient to be an adult male, to give an ounce of castor oil; this clears the intestines, so that the worm has nothing to hold on to. For the next twenty-four hours feed the patient on beef-tea, gruel, raw eggs, allowing neither milk nor anything solid. Then give one drachm of oil of male fern emulsified with yelk of egg and a little syrup and gum, eight hours after which give another dose of castor oil. This removes the parasite without distressing the patient. Should the dose of male fern be vomited, before repeating it apply a mustard and linseed meal poultice to the epigastrium. By the above treatment I recently ejected a tenant of nine years' residence.—I am, Sirs, yours obediently,

May 30th, 1887. E. W., L.S.A. &c.,

To the Editors of THE LANCET.

SIRS,—In reply to the letter in your issue of May 28th regarding the non-success of the various remedies for tænia solium prescribed by "Puzzled," permit me to recommend my prescription and after-treatment for the entire expulsion of tænia with its head. The patient, an adult, is to take the following draught on awakening about 4 o'clock in the morning:—Six drachms of castor oil, one drachm of oil of male fern, fifteen minims of liq. potassæ, and ten minims of spirit of peppermint. For breakfast a small plate of Scotch porridge and a cup of hot tea. By following this treatment twice a week he will succeed after the third or fourth draught in expelling the worm with its head.

I am, Sirs, yours obediently,

Manchester, June 1st, 1887. H. R. H. PEARE, L.K.Q.C.P.I., &c.

To the Editors of THE LANCET.

SIRS,—Your correspondent, "Puzzled," should starve his patient for so many hours, say seven. Kill the worm at bedtime with a full dose of fresh male fern—a drachm. Empty the bowels next morning with a large dose of castor oil. Allow the patient to drink tea without milk and sugar till the bowels have well acted. Afterwards, in four hours, sanction a plate of mashed potatoes. Repeat this twice during three days. After a short interval of a few days repeat again, and if necessary again. This plan I have on several occasions found to be a certain remedy; but it must be carried out most rigidly. It is what all practical physicians would recommend. I am, Sirs, yours faithfully,

Baschurch, May 29th, 1887. J. F. BRISCOE.

To the Editors of THE LANCET.

SIRS,—In Dr. Lionel S. Beale's work "The Microscope in Medicine" there is a section headed "Means of Procuring the Head of the Tapeworm." I followed these directions closely, while I bore in mind the caution given by Dr. T. Spencer Cobbold in his book on "Worms," where he says: "The important thing is to be sure that your pharmaceutical preparations are the very best that can be made. Inferior drugs will cause you much disappointment." I had my oil of male fern freshly made by one of our best chemists, and administered in this case two drachms, with the desired result. I am, Sirs, yours very truly,

Brighton, May 28th, 1887. F. J. SPRANGER.

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HOUSE SANITATION.

Mr. R. Fitzroy Benham calls attention to the existing method of construction of houses which allow smells to pass from the basin of the watercloset when it is used, beneath the seat, and travel along the joists into other parts of the house, and he suggests the rim of the basin being provided with an indiarubber lining which would effectually block up the space intervening between the seat and the rim.

Dr. J. B. Macnaughton.—The coroner certainly acted within his legal rights in ordering another medical man to make the post-mortem examination. We are inclined to think that whenever the death seems not improbably due to violence, it is well that the responsibility should be shared by two medical men, especially as the gentleman in charge of the case during life might be charged by unscrupulous or careless persons with having acted in other than the best interests of the patient. We advise our correspondent to view this case in a philosophical spirit.

One of them.—As the Medical Register was published on April 29th, clearly not "one of them"—new members of the College of Surgeons—in the list of May 7th could appear.

NEW SOUTH WALES.

To the Editors of THE LANCET.

SIRS,—In reply to the questions asked by "Viator" in your issue of May 28th, I beg to state that there are no peculiar endemic or epidemic diseases in New South Wales. Nearly all the diseases prevalent in Great Britain are met with in practice, but the general mortality is low. Typhus fever and small-pox are unknown, except when accidentally introduced by immigrants. Sydney had a short epidemic of small-pox lately produced in this way. Typhoid fever is rather prevalent, and there have been various severe epidemics of scarlatina and measles. Diphtheria is relatively common. Respiratory disease is decidedly less frequent than in Great Britain, whereas diseases of the nervous and digestive systems exceed the home average. Parasitic disease, especially hydatids, is common. Snake-bite is, perhaps, the only unfamiliar affection which the practitioner is called upon to treat. The mortality from it is low compared with the number of accidents reported. The chief towns are well supplied with all the requisites of practice, but the prices charged are high. Your correspondent would do well to go out thoroughly equipped with the usual *armamentarium*, but no special selection of drugs or instruments need be made. The conditions of practice vary much according as the practitioner settles in one of the large towns or in a rural district. In the former case medical life and practice do not differ materially from the experience of the home country. In the latter case the practitioner must carry with him such accessories of civilisation as may be necessary for comfort and medical practice.

I am, Sirs, yours faithfully,

Belfast, May, 1887. JAMES ALEX. LINDSAY, M.A., M.D.

In reference to one part of "Viator's" query, Messrs. Mayer and Meltzer of Great Portland-street write that they have a branch establishment in Melbourne, where surgical instruments of all kinds may be obtained.

PLACENTA PRÆVIA.

To the Editors of THE LANCET.

SIRS,—Mr. Logan's case in THE LANCET of May 20th has induced me to send you the following, should you deem it of sufficient interest for insertion.

On April 28th last I was called to a primipara aged about twenty-six. On arrival I found the patient in bed, looking and feeling remarkably well. I was told that the contents of the uterus had been expelled. On examination I found the vagina perfectly free from blood clot; in fact, my digit was not even stained with blood. The vaginal canal was somewhat tightly contracted. In the chamber vessel there was a fœtus between four and five months old, with the placenta attached to the vertex. The head was exceptionally large. There was a very slight sanious discharge for two or three days after this. I may mention that the menstrual discharge had been always very scanty and that three weeks previously to the miscarriage the patient fell into a small brook; the accident, however, gave rise to no unpleasant symptoms more than the shock at the time. As the peculiarity of the attachment of the placenta and the entire absence of hæmorrhage at birth were unique in my experience, I thought the case might be of interest to the profession.—I am, Sir, yours faithfully,

Wadebridge, May 28th, 1887. F. G. STEWART, M.R.C.S., L.S.A.

THREADWORM.

To the Editors of THE LANCET.

SIRS,—In the case of your correspondent, "M.R.C.S.," perhaps the vagina is a nidus for this worm, the oxyuris vermicularis, presuming the patient to be a female. If so, the vagina should be washed with a carbolic lotion, any ulceration of the os uteri treated with $AgNO_3$, the perineum anointed with a carbolic or mercurial ointment, as a poison to these migratory creatures, and a rectal injection of iron, salt, quassia, or oakbark employed, coupled with the administration of iron and bark internally and an occasional purge. The diet to be regulated. Such vegetables as greens are to be avoided.

I am, Sirs, yours faithfully,

Baschurch, May 29th, 1887. J. F. BRESCOE.

THE CHINA MEDICAL MISSIONARY JOURNAL.

THE Medical Missionary Association of China has commenced to issue a quarterly journal, which, if we may judge by the first number, will contain a good deal of valuable scientific matter, connected especially, of course, with the Oriental aspects of disease, in addition to articles of missionary interest. The columns of the journal are, we are glad to note, by no means confined to missionaries, but are equally open to all qualified practitioners in China. A space is also reserved for articles in the Chinese language. From a list given there appear to be at present seventy-nine medical missionaries in China, Corea, and Siam, belonging to twenty different societies. The majority are Americans, but thirty-three are British subjects. Fifteen ladies, thirteen of whom are Americans, are included in the list. The Rev. L. H. Gulick, M.D., of Shanghai, may be addressed for further information concerning the association.

Pour y Parvenir, and D.—Application should be made to the Directors or Commissioners of Prisons, and the appointments are in the hands of the chairman, Sir E. Du Cane.

Mr. T. L. Horner.—Heath's Operative Surgery; Stephen Smith's Principles and Practice of Operative Surgery.

THE COMMEMORATION OF THE QUEEN'S JUBILEE BY THE MEDICAL PROFESSION.

To the Editors of THE LANCET.

SIRS,—I have been waiting to see if any of the leading members of our profession would begin some movement to commemorate the jubilee of Her Most Gracious Majesty the Queen, and that would also at the same time have the effect of benefiting the less fortunate members of the profession to which we belong, but up to the present time I have seen no sign of anything being done in that direction. I know that it is from no want of loyalty that the members of the medical profession have so far not taken combined action to mark their high regard for the jubilee of our beloved Queen in some practical and solid way, but I believe it is because they are waiting for someone to initiate a movement that would recommend itself to their approval for that purpose. There is scarcely a week passes but that an appeal is made to the profession for assistance on behalf of some "object of charity" belonging to our body by reason of old age, sickness, misfortune, or death, and knowing this, and seeing that the various sections of the community are vieing with each other to celebrate the Queen's Jubilee in some substantial form, I venture to ask you to lend your aid and influence to bring about such a movement that will be creditable to our profession and a great gain to those who have particular claims upon our sympathies, and who look to us to smooth some of the rough places of this life, and aid them in procuring the creature comforts to make life bearable. When we take into account the number of members (16,000) belonging to the medical profession in this country, and know the great want there is of help for the sick and needy amongst them and their families, I cannot but think that it only requires your help in pointing out the duty of our members to do something worthy of our noble profession to alleviate the wants of our less fortunate brethren in order to secure its accomplishment. We see what can be done by united action in raising money by such examples as those of the committees of the "Women's Jubilee Offering to the Queen"; and I think we have sufficient men of influence amongst us who might be prevailed upon to act as a central committee, and to call meetings of our professional brethren in every town throughout the kingdom in order to raise subscriptions for the purpose I have indicated; and I believe if that were done the results would be most satisfactory. When we see the number of almshouses that are empty at Epsom solely through the want of funds, and that the number of applicants for pensions, &c., is so much in excess of the funds that are at the disposal of the Medical Benevolent Society in connexion with the college at Epsom, I think it is quite time we were up and doing. If the matter is thoroughly taken in hand, I feel sure that before many months are past we should be in a position to go to the head-master of the college at Epsom and ask his advice as to how to expend a sum of £10,000.

I now, Sirs, leave the matter in your hands, and ask your powerful aid in furthering this much-needed object; and there can be no doubt that the success of such a movement would not only be a wise and beneficent act to testify our loyalty and appreciation of the blessings conferred upon our country during the reign of our gracious Sovereign, but would also be an honour to our profession and a means of rendering assistance and conferring comfort and happiness on many. I shall be glad to give ten guineas towards any fund that may be begun in connexion with the Medical College at Epsom.

I am, Sirs, yours faithfully,

Mirion House, Crewe, May 18th, 1887. JAMES ATKINSON.

"CHRONIC RHEUMATIC ARTHRITIS."

To the Editors of THE LANCET.

SIRS,—I would recommend your correspondent who signs himself "Medicus" in THE LANCET of to-day to try the following treatment in the case he mentions:—Five-drop doses of tincture of iodine three times a day, and coca wine at night to promote sleep. I have found coca wine very useful in cases where opium is contra-indicated.

I am, Sirs, yours truly,

Bridgend, May 28th, 1887. W. EDMUND THOMAS, L.R.C.P., &c.

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WANT OF A CHINESE MEDICAL DICTIONARY.

A WANT has long been felt of a dictionary of medical terms for all China, the words employed in one part of the empire often conveying no meaning to those living in another part. Thus a Chinaman from the north is said to have hunted all over Canton and Hong Kong for iodide of potassium without being able to make anyone understand what he wanted.

Mr. A. E. Barker.—A proof of the paper will be forwarded in the course of a few days.

Dr. Mc Clure (Cromer).—The paper has been received and will be published shortly. The other case mentioned may be forwarded.

CONVERTIBLE CARRIAGE.

To the Editors of THE LANCET.

SIRS,—I have lately had a carriage built which presents some peculiarities which may be interesting to your readers. By various alterations it can be turned into a brougham, single seated; a victoria, with hood; or a park phaeton, each complete in itself. The alteration from victoria to park phaeton can be accomplished in about two minutes, and that from victoria to brougham in a little longer space of time. The advantages gained are, of course,—(1) that for the price of one carriage I have three; (2) that no more room in stable is required than for one carriage; (3) that I can vary my vehicle according to the weather, and either drive myself in the park phaeton or be driven in the victoria or brougham; and (4) only one tax for three carriages. There is nothing in the victoria or park phaeton that looks different from the ordinary carriages of this type. In the brougham the only discernible difference is that the wings are retained. I shall be happy to show any of your readers the metamorphosis, which I can strongly recommend for medical men, especially for those whose income is not in proportion to their desires. I am, Sirs, yours faithfully,

A. GEORGE BATEMAN, M.B.

Longridge-road, S. Kensington, May 30th, 1887.

A Guy's Man cannot be blamed for not going to a case against the wish of the parents.

H. B.—It is better to follow the custom heretofore observed in the place.

"A NEW UVULATOME."

To the Editors of THE LANCET.

SIRS,—I have only just been able to procure a copy of Mathim's Catalogue, in which Dr. Warren says is depicted a uvulatome invented by him in 1855, and precisely similar to that claimed as my invention in THE LANCET of May 7th. His instrument appears to be constructed on the principle of flower-scissors, with a slight curve *downwards*, thereby exposing a wide cut surface anteriorly. This is exactly what my instrument would avoid.

I am, Sirs, yours faithfully,

GREVILLE MACDONALD, M.D. Lond.

Upper Wimpole-street, W., May, 1887.

Mr. E. B. Williams will see by a general notice which appears weekly in our columns that we do not undertake to return MSS. not used.

"SWEATING OF THE FEET."

To the Editors of THE LANCET.

SIRS,—"A Sufferer" asks, in your last issue, for a remedy for the above. Presuming that there is no obvious cause for the sweating, and that it is confined to the feet, your correspondent will derive considerable benefit, if not absolute cure, from the use of digitated wool socks and felt cloth shoes. I am, Sirs, yours faithfully,

May 30th, 1887. BERNARD O'CONNOR.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Hulke, London; Sir W. Mac Cormac, London; Dr. L. Marshall, Nottingham; Dr. J. W. Ogle, London; Sir G. Young, London; Mr. E. Treacher Collins, London; Dr. Alder Smith, London; Mr. C. B. Harrison, London; Dr. Lediard, Carlisle; Mr. Trimmer, London; Dr. Hart Campbell, London; Mr. N. Porrit, Huddersfield; Dr. G. Macdonald, London; Mr. Pearce, Manchester; Messrs. W. & F. Thorn, London; Mr. F. G. Stewart, Wadebridge; Dr. W. Pearce, London; Dr. Beares Rake, Trinidad; Mr. T. L. Horner, Malta; Messrs. Shillingford and Co., Bicester; Dr. F. A. A. Smith, Cheltenham; Messrs. Toeplitz and Deuticke, Vienna; Mr. Firth, Dagshai; Mr. Spranger; Dr. Dorabjee Hormusjie, London; Mr. J. F. Briscoe, Baschurch; Messrs. Barron and Co., Congleton; Mr. W. B. Thomas, Bridgend; Messrs. Wilson and Darter, London; Mr. Ralph, Burton-on-Trent; Messrs. Warner and Sons, London; Dr. Lindsay, Glasgow; Mr. Morrison, Bishop Auckland; Dr. J. B. Macnaughton, Deptford; Messrs. Maclachlan and Co., Edinburgh; Dr. W. Hitchman, Liverpool; Messrs. Cooke and Co., London; Dr. F. J. Smith, London; Dr. Jas. More, Rothwell; Mr. A. G. Bateman, London; Mr. Gorsuch, London; Dr. Fortescue Fox, Strathpeffer; Mr. C. B. Westwood, London; Messrs. Hooper and Co., London; Dr. C. F. Knight, Dublin; Dr. C. Holman; Mr. F. H. Humphreys, London; Mr. H. Michie, Nottingham; Messrs. Boulton and Paul, Norwich; Dr. T. Savage, Birmingham; Messrs. Fletcher and Co., Holloway; Mr. Mackinlay, Stockton-on-Tees; Mr. Freeman, Bath; Mr. Barrett, London; Mr. Laudon, Birmingham; Dr. Taylor, Windermere; Dr. Purcell, London; Mr. Legge, Aberystwyth; Mr. B. Relton, Rugby; Mrs. Spreat, St. John's-wood; Mr. Moulding, Liverpool; Dr. Hicks, Hendon; Mr. Allen, Liverpool; Mr. Tunnicliffe, Hanley; Mr. Chapman, Bostock; Miss Terrell, Barnet; Mr. Lanrond, Glasgow; Mr. Crewes, Truro; Dr. Young, Manitoba; Mr. Kirby, Leeds; Mr. Dawson, Bangkok; Dr. Gerrard, London; Mr. Mackinlay, London; Mr. Smith, Kennetty; Mr. Davis, London; Rev. A. Tooth, Croydon; Mr. Evans, Biggleswade; Mr. Shroster; Messrs. Lee and Nightingale, Liverpool; Mr. Baron, Manchester; Messrs. Hopkinson and Co., Notts; Mr. Groves, Dorchester; Mr. Pike, Loughborough; Mr. T. Cook, London; Mr. Knightley, London; Dr. J. F. Walker, Spilsby; A Town Councillor; C. D.; Physician, Southsea; Justice; M.D., M.R.C.S.; R. E. W.; J. W. W., Leicester; E. W., L.S.A.; Fluorine.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Wise, London; Mr. Tunmer, Harrogate; Mr. Forster, Leigh; Messrs. Reed and Co., Bristol; Mr. Logan, Newcastle-on-Tyne; Mr. Gardner, South Australia; Mr. Carter, London; Mr. Beech, Hanley; Messrs. Tayler and Co., London; Mr. Davis, Worcester; Mr. Williams, Abertillery; Mr. Griffith, London; Mr. Whitmore, London; Miss Guinness, Maidstone; Dr. Blandford, London; Mr. Guest, Darlington; Mr. Knight, Dublin; Mr. Carmont, Dumfries; Mr. Silcock, Bath; Messrs. Roberts and Co., London; Mr. Hedden, Welcombe; Mr. Pryce; Dr. Williams, Truro; Mr. Sturridge, Kendal; Dr. Mussen, Leicester; Mr. Affleck, Manchester; Mrs. Cooke, Mold; Mr. Clay, Birmingham; Dr. Reid, Tenby; Mr. Allan, Liverpool; W. C. Q.; Fell, Southport; Physician; Beta; Medicus, Nantwich; Alpha, Birmingham; Spero; E. A., Ben Rhydding; Medicus, Darnall; K., London; Sevens; G. M. H.; M.B., Regent's-park; Morris, Kingsland; Viator; Nemo, Leeds; Nurse, Southport; Hollingbrook, Littleborough; T. J. C., Oldham; Surgeon, Penygraig; Fortinbras; F. G., Shrewsbury.

Lincolnshire Chronicle, Brighton Examiner, Surrey Standard, Malthusian, Reigate Journal, Dundee Advertiser, Grantham Journal, Clare Saturday Record, &c., have been received.

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The Cavendish Lecture

ON A

SPEEDY AND SOMETIMES SUCCESSFUL METHOD OF TREATING HAY FEVER.

Delivered before the West London Medico-Chirurgical Society,

BY SIR ANDREW CLARK, BART., M.D., F.R.S.,
EMERITUS PROFESSOR OF CLINICAL MEDICINE TO THE LONDON HOSPITAL.

MR. PRESIDENT AND GENTLEMEN,—It has been sometimes said by way of reproach that the scientific workers in medicine, although eager in the pursuit of knowledge for its own sake, were careless of its practical applications to the treatment of disease. If at any time this reproach was a just one I do not know, but beyond all manner of doubt it would not be a just one now, for in almost all countries, and in nearly every school in every country, you can see, not only the earnest pursuit of knowledge, but the most zealous efforts to force it into fruit for the uses of men, and in the study of no subject could you find a better proof of this than in the study of hay fever, of which I am about to speak. From Blackley of Manchester to Mackenzie of Baltimore you will find a succession of inquirers whose efforts to discover the nature of this malady have been accompanied by efforts equally earnest and persevering to discover its most appropriate treatment; and from America, the most earnest and persevering of all countries at work, we have received the largest and best fruits of this double pursuit. To-night the plan of treatment of hay fever which I shall have the privilege of submitting to your consideration is entirely founded upon a physiological study of the disease. It is, however, with the results of this study only in so far as they bear broadly and directly upon treatment that I propose to occupy myself. With minute discussions as to the nature of hay fever, its physiological and pathological relations, and the causal agencies engaged in its evolution, I shall have to-night only an indirect concern. Nevertheless, as I wish to set forth the true grounds for a rational treatment of this malady, such discussions cannot be passed over entirely.

Before proceeding further I wish to pause for a moment and advert to the name by which this malady is known. From nothing has medicine suffered more than from hypothetical naming. What may seem to be the correct and adequate hypothesis of to-day may become the incorrect and inadequate hypothesis of to-morrow; and when the true nature of a malady is discovered, the diffusion of the discovery is hindered, if not prevented, by the retention of a name which, established by custom and continued from convenience, conceals the truth and perpetuates error. I could advance few better illustrations of this than the naming of the disease under consideration. The epithets of "hay fever," "hay asthma," "pollen fever," "rose cold," and "peach cold" are widely open to this objection. They withdraw the attention from internal states, and they tend to narrow our ideas of causality within the limits of outward things. It is true that the pollen of certain grasses is the most common exciting agent of the paroxysm of hay fever, but it is also true—for it has been demonstrably proved—that the paroxysm can be excited not only by other external agents, such as light and heat and dust, but also by local affections of the nose and throat, by irritations propagated from distant parts, and by influences degenerated *de novo* in some part of the central nervous system. It is only of late, and through researches made for the most part in America, that we have come to a knowledge of these facts. Even there, however, the tendency to hypothetical naming continues, and the term proposed by Mackenzie of Baltimore, to whom we owe so much of what is best in our recent knowledge of this subject, is not free from grave objections. He calls the disease "periodic vaso-motor coryza," but in this designation there is involved an hypothesis which to-day may be doubted and to-morrow disproved. Nor are the epithets proposed by myself—"periodic specific coryza" and "periodic nervous coryza"—free from just and grave objections. We are thus in need of a proper name for our malady. No one can be rightly framed except out of its commoner physical characteristics, and no one can be safely used unless it shall imply no hypothesis and be capable of remaining always the same, however much our theories of the disease may change.

Of the innumerable persons exposed, in similar if not identical conditions, to the exciting causes of hay fever, only a few are affected with the disease, and of those few there are, strange to say, scarcely any among agricultural labourers and gardeners, who are habitually exposed to the pollen of grasses believed by some authors to be the sole causal agents of the development of the asthmatic paroxysm. It seems therefore only fair to conclude that in the evolution of the malady some other agent than the external exciting cause must be directly concerned. Further investigation proves this conclusion to be correct. From experimental examination we learn the existence of a second factor which resides in the mucous membrane of the nose, mouth, pharynx, and eyes, which mainly concerns the nerves of these parts, and which manifests itself in all their histological constituents by a peculiar irritability of reaction to certain excitants. Furthermore when, in cases exhibiting this peculiar local irritability, we pursue our inquiries into the characters of the constitutional state associated with it, we discover certain *bizarre* symptoms of disorder which belong exclusively to the nervous types of organisation, and which stamp the organism exhibiting them as specifically and pathologically nervous. Lastly, if, pursuing our investigations still further, we institute an analysis of the differentiæ distinguishing the nervous constitution in this disease from the nervous constitution of cognate affections, we are led to the conclusion that they reside for the most part in the respiratory and vaso-motor centres and in the ganglia connecting and connected with both. In this way we discover reasons for believing that there are three great factors concerned in the evolution of hay fever: the nervous constitution, the irritable local state, and the exciting cause. As a general rule, to which there are some remarkable exceptions, all these factors, although in varying degrees, co-operate in the development of an attack of hay fever. Concerning each of them I have to offer a few observations which will make plain the ground upon which a rational treatment of this malady can be based.

The nervous constitution associated with hay fever is sometimes inherited and sometimes acquired. For the most part inheritance comes from the arthritic and the nervous. When acquired, it is acquired most easily by those who lead laborious sedentary and intellectual lives, as well as by those who, avoiding the difficulties and discipline of life, seek luxury with ease, by those who prefer excitement to duty, and by those who become weak through failure to exercise their strength. And when once hay fever appears, it exhibits still further the closeness of its relationships to the nervous system by choosing the man before the woman, the educated before the ignorant, the gentle before the rude, the courtier before the clown. Some of the more general affinities of hay fever are harder to be understood. It prefers the temperate to the torrid zone; it seeks the city before the country, and out of every climate which it visits it chooses for its subjects the Anglo-Saxon, or at least English-speaking race.

And now, concerning the second factor in the evolution of hay fever, the condition of the mucous membrane of the nasal cavities and parts adjacent, we have divers and some diverse views. All observers are agreed that there is some pathological condition of the affected parts, but no two of them are agreed as to its exact nature. For my own part, I conclude from the investigations which I have pursued into the matter that there is one fundamental condition which reconciles all these varied and sometimes opposing views. This condition is one of irritability, and the irritability is of a sort which involves the nervous vascular lymphatic and cellular constituents of the affected parts, and when excited disturbs the chemical morphological and secretory changes taking place therein. When this local irritability is provoked into action there arise a series of local structural changes which are all but characteristic of the paroxysm of hay

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fever. The erectile tissue becomes distended, the bloodvessels are gorged with blood, groups of lymph cells fill the lymphatic spaces, the mucosa is crowded with migrating leucocytes, younger epithelial cells are vacuolating and proliferating, secretion is increased in quantity and altered in character and composition, sensation is sharpened, altered, or benumbed, and the whole metabolism of the affected region is profoundly disordered. These local changes are always present in the paroxysm of hay fever, and whenever they concur and co-operate it may be safely said that hay fever is present. When this local irritability exists in an extreme degree, almost any exciting agent—an odour or vapour, dust, a touch, light, or heat—will quickly call forth the whole series of structural changes already described as almost exclusively characteristic of the paroxysm of hay fever.

And now let me speak shortly of the third factor engaged in the evolution of this malady—that is, of the external exciting or determining causes to which it is commonly ascribed. Authors in general, from Gordon in 1829 to Mackenzie in 1885, advocated the view that the paroxysm of hay fever is due in persons of a certain idiosyncrasy exclusively to the action of the pollen of grasses or of flowers upon the mucous membrane of the nasal cavities and adjacent parts. In support of this view, it is contended that the disease occurs only during the season when certain grasses and flowers are in blossom, that it may be artificially induced by the application of pollen to the nasal mucous membrane, and that it may be prevented from occurring, or may be cured when present, by dwelling on board ship at sea, where no pollen is to be found. Now, whilst it must be admitted that these contentions are in some degree just, and that the most common exciting cause of the hay fever lies in the action of the pollen of certain plants upon the nasal mucous membrane, it cannot be denied that they require qualification, and that they are inadequate to a complete explanation of all the facts which make up the history of this disease. For on this side it may be contended as proved that the malady is less common among agricultural labourers and gardeners than among other persons, that sometimes it occurs at other seasons of the year than in the hay season, that it has been induced by local irritants in which pollen did not exist, that it has occasionally arisen in consequence of irritation in a part with which the nose is in sympathy, and that the mere action by itself of pollen upon the nasal mucous membrane is insufficient to provoke a complete paroxysm of hay fever.

For myself, I am compelled by my inquiries to adopt the view that in the evolution of almost every attack of this malady the three factors already mentioned are at work—the nervous constitution, the local irritability, the external exciting cause; and that whilst this last is most commonly a pollen acting more in virtue of its physical characters than of its intimate nature, it may be any other agent capable of calling into action the irritability of the parts concerned in the mucous membrane of the nose. And now, when we consider these facts and theories of hay fever with the view of framing a rational plan of treatment, we find ourselves beset on every side with difficulties. Theoretically, the objects to be achieved by treatment are the soothing and strengthening of the general nervous system, the allaying of local irritability, and the removal of the exciting cause. To remove the exciting cause, or rather, speaking correctly, to remove the susceptible person from it, is to prevent the on-coming of the disease; and if you send him to sea, or to the summit of some Alpine height, you will assuredly succeed. There are, however, many who cannot follow this counsel, and who must remain under the influence of the exciting cause of the malady. What can be done for the patient in such circumstances? We may strive to strengthen by tonics the weak and irritable nervous constitution; and Morell Mackenzie has had some success with valerianate of zinc and assafœtida, whilst Blackley has failed with every drug which he has tried. By common confession, general treatment, although not useful, is never by itself successful.

We are therefore compelled to turn to the study of local treatment as the chief mode of relieving or curing the disease. There are three plans of local treatment. The first plan is to allay the irritability of the nasal mucous membranes. The second plan is to exhaust the irritability of the nasal mucous membrane. The third plan is to remove or to modify, or to destroy by caustic, or by cautery, galvanic or igneous, such portions of the nasal mucous membrane as are found, or believed to be, the seat of the pathogenic irritability. This third and most radical plan of treatment is practised for the most part in America, and in the hands of Daly of Pittsburg, Roe of Rochester, and Mackenzie of Baltimore, it has been followed by lasting and signal success. But as there are not as yet at our disposal materials sufficient to form a critical estimate of the relative value of this form of treatment, as I have myself no personal experience of the practice of it, and as in this imperfect lecture my chief object is to submit to your consideration the plan of treatment designed and practised by myself, I dismiss for the present from further consideration all operative procedures of this radical kind.

The first plan of treatment proposes to prevent or to cure hay fever by allaying the pathogenic irritability of the mucous membrane. This was the object which I endeavoured to achieve when I began my therapeutical experiments in the treatment of this disease. From trials extending over several years no remedies of this sort except aconitina and atropina returned me any results of the smallest value, and the result returned by the use of these alkaloids was so insignificant, and the effects of following it were sometimes so disagreeable, that I abandoned my inquiries in this direction. The introduction of cocaine, however, and its recent employment in the treatment of hay fever, induced me to re-open my experiments in this direction. At first my success was considerable, for three out of five cases were immediately relieved, and the relief was maintained by the frequent renewal of the application of cocaine to the nasal mucous membrane. But when last year my experience of the use of this drug somewhat increased, my success in using it diminished. In one case the application failed and disagreed. In another case it neither disagreed nor failed, but I was quite unable to discover in the patients the grounds of this difference of action. Nevertheless, although it appears to me that the success of cocaine as a local remedy in hay fever has been overrated, although the necessity of frequent application is troublesome, and although its use is not free from inconveniences which might eventually prove something worse, I am of opinion that its success and its comparative freedom from injurious consequences are sufficient to justify with careful watching a longer and larger trial. There are three ways of using cocaine in the local treatment of hay fever: it may be used in the form of a solution, of a spray, or of a nasal bougie. Personally, I prefer to use a solution varying in strength from 5 to 15 per cent., and I apply it to the interior of the nose and the back of the soft palate by means of a large camel-hair pencil attached to an aluminium shank and bent at an appropriate angle. For use in the form of nasal bougies, from a quarter of a grain or more of the hydrochlorate of cocaine is dissolved in a mixture of gelatine and glycerine, and made of different weights and shapes according to the peculiarities of the case on which they are to be employed. For using cocaine in the form of spray, some efficient and ingenious spray producers have been invented. Many of them are furnished with nozzles, so constructed that the spray can be applied directly to almost any part of the nasal and pharyngeal cavities. These spray producers, with weak cocaine solutions, are sometimes very useful in allaying the small but still troublesome irritation which, in the intervals of the hay fever paroxysms, are apt to arise in the eyes and mouth. By the great kindness of Mr. Martindale, to whose pains, intelligence, and accuracy in matters of this kind we are all so much indebted, I am enabled to show all these preparations of cocaine and all the instruments wherewith they are used.

I come now to consider the second plan proposed for the local treatment of hay fever. The object of this plan, which does not exclude constitutional treatment, is to subdue the irritability of the nasal mucous membrane to such an extent that it shall no longer react to special or common irritants, whether pollen or dust, in a pathogenic manner. In the first place the patient is put upon such a regimen as will conduce most to the improvement of his general health. He is instructed to have a simple but liberal dietary, to be extremely moderate in the use of alcoholic stimulants, to have daily exercise, to follow early hours, and to continue, if that be possible, even at the cost of suffering his ordinary occupations. If the patient is very weak, he is instructed to take with meals drachm doses of Easton's syrup with three or more drops of the solution of arsenic hydrochloric. If he is nervous as well as weak I prescribe for him in their full respective doses tartarized iron, ammonium bromide,

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tincture of nux vomica, and a solution of arseniate of soda. In some cases I think that I have seen great benefit follow the use, thrice a day, of five grains of sulphate of quinine, dissolved in citric acid and given in effervescence with carbonate of ammonia.

For the strictly local treatment there are required a common laryngeal brush and a carbolic mixture. This mixture is composed of glycerine of carbolic acid one ounce, hydrochlorate of quinine one drachm, and a thousandth part of perchloride of mercury. Heat will be required in order to dissolve the whole of the quinine, for without heat Mr. Martindale informs me that the glycerine of carbolic acid will dissolve only half the quantity prescribed.

Let me now describe the method of procedure to be followed in applying the carbolic acid mixture to the mucous membrane of the nasal cavities. If there is much mucus in the nostrils, cleanse them by means of a douche of warm water containing boroglyceride,[1] in the proportion of an ounce to the pint. Dip the laryngeal brush in the carbolic acid mixture, and see that the brush is full but not overflowing. Place the left hand on the left side of the forehead, and the thumb on the tip of the nose, with the shank of the brush between the thumb and two forefingers of the right hand, and the brush itself directed upwards, push it gently but firmly into one of the nostrils, carry it as high as you can without inflicting injury, move it about so as to bring the mixture in contact with as much as possible of the interior of the upper part of the nostril, and then withdraw it. With another brush filled with the carbolic acid mixture, or with the same brush washed, dried, and replenished, you complete in the manner following the two operations required for each nostril. Having the left hand in the position already described, and the right hand holding the laryngeal brush, with the hair pencil directed forward from the body of the operator, push the brush along the floor of the nostril into the pharynx, and after insuring free contact with the adjacent parts, withdraw it. If during the operation the brush is over-full, some of the carbolic mixture will fall into the throat and excite coughing or some other discomfort. When you have thus finished the treatment of one nostril, and carefully removed any of the carbolic acid mixture which may have been spilt upon the nose or lips, you will proceed to treat the second nostril in exactly the same manner as you have dealt with the first. During the performance of these manœuvres great assistance will be obtained from the left hand of the operator being placed over the left side of the forehead and face of the patient. With this hand the operator can adjust the patient's head to the various movements of the laryngeal brush, and with the same hand placed on the tip of the patient's nose the opening of the patient's nostril can be adjusted to a convenient size and shape. When the local effects of a paroxysm are severe, and have extended to the back part of the soft palate, it will be desirable to introduce through the mouth into the pharynx the laryngeal brush moderately filled with the carbolic acid mixture, and there, by a manœuvre easily acquired and practised, to brush the posterior surface of the soft palate and the adjacent parts. The immediate effects of these manœuvres differ in different persons, and in the same person at different times. In all cases the effects are more or less disagreeable, and last from half an hour to half a day. Sometimes a little blood-stained mucus is discharged from the nose and throat; sometimes there is a slight frontal headache; sometimes there is a trivial cough, and occasionally you will have developed all the local phenomena of a paroxysm of hay fever.

When advising a patient with hay fever to submit to this plan of treatment for its relief, I have found it expedient to warn him beforehand of the disagreeable effects which sometimes follow the application of the carbolic mixture, and to assure him that they are both brief in duration and devoid of danger. When this warning is withheld, some patients will grossly exaggerate their sufferings, ascribe all sorts of injurious consequences to the application, and cover the physician with undeserved reproaches. Sometimes a single application of the carbolic acid mixture is sufficient to prevent for a whole season the return of the hay fever paroxysm, and four times within my own knowledge it has never reappeared. Usually two or three applications are necessary to ensure a full chance of success. The length of the interval between the applications must be determined by the character of the immediate effects. If these are mild, the application may be renewed on alternate days; but if severe, at least three days should elapse between succeeding applications.

Of the measure of success which has followed this treatment of hay fever, now practised over twenty years, I am unable to speak with exactitude. Patients when relieved seldom, and when unrelieved never, return to record their experience, and I have been unable to get at the subsequent histories of more than a third of the number of persons whom I have treated. It is, however, my conviction that of this roughly estimated third whose cases I have been able to follow, a half has been cured for the season, and four persons have been cured "for good." This, you will say justly, is not a success of which to boast. Quite so. But if you will compare the results of this treatment with the results of every other treatment, not excepting the cocaine treatment, which is its closest rival, you will have to confess that, however small the measure of success, it is not one which you can afford to despise. At any rate, a communication of this kind is entitled to your indulgence, inasmuch as it is an honest, although a very humble, endeavour to press pathology into practice, and to take away the reproach which has been cast upon us of ignoring or of repudiating the natural and just alliance which should unite in closest relationships the science with the art of medicine.

[1] Before the introduction of boroglyceride I employed a five-grain solution of chlorate of potash, which was less efficient.

Clinical Lecture
ON
FUNCTIONAL DISEASES OF THE LIVER.

BY SAMUEL FENWICK, M.D., F.R.C.P.,
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GENTLEMEN,—We know perhaps less of the functional diseases of the liver than of those of any other structure in the human body of equal importance. The organ is popularly supposed to be very frequently deranged; but, from the changes its secretions undergo before they come beneath our notice, we have no means of proving how far such an opinion is correct.

Many years ago I commenced some inquiries in order to ascertain if any of the secretions afforded a means of testing the manner in which the hepatic functions are performed. For this purpose I first examined the colouring matters of the urine, but was unable to arrive at any definite conclusions, although no doubt in many cases there is a close connexion between the state of the urine and the condition of the liver. Observing the yellow coating which is so frequently present on the tongue in affections of the biliary system, I separated the colouring matter from the saliva in cases of jaundice. The material thus obtained seemed to be a derivative of the bile; but it was only present under certain conditions, and I was forced to abandon the hope that it could be employed as a test for the quantity or quality of the hepatic secretion.

You are aware that a bitter taste in the mouth is occasionally complained of by patients suffering from jaundice, and also sometimes by those who are only what is termed "bilious." I failed in various cases of jaundice to obtain evidence of what has been often surmised—viz., that the bitter taste is the result of the excretion of the biliary salts by the salivary glands. However, an elderly medical man consulted me, whose only complaint was an intensely bitter taste in the mouth. He never had suffered from jaundice, and he believed himself in other respects to be in perfect health. He found the taste increased after taking alcohol in any form, but no treatment he had adopted had relieved him. I received from him a considerable quantity of saliva, and obtained from it the ordinary indications of the presence of biliary salts. On thinking over his case, it seemed to me that if the salivary glands were capable of separating the biliary salts, perhaps some material derived from these might be a normal constituent of their secretion. The

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sulphocyanide suggested itself to my mind, and I determined to ascertain, if possible, whether the quantity of this substance varied in different persons, and under what circumstances such variations occurred. The estimation of the sulphocyanide was, however, a matter of no small difficulty, for it is normally present in so minute a quantity that any attempt to isolate it appeared hopeless. You are aware that the addition of a persalt of iron to saliva gives the blood-red colour of sulphocyanide of iron, and it appeared to me that the simplest way would be to compare the depth of the colour thus produced in the salivas of those suffering from disease with that of persons in a state of health. The saliva of each person examined was therefore collected as it flowed from the mouth for about two minutes, and seven drops of a solution of half a drachm of perchloride of iron to one ounce of water were added, and the colour thus obtained was compared with a scale of colours prepared in the following manner:—A quantity of saliva was collected from a number of healthy persons, and the tint produced by the addition of the perchloride of iron was taken as the normal amount; a portion of the same saliva was then evaporated to one-quarter, and another to half, its bulk, and the colours produced in these respectively were assumed to represent four times and twice the normal amount of sulphocyanide; whilst two other portions diluted with water to twice and four times their amount were taken as representing half and a quarter of the normal quantity of the salivary salt. These were then copied in colours by an artist, so that there should be no variation in the tints.

In this way I examined during the course of many years the salivas of numerous persons who consulted me for different maladies, recording also the symptoms of which they complained, and in most cases the results of the treatment adopted. These observations were so numerous (probably many thousands) that I selected for analysis only those in which the amount of the sulphocyanide was much below or much above the normal. I have described these in this lecture as "private cases" whenever I have found it necessary to quote them. In order to check these observations, I requested Dr. Needham, at that time house-physician to this hospital, to examine in the same way the salivas of a number of patients who were under treatment in the wards, and two years afterwards a similar inquiry was carried on by Dr. Bedford Fenwick. The cases thus obtained, numbering between 200 and 300, were analysed together, and I have quoted them as "the earlier hospital cases." Although the conclusions from both of these sets of cases were generally in accordance with each other, there were numerous discrepancies which could not be explained. I therefore commenced a fresh series, in the following manner:—A solution of sulphocyanide of iron was prepared of definite strength, and was graduated by successive dilutions, so that each was only one-quarter of the strength of that above it. These were placed in the small flat bottles used by spectroscopists, each bottle being of equal thickness. I took my own saliva, which agreed in colour with that formerly taken as normal, as the normal standard, and the bottles were labelled + or −, according as they differed from N. Each of the salivas, when examined, was mixed with a definite quantity of the tincture of perchloride of iron, filtered through cotton wool, and being placed in a spectroscopic bottle of equal thickness was carefully compared with the graduated strengths of the sulphocyanide of iron.

In this manner I examined week by week the salivas of 500 patients admitted into my wards, carefully recording the depth of colour at every observation, but not looking at the notes of the cases in the hospital books. After all these persons had been discharged, I compared the state of the saliva of each in every week of his residence with his condition at the time his saliva was obtained. The results of these observations form the facts from which I have drawn most of the conclusions I am now about to lay before you, and I have quoted these as the "later hospital cases."

Before commencing our inquiries it is necessary to determine what is the normal amount of sulphocyanide in the saliva of healthy persons. No doubt this must vary considerably according to the circumstances of the individuals examined, but I thought we should obtain the best standard for reference if the observations were conducted upon persons of the same class as our hospital patients. I therefore procured the salivas of forty-three persons, most of the females being hospital nurses and the males either hospital porters or patients suffering from some trifling local malady, such as gonorrhœa. The following table shows the results of this inquiry:—

TABLE I.—*Showing the Colour of the Saliva of 43 Healthy Persons.*

Colour of saliva.	Males	Females.	Totals.	
− 1½	1	0	1	
− 1	2	2	4	6
− ¾	1	0	1	
− ½	4	5	9	
− ¼	2	0	2	
N	12	4	16	31
+ ¼	1	0	1	
+ ½	2	1	3	
+ ¾	0	0	0	
+ 1	2	0	2	5
+ 1½	1	1	2	
+ 3	1	0	1	
Totals...	29	13	42	

You will observe that the largest number of the salivas presented the depth of colour we before took as the normal standard, but that most of the females were half below it, and that thirty-one out of the forty-two were within half below or above that amount, only five being above and six below. It will be necessary that this should be borne in mind when we afterwards discuss the diseases to which persons apparently healthy, but in whose salivas the sulphocyanide varies greatly from the normal point, are especially liable.

In commencing an analysis of the cases in which the amount of the sulphocyanide in the saliva was determined, let me first direct your attention to the patients who were admitted suffering from typhoid fever. Thirteen are recorded in the "later hospital cases," all of whom recovered, and in each, as soon as convalescence was established, there was a sudden rise in the amount of the salivary salt, which either increased or was maintained at about the same strength until the patient was dismissed. This is seen in Table II., in which are placed in the first line the average quantities of the sulphocyanide in each week before and after the commencement of convalescence, and in the second the number of cases from which the averages were obtained. The date of convalescence was in each fixed at the day on which the temperature permanently fell at or below the normal point, and you will observe that in the second week before this period the average amount of the salt was only +¾. But during the febrile condition there is a very scanty secretion of saliva, so that the quantities we were able to obtain were very small, and consequently in a state of great concentration. It is evident, therefore, that the amount of the sulphocyanide daily excreted must have been very minute whilst the fever was going on, but as soon as this began to subside the average rose to +2, and remained high until the seventh week after the commencement of convalescence. Let me remind you that the figures in this table are averages, for in some cases the quantity rose to +4, and in some instances to seven times the normal amount.

The degree of increase of the salt seems to depend on the length of the febrile stage. In Table III. I have included in the first line all those in whom the fever lasted less than twenty-one days, and in the second those whose febrile stage exceeded three weeks in duration. It would appear from these figures that in cases in which the fever has been of short duration the increase of the salivary salt takes place more slowly, but the duration of the convalescence is longer than in those in which the febrile stage has been more prolonged. It is also worthy of remark that the greatest amount of secretion was reached earlier in the latter than in the former, the maximum being in the third week in the second group, and in the fourth week in the first group. If further investigations should confirm these conclusions, we shall have in the quantity of the sulphocyanide during the first week of convalescence a means of ascertaining the probable length of the period during which the patient is likely to regain his former health and strength. The augmented quantity secreted is not the result of an increased supply of food, for, as you are aware, the patients are confined to a liquid diet for two or three weeks after convalescence has been established. It is also worthy of observation that in Table II. the salt is seen to increase before the fever has quite subsided, so that the

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state of the saliva may be of value as an indication that the febrile action is about to terminate.

Let us now ask ourselves what are the changes that occur during the progress of typhoid fever. Every day's observation shows you that there is a rapid loss of flesh and strength; the muscles quickly waste and the fat is absorbed, so that in a case of long duration the patient is reduced almost to the condition of a skeleton. As soon, however, as the fever disappears nature begins to repair the damaged structures, the appetite becomes keen, the digestive organs are stimulated into a state of unusual activity, and the patient day by day increases in weight and strength. What, then, I wish to draw your attention to is the fact that along with this unusual activity of the organs engaged in nutrition we find an excessive quantity of the salivary salt—a fact sufficient to indicate that, instead of its being a mere accidental result of local decomposition, as some have supposed, the sulphocyanide is in some way dependent upon the action of the digestive or assimilating structures. But, in addition to this, Table III. seems to point out that there is probably some relation between the quantity of the sulphocyanide secreted and the degree of activity of these organs, for it will be remarked that in the group in which convalescence was most rapid the amount of the salivary salt was the greatest.

A similar state of the saliva may be occasionally observed when from other causes there is a sudden demand made on the nutritive organs. In some cases of hæmorrhage occurring in persons whose digestive organs are not impaired the salivary salt will be found in increased quantity, at the same time that the loss of blood is being rapidly replaced. Thus a woman, about thirty years of age, was admitted into the hospital in a very exhausted condition. A few days previously, when she appeared to be in perfect health, she had suddenly fainted, and shortly afterwards had vomited a large quantity of blood, the hæmorrhage being repeated twice in the next few hours. There was no return of the bleeding from the stomach, but the general nature of the malady was shown by hæmorrhages being present in the retinæ. Two weeks after the attack the sulphocyanide was $+2\frac{1}{2}$, next week $+3$, and in the successive weeks $+3$, $+2\frac{1}{2}$, and $+1\frac{1}{2}$, at which latter date it is noted in the case-books that she had quite regained her strength and colour. One month afterwards she was again attacked in the same manner, and was readmitted in a very blanched condition; the amount of the sulphocyanide was remarked to be $+2$, and continued at that amount until she regained her colour and left the hospital.

The conclusion that seems fairly to follow from these facts is that an unusual amount of the sulphocyanide presents itself in the saliva whenever the necessities of the system call for an increased activity of the digestive organs; and this is supported by the circumstance that persons who are unusually stout and well fed ordinarily secrete a saliva having an excess of this salt. But you will naturally say, Is there not a necessity for an increased action of the assimilating organs in typhoid from the first moment when the patient is smitten with the fever? Certainly there is; but the nutritive organs are incapable of responding to the demand, for they themselves rapidly waste and lose their functional powers. Thus in four cases that had died of typhoid fever I carefully scraped off the whole of the mucous membrane of the stomach and found that the average weight was only 580 grains, whilst the average weight of the gastric mucous membrane in seventeen males who had died of other diseases was 1035 grains, showing that in this malady the stomach loses nearly half its bulk. Nor is there merely a loss of bulk; there is also an impairment of functional activity, for in seven cases I made an artificial gastric juice with the mucous membrane of the stomach, and found that the average amount of coagulated albumen dissolved was only one grain, whilst the amount ordinarily dissolved by the mucous membrane of the stomachs of persons dying from other disorders was four grains. In two of the typhoid cases the albumen was quite unaffected by the artificial gastric juice, and in one a small quantity only was dissolved. It is therefore probable that in typhoid the general wasting of the body is the result not only of an increased destruction of tissue, but that it also arises from the inability of the digestive organs to supply sufficient nutriment to compensate for the augmented waste; and, as we have already seen, along with the diminished activity of these organs there is a decreased quantity of the sulphocyanide in the saliva. As soon, however, as the blood-making organs are restored to activity the salt reappears in the salivary secretion in an increased amount.

It will be obvious that, if the above conclusions are correct, we should find the quantity of sulphocyanide below the normal whenever the digestive organs are unable to supply nutriment sufficient to meet the requirements of the system. Let us, then, test this by the condition of the saliva in maladies attended with rapid loss of flesh. Perhaps one of the best diseases we can select is pulmonary phthisis. Seventeen cases are recorded in the "later hospital records," of which ten died or were removed from the hospital in a sinking condition, and seven were dismissed much improved. Of those who died, the average amount of sulphocyanide was only $-1{\cdot}27$, and in some no colour at all could be produced by the addition of the solution of iron to the saliva, so that in these we may assume the secretion of the salt had ceased. In only two of these was the amount above the normal—in one it was $+\frac{1}{2}$, in the other $+1$; but in all the others it was much below the ordinary quantity. In eight of them the weight of the body was regularly recorded; in five there was a diminution of weight, and these exhibited an average of $-1{\cdot}15$ of the sulphocyanide. You must not, however, suppose that this condition of the saliva is an indication of the existence of tubercular disease; it is only a concomitant of a failure of the general nutrition, for the

TABLE II.—*Showing the number of Cases of Typhoid Fever examined, and the average amount of the Sulphocyanide in each week.*

	Weeks before Convalescence.		Weeks after Convalescence.						
	2nd.	1st.	1	2	3	4	5	6	7
Average amount of sulphocyanide	$+\frac{3}{4}$	$+2$	$+2\frac{1}{2}$	$+3\frac{1}{2}$	$+2\frac{3}{4}$	$+3$	$+3$	$+2$	$+2\frac{1}{2}$
Number of cases examined	8	7	10	12	13	10	7	3	1

TABLE III.—*Showing the Differences in the Weekly Quantity of the Sulphocyanide in Typhoid of short and long duration.*

		Weeks after Convalescence.						
		1	2	3	4	5	6	7
Within 21 days of fever	Average amount of sulphocyanide	$+1$	$+2\frac{1}{2}$	$+2\frac{1}{2}$	$+3$	$+2\frac{1}{2}$	$+2$	$+2\frac{1}{2}$
	Number of cases	2	3	4	3	4	3	1
Beyond 21 days of fever	Average amount of sulphocyanide	$+2{\cdot}90$	$+3{\cdot}02$	$+3{\cdot}17$	$+2{\cdot}71$	$+4{\cdot}08$	—	—
	Number of cases	3	3	3	2	1	—	—

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average of those who improved in the hospital amounted to +1·; only two exhibited a deficiency of the salt, and all the others showed an amount above the normal. In three there was a weekly gain in weight, and in these the average quantity of the sulphocyanide was above the normal. The above facts are supported by the "earlier hospital cases," from which it appears that the diminution of the salivary salt increases with the duration of the malady. Thus twenty-six cases of phthisis are recorded, of whom 25 per cent. had a deficiency of the sulphocyanide when examined within six months of the beginning of the illness, whilst 58 per cent. of those between the sixth and twelfth months, and no less than 87 per cent. of those above twelve months' duration, presented the same condition.

A similar deficiency of the salivary salts is usually observed in the later stages of malignant diseases. In almost all of those in which the stomach was the seat of cancer the sulphocyanide became deficient at an early period, and remained so until the termination of the case; thus I find eight cases recorded of this disease, and in all the amount was very small or was entirely absent. When other organs were affected by cancer, the period at which the sulphocyanide sank below the normal varied with the rapidity of the growth, the organ involved, and the more or less rapid inroad made upon the general health of the patient. This fact may perhaps prove useful in the diagnosis between cancer and simple ulcer of the stomach. It is rare to find a deficiency of the sulphocyanide in the latter, for the power of digestion usually remains good, and in cases of hæmorrhage, as we have before seen, there is often a sudden increase in the quantity; whereas in cancer the amount early falls below the normal from the loss of digestion with which it is accompanied. But you may ask, Why is there such an early failure in the general nutrition in gastric cancer? In every case that I have examined microscopically changes of an important nature have been found in the mucous membrane of the stomach, although it often appeared normal to the naked eye, and the parts examined were at a distance from the seat of the tumour. The peptic glands were either closely adherent to each other or were in a state of atrophy, and an infusion of the mucous membrane exerted only a slight power of dissolving coagulated albumen. In addition to the structural changes, the patient's strength is sapped by the more or less constant discharge of blood, by frequent vomitings, or by an obstruction to the passage of the food into the intestines.

From the above facts, we are bound, I think, to conclude that whenever an unusual demand is made upon the nutritive organs of the body by the necessities of the system, and the patient gains flesh and strength, the sulphocyanide in the saliva is found to be increased in quantity; but when, on the contrary, a person rapidly wastes from some general disease the amount of the salt is diminished. An increased quantity of the sulphocyanide, therefore, under such conditions, manifests an excess of the income over the expenditure, whilst its diminution points to an excess of the expenditure of the system over its income.

We before found that when, as in convalescence after typhoid fever, an increased activity in the cell growth of the whole body took place, there was an unusual amount of the sulphocyanide in the saliva, and we attempted to explain this by supposing that the necessity for repairing the previous waste of the tissues stimulated the blood-forming organs into increased activity, the augmented amount of the salivary salt being only an indication of their increased action. But if there is a relation between the necessities of the system and the activity of the blood-making organs, we should expect that an increased local cell growth would act in the same way as when it is general, and would stimulate the functional activity of the nutritive organs, and that consequently, under such circumstances, the amount of the sulphocyanide would be also augmented. Let us, then, test the truth of this anticipation by the examination of the saliva in persons who were suffering from increased local cell growth—in other words, from malignant or inflammatory affections.

We have already seen that in most of the cases of cancer the salivary salt has been below the normal, but in these the local malady had made great inroads upon the general health. Where, however, either from the position of the tumour or the slowness of its growth, there was no marked cachexia, the sulphocyanide was above the normal. Thus, in a case of sarcomatous tumour of the ribs the amounts registered each week were +2¾, +3¼, +2¾, +3¼, +3¼, and the patient left the hospital with no loss of weight or strength, although the size of the mass had greatly increased. I have met with the same circumstance in some cases of cancer of the liver, where the disease was in an early stage, and where the growth was rapid, although there was in some of these also jaundice, probably resulting from compression of the smaller bile-ducts. In the earlier stages of phthisis there is usually an increase in the salivary salt, and it is not until the patient has been reduced by diarrhœa, vomiting, or loss of appetite that the diminution we before observed presents itself.

But you may naturally object that in typhoid the increase of the sulphocyanide was only observed after the cessation of the fever, whilst in cancer and phthisis it takes place during the progress of the disease. This is easily explained when you remember, what was before stated, that in typhoid there is but little digestive power, so that the blood-making functions cannot respond to the demands of the system until after convalescence has set in; whilst in the local maladies we have been just considering the digestive functions appear, in the earlier stages at least, to be intact.

In most cases of acute inflammation there is a rapid local cell growth. What, then, is the state of the saliva under these circumstances? Let us first look at acute pneumonia, of which disease there are nine instances recorded in the "later hospital cases." The average amount of the salivary salt in these was only +·95; they were examined after convalescence had set in, for unfortunately I have no records of the state of the saliva during the acute stage. The smallness of the increase is what might have been anticipated, for everyone must have observed how little flesh the patient loses in an ordinary attack of acute lobar pneumonia, and how rapidly he regains his strength. This is supported by the fact that the more severe the case was, the greater was the amount of sulphocyanide during convalescence. Thus five were dismissed within three weeks, and their average was +·70; four required a longer residence to regain their strength, and their average was +1·27.

Bronchitis, when uncomplicated with heart and kidney disease, seems to have no effect on the production of the salivary salt, for in seven cases which were examined from week to week the average did not exceed the normal.

In acute pleurisy there is a considerable cell growth, and consequently we find a marked difference in the amount of the sulphocyanide from that in bronchitis. There were thirteen observed in the "later hospital cases," four of which presented only the physical signs of "dry pleurisy"; in seven there was exudation of fluid, and most of these were treated by aspiration. In the cases of dry pleurisy the average of the salivary salt was +1·09; in those accompanied by effusion it reached +1·45. A similar result is afforded by the "earlier hospital cases"; for of nine cases, four were examined within one week of the commencement of the illness, and three of them presented an excess of the sulphocyanide, while in one it was normal; three were examined between the second and third week, of whom two had an excess and one was subnormal; after the third week two were examined, and both were below the normal. It is therefore evident that the amount of the salivary salt is greatest where there is most local cell growth, and it often falls below the normal in the stage of absorption. There were two cases of empyema in the "later hospital cases," both treated by drainage, and the examinations of their salivas are very interesting. The weekly amount of the salivary salt was in one +2½, in the other +3½; but in each at the twelfth week of the illness it fell suddenly—in the one to −¼, in the other to −½, and in each it remained in amounts varying from −1· to +½ till the termination of the illness.

Observation teaches us that a local cell growth, whether malignant, tubercular, or merely inflammatory, will often continue for a length of time without perceptibly reducing the strength of the patient, the undue loss of material being supplied by an increased action of the nutritive organs; but that when a certain point is reached the general health rapidly deteriorates. This point—probably that at which the expenditure exceeds the income of the body—seems to be accurately marked by the sudden diminution in the quantity of the sulphocyanide.

Two cases of "granular kidney" were admitted suffering from uræmic convulsions; both improved under treatment, and the amount of the salivary salt increased in proportion to the improvement. One had, on his admission, +1, which increased to +3, at which figure it still stood on his leaving

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the hospital at the end of eight weeks. The second had only $-\frac{1}{4}$ at first, but it had risen to $+2\frac{3}{4}$ on the fifth week of treatment. In another case it was normal on admission and remained so the next week, but ten days afterwards he died with uræmic symptoms, no other observation being recorded in the meanwhile.

In chronic tubular nephritis, there must be a large demand upon the nutritive organs to supply the waste caused by the abundant cell growth and the drain of albumen from the diseased organs. Consequently I have generally found that in the early stage the amount of sulphocyanide was above the normal, and remained so until the patient's strength began to fail. In one case of this kind it was $+1\frac{1}{2}$ on admission, but it rose to $+2\frac{1}{2}$ the next week, and remained high until he left the hospital much improved. Two cases died; in one the quantity was at first normal, but it sank next week to -2, and remained at this point until death; in the other it was at first $+1\frac{1}{2}$, but it had fallen to $-\frac{1}{4}$ on the last observation recorded before his death.

(To be continued.)

REMARKS ON

CEREBRAL ABSCESS DUE TO DISEASE OF THE TEMPORAL BONE, AND ITS TREATMENT.[1]

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IF surgeons were only called upon to deal with cases of abscess of the brain when physicians had determined their locality, our position would, in my opinion, be clear, and our task, as a rule, a light one. For I am one of those who hold that in these days of aseptic surgery those areas of the brain in which inflammatory foci are most commonly met, and which are well known from experience to be wondrously long-suffering, may be as freely dealt with almost as the structures external to the skull. But far more than mere operative treatment of these conditions is demanded of the surgeon now, and he can only be really useful and reliable when he has studied the whole subject of the pathology and clinical symptoms of cerebral abscess with as much care as that of the details of surgical procedure

The mode, however, of approaching this study must be very different to that hitherto adopted before we can hope for much practical result from it. No one who at the present day reads through the abundant literature of cerebral abscess can fail to be struck with the tendency there has been in the past to consider abscess in the brain as one disease, whereas in reality it is only a sequela or accident occurring in the course of a long series of totally distinct ailments. Cases have been grouped together which have no possible affinity, and the result has been much confusion. What possible pathological relation, for instance, is there between an abscess due to commotio cerebri and one the result of septic phlebitis from middle-ear disease? and yet we find in those collections of cases which have hitherto been appealed to for information on the subject results produced by these and other most widely-differing causes grouped together as if they all belonged to the same disease because they affected the same organ. Let me enumerate some of these causes of abscess in the brain produced without external breach of surface to help diagnosis. 1. Bruise of the brain under a spot of the skull which has received a sharp blow, but where the bone is uninjured. 2. The spread of inflammation into the brain along a vein leading from a portion of bone damaged by a blow. 3. Commotio cerebri, the result of contrecoup. 4. Secondary infarcts in general pyæmia. 5. Disease of the lungs. 6. Hepatic inflammation. 7. Caries of the bones of the nose. 8. Disease in the middle ear.

Now, as long as cerebral abscess was considered an inevitably fatal condition, and the only questions involved were the diagnosis of its presence and the prognosis, such a wholesale method of dealing with the subject may have seemed to some sufficient. But now that the brain has been brought within the reach of operative surgery by the perfecting of antiseptic methods much more is demanded, and above all knowledge to enable us to fix the locality of the inflammatory focus. For this knowledge in the case of that class of cerebral abscess to which I shall confine my remarks—namely, that due to disease of the temporal bone—I am afraid we shall have to wait a long time if we rely *solely* upon special clinical symptoms. It appears to me that we are likely to learn far more facts available for localisation and treatment from a careful study of their pathology, macroscopic and microscopic, than from a search after special nerve symptoms. But if this is to be true, one of the most indispensable conditions of our research into their nature must be kept in view—namely, that we shall separate and keep apart those abscesses which depend upon totally different exciting causes and study each for itself according to its own special etiology. Strongly impressed with this idea, I shall confine my remarks to matters relating to one particular form of cerebral abscess which is of relatively frequent occurrence, and for which surgical treatment will probably be most frequently necessary for a long time to come. I refer to abscess depending upon inflammation of the temporal bone. Thus limited, the field is still a large one. I find, by combining Rudolph Meyer's tables with those of Dr. Ogle, that we have 101 cases of abscess of the brain classed as to cause, and 18 unclassed. Of these 101 classed, 29 were due to disease of the temporal bone following upon suppuration in the middle ear. Traumatic causes followed next, with 27 cases; then suppuration in the lungs and liver, with 20 cases. Among the remaining 24 cases pyæmia was credited with 7, the rest being made up in various ways. Now, although I should not like to rely too much upon these statistics, which were compiled twenty years ago, when pathological observation was not so accurate as now, I believe they are sufficiently accurate to enable one to estimate roughly the relative frequency of abscess due to ear disease as contrasted with those from other causes. And I think, from a study of the tables referred to and of other cases as well, that a revision of the question would now lead to ear disease being credited with a still larger relative number of cerebral abscesses than above, and that 30 per cent. of all causes would be below the mark. It would probably be nearer 50 per cent., pyæmia having now become a relatively rare affection, and fractures of the skull, or suspected fractures, being now treated by antiseptic surgeons in such a way as greatly to reduce the number of traumatic abscesses of the brain. At the same time, I question strongly whether a corresponding improvement in the treatment of suppuration in the middle ear has yet taken place generally to largely reduce the mortality from ear disease. It is to this large group, then, and to it alone, that the remarks I have to make refer.

The pathology of encephalic abscesses due to ear disease is not very abstruse. They appear (broadly stated) to be produced in two different ways, of which it is hard to say which is the commonest. In the first place, we find a septic phlebitis extending from the walls of the tympanic cavity into the substance of the brain by a longer or shorter route, and there setting up an inflammatory process in the white substance. Here the dura mater of the petrous bone may show but few signs of disease, and the serous covering of the encephalon be perfectly normal to the naked eye; there may even be a considerable thickness of sound cortical brain tissue between the arachnoid and the cavity of the abscess. The course of the veins along which the inflammation extends is liable to considerable variation. In the case of the brain they usually pass from about the middle of the temporo-sphenoidal lobe either into the superior petrosal sinus or to the dura mater about the roof of the tympanum, or to the petroso-squamosal suture. The abscess in the brain consequently is set up by "a retrograde phlebitis." The next mode of origin is that of simple extension of the inflammation from the middle ear to the dura mater, and from this to the cortex of the brain directly through the medium of a more or less localised septic lepto-meningitis. This last mode of origin is, I think, more often met with in the case of the cerebellum, the last in that of the brain. Both may start from the same form of inflammation in the middle ear, with or without caries of its walls and with or without subdural abscess. It is obvious that the last mode of origin is associated with the gravest local condition. In the first place, septic meningitis has a great tendency to become general; and, next, such an inflammation

[1] Read at the discussion on Cerebral Abscess at the Medico-Chirurgical Society of Glasgow, Feb. 11th, 1887.

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can hardly spread backwards towards the cerebellum without involving the lateral sinus and producing more or less septic phlebitis in it, with or without general pyæmic infection. Moreover, subdural abscess may produce grave symptoms.

But though the pathology of encephalic abscess from disease of the temporal bone may be a comparatively simple study in the dead body, in the living the study of the process is fraught with difficulty. For it is plain that the same form of disease in the bone may produce at least five distinct conditions of grave disease. These are (1) general septic meningitis; (2) plastic phlebitis of the sinuses; (3) pyæmia, generally associated with phlebitis of the sinuses; (4) abscess of the cerebellum; and (5) abscess of the cerebrum. Moreover, each of these may be met with not only alone, but grouped together with one or more of the others. Here, then, is the great obstacle to our dealing with abscess in the brain or cerebellum by operation—viz., the difficulty of differentiating them during life. For to operate on an abscess of the brain or cerebellum where general septic meningitis or pyæmia is present would be almost hopeless; and to open an abscess in the cerebellum while another is left untouched in the brain, or *vice versâ*, would not be successful surgery. Again, to leave unrelieved a condition of the temporal bone which has started and is keeping up a phlebitis of the lateral sinus, and may at any time end in general septic infection, while the accidental brain abscess is opened and drained, is not likely to lead to good results. There is a sixth condition which has much in common with those last mentioned, both in pathology and clinical symptoms. This is the simple accumulation of pus in the middle ear, due to blocking of the external meatus by swelling or polypoid granulations. Now, any or all of these six conditions may follow upon the simplest attack of suppurative otitis media. Is it possible to distinguish them clinically one from the other? I think it is to a large extent, to anyone who has studied the pathology of this whole group of affections as a whole, commencing with the initial inflammation of the tympanum, and has closely watched their course in the living. It will not do to know all about intracranial abscess and the varieties of meningitis and neglect the study of the initial affections of the middle ear, which require just as close attention.

For brevity's sake I will now venture to sketch roughly and without argument the method I should pursue in a case where suppuration in the middle ear was followed by grave constitutional disturbance, arousing a suspicion of brain disease. In doing so I shall endeavour to embody in the sketch the rules I have found useful in dealing with a large number of such cases. If called to treat a patient who, having recently had severe pain in the ear for the first time, had begun to suffer from violent headache on that side, drowsiness, rise of temperature and quickening of pulse, with or without rigor and delirium, the surgeon, knowing that the commonest cause for these symptoms is pent-up pus in the middle ear, would at once examine the latter with a speculum and a good light. If the membrana tympani were seen to be bulged outwards by a quantity of opaque white pus, he would incise it from top to bottom behind the malleus and transversely below the latter. If pus ran out freely, the symptoms would probably all shortly disappear. If they did not do so after the tympanic cavity had been freely drained and cleansed, but the headache became worse and the temperature and pulse remained high, while further examination disclosed optic neuritis, and the patient began to have the "cephalic cry" and so-called cervical opisthotonos, acute meningitis would be suspected. If after incision of the membrana tympani and thorough drainage the headache and dulness disappeared, but the temperature kept oscillating between the two extremes without any approach to regularity, while occasional rigors developed, we should suspect and probably soon recognise pyæmia with its secondary manifestations. In neither of these cases would there be any probability at the outset of abscess either in the brain or cerebellum. After such recent, acute attacks, while meningitis and pyæmia are not uncommon, abscess in the encephalon is almost unknown. Subdural abscess and plastic phlebitis are also unlikely to occur in these cases of early acute disease. But if a discharge from the ear had been present for a long time, and had lately ceased with the onset of the above acute symptoms, the most common cause would be blockage of the meatus with polypoid granulations or œdema of the passage. In the first case immediate relief ought to follow removal of the growths. In the second, if marked, or, should the symptoms persist after removal of the polypi, an opening should at once be made into the mastoid antrum, and the middle ear be drained from this until the meatus had been rendered again pervious. This operation ought always to be done in doubtful cases as an aid to diagnosis. It is as simple and devoid of risk as it is useful. Moreover, as a preliminary to graver operations on the brain or cerebellum, it has the great advantage of enabling us to cleanse the foul infecting focus in the middle ear, and to continuously drain it. But though by this drainage of the middle ear we should have eliminated one source of uncertainty, the symptoms might still persist. If so, in a chronic case, we should have to consider the possibility of the presence of encephalic or subdural abscess, or phlebitis of the sinuses, even though meningitis and pyæmia had been already excluded.

Now as to subdural abscess. Is it possible to diagnose its presence in an early stage? I think hardly with certainty, unless by exploratory operation, though there may be good grounds for suspicion from general considerations. In the first place, subdural abscesses are, as a rule, only found in very chronic cases, and in those where matter has been pent up in the temporal bone, not where the discharge has been free. They are usually heralded by a single rigor, with rise of temperature, which does not oscillate much if uncomplicated by pyæmia. The patient will be heavy and dull, only complaining of aching in the temporal region. The pulse will be rapid, unless the abscess be large enough to produce compression, which is not common. It seems probable that this condition may produce optic neuritis, but further observation is required on this point. An examination of the mastoid and squamosal portions of the temporal bone may reveal more or less tenderness and œdema, which will, if present, persist even after free drainage of the middle ear as above. These symptoms all point to an inflammatory focus close by, probably pent-up matter, and, as our preliminary operation has shown that it is not in the middle ear or mastoid antrum, we must look for it under the adjacent dura mater. But at what point is the pus to be looked for? The study of the disease in the post-mortem room teaches us that it will be found either over the roof of the tympanum close to the squamoso-petrosal suture, or on the posterior surface of the petrous bone—i.e., in the groove for the lateral sinus. In some cases it extends from one to the other of these spots. If in the first situation, it is reached by cutting cautiously through the bone layer by layer with a gouge at a point about half an inch above and the same distance behind the centre of the bony meatus of the ear. If in the second position, the collection is found half an inch directly behind the centre of the meatus. With due care the dura mater can be exposed in both situations with very little risk. We cannot be certain of the non-existence of a subdural abscess until both spots have been examined, but the higher operation should be done first, then the lower. The state of the bone, too, in both situations must be very carefully examined as it is cut away. If pus underlie it, it is usually spongy, and the matter will begin to ooze through its pores before the abscess is actually reached, as was found in two of my cases. If no pus be found, and the high temperature and other symptoms persist for many hours after the operation, the case will probably turn out to be one of phlebitis of the sinuses with septic absorption or sapræmia as distinguished from pyæmia or general septic infection, which is almost certain to be accompanied by rigors, a greatly oscillating temperature, and secondary suppurations in distant parts. For this condition little can be done beyond what has been already effected by the exploratory operations—namely, thorough cleansing and drainage of the initial focus of suppuration; but this is a great deal. If actual thrombosis of the lateral sinus and internal jugular have taken place, there may be a flush on the same side of the face and injection of the conjunctiva, together with deep-seated induration over the track of the internal jugular vein. This could be well felt in one of my cases. Optic neuritis may also be well marked in cases of phlebitis of the lateral sinus, as was seen in two cases on which I operated for what I believe to have been this condition. Both patients rapidly improved after operation, and are now well, all traces of the optic neuritis having disappeared.

I have briefly traced these four consequences of middle ear suppuration in the order of their frequency and pathological sequence. It is necessary to be thoroughly familiar with them and the way to eliminate one after the other, before we can hope for anything approaching a safe diagnosis of abscess in the brain or cerebellum.

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Turning now to the latter conditions, our first question is: What probability is there of their occurrence? It is quite plain, in the first place, that abscess of the encephalon is far less common than the other affections just described, the symptoms of which so often arouse the suspicion of the presence of the latter condition. I feel sure, from personal observation, that pyæmia, meningitis, phlebitis of the sinuses, and subdural abscess are, broadly stated, ten times more common than abscess of the encephalon. Then, again, the more extensive the destruction of the walls of the tympanum the more likely is the latter to be produced. This is almost as much as to say that the more chronic the bone disease the more likely a brain abscess, but not quite. It is better to say, the more imperfect the drainage from the middle ear in chronic cases the greater the probability. For disease lasting a year or two, in which the meatus has been blocked by granulations or swelling will be far more likely to lead to abscess of the brain than the same amount of disease lasting twenty years where free drainage existed. The history, then, of a case of otitis media purulenta will help us much in estimating the likelihood of the presence of cerebral abscess. Again, it requires far more extensive mischief in the walls of the tympanum to produce a cerebellar abscess than one in the cerebrum. Here, again, the history of the case and an exploratory operation are of the greatest assistance. From an analysis of cases which I have made it appears that abscess of the brain is a much more common sequela of disease of the tympanum than abscess of the cerebellum. I find that out of forty-five cases only twelve of abscess in the cerebellum were found against thirty-three in the cerebrum. This is but a rough calculation, but from personal observation and reading I feel sure it is near the truth. The brain is about three times as liable to abscess as the cerebellum.

Now, what does pathology teach us as to the region of the brain in which these inflammatory foci are found. This, namely, that they are most usual in the middle or posterior part of the temporo-sphenoidal lobe? I think that nine-tenths of them would be found to lie within a circle with a three-quarter inch radius, whose centre lay an inch and a quarter above and the same distance behind the centre of the bony meatus of the ear. This, then, might be described as the dangerous area, and as it fortunately also includes the spot indicated above as most likely to be the seat of subdural abscess, from the same cause an exploration for the latter would be a necessary preliminary to a trephining operation for cerebral abscess. As to the position of abscess in the cerebellum, it is, I believe, always found at the outer and anterior part of the lateral lobe which rests against the petrous bone. If these conclusions be justified, we have much valuable evidence to go upon as operators. We know in the case of the brain where to look for abscess, a point we are not likely to learn from any special symptoms, inasmuch as in collections of ordinary size the affected tissue would be quite outside the motor areas, and would belong to a part of the brain very tolerant of stimulation, and whose functions are still obscure. This last point was well illustrated in the case of cerebral abscess in which I operated. Neither the movements of the silver drain tube within the temporo-sphenoidal lobe nor the injection of the cavity therein with boracic lotion seemed to have any effect upon the patient, even when he was perfectly conscious; nor did the scraping of the cortex during the operation produce any nerve symptoms. But though there may be no special nerve symptoms to guide us, there are other general clinical signs of great value. I need not enumerate these in detail to a society such as that I have the honour to address, but I should like to indicate briefly those which appear to me of special value.

First, there is the feeling of malaise and drowsiness with slow pulse terminating in a sudden great rise of temperature with a single rigor. Next, the gradual fall of temperature to *subnormal*, without perhaps any subsequent rise, the pulse remaining slow and full. There is one point in regard to this subnormal heat, which I noted in my own case, to which I should be glad to specially direct attention, as I do not find it anywhere alluded to. It may or may not prove of value in the future. It is this: the subnormal temperature was most marked in the evening. This is so unlike what we are accustomed to see with pent-up septic matter in other situations where an evening rise is considered characteristic, that it may have some special significance in cases of abscess of the brain. I have noted the same point in other cases.

Another symptom also noted in other cases of cerebral abscess was strongly marked in that under the care of Dr. Gowers and myself. This was *the sluggish but perfect cerebration*. When asked a question, for instance, the patient appeared to take no notice for several seconds, until one thought he could not have heard, or had forgotten that he had been addressed. But presently he would begin to answer slowly and deliberately, but with perfect intelligence. It was the same with his movements. This condition lasted for some days after the opening of the abscess in our case, and we noticed that after considerable improvement had taken place there was a relapse into slow talking, which appeared to coincide with an imperfect drainage of the abscess, the latter having been left undressed for a longer period than usual, and the drain tube being then found outside the skull altogether.

As to optic neuritis, I venture to think we must be cautious in relying on it as a sign of cerebral or cerebellar abscess. It certainly may be present in an intense degree where extensive disease of the middle ear exists without abscess in the brain or cerebellum. For instance, I have seen it in two cases (intense in one of them) in which opening up of the middle ear through the mastoid bone was followed by its rapid disappearance and the complete and permanent recovery of the patients. The condition here was probably phlebitis of the lateral sinus with subdural abscess. But of course, taken with other signs, optic neuritis is a valuable symptom.

Harley-street, W.

RESECTION OF AN IRREDUCIBLE AND GANGRENOUS INTUSSUSCEPTION.

WITH A CONSIDERATION OF THE TWO CHIEF METHODS OF TREATMENT: INFLATION AND ABDOMINAL SECTION.

BY LAWFORD KNAGGS, M.A., B.C. CANTAB., F.R.C.S. ENG.

(*Concluded from page 1126.*)

FROM the facts before mentioned it is impossible to avoid coming to the conclusion that forcible distension of the bowel, whether by air or water, is an operation never entirely devoid of danger; that in very young children it is one of very considerable risk; and that in all cases it should be employed with great judgment and care. But when rupture does occur, to open the abdomen at once is obviously the only hopeful course to pursue. The injury is by no means necessarily situated in gangrenous bowel, and, other things being satisfactory, there is no reason to despair of a successful result. In Mr. Symond's case, to which he has very kindly permitted me to refer, this was done and the rupture sewn up. The child, however, was too exhausted to rally from the operation, but at the necropsy the sutured bowel was able to resist successfully very considerable distension with water. To be of any avail operation should be immediate, and therefore it would be well, whenever possible, to have the necessary requisites at hand, in case inflation should prove disastrous or fail to effect reduction. The desirability of being able to recognise that reduction has taken place after inflation is obvious; for if a doubt exists, and further time is allowed to elapse, the dangers are very materially increased if reduction has not been accomplished.

What are the signs by which we can recognise successful reduction after inflation? To what fallacies are they open? Are they so sufficiently certain as to leave no reasonable doubt as to the result? Mr. Clement Lucas[1] publishing a successful instance, puts them down as follows: 1. The tumour gradually sinks away under the hand and is lost. 2. A gurgle of air is felt and often heard. 3. This is followed by sudden and uniform distension of the abdomen, which becomes tympanitic. But the history of cases shows that a tumour may not infrequently disappear after inflation, whilst its early reappearance proves that its reduction has not been complete. Dr. Goodhart has shown[2] that in consequence of the greatest congestion and swelling taking place at the apex of the invagination—the portion that is the last to be reduced—the final part of the reduction may be the most difficult, or even impossible. This fact no

[1] THE LANCET, Jan. 16th, 1886.
[2] Fagge's Principles and Practice of Medicine, vol. ii., p. 196.

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doubt explains some of these cases, the invagination being reduced to so small a size as to escape detection, and the swollen state of the abdomen after inflation adding to the difficulty of the search. Other cases may perhaps be explained by the tumour becoming buried beneath distended intestine. If an invagination has reached the descending colon, it is obvious that the distension that occurs must be at first local, and as reduction goes on the swelling will mark the course of the descending and transverse colon. When the colon is entirely unravelled the swelling will become general, for I believe, and this case supports the view, that considerable distension of the colon is quite sufficient to produce uniform distension of the abdomen. Post-mortem evidence confirms this, for the small intestines may be quite concealed by a distended large bowel. If the intussusception is of the ileo-cæcal variety, or of the large intestine only, the chances are greatly in favour of reduction having occurred when this general distension takes place; but if the small intestine is the seat of the invagination, the disappearance of the tumour will probably only mean that the distended colon is pushed in front of it. The gurgle of air is not, I think, a symptom of great importance. If this reasoning is correct, cases will occur in which these symptoms will present themselves and the invagination still remained unreduced. Such a case is the one I have reported. In a case in which inflation recently proved successful in the hands of Dr. R. W. Brogden of Ipswich, with whom was associated Dr. Carrington, there was "an alteration from distinct hardness and contour to comparative softness and want of definition in the shape of the mass," but doubt existed as to the success of the treatment till it was set at rest by the disappearance of the other symptoms. The experience of other surgeons would, I believe, show that such doubts as to the success or non-success of inflation are by no means rare. When, as in Dr. Brogden's case, they are solved satisfactorily, all is well; but when, on the other hand, lapse of time proves the operation to have been futile, as in mine, what an amount of harm may have resulted, and how largely may the patient's chances have been prejudiced. I conclude, therefore, that cases will occur in which at the time of inflation the operator, if sure of the exact nature of the invagination, may feel certain that reduction has been accomplished. Yet there will be others in which doubt must exist as to the result until the disappearance or continuance of the symptoms, or the reappearance of the tumour, settles the matter.

The *position of the tumour* is a point of considerable importance in considering the probability of inflation proving successful, or in estimating the amount of good that it has effected. If it is in the descending colon, the invagination is almost certain to be one of the large intestine, or of the ileo-cæcal variety, and in the large majority of the instances of the successful employment of inflation or enemata that I have met with the tumour was stated to have been situated on the left side or felt per rectum.[3] If, however, the tumour is on the right side, or near the median line on the right side, there must exist considerable uncertainty as to its variety, and therefore disappearance of the tumour with distension of the abdomen must leave it doubtful whether the tumour has been disinvaginated or only obscured. Before leaving this part of my subject it is well to point out that sudden uniform distension of the abdomen is the most obvious sign that rupture has occurred. The expansion is so immediate and so general, so different from the more gradual uniform distension that takes place so long as the air is within the intestines, that it is impossible to remain in doubt as to the accident that has taken place.

There is no longer any question as to the desirability of opening the abdomen in these cases, but the time when it should be done can hardly be said to be generally agreed upon. In the hope of throwing some light upon this point, I have collected from American and English records thirty-seven cases in which abdominal section has been performed for intussusception. I am indebted for twenty-one of these to a paper by Dr. Sands in the *New York Medical Journal* (1877), and to Mr. Jacobson and Mr. Symonds for permission to include four cases that have not been published. In the first three successful cases the details are somewhat incomplete; but from the age of the patient and the duration of the illness, which [illegible], it is probable, in the absence of any direct statement to the contrary, that the operation was performed either before or very soon after acute symptoms had appeared. In the next four this is more definitely stated. In two acute symptoms never developed, and in two the operation was performed twelve and eighteen hours respectively after they had set in, whilst in the last a successful result was obtained after four days' acute symptoms, when the pulse had reached 200 in the minute, and when the child appeared so much exhausted that the operator "was doubtful whether much should be attempted for its relief." The moral of these cases is plain. Success is more certain to be obtained if operation is undertaken before acute symptoms set in, or, if they have set in, before many hours have been permitted to elapse. The last case is an eloquent encouragement to persevere when the prospect seems hopeless. (See Table I.)

TABLE I.—*List of Cases of Intussusception successfully treated by Abdominal Section.*

No.	Names of observers.	Sex and age.	Duration of symptoms.	Other points.
1	Velse, 1784	F., 50 years	Not stated	—
2	Fuschius, 1825	M., 68 years	10 days	—
3	Wilson, 1838	M., 20 years	17 days	—
4	Hutchinson, 1873	F., 2 years	1 month	Symptoms never acute.
5	Marsh, 1876	M., 7 months	14 days	Acute symptoms 12 hours before operation.
6	Howse, 1876	F., 33 years	18 days	Acute symptoms not developed.
7	Sands, 1877	F., 6 months	18 hours	Acute symptoms from the first.
8	Godlee, 1883	— 9 months	4 days	Acute from the first.

The duration of the acute symptoms in the list of unsuccessful operations (Table II.) bears a marked contrast to their duration in the successful cases. Where I have been able to state it definitely, they have existed, with one exception, from three to seven days; and, could I have ascertained it in the remaining instances, I believe the contrast would have been greater. But an inquiry into the cause of death is likely to help us as much as a comparison of the duration of acute symptoms. I assume, where I have found no cause of death stated, and where the patient has succumbed within a few hours after the operation, that exhaustion increased by the shock of the operation has been the chief cause of death. In those cases in which peritonitis existed, probably traceable to the operation, it would be but a small factor compared with the other two, and but for them might have been recovered from. Out of twenty-seven cases, no less than twenty-three died within twenty-four hours (twenty within twelve hours) from exhaustion and shock; and two others, though surviving into the second day, might possibly be included under this heading. Two only can fairly be excluded—one in which the child died of purulent peritonitis the result of the operation, and the other where a man survived nine days after an abandoned operation with a ruptured intestine and general peritonitis. If we are to improve our results we must eliminate shock and exhaustion. Where success has been attained, it has usually been when acute symptoms have lasted only a very short time, or before they have set in. Where operation has failed, acute symptoms have been in existence for some time. The exhaustion they produce has been often very marked, and in numerous instances the condition of the involved parts has necessitated either the abandonment of the operation or the performance of a purely palliative one, or the more severe but more scientific undertaking of removal of the damaged intestine. The more acute the symptoms, the more rapidly does exhaustion supervene; the greater the damage inflicted upon the bowel, the worse does the patient's state become.

To open an abdomen under ordinary conditions is not now regarded as an operation of very great gravity. It is done every day for conditions that are trivial compared to this form of intestinal obstruction, and its results become more encouraging with increasing experience. But to allow an intussusception to continue is a matter of most serious moment, and usually fatal. Notwithstanding this, our present attitude, whilst recognising that operation is the only measure that is sure of giving relief, is to wait until nothing seems left to us but operation; to wait until exhaustion is advancing at an increasing pace, and shock is almost certain to prove too great for success; to wait until to a simple abdominal section must be added the absolute necessity

[3] [illegible] Trans., vol. lvii.; Dr. F. Taylor, Ohio [illegible]

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of resecting irreducible or gangrenous gut; to wait until we know that the shock will be the greatest possible, and the patient's powers of resistance the least possible. And we do this because we hope that the invagination may go back under simpler treatment, or because we are afraid lest we may by operating take away our patient's last chance. Our position is well summed up in the line—

"Fain would we climb but that we fear to fall."

This waiting policy, this surgery of hope, has so far been a dismal failure. Nor should we forget that in all cases that last chance is far too poor to be relied upon for permanent success, and that in infants it practically does not exist.

To attempt to draw any comparison between the numbers of successful and unsuccessful cases would be manifestly unfair. I have included in the second list no less than nine cases (Nos. 2, 3, 4, 6, 11, 15, 17, 19, 27) in which the operation was abandoned for a variety of reasons, or in which an artificial anus was established and an irreducible or gangrenous invagination left inside the abdomen, or in which reduction was not completed. In five others (Nos. 13, 14, 25, 26, 29) removal of the whole or a part of the invagination was performed, and it is worthy of note that in not a single instance did success follow this proceeding. I do not wish it to be inferred that this serious measure is one that should on no account be undertaken. When the occasion for it arises, the choice must lie between leaving an irreducible and probably gangrenous mass *in situ* and establishing an artificial anus above it on the one hand, or making a clean sweep of the offending parts on the other. In the former case all hope is practically abandoned, and the patient is left to die unless he proves so miraculously fortunate as to survive the shock, to part with the gangrenous mass, and pass safely through dangers attendant upon its

TABLE II.—*List of Cases of Intussusception in which Abdominal Section was performed unsuccessfully.*

No.	Names of observers.	Sex and age.	Duration of symptoms.	Time of death after operation.	Cause of death.	Other points.
1	Ohle, 1817	M., 50 years	11 days	12 hours	General peritonitis, with gangrene of invaginated gut	—
2	Gerson, 1828	M., 12 weeks	Not stated	In a few hours	...	Operation abandoned because of ruptured gangrenous intestine, and firm adhesions rendering reduction impossible.
3	Hauf, 1843	M., 36 years	4 or 5 days	9 days	...	Adhesions firm; intestine ruptured; operation abandoned; general peritonitis existing at time of operation.
4	Pirogoff, 1852	M., 16 years	Considerable time	Soon after	...	Invagination found gangrenous; artificial anus established.
5	Wells, 1863	— 4 months	4 days	5 hours	...	Nearly moribund when operation was begun.
6	Laroyenne, 1870	...	...	...	...	Disinvagination could not be effected owing to adhesions.
7	Johnstone, 1873	Infant	...	In a short time	Inflammation	—
8	Weinlicher, 1872	F., 6 months	3 days	6 hours	Acute peritonitis	—
9	Duncan, 1874	— 5 months	...	24 hours	Syncope	—
10	Hutchinson, 1876	— 6 months	4 days	8 hours	Universal peritonitis	—
11	Bell, 1876	M., 16 months	5 days	7 hours	...	Invagination irreducible; artificial anus established above tumour.
12	Brit. Med. Jour., 1876	— 9 months	7 days	A few hours	Collapse	Post-mort.: Peritoneal adhesions; hæmorrhage into mesentery.
13	Morris, 1877	M., 12 years	7 days	18 hours	...	At operation there was peritonitis and escape of fæces from upper end of tumour. The invagination was resected, and the ends of the intestine fastened to the abdominal wall.
14	Howse, 1876	— 5 months	1 month; not acute	A few hours	...	The intestine ruptured under traction; four inches were resected, and the intestine above and below joined.
15	Carrier (Hutchinson, Med.-Chir. Trans., vol. 57, 1874)	M., 23 years	15 days	7 hours	...	Reduction impossible; artificial anus established.
16	Page (Med.-Chir. Trans., 1878)	M., 5 years	Acute 3 days, following chronic 3 months	9½ hours	Exhaustion; commencing peritonitis	Pulseless and collapsed when operated on.
17	Hulke (Clin. Trans., 1879)	F., 16 years	5 days' acute symptoms	36 hours	Exhaustion; peritonitis	Tumour irreducible; artificial anus made above it; peritonitis at operation; condition of patient bad.
18	Godlee (Clin. Trans., 1883)	M., 7 months	3 days' acute symptoms	1½ days	Purulent peritonitis, probably result of operation	—
19	Godlee (Clin. Trans., 1883)	— 14 weeks	Not known	8 hours	Exhaustion; shock	Patient much collapsed at time of operation; part of tumour not reduced, and some sloughing of cæcum had taken place.
20	Warrington Haward (Clin. Trans., 1883)	M., 17 months	5 days' acute	Several hours	Exhaustion; peritonitis	—
21	Davies-Colley (Bryant, Harveian Lectures, 1884)	M., 22 years	5 days' acute	2 days	Exhaustion; early peritonitis	—
22	Symonds, 1884 (not published)	M., 5 months	7 days' acute	9 hours	Exhaustion; shock; commencing peritonitis	Condition of patient before operation bad.
23	Symonds, 1884 (not published)	F., 6 months	10 days	Several hours	...	Patient was the subject of general tuberculosis.
24	Kendal Franks (Brit. Med. Jour., Dec. 6th, 1884)	Man	...	Few hours	...	Part of gut almost gangrenous, and peritoneum had given way in several places.
25	Mayo Robson (Brit. Med. Jour., Oct. 3rd, 1885)	F., 33 years	7 days	2½ hours	Shock	Four feet of gangrenous jejunum resected, and the ends of intestine sewn together.
26	Foxwell (Brit. Med. Jour., June 5th, 1886)	Boy	10 days	...	Exhaustion	Death occurred during the attempt to resect the intussusception, which was gangrenous; purulent peritonitis existed.
27	Jacobson (not published)	— 11 months	24 hours	24 hours	...	Operation abandoned in hope that cure might occur from sloughing; the intussusception irreducible, and too large to be resected.
28	Jacobson, 1886 (not published)	M., 5 months	3 weeks; not acute	At close of operation	...	Child much collapsed at time of operation.
29	Lawford Knaggs	M., 5½ years	4 days' acute	1½ hours	Shock	Resection of irreducible and partially gangrenous intussusception. State of patient good, but after resection completed desperate.

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elimination. In the latter the probability is that the patient will die; but we are justified in hoping that he may overcome the difficulties in front of him. What might have been the result in Hauf's case, where the patient survived nine days with peritonitis, had the operation been carried to a conclusion? Here, at least, the shock might have been survived. But it is to be hoped that in the future resection will not often be required to be resorted to in these cases. It will, I believe, be rarely recovered from. If the necessity for it arises, the patient will usually be in a most serious state, and the terrible shock entailed by it will almost certainly prove more than he can stand. But if the importance of immediate operation, inflation failing, becomes generally recognised throughout both branches of our profession, the necessity for it will rarely occur. Just as we must hope to abolish shock and exhaustion as a cause of death by being beforehand with them, so must we hope to eliminate cases of abandoned operation, incomplete operation, and resection, by dealing with all cases before their natural progress compels us to entertain these measures.

It will generally be admitted that in cases of this nature, even when pursuing a more chronic course, an operation of such gravity as abdominal section should not be performed without proper consultation, whether in hospital or private practice; and it is even more desirable in acute cases, where a child in robust health one day is brought within an ace of death's door the next, from causes which are neither apparent to nor understood by its friends, and who will rarely be found to appreciate to the full the perilous condition of the patient. Now consultations are not usually sought until the surgeon in charge has already consumed some time in ineffective treatment, or has himself decided that operation is desirable, and the loss of time that in this way occurs at critical periods of this disease, especially in country practice, adds very materially to the dangers of the case. It cannot be too clearly understood that the successful treatment of intussusception will to a large degree depend upon promptitude in diagnosis and vigorous and immediate action. When once the nature of a case is ascertained, a consultation should immediately be sought, at which inflation should be first employed, and, in the event of this method failing to effect reduction, the abdomen should be opened then and there. If this were adopted as a routine practice, I am persuaded far more cases of intussusception would recover than do now, and this increased success would be contributed to both by inflation and by abdominal section. Lastly, where the diagnosis remains in doubt these are urgent cases for exploratory incision. If the diagnosis halts between intussusception and fæcal accumulation—a not unlikely possibility—it is quite as justifiable to settle the point in this way, when life seems certain to pay the penalty of a mistake, as it is to decide upon the possibility of removal of an abdominal tumour by the same means when the prospect of death is not nearly so imminent. Any operator who finds that he has opened an abdomen for a lump composed of fæces under the impression that it was an intussusception will undoubtedly receive a severe shock, and the fact may be rightly described as a "surgical calamity"; but he is not in such a position as the surgeon who opens the abdomen and finds that he cannot remove a tumour. The former can assist his patient by trying to break down the mass, and the information he has gained may prove of the greatest value to his patient; but the latter can only close the wound—a sadder and a wiser man.

Huddersfield.

A SIMPLE CASE OF PLEURISY: THE INTERPRETATION OF DISEASE.

BY H. CAMERON GILLIES, M.B.

IN the spring of 1884 I used to meet a neighbour, whom I knew well, going to his business. I noticed that he was not looking well; and in reply to my "How do you do?" he generally answered, "Well, I don't feel quite the thing, but there is nothing particularly the matter." Things went on in this way for some weeks; still *nothing particularly the matter*, yet day by day looking worse, losing colour, flesh, elasticity and force, until one morning I was sent for to see Mr. B—— urgently. I went, and found there was now, at any rate, *something particularly the matter*. He was down with some violent disease—that was apparent. It was an extensive pleurisy of one side, attended by all the usual symptoms, with marked prostration and high fever. He got exceedingly low, but was well nursed and recovered well. After a few weeks' holiday he, in his own words, "felt a new man."

This was as simple and ordinary a case of pleurisy as it could be. There was nothing in the symptoms or in the pathological conditions worthy of note. The reason why I record it is that it has been for my mind the starting-point to indulge in certain speculations that have been to myself of no little interest, and perhaps not altogether wanting in practical usefulness. I beg to submit them to the generous consideration of the profession in somewhat the same order as they occurred to me.

What was the patient suffering from? As I stood by that bedside I could not help asking myself: Is that man suffering from pleurisy? Is this pleurisy a specific thing, the roots of which have extended a month or more back into the man's life? Or is this pleurisy a mere accident in the course of the real disease that has told so plainly on the man's frame during the past month or so? Am I to take the local inflammation, the occurrence of the past few hours, to determine my course of treatment against my knowledge of his declining condition for weeks past? Am I to treat the pleurisy and to forget the man? That was the beginning of my curiosity and interest in the matter.

Some short time after that I met another neighbour. He did not feel at all well; if he did not get better he would have, as he said, "to look me up." I was quite sure from his expression, and from what I knew of his assiduous labours, that he would very soon have to "look me up." In a week or two I had a note wishing me to call to see him. I examined him carefully, but could make nothing of him. He had the usual "premonitory symptoms" of acute disease, being feverish, generally upset, and very unwell. He was an intelligent man, and I had no difficulty in explaining to him that I could not give a name to his disease till perhaps the following day. I found him then distinctly set for acute rheumatism.

Initial depression in acute disease.—From these observations I determined ever after to inquire, in all cases of acute disease, whether this initial state of depression held good, and in every case and every form of disease it has. To me it has been most interesting and instructive to hear even powerfully built persons, who may have been taken with acute pleurisy or pneumonia, nephritis, peritonitis, &c., declaring, in their own valuable phrase, "It has been working on me for a long time." Sometimes it is difficult to elicit the fact, but perseverance will in every case find that "I have gone off my food," "I have had no heart in my work lately," "I have been lazy—disposed to lie about," "I have not slept well for some time back," give the indication and the necessary proof. I shall attempt to explain this further on.

A modern writer of ability has declared that nothing is more urgently required in our day than is "the rejuvenescence of the commonplace." Let that be my apology if on this I write some things that everybody knows. There is not anywhere, as far as I know, in our modern medical literature, any positive assertion that this initial state of depression is an *essential* in acute disease; though in almost every one of our better writers we meet with prophecies and indications in this way. Mr. Simon[1] says that "weakness in the sense of readiness to die is the prime cause of local inflammation, and constitutional influence only influences inflammation according as it leads to local weakness." This is the truth; but is it the whole truth? Local "readiness to die" is by this a condition precedent and, I take it, a condition essential to inflammation; and this *may be* produced by constitutional influence. I would ask how otherwise can it be produced? for I consider that here *constitutional influence* means the effect of our environment working by and through the constitution, and not anything in the constitution *per se*. Mr. Simon has given us some of the best chapters in our literature, and it is for me a pleasure to acknowledge indebtedness to him for much that is valuable. His theory of idiopathic inflammation enunciated in the same work, and to which I shall have to refer, is admirable.

Dr. Murchison[2] states that "persons in good health (not apparently so, but strictly so) are little liable to inflammation." Even of cancer he says, "In a large proportion of cases it will be found that the first symptoms of indisposition have been preceded by protracted periods of grief or anxiety."

[1] Holmes' Surgery. [2] Diseases of the Liver.

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whether or not the family taint exists." This is going pretty near the truth in a cautious, perhaps doubting way. The observation is a purely clinical generalisation, and as such from such a man it is of much value. My humble opinion is that persons in strictly good health are so little liable to inflammation that—they never have it.

Anstie[3] says: "The general body energy is low when the attack (of neuralgia) occurs." And in his own sterling honest way he elaborates the fact at considerable detail, but he does not anywhere get nearer the general truth—that the fact is as true of every other form of disease as it is of neuralgia.

Erichsen says: "Old age, anything that interferes with the quality of the blood or its supply, anything that enfeebles the heart's action, *predisposes* to inflammation. Thus operation wounds are more prone to inflame after a loss of blood and in patients weakened by fever or want of food." But this, again, is only part of the whole truth. All these conditions, *anything* that produces "weakness in the sense of readiness to die," not only predispose to, but make inflammation absolutely certain in some form or other.

Graily Hewitt,[4] in referring to cellulitis, says: "The diet should be liberal; most patients are weakly and prostrated, *and there is reason to believe that this is an initial condition, and had it not been for the general weakness the patient would not in the majority of cases be afflicted with cellulitis at all.*" The quotation is so apposite that I have italicised it. He sees in his own special sphere what others have observed in theirs. His large experience of cellulitis leads him to a truth that Simon, Murchison, Anstie, and Erichsen had arrived at by studies in other directions. It all points in one way.

But this is not a modern discovery, nor can we say that it has been arrived at by any ingenuity of our better methods. It is the outcome purely and simply of clinical experience and observation. John Hunter was clear upon quite as much. "Weakness," he writes, "is seldom or never an immediate cause of disease, but it often becomes the predisposing cause, many diseases not taking place but when weakness is an attendant, as agues, scrofula, nervous, &c." Hunter was troubled with the definition of *weakness*. He found it applied to so many various conditions that he could not have written more precisely than he has as to its place and value and meaning in disease. Disease was to him an entity, a thing distinct from its predisposition, in every instance *sui generis*. But we can readily believe that if he had Mr. Simon's neat, complete definition of *weakness* as "readiness to die," he would have greatly modified many of his expressions, and his opinions would be found quite up to our modern attainments in this respect.

Abernethy's work on the "Constitutional Origin of Local Diseases" is the high-water mark of rational medicine. His charge, that "the connexion of local disease with the state of the constitution in general is either not sufficiently understood or not duly regarded by this generation of practitioners," holds quite good even in our later and more learned day. Addison says of this work: "It has extraordinary merit and originality. The substance is that local diseases are rather symptoms of a disordered constitution than primary and independent in themselves. This is a beautiful theory, and I am not disposed to deny it a large share of truth." This is very generous criticism, yet it is not sufficient; for, not only is this theory not to be denied a large share of truth, but it must be granted wholly true over the whole ground to which Abernethy applied it. And if our present-day practice and our interpretation of the phenomena of disease are not very wrong, this theory has more of truth in it and a possibility of a wider and fuller application than even Abernethy himself probably foresaw.

John Brown, of Edinburgh, was certainly a remarkable man. Perhaps no "ideas" have been so often and so completely "exploded" as his, yet somehow they turn up from time to time. There was some life in this Brown. He was in effect banished from his native land, yet he made himself quite at home abroad *more Scottico*, and now he is showing himself to some extent after being "exploded" constantly for a century. This is how he puts the matter: "A great criterion by which general diseases may be distinguished from local ones will be found in this single circumstance—that general diseases are always, local diseases never, preceded by predisposition." And he explains: "Predisposition is a middle state between health and disease; *the powers producing it are the same as produce disease.*" That is perfect. Nothing in our modern literature approaches that fine generalisation—that health, malaise (predisposition), disease, and death are in one and the same straight line. We must be clear that he uses *predisposition* in a sense different from that of modern usage. Our present-day teaching puts predisposition among the *causes* of disease, and even our clearest thinkers put it as, at any rate, a condition precedent; but Brown says, "Predisposition to disease and the disease are the same." The initial depression is the disease, says Abernethy, and it is produced by a remoter disorder of the constitution, and the pleurisy is only a symptom of that disease. The initial depression (the predisposition) and the pleurisy are one and the same disease, says Brown, and the cause or causes producing the one produces the other also, and is antecedent to and concurrent with the disease while it exists.

Perhaps the rejuvenescence of so much that may appear commonplace required an apology; but it is necessary for my purpose of endeavouring to show that disease itself, at any rate in its acute idiopathic forms, is a manifestation of the determined laws of the conservation of physical energy. This I will attempt in my next paper on *the Meaning of Initial Depression in Acute Disease.*

Brockley, S.E.

[3] Stimulants and Narcotics. [4] Diseases of Women.

A RARE CONDITION OF VEINS IN THE ANTERIOR VAGINAL WALL.

BY H. T. RUTHERFOORD, B.A., M.B. CANTAB., &c.

MRS. A. D——, aged sixty-five years, married forty-six years, mother of ten children, the last pregnancy occurring twenty-six years ago; has had one miscarriage thirty years since; menstruation ceased at forty-five years of age. The patient presented a pale, sallow, rather cachectic appearance, reminding one somewhat of the cachexia seen in patients suffering from malignant disease, but she stated that she was perfectly well and of good colour until a few days before seeing me. Her history was that she had never suffered a day's illness until January 10th, 1887, when she met with an accident during the frosty weather prevailing at that time. As she was stepping off the pavement to cross the road she slipped and fell heavily on the pavement. She was helped up, and on starting to cross the road felt something trickling down her thighs, like water or blood. She returned home at once, and found she was flooding severely. As this was the first appearance of blood from the vagina for twenty years she was considerably frightened. The flooding continued for four days, becoming profuse on coughing or attempting to walk about her room; but she had to do a certain amount of work each day, as she was alone in the house and had no friends to help her. On Jan. 14th the hæmorrhage ceased, but began again on the following day, and continued off and on till Feb. 1st, when she came to see me. Physical examination showed there was a slight varicose condition of the labia majora; the vagina was small, the entrance having atrophied somewhat. Just beyond the ostium vaginæ the examining finger came upon a soft oval tumour projecting into the vagina. The cervix was small and atrophied. A small-sized Ferguson's speculum was passed, to ascertain if the hæmorrhage came from the uterus, but no blood was seen escaping from the os uteri externum, which was quite healthy. On gently withdrawing the speculum, the hæmorrhage was observed to come from a valve-like opening in the right and anterior part of the tumour, which was the size of a large walnut, having at its anterior extremity a beak-like projection. The apex of this projection was about a quarter of an inch behind the urethral orifice. The tumour was of a dark-bluish colour, its surface irregular and divided by many shallow sulci, and on touch felt like a varicocele. It was, in fact, a mass of dilated veins, projecting posteriorly into the vagina and anteriorly into the urethra, narrowing the lumen of that passage at one point in a slight degree. The treatment consisted of applying the strong solution of perchloride of iron externally over the valve-like opening, and applying pressure to the whole tumour by means of pledgets of cotton wool. A strong saline purge was ordered, and absolute rest in bed enjoined. The patient at the same time was instructed how to apply pledgets of cotton wool over the tumour, the pledgets to be ap-

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plied every day. She returned in a week, said she had followed out my instructions as to rest and the daily application of pledgets, with the result that for the last one or two days she had been going about the house without being troubled with hæmorrhage. She had gained flesh and colour, and was in every way stronger. The tumour, though present, was certainly diminished. She has been seen by me once or twice since, and says she feels quite well, has had no more hæmorrhage, is doing her every day work, and does not intend to see a doctor again unless a fresh hæmorrhage attacks her.

Remarks.—Varicose and enlarged veins in the region of the vulva and in the vagina are of common enough occurrence during pregnancy, and at times give rise to serious hæmorrhages during or after parturition; but I have never seen, nor can I find recorded in any volume of obstetrics or gynæcology with which I am acquainted a similar condition of dilated veins in a subject sixty-five years of age, who was, as far as one could judge from examination, perfectly healthy, and who certainly presented no other signs of varicose veins in any other part of the body. No tumour was found in the pelvis, either per vaginam, per rectum, or on abdominal palpation, which might have accounted for this varicosity, and I must confess I am at a loss to explain its occurrence. The rupture and consequent hæmorrhage are easily accounted for by the extra pressure in the venous system, acting on what was evidently a weak part in the wall of the dilated vein. The sudden hæmorrhage with the almost cancerous cachexia presented by a patient of her age, the mother of ten children, might easily have led one to suspect malignant disease of the generative organs.

Queen Anne-street, W.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A PROPOSED MODIFICATION OF MOORE'S TREATMENT OF ANEURYSM.

BY W. E. STEAVENSON, M.D. CANTAB., M.R.C.P.,
ELECTRICIAN TO ST. BARTHOLOMEW'S HOSPITAL.

THE papers read before the Royal Medical and Chirurgical Society on April 12th on the Treatment of Internal Aneurysms by the Introduction of Steel-wire into the Sac, and the subsequent discussion thereon reported in THE LANCET of April 16th, have suggested the following modifications and additions to the operation:—That the wire used should be soft iron wire, instead of steel, of No. 29 gauge according to the Birmingham scale. That the introduction should be accomplished by means of a perforated needle fitted to a handle similar to that used for the operation of staphyloraphy, as suggested by Mr. T. Smith. That the wire should not, as in the latter instance, be previously wound upon a reel or bobbin, but should be paid out from a tolerably large coil or skein so as to reduce the chance of kinking. The amount of wire to be used will vary in accordance with the size of the aneurysm. That the perforated needle should be a straight one made of ivory, and much longer than those ordinarily employed for cleft palate.[1] That the needle should be introduced to such a depth that the point would be well within the aneurysm. When sufficient wire has been introduced, it should be cut off near the hank or coil from which it was paid out; the handle detached from the needle; the needle left in the aneurysm with the end of the wire protruding from it. That the wire should then be connected with the *positive* pole of a strong galvanic battery; a sponge, or tin and amadou plate electrode, moistened in salt-and-water, should be attached to the negative pole and placed on some indifferent part of the body. That the circuit should be closed, and a current of from fifteen to twenty milliampères passed through the aneurysm until it became consolidated, or for thirty minutes. The pad connected with the negative pole should be moved to different parts of the body when found necessary, so as to avoid any particular spot becoming blistered or sore. That at the conclusion of the operation the remaining piece of iron wire protruding from the needle should, if not already detached by the decomposition which had taken place in the sac, be pushed through the perforated needle by a blunt trocar into the aneurysm, and the small puncture hole closed by a piece of strapping. The introduction of soft iron wire into the sac of an aneurysm would be a great additional advantage in the employment of electricity over the usual method of galvano-puncture. When attached to the positive pole of a battery, coagulation would be encouraged within the aneurysm, and the wire itself would undergo decomposition with the formation of chloride and oxide of iron, which would, in addition, exercise their own specific coagulating properties.

It was mentioned by Dr. Pringle in the discussion already alluded to that the clot resulting from electrolysis is distinctly softer than an ordinary clot. If this be so, it is no doubt partly due to its rapid formation, and it would no doubt shrink and consolidate, and possibly become as firm as any other clot when of a similar age. In the operation now suggested, the clot produced by electrolysis would have a long and extensive origin, and be entangled in innumerable positions by the coils of the iron wire. Another probable reason why the coagulum formed by electrolysis "appears very frequently not to be stable, but to be liable to melt down again into the blood stream,"[2] is because needles attached to both poles, or to the negative pole, have been used. Around the negative pole the blood is coagulated into a yellow friable alkaline mass, composed to a great extent of gas bubbles, which very quickly breaks down. Around the positive pole the clot is smaller, firmer, and darker in colour, and has an acid reaction. From the physical laws of electrolysis, and from the experience already obtained, it would seem probable that a combination of Moore's treatment of aneurysm with that by galvano-puncture, as here sketched out, would offer a very fair chance of a successful result.

Welbeck-street, W.

[1] Messrs. Coxeter, of Grafton-street, have made me such a needle.

ASPIRATION OF THE URINARY BLADDER.

BY A. WILKINSON, M.D.

HAVING seen Mr. G. Buckston Browne's letter in your issue of Feb. 26th, also the report of and discussion on a paper read by Mr. W. H. Bennett at a recent meeting of the Medical and Chirurgical Society on a case of rupture of the urinary bladder which terminated fatally as a direct result of aspiration above the pubes, I am induced to send you the notes of a case in which the bladder was aspirated by this method sixty-nine times in immediate succession by myself and assistant alternately.

The patient, a large fat man, aged sixty-seven, had been an invalid three years owing to brain mischief, and during that time was gradually getting worse. His intellect was so far impaired that none of his statements could be credited, but, as far as could be ascertained, he had had some difficulty in micturition, but no actual retention till Sept. 3rd, 1885, the date of my first visit. The history, condition, and symptoms—aphasia and paresis—pointed to cerebro-spinal disease; but an enlarged prostate, fully the size of a tennis-ball, undergoing some active change, probably inflammatory, was the immediate cause of the retention. The bladder was greatly distended, and the urethral passage narrow, tortuous, and painful. With considerable difficulty a No. 5 gum-elastic catheter was passed, and about thirty ounces of urine drawn off. This was repeated on the 4th and again on the 5th, but from the latter date to Oct. 16th, as no catheter could be passed, supra-pubic aspiration was resorted to, sometimes once a day, more often twice. The punctures were made with a fine needle corresponding in size to No. 19 wire. The natural route to the bladder was still occluded, and aspiration having been performed fifty-four times, on Oct. 16th I punctured above the pubes with Pearce's trocar and cannula with the view to establish a permanent outlet. The cannula was tied in, but owing to the patient's interference, he twice pulling it out, that course was abandoned. The aspirator was again brought into use, and continued until the 25th, when I succeeded in passing a No. 3 soft catheter, to which an exhaustor was attached, and the

[2] See Mr. Timothy Holmes' Lectures on the Surgical Treatment of Aneurysm. (THE LANCET, Sept. 7th, 1872, p. 336).

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urine drawn off. The catheter was tied in, but removed by the patient in his demented condition. On the morning of the 27th about a teaspoonful of pus suddenly gushed from the urethra, and on passing the catheter about four ounces came through it, fairly conclusive that prostatic abscess had been the cause of the retention. Catheters gradually increasing in size were passed from day to day, until No. 10 could be easily introduced even by the patient's attendant. In this case the urinary bladder was aspirated above the pubes sixty-nine times in succession. All the punctures were made within an area about the size of a crown-piece, the most recent being as far removed as possible from the previous one. Small subcutaneous shot-like indurations followed the punctures, but soon disappeared, leaving no ill effects. The urine, which at no time contained sugar, after three or four aspirations became excessively large in quantity, being secreted at the rate of five ounces an hour, often more, and subsided to its normal amount when the aspirations were discontinued. The patient residing at a distance of nearly four miles, and the urine being so large in quantity, over-distension was not an unfrequent occurrence, but notwithstanding this unfavourable circumstance the bladder maintained its own fairly well throughout, the urine only becoming slightly turbid toward the last. The patient so far recovered that his attendant was enabled to relieve him by a soft catheter when necessary.

Shaftesbury, Dorset.

A REMARKABLE CASE OF FIBROMA MOLLUSCUM.

By FRANCIS W. CLARK, L.R.C.P., M.R.C.S.

THE following notes of a case of fibroma molluscum will, I think, be of interest from the exceptional rarity of certain of the features presented by it.

The patient, a man aged seventy, is covered from head to foot with a number of subcutaneous tumours of various sizes, some of them being pedunculated, while others are sessile. These tumours are of very soft consistence, and there is an entire absence of that lobulation which is so characteristic of subcutaneous fatty tumours. The largest of these tumours is one which forms a complete anklet around the left ankle. One of the smaller pedunculated growths was removed for further examination, and on section it was found to consist of a gelatinous translucent material, which under the microscope was seen to be composed of a very fine reticulum of fibrous tissue, containing in its meshes a transparent gelatinous material—myxo-fibroma. The patient dates the onset of this condition from a fright he received thirty years ago, when he happened to be a spectator of a severe railway accident. He states that since that time these tumours have gradually appeared, most of them developing during the first twelve months subsequently to the fright. It is a curious feature in the case that the patient's daughter, who was born some twelve months after the appearance of the tumours, is also covered with similar growths, though they are less numerous. The case was shown for me by my friend, Dr. J. Kingston Fowler, at the Clinical Society of London in February last, and was then considered to be unique.

Croydon Infirmary.

DISLOCATION FORWARDS OF THE HAND.

By CHARLES AITKEN, M.B.

THE following report of a dislocation of rare occurrence may be of interest:—

In July last W——, a boy aged sixteen, was brought to my surgery with the history that he was sent up a tree to fasten a rope to one of its branches, so that it could be pulled down in a certain direction. While the boy was among the branches his master cut away at the stem, and the boy fell. He was not sensible for a few minutes after falling, and on becoming conscious thought that his arm was broken. Neither did he remember whether he fell with the palmar or dorsal aspect of his hand facing the ground. On examining him, I found that he had a dislocation forwards of the right hand on the arm and almost compound on the palmar aspect. The ends of the radius and ulna could be felt distinctly on the back, and there was a rounded swelling on the front. On pulling the hand away from the arm the dislocation was reduced with a loud snap. There was some swelling for three months over the carpal bones in front, but that has entirely disappeared and the boy's arm is now as well as usual. On referring to the surgical dictionary by Heath, and to Holmes' and Hulke's Surgery, I see it is mentioned that the above dislocation is a very rare one indeed.

St. Mawes, Cornwall.

ABSENCE OF THE OCCIPITAL BONE AND SKIN IN A NEWLY-BORN INFANT.

By WILLIAM FRASER, M.B. T.C.D.

I RECENTLY came across a curiosity which will no doubt be of some interest. Among the books at my command (including Dr. Neale's "Digest," Sydenham Society, 1877), I cannot find any mention of a similar case.

About 3 A.M. on Nov. 20th I was asked to go to Mrs. W——, living about eight miles away, who was in labour with her third child. On my arrival there was a mysterious silence and glances which betokened that the baby was stillborn, but the afterbirth was retained. Having seen to the mother, I turned to the child, and the mystery was then explained. I found a female infant of about seven months and a half (though the mother says she did not expect to be confined until the end of December). The body was fairly nourished and well formed, the head flattened in its antero-posterior diameter, the eyes large and protruding; a black mass on the back of the skull proved to be the cerebellum exposed to view, with complete absence of the occipital bone and the skin covering it. On loosening the cerebellum and lifting it up I could see the base of the skull, and was able to push a piece of wood down the spinal canal. No cause could be assigned by way of fright or anything else.

Ashburton, Devon.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum propriis collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

MIDDLESEX HOSPITAL.

CASES OF SARCOMA IN CONNEXION WITH KNEE, FOOT, AND EAR; RESULT.

(Under the care of Mr. HULKE.)

THE cases of sarcoma reported in our impression of May 28th (p. 1086) illustrated the occurrence of this form of new growth in young adult life, evincing in its progress clinical features as malignant as those exhibited by any carcinoma. The first case of the present series exemplifies the same facts; it illustrates local recurrence after excision, and infection of remotely situated viscera manifesting itself at a date long after amputation of the limb. But this case has an additional interest in the illusory resemblance presented by the primary tumour in its clinical characters, in its apparent seat and connexions, and in its naked-eye appearances after removal to a multilocular ganglion. The deception was occasioned by the presence of the myxomatous elements, which simulated the structureless colloid contents of a common ganglion. The second case illustrates the occurrence of melanotic sarcoma in middle life in a form which, as regards the primary tumour, deceptively resembled epithelioma, and which led to its being mistaken for this—a mistake not unlikely to occur where the melanotic constituent exists in a minimum quantity in the original tumour, and only attains considerable development in the larger secondary masses, a by no means uncommon circumstance. The frequent development of melanosis in moles is too well known to need more than passing mention. The sole and the clefts between the toes would seem to be the favourite situations for this form of sarcoma, possibly because in these situations any little, apparently trivial, tegumental disorder is more exposed to pressures and to other kinds of local irritation. The third case is an instance of melanotic sarcoma occurring at an unusually early age, and in a very

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unusual situation. Here also the tendency to rapid local recurrence was very strongly pronounced. It is to be regretted that the entire auricle was not in the first instance excised, but the mutilation thus involved was regarded by the patient as so likely to prevent his continuing to obtain employment in his calling that he was averse from entertaining the recommendation to submit to it.

CASE 4. *Myxo-sarcoma; primary tumour simulating multilocular ganglion; recurrence in liver after excision; amputation; death from recurrence in lungs about four years and a half after the first operation.*—A milliner, aged eighteen, a blonde, apparently in the enjoyment of excellent health, was admitted into Regent ward on Jan. 13th, 1880, for a swelling of the left knee joint, latterly accompanied with so much pain as to render walking very difficult. The swelling was about the size of a pigeon's egg; it was firm, yet somewhat elastic; its consistence suggested that it might be a very tightly distended cyst. When the leg was extended, the swelling seemed fixed to the femur just above and slightly behind the external condyle; but when the leg was flexed a distinct mobility of the swelling upon the femur was recognisable. It was in close relation to the tendon of the biceps muscle, which passed behind and internal to it. The patient stated that about four years previously she first began to suffer pain in the knee, which was regarded as rheumatic; the pain gradually increased, and this latterly to such an extent that the limb was nearly disabled. The swelling was first noticed about one year before she entered the hospital. The diagnosis was a ganglion connected with the bicipital sheath, tightly distended. A few days later the swelling was exposed and dissected out. Its rough characters were those of multilocular cyst, the spaces of which were filled by a jelly-like substance. The wound healed well, and the patient went home on Feb. 26th.

On Aug. 25th, 1881, being about nineteen months after the first operation, the patient again sought admission into the hospital. A note of her condition at this time states that there was at the outer and posterior aspect of the knee a subglobular nodular swelling, three inches in diameter, crossed by the scar of the former operation. Its consistence was not uniform, being mostly firm, but in some situations so soft and elastic as to occasion the idea of fluctuation. The mass was plainly now attached to the femur. The patient was unable to fix the date of the reappearance of the tumour, but she thought that it was not very long after she left the hospital. She attached so little importance to it that it did not deter her from marrying. Amputation was proposed by Mr. A. Clark, then in charge of Mr. Hulke's ward, but it was declined by the patient, who left the hospital.

On Nov. 4th following the patient returned, looking thin, anxious, and worn. The tumour had in the interim considerably increased. The limb was removed by a circular amputation at the middle of the thigh. The femoral artery was secured by torsion. The stump suppurated and healed slowly, so that she did not leave her bed until Jan. 4th, 1882. At the middle of the month she was allowed to return home, having gained flesh, and feeling stronger and looking much better than before the amputation. The tumour proved to be a myxo-sarcoma, springing apparently from the periosteum of the outer condyle of the femur. The preparation is preserved in the Middlesex Hospital museum, No. 544, catalogue.

The patient was not seen again until the autumn of 1885, when she entered a medical ward for intense dyspnœa, under the care of Dr. Cayley, who referred it to sarcomatous infiltration of lung.

Death occurred suddenly. At the necropsy, Dr. Fowler found the upper lobe of right lung compressed by a sarcomatous mass, a portion of which intruded into the right bronchus. From this a detached nodule of the size of a walnut had escaped into the trachea and caused suffocation. The middle lobe of the right and the lower lobe of the left lung each contained a small knob of tumour. Its histology was that of spindle-cell sarcoma.

CASE 5. *Melanotic sarcoma; primary tumour in the sole of the foot, simulating epithelioma; recurrence after excision, and wide dissemination of secondary tumours.*—E. W——, aged fifty-four, an extremely fat woman, was admitted into the Regent ward on June 26th, 1880. In the middle of the sole of her right foot was an ulcer of the size of a shilling. Its edges were abrupt, raised, and slightly everted, and its base was warty. It was tender and painful, and prevented her walking. She stated that the sore had begun about one year previously in a small mole which she picked because it itched. The circular outline of the ulcer was not unlike that of a perforating ulcer, but its situation was in the hollow of the sole, and not in a part subjected to pressure, as the balls of the toes or heel, situations for which perforating ulcer would appear to exercise a selection. The edges of the ulcer were everted and not undercut, and the base was warty, both of which circumstances were unfavourable to the supposition of its being a perforating ulcer. The absence of all symptoms of tabes dorsalis, with which malady perforating ulcer so frequently concurs, was also against this view of its nature. The probabilities were considered to be in favour of its being an epithelioma. On June 30th it was very freely excised. Cicatrisation proceeded very slowly. This was attributed firstly to the little extensibility of the tegument in the sole. On July 27th, the wound having almost closed, and appearing healthy, she was allowed to return home. A few weeks later, when she next presented herself at the hospital, there was evidently a renewal of the growth at the seat of the operation, and now, first, enlargement of the inguinal and also of the lymph glands along the course of the external iliac vessels was detected. This extensive glandular implication barred further operative measures. She was seen at intervals in the course of 1881–84; in the latter year she died. Large tumour masses appeared in the leg and thigh, upon the right shoulder, and in the neck. They were bossy and elevated, and imparted to the attenuated skin covering them the bluish-black appearance characteristic of melanosis.

CASE 6. *Melanotic sarcoma of auricle; excision; recurrence; second operation; recurrence.* — A footman, aged twenty-three years, was admitted into the hospital on March 2nd, 1883. In the lobe of the left auricle and on the posterior border of the helix, at its lower end, he had two small rounded swellings of a violet-bluish colour, overrun with dilated capillary bloodvessels. The upper of the two swellings was of the size of a small grape; the lower was slightly larger. They were not tender or painful. No enlargement of the cervical lymph glands or other swellings were discoverable. He said that the upper swelling had been first observed about five years previously, being then as large as a "pea." He had noticed the existence of the lower swelling about one year. The appearance of the upper swelling was slightly suggestive of hæmatoma, but this is commonly an incident in perichondritis of traumatic origin, being of not very infrequent occurrence in pugilists. Here, however, there were not any circumstances pointing to injuries of the external ear, and there was an absence of tenderness and of heat; besides, hæmatomata are limited to the cartilaginous part of the auricle, and here the lower swelling was seated on the lobe. The diagnosis of hæmatoma was also rebutted by the duration for five years from the first appearance of the upper swelling. The appearance of the swellings was very suggestive of melanotic sarcoma, but the duration threw doubt on this supposition, and the infrequency of such new growths in the auricle, and the patient's age, tended to confirm this doubt. He would not permit more than the least possible mutilation of the ear consistent with the removal of the swellings. These were therefore excised. Their naked-eye appearances and histology were those of melanotic sarcoma. On March 10th he returned home with the wound apparently soundly healed. In the following August he returned with a recurrence of the melanosis in the scar and in the neck. Mr. Lyell, then in charge of Mr. Hulke's wards, freely excised the masses in the ear and neck. The wounds healed, but before long such extensive recurrence occurred in the neck as placed the patient beyond further surgical aid.

HERTFORD GENERAL INFIRMARY.

A CASE OF HYPERTROPHY OF THE SPLEEN; DEATH; NECROPSY.

(From notes by Mr. H. G. SHORE, House-Surgeon.)

E. T——, aged twenty-eight, married, came to the out-patient room on April 4th, having walked two miles and a half. She was evidently suffering great pain, and was considerably exhausted, so she was sent into the ward at once, when her temperature was found to be 102·8°. The patient has had five children, the youngest two years and three months old. Catamenia normal. She says she has had a tumour in the abdomen since last August, but her friends say she has been looking ill for two years. She has suffered

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pain during the last fortnight, but has not consulted any doctor. She says the tumour was first noticed just above the left anterior superior spine of the ilium, and has been getting larger for the last four or five months. There was no history of malignant disease, of syphilis, or ague (?). Urine: sp. gr. 1020; acid; no albumen.

On examination, a tumour was found occupying the whole of the left side of the abdomen, with a well-defined inner and lower edge, it being just possible to get one's fingers between the lower margin and the ilium. Percussion did not give an absolutely dull note. The tumour felt hard, and extended right back into the lumbar region. The patient was in considerable pain, which was, however, relieved by hot fomentations with laudanum sprinkled thereon.

April 5th.—The patient slept about six hours after the hypodermic injection of morphia (gr. $\frac{1}{4}$), and atropine (gr. $\frac{1}{100}$). Temperature 104·2°. Systolic murmur audible at the base of the heart. Nothing remarkable about the lungs, excepting loud breathing over the right back. Uterus normal.

6th.—Temperature 103°. The pain still continues, but is relieved by laudanum fomentations and by an anodyne mixture containing fifteen minims of tincture of opium. Urine: sp. gr. 1020, albuminous, and contained pus and blood. Fæces dysenteric in character, and apparently contained pus. Farinaceous diet ordered, with beef-tea, soda-water, and brandy (two ounces). There was some difficulty in obtaining the urine, and possibly the specimen was not pure.

8th.—The patient seemed somewhat better yesterday, was in less pain, and the temperature 102°; but this morning she is in great pain, temperature 103·8°, lips purple, and apparently some interference with circulation. An exploratory puncture was made, and two ounces of sanious serum drawn off by means of the aspirator.

9th.—In less pain; tongue not so furred; temperature 102°; pulse 120, soft, of fair volume.

10th.—Tongue dry; sordes about teeth; very exhausted; pulse 124, not feeble. Exhaustion shows itself principally in shallow respiration, &c. Veins of right iliac region very distinctly visible. Less peritoneal distension. Wound of puncture healed; tumour unaltered in appearance. Noon: The patient became cyanosed. A subcutaneous injection of ether (twenty minims), to be repeated in an hour, was administered. Took nourishment well, but died at 5 P.M.

Necropsy.—Thoracic viscera perfectly normal, with the exception of rather an excess of fluid in the pericardium. On opening the abdominal cavity, an enormous spleen was found filling up the whole of the left side from the diaphragm to the iliac region; it appeared perfectly normal, except that the capsule at the posterior border, about the centre, showed signs of inflammation; on section, the organ was quite natural in appearance. Weight of spleen 5½ lb. The liver was greatly enlarged and fatty; kidneys normal, but left ureter distended; bladder and uterus normal. There was evidence of enteritis, but to no very marked extent.

The enormous size of the spleen is so remarkable as to justify the case being published. Unfortunately, the acute pain and high temperature prevented any large operative measures being attempted.

STAMFORD, RUTLAND, AND GENERAL INFIRMARY.

CALCULUS VESICÆ; SUPRAPUBIC OPERATION; DEATH; NECROPSY.

(Under the care of Mr. GREENWOOD.)

N. R——, male, aged four years and a half, a well-nourished, healthy-looking child, was admitted with the following history. The symptoms of calculus had been noticed for six months, and had been worse for the last two months. No blood had been seen in the urine and no albumen was found, but considerable phosphatic and mucous deposit. There was no phimosis, but the prepuce was adherent to the glans to some extent. On sounding, the instrument struck and passed over a calculus lying to the right side, and the impression was that it was a large one.

On Oct. 18th, 1886, under the influence of ether and chloroform, an elastic bag was passed into the rectum and partially distended; but the bag seemed rather too large for this case. A gum-elastic catheter was passed, and three ounces of boracic acid lotion injected into the bladder. The catheter was withdrawn, and an elastic cord tied around the root of the penis. The rectal and vesical distension were not sufficient to throw the outline of the bladder into prominence. The abdomen was opened in the mid-line by an incision two inches long upwards from the symphysis pubis. It was not easy to feel the bladder at first, as it eluded the finger, falling over to the right side. Two silk sutures were passed through the bladder wall, and between these the bladder was opened. The stone was then felt lying transversely in the bladder, which was contracted on it, the fluid contents having escaped. The position of the stone was changed with the nail of the forefinger, and then it was extracted with fine lithotomy forceps. The stone, which was flattened and oval in shape, weighed 3 drs. 6 grs. A drainage tube the size of a No. 8 catheter, with two side openings at the lower end only, was introduced for two inches and fixed in place to the abdominal wall by two horse-hair sutures; it extended for six inches outside the abdominal wound. No sutures were placed in the bladder. Deep catgut sutures and superficial silver ones were used for the upper part of the wound. The dressing was iodoform and Gamgee's cotton-wool tissue, through which the drainage tube passed. The child was placed on his left side in bed, and urine began to drain through the tube in half an hour without a stain of blood. The dressings were renewed every morning, and urine continued to drain off through the tube until the fourth day, when it was removed, and two hours afterwards half an ounce of urine was passed per urethram.

Oct. 31st (thirteenth day).—Has been kept on milk diet, and at no time has there been any rise of temperature. About half the urine passed per urethram (an ounce at a time), the rest per abdominal wound, which is granulating from the bottom and looking well.

Nov. 4th (seventeenth day).—Yesterday evening he was sick after taking some milk, but no rise of temperature was noticed, and no change in the local conditions, but at 7 A.M. to-day he became collapsed and died in twenty minutes.

At the post-mortem examination the bladder wound was united, except at one point admitting a fine silver probe. Bladder contracted, with half an ounce of urine in it, and with hypertrophied walls. No escape from the wound into the abdomen could be detected, and the kidneys were healthy.

What was the cause of death? The child was quite well up to the attack of sickness.

Medical Societies.

OBSTETRICAL SOCIETY OF LONDON.

A MEETING of this Society was held on Wednesday, June 1st, Dr. John Williams, President, in the chair.

It was unanimously agreed that an address should be presented from the Society to Her Majesty the Queen on the occasion of the completion of the fiftieth year of her reign.

Microscopic Sections of a Human Embryo.—Mr. LOCKWOOD exhibited a series of sections showing absence of spinal medulla with arrest of the development of the spinal column and retroflexion of the lower limbs. The embryo was eight millimetres long, and had reached about the sixth week of intra-uterine life.

Fœtal Membranes were shown by Dr. BLUETT in which two tumours were found. The labour had been natural and delivery took place at full term.

Spontaneous Gangrene of Cervix Uteri and Base of Bladder.—The parts were shown by Dr. HERMAN, who said they had sloughed away spontaneously from a woman who had not been pregnant for eight years.

Hydatids from the Mesentery were exhibited by Dr. Malins; a Fibroid of the Ovary by Dr. John Williams; a Fibro-cyst and a Solid Fibroma of the Ovary by Mr. Meredith; and a Fibroma of doubtful origin by Mr. Malcolm. These four tumours and Dr. Bluett's specimen were referred to a committee.—A Sloughing Fibroid Polypus was shown by Dr. W. Duncan.

Cæsarean Section.—Dr. C. J. CULLINGWORTH gave an account of this case. A rachitic dwarf, aged thirty, 4 ft. 2 in. in height, was sent at full time to the author. The pelvis was generally contracted and flat, the estimated conjugata vera being two inches and a quarter. The child was alive. There was great albuminuria, with œdema of the abdominal

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wall, labia, and legs. Labour began spontaneously, and when the os uteri was as large as a florin Cæsarean section was performed with full antiseptic precautions. The child weighed 5 lb. 9 oz., and was extracted by one leg; it was partially asphyxiated but soon recovered. After clearing the uterus of the placenta and membranes, its lower segment was constricted by an elastic ligature. The loss of blood was trifling. The uterine wall was united by four deep silk sutures, and the peritoneal edges by six finer superficial silk sutures. The patient died twenty-nine hours after operation, the temperature remaining under 100° F. until two or three hours before death, when it rose to 100·8° F., pulse 140. At the post-mortem there was no sufficient cause of death found except acute parenchymatous nephritis.—The PRESIDENT wished to know if the kidneys and urine had been examined microscopically, and the quantity of urine passed after delivery. The low temperature was characteristic of uræmia, and he thought there was fear of carbolic poisoning where the kidneys were badly diseased.—Dr. HORROCKS thought death was probably due to shock, and that the elastic ligature compressing the plexuses of nerves as they enter the uterus would increase this.—Dr. J. PHILLIPS asked by what sign the seat of the placenta was determined, and why the uterus had been brought outside the abdomen before extracting the child?—Dr. W. DUNCAN considered that it was better to place the elastic ligature around the cervix before opening the uterus.—Dr. LEWERS thought that, although improved results in Cæsarean section had been reported from abroad, such success had not been met with in this country, and he preferred the old rule of delivery, when possible, *per vias naturales*. In the case under discussion this was possible.—Mr. MEREDITH though that the Porro operation might have been preferred with a view to ensuring against the possibility of a future pregnancy.—Dr. MATTHEWS DUNCAN said that neither he nor perhaps anyone in this country had large experience of Cæsarean section, and that it was to Germany that we must look for the guidance of experience and such wonderful success as that of Säuger, Leopold, Credé, and Gusserow. It was such success alone that should and would lead us in the great practical question, and their cases showed at present a less mortality with Cæsarean section than with Porro's operation. Both operations had a place in obstetric surgery, and he thought Dr. Cullingworth had rightly selected Cæsarean section; while in the case to which Mr. Meredith had alluded, as there were several large fibroids, Sir Spencer Wells had wisely selected Porro's operation. No amount of eloquence about the abolition of craniotomy would help forward that much-to-be-desired result. There had been much of such talk. Nothing but success in some alternative operation would do the least good.—Dr. MATTHEWS DUNCAN approved of the course adopted by Dr. Cullingworth, and thought the renal disease was probably the chief cause of death.—Dr. CHAMPNEYS said that the seat of the placenta could not be diagnosed by uterine souffle, and that often there was no sound at the seat of implantation, while it could be heard after the removal of the placenta, and in cases where there was no placenta, as in fibroid tumours. It could not be too strongly urged that the uterine souffle was no guide whatever to the placental site. He thought the tracing was typical of a generally contracted flat pelvis, and that, although four or five years ago Cæsarean section would not have been justified, improved methods and antiseptics rendered it the proper practice as an operation of election.—Dr. CULLINGWORTH replied.

On the Mechanism of the Third Stage of Labour: the Separation and Expulsion of the Membranes.—Dr. F. H. CHAMPNEYS reviewed the literature of the subject, and the various views expressed. These amount to four: (1) the peeling off of the membranes by the traction of the descending placenta; (2) separation by effusion of blood; (3) wrinkling of the membranes by uterine contraction and retraction; (4) separation of the lower pole of the ovum by retraction of the lower uterine segment. The author dismissed No. 2 on the ground that the quantity of blood lost in an ordinary labour is too small to produce this result, and that, with the usual excentric implantation of the placenta, this mechanism would fail of its purpose. He criticised the expression "weight of the placenta," as having influence on the mechanism in the recumbent attitude, and also the expression "leaving (the process) to nature," as applied to its course in the recumbent attitude. He explained the natural process as follows: (1) Separation of the lower pole of the ovum by retraction of the lower uterine segment during the "premonitory" stage of labour. This requires a complete "bag of waters." (2) Wrinkling and partial separation of the membranes by diminution of the internal surface of the uterus. This requires some escape of the waters. (3) Peeling off of the membranes by the traction of the descending placenta. This requires the evacuation of the uterus. The rupture of the membranes at the proper time is an integral part of the normal process. The first stage in the process seems calculated to prevent a very common defect—viz., the adhesion of the membranes round the lower uterine segment.

Tubo-ovarian Cysts.—Dr. W. S. A. GRIFFITH, in a paper on this subject, referred to the scanty literature of the subject, and gave an abstract of all recorded cases obtained, numbering nineteen. The literature of the subject is comprised in the original papers by Adolphe Richard, and in recent ones by Olshausen and Burnier. The specimens were divided into two groups, a small group of four in which the ovarian portion of the cyst is multilocular, the tube communicating with one loculus, and a group of eighteen in which the cyst is unilocular. The question of unilocular cysts of the ovary was discussed, and these were identified with the larger unilocular cysts described by Olshausen. The subject of the formation of tubo-ovarian cysts was subdivided, and received the following answers:—That the dilatation of the tube, and the formation of the ovarian cyst, are usually secondary and not primary factors in the formation of tubo-ovarian cysts. That the application of the tube to the ovary is physiological or possibly accidental. That the permanent adhesion of the two is effected by adhesive inflammation. That the communication between the two is generally either a primary occurrence or takes place at a very early period in the formation of the cyst.

The discussion of these two papers was deferred till the next meeting.

ANATOMICAL SOCIETY.

A MEETING of the above Society was held on the 6th inst., when the following propositions of the committee were adopted:—"That not less than four meetings be held in each year. That the officers of the Society shall consist of a president, three vice-presidents, a treasurer, a council of twenty, and three secretaries. That the officers be elected by ballot at each annual meeting. That as far as possible, in the election of president and vice-presidents, there shall be two representatives of England, and one each from Scotland and Ireland. That there shall be a secretary for England, one for Scotland, and one for Ireland. That the Council shall, from amongst their number, select six members to form, together with the president, vice-presidents, treasurer, and secretaries, a committee of management."

It was announced that the next meeting would be held on July 7th, at which papers would be read by Professor MacAlister, F.R.S., Dr. Brooks, and J. Bland Sutton; and specimens &c. exhibited by R. J. Godlee, Dr. Bruce Clarke, James Berry, and Dr. W. J. Collins.

The following is a list of the officers elected:—President: George Murray Humphry, F.R.S. Vice-Presidents: J. Struthers, M.D.; John Wood, F.R.S.; and Daniel John Cunningham, M.D. Treasurer: Charles Stewart. Secretaries: C. B. Lockwood (England); David Hepburn, M.D. (Scotland); and William Thornley Stoker, M.D. (Ireland). Council: William Mitchell Banks, John Curnow, M.D., J. N. C. Davies-Colley, Edward Bellamy, Frank Beddard, John Cleland, M.D., G. B. Howes, John Langton, Henry Morris, Edmund Owen, Thomas Pickering Pick, Johnson Symington, Robert Reid, M.D., George D. Thane, Sir William Turner, F.R.S., Frederick Treves, Alexander Macalister, F.R.S., Bertram Windle, Alfred H. Young, and Arthur Thomson.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

AT the ordinary meeting held on May 6th, Dr. S. C. Smith, President, in the chair, the following papers were read:—

Diphtheritic (?) Slough of Vagina.—Dr. BLACK was called to the case of a girl suffering from feverish conditions, with slight swelling of the neck. Nothing else was complained

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of but a slight itching of the genitals. Examination showed an acute gangrenous condition of the vulva, with ashy sloughs, resembling a diphtheritic inflammation. Later there were suppurating glands in the axilla covered with slough, and the gums were red and spongy. Under general medicinal treatment and the local application of iodoform recovery took place. There was no subsequent paralysis. No history of infection could be made out. The theory of diphtheria was put forward as a possible hypothesis.—Dr. CHURTON related a case where there was extensive sloughing of black colour in the soft palate of a man, causing death from hæmorrhage. No kind of infection could be discovered.—Dr. CAMERON thought the case could hardly be diphtheritic, from the character of the ulceration and the fact that diphtheria was seldom solitary.

Fracture of Thigh in a case of Paraplegia.—Dr. BLACK described a case where a man who had been paraplegic for thirty years, from an accident to his back when a boy, fractured his thigh. It was set without pain or spasm, and healing was rapid and complete.—Dr. S. C. SMITH had seen a similar case, healing with good results.—Dr. CAMERON had seen a fracture of the thigh in a case of locomotor ataxy, which was rapidly fatal.

On the convenience of estimating the amount of Urine voided by its Weight.—Dr. SPOTTISWOODE CAMERON spoke of the difficulty in private practice of obtaining exact measurements of urine passed, owing to the absence in most houses of measures less than half a pint. Weights, however, down to half an ounce, were always at hand, and it was easier for a patient to weigh the urine than to measure it. To simplify the calculation required, the following method was accurate enough for ordinary amounts of urine: write down the weight of the urine in ounces and decimals; multiply this number by the last two figures of the specific gravity, placing the product beneath and three places to the right; the difference is the bulk of the urine in fluid ounces.—Dr. S. C. SMITH said people had an objection to using ordinary measures for urine, and this plan was free from objection.—Dr. GRIFFITHS spoke of the necessity in estimating the urine passed of beginning with an empty bladder, the first morning's urine being disregarded, and measurement being begun from that time; this was the plan now adopted in the infirmary.

Emmet's Operation.—Dr. BRAITHWAITE described fourteen cases in which this operation had been performed. As operations, eleven were successful, two imperfect, and one a failure; but as relieving the symptoms complained of by the patients, six were successful, four unsuccessful, and two were complicated with other affections, which rendered the result difficult to estimate. The lacerations generally occurred in multiparæ, and the symptoms varied according to the amount of cicatricial tissue in the angle of the wound.

Therapeutic Memoranda: Ergotine; Hydriodate of Hyoscine.—Dr. ALLAN spoke highly of ergotine in the treatment of cough, whether phthisical or bronchitic. Given in a nightly draught in doses of form ten to twenty grains, it was safe, and seemed to greatly relieve cough and promote expectoration, without any disadvantages. In children he gave from four to six grains. He had tried also sclerotic acid in doses of from one to two grains. He recommended also hydriodate of hyoscine as a cerebral sedative where morphia or chloral was unsuitable, giving one-hundredth of a grain subcutaneously as an average dose. He had found it very useful in delirium tremens.—Mr. OAKLEY preferred the hypodermic use of ergotine, and samples varied greatly. He never used a sample for this condition until he had tested it by its effect on the uterus in a case of midwifery.—Dr. CHURTON had given hyoscyamine largely, but had seen alarming symptoms when the respiratory centre had been weakened, as in cases of pneumonia.—In reply to queries, Dr. ALLAN said he had found ergotine of most use when the cough was violent and persistent, but it was of limited value in very acute cases either of bronchitis or phthisis.

Adenoid Vegetations in the Naso-pharynx.—Dr. BRONNER read a paper on the treatment of this condition. He related the history of the discovery of these growths, and showed the instruments used in their removal. He preferred operating without any anæsthetic but cocaine, and had found Dalby's "steel nail" very convenient. Several tubes filled with the removed growths were shown, and cases described.

Dr. J. GIBSON showed the original form of Dr. Bergeon's apparatus for injecting gases into the rectum. He had been using carbon disulphide in several cases of phthisis, and he showed a patient who had derived considerable benefit from the treatment.

Aneurysm of Thoracic Aorta, with Asthmatic Symptoms.—Dr. CHURTON showed this specimen from a man aged fifty. Although no physical signs existed, the presence of an aneurysm had been inferred from the fact that the attack of dyspnœa always came on if the patient moved about much, even in bed. The aneurysm, which was small, sprang from the third part of the arch, and was in contact with the bifurcation of the trachea.

Reviews and Notices of Books.

Prelectiones Anatomiæ Universalis. By WILLIAM HARVEY. Edited, with an Autotype reproduction of the Original, by a Committee of the Royal College of Physicians of London. London: J. and A. Churchill. 1886.

THE restorer of scientific anatomy was Andreas Vesalius; the inaugurator of a rational system of physiology, William Harvey. The discovery of the circulation of the blood is the cardinal fact which separates modern from ancient medicine, and in this discovery both Vesalius and Harvey took important though unequal shares. To the former undoubtedly belongs the credit of initiating that series of observations, experiments, and reflections from which the theory of the circulation was educed; to the latter belongs the glory of combining them and completing them by a scientific induction. Until the publication of Vesalius' memorable work, "De Humani Corporis Fabrica," in 1543, the authority of Galen in anatomy and medicine had reigned supreme for more than thirteen hundred years. It was acknowledged by Oribasius in the fourth century, Aëtius in the sixth, and Paulus Ægineta in the seventh; it dominated the Arabian physicians, both in the East and the West, for more than half a thousand years, and it prevailed in all the schools of Southern Europe from the twelfth century onwards. Avicenna, the greatest of the Arabian physicians in the East, and their most prolific writer, took the greater portion of his anatomical descriptions from Galen; and Albucasis of Cordova, the boldest surgeon of the eleventh century, and the best, laid special stress upon the necessity of surgeons being acquainted with anatomy as it had been taught by Galen, "uti illam tradidit Galenus." Even Mundinus, who at the beginning of the fourteenth century publicly dissected and demonstrated the human cadaver at Bologna, followed Galen only too closely; and the account of anatomy given two hundred years later by John de Vigo is mostly taken from Galen, the "prince of physicians," as De Vigo calls him.

It was Vesalius who first deliberately challenged the authority and supremacy of Galen, and it is noteworthy that among the errors which Vesalius detected in Galen was one which proved the starting-point of the discovery of the circulation. Vesalius denied the existence of the perforations through the cardiac septum. To fully appreciate the importance of this observation, it is necessary to call to mind the views which had hitherto prevailed respecting the functions of the vascular system.

The only complete theory of these functions which has come down to us from ancient times is that of Galen. According to the earlier Greek anatomists the vascular system consisted of two kinds of vessels—namely, *veins* (φλέβες) or bloodvessels proper, and *arteries* (ἀρτηρίαι), the conveyers of "air" or "spirit" (πνεῦμα). The veins were thought to arise from the liver and to be connected with the right side of the heart, and the arteries to be connected with the left side of the heart. The anatomists of the School of Alexandria taught that the veins received from the liver the blood, enriched by the products of digestion, and dis-

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tributed it to all parts of the body by means of the superior and inferior cavæ, and to the lungs by means of the pulmonary artery. The arteries, on the other hand, arising, as the aorta, from the left ventricle, were also directly connected with the bronchi by means of the ramifications of the pulmonary vein within the lungs. By these channels the external air drawn into the lungs by inspiration had access to the left ventricle, being converted into *pneuma* in its transit through the lungs. From the ventricle the *pneuma* passed through the aorta into all the arteries of the body. Erasistratus (fl. B.C. 300), however, held that though in health the arteries were filled with *pneuma* only, they did contain blood in morbid states or when divided. But Galen showed by reasoning and experiment that arteries always contain some blood, which is thinner, brighter, warmer, and more *spirituous* than venous blood. Adopting the tenets of the Alexandrian School, that communications existed between arteries and veins in the substance of the tissues, he argued that an interchange took place between the contents of the two sets of vessels, some of the *pneuma* of the arteries passing into the veins and some of the blood of the veins passing into the arteries. He maintained, however, that these communications were not free enough or numerous enough to account for the great gushes of blood which occurred whenever an artery was wounded. He assumed, therefore, that a direct communication existed between the right and left ventricles by means of fine perforations in the cardiac septum. He admitted that these perforations were imperceptible—at all events, in the left ventricle. Notwithstanding this, no one questioned the existence of these hypothetical perforations, or the passage of blood through them, for nearly fourteen centuries. Mundinus believed in them, and so did Berengario da Carpi. But Vesalius maintained that, although depressions were to be seen on both sides of the cardiac septum, none of them, so far as the senses could determine, passed through; nor could any channels whatever be found by which the septum could be made pervious.

A few years after Vesalius had published his description of the *structure* of the heart, his ingenious but erratic contemporary, Michel Servetus, hazarded a happy surmise concerning its *mechanism*. In a theological work—"Christianismi Restitutio," published in 1553—Servetus alleged that the communication between the blood in the right and left sides of the heart did not, as generally believed, take place through the septum, but by a circulation through the lungs. This was the first distinct expression of the so-called pulmonary circulation.

The discovery of the valves of veins was the next most important contribution to the observations and arguments that prepared the way for Harvey's crowning discovery. Though valves had been occasionally seen in veins by earlier observers, they were first recognised as proper constituents of the veins by Harvey's teacher, Fabricius ab Aquapendente, in the year 1574, and were systematically described and figured by him in "De Venarum Ostiolis," published in the year 1603. It is true that Fabricius misinterpreted the purpose and significance of the valves, but his descriptions greatly influenced Harvey, who was then studying at Padua. Some years later the Hon. Robert Boyle asked Harvey what were the things that had induced him to think of a circulation of the blood. Harvey answered that it was a consideration of the position and distribution of the valves of the veins, which were so placed as to give free passage to the blood towards the heart, but opposed the passage in a contrary way. What use Harvey made of these and other contributory facts, and what were the merits and characteristics of his method, and what the final form of his exposition of the doctrine of the circulation, are sufficiently familiar to every educated man, or ought to be. The point of special interest just now is, that by a happy accident we have now an opportunity of seeing the doctrine in its earlier and more tentative shape.

In August, 1615, Harvey was appointed Lumleian lecturer at the College of Physicians. The office was then held for life. He began his first course in the month of April of the following year, and there have always been grounds for supposing that he first announced his views of the circulation in that course, though he did not publish his opinions to the world at large till twelve years later. A small manuscript volume, bearing the date 1616, and containing rough notes and memoranda for his lectures, was known to have existed, and to have been in the British Museum in 1766, when Dr. Lawrence wrote the Life of Harvey, prefixed to the College of Physicians' edition of Harvey's works. This manuscript, with another volume, also in Harvey's handwriting, formed part of the collection of Sir Hans Sloane, which became the property of the nation in 1753. Some time after it had been examined by Dr. Lawrence the volume was missing for many years. In the year 1877 it was found among the printed books in the Museum, and was restored to its proper place among the manuscripts. In the same year it was described in the Harveian Oration by Dr. (now Sir Edward) Sieveking, who read several extracts from it, and exhibited an autotype of one of its most important pages. Dr. R. Willis, in his Life of Harvey, published in the following year, referred to it and to Sir Edward Sieveking's labours, and asked, "Would it not be worthy of the Royal College of Physicians of London to have the entire volume deciphered and published?" This suggestion has at length been carried out.

Sir Edward Sieveking continued his investigations, and at his suggestion the subject was brought before the Royal College of Physicians on March 30th, 1885. The result is the handsome and interesting volume whose title stands at the head of this notice. The manuscript is, as Dr. Willis truly said, "a jumble of Latin and English with ever-recurring abbreviations," and written "in a hand so cramped and scratchy as here and there to try the best skill of the decipherer." Mr. Edward Scott of the Manuscript Department of the British Museum has, however, succeeded in making a transcript of the whole, "a work of great labour owing to the extreme obscurity of many pages of Harvey's writing."

The volume abounds with interest, historical, bibliographical, and personal. It gives us an insight into Harvey's character; it lets us see his method of work; it tells us the books he read, and shows us the uses he made them serve. There is, however, one page, the interest of which is pre-eminent. It has already been published by Sir Edward Sieveking in his Harveian Oration, but as the earliest known expression of Harvey's views is worth repeating. Harvey has himself marked it with the initials "W. H.," as indicating its originality and its importance:—

"W. H. Constat per fabricam cordis sanguinem per pulmones in Aortam perpetuo transferri, as by two clacks of a water bellows to rayse water. Constat per ligaturam transitum sanguinis ab arteriis ad venas. Unde Δ perpetuum sanguinis motum in circulo fieri pulsu cordis? An? hoc gratia Nutritionis, an magis Conservationis sanguinis et Membrorum per infusionem calidam vicissimque sanguis calefaciens membra frigifactum a corde calefit." (Page 80.)

Sir E. Sieveking renders it:—

"W. H. By the structure of the heart it appears that the blood is continually transferred through the lungs to the aorta—as by the two clacks of the water ram for raising water. It is shown by ligature that there is a perpetual motion of the blood from the arteries to veins. Whence Δ it is demonstrated that there is a perpetual motion of the blood in a circle, effected by the beat of the heart. Query: Is this for the sake of nutrition, or rather for the preservation of the blood and the members by the infusion of heat; the blood cooled by warming the members being warmed in turn by the heart?"

Here is the promise; the "Exercitatio anatomica de motu

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ordis et sanguinis in animalibus" of the year 1628 is its ulfilment. Well may the editors declare, "The manuscript s to be regarded with veneration as one of the most precious f the archives of English science." It is but justice to add hat the form and style in which it is presented are creditable o everyone concerned in its production—to the College, he editors, the printers, and the publishers.

Might we suggest that, as the authorities of the Royal ollege of Physicians and of the Royal College of Surgeons ave purchased or guaranteed the cost of two hundred copies, ; would be a useful and graceful act to present a copy to he library of every medical school in England.

Neurectasy: the Bradshawe Lecture of 1883. By JOHN MARSHALL, F.R.S. London: Smith, Elder, and Co. 1887.

IT is with much pleasure that we announce the new dition of Mr. Marshall's Bradshawe Lecture, to which s appended by the author, and dated March, 1887, an ppendix, and twelve illustrations by Mr. Victor Horsley. To the last-named gentleman medical and physiological cience is indebted for the discovery of the nervi ner-vorum. Figures 8 and 9 represent longitudinal sections of human nerve stained with osmic acid, drawn by Mr. Horsley. The first figure shows a branching nervus vasis, mproperly described by Sappey and Krause as a nervus nervi accompanying a small bloodvessel. The second figure shows two true nervi nervorum arising from a branch of a primitive bundle, and running onward in the epineu-rium, doubtless to end in a tactile corpuscle or sensory nerve ending. Mr. Marshall says that Mr. Horsley "has proved beyond doubt the existence of sensory nervi nervorum, so that the conjecture I offered in my lecture on the existence of such nerves, and their relation to certain neuralgic pains, may now be regarded as having been completely verified." We may give Mr. Marshall's conclusions as to the practice of neurectasy or nerve stretching in his own words: "As regards its severity and its therapeutical results, nerve stretching may, speaking generally, be said to occupy an intermediate position between neurotomy and neurectomy, being more complicated in its effects on a nerve and more efficacious as a means of treatment than the former, but less decided and less radical than the latter. This general statement justifies the opinion that, as a rule, nerve stretching should be tried in a given case, if possible, before neurectomy; it nevertheless demands some further qualifications..... It is not only useless, but it is dangerous, and should be prohibited in all cases of serious central disease, such as confirmed ataxy, myelitis, fully established tetanus, pure epilepsy, and paralysis agitans. In reflex forms of epilepsy, in an ascending neuritis bringing about epileptiform seizures, in the early stages of a distinctly traumatic tetanus, provided that in any of these cases the peripheral source of irritation can be clearly localised and the affected nerve or nerves be accurately defined, nerve stretching may be serviceable, if employed soon enough." In peripheral disturbances of sensibility and motility the operation is certainly beneficial, but it appears to be less successful in spasmodic than in sensory or purely neuralgic peripheral disorders.

Analytical Records.

COCA WINE. (FOR FATIGUE OF MIND OR BODY.)
(ARMBRECHT, NELSON, & Co., DUKE-STREET, GROSVENOR-SQUARE, LONDON.)

THREE samples of this wine have been examined by us. One was sparkling, and had the flavour of a fairly good dry champagne; another was a Burgundy, and the third a Madeira. By analysis we easily isolated the cocaine, showing that the wine is really prepared with active leaves of the well-known *Erythraxylon coca*. Various statements of its value have been made, one of its strongest supporters being no less an authority than Sir R. Christison, who asserted from his own experience that its effect in removing physical exhaustion is remarkable.

ANTISEPTIC WALL PAPER.
(SINCLAIR & BROWN, VIRGINIA-STREET, GLASGOW.)

This paper is described as containing an antiseptic compound which is calculated to destroy the activity of infective matters upon the walls of dwellings. We separated the antiseptic, which has but little odour, and can therefore confirm the main statement of the inventors. There is merit in the idea, and we hope that experience will demonstrate the utility of the invention.

DR MIHL'S PERFECT HEALTH BISCUITS.
(THE INTERNATIONAL PATENTS ASSOCIATION, NICHOLAS-LANE, LONDON.)

These biscuits are well made from genuine wheat flour. The sample examined by us contained 6·33 per cent. ash, of which the greater part consisted of phosphates. We failed to find fluorine. They are very good biscuits, but we cannot see that they present any feature of novelty.

CARNRICK'S LIQUID PEPTONOIDS: CONCENTRATED BEEF AND MILK, WITH GLUTEN, PERFECTLY DIGESTED.
(THE MALTINE MANUFACTURING COMPANY, LIMITED.)

This is a clear, faintly acid liquid, which mixes easily with water. It yields a white precipitate of phosphate with ammonia, but is unchanged by acetic acid even on boiling. On distillation a liquid smelling like oil of cloves and containing some alcohol is obtained. When evaporated a great deal of syrupy residue is left which contains much nitrogen, and on ignition exhales an odour like burnt bread and leaves a white ash in which a large quantity of phosphate is found. We consider the preparation to be a very valuable condensed food.

CARNRICK'S PEPTONOIDS; WINE AND IRON. COMBINATION WITH PYROPHOSPHATE OF IRON IN BEST SHERRY WINE.
(THE MALTINE MANUFACTURING COMPANY, LIMITED.)

The basis of this preparation resembles the last, and is probably identical with it. It is a clear and agreeable wine, which mixes freely with water, is not precipitated by acetic acid even on boiling, but yields a distinct precipitate with ammonia. The iron is readily found by ordinary methods. It is a very powerful and agreeable tonic and stimulant.

EAUX MINÉRALES NATURELLES DE VALS: ST. JEAN.
(W. BEST & SONS, HENRIETTA-STREET.)

This is a very interesting natural water. The sample we have examined contained 219·5 grains per gallon of solid matter. It is an aerated water, and its chief constituents are the bicarbonates of sodium, potassium, lithium, calcium, and magnesium. Sulphates and chlorides are present in small quantities, and iodine in very notable quantity. All these we have found by analysis. The flavour of the water is agreeable, but there seems to be somewhat more organic matter than is desirable. Close attention should be bestowed upon the surroundings of the spring for some dark flakes were found in suspension in one sample, which were at least unattractive.

OZONE PAPER. (FOR THE IMMEDIATE RELIEF OF ASTHMA, CHRONIC BRONCHITIS, AND BRONCHITIS-ASTHMA.)
(R. HUGGINS, 199, STRAND, LONDON.)

These papers, in which chlorate of potassium is readily detected, deflagrate readily when ignited, and are very convenient. All our readers know how valuable the remedy is in certain cases. We think, however, the title requires some qualification.

SUNLIGHT SOAP.
(LEVER BROTHERS.)

This is a good neutral soap, which gives a perfectly clear solution with water, and yields an excellent lather in cold water. We found no caustic alkali in it, but some glycerine, which is an improvement. It is soft and pleasant in use. The pamphlet which accompanies the soap contains some excellent directions for washing in lukewarm water. If laundresses would only follow them, they would save themselves labour, and the goods would last much longer.

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THE LANCET.

LONDON: SATURDAY, JUNE 11, 1887.

RATHER more than two years ago we urged upon the Government the appointment of a Royal Commission to inquire into the subject of over-pressure in elementary schools. After a year's delay the Commission issued directed the Commissioners to inquire not only into over-pressure, but generally "into the working of the Elementary Education Acts (England and Wales)," and the first instalment of the report appeared last year. The evidence then published, however, was chiefly collected from official witnesses, and was directed rather to inquiries into the working of the law and the efficiency of the existing machinery than to the discovery of over-pressure, and of the causes to which it might be due. On these points the public has had to wait for the second report, which was issued only at the end of last week. The witnesses whose evidence is here collected are for the most part teachers and managers in actual and daily contact with the children of the schools, from whom, therefore, the most important facts respecting over-pressure might be elicited, and to whose testimony accordingly the public will look with the liveliest interest for information on this profoundly important subject.

Upon the preliminary question, whether over-pressure does exist at the present moment, the opinion of the great majority of the witnesses was unmistakably that the fact is so. Out of forty-two who were interrogated on the point, twenty-six said distinctly "Yes," eleven said more or less distinctly "No," and five answered equivocally. Upon the whole, therefore, there was a strong preponderance of opinion in favour of the affirmative view, and in fact the set of opinion was even more distinctly in this direction than this mere summary analysis would indicate. For in most cases "No" meant only that instances of over-pressure had not come under the witness's own observation, and they do not in the least, therefore, conflict with the "Yes" of other witnesses whose less happy experience had made them acquainted with over-pressure, occasionally in very grievous measure. It never, of course, has been suggested that over-pressure existed in every school, and it is only necessary to recall the guarded language used by Sir J. CRICHTON BROWNE in 1885 to perceive that the net result of the opinions now collected is to establish to the letter what he then said. His conclusion was that "46 per cent. of the children attending elementary schools in the poorer districts of London suffer at certain seasons from habitual headache," in part attributable to over-pressure in the course of their education. No doubt the public attention was largely directed, in the discussion which ensued, upon those extreme cases in which nervous disorders, originated or promoted by the strain of education, had resulted actually in death. But these cases are obviously exceptional. The mischief, more serious in the aggregate than these occasional instances of entire collapse, against which it is especially necessary for the directors of juvenile education to be upon their guard is manifested rather by the slighter ailments, which are conveniently grouped under the symptom of habitual headache.

The evil having been thus clearly indicated, it might have been expected, perhaps, that the Commissioners would be careful to make a large collection of facts, from which any competent person might draw his own conclusions. This, however, they have, strangely enough, entirely failed to do. In view of the remarkable deficiencies of the report in this respect, we can but regret that no medical man was included in the Commission. As matters stood, there does not seem to have been anybody engaged about the inquiry who could indicate to the witnesses what were the specific points and special symptoms to which they might most usefully speak. The question was generally put in some such form as this: "Do you think there is any over-pressure in such and such a school?" It is obvious that the answer to such a question would depend quite as much on the witness as on the facts. The inquiry, as we think, should have been conducted in a wholly different manner. Questions suggested by medical experience would no doubt have revealed the fact that many of the ladies and gentlemen who expressed to the Commissioners very decided opinions had no adequate foundation for their views, and, on the other hand, they would have elicited a large body of facts which are to this moment undisclosed. How large and how valuable these facts would have been, if only the Commissioners had known how to set about collecting them, may be gathered from one or two observations which fell in the course of the inquiry from some exceptionally clear-headed and well-informed witnesses. One gentleman, for instance, a manager of a village school in Sussex, found occasion, when replying to the question "How do you define 'over-pressure?'" to observe "Before every examination I hear complaints from parents of children talking in their sleep, or that they cannot sleep, or that they walk in their sleep ..... but then I must say that in my own school the children are all excessively anxious individually to pass; they take a very desperate interest in it, and it is considered a direful disgrace to the whole family if they make a failure, and they never hear the last of it." Another, the vicar of Isleworth, said: "I saw a new form of it [over-pressure] the other day. I heard of some girls who did not come in the afternoon because they were so pressed in the morning..... Their parents ..... have been in in the habit, when their children came home tired after morning work, of keeping them away from school in the afternoon.' Even in these instances the inquiry was not followed up, and the witnesses were not asked to indicate the actual or proportional number of the children to whom their remarks applied. This is much to be regretted; yet, imperfect as they are, a handful of such facts is worth a houseful of generalised statements and mere expressions of opinion. We are sorry to add that it is to this latter category that almost the whole of the evidence in this branch of their inquiry collected by the Royal Commissioners must be referred.

Upon the whole, then, the report of the Royal Commission is a distinctly disappointing document. Much very valuable matter has no doubt been put together, but upon the important question in which the medical profession is chiefly interested the result attained is almost a cipher, and the feeling forces itself upon us that a splendid opportunity of

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collecting facts has been sadly wasted, for want, not of will, but of scientific qualifications on the part of the Commissioners engaged in the inquiry.

WE have on two recent occasions drawn attention to the question of the spread of infection through the agency of rags, and we have now before us a further report from the medical department of the Local Government Board, in which the occasion of a small-pox prevalence in connexion with some paper-mills at Ivybridge in South Devon is taken to deal in a somewhat exhaustive manner with the whole subject and with its treatment in this and in foreign countries. We do not propose to discuss that portion of Dr. PARSONS' report which deals with this special small-pox occurrence; but as regards general considerations as to rag infection at paper-mills, we may state that although cases of infection by means of rags do occasionally occur, yet they are, considering all the circumstances, only of infrequent occurrence. This infrequency is to some extent due to the fact that it is essentially the white rags, from which the finer class of paper is made, that are most risky, because they have formed articles of underclothing, &c., which come into actual contact with the bodies of persons. The great body of rags are coloured ones, and with these the amount of manipulation needed is much less than with those required for the superior class of manufacture. Then, again, in this country at least, the 120th section of the Public Health Act does deter people to some extent from trafficking in rags known to be infected; and, apart from the law as to the matter, a large number of people take certain precautions in their dealings with rags which have run the risk of being infected. Rags before reaching paper-mills have also been several times sorted and exposed, and it is often some months before they reach the cutter's hands. And, lastly, it is only those who are engaged in dealing with rags during the preliminary stages of the manufacture that run much risk; the boiling and chemical treatment to which rags are submitted after cutting must practically render them innocuous.

Reviewing all the available precautions against infection by means of rags, Dr. PARSONS lays down the following rules. Against small-pox, vaccination and revaccination should, in the main, be trusted to. Since infection doubtless takes place mostly as the result of inhalation of "dust" during the processes of manipulation and cutting, such dust often consisting of matters which have dried into and on the surface of the rags, ventilation is an important consideration, and fans to draw off the dust would be eminently useful. Where it is known that disease prevails in a locality, rags from that place should, if possible, be prohibited from importation. This is done in the case of cholera, but it is hardly practicable with our current infectious fevers. Finally, disinfection of rags should be aimed at. The processes that seem at all applicable are: (1) Chemical disinfection by gases, as sulphurous acid or chlorine; but unfortunately the gases would not penetrate bundles or heaps of rags. (2) Disinfection by heat, especially in the form of steam. This latter system works well, and a report made to Dr. SMITH of New York is quoted as to the opinion of an experienced rag inspector, to the effect that the market value of the rags is in no way impaired by the process. The difficulty of dealing with rags by disinfection is to determine who is to bear the expense of it. The original responsibility rests on either the person who sells the rags, or the rag merchant, who buys them regardless of the source whence they come; and, as Dr. PARSONS says, it would hardly seem fair to require paper manufacturers to atone for the omission of others by a comparatively expensive process of disinfection. The question may be raised in future sanitary legislation, and it may be that the public authorities will, in the interest of the communities they represent, themselves undertake the task of disinfecting such articles as rags. One of the most valuable parts of Dr. PARSONS' report is contained in a series of Appendices giving a summary of the principal outbreaks at paper mills, and an abstract of information obtained through the Foreign Office as to the measures taken in a large number of foreign countries with regard to this question of rag infection. For these reasons alone we are glad to see that the report is placed on sale.[1]

No less than four Bills having for their ostensible object the repression of adulteration are now before Parliament. For the purpose of scientific argument these Bills may, however, be reduced to two, of which one deals with beer and one with butter. There are, it is true, two similar Beer Bills and two similar Butter Bills, but in each case the differences are of minor importance. In the Beer Bills a definition is attempted which would render the punishment of adulteration a simple matter if the offence were proved. Adulterated beer is "any beer brewed from or containing any ingredients other than hops or ["and" in one of the Bills] malt from barley." If any other ingredients are used by the brewer or publican, "conspicuous notice" must be given to the public in the bar or other place where the beer is sold or offered for sale. This is simple enough, and would evidently prohibit the sale without special description of all beer in which sugar, rice, or maize had been used instead of, or in addition to, malt; or any hop substitute, such as quassia, instead of, or in addition to, hops. This somewhat pedantic phraseology is essential to a comprehension of the difficulties with which the question is surrounded.

In the other Bills which propose to deal with butter, a definition which in this case is attended with less difficulty is enunciated. The definition differs slightly in the two Bills, but, taking the wider and more sensible, it is "the substance usually known as butter, made exclusively from milk or cream, or both, with common salt, and with or without additional colouring matter." The only adulterant named or aimed at in either of the Bills is margarine or oleomargarine, which in the better drawn of the two Bills is defined to include "all substances, whether compounds or otherwise, prepared in imitation of butter, and whether mixed with butter or not." The Bill in either form would require considerable revision before it could pass into law, but, as its objects are simple and easily attainable, it may for the moment be postponed, although it will be necessary to discuss it at a later stage.

With these important proposals before Parliament, it is not surprising that the small but vigorous Society of Public

[1] Eyre and Spottiswoode, East Harding-street, E.C.; Adam and Chas. Black, Edinburgh; Hodges, Figgis, and Co., Dublin.

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Analysts, which includes among its members nearly all the best public analysts of Great Britain, should have taken prompt action and summoned a conference to consider the general questions involved. The meeting on May 11th was, in fact, a conference. Several letters from absent members and some original papers were read, and a good discussion took place, which turned almost exclusively upon the use and detection of hop substitutes. The only notable exception was the side issue raised by Mr. OTTO HEHNER as to the relative positions which public analysts and the Government chemists of Somerset House would occupy if any of the new Bills passed into law. It is well known that ever since the passing of the Food and Drugs Act, 1875, some jealousy of the powers then entrusted to the Somerset House chemists has existed among the public analysts, who have fancied themselves slighted by the appointment of an independent court of inquiry. Repeated complaints, sometimes couched in language of unnecessary acrimony, have been made of the conduct of the Government chemists, and in a recent letter to an evening contemporary, Mr. ALLEN of Sheffield, an able chemist who holds the position of President of the Society of Public Analysts, has brought charges against the official chemists which are, in part at any rate, charges of incompetency. To us as to the public, the question is one of subordinate importance. Provided that adulteration is exposed and properly punished, we care very little whether the work is done by the officers of a public department or by analysts appointed by local authorities. On the whole, we should, if suitable modifications were introduced, prefer the present system, because we believe it might easily be made efficient and satisfactory. No one can assert that it is just now either the one or the other. The Government chemists laid it down as their line of duty that they would never certify that a sample was adulterated unless their own analyses proved the adulteration. To that line they have most properly adhered. Doubtless they have made mistakes at times, but we do not think they have ever caused the punishment of an innocent man; and it surely cannot be denied that in the investigation of a charge of fraud the accused ought to be held to be innocent until he is proved to be guilty. In regard to this matter some of Mr. ALLEN'S complaints seem somewhat unreasonable. Thus, speaking of cases of doubt, he says, "If they cannot speak with certainty, they might speak of probabilities." We can but ask what would be the use of that? Fancy a toxicologist employed to test for arsenic reporting that he could not find the poison, but that probably it might be there!

We may now consider the proposed alterations of the law in regard to beer. It must be premised that some very important alterations have already been effected by the Customs and Inland Revenue Act of 1885, which is worked by the Inland Revenue Department. This Act is in some respects extremely vague, and is apparently intended, as so many others have been, mainly for the protection of the revenue. Its definition of beer is about as loose as possible. Beer is a liquor "which is made or sold as a description of beer, or as a substitute for beer, and which on analysis of a sample thereof shall be found to contain more than 2 per cent. of proof spirit." It would seem as though adulteration after such a definition was an almost impossible offence—except, of course, adulteration with noxious ingredients,—and yet the Act specifically and by name prohibits adulteration, and many convictions have already been obtained under it. As Mr. HEHNER puts it, "beer, as permitted to be brewed, is a nondescript article, of no particular composition and of no particular strength." And yet its adulteration is made a penal matter, and it has even been held to be an offence to blend one kind of beer with another, an operation which is practised every day with whiskies. No doubt the law is intelligible to the lawyer, but to the layman it is certainly puzzling.

In strong contrast with the vagueness of the Act of 1885 stand the Beer Bills now before Parliament, the hard and simple definitions of which we have already noticed. The liquor brewed with hops and malt from barley only is in these Bills defined to be pure beer. No other beer is genuine. It may, indeed, be sold, but only with a sufficient warning to the purchaser. This last proviso is tantamount to an admission that beer may be innocuous although other ingredients than barley-malt and hops have been used in its manufacture, for surely no one would propose to legalise the sale under any conditions of a noxious beverage. Looking closely into the matter, we think it cannot be denied that the cry for pure beer is mainly a political cry. It is not pretended that malt substitutes or hop substitutes are necessarily or even commonly injurious to health. Other grains besides barley can be added to malt in brewing: notably rice, which, as it contains less nitrogen, often improves the beer. Glucose also, which is, after all, but an altered form of starch, may, when of good quality, be safely added to the wort before fermentation. So with the hop substitutes. It was stated by all speakers at the recent conference that quassia, gentian, chamomile, and chiretta were not inferior to hop as vegetable bitters. Why, then, should these substitutes for malt or hops be prohibited? It is admitted that they are harmless; the fact that they are used shows that they are cheap; and as for the flavour, the public is the best judge of that. The beer-drinker who wants "pure beer" can always ask for some well-known brand. If he gets an inferior article he is defrauded; the fraud should be severely punished, and doubtless the great brewers would be willing enough to help the purchaser. But if he simply asks for a glass of ale, it is enough that he should be protected from drinking a noxious beverage. If he does not like it he must go somewhere else. Many branches of this important subject still require discussion, but they must be reserved for a future article.

THE Council of the Royal Agricultural Society had last week under discussion Professor AXE'S report on a disease in cows in its relation to the scarlatina epidemic in the north-west district of London, and it was resolved to address a letter to the Privy Council, asking that the Agricultural Department "should undertake further investigations into the subject, with a view to making it clear whether it was possible that scarlatina could, as alleged, be communicated direct from the milk of diseased cows." The President, Lord EGERTON of Tatton, suggested that efforts should be made to determine whether the cow could suffer from scarlet fever; and Mr. COPE, veterinary inspector of the Agricultural Department, after referring to the evidence Dr. KLEIN and Professor AXE had adduced, stated that when an opportunity was afforded by an outbreak of "this

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eruptive disease appearing among the cows of this country," the Agricultural Department had instructions from the Government to make any inquiries that might be necessary. In the report of the proceedings we note the words "this disease," as if it were an assured fact that the assumption that the Hendon cows suffered from the same malady as certain other herds, the milk of which did not give scarlet fever was correct. It deserves to be borne in mind that Professor AXE, after visiting the Hendon cows, addressed a letter to the British Dairy Farmers' Association, in which he stated that at the time of his visit nothing of the disease remained but a few scabs and superficial ulcers on the teats to mark its former presence; he was therefore "quite unable to say what may have been its precise nature." We refer to this because there are certainly several vesicular diseases of the udder of the cow which do not appear to be sufficiently differentiated, and if the Agricultural Department are guided in their selection of the malady they propose to study by the description Professor AXE has published of a disease the precise nature of which is unknown to him, they will not improbably fall into serious error, which in its results would be disastrous to human life. If the Agricultural Department make it their business to study the natural history of all vesicular diseases which affect the udder of the cow, they will undertake a valuable piece of work, and one which would not be less useful to the agriculturist than to the milk consumer. A lesson to be learnt from recent investigations is the need for the further study of some animal diseases in the interests of the public health, and for this purpose the staff of the Local Government Board should be strengthened by the addition of a skilled veterinary surgeon, and the Board would be doing good service in undertaking the clinical study of these maladies.

THE name of the month of June in the year of Her Majesty's Jubilee sounds sweet, and we are glad to think that it even more than usually suggests many facts which tend to make the human mind less careworn and more happy. Some great sicknesses have gone out of human knowledge. We know them only as we know stage coaches, and not so well. Others have become less terrible. A case of typhus was received into a great hospital in the centre of London a few months ago, and it was referred to and treated as a rarity. The Registrar-General has been telling us that in only one week out of the last five weeks has there been a death from small-pox in London, and that in twenty-five or more out of twenty-eight of the big towns there has not been one such death. The disease is so completely under human control that some thoughtless people have come to disparage the very discovery which protects them. These are very significant facts. But let nobody imagine that our Hospitals are a superfluity yet. The millennium has not arrived. The condition of the people will have to be very different from what it is before hospitals can be dispensed with. Disease still counts for much in the life of the working classes. Defective food, inadequate clothing, mental and physical depression from want of work, poor and insanitary homes, create much and many kinds of sickness which it is hopeless to relieve at home. In addition to this, there are the accidents which befall working men in larger proportion than in other classes—fractures, burns, sprains, herniæ, wounds,—for the treatment of which there is simply no convenience in a poor man's house. Let any of the comfortable classes remember what grave sickness has meant in their experience or in that of their relatives: the best advice, a variety of opinions—all of them of the best,—a skilled nurse, choice and convenient food, and, when the worst was over and hope again in the ascendant, a reviving holiday at the seaside or the country. Such amenities deprive even sickness of half its terrors. The human mind in its divine moods has devised an institution which goes far to put such amenities within the reach of the poorest. The institution in question is no other than a Hospital, where poverty and sickness are the only conditions of entrance, and where the latest discoveries of medicine and the last improvements in nursing, food, and appliances can be had, and in some cases the patient can be passed on even to a convalescent home. This is the very crown of charities, which no civilisation yet reached supersedes, and for the absence or starving of which no adequate excuse can be formulated by a Christian or, indeed, by any other community. We shall not say more to-day. The following meetings are to be held in every part of London in the coming week preparatory to Hospital Sunday:—On Monday, the 13th, at 8.30 P.M., Newington Parish Mission Hall, Kennington-road, S.E.; on Tuesday, at 3 P.M., Mansion-house, E.C.; on Wednesday, at 8 P.M., St. Andrew's Hall, Newman-street, W.; on Thursday, at 4 P.M., Kensington Town Hall; on the same day, at 8 P.M., Wellington Hall, Islington; on Friday, at 4 P.M., Westminster Town Hall; on the same day, at 8 P.M., Stratford Town Hall; on Saturday, at 3 P.M., the People's Palace, Mile-end-road. It is devoutly to be hoped that no sensational politics and no exceptional excitement will interfere to prevent a full appreciation of the wants of these great but quiet institutions, and of the strong arguments which appeal to the favourable consideration of the highest authorities in Church and State, including Lord SALISBURY, who, to his great credit, has engaged to speak at the Mansion House on Tuesday in this cause. We shall, as is our custom, refer at greater length in our next issue to the unparalleled claims our hospitals have on "sweet charity."

Annotations.

"Ne quid nimis."

THE CONTAGIUM OF SCARLET FEVER: JAMIESON AND EDINGTON'S RESEARCHES.

THE remarkable chain of evidence whereby Dr. Klein has been enabled to substantiate the results of Mr. Power's investigation upon the transmission of scarlet fever direct to man from the cow seems to leave little room for scepticism that in the streptococcus met with by Dr. Klein we have the effective agent in the etiology of this disease; and, scanty as prior observations are, imperfect as many of them have been, it is noteworthy that hitherto the scarlatinal microbe has been described as a micrococcus. Coze and Feltz found micrococci in scarlatinal blood; Cornil in the urine in scarlatinal nephritis; Babes describes streptococci in post-scarlatinal inflammatory products; and Pohl-Pincus found "very minute micrococci adhering to the scales of

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the desquamating epidermis in scarlatina" (von Klein: "Micro-organisms," third edition). The isolation, cultivation, and successful inoculations practised by Klein, however, far outweigh all such partial observations. But, as in the case of diphtheria, so here, it would seem that other observers have arrived at the conclusion that the scarlatinal microbe is a bacillus, and not a micrococcus. Drs. Jamieson and Edington of Edinburgh University have completed a series of observations, which arrive at this result: their plan of procedure being to examine the blood of scarlet fever patients as early as possible, to sterilise an area of skin and protect it from contamination till desquamation occurs, and then to examine the desquamated epithelia for organisms. They found a bacillus in each of these media, and succeeded in reproducing a disease like scarlet fever in calves and other animals inoculated with pure cultivations of this bacillus. Further tests by examination of the blood of the inoculated animals and pure cultivations therefrom also yielded positive results. Until the details of their research are published it would not be fitting to attempt any critical comparison between them and those obtained by Dr. Klein. The fact that the blood of scarlatinal patients has been frequently examined without result makes it at first sight more probable that the minuter organism has been overlooked; but much also depends upon the technical skill of the observer, and bacteriological methods are daily being perfected. It is curious that a disease so obviously contagious as scarlet fever should hitherto have baffled the attempts made to isolate its virus, and that almost simultaneously investigations should be in progress with this object, and with such apparently conflicting results.

DEATHS IN THE MIDST OF FIRES.

THE usual outburst of emotional carefulness has been called forth by the catastrophe at the Opéra Comique in Paris. The deplorable destruction of that place of entertainment, with the serious loss of life it involved, must be regarded as a *catastrophe*, for the preceding history of the construction and general arrangements of the Opéra Comique culminates methodically in what seems to have been pretty generally anticipated and has at last occurred. It is only natural that we as a people, and particularly the people of London, should be agitated to a considerable extent by the calamity. We cannot be ignorant of the dangers that beset our own enjoyment of theatrical performances, and which indeed, as is beginning to be recognised, threaten the visitors to Exeter Hall and the worshippers in crowded churches or chapels scarcely less urgently than playgoers. Already the excitement, which has been less than usual amongst ourselves, is subsiding, and in another week or two the affair will, doubtless, be forgotten, except by those who have been personally affected by it. Meanwhile, it may be well to point out that, although the idea of being "burned to death" in a crowded place of assembly is a very hideous one, in all probability the experience is, like most other modes of exit from this wonderful life of ours, less agonising than it appears. Practically, the burning seldom occurs in these cases until after death, or, at least, insensibility to pain, has been produced. Except under very peculiar conditions the victim is asphyxiated—that is, rendered faint and pulseless—by the carbonic acid gas or by the carbonic oxide, before the fire reaches his body. Anyone who has been in a burning house will know that the heated and smoky atmosphere speedily induces a feeling of powerlessness and at the same time of indifference to what is going on around. It is generally this stupefying of the cerebrum, with subsequent paralysis of the nerve centres, that prevents judicious means being taken for escape; and unless the sufferer has the presence of mind to stoop almost to the ground so as to keep his head below the level of the smoke, he is almost sure to sink without much feeling in the midst of the fire instead of pushing forward. It is well to know and bear in mind this fact, both for the sake of precaution, and to mitigate some of the acute grief which must be experienced at the loss of friends by fires such as that which has just occurred in Paris. We do not, of course, deny that there may in some exceptional instances be a certain amount of suffering in the case of persons so dying, but we doubt whether the proportionate amount of pain in deaths amidst fires is actually greater than that endured by those who die from ordinary disease. There is the element of time to be considered. In place of days, or perhaps weeks, of pain, the whole experience is over in a few minutes at most, without either expectant misery or prolonged consciousness of the approaching end, and, so far as science can determine, it is by no means probable that the intensity of the agony is greater than that of an ordinary death; possibly, even, owing to the rapid generation of the gases, it may be less. This is a view of the case on which it is more pleasant to dwell than that which thrusts itself immediately on the attention when such appalling events as those to which we refer are brought under notice. If the facts were present to the minds of those who now madly rush out of a burning house, to the very great diminution of their chances of escape, perhaps they would induce a little more composure, and thus help to render the loss of life less extensive.

THE METROPOLITAN ASSOCIATION'S IMPROVED DWELLINGS.

THE Metropolitan Association for Improving the Dwellings of the Industrious Classes has just issued its forty-third annual report, for presentation to the shareholders at the approaching annual meeting. This Association has the distinction of having led the way in the invaluable movement for improving the dwellings of the working classes, which is slowly but surely effecting incalculable benefit on the housing and sanitary and social condition of the London poor. Compared with the operations of the Peabody Trust, and one or two of the larger companies carrying on this work, those of the Metropolitan Association are moderate in extent, but the report tells us that the buildings of the Association, situated in fourteen localities, had, during the year ending with March last, an average population of 6115 persons. This was rather less than a third of the population of the Peabody buildings at the end of last year. It is stated that 97 deaths were recorded in these buildings during the year, equal to 15·9 per 1000 of the population, which the report points out is 4 per 1000 below the general rate for the whole metropolis. It must, however, be remembered that no correction is made for deaths recorded in the workhouses, hospitals, and lunatic asylums of the metropolis, a proportion of which should be debited to this population. The deaths in public institutions in London during last year were equal to 4·1 per 1000 of the population. If we debit the Metropolitan Association Dwellings with their full share of these deaths (probably in excess of the true proportion), the corrected death-rate would but slightly exceed the general rate in London, and the rate in the Peabody Buildings last year. This corrected rate would, moreover, still be a most satisfactorily low rate for a working-class population such as that which inhabits both the Peabody and Metropolitan Association Improved Dwellings. The Metropolitan Association report also states that the rate of infant mortality in those dwellings was equal to 164 per 1000 of the registered births, against 159 in the whole of London and 149 in the Peabody Buildings. It is worthy of note, however, that the birth-rate in the Metropolitan Association Dwellings is stated to have been only 32·9, whereas in the Peabody Buildings it was 42·4.

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Unless the age distribution of the Metropolitan Association population differs very remarkably from that of the Peabody population, it appears probable that the birth-rate in the former is understated, the effect of which would be to overstate the rate of infant mortality. After full allowance for all possible defects in the vital statistics of the Metropolitan Association's report, there can be no doubt of the beneficial effects of these improved dwellings upon the health of their population, or of the important reduction in the death-rate of many parts of London that would result from the further extension of the operations of this and of other companies for the improvement of the dwellings of the working classes.

THE BOARDING OUT OF PAUPER CHILDREN.

THE case of the St. Pancras children boarded out at Denmead does not greatly alter the public opinion as to the merits of the boarding-out system. In some respects it confirms the belief that the system is preferable to that of huge pauper schools. The report of Mr. Clarke, the medical officer of the Leavesden Schools, who was sent by the guardians to examine the children and inspect the homes in which they lived, leaves on the whole a favourable impression. The children were better than when they went to the country, and they were happier—at least they had no wish to leave. They one and all said most distinctly they would not like to return. So strong a human liking for them had taken possession of some of the foster-parents that they refused to give the children up, even if the guardians should withdraw the 4*s.* a week for their support. Some of the houses were clean and comfortable and all that could be desired. There was, it is true, another side to the picture. Some of the foster-parents were old and infirm or in ill-health; one in particular was dirty; another kept a sort of old-clothes shop. The sleeping accommodation in several homes was insufficient; while in seven of the ten homes there were more than two children boarded out—and, it appeared, somewhat promiscuously,—and some of the children looked dirty and neglected. On the top of these drawbacks Mr. Clarke adds: "notwithstanding all this, the children had improved since they came to Denmead." The fact appears to be that there has been a want of care in the selection of fit houses and foster-parents, and that the local committee of supervision has been a little too formal in its duties and trusted too implicitly to the foster-parents. One other point strikes us: that the sum allowed is not such as can compensate the foster-parents for adequate treatment of the children.

MEDICAL OBJECTIONS TO VACCINATION.

UNDER this heading a contemporary publishes a letter signed by persons holding medical qualifications, in which it is argued that there is no ground for claiming that the reduction in the death-rate from small-pox is due to vaccination, because leprosy has also disappeared from this country without any special means having been resorted to for its prevention. The writers omit to mention that the evidence with regard to vaccination is based upon the behaviour of small-pox among vaccinated and unvaccinated persons respectively, that the latter suffer from small-pox as severely and as fatally as heretofore when they are attacked, and that it is only the unvaccinated who enjoy the benefits of more recent times. What are we to think of persons with medical qualifications who make a statement such as that to which we refer to a public consisting of many who have no means of judging for themselves, and who are likely enough to be misled by such teaching? For the ignorant we can feel regret; but a terrible responsibility devolves upon all who by mistaken advice may—unintentionally of course—be the means of introducing disease and death in many a family.

GYMNASTICS AT SCHOOL.

THE honorary secretary of the National Physical Recreation Society gave some interesting evidence lately before the Royal Commission on Elementary Education, and it had the advantage over much of the other matter collected by that body of being statistical in large measure. Speaking of the work done by the Liverpool Gymnasium for the treatment of spinal curvature, he stated that some 3000 cases had come under his own observation there, of which 2500 were cases of children between the ages of eight and fourteen years, 2000 of these being girls. There can be no doubt, we think, that deficient physical exercise, if not the only or even perhaps chief cause of this very common deformity, is highly calculated to promote it; and, even apart from any specific evil, a well-considered and systematised plan of training for the muscles is undoubtedly a most valuable regimen, and eminently adapted to preserve and benefit the general health. But it is of the highest importance, in following out this object, to avoid pernicious exercises, which may do irreparable mischief to the growing organs and unbraced body of a child. The following instance is very much in point: "The care-taker commanded them all (like children of an elementary school) to keep their knees stiff and touch their toes with their hands, and while he kept them in that position he proceeded to give them an impromptu discourse upon the benefit of physical training. When the children rose up you could tell from the hectic colour of their cheeks that they were evidently suffering at that moment from palpitation of the heart caused by leaning down in this extraordinary position." Equally sound appears to us the following comparison between the horizontal and the parallel bars: "In the case of the horizontal bar, or anything pendent, children naturally jump up and get on with their hands together; that is a position of contraction; the chest is contracted and the shoulders brought forward, unless they have a very painstaking instructor, who will make them widen out their hands and change frequently. In the case of the parallel bars, the ordinary position of a child upon it causes expansion of the chest; the very movement of resting upon the parallel bars is one of expansion, without any teaching whatever."

"ACROMEGALY."

ANOTHER example of the curious and rare condition of acromegaly of which an account was first given by Dr. Marie (THE LANCET, 1886, vol. i., p. 1060) last year, has been recorded by Dr. Minkowski (*Berl. Klin. Woch.*, 1887, No. 21). The case occurred in the medical clinic at Konigsberg, the subject being a musician, thirty-eight years old, who for some years past had experienced a gradually increasing size of the hands and feet, so that he could no longer play the violin. The nose and ears also became thickened, and the whole form of the face altered. He had suffered much from headache, and his vision had become gradually impaired; he had also become somewhat deaf. He was a man of medium height. The hands were strikingly enlarged in width and thickness, the fingers especially, the thickening involving both bones and soft parts. There was no œdema. The forearm was disproportionately enlarged. A parallel increase in the size of the peripheral parts was seen in the lower limbs, where the leg and foot were greatly enlarged, as well as the individual toes, the great toe being "gigantic." The patella was notably enlarged. As to the face, the nose, lips, and chin were manifestly hypertrophied, the septum as well as the tip of the nose being much thickened. The lower jaw was thickened and projecting, the zygoma and the orbital margins prominent. The head had a long oval shape. The ears were large, and their cartilages thick. The eyes were prominent, the tongue was large, and the buccal mucous

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membrane hypertrophied. The laryngeal cartilages were voluminous, the thyroid body apparently atrophied. The muscles were ill-developed. Intellect was normal, but hearing impaired, speech slow, and visual field contracted. Marie's case also had symptoms of polyuria and polydipsia, but otherwise resembled the present one. Dr. Minkowski refers to the opinion of Klebs, who had recorded one of the cases collected by Marie, that the condition was due to a morbid proclivity to excessive vascular development, affecting chiefly the peripheral parts. It is noted that in the cases as yet examined after death the pituitary body has been found much enlarged; in one case (Henrot's) it was of the size of a hen's egg; in another (Brigidi's) it had caused enlargement of the sella turcica and compression of the optic nerves. The thyroid has been found in some cases atrophied, in others greatly hypertrophied. One case has been recorded as myxœdema, but the resemblance between the two conditions is only superficial, the osseous changes and the absence of cutaneous lesion in acromegaly, together with the wholly different physiognomy, sufficiently marking the difference. In Virchow's leontiasis ossea there is no such disproportionate enlargement of the extremities, and in Paget's osteitis deformans the long bones and cranial bones are chiefly affected, whereas in acromegaly the facial and not the cranial bones are involved, and the distribution of the changes in the limbs is invariably symmetrical.

THE NATIONAL HEALTH SOCIETY.

THE fourteenth annual report of the National Health Society is published. The work of the Society consists chiefly in providing for the delivery of lectures on subjects more or less connected with personal and national health. Among the lecturers were Mr. Shirley Murphy, Mr. Malcolm Morris, Mr. Frederick Treves, Dr. Greenwood, and Dr. Barnard O'Connor. The last-named gentleman, at the request of Canon Cromwell, gave a course of lectures on the Laws of Health, at St. Mark's Training College, Chelsea, for the instruction of young men training for schoolmasters. The Society, whose office is at 44, Berners-street, is glad to receive applications for short courses of lectures for district visitors, mission women, cottage mothers, &c. We think such a society likely to do a great deal good, if it keeps to sound lines and does not attempt too much.

THE CHILDREN'S FÊTE.

THE 21st of June will be marked by many noteworthy signs of rejoicing in different parts of the country. Perhaps none of them will afford Her Majesty a more appropriate tribute of congratulation on the completion of the fiftieth year of her reign than the colossal assemblage of London school children in Hyde-park. Of all the changes that have come to pass during that long and prosperous period, none is more significant of the growth of our national life or more full of hope than the formation of our system of State education. We therefore wish all success to the intended demonstration. If, at the same time, we point out some of the difficulties which belong to so great an undertaking, it is only because we desire to ensure its success, and to prevent the chance of regrettable consequences. The plan of transit may be safely left in the hands of those who will organise the practical details of the scheme. What chiefly concerns us is the condition and surroundings of the children. It is to be hoped that in making the selection of those who will attend the gathering due regard will be paid to the subject of health. Not prominence in classwork alone but fitness for the journey should be taken into consideration. Weather is an uncertainty which must also be reckoned with. These, perhaps, may seem to be mere commonplaces, though they are important trifles. Scarcely so obvious, but even more pressing, is the necessity that no child should atttend in the park about whom there lingers a trace of infectious disease. This year has seen an unusual prevalence of measles and whooping-cough among the urban poor. Is it necessary for us to add the caution that the person and home of each of this multitude of children should be certified as free from any taint of infection? It may prove calamitous for many of the children if this matter does not receive the strictest attention.

MEDICAL ASPECTS OF THE MISSION TO DEEP-SEA FISHERMEN.

THE annual meeting of the Mission to Deep-sea Fishermen was an interesting one from a medical and humanitarian point of view, Sir Andrew Clark occupying the chair, and addresses being given by him and by Mr. Frederick Treves, F.R.C.S., who had himself personally inspected the work in the North Sea and had seen the great need existing among the 1200 fishermen there for the medical and surgical aid now as far as possible supplied by the mission smacks, which are provided with a medicine chest and various surgical appliances, and which carry a skipper and seamen who have gone through a course of instruction by Dr. Schofield, so that a man who meets with a lacerated wound or a fracture of the arm whilst conveying fish boxes in a little boat from his smack to the steamer running between the fleet and Grimsby can be, if a mission smack is near, promptly and pretty efficiently treated. A great want, however, is still unsupplied, and that is a floating hospital, neither the mission nor the other smacks having berths suitable for sick or injured men. Another great advantage of the mission smacks is that they have to a large extent driven the "copers," with their vile and unwholesome spirits and tobacco, and their still more vile literature, off the seas, they themselves selling good tobacco, warm woollen mittens, "helmets," and other clothing, and pure healthy literature, but no alcoholic liquors. A magnificent gift of a steam yacht has just been received by the Deep Sea Mission. This will be just the thing for the work, and a few sick berths might well be fitted up in her. She might even "carry a surgeon," but unfortunately the society is so pressed for funds that it is quite uncertain whether the yacht can be even manned and put to sea.

ACUTE GRAVES' DISEASE.

AN apparently well-authenticated case of Graves' disease, having a total duration of six weeks, and accompanied by remarkable emaciation, is recorded by Dr. Michell Clarke in the *Bristol Medico-Chirurgical Journal*, No. 15. It was that of a girl, aged eighteen, a native and resident of Chepstow, whose family history was good, and who had always enjoyed perfect health till 1885, when she experienced headaches occasionally, with slight feeling of fulness at the throat; and again in June, 1886, during a menstrual period, violent palpitation, severe frontal headache, pain in the præcordial region, and nausea with vomiting in the morning; but this group of symptoms disappeared, and the next menstrual period was completed without the occurrence of any abnormal symptoms. She remained well until Aug. 4th, when the palpitation returned, and the symptoms of exophthalmic goitre appeared, together with a nasal voice, slight cough, and rapid emaciation. On admission, the notes show great mental excitability and slight choreiform movements of limbs. Von Graefe's symptom was well marked. Towards the end of the case diarrhœa and vomiting were remarkable symptoms. The patient died on Sept. 14th. Dr. Michell Clarke observed that the thymus

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was very large, as in two instances of exophthalmic goitre recorded by Hilton Fagge; the liver and pancreas were very small; the thyroid very large; the exophthalmos had disappeared; microscopic sections of the central nervous system and the cervical sympathetic revealed nothing abnormal.

OVERLAIN CHILDREN.

WHEN a coroner tells us that he has observed more than 200 cases in which children have been overlain and suffocated by a parent, we are tempted to ask whether this accident has always resulted from mere carelessness. A misfortune so simple in its causation may doubtless easily happen in the overcrowded homes of the poor where a number of children are huddled into one or two small rooms. Nevertheless when one finds it repeats itself so frequently, and even occurs more than once in a single family, the conviction that there has been gross neglect cannot but carry with it some suspicion of design. Infantile insurances, and the poverty of hard times, are pressing inducements which might suffice to justify in the minds of unscrupulous parents the wilful contrivance of such an accident. Coroners and insurance companies alike will therefore do well to inquire with particular closeness into the details of any case of the kind which may come before them, and every motner who would merit the reputation of even ordinary care should take the advice of Dr. Danford Thomas and allow her infant a separate cot.

CATTLE DISEASES IN GREAT BRITAIN.

PROF. G. J. BROWN, in his annual report for the year 1886 of the Agricultural Department, Privy Council Office, states that the last reported outbreak of foot-and-mouth disease occurred in October, and that it may be concluded that the disease has ceased to exist in this country. Respecting pleuro-pneumonia the report is less encouraging, there being slightly fewer outbreaks in England than in 1885, but more cattle were attacked; whilst in Scotland the outbreaks extended in area, and the cattle attacked were more than twice as numerous as those affected in 1885. Many of these outbreaks were traceable to Irish cattle, and the subject of the possible conveyance of the disease from Ireland is being considered, as well as the measures to be taken to deal with it. Mr. Brown discusses the measures for the extinction of pleuro-pneumonia, and declares that nothing short of the stamping-out system is efficacious. Protective inoculation, which had been advocated in Scotland, is objectionable from the probability that infected cattle may be inoculated with great risk to the spread of the disease, and he states that no country has been yet successful in getting rid of pleuro-pneumonia by inoculation. Swine fever appears to have been very prevalent in various parts of the year, the variations being attributable more to the amount of trade carried on with these animals than to the enforcement of restrictive measures. This disease was made the subject of a Parliamentary report last year, one object being to aid in the discrimination of the disease from other diseases of swine; and experimental inquiry into protective inoculation is in progress, but it is pointed out that the ordinary methods of attenuation of virus could not be applicable, since it would be necessary to have the power to inoculate a herd from the infective matter of the first case arising in it. Perhaps the desired result might be attained by diluting the virus through admixture with certain chemical agents. Anthrax, which by order of Council was last year brought under the operation of the Act of 1878, forms the subject of some interesting paragraphs in the report. The wide prevalence abroad, especially in France, as compared with this country, is noted; and the possibility of its introduction through infected wools, skins, fodder, litter, and manure is illustrated by a reference to the occurrence of wool-sorters' disease. It is pointed out that it would be practically impossible to prevent the importation of infected wool. Anthrax is generally limited to the farm on which an outbreak occurs, and, owing to the rapidity with which it kills, nothing would be gained by adopting the stamping-out system with a view to its eradication. The importance of avoiding any effusion of blood of the diseased animals is emphasised, post-mortem examination being unnecessary for diagnosis, which can be at once effected by microscopic examination of a drop of blood. Protective inoculation has not been as yet needed in this country, but it is encouraging to learn that experiments are being made to test the value of certain chemical agents in modifying the activity of the virus or rendering the animal insusceptible to its influence.

THE CHURCH BELL GRIEVANCE.

WE are sorry to be unable to endorse the opinion that the question of church bells "is one for judicious compromise," though we agree that it "should be approached without anything like temper on either side." It is confessedly difficult, to the extent of being impossible, to preserve anything like equanimity when a dear friend has been seriously injured, perhaps hurried into a state of cerebral excitement which has ended in death, by the ringing of bells in churches. We cannot designate the church bell question one of nuisance; it is more than that, for direct injury is done; and, for ourselves, we should certainly advise practitioners who have patients suffering from this annoyance to refuse certificates in the event of death being hastened by this wanton noise-making. We entirely agree with a correspondent of one of the daily newspapers, who thinks that the question must be fought out by strong contention. As a matter of law, we are decidedly of opinion that church officials are, in strictness, only entitled to ring or toll bells previously to "morning" and "evening" prayer and for funerals, and that all extra ringing previously to sacramental and other occasional services, now so numerous, are absolutely without warrant of statute or custom.

MEMORIAL TO THE LATE DR. WILSON FOX.

A DESIRE has been widely expressed that there should be some memorial to the late Dr. Wilson Fox. It has been thought by some of his most intimate friends that the memorial should be personal, and that the most appropriate form would be a portrait, to be presented to Mrs. Wilson Fox. It is proposed, if the amount of the contributions permit, that replicas shall be made for the College of Physicians and for University College. For this object a committee has been formed, consisting of Sir William Jenner, Dr. Russell Reynolds (treasurer), Mr. Erichsen, Mr. George Pollock, and, as secretaries (to whom contributions can be sent), Dr. Gowers, 50, Queen Anne-street; and Dr. Barlow, 10, Wimpole-street.

PLACENTA PRÆVIA.

BAYER, in the *Centralblatt für Gynekologie* (No. 25), discusses the relations of the lower segment of the uterus to placenta prævia as held by different observers. He thinks that the condition of the uterus in this affection is often similar to that in premature labour—i.e., that in both the supra-vaginal portion does not undergo the usual changes, and that the internal os remains closed till labour. According to this view, no hæmorrhage occurs during pregnancy except when a part of the placenta actually covers the internal os, and even then only when the internal os dilates during pregnancy, which it does not always do

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Bayer recommends the following classification of cases of placenta prævia: 1. Cases in which the placenta covers the os, and in which the expansion of the supra-vaginal portion occurs at the usual time. In these there will be hæmorrhage during pregnancy, and secondary changes will be found in the placenta. 2. Cases of placenta prævia in which the cervix continues intact right on to labour. No uterine hæmorrhage occurs during pregnancy, and consequently no secondary changes will be found in the placenta.

HEALTH OF CALCUTTA.

THE death-rate in Calcutta for the first quarter of the year was 27·11 per 1000, being about 1·5 per 1000 above that of the same period in the preceding year, but lower than in any other year of the decade. The principal causes of mortality were fevers, by which the deaths were 7·51 per 1000 of the population, dysentery and diarrhœa 3·55, and cholera 3·47. The deaths from cholera were only 77 in January and 82 in February; but in the first week of March they experienced a sudden increase, and the total for that month amounted to 216. The latter number corresponds very closely with the average for the month of March during the last decade. Dr. Simpson, in his report, gives the details of an investigation into the probable cause of two special outbreaks of cholera, one on board the ship *Ardenclutha* in the river, and the other in Howrah. They were pretty clearly traced to the milk supply, which had been contaminated by being diluted with water from a tank which had been fouled with the excreta of a cholera patient. In a special memorandum on the reorganisation of the health department of the municipality, Dr. Simpson has brought under the consideration of the authorities two very important subjects—the appointment of qualified inspectors charged with the duty of making periodically a house-to-house visitation to ascertain the real sanitary condition of the dwellings, and the imperative need of an increase to the numbers and reorganisation of the duties of the staff of the health officer. We sincerely trust that these subjects will meet with the consideration they deserve from the sanitary commission.

SMALL-POX HOSPITAL EXPENDITURE.

THE Islington guardians have expressed sympathy with their representative who, at a recent meeting of the Metropolitan Asylums Board, showed that every small-pox patient had during the last six months cost £34 per head per day, and urged the closing of the hospital ships. It is impossible to tell how long London will remain free from small-pox, but to close the ships would be to expose London to a definite risk; it does not need the aggregation of more than a few cases of small-pox in hospitals situated in a populous neighbourhood to give rise to an outbreak, and though this would undoubtedly have the effect of reducing the cost per head, the total expense would necessarily be greater. We doubt if this result would be satisfactory to the Islington Board of Guardians or to any other of the London local authorities. The Metropolitan Asylums Board, acting in the interest of the ratepayers, regard themselves as a sanitary authority, and hold that they are doing a more useful work in preventing disease than in merely providing hospital accommodation for those who suffer from it. Dr. Edward Seaton has recently urged that the Metropolitan Asylums Board are justified in advocating the means for preventing the infection of persons for whom it would be their duty to provide accommodation if they were attacked with such illness. No doubt the interests of the ratepayers, both as regards the saving of life and the expenditure of money, will be best ensured when these two functions are in the hands of one administration. One of the greatest of London's wants is a central sanitary authority.

THE MEAT SUPPLY OF GIBRALTAR.

THE authorities at Gibraltar propose to abolish the importation of meat from Tangier. This decision has already occasioned loud protests. It is urged that a great number of persons derive their means of existence solely from slaughtering cattle and preparing meat for the garrison and population of Gibraltar; that it is easier and cheaper to take meat than live cattle across the Strait. In considering this matter, it must be born in mind that the all-important fortress of Gibraltar derives the greater part of its fresh meat supply from Africa—that is to say, from Tangier. The distance across the Strait is thirty-eight miles, and the sea is often very rough. Nor is there any port at Tangier; the steamers must anchor in the open bay, and the cattle are brought to them in flat-bottomed barges and then swung on board after much labour and trouble. In the face of these circumstances, it is much more simple to kill the bullocks at Tangier and send the meat over. Thus the trade in meat has been developed; and not only does it supply work for a great number of persons at Tangier, but the sums paid for the use of the slaughterhouse go in part to defray the cost of various charitable institutions. Finally, the town imposed a shilling tax on every head of cattle killed, and this pays the wages earned by the scavengers who, at rare intervals, are sent out to clear the streets. In spite, however, of all these arguments, it is impossible not to approve the action of the authorities at Gibraltar. The slaughterhouses at Tangier, both the Jewish and the Moorish, are indescribably filthy. In England such establishments would at once be closed by the police. They are a standing nuisance and gravely endanger the public health. No attempt is made to drain the slaughterhouses. The blood runs away in an open ditch down to the beach, and falls into the sea close to a spot generally selected for bathing. The ditch is so foul with blood that horses and mules are sometimes afraid to step over it. Perhaps, now that the inhabitants of Tangier find they are about to lose a lucrative source of income, the necessity of building a proper slaughterhouse and imposing regulations in keeping with the laws of hygiene will at last be admitted. In any case, and in self-defence, the authorities at Gibraltar have done well to bring such wholesome pressure to bear. Gibraltar is intensely overcrowded. At Tangier there is any amount of vacant space, and the climate is better and the air purer. It would therefore be preferable that the cattle should be slaughtered at Tangier; but only if this can be done under proper sanitary control, in slaughterhouses with cemented and well-drained flooring, where the most perfect ventilation and cleanliness are maintained.

SHEFFIELD MEDICAL SCHOOL.

IT will be remembered that the need for fresh premises for the Medical School at Sheffield was brought prominently before the public last October, when a meeting was held at Firth College, at which the Archbishop of York and Sir Andrew Clark were present. The amount required was £6000, and the appeal for assistance has been so well received that the Council now feel justified in proceeding with the erection of the new premises. A site containing about 550 yards, situated in Leopold-street, opposite Firth College, has been secured, and Dr. Bartolomé, president of the school, is expected to lay the foundation-stone about the 16th or 17th inst. The plans which have been prepared give the school a handsome outward appearance, and provide all the accommodation needed. The main elevation is entirely of stone, and the treatment a sort of free Classic Renaissance, which will cause the building to harmonise well with the surrounding property. The contractors expect to have the premises completed by next March.

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THE IRISH EXAMINING BODIES.

THE College of Surgeons of Ireland have not abandoned ll hope that the Irish medical corporations may still comine to form one examining body. At a meeting held on aturday last the Fellows of the College adopted a motion f Sir Charles Cameron to the effect that a fresh attempt hould be made to procure the much-needed combination, he General Medical Council having recognised the Apothearies' Hall as a medical corporation; and, further, they xpressed the opinion that, should an attempt again fail, he College considers that the Council (we presume that of he College) should, if possible, form a combination with the pothecaries' Hall. The proposal was seconded by Dr. Kidd, nd carried. We sincerely trust that the Apothecaries' Hall vill agree to this course. There is not, we fear, much hope hat the College of Physicians of Ireland will at this stage eize this excellent opportunity of proving that their interest n the welfare of the profession is so great as to make them lepart from their previous decision, but the Apothecaries' Iall have before now shown their willingness to combine.

HERPES IN PHTHISIS.

AN interesting paper in the *Gazette Médicale des Hôpitaux*, No. 9, 1887, by E. Barié, brings together much information on a rare condition met with in tubercular subjects, and formulates the following conclusions. Zona is a rare complication of chronic pulmonary phthisis, usually affects the thoracic walls, but may occur in the neck, face, loins, upper and lower extremities, and even the perineo-genital region. The eruption, sometimes accompanied by motor and thermal disorders, has been set down to vaso-motor perturbations possibly of reflex origin, but this explanation is insufficient, and the zona of tubercular subjects may be connected with a tuberculous meningo-myelitis, or more often with a parenchymatous peripheral neuritis.

THE IPSWICH INQUEST.

THE unfortunate death of Bertha Wall, aged sixteen, a pupil at the Ipswich High School, has been the cause of serious differences between the coroner on the one hand, and the jury and representatives of the press on the other. It may be remembered that the body of the deceased was found in a pond near Akenham. The evidence went to show that death resulted from drowning; the jury ultimately returned an open verdict. From information received, the coroner, Mr. Vulliamy, in the exercise of his discretion, decided to proceed with the inquiry with closed doors. The jury and certain members of the press took umbrage at this, and resented it, to the extent that the former refused to serve unless the reporters were admitted, and the latter on their part insisted on being present. After several adjournments the case was investigated in private, the Lord Chancellor having adjudged the coroner within his legal rights in excluding the press. This decision is founded on statute, which empowers the coroner to conduct his inquiries in public or private as he may deem fit. Whilst regretting the exclusion of reporters, we are bound to admit that if the responsible judicial authority is of opinion that matters will transpire the nature of which will be likely to shock and injure decency and morals, he is acting wisely in refusing admission to the general public. In the present instance no one seems to have disputed the point that some extraordinary revelations would be made at the inquest—revelations the result of which it would be difficult to foresee as regards their individual and collective application. We fully acquiesce in the contention that guilt should be visited with its just reward, even to the extent of public exposure, providing public morals are not abused thereby. There is a duty to the living as well as the dead, and no demand can be more urgent than that which calls for the protection of the mind of youth from the exposure of revolting details. Prior to the completion of the inquiry the coroner committed a member of the press for contempt of court, in that he openly advised the jury not to be intimidated by the coroner. The same evening a writ of *habeas corpus* was obtained from Mr. Justice Grantham in the terms asked for—viz., that the prisoner should be admitted to bail pending an application to quash the warrant of commitment. The incident was terminated by the coroner ordering the release of the prisoner, the latter having apologised for any remark he might have made constituting contempt of court.

UNIVERSITY COLLEGE, LONDON.

DR. WILLIAM RAMSAY, Principal of, and Professor of Chemistry in, University College, Bristol, has been appointed to fill the chair of chemistry in University College, London, vacant by the resignation of Dr. Williamson. Dr. Sydney Ringer, F.R.S., has been appointed Holme Professor of Clinical Medicine, in succession to the late Dr. Wilson Fox. Mr. Victor Horsley, F.R.S., has been appointed Professor of Pathology, in succession to Dr. Bastian, resigned. The first award of the Slade Travelling Scholarship (value £150 per annum for two years) has resulted in the election of Mr. Harrington Mann of Glasgow.

PROFESSOR BILLROTH.

A RUSSIAN daily paper of the 11th (i.e., the 23rd) of May announced the death of Professor Billroth, whose work, it remarked, had been the text-book of the majority of Russian students. Happily, so far is this statement from being correct, that the condition of the eminent surgeon has greatly improved, and he is now considered completely out of danger. Dr. Hacker, who is doing his duty for the present, announced to the class last week that it was hoped that their great master would himself be able to resume charge of the clinic after a rest of six months.

THE APPROACHING COLLEGE ELECTION.

WE understand that Messrs. Willett, Brudenell Carter, George Cowell, and James Rouse are likely to be candidates for election to the Council of the Royal College of Surgeons. The retiring members are, Sir T. Spencer Wells and Messrs. Jonathan Hutchinson and John Wood, of whom the two former at least will probably seek re-election. Nomination papers must be sent in before July 13th.

CEPHALIC VERSION IN PLACENTA PRÆVIA.

DR. KUFFERATH, Professor of Midwifery at the University of Brussels, in a clinical lecture on cephalic version, expresses an opinion that it is bad practice to resort to this operation in cases of placenta prævia; we cannot hope, he says, to arrest hæmorrhage by changing a malpresentation, for the head, in cases where cephalic version is still possible, will not plug the bleeding surface.

DEATHS OF EMINENT FOREIGN MEDICAL AND SCIENTIFIC MEN.

THE deaths of the following foreign medical and scientific men are announced:—M. Henri Issartier, Senator of la Gironde and Mayor of Monségur. M. Issartier had long given up the practice of medicine, and had devoted himself to horticulture and scientific agriculture. He published a treatise on the Cultivation of Fruit-trees and a Course of Agriculture.—Dr. A. U. Giubner, a well-known Russian military surgeon.

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THE ILLNESS OF THE CROWN PRINCE.

DR. MORELL MACKENZIE has again visited the Crown Prince, and on Wednesday last he removed another portion of the growth on the vocal cord by laryngeal forceps. The Crown Prince will travel to London next week, and after the Jubilee festivities it is expected that a long stay will be made in the Isle of Wight, so that Dr. Morell Mackenzie may conclude the treatment of his Imperial patient.

PHARMACEUTICAL CONFERENCE.

AMONGST other subjects upon which the secretaries of the Pharmaceutical Conference, which is to be held next August, invite papers, are the following:—The alkaloidal strengths of narcotic extracts compared with that of the fresh juice; the quality of cacao butter; the application of dialysis to pharmaceutical processes; the strength of tinctures and liquid extracts; the cause of the variations in the value of salicylate of sodium; the active principles of ergot, senna, colocynth, jalap, aspidium, felix mas, lactucarium, senega, taraxicum, and buckthorn.

MEDICAL LEGISLATION IN BELGIUM.

THE Belgian Legislature has just had before it a new Bill concerning university examinations and academic regulations. The proposals to re-establish the arts degree as obligatory for medical students and a final State examination for a licence to practise did not meet with much favour. Some changes were, however, voted in the programme of medical studies; thus, the special course of embryology is to be abolished, and this subject included in the course of general and special histology; also the elements of pharmacy, together with the course on pharmacognosis, are to form part of the programme for the first Doctorate. The necessity of a better acquaintance with legal medicine and toxicology has been recognised, but no fresh examination has been imposed. Some of these changes will doubtless affect the numerous British practitioners who, under existing circumstances, resort to Brussels for the degree which is denied them in London. Another regulation has been made as the result of the representations of Belgian medical men, who have for a long time been complaining bitterly of the competition to which they have had to submit from foreign practitioners, especially at Ostend and other watering-places, for English and German practitioners have hitherto been able without much difficulty to obtain a licence to practise in Belgium upon the strength of their existing diplomas. Now, however, all foreigners will be obliged to pass an examination and obtain the recommendation of the central jury before permission to practise in any part of Belgium can be obtained.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—The number of university teachers of all grades is now 290, of which 104 belong to the Medical Faculty, including three teachers of odontology.

Vienna.—The vacation short courses of practical instruction for medical men, which have been held for many years past during the months of August and September, are about to be stopped. The prospectus of these courses, numbering more than fifty, had already been published when this decision was arrived at.

SCHLESINGER ON LAPARO-SALPINGOTOMY.

DR. SCHLESINGER, chief of Prof. Slavianski's clinic in St. Petersburg, publishes statistics of 274 cases of laparo-salpingotomy for diseased conditions of the Fallopian tubes. Only four of them seem to be by Russian surgeons, two by Prof. Slavianski and two by Dr. Sutugin, all of which were successful. The total deaths were twenty-four, 245 cases being stated to have been completely cured. Dr. Schlesinger concludes that in pyosalpinx, hydrosalpinx, or hæmato-salpinx laparotomy is the only possible resource, and that generally speaking, though it is by no means necessary to look upon this operation as a *dernier ressort*, it should be performed as rarely as possible.

NEW TEST FOR MILK.

A NEW test for water—that is pump water—in milk has recently been proposed by Herr Szilasi. This depends on the fact that sulphate of diphenylamine is coloured blue by the action of an exceedingly dilute solution of a nitrate. As well water always contains more or less nitrate, its presence in milk can be detected. The test is carried out thus: Twenty minims of sulphate of diphenylamine is placed in a small porcelain vessel and a few drops of the milk which is to be examined added to it. If this contains even 5 per cent. of average well water, a blue tinge will gradually distinctly appear. Sulphate of diphenylamine is easily procurable, and only costs about sixpence an ounce, so the test may be readily tried.

THE Jubilee number of the *Illustrated London News* is accompanied by a coloured plate of Her Majesty, in State Robes, standing near her throne. The work is of the highest finish, and the delicate flesh tints are copied with the greatest accuracy. The number itself contains a pictorial history of Her Majesty's reign, and can be warmly recommended to all who desire to become possessed of such a souvenir of the event we shall all celebrate on the 21st inst.

IN *Scribner's Magazine* for July, Professor D. A. Sargent, M.D., of Harvard College, will publish, as the fruit of many years' practical experience, an article on "The Physical Proportions of the Typical Man." In it the author will give a standard of physical measurement based on the measurements of 10,000 individuals.

A REUTER'S telegram from New York announces that yellow fever has broken out at Key West, Florida. The Government has ordered the mails between Key West and Cuba to be fumigated, and a strict quarantine is enforced at the northern ports.

THE Jubilee offering of a Royal Standard made by the young ladies of Reigate to the Royal Medical Benevolent College at Epsom has been most gratefully acknowledged by the authorities.

AT the last meeting of the Epidemiological Society Dr. Thorne Thorne was elected President for the next session. Mr. R. D. R. Sweeting succeeding him in the office of treasurer.

THE formal opening of the Exhibition of Articles of Food and Drink will take place at Amsterdam on the 15th inst. The Exhibition will remain open till the end of September.

WE are glad to be able to state that Mr. Lund is improving in health, and progressing rapidly towards recovery.

TYNEMOUTH INFIRMARY.—At a recent meeting of the Building Committee of this institution, it having been intimated that the Dowager Duchess of Northumberland would be unable to perform the ceremony of laying the foundation stone, it was agreed that the stone should be laid by Mr. R. M. Tate, president of the committee. The ceremony will take place on the 21st inst.

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THE MANX CLIMATE.

By ALFRED HAVILAND,

HOR OF "CLIMATE, WEATHER, AND DISEASE," "THE GEOGRAPHICAL DISTRIBUTION OF HEART DISEASE, CANCER, AND PHTHISIS IN ENGLAND," ETC.

[ANY there are who will for a long time remember the , frosts, and snowstorms of the winter, which we all e has at length left us, although the snows of April and fogs of May have combined to keep it fresh in the nories of the Londoner and of many an invalid in what been called the sunny south. There is an erroneous ression deeply engraven in the public mind that the ;her one goes north the winters become colder and summers less genial. As a general proposition there be no doubt that this is true; but the climates of the ·ld are made up of factors, which, whilst obeying the nutable laws of nature without exception, are neverthe- so interdependent the one on the other as in no two ;es on the face of the earth to be found in exactly the ıe combination, and therefore identical in results. Our at oceanic currents are grand secondary factors in both general and local climates of the earth, and all of se we know to be influenced by the present con- ıration of the great continental areas, their initial ·ction having been originally determined either by that powerful and constant air currents (prevailing winds), by differences in the temperature between equatorial and ar waters, or by both causes combined. Let the reader sult the admirable map of oceanic currents in the hysical Geography" of the late lamented Keith Johnston ıose young life was so recently sacrificed to his devotion geographical exploration), and he will see the course of south equatorial current from the S.E. to the N.W. ected by the north-east coast of South America until it ches the Gulf of Mexico, where the land turns it back, so t after its emergence from this inland sea it is diverted rply to the N.E. by the south-east coast of North erica, and, continuing in the same direction, sweeps by British Isles and the north-west coast of Norway far ond the Arctic Circle, carrying with it the genial warmth h which the south-westerly or anti-trade winds load mselves in their passage over it, and then disseminate ughout Western Europe; Cornwall, Ireland, the Isle of n, and the western isles and coast of Scotland enjoying he fullest extent, from greater proximity to their source, se warm air currents in all their nascent purity; the ılt being, as described by Sir A. C. Ramsay in his ıysical Geology and Geography of Great Britain," t, where these genial influences are first felt, certain den plants grow through the winter, and even in the far th-west of Scotland, which the winter cold of Middle- kills. "I have seen," he says, "fuchsias growing all the r round on the shores of Loch Erribol in Sutherland."

low, the Isle of Man enjoys all the genial influences ribed to climates begotten of the Gulf Stream to the est extent; it therefore will no longer be a matter of ıder that when the befogged and befrosted southerner ded on her shores last winter, or even during this spring, began to think that the learned Dr. John Macculloch, in ting to Sir Walter Scott, was somewhat hasty in his demnation of the opinion of "the author more pro- nd than all his predecessors," who firmly believed that na was the Elysian plain of Homer, "where ocean ·ays sends forth the gentle blowing breezes of the west ıd," for had he not just emerged from the Cimmerian kness of fog-capped London, or just been dug out of a w drift? With a mind filled with such late experiences, impressed with the notion that the winters increase in erity as one goes northward, we ought not to be surprised ıis giving in his adhesion to the Elysian theory when he nd, on landing, no trace of winter, no snow, no fog, and y the history of a brief frost, and when the self-registering rmometers and the sunshine recorders told him of the ·t and light enjoyed in Mona at a time when he was ding his morning letters in London by gas-light, or ng driven in tandem cabs, at extraordinary fares, over ılanches through its streets. This is no exaggeration, , on the contrary, a tame picture of what was ex- ienced by hundreds of visitors last winter and this spring, many a winter and spring before.

The Isle of Man suffers from the ignorance of the public on two subjects—climatology and geography. The former is not taught in medical or any other schools in England, and the average Londoner and Southron gets sorely puzzled when asked to define the geographical position of Manx- land; he generally has no notion whatever about Mona, and if he has somewhere or somehow heard of her, she is generally inextricably mixed up in his mind with the Isle of Wight or Iceland, or in the poetico-geographical mind with Ultima Thule; although some learned Londoners will tell you that the peculiarities of its fauna—to wit, the taillessness of its cats and poultry—"differentiate" Mona from Vectis; this is a grand peg on which many memories are hung. This ignorance is strange when we consider how much interest this lovely island of grand mountain, sea-cliff, and glen scenery has created in times gone by; but perhaps people were then more learned and less "crammed" than they are nowadays in this age of competitive examinations.

The learned Dr. J. F. Berger, who visited this island in 1811, when he examined its geology, took the temperature of its springs, and measured its mountains, in company with Mr. Thomas Scott, the brother of the "author of Waverley," tells us that it was in the Isle of Man that the first attempt was made to use the barometer to determine the altitude of a mountain in Great Britain, and that this experiment was first made by the good Bishop Wilson on Snaefell, by which he approximately ascertained its height; the original experiment, pointed out by Pascal, having been first performed by Périer (his brother-in-law) on the Puy de Dôme, September 19th, 1648. Bishop Wilson came over to the Isle of Man in 1698, where during his long residence he made the experiments that led him to the elevation of Snaefell, which, according to the latest survey, equals 2034 feet. It is also interesting to note that during his stay in the island Dr. Berger took "the temperature of several springs (thirty-one) in all parts of the Isle of Man, to deduce by approximation the mean temperature of the climate of that island," and that he concluded from these experiments "that the mean annual heat in the Isle of Man" was 49·99°. Mr. Alexander Buchan, M.A., F.R.S.E., and secretary to the Scottish Meteorological Society, from observations ranging over a period of twenty-three years (1857-1880), makes it 49·00. For Dr. Berger's interesting observations I must refer the reader to the Transactions of the Geological Society of London. Following the Bishop's example, Dr. Berger measured the altitudes of seventy-seven mountains and other heights, twenty of which ranged from a thousand to nearly two thousand feet above the sea level. These heights he determined by the barometer, and in his calculations made use of Professor Leslie's sliding scale.

From the past I will now proceed to the present. During the exceptionally cold winter quarter of 1886 there actually occurred in the Isle of Man, to the astonishment of most Manx men, a snowstorm which will be long remembered as a most unusual occurrence, like the only too historical snowstorms that have occurred at Melbourne since 1849—namely, those of August 29th, 1849, and July 26th, 1882. As the Isle of Man suffered from the effects of the exceptional winter of 1886, it will be well to see how it came out of the ordeal by comparing the Manx and the south coast winter quarters of that period, Douglas representing the Isle of Man, and Truro, Plymouth, Torquay, Ventnor, Eastbourne, Osborne, Southbourne, and Brighton representing the south coast of England. The mean monthly temperatures were as follows:—

	Jan.	Feb.	Mar.	Mean.
Douglas, Isle of Man	38·9°	38·8°	39·2°	38·98°
South Coast (eight stations)	38·5°	36·4°	39·9°	38·26°
Temperature at Douglas.....	*0·4°	*2·4°	†0·7°	*0·72°

* Excess. † Defect.

These figures speak for themselves, and prove how well Douglas holds its own while the southern health resorts are arrayed against her, even during such an exceptional winter quarter as that of 1886.

I will now give Mr. Thomas Keig's report of his observations made during the three meteorological winter months (December, January, and February, 1886-7) for Douglas:—

	Dec.	Jan.	Feb.	Mean.
Mean Maximum ....●	42·89°	44·48°	42·03°	= 43·13°
Mean Minimum	34·96°	37·34°	42·04°	= 38·12°
Mean Temperature	38·92°	40·91°	42·04°	= 40·62°

Such are the results of two exceptional winters. The Manx winter is, however, remarkable for its mildness, its

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mean temperature amounting to 42·10°, which is higher than five out of the six south coast counties—namely, Kent, 39·3°; Sussex, 40·0°; Hants, 40·7°; Dorset, 40·9°; Devon, 42·0°; and Cornwall, 44·8°; the last being the only county the mean temperature of which exceeds that of the Isle of Man; the mean temperature of these six counties being 41·3°, or 1·7° colder. Added to the mild temperature and comparative freedom from snow and frost, which characterise the Manx winter, the visitor should remember, when hesitating between going abroad and going to the Isle of Man, that in the latter he need not fear either the cholera, the mistral, or earthquakes, and that in sunniness it ranks next to the Channel Islands, which are the sunniest parts of the British Isles, as shown by Mr. A. W. Moore, M.A., M.H.K., in his "Manx Note-book." Let him remember, too, that the Isle of Man lies within 54° lat. N., or more than three degrees further north than the south coast, and he will then be prepared, after what has been said, to purge his mind of the fallacy that the winters must necessarily become colder and the summers less genial the further one travels from the south to the north.

THE HOSPITAL SUNDAY FUND.

ON the 6th inst. a public meeting was held at the Lambeth Palace Library in support of the hospitals and medical charities in Lambeth participating in the Hospital Sunday Fund. The meeting was the first of a series of public meetings to be held during the next fortnight in eight different districts of London for the purpose of arousing public interest in the pecuniary needs of the hospitals. The chair was occupied by Lieutenant-General Fraser, M.P., at the opening of the proceedings, in the temporary absence of the Archbishop of Canterbury, who arrived, however, shortly after the meeting began, and then took the chair. Viscount Lewisham moved the first resolution: "That this meeting pledges itself to use every endeavour to arouse the inhabitants of this district of London to the importance of maintaining the hospitals and medical charities in the utmost efficiency. In furtherance of this object it urges the clergy and the ministers of religion to point out the advantage of giving to the Hospital Sunday Fund, owing to the nominal cost of so collecting funds for hospitals, and to make an earnest appeal to the people to so increase their contributions as to secure that the whole sum collected shall not be less than £100,000." The Rev. Arthur Jephson seconded the resolution, and the Rev. Hermann Gallaney, speaking on behalf of the Hebrew community in Lambeth, supported it. The resolution having been carried, Mr. Henry C. Burdett, chairman of the Executive Committee, moved the second resolution:—"That this meeting regrets to learn that the expenditure and liabilities of the hospitals and medical charities in this district in the year 1886 exceeded the ordinary income by more than £10,000, and pledges itself to increased exertion with the view of preventing any like deficiency during the current year." The Rev. Newman Hall seconded this resolution, and the chairman having supported it, it was carried unanimously. A vote of thanks to the Archbishop of Canterbury for presiding and granting the use of the library for the purpose of the meeting brought the proceedings to a close.

On the 7th inst. a meeting was held at the Paddington Vestry Hall, the Rev. W. Abbott in the chair. Amongst those present were Baron Ferdinand de Rothschild, Mr. Henry C. Burdett, Hon. Henry Noel, and Mr. E. Parker Young. After some introductory remarks from the chairman, Baron Ferdinand de Rothschild, in a very able speech, setting forth the needs as well as the merits of our general hospitals, proceeded to show how very small was the proportion of the amounts collected from year to year in aid of the Hospital Sunday Fund (£40,000) in so large and wealthy a centre as London, and contrasted the enormous amount spent in pleasure and fancy articles of dress, especially of the Jubilee novelties of the present year, showing that by comparatively little self-denial ample means might be forthcoming to furnish even more than the £100,000 now wanted to free our medical charities from debt. The Hon. Henry Noel seconded the resolution, which was identical with that moved at the other meetings. Mr. Henry C. Burdett and Mr. E. Parker Young proposed and seconded the second resolution, which was similar to the second resolution proposed on the 6th inst. at the Lambeth meeting, and which was unanimously adopted, as was also a vote of thanks to the chairman, and to Mr. Michelli, secretary of St. Mary's Hospital, and Mr. Ryan, secretary of Queen Charlotte's Hospital, the hon. secretaries, who had been at the trouble of organising the meeting.

On the 8th inst. a meeting was held at the Hampstead Vestry Hall, Haverstock-hill. Lord William M. Compton occupied the chair, and was supported by Sir Sydney H. Waterlow, Sir Joseph Fayrer, the Rev. Sherrard B. Burnaby, M.A. (vicar of Hampstead), the Rev. Dr. Kennedy, Mr. R. F. Horton, M.A., Mr. J. S. Fletcher, J.P., Mr. G. H. Powell, J.P., and others. The receipt of letters was announced from the Marquis of Lorne, Lord Cranborne, Lord Robartes, and others, expressing regret at inability to be present. The Rev. S. B. Burnaby moved the first resolution, which pledged those present to use every endeavour to arouse the inhabitants of Hampstead and north-west London to the importance of maintaining the hospitals and other medical charities in the utmost efficiency, and called on the clergy and other ministers of religion to earnestly appeal to their congregations to assist in securing a collection of not less than £100,000 for the Hospital Sunday Fund, against the £40,390 collected last year. Sir Sydney Waterlow seconded the resolution, and it was carried unanimously. Sir Joseph Fayrer moved, and Mr. R. F. Horton seconded, a resolution pledging the meeting to increased activity on behalf of the local hospitals and dispensaries, which was also carried unanimously, and a cordial vote of thanks to Lord W. Compton for presiding terminated the meeting.

A meeting was held on the 8th inst. at the Rink Hall, Blackheath, Mr. Henry Green in the chair. Mr. Fell Pease, M.P., Sir Edmund Currie, Admiral the Hon. F. Egerton, Mr. G. C. Whiteley, the Rev. Rhodes Bristow, D. Reith and C. Wilson, and Mr. Burdett being the speakers. It was pointed out that the south-eastern district, with upwards of 1,000,000 inhabitants, contained but 486 hospital beds, of which only 374 were occupied in 1886 owing to a want of funds. The apparent deficiency between income and expenditure amounted to £2800, but the actual deficiency was quite £8000. The crowded districts of Camberwell, Deptford, and Bermondsey, with Greenwich and Lewisham, were very inadequately supplied with hospital accommodation and the necessity of increasing the size of the Miller Hospital was insisted upon by several of the speakers. Mr. Reith urged that if Birmingham, which had collections in seventy places of worship, could collect £5000 on Hospital Sunday, then London, with 2000 contributing congregations, was able to raise on the same average at least £150,000 every year. Mr. Burdett, referring to the co-operation and presence of Lord Salisbury, the Duke of Cambridge, Lord Rosebery, the Archbishop of Canterbury, Lord Randolph Churchill, and other eminent men, regretted that the local members of Parliament for Greenwich and the district did not apparently care enough for the sick and suffering of south-east London to follow so excellent an example as that set them by their leader the Prime Minister. He was glad to see Mr. Whiteley at the meeting, and to be able to report that in every other district of London the local members of Parliament were doing their utmost to help the hospitals. There was a statement made by Mr. Bristow in the local press to the effect that Hospital Sunday injured the Royal Kent Dispensary and was not an unmixed blessing to the hospitals. This was not the fact, for whereas the Royal Kent Dispensary received on an average £73 per annum from church collections in the ten years preceding the establishment of Hospital Sunday, during the first ten years of the fund the grant to the dispensary averaged £130, and during the last three years it was over £140 per annum. As to its effect on the hospitals as a whole, it had been shown by the production of the actual figures that allowing for the increase in population and for all other circumstances, Hospital Sunday had benefited the London hospitals to the extent of £20,000 per annum, by which the voluntary incomes of these institutions had increased during the years it had been established in the metropolis. In other words, whereas the expenditure of all the hospitals had increased to the extent of one farthing per head of the population, the income had increased to an amount equal to one penny per head, showing a clear gain in available funds of three farthings per head of the entire population. The meeting was a genuine success, and the speeches provoked more than ordinary interest. A vote of thanks to the chairman closed the proceedings.

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)YAL COLLEGE OF SURGEONS IN IRELAND.

. MEETING of the Fellows, presided over by Sir William kes, was held on Saturday, the 4th inst., to receive the ual report of the Council, and for the consideration of ain notices of motion by Mr. Thomson and Sir Charles neron.

he tenure of office and election of vice-president was t discussed, consequent on a resolution of the Council sed last March, and a motion that it should be adopted the College was proposed by Mr. W. Stoker. At the gestion of Mr. Chaplin, however, it was resolved that the retary to the Council should be instructed to call the ention of the in-coming Council to the matter, and that leeting of the College should be called to consider the olution.

Ir. Thomson's notice of motion then came on for discus-n. It was as follows:—"That, having regard to the erests of medical education in Dublin, it is desirable to inish, as far as possible, the number of proprietary ools, and that, with a view to carrying out this principle, e an instruction to the Council to take such steps as may necessary to effect, in the first instance, an amalgamation ween the College School and the Carmichael College of licine." In the course of his speech Mr. Thomson stated willingness to withdraw the word "proprietary" in his olution. There was a debt of £6500 on the Carmichael lege, the interest of which it was intended should be ally defrayed by the professors of both medical schools. Kidd thought if amalgamation took place the teachers uld be better paid, and the classes of students in at-dance better looked after. He moved that the words uitable terms" be added to the motion, which was uiesced in. Mr. Bennett spoke against the proposal and sidered that the fusion of the two schools named could be carried out with advantage. Mr. Macnamara thought range that in the report of the proceedings of the Council Fellows did not receive the information they were tled to in respect to this matter. There was, he said, a ority of the Council against the scheme, and a protest been made against the proposed amalgamation by a large ority of the professors of the College itself. It was also trary to the Supplemental Charter to bring in a great ny others connected with a school outside the College lf. Mr. Barton declared his opinion that it would a mutual advantage to both schools to become amal-nated. The increase in the number of professors would gradually reduced in course of time. Mr. W. J. ker, Mr. Jacob, and Mr. Fitzgibbon also spoke in favour the motion. Mr. Hamilton asked why the Fellows the College should force upon the professors of the ege the burden of debt of £6500. He was always osed to amalgamation. Three years ago the scheme, n brought before the Council, had been negatived, and second occasion a similar result had occurred. He had red, if a majority of the College professors were not osed to the scheme, not to take any action in the ter; but if otherwise, he resolved to throw himself heart soul into the opposition. He thought if the competi-from the extramural schools were removed it would end to the advantage of medical education. He believed reason the College school fell away was because the nders" and demonstrators had been discouraged; but ad not the slightest doubt of its ultimate success. A ion took place, and on the votes being counted a slight onderance was shown on the side of those objecting to motion, and by request the names were taken down. rs. Robinson and Jacob were appointed by the President crutineers, and as a result it was found that 27 voted and 30 against Mr. Thomson's motion, which was rdingly declared lost by the President.

C. Cameron's motion, in consequence of the lateness he hour, was adjourned to Monday, when it came on for deration. The motion was—"That the College regret ailure of the attempt to unite the Colleges of Physicians Surgeons and the Apothecaries' Hall for the purpose of ng examinations. The College is of opinion that a attempt to effect this tripartite combination should be made, the Medical Council having recognised the hecaries' Hall as a medical corporation; and should an apt again fail, the College considers that the Council ld, if possible, form a combination with the Apothecaries' Hall." Sir C. Cameron pointed out that the Apothecaries' Hall was now a legal licensing body, and showed that a moderate fee, some £10, would be the cost of their diploma. They were capable of giving a registrable diploma, which was eligible for Poor-law vacancies and for the services, &c. It was extremely unlikely that the College of Physicians would join with the Apothecaries' Hall, and it was therefore of great importance in the interests of medical education that the College of Surgeons should form a combination with that body. Dr. Kidd seconded the motion, which was opposed by Mr. Chaplain, who moved as an amendment that the last clause in the resolution be struck out. This amendment was seconded by Sir George Porter, but on being put to a division it was lost, and Sir C. Cameron's motion was adopted.

THE REOPENING OF THE PUMP ROOM AND BATHS AT LEAMINGTON.

ON the 1st inst. the Royal Pump Rooms, Leamington, which had been closed for several months for purposes of repair, improvement, and renovation, were formally re-opened by the Right Hon. A. W. Peel, Speaker of the House of Commons. The proceedings commenced with a luncheon at the new Town Hall, at which upwards of 300 were present, including a large number of representatives of the medical profession from the neighbourhood and various midland towns. After the luncheon a procession was formed from the town hall to the Pump Rooms, where there was a large assembly of spectators to witness the opening ceremony.

The Speaker, who presided, in opening the proceedings spoke of the pleasure it gave him to take part in that large gathering, and said he trusted that the reopening of these baths would greatly contribute to the prosperity of the borough. Having alluded to the curative properties of the Leamington waters, he expressed the hope that those persons who were in the habit of recruiting their health by having recourse to the continental spas would not forget that they might procure as much benefit by the use of the waters at home.

On the motion of Dr. T. W. Thursfield, a hearty vote of thanks was given to the members of the medical profession who had come from various parts of England to assist in the proceedings. The compliment was acknowledged by Dr. Garrod, who argued at considerable length that the most beneficial results often followed the judicious employment of saline baths and drinks.

Mr. Oliver Pemberton combated the popular idea of sending patients away to foreign spas while there was adequate provision at home. Dr. Burney Yeo also responded. Dr. Eardley Wilmot proposed a vote of thanks to the visitors. The motion was adopted, and the High Sheriff and Sir A. Hodgson responded. On the proposal of the Mayor of Leamington, a cordial vote of thanks was given to the Speaker for his attendance that day, and the Speaker having acknowledged the compliment, the proceedings closed.

In the evening the baths were thrown open for public inspection, and were visited by many hundreds of the inhabitants of the town.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF THE INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

Diphtheria in the City of Winchester, by Dr. PARSONS.—Winchester has more than once been inspected by officials from the Local Government Board. But it is satisfactory to note that, whereas when Mr. Power visited the city in 1877, on account of the prevalence there of fatal diarrhœa, water was derived partly from wells, there was no system of sewers, cesspools being in general use, and cesspit privies were discharging into drains, Dr. Parsons now reports that a sewerage scheme has been carried out, that cesspools have been abolished, that the Water Company's service is all but

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general, that an infectious hospital, disinfecting stove, and mortuary have been provided, and that a great improvement has been effected in the house property. Winchester has certain defects which attach to the locality in which it is placed. Much of the city stands on an alluvial flat, the alluvial deposits containing an impervious bed of peat, upon the configuration of which subsoil water is held up as in a cup. But the disease which has recently been under investigation seems to have had no connexion either with these special physical circumstances or with any of the remaining sanitary defects. The diphtheria, which, together with suspicious sore-throats, attacked eighty-three persons between April, 1886, and March, 1887, was scattered in all parts of the city, the high-lying chalky slopes suffering in common with the low-lying alluvial bed; the attacks were found at each extreme of the social scale; and in many of the houses attacked there was no obvious sanitary defect. In nineteen of the thirty-nine houses attacked, the first case was a child attending day-school, and in several instances there was in the street opposite the house affected a sewer ventilator which was stated to have caused offensiveness. No such defect was, however, detected at the date of Dr. Parsons's inspection. Milk could be set aside as the cause of this disease, and, after careful investigation, it appeared that the spread had been mainly brought about by reason of contact with a number of ill-defined attacks of sore-throat, which, though from a clinical point of view they may not be described as diphtheria, are yet etiologically of the same nature. A number of these cases are given, one group showing that the paralysis of the muscles of accommodation in the eye was the only symptom apparent, and that the cases were sufficiently numerous to have led one schoolmistress to imagine that the eye affection itself was of an infectious character. In a case of three adults it was found that one man with sore-throat was given some drink in the same mug with two other men. Both of the latter were, within two or three days, attacked with genuine diphtheria, one having paralysis of the soft palate.

The Sanitary State of the Okehampton Rural District, by Dr. BLAXALL.—The sanitary state of this district was inquired into in connexion with the administration of the Public Health Act in the locality. Many of the dwellings were found to be of a very inferior character, having stone floorings, and otherwise affording evidence of dampness. Water supplies, except in certain specified places, are exposed to excremental pollution, and in some instances supplies still remain in use, although they have brought about enteric fever, and are derived from sources which continue to be open to suspicion. Certain towns and villages have sewers, but even in these cases such matters as ventilation and flushing need attention. Pig-keeping and excremental and other nuisances also obtain to a considerable extent in the district. In April, 1886, parochial committees were appointed by the sanitary authority, but Dr. Blaxall could not learn that any action had resulted from this step. Neither the work of the medical officer of health nor that of the inspector of nuisances is held to have been what the sanitary circumstances of the district should have demanded; and the remuneration of the former is held to be altogether inadequate to secure such services as are called for. On the whole, this district does not bid fair to do much towards removing those conditions of ill-health which so freely obtain throughout a large portion of its area.

Spilsby Rural District.—The death-rate for this district during 1886 was 14·83 per 1000. The rate quoted in our issue of May 28th was the average of the preceding twelve years.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 4861 births and 3452 deaths were registered during the week ending June 4th. The annual rate of mortality in these towns, which had been 20·3 and 20·4 per 1000 in the preceding two weeks, declined last week to 19·5. During the first nine weeks of the current quarter the death-rate in these towns averaged 20·5 per 1000, and was 1·5 below the mean rate in the corresponding periods of the ten years 1877-86. The lowest rates in these towns last week were 12·8 in Derby, 13·2 in Portsmouth, 13·7 in Brighton, and 15·3 in Leicester. The rates in the other towns ranged upwards to 25·9 in Newcastle-on-Tyne, 26·4 in Blackburn, 27·0 in Norwich, and 30·5 in Manchester. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 532 and 522 in the preceding two weeks, further declined last week to 521; they included 252 from measles, 143 from whooping-cough, 44 from scarlet fever, 34 from diarrhœa, 26 from diphtheria, 22 from "fever" (principally enteric), and not one from small-pox. The death from any of these zymotic diseases was registered during the week in Derby, whereas they caused the highest death-rates in Birkenhead, Norwich, and Manchester. The greatest mortality from measles occurred in Brighton, Sheffield, Liverpool, Oldham, Salford, Newcastle-upon-Tyne, Birkenhead, Norwich, and Manchester; and from whooping-cough in Birmingham, Bolton, and Plymouth. The 26 deaths from diphtheria in the twenty-eight towns included 15 in London, 2 in Liverpool, 2 in Manchester, and 2 in Oldham. No death from small-pox was registered in London or in any of the twenty-seven large provincial towns. Only four cases of small-pox were under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease; one new case was admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 289 and 333 in the preceding two weeks, declined again last week to 264, and exceeded by one the corrected weekly average. The causes of 84, or 2·4 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Portsmouth, Brighton, Preston, and in six other smaller towns. The largest proportions of uncertified deaths were registered in Leicester, Nottingham, and Salford.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns which had been 21·3 and 22·6 per 1000 in the preceding two weeks, declined to 19·8 in the week ending June 4th; this rate exceeded, however, by 0·3 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 15·[illegible] in Aberdeen and 17·8 in Perth, to 21·2 in Greenock and 22·[illegible] in Leith. The 495 deaths in the eight towns last week showed a decline of 69 from the number in the previous week, and included 32 which were referred to whooping-cough, 5 to scarlet fever, 4 to measles, 4 to diarrhœa, 3 to diphtheria, 2 to "fever" (typhus, enteric, or simple), and not one to small-pox; in all, 50 deaths resulted from these principal zymotic diseases, against 72 and 82 in the preceding two weeks. These 50 deaths were equal to an annual rate of 2·0 per 1000, which was 0·9 below the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had steadily increased in the preceding four weeks from 31 to 43, declined again last week to 32, and included 11 in Glasgow, 10 in Edinburgh, 5 in Dundee, and 4 in Leith. The deaths from scarlet fever, measles, diarrhœa, and "fever," showed a considerable decline from recent weekly numbers. Three deaths from measles and 1 from diarrhœa occurred in Glasgow; and 2 of the few cases of scarlet fever were returned in Edinburgh. The 3 deaths from diphtheria included 2 in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 126 and 109 in the preceding two weeks, further declined last week to 102, but exceeded the number returned in the corresponding week of last year by 12. The causes of 64, or nearly 13 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 25·4 and 24·1 per 1000 in the preceding two weeks, further declined to 21·4 in the week ending June 4th. During the first nine weeks of the current quarter the death-rate in the city averaged 28·7 per 1000, the mean rate during the same period being but 18·5 in London and 19·6 in Edinburgh. The 145 deaths in Dublin last week showed a further decline of 18 from the numbers in the previous two weeks; they included 10 which were referred to measles, 4 to scarlet fever, 3 to "fever" (typhus, enteric, or simple), 3 to whooping-cough, 1 to diarrhœa, and not one

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ther to small-pox or to diphtheria. Thus the deaths re-
lting from these principal zymotic diseases, which had
creased in the preceding four weeks from 19 to 27, de-
ined again last week to 21; they were equal to an annual
te of 3·1 per 1000, the rates from the same diseases being
9 in London and 2·1 in Edinburgh. The fatal cases of
easles, which had been 8 and 17 in the previous two weeks,
clined again last week to 10. The deaths from scarlet
ver exceeded the average numbers in recent weeks; while
ose from "fever" corresponded with the number in the
receding week. The deaths of infants showed a consider-
le increase, while those of elderly persons were fewer than
any previous week of this year. Five inquest cases and
deaths from violence were registered; and 30, or more than
fifth, of the deaths occurred in public institutions. The
auses of 24, or more than 16 per cent., of the deaths
gistered during the week were not certified.

THE SERVICES.

WAR OFFICE.—Army Medical Staff: Surgeon-Major
rank Pout is granted retired pay, with the honorary rank of
rigade-Surgeon (dated June 4th, 1887); Surgeon-General
rchibald Henry Fraser has been granted retired pay (dated
lay 18th, 1887); Surgeon-Major William Taylor, M.D., has
een seconded on appointment as Surgeon to his Excellency
he Commander-in-Chief in India (dated Dec. 26th, 1885).

ADMIRALTY.—The following appointments have been
ade:—Inspector-General of Hospitals J. Breatky, to Haslar
ospital; Staff Surgeon B. Renshaw, to the *Sylvia;* Staff
urgeon R. W. Williams, to the *Defiance;* Surgeon W. E.
piller, to the *Duncan;* Surgeon N. H. Atock to the *Nelson;*
nd Surgeon John F. Bate, to the *Sealark* (dated May 23rd).

ROYAL ARTILLERY MILITIA.—9th Brigade, North Irish
ivision: Surgeon-Major A. Skipton resigns his commission
lated June 4th, 1887).

RIFLE VOLUNTEERS.—2nd Ayrshire: Acting Surgeon R.
irvan, M.D., to be Surgeon (dated June 4th, 1887); Surgeon
. Girvan, M.D., is granted the honorary rank of Surgeon-
Iajor (dated June 4th, 1887).—1st Dumbartonshire: John
Vylie, M.B., to be Acting Surgeon (dated June 4th, 1887).—
st Volunteer Battalion, the South Staffordshire Regiment:
cting Surgeon Thomas Edgar Underhill, to be Surgeon
lated June 4th, 1887).—6th (West) Suffolk: Edgar George
arnes, M.D., to be Acting Surgeon (dated June 4th, 1887);
nd Arthur Worlledge Aldrich, to be Acting Surgeon (dated
une 4th, 1887).

Correspondence.

"Audi alteram partem."

THE HEREDITY OF TUBERCULOSIS.

To the Editors of THE LANCET.

SIRS,—The leading article on this subject in THE LANCET
f last week induces me to offer the following remarks:—

The breeds of domesticated animals afford the best oppor-
unities to trace the working of heredity, both physio-
ogical and pathological. The practice of breeding in-and-in
s the one chief reason why heredity is so marked in cattle.
Vithout entering on the abstract differences between an in-
erited disease and an inherited liability to fall into disease,
shall state an unambiguous case of inherited tubercle that
appened lately within my experience. Being in the
orth of Scotland last Christmas, I went one day to see
relative who has a farm. He happened to mention
hat if I had come a day earlier I might have assisted
t the post-mortem examination on a diseased calf. From
what I learned on inquiry, I was led to request that the
ody might be dug up (it was merely buried temporarily
nder a mound of earth owing to the intense frost in the
ground), and I was rewarded with a spectacle of bovine
ubercle such as I had not seen before. All the serous
surfaces of the abdomen were thickly studded with enormous
essile and stalked masses of rounded and flattened tubercles,
ike thick spelter buttons, with reddish lines of vessels on
he grey surface. The calf was eight months old, and had
ever thriven, although it had lived through the best season
of the year. The new growths, which were like flat sarco-
mata of dense texture, or like fibromata, as bovine tubercles
often are, had every appearance of being a slow or chronic
formation. The evidence of heredity was conclusive. This
calf, as well as four others on the farm, was after a short-
horn bull, which had begun to waste in like manner, and
had been destroyed in his third year; and my informant
assured me that the interior of the carcase presented just
the same appearance as in the calf at that moment under
our eyes. The bull had been purchased, when a calf, at the
annual sale of young stock by a breeder of short-horns well
known in the county. The four other calves by the same
sire were in good condition; one of them had shown some
joint weakness, which is occasionally an early indication of
tubercle. The dam of the diseased calf, a short-horn cow
without pedigree, did not appear to be ailing in any way.
There is nothing unusual in this case, which came under my
notice quite casually; veterinary surgeons are constantly meet-
ing with facts of the same kind, and they seem to regard the
tuberculous diathesis as part of the strain or breeding of such
animals. Those of them who practise in breeding districts are
well aware that the complete dispersal of a pure-bred herd is
not unfrequently owing to the subtle invasion of hereditary
tubercle among the stock from in-and-in breeding, and to
the impossibility of eliminating it without a general
clearance. Such of us as have not assented to Dr. Koch's
upsetting doctrine of the parasitism of tubercle, do not
find any great difficulty in dealing with the facts of
heredity, or in finding a place for them in our synthetic
judgment of the disease as a whole. I would respectfully
ask those who are still uncommitted by any declaration on
the point in question to consider once more on how
slender a thread of experimental evidence Dr. Koch's allega-
tion of "pure culture" of the tubercle bacilli rests. The
New Sydenham Society has done a great service to the
English profession in including Dr. Koch's memoir in the
volume of essays recently translated under Mr. Watson
Cheyne's editorship. Dr. Koch remains, I believe, still the
only experimenter who has carried out the whole procedure
from first to last, including the separation of the bacilli
from the tuberculous substance in which they occur, and
the inoculation of animals with the parasites in a state of
purity, as he thinks. The evidence is thus to be found
within narrow limits, and the crucial part of the evidence
is all contained in a few sentences of the volume above
mentioned. I am, Sirs, your obedient servant,

London, June 6th, 1887. C. CREIGHTON.

"PLACENTA PRÆVIA."

To the Editors of THE LANCET.

SIRS,—The case of "Placenta Prævia" recorded in THE
LANCET by Dr. B. Walker is another interesting illustration
of the true physiological treatment which I have advocated
for the last forty years, and which abundant clinical
experience has substantiated. "Blood was flowing freely,
and complete placenta prævia was present. Introducing the
hand," says Dr. Walker, "into the vagina, *and detaching the
placenta*, a vertical presentation was found, and with two
fingers in the uterus and the right hand on the abdomen,
combined version, after Braxton Hicks's method, was quickly
and easily performed and a foot brought down, thus
plugging the cervix and causing the hæmorrhage to cease,
the whole being done in five minutes. The woman was left
comfortable. . . . . The delivery was completed spon-
taneously after twelve hours."

I submit that the just commentary upon this case is that
the hæmorrhage ceased because the placenta was detached
from the lower or dangerous zone of the uterus, which
allowed the os and cervix to expand; that the subsequent
bipolar turning, although the case ended happily, was not
clearly the cause of the arrest of hæmorrhage by plugging;
that unless the uterus contracted to force the breech upon
the lower segment of the uterus the breech could not act as
a plug, since it was not kept in contact with the bared
surface by being dragged down upon it; and that experience
amply proves that, if there be contraction, this is enough to
arrest the hæmorrhage.

Dr. Walker holds, as Sir James Simpson held, that the life
of the child was of secondary importance. In this I quite
agree. But was the child's life incompatible with saving
that of the mother? When the head presents, it is surely
better to dilate the cervix with my hydrostatic bags, which

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plug even better than the child's breech, provoke uterine activity, and give the opportunity either for spontaneous delivery by the head or by the forceps, either of which gives a much better chance of saving the child without compromising the safety of the mother. The combined method of turning comes in admirably in some cases, but it is only an application of this proceeding. It cannot be regarded as constituting by itself the rational treatment of placenta prævia. I am, Sirs, yours truly,

Harley-street, June 6th, 1887. ROBERT BARNES.

"A SUGGESTED IMPROVEMENT IN ETHER INHALERS."

To the Editors of THE LANCET.

SIRS,—Under the above heading, Mr. Rickard W. Lloyd, in an interesting communication in your issue of May 28th calls attention to a possible danger of Clover's ether inhaler, and he suggests that the anæsthetiser should possess and use a number of indiarubber bags to minimise the risks of transmitting disease from one patient to another.

Mr. Lloyd, as, I believe, all who administer ether will allow, has put his finger upon the weak part of Clover's inhaler, which is the bag. Unless the apparatus is in constant use the bag gets out of order. In hospital practice, and in the practice of surgeons who have much operating, it is tolerably easy with care to maintain the bag in good order; but even then holes will mysteriously and unaccountably appear in it. But the general practitioner, who has to let his apparatus lie on the shelf for an unknown length of time, too often finds, when he requires it on an emergency, that the bag has stuck together, and can only be opened up at the cost of tearing, or has already several perforations in it, and then sticking plaster or other tinkering expedients have to be used to render the apparatus temporarily workable. Regarding the carbonic poisoning which the bag of Clover's apparatus causes in greater or less degree, I refrain from expressing an opinion, as I have heard it condemned on the one hand as a danger, and extolled on the other as a virtue, by competent authorities. I would, however, ask those who approve this carbonic acid poisoning if, supposing they were about to inhale ether, they would give instructions to the anæsthetiser to allow their own blood to become carbonised, or whether they would not, on the contrary, prefer that their blood should be as free as possible from this noxious gas, and consequently the action of the right side of the heart be impeded as little as possible? Deaths from ether are unfortunately not unknown, and it behoves us to adopt every measure to render its administration safe as well as effective. For some time I have been making trials with an apparatus which Messrs. Mayer, Meltzer, and Co. have constructed to my order, which, whilst doing away altogether with the bag, retains all the useful features of Clover's apparatus. The patient never re-breathes expired air, and the danger pointed out by Mr. Lloyd cannot therefore occur. My trials and experiments are not yet complete, but I hope that the firm mentioned may soon be able to offer to the profession an efficient and handy inhaler which will surmount Mr. Lloyd's difficulties even more satisfactorily than his own suggestions do.

I remain, Sirs, your obedient servant,

NORMAN PORRITT,

May 31st, 1887. Hon. Surgeon, Huddersfield Infirmary.

THE HOVE INFECTIOUS HOSPITAL.

To the Editors of THE LANCET.

SIRS,—As it is your practice in all disputed cases to give facilities for "the other side" to obtain a hearing, I trust that you will permit me, as one of the laymen whom you condemn in your article of May 28th for directing public attention to the alleged defects at the Hove Sanatorium or Infectious Hospital, to offer a few remarks by way of explanation. In the first place, these "laymen," whilst claiming no great or extensive sanitary knowledge, have had considerable experience in hospitals and hospital management. General Shute, C.B., both in the Crimea and in India, learnt much practical knowledge in field and other hospitals, and, without being an "expert," now possesses valuable experience on this subject. I am no novice in hospital management, having for many years been interested and concerned in hospital government. At the present time I am one of the house committee of the largest hospital in London. Therefore, feeling ourselves qualified to form an independent opinion, we ventured to criticise the report of the local medical officer, who stated that "all the requisites of an institution of the kind were all that can be desired." I have no intention of giving in detail the deficiencies to which we ventured to direct attention; it will be sufficient for me to say on this occasion that we complained of defects in the arrangements (owing to the peculiar site on the downs), of defects in the condition of the building, and of deficiencies as regards certain sanitary appliances. We are confident that these defects would be admitted by competent and independent sanitary authorities. We are anxious only for the truth as to the facts and for efficiency as to the hospital, and we desire competent inspection, and fully believe that we shall thereby obtain confirmation of our criticisms. We have a duty to our constituents which we are anxious to fulfil. A large sum of public money has been expended on this hospital; our constituents are rated for its repayment. They deserve an efficient hospital for their outlay, and, conscientiously believing that at the present time the hospital is not in a satisfactory condition, we ventured to raise our voices against the optimistic report of the medical officer, feeling sure that the public attention thus aroused would ensure the removal of the defects of which we had complained. In conclusion, I may add that the cost of remedying these defects would only amount to an inconsiderable sum of money. Under the circumstances, I trust that you will regard our conduct as deserving of praise and not of blame, and that you will assist us and not add to our difficulties in rendering this hospital thoroughly efficient.

I am, Sirs, yours truly,

Brighton, June, 1887. ALFRED G. HENRIQUES.

*** We took no exception to a mere endeavour to remedy such defects as may exist in this hospital, but we do not admit that some of the conditions which were alleged to indicate defects are faults at all. Mr. Henriques brought forward statements calculated to damage the hospital in the minds of the general public, and thus to hinder the very object for which it was erected. He is also reported to have objected to its ventilation, to have said that "the arrangements.....were the very reverse of what such an institution should possess".....and "were as bad as they could be"; and he spoke of its "fatal objections." We deny the accuracy of such statements, and, in answer to them, we would quote the following authorities, who have at least equal knowledge with Mr. Henriques as to what are the requirements of an infectious hospital. Dr. Ewart, chairman of the Brighton Sanitary Committee, says: "The ventilation is excellent"; and he adds that "with proper care and management.....your building.....will prove a great benefit to the town." Dr. Kelly, medical officer of health to West Kent, says: "On the whole, the building seems to have been carefully planned, and to be well adapted for use as an infectious hospital." Such statements alone suffice to show how unwise was the wholesale condemnation of the hospital which was made public last month.—ED. L.

THE VALUE OF DRUGS.

To the Editors of THE LANCET.

SIRS,—The remark of Sir William Gull at the recent meeting of the Medical Council has elicited considerable correspondence on the value of drugs in the treatment of disease. I have no doubt he never intended that his remark should be taken literally, but only that it should be a strong blow at the system of empirical treatment pursued principally by dispensing chemists over the country. Every medical practitioner must have noticed how much faith the uneducated place in a bottle of medicine, and must also be aware how some dispensing chemists and all quacks pander to this taste. There is in this way many a shilling wasted in medicine that might have been well spent in a good beef-steak or coal for the fire. Medicine is seldom the most important part in the treatment of disease, and it is of the utmost importance for us at all times to impress this upon our

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ients. I expect that few men give the large quantities of dicine that was common some years ago, and the simplicity prescriptions is an important step in the right direction. r these things the profession and the public are indebted men, such as Sir William Gull, who advocate a rational de of treatment, and who have done so much to abolish at system of rough treatment now even dying out of the terinary profession. I have no doubt Sir Wm. Gull will ieve in the use of medicine properly administered as icerely as any of us, but it is only leading men like him o can take a stand with general advantage for truth and mmon sense.—I am, Sirs, yours faithfully,

Hawick, June 6th, 1887. JOHN R. HAMILTON, M.D., &c.

OYAL COLLEGE OF SURGEONS: THE PETITION.

To the Editors of THE LANCET.

SIRS,—At last the draft of the petition of the Council of e Royal College of Surgeons (Eng.) has appeared, and, as as to be expected, it contains none of the reforms demanded th by Members and by a considerable proportion of the llows of the College. There is no provision made for an nual general meeting of Fellows and Members, and none r the admission of Members to the Council or to a share its election. After nearly 5000 Members of the College ve expressed their opinion that such alterations as those e have just cited are desirable, and after their petition to at effect has been presented to the Privy Council, it seems ite impossible that the College Council can obtain such a harter as that for which it is now petitioning. At all ents, the Members having, over a month ago, lodged their tition with the Privy Council, and having asked to be ard in this matter before any new Charter is conferred, e can assure the Council of the College that every endea- our will be made by the Members to secure the reception the Privy Council of an influential deputation in their half. We are, Sirs, your obedient servants,

W. C. STEELE, } Hon. Secs.
June, 1887. W. A. ELLIS, } Assoc. M.R.C.S.

THE PROFESSION AND THE PEERAGE.

To the Editors of THE LANCET.

SIRS,—There is a proud self-respect in our profession hich forbids us, individually or collectively, claiming any ublic recognition of our efforts to promote the public good. irtue is, no doubt, its own reward; but the area of useful- ess frequently bears some proportion to the power and fluence of those desirous of being useful, and social power, ke any other force, does not lose in momentum by having filter through all strata of society from an exalted osition. The immediate object of this metaphorical state- ent is to give utterance, through the influential medium of our journal, to a notably widespread feeling in the pro- ession that something should be done to call attention in he proper quarters to the desire of many of its members hat, in the celebration of the Jubilee of our gracious overeign, a medical peerage should not be conspicuous y its absence. It will not be fruitful to inquire why his country should be singular in excluding from the anks of its nobility a body of citizens who cannot on any rounds be considered socially inferior to many of those who re periodically raised to the Upper House. Nor is it need- ul that the services medicine and surgery have rendered to he State and to mankind during the last fifty years should e enumerated at length. They are well known and reco- nised by the Faculty, and the State and individuals have o excuse for ignoring them. I feel sure that I speak for any when I say that no honour would be appreciated ore highly, or received more enthusiastically by the pro- ession, than that which could be done it in the person of ne or more of its representative members, by their being aised to the peerage of the United Kingdom. I trust hat your influential and judicious advocacy may render a edical peerage one of the essential features of the Queen's ubilee. I am, Sirs, yours truly,

June 6th, 1887. ASCLEPIAD.

To the Editors of THE LANCET.

SIRS,—An opportunity for Her Majesty is afforded by the pproaching Jubilee to show her appreciation of the valuable ervices rendered by our profession to herself, to the members of the Royal Family, and to all classes of Her Majesty's subjects, including the very poorest. It would be a most graceful acknowledgment of such services for special honour, and that honour a peerage, to be conferred on the chief representatives of the medical and surgical professions.

I am, Sirs, yours truly,

June, 1887. A COUNTRY SURGEON.

THE COLLEGE OF SURGEONS' EXAMINATIONS.

To the Editors of THE LANCET.

SIRS,—I have no desire to increase the terrible ink-shed with which Mr. Heath's strictures on the College of Surgeons' examinations have deluged your columns. But, as one who has just emerged from the fiery ordeal of the combined examinations, I trust you will permit me to state the case from the successful candidate's point of view.

The cases cited by your correspondent, Mr. F. J. Smith are only such as constantly occur within the experience of every student. The "good man" sometimes go down like ninepins, and the "duffers" are successful. Why? Simply because the latter answer the questions which the former are ignorant of. Granted that a good man is now and then plucked, my own experience shows that in nine cases out of ten he well deserves his fate. If, as Mr. Smith says, every man has his weak point, he should do his best to remedy it, or else not complain if he is given six months in which to do so. The examiners can only judge of him as they find him. Mr. Smith appears to think his third and fourth cases have been hardly used. But I submit that if a man who is shaky on such a subject as fracture of the base is allowed to write "F.R.C.S. Eng." after his name, the diploma will soon cease to be regarded as the highest surgical qualification in the world. On the first occasion on which I presented myself for the final M.R.C.S., I was referred for six months, and, as is usual and quite natural, thought myself very unfairly treated. But, on reviewing the various incidents of the examination during the period thus afforded me for mature reflection, I was obliged to own that I had been asked straightforward questions, to which I could only return unsatisfactory answers. Curiously enough, I also came a cropper over cranial fractures, or, as Mr. Smith would put it, "the examiner had found my weak point, and had pressed me on it to the total exclusion of all other subjects." I have heard of a man who was never able to pass because the examiners would ungenerously persist in asking him the very things he did not know. For my own part, I have always felt that the gentlemen who did me the honour of examining me were the heads of the profession which I, a raw recruit, was endeavouring to enter. It would be invidious for me to mention the names of individual examiners, but I may say that, treating them with respect, I have ever received kindness and consideration. I say emphatically, after two experiences, that I consider the final M.R.C.S. examination to be honestly and fairly conducted; and, in conclusion, that I have never known a so-called "good man" to be referred unless, by his own admission, he had been guilty of some breach of that submission which, as a student, it was his duty to accord to his examiner.

I am, Sirs, your obedient servant,

June 4th, 1887. L.R.C.P., M.R.C.S.

MANCHESTER.

(*From our own Correspondent.*)

OWENS COLLEGE.

ON Saturday last the members of the professorial staff of the College, with members of the Council and other friends, met at the College to do honour to Sir Henry Roscoe, who has lately severed his connexion with it as a teacher after having for so many years presided over and brought the chemical department to its present efficient state. Unfortunately Sir Henry Roscoe was prevented by severe indisposition from leaving his house on that day, so that the ceremony of presenting an address and unveiling a portrait of their late colleague subscribed for by the professors was somewhat shorn of its interest. Professor Greenwood gave an appropriate address, briefly reviewing the work of Sir Henry during his thirty years connexion with the College, and unveiled the portrait, which was then presented in the

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name of the professors to the Council, being received by Mr. Oliver Heywood on behalf of the latter body. Amongst other matters which Sir Henry has recently been inquiring into during his recent short stay here has been the question of the sale of butterine, making himself familiar by personal inquiry and investigation with all the trade details of the same, with a view to the proposed legislation on the subject. Amongst "the trade" of the district much adverse criticism has found its way into the public press concerning the provisions of the Bill now before Parliament, dealers asserting that the article known as butterine is a good and wholesome food, and that the Adulteration of Food and Drugs Act provides ample protection to purchasers if properly put in force.

JUBILEE EXHIBITION.

The Jubilee Exhibition opened last month by the Prince and Princess of Wales is proving a great success. The chemical, sanitary, and dietetic exhibits are of considerable interest from a medical point of view, and a short description of some of them will find a place in the near future in these columns. Amongst "the machinery not in motion," a railway invalid carriage will no doubt attract the notice of the profession. It is sent by the Lancashire and Yorkshire Railway Company, and is fitted up with every convenience for the removal of a patient with the least possible amount of discomfort. A small fixed bedstead is in one corner, with movable table, rests, and supports, a small ante-room for friends or attendants at one end, and a lavatory, &c., at the other.

HOSPITALS.

The proposed extension of the Fever Hospital belonging to the Royal Infirmary is meeting with considerable opposition, and the Newton Heath Local Board, in whose district the hospital is situated, at their last meeting peremptorily called upon the infirmary to suspend all further building operations until such time as the plans, &c., had been approved by them, which plans they at present decline to pass. The neighbouring borough of Salford at their last council meeting had a discussion on the following proposition: "That by way of commemoration of Her Majesty's Jubilee, the council be recommended to assist the Health Committee in the erection of a new hospital for infectious diseases, to be called the Victoria Hospital." It was suggested that a town's meeting be called to consider the subject, but the motion was eventually lost. It is thought that the proceeds of the old fever hospital in Cross-lane—i.e., £21,000—should provide a new hospital without any special appeal.

HEALTH REPORT FOR 1886.

The officer of health for the city has just published his annual report for last year. Again Manchester shows an exceedingly high death-rate, it being 24·69 per 1000 per year. The mortality from scarlet fever was double that of the previous year, 188 deaths being recorded from it, notwithstanding the removal to hospital of a large proportion of the sufferers. From small-pox no death occurred. The officer of health devotes some considerable space to the question of air impurity, and considers that the Health Committee should now devote much of its energies in endeavouring to render the air more pure, in the crowded streets and alleys alike, and the inside of many of the worst dwellings, where proper ventilation is impossible and cubic space per occupant sadly deficient. At the present time both scarlet fever and measles are exceedingly prevalent. The death-rate for the first quarter of the present year from the seven common zymotic diseases was equal to 3·8 per 1000 per annum.

June 7th.

CITY ORTHOPÆDIC HOSPITAL.—The thirty-sixth anniversary festival in aid of the funds of this hospital was held on the 8th inst., the Duke of Grafton presiding. Since the institution has been in existence 52,000 cases of deformities have been treated, the number of patients who received relief during last year being over 3000. In the course of the evening the secretary announced subscriptions and donations amounting to between £900 and £1000.

THE annual festival dinner in aid of the funds of the North London Consumption Hospital will be held on the 15th inst., at the Langham Hotel, under the presidency of Mr. F. D. Mocatta.

LIVERPOOL.

(From our own Correspondent.)

A SATURDAY NIGHT AT THE ROYAL SOUTHERN HOSPITAL.

THIS hospital is situated in the midst of what is known as Toxteth-park—a great misnomer, being composed largely of streets, many of which are of a character the very reverse of sanitary, and tenanted by a very low class of inhabitants. As a consequence of this, Saturday night is always more or less a busy night at the hospital, as Saturday, June 4th, was one of the busiest ever known since the hospital was opened. From early on Saturday night till early on Sunday morning about fifty cases were admitted and treated, two proving fatal: one was that of a man who fell down in the street in a fit, was found lying insensible by a policeman, and on reaching the hospital was found to be dead; the other was that of a child three months old, which was taken to the hospital by its mother, expiring in her arm on the way there. In addition to these, a woman was admitted with a wound in the thigh, a man with a fractured leg, a woman suffering from severe burns, a woman with serious injury to the back, and a man with severe injuries to the head.

BEQUESTS TO LOCAL HOSPITALS.

Under the will of the late Mrs. Anna Maria Heywood, widow of the late Mr. John Pemberton Heywood of this city, the Royal Infirmary and the Northern Hospital, Liverpool, each receive legacies of £1000. It is expected that the local medical charities will benefit largely under the will of a former wine merchant in this city, who has bequeathed the bulk of his estates, amounting to a very large sum, to local charities.

HOSPITAL SUNDAY AND SATURDAY.

It was recently proposed to change the date of Hospital Sunday from the second Sunday in January to some Sunday in May. Endeavours were made to ascertain the opinion of the clergy and ministers of all churches and chapels wherein collections had been made as to the desirability of a change of date; and in the event of the change being deemed advisable, then as to which month the collection should be transferred to. The replies were so evenly balanced that it was thought safer to leave matters as they are. The Hospital Saturday Fund already exceeds £2000, as more contributions have yet to be announced.

THE LATE BISHOP OF SODOR AND MAN.

The announcement of the death of the Right Rev. John Rowley Hill, Lord Bishop of Sodor and Man, was received in this city with much surprise. The late Bishop was a man of very great physical strength, and up to within a few days of his death presented the appearance of a man in the prime of robust healthy manhood, his age being fifty-one. For some days before his death he had been indisposed, which had induced him to give up engagements in Sheffield as well as in the Isle of Man and to remain in London. On Friday, the 27th ult., he suddenly grew worse, became unconscious about noon, and died the same evening. The reports as to the cause of his death differ. It was at first stated to be congestion of the liver; another and later account in the *Isle of Man Times* states that "he had for some time suffered from kidney disease, and a few days before death there were evidences of the presence of diabetes. The more immediate cause of death, however, is considered to have been extravasation of blood on the brain." His mental powers would appear to have been unaffected almost up to the last, and he preached in the very church where only a fortnight later his remains were taken previously to interment.

POISONOUS REFUSE.

From time to time cases occur of wholesale poisoning, fortunately seldom fatal, arising from the very objectionable practice which prevails here of depositing among shop and warehouse refuse nuts of a poisonous nature. Some years ago a number of children were poisoned by eating Calabar beans, one boy dying. Within the last few days a number of children were taken to the Royal Southern Hospital suffering from symptoms of poisoning in consequence of their having eaten some nuts which they found in a heap of rubbish. The nuts were stated to be croton nuts. The children suffered from acute pains in the stomach, accompanied by nausea and vomiting, but recovered.

Liverpool, June 7th.

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EDINBURGH.

(*From our own Correspondent.*)

ALBUMINURIA IN THE APPARENTLY HEALTHY.

At the last ordinary meeting of the Royal Society of Edinburgh a paper on the Discharge of Albumen from the Kidney in Healthy People was read by Professor Grainger Stewart. The paper contains the results of an extensive research carried out in relation to varied classes of the community. Professor Stewart comes to the conclusion that in the community generally the average of those who have albuminuria is about 30 per cent.; in military life the proportion is larger than amongst civilians, and with advancing years there is a marked increase in the proportion. In all classes he finds an increased number showing albumen after breakfast, as compared with what obtains before that meal. While healthy moderate exercise, as in the weekly march-out of the garrison, decreases the number in whom it is present, excessive muscular exercise, as seen in fatigue duty, largely increases the proportion of men showing albuminuria. Several other phases of human activity have been investigated in the same way, and yield most interesting results. Some of the general conclusions at which Professor Stewart arrives are the following:—That there is no sufficient proof that albuminuria is a normal condition in the human subject, but that it is a much more frequent phenomenon in the apparently healthy than was formerly supposed; that it increases in frequency as life advances, and is more common in those who lead laborious lives than in others; that moderate exertion decreases the phenomenon, whilst excessive work produces an increase, as does also cold bathing in certain individuals; and, finally, that the existence of persistent albuminuria is not *per se* a sufficient ground for the rejection of a proposal for life insurance. The paper, which was richly illustrated by tables, giving a complete analysis of the results, was very favourably received by the Society, and its author was congratulated upon the comprehensive and valuable nature of his research.

THE PRESENCE OF BACTERIA IN FISH.

At the same meeting of the Royal Society a paper on the existence of Bacteria in Living Fish was presented on behalf of Professor Ewart. A variety of species of micro-organisms are constant inhabitants of the majority of fresh-water and sea fish alike, the skate, dogfish, and some other species being, however, exempt. A considerable number of organisms may be present in the blood, lymph, and peritoneal cavity without any apparent interference with the vitality of the animal. Under a variety of depressant conditions the number of these bacilli increases: thus starvation, confinement in aquaria, and a rapid, though moderate, rise of temperature produce this effect, and the increase, if considerable, is accompanied by symptoms of languor and, in many cases, the death of the fish. The exact species of bacilli discovered have not as yet been classified; experiment shows, however, that they are not of ordinary putrefactive varieties, while the clinical evidence equally excludes them from the group of pathogenic microbes.

THE MEDICO-CHIRURGICAL SOCIETY.

At the recent meeting of this Society some interesting cases illustrating the condition of word-blindness were exhibited by Dr. Byrom Bramwell, who gave a valuable clinical demonstration of the main symptoms in two of his patients. Mr. A. G. Miller showed two patients who made an excellent recovery after operations for the relief of intracranial suppuration. Dr. Foulis exhibited a new and useful apparatus for the irrigation of the bladder, and a new form of obstetric forceps. A paper was read upon some Poisonous Products of an unusual nature present in Human Food, detailing the results obtained by Drs. Philip and Hare in a recent case of poisoning that occurred in Carlisle. Dr. Philip succeeded in separating from some ham, the material suspected, an extract poisonous to frogs, and producing symptoms in the human subject suggestive of irritant poisoning, and resembling those observed in the large number of patients who suffered after the ingestion of portions of the ham in question. Microscopic examination showed the presence of micrococci in the ham, but no bacilli were discovered resembling those present in the Wellbeck case which occurred in 1880, where poisonous ham was found to be the cause of the outbreak. A special meeting of this Society is to be held early in July, to discuss the subject of scarlet fever in relation to the recent epidemic in Edinburgh, and specially with regard to questions of the etiology of the disease now exciting such great interest.

Edinburgh, June 7th.

DUBLIN.

(*From our own Correspondent.*)

ROYAL COLLEGE OF SURGEONS.

THE contest for the vice-presidency of the College which took place on Monday last excited unusual interest, as it was known that it would be a close one. Mr. Fitzgibbon, the successful candidate, polled 126 votes, against 102 obtained by his opponent, Mr. Croly. As regards the Council, all the outgoing members who offered themselves were re-elected, with the exception of Mr. Story; while two new members have been added—viz., Mr. Frazer and Mr. Kendal Franks. More than a month since, when writing on this subject, I mentioned Mr. Franks as certain of success, and the result has justified my expectation. An unusual compliment was paid Mr. Frazer by electing him on his first attempt, and he will, I am convinced, prove a formidable opponent to Mr. Meldon in the contest for the vice-presidency next year. The votes at the meeting last Monday were the highest ever recorded, and numbered 230. At the annual meeting of the College on Saturday an animated discussion took place in reference to the proposal for amalgamation between the Carmichael College and the College School. The matter is referred to more fully in another column, and I only allude to it here to remark that the debate would not have suffered by the admixture of a larger proportion of the elements of courtesy and toleration on the part of some of the speakers than was manifested on the occasion. By the recent rules of the Council the examiners in anatomy and surgery, who were appointed on the 31st ult. for the ensuing year come under different arrangements as regards their emoluments, which has caused considerable dissatisfaction to those most interested in the matter. Previously the eight examiners in these subjects received equal remuneration, but now two examiners only in anatomy and two in surgery will as a rule be actually employed. The two other examiners in these subjects, whom I shall style assistant examiners, are only expected to act during the sickness or absence of the others, and to examine candidates for fellowship. It follows that almost all the fees from candidates will go to the acting examiners; and, on the other hand, the assistant examiners will neither have much honour or profit. For, taking the average annual number of Fellows admitted to examination, the remuneration of each assistant examiner will probably not exceed from £10 to £15 per annum. I believe it is not at all improbable that one, if not more, of these assistant examiners will shortly resign his post.

DUBLIN HOSPITALS COMMISSION.

It is authoratively stated that no steps will be taken by the Government, at least for this session, to carry out the recommendations of the Dublin Hospitals Commission. This is a result which probably will not cause much surprise, a feeling existing to a very general extent that such would be the case.

HOSPITAL FOR INCURABLES.

An appeal is being made by the governors for funds to carry out a design formed to extend the usefulness of this excellent institution. It is contemplated to add a new wing for the treatment of patients suffering from cancer and phthisis. It will be called the "Victoria Jubilee Wing," and I am in a position to state that his Royal Highness Prince Albert Victor, on his approaching visit to Dublin, will lay the foundation stone of this addition to the hospital.

THE JACOB TESTIMONIAL.

An address with a purse containing £500 was presented to Dr. A. H. Jacob at the College of Surgeons on Monday last. The address was read by Dr. Mapother, and Dr. Jacob having made a suitable reply, the proceedings terminated. The address, it may be mentioned, was signed by over 400 medical practitioners.

I am informed that Sir William Stokes and Prof. Edward Hamilton have been appointed coadjutor examiners in Surgery for the Apothecaries' Hall of Ireland.

Dublin, June 7th.

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PARIS.

(From our own Correspondent.)

PARALYSIS FROM EARTHQUAKE ELECTRICITY.

A COMPLETE account of the effects of the Nice earthquake from a medical point of view has yet to be written. In the meantime, facts of the highest interest are recorded by different observers. I have seen several cases of pulmonary disease which had been progressing satisfactorily up to that time, and in which the agitation attending the disturbance inflicted an irrecoverable shock to the nervous system. One lady has come under my care whose menstrual period, just commencing when the first shock occurred, was immediately checked. A month later the catamenia were restored by uterine faradisation, the discharge, which had not been preceded by the usual premonitions, occurring within a few hours of the application. Similar phenomena have been recorded by others. Dr. Onimus relates a case of nervous disturbance (Société de Biologie) of unusual interest. The subject was a strong vigorous man, not easily impressionable and incapable of deceit. He was at the time in charge of a fort. There were, it will be remembered, three distinct commotions, the strongest at six, another soon after, and a third, much weaker, at nine o'clock. The patient was sending a telegraphic message, and, happening to have two points in contact with the metal of the transmitting apparatus, felt a violent shock, and lost consciousness for ten minutes. During the remainder of the day he felt giddy and weak, but has no recollection of *phosphènes* at the occurrence of the shock. Two months later he complained of constant headache and fibrillary contractions in the muscles of the limbs. The right arm was paretic, and the extreme weakness was confirmed by the dynamometer. Besides tremor and painful localisations along the median nerve, there was a considerable decrease of sensibility, the finger-tips scarcely recognising a separation of twelve millimetres between the points of the compass. The paralysis of the face was on the left side, and consisted of ptosis, accompanied by blepharospasm. This crossed or alternate paralysis is what is seen constantly as a result of a powerful electric shock; but in this case the symptoms have been more serious and persistent. At the present time there is little if any improvement. The reappearance of Dr. Onimus, whose communication was received with the greatest attention, was hailed with pleasure by the Society, the more so as it has been reported of late that the health of the eminent electrician had been failing.

EPIDEMIC PNEUMONIA.

M. H. Rondet of Lyons has given particulars of two epidemics of *fluxion de poitrine* that have come within his experience. The first occurred at Fleurien-sur-Saône, a little village about ten miles north of Lyons. The disease made its appearance on March 29th, 1882, the weather being cold and misty, and the epidemic was confined to the inhabitants of a house jointly occupied by the school teachers and rural police and their visitors. Of ten patients attacked four died. The second outbreak was at the vagrants' depôt at Albigny, which comprises a population of from 630 to 650 individuals, divided into two categories, those who have entered voluntarily and those who have been sentenced to a short imprisonment for begging or vagrancy. The epidemic lasted five months, and was extremely fatal, fifty-nine deaths occurring in seventy cases. An attentive study of the conditions of development of the disease showed that its intensity and duration were in proportion to the vitiation of the atmosphere and the defects of the sanitary surroundings. The contagion was most dangerous in the dark, unventilated apartments, and there was no doubt as to the infectious nature of the disease.

ACUTE GLANDERS.

Dr. Dhoste, the medical officer of the steamer *St. Germain*, running between St. Nazaire and Vera Cruz, states that one of the passengers, a Spaniard, who embarked in perfect health at Havannah, began to show symptoms of acute glanders five days later. No treatment was of any avail, and the patient was landed in a dying condition at Santander.

SANITARY PRECAUTIONS FOR MARSEILLES.

The town council of Marseilles has passed a resolution that it is desirable for the troops returning from Tonkin and other colonies where epidemic diseases are constant to be landed at the quarantine stations of Port Cros and Bazan, instead of Marseilles. It is probable that the different administrations concerned in the matter will acquiesce in this view, and disembark the men, in the first instance, at some point in the island of Hyères.

GASEOUS RECTAL INJECTIONS.

At the congress of the delegates from the learned societies held last week at the Sorbonne the question of gaseous enemata came under discussion. M. Lamallerée said that, judging from his own personal experience, gaseous injections were inefficacious when there existed cavities, but in other stages of the disease (phthisis) they were useful. To be successful no precaution should be neglected. The improvement obtained consists in suppression of the fever, sweats, and oppression; the general health becomes more satisfactory, and the stethoscopic signs are modified. M. Lamallerée stated that he had been able to infect chickens with tubercle by mixing the expectoration of bacillary phthisis with their food, but not when the sputa came from patients under the treatment. In other diseases of the lungs this method gives rapid and durable results.

Paris, June 8th.

AUSTRALIAN NOTES.

(From our own Correspondent.)

MALPRACTICES IN NEW SOUTH WALES.

As a sequel to the case of Dr. Russell of New Zealand, which I referred to in my last letter, I have two more cases in New South Wales to relate. Encouraged apparently by the very easy way in which abortion-mongering is regarded in the colonies, this crime seems to be increasing in frequency. A case of the kind has recently occurred at Redfern, a suburb of Sydney, where a Dr. Sabatowski (with a German degree) had operated on a young single woman, and made a laceration of the uterus six inches in length, death ensuing within twenty minutes of the operation. The person in question escaped terrestrial justice by committing suicide, taking poison out in the bush, where his body was subsequently found. Another man, this time without a qualification, has introduced a novelty in gynæcological science by performing craniotomy with "a chisel, a screwdriver, and a pair of pincers, borrowed from a blacksmith." The woman died, but as the "obstetrician" charged only 30*s.* for the operation nothing more could reasonably have been expected. No inquiry was held, and reasons have been asked from the coroner for such non-action by the Minister of Justice.

A QUEENSLAND UNIVERSITY.

The first steps towards the formation of a university were inaugurated by a meeting of gentlemen summoned by the Chief Justice to consider the question, when it was decided to draw up a petition to the Government—to be signed by doctors, clergymen, lawyers, corporations, schoolmasters, &c.—to take steps to carry out that object by the necessary grants, &c.

QUEENSLAND BOARD OF HEALTH.

This board have been trying to make the public believe they are an energetic body, by going as a deputation to the Colonial Secretary and asking for executive powers to be granted to them, as they at present only possess the power of "making recommendations." The Minister, however, pointed out to them that they had made such very little use of what power they had, that he did not feel inclined to recommend their being granted any more. As a fact, it is a decrepit and useless board, and would be most beneficially replaced by an experienced, scientific, well-paid medical officer of health imported from England, with special sanitary knowledge; and this is what will eventually have to be done.

TOWNSVILLE (QUEENSLAND) HOSPITAL.

The authorities of this institution have recently decided to appoint a resident surgeon-superintendent, in place of the paid visiting surgeon. This, as the metropolis of the future colony of "Northern Queensland" (the separation of which is bound, in common justice to the North, to ensue), is an important town and the centre of a very large tract of country, the hospital thus offering great advantages of practice; and I expect the appointment will be warmly competed for.

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SYDNEY UNIVERSITY.

The following gentlemen have been appointed examiners for the third examination for the degree:—In Medicine: C. M'Kay, M.D. Surgery: A. Renwick, M.D. Midwifery: C. K. M'Kellar, M.D. Medical Jurisprudence: H. N. M'Laurin, M.D. Psychological Medicine: Sir A. Roberts, M.R.C.S.

SYDNEY HOSPITAL.

This hospital is still in a most unsatisfactory condition. The present wooden structure was put up as a temporary building ten years ago, and has long been condemned as utterly dangerous in case of fire. The late Premier, in a note which he left for his successor at the late dissolution, spoke of the patients in it as liable to "wholesale destruction" in such an event. The new site is considered by the Government unsuitable; hence the delay.

DEATH FROM CHLOROFORM.

A man died in the Sydney Infirmary recently whilst being operated on for a crushed hand, under the influence of chloroform. Three drachms were used in about five minutes, administered by means of a perforated leather mask containing a piece of sponge. One minute after the inhaler had been removed the heart stopped. Hypodermics of ether and galvanism were resorted to, but without avail. Dr. Knaggs, President of the New South Wales branch of the British Medical Association, said that, in his opinion, fatty degeneration of the heart was the cause of death.

POISONING BY ORNAMENTAL BISCUITS IN MELBOURNE.

Several children have suffered from all the symptoms of irritant poisoning lately after eating ornamental biscuits. These were found on analysis to contain arsenic and copper in the colouring matter, and the manufacturers, at the instance of the Central Board of Health, were fined £20 and costs.

In Melbourne two hundred and thirteen cases of typhoid were reported from March 1st to 24th, of which fifty-eight were fatal.

THE NEW ZEALAND POISONER.

Hall, who was convicted of the murder of his father-in-law on the clearest evidence, has escaped capital punishment by a legal technicality. The conviction for murder has been quashed on appeal, on the grounds that part of the evidence on which he was convicted of the murder of his father-in-law had been used at the previous trial, when he was convicted of the attempted murder of his wife, and was therefore inadmissible. Thus, by a legal quibble, a scoundrel has escaped justice, than whom no more cruel or cold-blooded Brinvilliers ever existed. What little consolation there is to be got out of this case lies in the fact that his "life" sentence for the attempted murder of his wife stands good, and no Minister of the Crown is ever likely to commute his sentence.

BRISBANE MORTALITY.

Out of 120 deaths for the month of February seventeen were from typhoid. As Dr. Thomson pointed out at the last meeting of the Board of Health, the mortality among young children in Brisbane is abnormally high. Of course the late weather has been against them, for the rains have been continuous for the last three months, and floods have occurred everywhere.

Dr. A. Ross has been returned for Molong at the general election, Dr. W. C. Wilkinson for The Glebe, and Dr. W. R. Cortis for Bathurst. Of course, Drs. M'Kellar and Creed still hold their seats in the "Lords."

The Hon. C. K. MacKellar, M.L.C., has just left Sydney on a visit to the old country, and (if he finds it possible) to America. He has done well, professionally and politically, out here, and is worth welcoming as a very creditable representative of the profession in Australia.

The medical men of Launceston, Tasmania, have unanimously protested against the sewage being drained into the river. Typhoid is prevalent there.

March 31st.

THE DEER IN RICHMOND PARK.—On the 8th inst. it was reported to the Richmond magistrates that there had been no further slaughter of deer in Richmond Park, and that the district was free from contagious disease. There is every indication that the epidemic of rabies among the deer is now being fast stamped out. The number of animals killed is estimated at nearly 200.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT an ordinary meeting of the Council held on Thursday, June 9th, the Minutes of the Library Committee on the 18th ult., as the report from that committee, were read; and it was agreed that, as recommended by the Library Committee, the vacant librarianship be filled up by the appointment of a librarian specially educated for such office, and that the vacancy in the office be advertised, and candidates invited to send in their applications by a given date; also that the salary of the librarian be £400 per annum, to be increased, after one year of service, to £500 per annum, provided the person appointed shall perform his duties to the satisfaction of the Council.

The third report, dated the 2nd inst., from the Committee on the Extension of the College Premises, relating to an addition to the building of the library and the appointment of a pathological curator, was read, approved, and adopted, subject to further consideration and discussion at the extraordinary meeting of the Council, which is to be held on Monday, June 27th (when the motion as to the disposal of the Erasmus Wilson bequest comes on for consideration).

A letter from Mr. Lund, resigning his position as member of the Court of Examiners was received, and his resignation accepted, with an expression of great regret at the illness which was the cause of it. The election of examiner to fill the vacancy will take place at the Council meeting on June 27th.

A letter, dated the 6th inst., from Mr. John Marshall, reporting, as the representative of the College, the proceedings of the General Medical Council during their late session, was read, received, and entered on the Minutes, and the best thanks of the Council were given to Mr. Marshall for his services as the representative of the College on the General Medical Council.

The following gentlemen were nominated for election in July as professors and lecturers to the College: Messrs. Bryant, Hulke, Stewart, Warner, Lockwood, Jessop, E. Nettleship, Marcus Gunn, Sutton, J. Priestley Smith, W. Arbuthnot Lane, and W. Watson Cheyne.

The President stated to the Council that he had received from Mr. J. Talfourd Jones of Brecon a portrait of Jenner, which he offered to the acceptance of the College. This was accepted, with the best thanks of the Council to Mr. Talfourd Jones for the same.

A letter of the 14th ult., from Mr. James Bankart of Exeter, a Fellow of the College, was read, enclosing a memorial to the Council on the subject of the new regulations of the Examining Board in England, and their influence on sutdents at provincial hospitals. This was referred to the Committee of Management to report to the two Colleges.

Three further memorials forwarded by Mr. Benjamin Bryan, and received on the 2nd inst., in opposition to the proposals contained in the memorial forwarded by Dr. Wilks relating to the disposal of the Erasmus Wilson Fund, were acknowledged.

A motion by Mr. Macnamara, "that it be referred to the President and Vice-Presidents to consider and report to the Council as to the propriety of rearranging the lectures annually delivered in the College, and of making them more serviceable to the profession," was agreed to.

Mr. Hutchinson gave notice of the following motion:—"To arrange for the delivery, by members of the Council or others, of special lectures, expository of the pathological preparations in the museum of the College."

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Members, having passed the Final Examination for the Fellowship on the 25th, 26th, and 27th ult., were, at a meeting of the Council held on Thursday last, duly admitted Fellows of the College:—

Carr, J. W., M.B. Lond., Bloomsbury-square; diploma of Membership dated Oct. 24th, 1884.
Hadley, Wilfred J., L.S.A., Cavendish-rd., Clapham; Nov. 16th, 1883.
Hare, Evan Herring, L.S.A., Mortlake-road, Kew; August 2nd, 1876.
Hatch, W. Keith, M.B. Aberd., Pall Mall; August 3rd, 1876.
Heatherley, Francis, Newman-street; January 28th, 1885.
Hewkley, F., L.S.A., Cazenove-rd., Stoke Newington; Nov. 21st, 1881.
Hughes, Edgar Alfred, Onslow-gardens; January 24th, 1884.

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James, David Philip, L.R.C.P. Lond., Tenby, South Wales; Nov. 16th, 1871.
Lawrence, Laurie Asher, L.S.A., Mansfield-gardens; Jan. 22nd, 1884.
Lund, H., M.B. Cantab., Whalley Range, Manchester; July 30th, 1885.
Richmond, C. E., L.S.A., The Infirmary, Warrington; Jan. 28th, 1876.
Robinson, H. Betham, M.B. Lond., York-crescent, Lower Norwood, July 20th, 1883.
Spencer, Walter G., M.B. Lond., St. Barthol. Hosp.; Aug. 3rd, 1885.
Tubby, A. H., L.R.C.P. Lond., Studley-rd., Clapham; July 29th, 1884.

Four other candidates passed the examination, but being under the legal age (twenty-five), the grant of their diplomas was postponed. Thirteen candidates failed to reach the required standard, five of whom were referred for six months and eight for one year.

At the same meeting the following Member, who passed the Final Examination in May, 1885, was also admitted a Fellow:—

Braddon, W. Leonard, Upton-on-Severn; diploma of Membership, dated April 23rd, 1884.

The following gentlemen, having passed the necessary examinations for the diploma, were at a meeting of the Council on the 9th inst. admitted Members of the College:—

Cockerton, Herbert, Cambridge Lodge, Lower Tooting.
Dean, Henry Percy, Dromore, Anson-road, Tufnell-park.
De Renzi, A. Castriot, Chaplain's House, H.M. Prison, Wandsworth.
Harris, Worsley John, Bennett-park, Blackheath.
Johnson, Harold Jossé, Bishopsgate-street.
Kirkpatrick, Randolph Fernhill, Bolingbroke-road.
Westbrook, Richard Talbot, Guy's Hospital.
Whicher, Alexander Hastings, Westcombe-park.
White, Charles Percival, Furnival's-inn.

SOCIETY OF APOTHECARIES.—The following gentlemen, having satisfied the Court of Examiners as to their knowledge of the Science and Practice of Medicine, Surgery, and Midwifery, received certificates entitling them to practise as Licentiates of the Society on June 2nd:—

Cotes, Digby Francis Baynes, Purton, Swindon, Wilts.
Morris, Edward Walter, Southern-hill, Reading.
Peachey, George Charles, Albany-street, Regent's-park.
White, Thomas Dawe, Wallerton-road, W.

On the same day the following gentlemen passed the Primary Examination:—

Atkins, Sidney Ernest, St. Bartholomew's Hospital.
Best, William Jenner, London Hospital.
Jessop, Arthur Rowland, Guy's Hospital.

The examination in Arts of the Society of Apothecaries was held in the hall of the Society on the 3rd and 4th inst., when there were 201 candidates. The class lists will be published, it is understood, early next week. The third examination in Arts of the Society of Apothecaries for this year will be held on the 2nd and 3rd days of September next, and the fourth examination in Arts is fixed for the 2nd and 3rd days of December next.

THE Jubilee Extension Fund in connexion with the Aberdeen Royal Infirmary amounts now to upwards of £22,924.

ÆSCULAPIAN SOCIETY.—The annual dinner of this Society took place on Friday, June 3rd, in the Holborn Restaurant. The meeting was a very successful one.

VACCINATION GRANT.—Mr. William Rowlands, of the Sephton District of the West Derby Union, has been awarded the Government grant for successful vaccination.

MR. J. O'DONOVAN, F.R.C.S.I., of Mount Haigh, Kingstown, has been placed on the Commission of the Peace for co. Dublin.

ROYAL SOCIETY.—The second *soirée* of the season, that to which ladies are admitted, was held on Wednesday at Burlington House. There was a large and distinguished company present.

ON the 2nd inst. an athletic festival, in aid of the building fund of the Great Northern Central Hospital, was held at Tufnell Park, its organisers being the police of the Y Division and tradesmen of the district.

CREMATION.—The Geneva Town Council is agitating for the institution of a crematory furnace for the Canton, on the scale of that so successfully worked at Milan. M. Empeyta, the chief mover in the matter, has put forth a defence of the practice against common objections. Mineral poisons, he maintains, are as easily detectable after cremation as after burial, while premature cremation is avoided at Milan by sending the corpse to the *ustrinum* not sooner than eight days after death.

HOSPITAL SATURDAY.—The street collection on behalf of the London hospitals takes place to-day (Saturday).

AN Oriental bazaar in aid of the funds for building a wing for the accommodation of out-patients at the East London Hospital for Children at Shadwell was opened on the 2nd inst. at the Westminster Town Hall by the Duchess of St. Albans.

SANITARY INSTITUTE OF GREAT BRITAIN.—At an examination, held on June 2nd and 3rd, seventy-seven candidates presented themselves—nine as local surveyors and sixty-eight as inspectors of nuisances. Of the former class four satisfied the examiners, of the latter class forty-four were approved.

THE epidemic of measles at Grantham, which has now reached the workhouse children, is supposed to have been brought into the town by travelling hawkers who attended the recent fair. The Town Council are discussing the advisability of inspecting the vans of these persons before again allowing them access to the town.

CONSULTATIVE RELATIONS BETWEEN HOSPITALS AND PROVIDENT DISPENSARIES. — The Medical Attendance Organisation Committee has appointed a sub-committee to consider a plan for bringing "hospitals and provident dispensaries into consultative relations." The sub-committee consists of Sir T. Spencer Wells, Bart., Dr. F. H. Alderson, Mr. W. G. Dickenson, Dr. J. Grey Glover, Dr. W. M. Ord, Dr. Gilbart Smith, Dr. J. C. Steele, Dr. Walter Smith, Dr. W. E. Steavenson, Mr. W. Bousfield, and Lieut.-Col. Montefiore.

THE WATER SUPPLY OF THE CITY.—At the last meeting of the City Commission of Sewers, a report of the Streets Committee, recommending that a tender of £1750 be accepted for constructing an artesian well at the artisans' dwellings in the City, was adopted. The work, it will be remembered, is being projected by way of an experiment to ascertain whether pure water can be cheaply supplied to the City independently of the water companies, whose charges have been the subject of complaint.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a meeting of the Fellows on Monday last, the following office-bearers were elected for the ensuing year:—President: Anthony H. Corley. Vice-President: Henry Fitzgibbon. Secretary: William Colles. Council: G. F. Kidd, William Colles, Sir Charles Cameron, Edward Hamilton, Robert McDonnell, Sir William Stokes, William J. Wheeler, Sir George Porter, J. Kellock Barton, E. H. Bennett, Philip Crampton Smyly, W. Stoker, Rawdon Macnamara, A. Meldon, William Elliott, William Carte, Samuel Chaplin, William Frazer, and Kendal Franks.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.—The general meeting of the members of this Society was held on the 20th ult., when the fourteenth annual report was read and adopted. During the past year nine meetings, with an average attendance of forty-five, have been held, twenty-one new members have been elected, twelve have resigned, and the Society now numbers 214 members. The library has been considerably increased, and three additional microscopes have been purchased. The financial report was satisfactory. The following were elected office-bearers for the ensuing year:—President, Mr. Edward Atkinson; Vice-Presidents, Dr. Cameron and Mr. McGill; Treasurer, Dr. Clifford Allbutt; Hon. Secs., Dr. Jacob and Mr. Edward Ward; Librarian, Dr. Barrs; and Auditor, Dr. Braithwaite.

THE INTERNATIONAL CONGRESS ON ALCOHOLISM.—At Antwerp, which in 1885 was the scene of the last Congress on this great question of public health, it was arranged that the next should be held this year at Zurich on Sept. 9th and 10th. The permanent committee are organising for the occasion an exposition of everything bearing on alcoholism. For example: tables and diagrams of different countries indicating the consumption of alcohol per head of the population; the proportion of persons annually undergoing imprisonment per 100,000 of the inhabitants; the annual proportion of suicides and of lunatics; the annual outlay on alcoholic drinks compared with that incurred for articles of prime necessity; plans of asylums for inebriates; specimens of non-intoxicating beverages; and comparative regulations of the various temperance societies, with statistics of their working.

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IN honour of Her Majesty's Jubilee, it has been decided by the promotors that the procession annually organised in the East-end of London on Hospital Saturday shall this year be conducted on a more extensive scale than usual.

EXHIBITION AT WIESBADEN.—A scientific exhibition will be connected with the 60th Congress of German Naturalists and Physicians to be held in Wiesbaden from the 15th to the 24th of September. It will be strictly scientific, not mercantile, and its purpose will be to show at a glance the latest and most perfected instruments and apparatus which have been placed at the disposal of science and medicine in the last few years. The following groups will form part of it:—Surgery, physical diagnosis and therapeutics; ophthalmology, gynæcology; laryngology, rhinology, and otology; orthopædics, dentistry, chemistry, instruments of precision, with subdivision for microscopy; instruments and apparatus aiding instruction in natural history, geography, equipment for scientific travel, photography, anthropology, biology and physiology, hygiene, electro-therapeutics and neurology, and pharmacology.

MEDICAL NOTES IN PARLIAMENT.

Pure Beer.

IN the House of Commons on the 7th inst., in reply to Mr. Bonsor, the Chancellor of the Exchequer stated that since the deputation eighteen samples of beer, purchased of various publicans chosen by the hon. member for Suffolk (Sudbury Division), had been carefully analysed at the laboratory at Somerset House, and he was able to inform the House that in no single case had any adulteration, noxious or otherwise, been detected, but, on the contrary, the beers were genuine and of high alcoholic strength. This statement fully corroborated the correctness of the view maintained by the Board of Inland Revenue.—Mr. Quilter asked whether the right hon. gentleman could inform the House if the samples analysed had been obtained by the officers of excise of the district, who would be presumably well known to the publicans, or were purchased over the bar by some of the public in the ordinary course of business.—The Chancellor of the Exchequer understoood that the samples had been arranged for by the hon. member himself.—Mr. Bonsor wished to state that he had nothing to do with procuring the samples, except to indicate the localities. He believed that they were procured through the officers of excise.—The Chancellor of the Exchequer said that, if the hon. member wished it, further inquiry should be made.—Mr. Quilter hoped that the right hon. gentleman would ascertain whether or not these samples were obtained by the officers of excise.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

FAULKNER, W. COOKE, M.B., C.M.Ed., has been elected Medical Officer to the Second District of the Eastbourne Union.

GELSTON, JOHN S., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer for the Sapiston District of the Thetford Union.

GODFREY, GRAHAM P., L.R.C.S., L.R.C.P.Ed., has been appointed Assistant Medical Officer for the Workhouse of the Sheffield Union.

HARRISON, WALTER, D.M.D. Univ. Harv., L.D.S. Roy. Col. Surg. Eng., has been appointed Honorary Dental Surgeon to the Throat and Ear Dispensary, Brighton, vice W. Lloyd Poundall, resigned.

HOWARD, WILFRED, M.R.C.S., L.R.C.P. Ed., has been appointed Medical Officer for the Third District of the Depwade Union.

HUGHES, EDGAR A., M.R.C.S., L.R.C.P.Lond., has been appointed Registrar and Chloroformist to the Evelina Hospital for Sick Children, Southwark-bridge-road, S.E., vice G. A. Carpenter, resigned.

KERR, DANIEL O., M.B., C.M.Ed., has been appointed Medical Officer for the Keelby District of the Caistor Union.

KNAGGS, FRANCIS H., M.R.C.S., L.R.C.P., has been appointed Surgeon to the Gloucester General Infirmary and Gloucestershire Eye Institution, vice Anthony J. Bathe, M.R.C.S., L.R.C.P., L.S.A., resigned.

NEECH, JAS. THOMAS, L.R.C.P.Ed., L.F.P.S.Glas., L.M., has been appointed Surgeon to the Oswestry Dispensary.

POWER, D'ARCY, M.A., M.B.Oxon., F.R.C.S. Eng., has been elected Assistant Surgeon to the Victoria Hospital for Children, Queen's-road, Chelsea.

THOMAS, FREDERICK, M.R.C.S., L.R.C.P. Lond., has been appointed Medical Officer for the Upper Ystradyfodwg District of the Pontypridd Union.

THOMAS, G. H. WARREN, L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer and Public Vaccinator to the Teignmouth District, Newton Abbot Union, vice Robert Gibbs, M.R.C.S., L.S.A., resigned.

TURNER, ALFRED, M.B., C.M.Ed., has been appointed Assistant Medical Officer to the Dorset County Asylum.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

BIGGLESWADE UNION, Bedford.—District Medical Officer. Salary £120, with extra medical fees, as allowed by the Local Government Board.—Medical Officer for the Union Workhouse and Infirmary. Salary £40 a year.—Medical Officer for the Contagious Diseases Hospital. Salary £10 a year.

BIRMINGHAM GENERAL HOSPITAL.—Assistant House-Surgeon. Residence, board, and washing will be provided, but no salary.

CLINICAL HOSPITAL FOR WOMEN AND CHILDREN, Park-place, Manchester.—House-Surgeon. Salary £80 per annum, with apartments and board.

DURHAM COUNTY HOSPITAL.—House-Surgeon. Salary £100 a year, with board and lodging.

HOSPITAL FOR WOMEN, Soho-square, W.—House-Physician. Salary £75 per annum, with board &c.

LIVERPOOL DISPENSARIES.—Assistant Surgeon. Salary £80 per annum, with apartments, board, and attendance.

LIVERPOOL ROYAL SOUTHERN HOSPITAL.—Ambulance Surgeon. Board, lodging, and washing provided, but no salary.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT.—Honorary Assistant Physician.

MIDHURST UNION, Sussex.—Two Medical Officers. Salaries £65 and £45 per annum, with extra medical and vaccination fees.

PADDINGTON PROVIDENT DISPENSARY, near Edgware-road, W.—Medical Officer. Usual gratuity £50 a year.

PRISON COMMISSIONERS FOR SCOTLAND.—Resident Surgeon. Salary £200, with an increment of £50 after five years, and a further increment of £50 after ten years, to a maximum of £300, with residence, or allowance in lieu, and medicines.

QUEEN'S HOSPITAL, Birmingham.—Honorary Surgeon.

ST. PANCRAS AND NORTHERN DISPENSARY, Euston-road.—Resident Medical Officer. Salary £105, with residence.—Honorary Physician.

TOWNSHIP OF TOXTETH-PARK, Liverpool.—Assistant Medical Officer for the Workhouse and Infirmary. Salary £100 per annum, with rations of a first-class officer and separate apartments.

UNIVERSITY COLLEGE, London.—Professor of Medicine.

Births, Marriages, and Deaths.

BIRTHS.

BARTON.—On the 1st inst., at Searle Lodge, Market Rasen, the wife of B. Barton, M.D., of a son.

MORTON.—On the 1st inst., at Wellesley-villas, Croydon, the wife of Shadforth Morton, M.D., of a son.

PIGGOTT.—On the 6th inst., at Teignmouth, South Devon, the wife of F. Cecil H. Piggott, B.A., M.B., B.C. Cantab., M.R.C.S., L.S.A., of a daughter.

RAW.—On the 28th ult., at Rutland House, Oakfield-road, Anerley, S.E., the wife of William E. St. M. Raw, L.R.C.P., M.R.C.S., L.S.A., of a daughter.

MARRIAGES.

ALLWRIGHT—LUNNON.—On the 1st inst., at St. Nicholas', Hedsor, Bucks, Frederick William Allwright, M.D., to Dorothy Mary (Dora), only daughter of the late Thomas Lunnon, Esq., of Bourne Bank, Bourne end, Bucks.

GRIMSDALE—JEVONS.—On the 2nd inst., at the Ancient Chapel of Toxteth-park, Liverpool, Thomas B. Grimsdale, M.B., to Helen, daughter of Henry Jevons, J.P., of Liverpool.

HOLT—COOPER.—On the 4th inst., at St. James's, Clapham, H. Lyttleton Holt, M.R.C.S., L.R.C.P.Ed., to Caroline Emily Cooper, elder daughter of William Cooper, of Clapham.

MOIR—BONAMY.—On the 8th inst., at St. John's the Evangelist, W.C., Byres Moir, M.B., to Evelyn, daughter of the late Lieut.-Col. J. Collings Bonamy, of Guernsey.

TOLLER—MACKAY.—On the 1st inst., at Langton-by-Wragby, Lincolnshire, Charles William Edward Toller, M.R.C.S., L.R.C.P., to Florence Heaton, second daughter of the Rev. Sweeu MacDonald Mackay, M.A., Vicar of Langton.

WILES—MCGACHEN.—On the 1st inst., at St. Martin's Church, Fanny Stratford, Bucks, by the Rev. A. H. MacGachen, brother of the bride, assisted by the Rev. A. H. Barrow, Vicar of the Parish, Frederick William, youngest son of the late William Wiles, of Wotton-under-Edge, Gloucestershire, to Sophia Euphemia Auld, younger daughter of the late Rev. J. D. McGachen, Vicar of St. Bartholomew's, Bethnal-green.

WRIGHT—GWYNN.—On the 1st inst., at Emmanuel Church, Clifton, John Frederick Wright, M.R.C.S., to Ethel Gwendoline, third daughter of the late John Crowther Gwynn, of Clifton, Solicitor.

DEATH.

OLIVER.—On the 7th inst., Samuel Oliver, M.R.C.S., L.R.C.P.Ed., of Buckingham Palace-road, and Enfield, Paignton, South Devon, in his 53rd year.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, June 9th, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
June 3	29·63	N.E.	56	55	...	57	51	·43	Overcast
,, 4	29·95	W.	55	52	107	71	49	·73	Cloudy
,, 5	30·05	S.W.	64	60	106	72	53	...	Hazy
,, 6	30·13	W.	60	57	102	69	55	...	Hazy
,, 7	30·06	S.W.	63	58	95	71	55	...	Cloudy
,, 8	30·12	S.W.	62	59	116	76	58	...	Cloudy
,, 9	30·09	W.	60	55	...	...	52	·05	Fine

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

PHYSICIANS IN ANCIENT ROME.

R. C. L. (Newcastle-on-Tyne).—The status of the profession in Ancient Rome was first recognised by Caius Julius Cæsar when he came to wield absolute power. "Omnes medicinam Romæ professos," says Suetonius, "et liberalium artium doctores, quo libentius et ipsi urbem incolerent et ceteri adpeterent, civitate donavit. (He vouchsafed the right of citizenship to all who in Rome professed the healing art, and who gave lessons in liberal education, in order that they themselves might the more willingly settle in the City, and that others similarly qualified might repair to it.)

Dr. L. Marshall.—We fear the communication is too lengthy for publication.

Mr. Kendrick.—The specimen is under examination.

"SWEATING OF THE FEET."

To the Editors of THE LANCET.

SIRS,—To cure the moisture of the feet every effort should be made to secure rapid evaporation. From personal experience this end, I find, can best be obtained by the use of sanitary clothing, porous throughout and made exclusively of animal material, which is a non-conductor of heat or electricity. So far as the feet are concerned, the sock or stocking is made of pure animal wool, free from all dyes or colouring material. The separate division given for each toe, as for a glove, keeps the foot cool by preventing the accumulation of sweat. We should soon suffer with our hands if gloves were made of one piece, holding the fingers tightly together, as the toes in a boot. The true sanitary boot should be made of woollen cloth or very porous leather with cloth uppers. It is lined with pure woollen lining. There is a hole in the upper part of the heel, and the inner soles or layers of leather are perforated. Each step is supposed to pump air in and out of the boot. However this may be, the fact in any case remains that the foot is kept at once warm and yet cool. There is no sense of stuffiness or closeness. The foot does not swell. Whatever moisture arises at once evaporates. The foot therefore remains dry and warm, but is never over-heated and offensive. The bad odours that vegetable lining and socks—cotton socks, to wit—retain are thrown off by nature's clothing—i.e., animal wool. This is a fact I have particularly noticed when travelling in hot countries. My cotton socks soon became obnoxious, even when constantly changed, though my feet were in a healthy state; but now that I wear sanitary boots I never suffer any inconvenience. My woollen socks keep my feet pleasantly cool and dry and free from all odour. But it is no use wearing woollen socks with a boot that has cotton or linen lining. The foot must be covered throughout with porous animal material.

I am, Sirs, yours faithfully,

June, 1887. ADOLPHE SMITH.

"WINTER PALACES OF HEALTH AT HOME."

REFERRING to Dr. B. W. Richardson's suggestion, as noticed in our issue of May 28th, *Mr. Richmond Leigh* writes:—"In the Crystal Palace we have a spacious winter-garden, in which suites of rooms for invalids and delicate-chested individuals could be put up at a reasonable outlay and let at a fairly moderate charge. The Palace also possesses the great advantage of a large and varied selection of amusements, besides schools of art, &c., to occupy the minds of the residents and prevent *ennui*. It is conveniently near to London, whence, it may be presumed, it would draw its largest contingent of patrons, and would also allow friends residing in the metropolis to visit the invalids frequently. The locality is of little import under glass. The contained vegetation, another advantage already in action at the Palace, would preserve the purity of the air, and little ventilation would be required, while dampness need not be apprehended. The luxuriant growth of the bananas and palms in the Crystal Palace is the test of its climate, and the proof of its suitability to phthisical and other invalids."

M.B.—1. If A entirely ignores the work of his Poor-law appointment, he is decidedly infringing the regulations of the Local Government Board; and in regard to his vaccination appointment the same rule holds good with greater force.—2. We should recommend "M.B." to live within his district, and leave others to report to the Central Board his opponent's non-compliance with their regulations.

Boston.—The Morton lectures will be delivered by Sir James Paget at the Royal College of Surgeons of England. The date has yet to be announced.

M.R.C.S.—Scarification with a very cold scalpel, the skin being frozen, has been successful (see THE LANCET, March 23rd, 1878, p. 421).

THE NEW MEDICAL ACT AND STUDENTS.

To the Editors of THE LANCET.

SIRS,—I should be very grateful if you would insert this letter in your next issue, as, if the Councils of the Colleges of Surgeons and Physicians would make the concession I plead for, many students would benefit by it. The student who registered on Oct. 1st, 1883, is seriously affected by the New Medical Act, as he began his studies thinking that he could take either the diploma of M.R.C.S. or L.R.C.P.L., and register it alone; and being thirteen days short of forty-five months he is unable to present himself at forthcoming examinations, kindly held by both Colleges in order that many of those who entered, thinking they were entitled to register and practise with either one degree, may have an opportunity of presenting themselves with a view to doing so. As he is now obliged to take both, I would plead that he may be allowed to present himself for examination at whichever College he was preparing for two years after passing first subject of primary, instead of two years from completing it, and for the following reasons:—First, if a student passed in anatomy, and was referred for six months in physiology, no one would, I think, suggest that he could read that subject alone during the whole period; and what he really does is to attend various out-patient departments and the post-mortem room, and read up the referred subject in early morning and evening. Secondly, it is not usual for a student to present himself at both Colleges for the finals held in the same month, so that two years would have been spent probably in hospital practice, from the time of completing the primary, before he had obtained both diplomas; and even if that were made a condition, it would be a great boon to many students. At the time of passing the first part of the primary he would then make up his mind which he intended to go in for first, and give greater attention to it for two years from then, afterwards spending the remainder of the time from the passing of the last part of the primary till two years had expired, preparing for examination in the remaining subject or subjects.

I am, Sirs, yours obediently,

May 31st, 1887. A STUDENT.

Mr. W. Longbottom.—Dr. Kollscher has not, we believe, completed his investigations on the subject. We shall probably be in a position to publish further particulars shortly.

Mr. G. W. E. Russell will see, by reference to an annotation in another column, that the subject of our correspondent's letter is engaging attention.

INCISING THE TONSILS.

To the Editors of THE LANCET.

SIRS,—I attended lately a woman who was suffering from tonsilitis, there being even more than the usual tumefaction. Upon visiting her one day in the course of the disease I was anxious to incise the tonsil at once, and not having a bistoury with me at the time I did so with an ordinary blunt-pointed dressing scissors, and with the best results. It struck me upon thinking over the matter afterwards that perhaps it would be better to use a blunt-pointed scissors in every similar case. The danger of wounding an artery is altogether obviated, there is no difficulty whatever in getting a good grip with the scissors upon the swollen tonsil, and the preliminary preparation of a bistoury with lint, which is wrapped round it, is avoided. I admit that there is very little danger of wounding an artery with a bistoury used in the customary way; still it is better to have no danger at all than a little.—Yours respectfully,

Deptford, S.E., May 26th, 1887. R. B. GOSNOLD.

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LANGMORE DEFENCE FUND.

A SUM a little more than £70 is still required to defray the heavy bill of costs for legal defence incurred by Dr. J. Wreford Langmore in the recent groundless action brought against him in consequence of his having signed a lunacy certificate, in compliance with a magistrate's order. The committee desire to close the fund, and will thank all gentlemen wishing to subscribe to send their donations at once to Mr. George Eastes, M.B., 69, Connaught-street, Hyde Park-square, London, W., the honorary secretary to the fund. The donations already acknowledged amount to £151 4s. Those received during the last three weeks are the following:—

"A Friend in the Fells"	£2	2	0	Mr. R. J. Godlee	...	...	£1	1	0
Proprietors of THE LANCET	2	2	0	Mr. T. A. Rogers	...	...	1	1	0
Mr. John Morgan ...	2	2	0	Dr. John Williams	..	...	1	1	0
Dr. J. Russell Reynolds ...	2	2	0	Mr. H. P. Young	...	...	0	10	6
Dr. J. F. P. Staples ...	2	2	0	Dr. Maurice Davis	...	...	0	10	0
Dr. A. B. Garrod ...	1	1	0	Dr. J. C. Thorowgood	...		0	5	0

"TREATMENT OF TÆNIA SOLIUM."

To the Editors of THE LANCET.

SIRS,—Being an old resident in South Africa, I can fully confirm the assertion of your correspondent, Dr. Fred. A. A. Smith, as to the frequency of worms among the natives—so much so that you will seldom see a Kaffir's necklace without some pieces of root among the charms, some probably of the male fern, as they know of that remedy. I have a piece of root still in my possession which was given to me by a Kaffir man, and of which I wrote at the time from his dictation: "The root umfissé, or umfézé. The flower they call 'cenjiganjyambo.' A most valuable medicine. The plant (I understand) attains no more than six inches in height." To this is appended the man's directions for use in the case of worms. Does Dr. Smith know the colonial remedy for worms often used among the Boers—the inner bark of the root of the pomegranate? The rind of the fruit is used by them in dysentery.

I am, Sirs, yours faithfully,

Doughty-street, W.C., June, 1887. M. CAREY-HOBSON.

FOUNDLINGS IN ITALY.

DR. B. RASERI, of the Italian Bureau of Statistics, has recently issued a valuable report on the subject of illegitimate births and foundlings in Italy. Of 187,555 illegitimate children born in the 8260 communes of the kingdom of Italy during the three years 1879, 1880, and 1881, 122,782 were recognised by one or both of their parents, while the remainder, 64,773, were brought to the civil offices, each by a stranger (midwife, accoucheur, &c.), with the declaration that the mother did not wish to declare the proper name of the child. In the years in question (1879-81) the infants found exposed were 40,296 alive, and 600 dead. Of these 32,093 were found in the turning boxes intended for their reception, 541 of them dead, and 8823 were found on the public roads, under staircases, in churches, &c., 79 of these being dead when found. Out of a total of 227,851 illegitimate children and foundlings in all Italy during the three years 1879-81 public charity took charge of only 106,461, the greater number recognised by their parents, having been provided for by them, or having died before the communes concerned had time to take measures in their behalf.

Scot.—Is our correspondent quite sure of the accuracy of his diagnosis? Iodide of potassium might be tried.

THE L.S.A. AS A DOUBLE QUALIFICATION.

To the Editors of THE LANCET.

SIRS,—According to the decision of the General Medical Council the licence of the Apothecaries' Society, London, will be a licence to practise surgery, as well as medicine; after July 1st, 1887. Should not those men who have already passed the examination in surgery (conducted by the same examiners—Messrs. Makins, Walsham, and Andrew Clark—as were recently appointed by the General Medical Council) be also recognised by the General Medical Council as possessing a licence to practise surgery? I am, Sirs, your obedient servant,

June, 1887. L.R.C.P.

*** The question asked by our correspondent is a very reasonable one. Unfortunately, law and reason do not always coincide, and there may be a difficulty in the Society acting on any examination retrospectively. We commend the letter, however, to the consideration of the Society.—ED. L.

Enquirens should refer to a letter which appeared in our issue of Dec. 6th, 1884, p. 1030.

TO PASTURES NEW.

To the Editors of THE LANCET.

SIRS,—I am a physician, &c., with indifferent health and a small private income (about £120 a year). I am anxious to emigrate, but do not know where to go. Perhaps some of your readers would kindly give me some hints on the subject. I am a bachelor, and fond of country life and sport. Any good climate, with a chance of £260 a year, would suit me; and for information I should be very grateful.

I am, Sirs, yours faithfully,

June 4th, 1887. EMIGRANS.

MUSHROOMS: THEIR NUTRITIVE VALUE.

THE Vienna school has been investigating this subject, and has arrived at conclusions of importance for all countries where, like Austria, the edible fungi are a common food. The traditional view has been that mushrooms are equal in nutritive value to butcher's meat, and physiologists, like Lorinser in his work on "The More Important Fungi" (Vienna, 1883), have urged, in the interests of the poor, the more frequent use of an aliment so easily procurable and so sustaining. Dr. Stromer of Vienna has, however, after repeated and carefully checked investigations, reached the following results:—1. The fresh mushroom differs widely from the dry mushroom, the former containing 90 per cent. of water and only from 2 to 3 per cent. of albumen, while the latter contains 28 per cent. of albumen. Moreover, the different parts of the mushroom contain more or less albumen, the "hat," for instance, having twice as much as the stem. 2. The fresh mushroom contains 2·5 per cent. of carbon hydrates, while the dry contains 24·5 per cent. of them. Experiments conducted on Stutzer's method give the following results as to the digestibility of mushrooms:—Out of 4·7 per cent. albumen in the *boletus edulis* there was digested 79 per cent., of 5·6 per cent. albumen contained in the "hat" there was digested 80 per cent., while of 2·7 per cent. albumen contained in the stem there was digested 75 per cent. Compared with other aliments this means difficult digestion. Black Vienna bread contains 1·2 per cent. albumen, and of this, in the same time, 86 per cent. was digested; bean-meal contains 3·6 per cent. albumen, and of this, also in the same time, 91 per cent. was digested; pease-meal, with 3·9 per cent. albumen yielded 95·6 per cent. to digestion, raw ham 98 per cent., and grated butcher's meat as much as 99·25 per cent. Results, the same to a fraction, were reached by Saltel of Amsterdam and Mörner of Upsal. Dr. Stromer concludes: 1. Mushrooms possess small nutritive value, their heavy charge of water reducing to very little their quantity of nutrient substances, and, above all, the albumen, which is difficult of digestion. 2. Dry mushrooms are not much better, because they absorb a great deal of water in cooking. 3. Mushrooms approximate in nutritive value to vegetables, particularly to cabbage, and, being cheap and easily procurable, deserve *pro tanto* the attention of the poor.

Mr. J. Peters.—As far as we can make out, the case is still *sub judice*; we therefore refrain from comment.

"SPECIALISM IN EXCELSIS."

To the Editors of THE LANCET.

SIRS,—In reference to your amusing paragraph with the above heading in a recent issue of THE LANCET, it may interest some of your readers to hear that the ancient Egyptians, although they may not have had an "Association of Genito-urinary Surgeons," appeared to have practised specialism *in excelsis*. For we learn, on the authority of Herodotus, that each single disease had its special physician (De Bello Persico, 2, 84). They, however, seemed to have drawn the line at the belly, which, with its contents and all below it, was given in charge of one man. I am, Sirs, yours obediently,

Brighton, June 5th, 1887. W. A. H.

THE VIENNA INTERNATIONAL CONGRESS OF HYGIENE.

G. A. P. (Birmingham).—In July next the working committee of this great gathering will be in a position to issue to all members a detailed programme, including the topics entered for discussion. It is still receiving numerous announcements of intending participants in its business, not merely from medical men, but from members of other more or less cognate professions. The programme will be found to include every subject bearing directly or indirectly on public health. The Dutch, the Swiss, and the Saxon Governments have each nominated their representatives. The exhibition of hygienic appliances will be unprecedentedly rich, thanks to the contributions already received or promised from the various European and Transatlantic States. All members of the Congress will be presented with a "Hygienic Guide to Vienna," having a plan of the city annexed, and indicating every object of sanitary interest within its gates. The Austrian railways are in treaty with the French and Belgian lines, as well as with the Triester-Lloyd and the Danube Steam Navigation Company, to reduce their fares by 50 per cent. for all members of the Congress.

J. W. Black, F.R.C.S.—The subject is one of some delicacy; but we feel very strongly with our correspondent.

THE BROWN DEFENCE FUND.

To the Editors of THE LANCET.

SIRS,—Kindly insert the following:—Amount already acknowledged, £20 9s. 6d.; the Proprietors of THE LANCET, £2 2s.; A Fellow Sufferer, £1 1s.; small sums, 9s.

I remain, Sirs, yours faithfully,

G. STANLEY MURRAY, M.D.A.

28, Upper Richmond-road, Putney, June 7th, 1887.

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COMMUNICATIONS, LETTERS, &c., have been received from—Sir Andrew Clark, London; Prof. T. R. Fraser, Edinburgh; Mr. J. R. Godlee, London; Mr. Lockwood, London; Dr. Gowers, London; Mr. Bland Sutton, London; Dr. Cullingworth, Manchester; Messrs. Maggs and Son, Yeovil; Major Cooper, London; Dr. Porter Smith, Shepton Mallet; Dr. Malins, Birmingham; Mr. Barrind, London; Mr. Arnold Evans, Wolverhampton; Mr. Alcan, Paris; M. de Fonville, Paris; Mr. Travers, Sutton; Mrs. C. Stone, Freshwater; Messrs. Boulton and Paul, Norwich; Dr. J. V. Shoemaker, Chicago; Messrs. Fletcher and Co., Holloway; Mrs. Adams, St. Leonards-on-Sea; Dr. Percy Boulton, London; Mr. T. D. C. Barry, Netley; Messrs. Maclachlan and Co., Edinburgh; Dr. J. R. Hamilton, Hawick; Messrs. Blake and Co., Leeds; Mr. Peters, London; Mr. Speed, London; Mr. Stanley Boyd; Mr. Dereuth, London; Mr. V. Richards, Goalundo; Mr. Mayo Robson, Leeds; Dr. Goodridge, Bath; Dr. R. Neale; Mr. Richmond Leigh, London; Lieut.-Col. Paris; Dr. T. J. Mays; Messrs. Arnold and Sons, London; Mr. J. M. Caw, Woolwich; Messrs. Hopkinson and Co., Nottingham; Mr. Henriques, Brighton; Mr. R. Bardley Wilmot; Dr. Jacobs, Leeds; Dr. Jas. Cameron; Mr. Mahoney, East Grinstead; Dr. Byers, Belfast; Mr. Rideal, London; Messrs. Maythorn and Son, Biggleswade; Mr. Longbottom, Sheffield; Messrs. Weiss and Son, London; Mr. Crookshank, Edinburgh; Messrs. Francis and Co., London; Mr. N. Dobson, Clifton; Dr. O'Connell, Calcutta; Mr. St. Dalmas, Leicester; Dr. Hilliard, Aylesbury; Mr. Lancaster, London; Mr. Russell, London; Mr. Gurner, London; Mr. Hodgson, London; Miss Fox, London; Mr. Cowan, Glasgow; Mr. Dewhurst, Lambeth; Mrs. Blore, Leeds; Dr. Laffan, Cashel; Mr. Martindale, London; Mr. Bergo, Oxford; Mr. Hatchett, London; Mr. Panduran, Bombay; Mr. Fuge, Taunton; Mr. Fox, Wellington; Mr. Hawkings, London; Mr. Silcocks, Bath; Mr. Fox, Birmingham; Dr. Stanley Murray, Putney; Dr. J. Farrar, Gainsborough; Messrs. Danielson and Co.; Dr. Wolfenden, London; Dr. Creighton; Messrs. Steele and Ellis, London; Dr. R. Barnes, London; Dr. J. W. Fraser; Dr. Carey Hobson, London; Dr. Caiger, Lindfield; Mr. Page, London; Mr. A. E. Barker, London; Rev. G. F. Prescott, London; Mr. Frankel, Clan William; Mr. Duntherne, London; Mr. J. M. Allender; Mr. Hayles, Evesham; Mr. Latimer, Swansea; Mr. Mills, Hanley; Mr. Cooper, Durham; Mr. Highmore, Liverpool; Dr. Cooke, London; Rev. A. Tooth, Croydon; Mr. Hunt, Manchester; Mr. Eastwood, Blackburn; Mr. Evans, Oswestry; Mr. Teague, Manchester; Mr. Symes, Dorchester; Mr. Stretton, Kidderminster; W. A. H.; M.R.C.S.; Scot; Inquirens; L.R.C.P., M.R.C.S.; H. V., Aylesbury; Philo Pilo; A Country Surgeon; L.R.C.P.; A General Practitioner; Ambulance.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Royle, Jersey; Mrs. Walmsley, Liverpool; Mr. Sacker, London; Mr. Pryce, Pontypridd; Mr. Hogg, London; Messrs. Grace, Bristol; Dr. Jones, Pontardawe; Mr. Mackinlay, Stockton-on-Tees; Messrs. Harrison and Brass, Elgin; Mr. Byerly, Pertaea; Mrs. Brown, London; Mr. H. Sargent, London; Mr. Stephens, St. Austell; Mr. Huggins, Great Malvern; Mr. Thomson, Luton; Dr. Johnston, Sheffield; Dr. Piggott, Teignmouth; Mr. Davidson, Manchester; Messrs. Benjamin and Son, London; Mr. Legge, Aberystwith; Mr. Bastes; Mr. Bfernan, Bootle; Mr. Johnson, Leicester; Mr. Gayley; Mr. Williams, Abertillery; Mr. Stenhouse, Glasgow; M., Manchester; Medicus, Stoke Newington; Physician, London; L., Leicester; Celsus; Statim, Newcastle; T. O., London; Locum, Everton; M.D., Pangbourne; Beta, Brockley; Beach; Natural Science; Doctor; M. A. C.; Unfortunate; R. V., Leeds; A. H., Woodley; Transfer, Hanley; L., Bristol; M., Ramsgate; Australian, Lurdan; W. S., Manchester; Aneroid; Lady Superintendent, Canterbury; Medicus, Lantford; M. N.; Epilepsy, Knightsbridge; X. X. X.; J. N. D.; G. B., Kentish-town; H. N. T.

Leamington Spa Courier, Melbourne Age, Carpentaria Times, Leamington Chronicle, Kentish Gazette, &c., have been received.

Medical Diary for the ensuing Week.

Monday, June 13.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M; Thursday, 2.30.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Christopher Heath: Certain Diseases of the Jaws—Diseases of the Temporo-Maxillary Articulation and Closure of the Jaws.

Tuesday, June 14.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 1.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. J. D. Malcolm: The Condition and Management of the Intestine, after Abdominal Section, considered in the light of Physiological Facts.—Dr. Radcliffe Crocker: Dermatitis Gangrenosa Infantum.—Mr. Hutchinson: On a form of Chronic Inflammation of the Lips and Mouth which sometimes ends fatally and is usually attended by some disease of the Skin.

Wednesday, June 15.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

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Clinical Lecture
ON
FUNCTIONAL DISEASES OF THE LIVER.

By SAMUEL FENWICK, M.D., F.R.C.P.,
PHYSICIAN TO THE LONDON HOSPITAL.

(*Continued from page 1175.*)

In what way can we explain the sudden change from an excess to a deficiency of the salivary salt that we have seen occur, not only in phthisis and cancer, but also in many cases of long-standing inflammations? I think the most probable hypothesis is that the nutritive organs are at first stimulated to unusual activity in order to supply the materials for increased growth, and that we then find the sulphocyanide in excess; but that this augmented functional activity is after a time succeeded by a corresponding depression, in accordance with the law that an excessive exercise of any organ is followed by a diminution of its functional power, and that when this occurs the patient exhibits the proof of it in his loss of strength, flesh, and colour, as well as in the deficiency of the salivary salt. We have before seen that an increased growth of structure, whether local or general, must be accompanied by a sufficient power of digestion, in order that the sulphocyanide should present itself in increased amount; it will be therefore necessary to inquire into the state of the salivary salt in various diseases of the digestive apparatus when there is no demand made upon them for unusual exertion.

In the earlier stages of stricture of the œsophagus and of the pylorus the amount of the salivary salt is generally either normal or above the usual quantity, so long as sufficient food can be taken to maintain the nutrition of the body; but as soon as this ceases to be the case the quantity sinks below the normal. In cancer of the stomach, as I have before mentioned, the amount generally soon becomes subnormal. In gastric catarrh it is usually above the normal, probably because this condition is so often associated with acute congestion of the liver. In atonic dyspepsia, on the contrary, the amount is ordinarily subnormal; in fact, this is by far the most frequent cause of a deficiency of the sulphocyanide, for 39 out of 111 "private cases," in which the amount was below the average, were instances of this disorder. They were all very severe cases, the appetite being bad in all; in many the sensation of hunger was totally absent, or was replaced by a loathing of all food. It is probable that feebleness of the stomach is a common cause of a deficiency of sulphocyanide in various chronic maladies, for in 84 persons presenting this condition the appetite was stated to be bad in 55, moderate in 12, and good in only 17 of the whole number.

Vomiting is a common accompaniment of a deficient amount of the sulphocyanide, but this has only been observed where the rejection of the contents of the stomach was frequent and complete. It is not the case in the so-called "hysterical vomiting," and the condition of the saliva might possibly be of value in the diagnosis of this latter condition. In phthisis vomiting assists in enfeebling the patient, and also in producing the small amount of the salivary salt we have before seen is common in the latter stages of that disorder. But it is only fair to remind you that in vomiting there is generally an increased flow of saliva, and we may doubt whether the deficiency of the sulphocyanide may not be due, in certain cases, as in gastric cancer, to exhaustion of the salivary glands, arising from their undue action. This objection is, however, disposed of by the fact that in some of the cases of gastric cancer where the vomiting was relieved by the regular washing out of the organ, there was no increase thereby produced in the quantity of the salivary salt.

An occasional attack of diarrhœa or the exhibition of a purgative does not seem to affect the quantity of the sulphocyanide; but if dysentery or diarrhœa has been continued long enough to diminish the general nutrition, it then falls below the normal amount. Thus 23 per cent. of the cases observed in the "private cases," who presented a decrease of the salivary salt were suffering from one or other of these conditions. It is of course possible, if the saliva be examined only after the cessation of the dysentery, that you may find an excess instead of a deficiency of the sulphocyanide, as an unusual demand may be made on the digestive organs in order to repair the loss occasioned by the undue waste. Thus, a patient was admitted on Oct. 27th, 1883, with a sharp attack of dysentery which had commenced on that day; the discharge of blood and mucus entirely ceased on the 31st, and the saliva then was +4. It remained at the same point two weeks longer, when it fell to +2½, and finally in the sixth week to +1, when he was discharged cured.

From a consideration of the effects of long-standing diarrhœa, we might have conjectured that any cause that prevented the absorption of the digested food from the intestine would be followed by a change in the saliva. I had not, however, thought of this. I was therefore much surprised to discover a marked alteration produced by the tapping of persons suffering from ascites arising from cirrhosis. The saliva of a man affected with this complaint, whose abdomen was tensely distended with fluid, was examined on May 11th, and found to be −3°; on the 14th he was tapped, and three days afterwards the sulphocyanide had risen to +2½; on the 28th it had again fallen to −1°, but on that day 470 ounces of fluid were removed by aspiration; and on the 31st it had risen to +2½, after which date it gradually declined each week to +2, +1½, +N, subsequently to which there are no records. In a second case the sulphocyanide was only −3 on November 15th; on the 20th tapping was performed, and on the same day it rose to +½; on December 28th it was only −1°, when aspiration was again practised, but the patient sank a few days afterwards. Three cases of this kind are recorded, each being tapped twice; the average quantity of the sulphocyanide was −1·8 just before the operations, and +1·04 shortly after them. This is not due simply to the removal of an obstruction from the general circulation; for no alteration in the amount of the salivary salt was observed after aspiration of the pleura, nor did it occur where the distension was only moderate, as you will see in a man suffering from ascites dependent on cirrhosis at present in the wards. In this latter case the fluid had been collecting for three years, and although there was a considerable quantity of liquid in the peritoneum, there was no great amount of internal pressure. He was tapped at his own request, and the saliva was not below the normal point before the performance of the operation. On the other hand, the sulphocyanide may be below the normal in ascites arising from other causes, not from the pressure of the fluid, but from imperfect digestion, and in this case the tapping does not alter the amount. For example, a man suffering from cancerous tumours of the abdomen was admitted, whose peritoneum also contained a considerable quantity of fluid. On Nov. 14th the saliva was normal; tapping was employed the same day in the hope of relieving his pain, and on Nov. 21st the quantity of sulphocyanide was −½; on Nov. 28th it was −½, and he was aspirated on Dec. 1st; on Dec. 6th it had sunk to −3°, and he died from exhaustion on Dec. 8th. I think, then, we may conclude that when the amount of the salivary salt falls much below the normal in persons suffering from ascites arising from cirrhosis, tapping is indicated; and that where there is a rapid increase in the sulphocyanide after the operation, it is probable that the former condition had resulted from pressure on the portal vessels, and not from causes immediately impairing the digestive organs.

On commencing these inquiries I suspected that the presence of the sulphocyanide in the saliva would be found to depend on a decomposition of the biliary salts, and that an increased amount would be observed in all cases of jaundice. On the contrary, in one instance of jaundice arising from duodenal catarrh in the "later hospital cases" the salt was −2 in the first week of the illness; in the next, in which the yellowness of the skin was much diminished and the colour of the stools improved, it rose to −1°; and in the third, when the patient was dismissed, it amounted to +2°. In a second case it was −2° on admission; three days afterwards it was normal; on the tenth day, when the patient had greatly improved, it was +1°; and he was dismissed cured on the nineteenth day. Taking the "earlier hospital cases," where the variations of the sulphocyanide were less minutely recorded, I find that of twenty-three

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affected with jaundice the salivary salt was deficient in eighteen, and in some of them not a trace of colour could be obtained by the addition of the perchloride of iron. In two the quantity was normal, but one of these had so far recovered as to have been placed on full diet, and in the other post-mortem examination proved the jaundice to have resulted from the rupture of a hydatid cyst into the ducts of the liver, the opening of the common duct being only partially obstructed, and bile being present in the duodenum. In three cases the quantity was above the normal, and in one of these there was cancer of the liver; the histories of the others could not be obtained. From these observations it would seem probable that in order that the salt should appear in the saliva the bile must be able to enter the duodenum, and this seems to be supported by the fact that in two cases admitted into the hospital, where large quantities of bile were expectorated, probably from perforation of the lungs by hydatid cysts of the liver, scarcely any colour could be produced in the saliva by the addition of the solution of iron. Supporting the same conclusion is the circumstance that in some cases of jaundice the depth of the colour varies always with the amount of the salivary salt. Thus a lady had suffered for three weeks from jaundice arising apparently from hypertrophic cirrhosis; the skin and urine were deeply tinged, the stools white, and the saliva free from sulphocyanide. She was treated by perchloride of mercury, and in three weeks the stools became partially coloured, and a slight tinge was produced in her saliva by the addition of iron. In two weeks afterwards diarrhœa occurred, the stools being deeply stained with bile, and although the skin and urine remained yellow the saliva contained an abundance of the salt. Again, a gentleman had been for three months deeply jaundiced, the saliva being −2°. In two months afterwards the jaundice had greatly lessened, the stools were brown coloured, and the saliva was +2. Two or three weeks afterwards he had a severe attack of pain in the abdomen, with an increase of jaundice, and the sulphocyanide again became deficient. When I last saw him he was much better, and the salivary salt was again +2°. In *severe* cases of jaundice the deficiency of the sulphocyanide is, unless cancer be present, greatest at the commencement of the case, for I found in the "earlier hospital cases" there was, on the average, twice the quantity in the saliva of those examined five weeks after the onset of the disease that there was in those who came under observation in the first week of their illness. This rule, however, does not hold good for the temporary cases following severe pain of the abdomen, and usually referred to the passage of gall-stones. In two instances of this kind the saliva was normal, even at the commencement, and the jaundice passed away in a few days. Although there are other circumstances that modify the conclusions that seem necessarily to arise from the above facts, we may lay it down as a general rule that a deficiency of the salivary salt in the first week of jaundice is unimportant, but that when it persists after many weeks' duration it is of evil omen, as pointing either to an insuperable stricture of the common duct or to some malignant growth that is sapping the strength of the patient.

In every case of lead colic the sulphocyanide was absent, or present in diminished quantity, until the urgent symptoms subsided, after which an excess was usually observed. Let me quote to you one or two instances from the "later hospital cases." A man, aged twenty-four, was admitted into the wards with lead colic of six days' standing on July 13th, and his saliva was noted as −2°. The bowels were freely moved by medicine, the pain and vomiting were relieved, and on the 17th it was +1°. A man, aged thirty-six, was admitted with lead colic of two days' duration on July 16th; on July 19th the pain of the abdomen was less and the bowels had acted, but he complained of pain in the epigastrium, and the saliva was −1°; on July 26th he had no abdominal pain, and the saliva had risen to +1½; on Aug. 2nd he was still free from pain, and the saliva was +2°. A man was admitted on Oct. 1st with lead colic; on Oct. 4th the saliva was −½, and on Oct. 11th, when the pain had quite left him, it had risen to +2. The cause of this diminution in lead colic is, however, susceptible of explanation on the supposition that, as the saliva was always very thick and tenacious, the lead might have acted directly as an astringent upon the salivary glands. I therefore stimulated the secretion by the application of tincture of pyrethrum to the tongue, but, although the quantity of the fluid was increased, there still remained a deficiency of colour on the addition of perchloride of iron. I therefore came to the conclusion that the alteration in the amount of the sulphocyanide was not due to a mere local cause. But however we may explain the diminution of the salivary salt in lead colic, the fact may be of great use in diagnosis. We see occasionally symptoms of peritonitis, of gastric ulcer, and other abdominal disorders in persons who have a blue line around their teeth, and in such instances it is difficult to determine whether the symptoms are due to the absorption of lead or not. The state of the saliva may settle the point, and thus indicate the treatment that should be undertaken for the patient's relief.

In all cases where the symptoms and physical signs have pointed to acute congestion of the liver arising from the abuse of alcohol, overfeeding, or indolence, I have remarked the amount of the salivary salt to be above the normal amount. In chronic congestion of any organ, as we see exemplified in congested kidney resulting from disease of the heart, its functional activity is lessened, and it is not able to resume its normal powers of secretion until the pressure is removed. Let us, then, ascertain the state of the saliva in heart disease, and see if any similar change occurs.

In cases of aortic regurgitation, as you are aware, pressure upon the general venous system only occasionally takes place, so that we should not expect to find much alteration in the saliva. In six cases of this kind the average amount of sulphocyanide was only +·43, and the following table shows that there was very little change when they were examined each week during the period of their residence in the hospital.

TABLE IV.—*Showing the state of the Saliva each week in Cases of Aortic Regurgitation.*

	Number of weeks in hospital.				
	1	2	3	4	5
Average amount of sulphocyanide ...	+·50	+·12	+1·25	+·66	+1·2
Number of cases examined	2	4	1	2	2

Now, although in the above figures you will observe the amount is greater in the fifth than in the first week after admission, there is no evidence of a regular increase; for in the second week it is smaller than in the first, and in the fourth it is very little above what was remarked in the first. We may conclude, then, that if the quantity of the salivary salt is an index to the activity of the digestive powers, these suffer but little in regurgitation through the aortic orifice.

Now let us examine cases of dilatation of the heart and of mitral disease in which pressure upon the venous system is sooner or later developed. Here the difference is most striking, as there were eight cases in which either the patients died or were removed by their friends in a dying condition, and of these five presented on their admission to the hospital an average of −·95. In two cases it was on admission above the normal amount, but in each, as time went on, there was a gradual decrease in the salivary salt. Thus in one it was at first +2½, next week +1½, after which no further examination is recorded; in another it was at first +2¾, then it fell successively to +2 and +½, which was quickly followed by death. On the contrary, wherever there was a steady improvement there was a weekly augmentation in the quantity of the sulphocyanide. To illustrate this I have added the following table.

TABLE V.—*Showing the Weekly Amount of Sulphocyanide in the Cases of Mitral Disease that improved in the Hospital.*

	Weeks in hospital.						
	1	2	3	4	5	6	7
Average of Sulphocyanide	+·47	+1·1	+·66	+1·7	+2·2	+2·9	+2·5
Number of cases examined	12	12	12	10	5	5	1

If you look at this table, you will remark that, although there is a decrease in the third as compared with the second week, the rise week by week in all the periods was gradual, marking, we may suppose, the diminution in the pressure on the venous system, and thus allowing the digestive organs to regain their normal condition. But you will naturally ask, How it is that heart cases during convalescence

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should show such an increase of the salivary salt? It is, I suspect, because during the illness the general nutrition has suffered, and the system calls, as after typhoid, for an augmented quantity of new material, and consequently the digestive apparatus is stimulated to unusual activity. But in heart disease we should remember that the respiratory functions are as much or more disturbed than the digestive. May not the variations in the saliva, then, be due to the pulmonary congestion, and not to that of the liver? I think this is not the case, because in the later stages of phthisis we found the salivary salt was always much below the normal point, although difficulty of breathing is a marked feature in that stage of the disease. But, however we may explain these facts, there is no doubt, if their accuracy should be confirmed by future researches, that the condition of the saliva places in our hands a valuable aid in the prognosis and treatment of diseases of the heart. When there is a gradual increase in the amount of the sulphocyanide, we may hope that the pressure on the venous system is diminishing and the digestive organs are regaining their functions; whilst when the quantity sinks week by week, we can only look forward to a decay of the vital functions and to a fatal termination of the case. I have only examined one case of acute yellow atrophy of the liver. A woman was admitted with jaundice of two or three weeks' duration, and there were no symptoms indicative of this fatal disorder. On examination of the saliva, the ordinary colour produced by the addition of the perchloride of iron was absent, but it had a brownish tinge, and I remarked to the students present that in all probability, although the case was an obscure one, it would prove dangerous or tedious. Delirium set in suddenly, the space of the hepatic dulness rapidly diminished, and she died in two or three days. I have been informed by Mr. Hurry Fenwick that he has remarked a brown colour in the saliva on addition of iron in cases of pyæmia, but I have not myself verified the observation. It is, however, worth while to bear this in mind as various modifications of the sulphocyanide may perhaps be discovered in different diseases. If we should find that the ordinary salivary salt is always absent in cases of acute yellow atrophy of the liver, it may enable us to suspect the presence of this formidable malady where there are no other indications of it. I have found that the quantity of the salivary salt occasionally differs to a considerable extent from the normal in those who seem to be in good health, and it therefore becomes a matter of interest to inquire whether persons who present this condition are more prone to disease than others, and if so, to what maladies they are especially liable. At an early period of these inquiries I was struck with the unusual quantity of the sulphocyanide secreted by persons suffering from acute rheumatism, and this fact was confirmed by both the gentlemen who so kindly assisted me. Of thirty-six cases of this disease recorded in the "earlier hospital cases," all but one, whose saliva was normal, showed a marked excess of sulphocyanide, the amount varying from eight times to twice the ordinary quantity. As I before explained to you the depth of the colour in the earlier observations was not so carefully estimated as afterwards, so I shall now confine myself to the results obtained by the later and more accurate inquiries. Fifty-five were recorded in the "later hospital cases," which are grouped in the following table according to their stay in the hospital, but these include a considerable number of subacute and gonorrhœal cases, in which the quantity of the salivary salt is usually small, and consequently the average quantities are much less than you might expect from the former statement.

TABLE VI.—*Showing the Amount of Sulphocyanide in Cases of Rheumatic Fever grouped according to their duration in the Hospital.*

	Period of residence in hospital.			
	7 days.	7 to 28 days.	28 to 56 days.	Above 56 days.
Average depth of colour... ...	+·33	+·94	+·1·7	+2·62
Number of cases examined ...	3	26	22	4

You will see by the above figures that there was a gradual rise in the amount of the sulphocyanide in proportion to the length of time required to afford permanent relief to the patients. Those included in the first column were either relapsed or doubtful cases of rheumatic fever, but I thought it was more fair to include everyone who was admitted with the diagnosis of acute rheumatism, even if the correctness of the diagnosis was doubtful. I need not tell you that acute rheumatism does not run a regular course; it consists of a succession of febrile attacks attended with articular inflammations, and you will be able therefore to understand that the smaller the quantity of the salivary salt, the less is the tendency to the recurrence of these attacks.

But the state of the saliva affords also a measure of the severity of the attacks—that is, of the number of joints that are simultaneously affected,—for when many joints are implicated the patients are obliged to apply to the hospital earlier than those in whom only one joint is painful, or where the pain is so slight that they can continue at their employments. In the following table the cases are grouped together according to the length of time the pains had been felt before their admission.

TABLE VII.—*Showing the Cases of Rheumatic Fever grouped according to the duration of the illness before admission into the Hospital.*

	Duration of pains before admission.		
	Under 7 days.	7 to 21 days.	Above 21 days.
Average depth of colour ...	+1·65	+1·31	+1·18
Number of cases examined...	23	24	8

It may, of course, be objected that other causes besides the severity of the attack influence the early application of the patients for hospital treatment, but that this is the chief reason seems to be borne out by the experience of Dr. Hilton Fagge at Guy's Hospital; for he remarks: "A point which comes out clearly from the last column is that a comparatively long duration of the disease after admission is by no means peculiar to patients admitted at a very early period of the illness. On the other hand, it may be noticed that the cases which subsided most rapidly whilst in the hospital had already been running on for three weeks; and I am not sure that this is a mere accident, for on tabulating ten other cases which have since occurred at Guy's, and in which rapid recovery has taken place without treatment (or under treatment which I believe to be ineffectual), I find the average duration of the disease before admission was 13·7 days."[1] But you may say that, as it has been already stated that in all inflammatory disorders there is an increase of the salivary salt from the demand made upon the organs engaged in nutrition, why may not this be the reason of the excess in acute rheumatism? For the simple reason that there is no difference to be remarked during the period when the joints are affected and the intervals when they are free from inflammation; and also because, even when the attacks have subsided, and the patients are able to leave the hospital, the excess of the salivary salt has still been observable. To show this I have constructed a table. (See Table VIII.) You will remark that in each group the depth of colour was nearly the same in the week when the patients were dismissed as when they were admitted, so that, notwithstanding the pains were relieved, the excess of the sulphocyanide remained. It is also worthy of observation that no effect appears to have been produced upon the saliva by the treatment. Nevertheless, after the patients left the hospital the excess of the sulphocyanide seems to have disappeared. Thus, four patients were readmitted on account of return of pains in the limbs; one on his first admission presented a colour of +3½, which fell to +2, and he was readmitted with +1½; another had a colour of +3½, which had fallen to +2½ when discharged, but when readmitted it was only +1½; another on his first admission presented a colour of +2, it was +2½ when he left the hospital, but it was −¾ when readmitted; a fourth returned one month after leaving the wards with a colour of −3. In all of these the pains on readmission were slight, there was scarcely any rise of temperature, and they were quickly again discharged cured. But there is another objection that has probably occurred to your minds. May not the excess of the sulpho-

[1] The Principles and Practice of Medicine. By Dr. Hilton Fagge. Vol. ii., p. 538.

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cyanide in acute rheumatism and in all the febrile diseases hitherto examined be due to the increased temperature of the body, and be therefore merely an indication of the augmentation of the destructive processes by the fever, or of the inspissation of the saliva accompanying it? Table IX. has been prepared to test the truth of this objection, and was formed by calculating the average evening temperature of each case during its residence in the hospital; the whole of the cases being then grouped according to the temperatures thus obtained.

TABLE VIII.—*Showing the Depth of Colour in each Week of Residence in Hospital of Cases of Rheumatic Fever.*

		Weeks in hospital.											
		1	2	3	4	5	6	7	8	9	10	11	12
Dismissed within 8 days.	Average colour	+·33	—	—	—	—	—	—	—	—	—	—	—
	Number of cases	3	—	—	—	—	—	—	—	—	—	—	—
Dismissed, 8 to 29 days.	Average colour	+·9	+·9	+·9	+1·75	—	—	—	—	—	—	—	
	Number of cases	20	20	13	2	—	—	—	—	—	—	—	—
Dismissed, 29 to 56 days.	Average colour	+1·8	+1·72	+1·5	+1·25	+1·5	+2·1	+1·45	+1·75	—	—	—	—
	Number of cases	14	20	16	15	13	7	5	1	—	—	—	—
Dismissed, above 56 days.	Average colour	+2	+1·87	+2·25	+1·87	+3·12	+2·81	+2·62	+3·16	+2·75	+2·25	+2·	+2
	Number of cases	2	2	2	2	2	4	4	3	3	2	1	1

TABLE IX.—*Showing the Cases of Rheumatic Fever grouped according to their average Evening Temperatures.*

—	No. of observations.	Average depth of colour.
Average evening temperature below 98°	6	+1·16
,, ,, between 98° & 99°	93	+2·25
,, ,, ,, 99° & 100°	42	+1·92
,, ,, ,, 100° & 101°	22	+1·5
,, ,, above 101°	11	+1·43

It will be remarked that the highest quantity of the sulphocyanide was in the cases in which the average temperature was 98° to 99°, and that it lessened as the average amount of heat increased, so that there is no connexion between the quantity of the salivary salt and the increased retrograde processes that are believed to occur in fever. In acute rheumatism the saliva is always abundant, so that there is no reason to suppose the augmentation in the amount of the sulphocyanide is the result of an inspissation of the secretion.

But it may be said, Is not the temperature a measure of the intensity of the disease, and ought not, therefore, the elevation of the thermometer to correspond with an augmentation of the sulphocyanide? But the *average* evening temperature does not represent the severity of the illness, for the highest temperature in each case usually occurs during the first four days after the patient's admission, and in short cases, where there is no recurrence of the fever, the patients are quickly dismissed, and consequently the average temperature is high. But where there is a frequent succession of attacks, attended with a moderate rise of temperature, the patients remain long in the hospital, and the average height of the thermometer is not much above the normal. Now it is in these protracted cases that the syphocyanide is in the greatest excess, and consequently the saliva furnishes us with a most valuable indication in respect to the prognosis of the disease.

(To be concluded.)

ON LITHOTRITY AND LITHOTOMY.

BY F. J. GANT, F.R.C.S.,
SENIOR SURGEON TO THE ROYAL FREE HOSPITAL.

HAVING recently had occasion to operate on two patients in succession for stone in the bladder—the one by lithotrity and the other by the lateral operation of lithotomy,—this unusual coincidence led me to reconsider the relative merits of these two operations, and that of the suprapubic method, for the removal of vesical calculus; at the same time reviewing the various accidents which may befall each such operation, the difficulties which may have to be encountered in their performance, and the dangers which may follow the footsteps of these procedures. I will first briefly narrate the two cases which suggested this critical survey.

CASE 1. *Lithotrity.*—Joseph D——, aged twenty-eight, had suffered from symptoms of stone in the bladder for about eight months previously to his admission to the Royal Free Hospital on March 4th, 1887. On sounding him, I found a calculus lying in the fundus of the bladder, which gave a dull sound, and was attended with an alkaline and mucous state of the urine. The diagnosis pointed to the presence of a phosphatic calculus, and that, judging from the extent of surface over which the convexity of the sound traversed, it seemed to be of large size, while the resistance offered to movement by the sound gave some estimate of its weight. The act of sounding was painful, and excited some spasmodic expulsion of urine. Operation was therefore postponed for a few days until the vesical irritability had been allayed by rest and recumbency in bed.

On March 12th lithotrity was performed. The patient having been anæsthetised, and the bladder moderately distended with warm water, the calculus was readily caught by the lithotrite, and measured nearly one inch and a half in its long diameter. It broke readily into pieces, and the fragments were successively crushed. In the process of pulverisation, the pieces were not sought by any exploration with the instrument; but, by fixing the female blade in the fundus of the bladder, and gently sliding the male blade backwards and forwards, the disturbance of the water sufficed to bring some fragment between the blades. By a half-rotatory movement of the instrument from side to side, other fragments were readily caught, lying beyond the middle area. When a quantity of detritus had accumulated, it was evacuated by a No. 15 evacuating catheter, the orifice of the urethral meatus having been incised to admit of the introduction of this instrument. Crushing and evacuation were repeated a second and a third time, the operation lasting an hour and a half, when I deemed it advisable to leave the remainder for another sitting. But it is worthy of note, that the water in the receiver of the aspirator is scarcely blood-stained throughout the operation. A gentle use of the lithotrite, in the manner explained, even for a long period, is better tolerated, and especially by an irritable bladder, than that by a more active use of the instrument, lithotrity should be finished in half the time. The patient suffered not the slightest after-symptom of any kind, feeling as comfortable as if nothing had been done, and passing urine only three or four times daily. The man was kept in bed only on account of the acute east winds.

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Three-quarters of an ounce of phosphatic calculus had been thus removed without any inconvenience.

In a few days the operation was completed; with a final exploration of the bladder, which still remained irritable, even under the influence of anæsthesia. Two days afterwards, the patient being quite well, he got up at his own request. He continued under observation for a fortnight, daily taking exercise; then, no fragments having been found on carefully sounding the bladder, and being entirely free from stone symptoms, he left the hospital in good health. The total amount of phosphatic detritus, so far as it could be collected, was over an ounce in weight, and the original size of the calculus one inch and a half.

CASE 2. *Lithotomy (perineal) by the lateral operation.*—William P——, aged eighteen, had experienced symptoms of vesical calculus for a period of ten years. When admitted to the hospital (March 7th, 1887), sounding at once touched a stone, lying in the fundus of the bladder; it rang with a sound as if metallic, and was distinctly tuberculated under the point of the instrument, the stone measuring about one inch from before backwards, as indicated by the passage of the sound over its surface. I concluded that there was a hard mulberry calculus, and of more than average size. The bladder and urine were quite healthy. In this case the operation of lithotomy, and by the lateral method in the perineum, leaving the suprapubic operation out of the question, would be far more suitable than lithotrity.

On March 12th, after the previous case of lithotrity, I performed lateral lithotomy in the usual manner. But, having made the prostatic incision and seized the stone with some little trouble, as it slipped from the grasp of the forceps, I experienced a real difficulty in extracting the stone without bruising the neck of the bladder. Accordingly, I had recourse to an expedient which I strongly advocate in such cases. Passing a blunt-pointed scalpel along the inner blade of the forceps, held in the prostatic incision, I made a second rectangular or transverse incision outwards in the right half of the prostate, sufficiently to extract the stone with ease. This modification of the operation was seen to be necessary, not only from the size of the calculus, but owing to the projection of its rough surface beyond the blades of the forceps.

The after course of this case was noteworthy only on account of the absence of any unfavourable symptoms. No suprapubic pain ensued as from pelvic cellulitis, and the urine passed freely through the wound about six times in the twenty-four hours for the first two days. Thus, on the second day—usually a critical time—The report states: April 14th: urine from wound at 10 A.M., 2 P.M., 6 P.M., 8.30 P.M., 10 P.M., and 6 A.M. On the following (third) day urine was passed through the urethra and through the wound, and so on, alternating until the fifth day. Subsequently the urine again passed more and more through the wound; but from the eighth day onwards entirely per urethram. The perineal incision healed up from within, without any tenderness or fulness, and had completely closed in a fortnight. Recumbency still seemed advisable, to render the perineum firm and unyielding, the wound having been known to reopen in consequence of the patient being allowed to get up at too early a period; but the young man took gentle walking exercise in the quadrangle of the hospital for a few days, and then left quite well. The stone, a fine specimen of black mulberry oxalate of lime calculus, looked like a round rough piece of iron slag, and weighed nearly an ounce.

Choice of operation: lithotrity or lithotomy; lateral, median, or suprapubic.—Before proceeding to remove a stone from the bladder, certain clear and definite views must be held as to the *conditions* which should determine the kind of operation, seeing that the circumstances which lead to this selection will obviously affect, for better or worse, all the contingencies of difficulty and adverse consequences which are associated with the particular method, but which are referable rather to the questionable fitness of the case, and thence the prior judgment of the operator. In connexion with the relative merits of lithotrity and lithotomy, whatever method be adopted, no question can have more practical significance than with regard to the size and the density of the calculus, coupled with the state of the bladder and urinary tract throughout—the combination of factors which shall be more favourable for the performance and after safety of the one or the other of these operations. The wide difference of results in the hands of experienced operators may be thus explained, more than by circumstances incident to the individual skill of the operator.

Bigelow's method of rapid lithotrity has done much to place the crushing operation on equal terms with the cutting operation of lithotomy for the complete removal of stone from the bladder; but, if rightly interpreted in its full bearings on the question, this method has done even more to demonstrate the circumstances which should determine the surgeon's choice. The complete evacuation of stone from the bladder by a single operation of crushing, prolonged perhaps for an hour or more, as *compared* with the former method, by repeated crushings, each lasting only a few minutes, may be read in the light of a *crucial* experiment to test the tolerance of the urinary bladder for the free use of instruments or for the continued presence of stone fragments. The evidence in favour of prolonged instrumentation has not only reversed the judgment formerly held as to the supposed intolerance of the bladder for this kind of irritation, but has elicited the equally significant fact that stone chips remaining in the bladder, followed speedily by cystitis or aggravating the previous vesical inflammation, is the immediate cause of death after lithotrity. The choice of operation for the removal of stone must, therefore, be centralised in the *kind of calculus* with which the surgeon has to deal. In lithotrity, a *hard* calculus, ringing as if metallic when sounded, yields fragments more angular and irritative than those of a soft calculus—more provocative of cystitis. Unless the bladder can be most assuredly emptied of all such fragments, a hard calculus of uric acid or oxalate of lime had far better be removed by lithotomy. Of course the *size* of the stone is also an important consideration, but quite subordinate, I should say, to that of density, as a factor in lithotrity. According to my judgment, the crushing of an earthy phosphatic calculus, measuring by the lithotrite an inch and a half, would entail less bladder liabilities than the crushing of a flinty mulberry calculus of only half that size. The one squashes readily into grit as the operation proceeds; the other gives way with a sort of bang, falls into angular pieces, and then breaks into similar fragments. Any remaining chips which had perchance escaped evacuation would induce cystitis more surely than the whole amount of pulverulent matter into which the phosphatic stone had crumbled, mixing with the water into a mortar-like puddle in the bladder.

With relation to lithotomy, the *size* of the calculus is *the* element in the question which mainly determines the claims in favour of lithotrity. The dimensions of a stone may render it ill-fitted for extraction by any cutting operation. In *lateral* lithotomy, the extraction of a stone beyond a certain size, is attended with such bruising of the neck of the bladder as will almost inevitably be followed by spreading cellulitis around. On the other hand, a more than limited prostatic incision backwards might trespass beyond the fascial investment of the prostate, and lead to urinary infiltration, with the same result. But contusion of the vesical neck is more frequently responsible for a fatal issue. The *median* operation can offer only a limited access to the bladder, and allowing the extraction of a proportionately small stone, this method of cutting is out of the running, in comparison with lithotrity. Looking at lithotomy only from a stone-extraction point of view, it is here assumed that in either the lateral or the median way of approaching the bladder the path is well known, with its relations, and the operation skilfully performed. *Suprapubic* lithotomy provides for the removal of a large stone, of such size as could not be removed by lithotrity, however prolonged or repeated. But, having regard to the pathway of operation, experience has shown, and quite recently, that the bladder cannot be entered above the pubes always, without wounding the peritoneal reflexion, even when the bladder is raised by the fullest distension, almost to the point of bursting, and propped up from below by an equally distended Petersen's rectal bag. Then, again, the known risk of urinary infiltration has proved to be a not uncommon after-consequence of the suprapubic incision, and certainly should not be an after-thought in the mind of the surgeon who is about to operate by this route.

Apart from the kind of calculus, as determining the choice of operation, of less direct importance may be reckoned the state of the bladder and kidneys, cystitis depending far more on the continued presence of stone fragments after lithotrity than arising from this operation. The complete evacuation of the bladder would place the rapid method on

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a level with any operation of lithotomy. So, likewise, nephritis or pyelitis, whether due to the extension of vesical inflammation up the ureters, or occurring from reflex vasomotor influence on the kidney, is alike the expression of vesical irritation. The symptoms betokening renal irritation, by rigors, lumbar pain, with uræmic blood-poisoning, proceed from the bladder, and all the significance of kidney mischief is lost in the prior question of entire removal of the calculus from the organ below.

But when, in any case, the hardness of a calculus would be adverse to lithotrity—unless the operation can be completed, and the bladder be certainly emptied of all fragments, and when the size of the calculus places it beyond lithotomy, otherwise than through the perils of the suprapubic adventure,—can the old lateral operation of lithotomy be modified and adapted for the removal of a stone, whose dimensions may require further space than usual for its extraction, without any untoward consequences? The perineal incision itself will, of course, be sufficient; and the prostatic incision may be safely extended backwards to the very neck of the bladder, notching the elastic ring, but within the boundary of the fascial investment of the prostate; the incision, thus limited, admitting readily of enlargement, by a tunneling dilatation with the finger, without dividing or rupturing the elastic ring. But the opening thus formed by this well-defined incision and dilatation may be further enlarged to twice the size by a rectangular incision from the middle of the first towards the other side of the prostate. In a prostate of average dimensions the usual lateral incision may be one inch, admitting of the extraction of a calculus which shall weigh an ounce and a half; and the rectangular incision, in the middle of the right half of the prostate, having nearly the same extent—another inch,—will provide the additional space for the extraction of a stone double the size, should the necessity arise in this stage of the operation. The valvular opening thus formed gives, therefore, ample room for the passage of a calculus as large as may be met with. This *rectangular* incision is not the incision which was practised occasionally by Martineau and Liston, who divided the right side of the prostate downwards towards the right ischial tuberosity, forming, with the similar section of the left side, a double *lateral* section of the prostate. The objection to that direction of the second incision to the right is the liability of wounding the rectum, now that the prostate is not held up by the staff, and the bowel protected also by the finger, as when in the act of making the ordinary lateral incision alone in the left half of the prostate. The semilunar prostatic incision, by the "bilateral operation" of Dupuytren, has obviously a different shape, and the downward direction of the section on either side, in using the covered double-bladed lithotome, is very liable to touch the vasa deferentia or the seminal vesicles, and emasculate the patient. Notching the margins of the ordinary left lateral incision, obliquely, above and below the "quadrilateral section" of the prostate, advocated by Vidal de Cassis, is a procedure which involves no such risk; but nickings with the knife in those situations, to ease the forceps for the extraction of a large stone, might readily cut the fascial investment of the prostate above or the rectum below. The additional space afforded by the rectangular section passing transversely across the right half of the prostate is fully equivalent to that which is given in either of these ways, and is entirely free from any danger. It is easily accomplished. When, in the extraction of a large stone, the forceps is found to be fixed somewhat firmly in the ordinary lateral opening in the prostate, the second cut can be made by sliding a blunt-pointed knife along the convexity of the inner blade, and carrying it outwards, not downwards, in the middle of the right half of the prostate. If there be any doubt as to the bearing of the blade, a little traction with the forceps will make the prostate bulge forwards sufficiently to bring that part actually into view in a perineum of the ordinary depth. By this second transverse incision bruising of the vesical neck is prevented, the risk of urinary infiltration from a too free left lateral incision in the backward direction is avoided, and the extraction of the stone is effected without fracture and splintering in the bladder, or in drawing it through the prostate.

By the operation of lithotrity large stones of the hardest kind have been pulverised, and the bladder completely emptied. That operation may be credited in Freyer's practice with having thus got rid of calculi formed of uric acid and oxalate of lime, each weighing more than three ounces. But these are quite exceptional cases, and in the hands of an exceptional lithotritist. Success in crushing and evacuating such calculi might well place some other operators in mourning. The average lithotritist, tackling either of those hardened sinners, would certainly have left some portion of the enemy in the bladder; ay, and even after a second attack, an angular fragment or two might still be lodged. When the surgeon, who is about equally apt in crushing or cutting, has to encounter a big, brazen mulberry calculus, or its almost as formidable uric acid rival, instead of spending an hour and a half or longer in lithotrity, without then clearing out the bladder, I would recommend him to try lateral lithotomy, with the additional rectangular incision of the prostate to the right side, and capture the enemy in a few minutes.

I may take another opportunity of referring to the difficulties and dangers pertaining to lithotrity and lithotomy in the various methods of operation.

Connaught-square, W.

A MEDIAN LITHOTOMY.

By REGINALD HARRISON, F.R.C.S.,
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THE recent movement to revive the suprapubic operation for stone in the bladder, under somewhat altered circumstances, has been doubtless prompted with the view of diminishing the mortality connected with the removal of those stones from the bladder which cannot be effected by crushing, and of substituting an operation which is free from the difficulties and risks which, either rightly or wrongly, have been associated with lateral lithotomy. That there are grounds for possessing an alternative is evident from a study of some statistics and records of the latter operation. That the lateral method for stone in adults has been found to be a proceeding attended with a considerable degree of fatality, reaching in some instances, it is stated, to a death-rate of 35 per cent., there can be no doubt. Further, records of this operation show that the mortality has arisen very largely out of complications having an evident relation to the difficulties with which the operation was performed. For instance, a well-executed lateral operation where everything is straightforward is about the safest operation of any magnitude in surgery; and in proportion with the degree of deviation from the standard that circumstances render inevitable may its fatality be measured. In proof of this let me mention the chief early causes of death after lithotomy. Hæmorrhage, primary and secondary; cellulitis and peritonitis arising from damage done by the knife, as when the latter is allowed to miss or leave the staff and to pass behind or through the bladder, not mentioning the rectum; rupture of the urethra and failure to enter the bladder, as when these parts are telescoped by the finger of the operator; and, lastly, sepsis. With the exception of the last-mentioned cause, which is largely determined by the nature of the incisions made, probably all the others are avoidable, and seldom occur save in connexion with an operation the doing of which might be improved upon. Apart, however, from these difficulties and contingencies, there is a necessity for carefully considering our means of removing stones from the bladder by the frequency with which recurrences take place after lithotrity, even when the operation has been practised by experienced hands. Such recurrences have been recently stated as amounting to about 13 per cent.

When we consider the rarity of stone relapses after lithotomy, as compared with lithotrity, we have the best reason for critically studying the former operation with the view of rendering it simple and efficient. I think it will be generally admitted that the easiest and simplest method of entering the bladder, say for the purpose of exploring it with the finger, is that known as median perineal urethrotomy, or incorrectly as median cystotomy. By this plan the finger may be readily passed into the bladder without risk. As I have now practised this operation for the relief of cystitis, for the exploration of tumours of the bladder and prostate, for prostatotomy and prostatectomy, a very considerable number of times, I think my experience has

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been sufficient to warrant this statement. But though the finger may thus be readily introduced into the bladder, as well as sounds and forceps, for further exploration, it will be urged that nothing of any size can be withdrawn with safety through such a limited opening. Even admitting the fullest amount of dilatation, a uric acid stone of half an ounce in weight could not be withdrawn without such an amount of dragging and tearing as to render a fatal result inevitable. But this exploratory opening, which is essentially the old median cystotomy, can be easily and safely adopted for the removal of larger stones—say, up to six-ounce urate or oxalate ones. The demonstration of this point may be regarded as the object of this paper. During the course of a number of operations, undertaken for the relief of symptoms due to a large prostate, I found it was quite feasible and easy to obtain as free an opening into the bladder by a median incision along the urethra and floor of the prostate, as by the ordinary lateral operation for stone. To effect this, the following additions to the operation known as median perineal urethrotomy for the exploration of the bladder are necessary. The finger having thus been passed into the bladder by the side of the staff, the opening is extended in the following manner. In the first place, the membranous urethra is slit up along its floor on the staff by a curved probe-pointed bistoury; in this incision may be included more or less of the perineum according to circumstances. Any bleeding vessel may be tied before proceeding further. The deep incision is then made by passing the curved probe-pointed bistoury by the side of the index finger well into the bladder. The staff may now be withdrawn. The blade of the knife is turned downwards towards the rectum, and the floor of the prostate divided from within outwards, commencing at the depression, which exists more or less in all male adults just within the orifice of the urethra. The incision thus made with the knife may be deepened down to the capsule merely by the firm pressure of the index finger downwards. In this way I have been able to make as free an opening into the bladder nearly along the median line of the body as a lateral lithotomy will permit of. This can be readily tested on the dead subject.

Many operators, I believe, will find this an easier way of opening the bladder freely for the purpose of removing stones, which, without the modification mentioned, could only be effected either by lateral or suprapubic cystotomy. It may be urged that the downward incision of the prostate necessarily endangers the integrity of the seminal openings. I am not aware that there is any reliable evidence in favour of such an objection, at least so far as causing a permanent inconvenience is concerned; at all events, I should have no hesitation in saying that, if an operator for stone feels that he can perform a median operation with the adaptation just described more safely than a lateral, he had better risk the seminal apparatus than the life of his patient. The operation described, though planned for and practised chiefly on adults, is capable of extension to male children, should the ordinary median lithotomy not suffice for the size of the stone, as the floor of the urethra and rudimentary prostate may be divided in a downward direction with a bistoury. I have sometimes heard it stated that the lateral operation in children is not only difficult, but dangerous, by reason of the risk there is of rupturing the urethra in endeavouring to enter the staff and dilate the canal, and then pushing on everything, including the bladder, before the tip of the finger. In this way there can be no doubt that the bladder has not been entered at all, and the way to it irretrievably lost. In connexion with this point, I would remark that such a risk is usually incurred by a misconception as to the mechanism of lateral lithotomy. When the groove in the staff has been exposed by the first incision, no attempt should be made to force the finger into the bladder until the point of the knife has been run along the groove towards the bladder for such a distance as to allow the finger of the left hand to be *put* into the bladder, and not pushed. The way into the bladder should be cut with the knife, and not bored with the finger. Where due regard is given to this point, it is almost impossible, even in a child of tender age, either to rupture the urethra or to push the parts in front of the index finger. So much stress has been laid upon dilatation by some authors as a necessary part of lithotomy that I have taken this opportunity of referring to it as an error that is sure sooner or later to be the cause of embarrassment to those who place any reliance upon it. Further, the deep incision I advocate in connexion with this method of performing median lithotomy assimilates it with the lateral proceeding not only in providing freedom of access to and exit from the bladder, but in being followed by an incontinent flow of urine which continues for some days. An ordinary median perineal lithotomy will not drain effectually without a drainage tube; this it is often desirable to dispense with, especially in chronically inflamed and ill-shaped bladders where the urine is offensive. This is an important safeguard against sepsis. However perfect the median operation for stone might be so far as the withdrawal of the calculus is concerned, I should set it aside unless it provided for incontinent urine drainage, which might be depended upon to last for at least some days. The vertical division of the prostate muscle was advocated by Vacca[1] at the commencement of the century, but chiefly in connexion with a recto-vesical operation which has now become obsolete. A reference to Vacca's plates will show that he made his incision through the floor of the prostate, a little to one side of the median line, with the view of avoiding the seminal openings. In the course of a number of operations on the obstructing prostate,[2] I soon became convinced that it was almost impossible to make a safe and satisfactory division of the prostate, whether normal or enlarged, from a median urethrotomy, except in a direction from within outwards as I have now described; and, further, that the full effects of such a section could not be fully appreciated as a means of free access into the bladder, unless it was accompanied with the division along its floor of the membranous urethra, as the latter structure, in conjuction with the bulbous portion of the canal, seemed to arch in the outlet from the bladder, and thus to restrict manipulations.

The advantages of the median method I have described may be summed up as follows: 1st. That an incision is made into the bladder along the antero-posterior axis of the outlet from the pelvis which gives as much, if not more, room for manipulation as the lateral incision. 2. That with such an incision the liability to hæmorrhage is less, whilst the facility for getting at any bleeding point is increased. 3. That the movements of the knife in one hand are from the beginning to the end of the operation under the direction and control of the index finger of the opposite hand. 4. That it entirely removes the dragging and tearing of the old median operation should the stone prove a large one, and therefore it adapts the median procedure to a wider range of stone, as well as of tumour cases. 5. That, like after lateral lithotomy, a similar state of temporary incontinence of urine is provided for, and thus thorough drainage is secured by a dependent opening, should this be desirable.

I would observe that we have been too much accustomed to draw our ideas relative to the section of the prostate in lithotomy from the contracted appearance presented by the part after death, and which rarely, if ever, presents itself to the lithotomist. As a matter of fact, unless the bladder is absolutely empty, the prostate is disposed as a circular cone of muscle with its apex directed forwards. In connexion with the making of the deep incision through the prostate in a direction from within outwards on a guide, it would appear from the surgical lectures of Dr. A. Monro of Edinburgh that Frère Come, a successful lithotomist of the last century, was in the habit of incising in this way, thus avoiding many of the dangers which befell his contemporaries. I will now illustrate some of these points by the following case, where the recovery of the patient, notwithstanding his feebleness and complications, was remarkably rapid and in other respects uneventful.

C. B——, stated to be fifty-six years of age, though looking about seventy, was admitted into the Royal Infirmary on March 9th, 1887, having been sent to me by Dr. M. J. Campbell. He had previously been in hospital for what was stated to be an impassable stricture of some years' standing. He presented the appearance mentally and physically of a feeble old man. I found him suffering from a very narrow long stricture in front of the bulb, a false passage of some length and far more easily entered than the natural canal, a stone in the urethra behind the stricture, one or more stones in the bladder, and chronic cystitis. He passed his urine incontinently in drops, and his clothes and bedding were constantly soaked with ammoniacal urine. Having regard to his general feeble condition, as well as the varied nature of his symptoms, it was difficult

[1] Della Litotomia. Pisa, 1825.
[2] Trans. Internat. Med. Congress, Copenhagen, 1884.

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to determine what was best to be done, especially having in view the probability of his kidneys and ureters being also involved. A free median incision into the bladder, such as I have described, seemed to offer the best solution with the least risk. Further, should the strictured urethra prove such as to render a permanent median perineal opening desirable, this could be provided for by the median operation. On March 29th, Dr. Paul Rodet, of Vittel, and Dr. Wilson, of Boston, U.S.A., being present, the patient was etherised, and the stricture divulsed so as to allow the passage of a medium-sized grooved staff into the bladder. He was then placed in the lithotomy position, when I performed a median urethrotomy, and extracted a uric acid calculus about the size of a cobnut, which was wedged in behind the stricture. I then slit up the floor of the membranous urethra, including a mass of cicatricial tissue which constituted the stricture. Passing my finger on into the bladder, I then divided the somewhat large prostate directly backwards with a curved probe-pointed bistoury from within outwards, completing my incision to the utmost limits of the prostatic capsule by the pressure of my index finger. In this way I had made an opening into the bladder in the median line which would readily admit my three fingers. Forceps were then passed into the bladder, and I extracted two calculi, one uric acid and the other phosphatic, about the size of cobnuts, and in addition a considerable quantity of soft, putty-like phosphatic incrustation. No vessels were tied, and the patient certainly did not lose an ounce of blood, an object which I was desirous of obtaining. I could have removed through this opening, with ordinary lithotomy forceps, a hard stone of at least six ounces in weight. As a precaution against any bleeding following, a large double drainage tube was introduced, and the wound in the perineum above and below it closed with sutures so as to make the tube fit with some tightness. The patient was then removed to bed, the whole of the proceedings only occupying a few minutes. The patient's convalescence has been uninterrupted, and on April 10th he commenced to get up and move about. The urine for the first eight days was passed incontinently by the wound, the drainage tube being removed on the third day. On April 14th he was able to go out for exercise, as control over the urine, though almost entirely passed by the perineal wound, had in a great measure returned. I think it is extremely probable that the perineal opening will have to be retained as a permanent vent for the urine, as the condition of the urethra in front, from long-standing stricture, is unpromising. A medium-sized whip bougie is passed daily along the whole length of the urethra. Apart, however, from this consideration, the case may be taken as fairly illustrating this method of operating and the circumstances under which it might be undertaken. Here it was the only way of getting over the difficulties I had to face without exposing the patient to far more serious risk.

As already stated in the columns of THE LANCET,[3] I have no reason whatever to find fault with the operation of lateral lithotomy. I have now practised it considerably over one hundred times, with no mortality in children, and with a death-rate in adults of about one in twelve. On the other hand, understanding why lateral lithotomy can never be regarded as universally acceptable, I think it is desirable that we should be provided with efficient alternatives.

Liverpool.

THREE CASES OF
SUPRAPUBIC LITHOTOMY.

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FOR the purpose of contributing to the number of modern cases of suprapubic lithotomy, I have written out the following notes, and added a few remarks suggested by my experience.

CASE I.—J. H——, aged fifty-one, a publican from Oldham, was sent to me in June, 1884, by Dr. Lacey, suffering from stone in the bladder. He declined operation. The following month he again called and produced a small calculus which had been expelled per urethram, stating that all his symptoms had immediately disappeared. Albumen, which had been present in the urine formerly, was now absent. I neither saw nor heard anything of him again until Jan. 29th of this year, when he was again sent to me by Dr. Lacey. I observed a very marked change in his appearance. From being a fine, stout, and powerful man, he had become flabby and feeble, short of breath, and affected with a hacking troublesome cough. He had all the characteristic symptoms of stone in the bladder, with almost constant desire to micturate. He was admitted into the Surgical Home, Greenheys, on Feb. 3rd, 1886, and three days afterwards an unsuccessful attempt was made to crush the stone; for although the calculus was easily and frequently grasped by the largest and most powerful lithotrite, it was evident that the instrument was not constructed for so large a stone, as the screw gear did not come into action when the blades were fully separated. It was decided to postpone any further operation for some days, and in the meantime decide between the merits of perineal and suprapubic lithotomy. On the evening of Feb. 9th, he contracted a chill whilst returning to bed after a hot bath, and on the following morning when we (Mr. Southam, Dr. Lacey, Dr. Thorburn, and myself) assembled to operate, his temperature registering 102·4°, a further postponement of the operation was naturally our first determination, but this was finally abandoned. Suprapubic lithotomy having been decided upon, the operation was conducted in the following manner:—The patient was placed on the table in a horizontal position and the A.C.E. mixture administered. The pubes were shaved. A No. 12 silver catheter was introduced into the bladder and the urine withdrawn; twelve ounces of a weak solution of boracic acid were injected into the bladder and the catheter withdrawn, and the base of the penis ligatured with a soft No. 8 elastic indiarubber catheter. An indiarubber bag, capable of holding sixteen ounces of fluid, well lubricated with vaseline, was introduced into the rectum above the sphincters and injected with twelve ounces of water. An incision was made in the median line of the abdomen, commencing three inches above and terminating at the upper border of the symphysis pubis. A dissection was made between the recti, and through the transversalis fascia down to the perivesical fat, and this separated, the handel of a scalpel being principally used for this purpose. At this stage of the operation some doubt was entertained as to the identity of what was supposed to be the bladder, which had in reality ascended into the wound and overlapped the symphysis; this, however, was immediately corrected by the reintroduction of the catheter, without allowing any fluid to escape, and by projecting the beak above the symphysis. The catheter was removed, and the ligature again tightened. The bladder was then punctured, without, unfortunately, first taking the precaution of securing it, either with a pair of forceps, or, still better perhaps, with two ligatures passed at suitable intervals through the entire thickness of the presenting surface. This was an oversight which ought never to have taken place, as all the fluid commenced to stream out and the bladder to collapse and sink out of sight, and it was with no little uncertainty the bladder was again picked up and the puncture found. Had the finger instead of the eye been relied upon under the circumstances, it is conceivable that lamentable results might have ultimately followed through detaching the cellular tissue surrounding the neck of the bladder in the endeavour to recover the lost opening, which would have afforded every facility for the infiltration of urine. Having recovered the bladder and secured the opening with artery forceps, scissors were introduced, and by expanding the blades the incision was enlarged longitudinally, sufficiently to admit one and then a second finger. The stone was at once felt and easily removed by means of an ordinary pair of lithotomy forceps. After the bag in the rectum had been removed the operation was completed. Nothing further was done or required, in a surgical sense, during the nine days the man lived. The urine, which was copious, escaped through the wound and was absorbed by pads of absorbent wool conveniently arranged below the wound. No excoriation followed or threatened. No urine passed by the penis, and neither catheter nor drainage tube was used after the first few hours. The patient, who was almost doomed to succumb from the commencement, died from double pneumonia, which was evidently in the incipient stage prior to the operation. The stone was composed of uric acid. It weighed 3½ oz., and measured 2½ in. by 2 in., or 7½ in. in circumference.

CASE 2.—J. W——, male, aged forty-two, was admitted to

[3] April 10th, 1886.

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the Manchester Royal Infirmary on Dec. 8th, 1884. He is a healthy-looking but slightly made man, and gives a good account of his family history and general health up to twelve years ago. Since then he had frequent attacks of renal colic, which had, however, usually yielded to ordinary methods of treatment. Eighteen months ago he first experienced pain at the end of the penis, and he passed some gravel. Since then there have been occasional attacks of renal colic, and he has passed gravel on several occasions. He has also been troubled by frequency of micturition, which often disturbed him six or seven times in the night. His pain has always been aggravated by any shaking. During the last nine months he has often had hæmaturia. There have been no symptoms of cystitis. On admission, he complained of the above symptoms. The urine was acid; sp. gr. 1015; it contained no albumen and no deposits. The bladder was explored by a Thompson's sound, and a stone was found, the longest diameter of which appeared to be about three-quarters of an inch. On Dec. 12th, 1884, the operation of left lateral lithotomy was performed in the usual manner, the only difficulty encountered being in the extraction of the stone, which was oblong in shape, being about ¾ in. long and ½ in. broad. No tube was introduced into the wound. The only incident in the progress of the case was that the wound became filled with blood clot, remaining in this condition for some forty-eight hours, and necessitating the use of the catheter to relieve the bladder. On the second day urine commenced to flow through the wound, and thereafter continued to do so. The wound healed well, and when the patient went home on Jan. 5th, 1885, was almost healed, although a small quantity of urine still came through it. This soon ceased after his return home, and he remained well. He was readmitted on March 31st, 1886, complaining of shooting pains in the glans penis and perineum, especially at night or during exercise, this pain being most intense for about five minutes after micturition. During the act of passing urine there was frequently sudden stoppage with pain, but the flow soon recommenced. Exploration of the bladder showed the presence of a stone, and on rectal examination there was found considerable enlargement of the prostate. The patient was much weaker than when last admitted, and looked thin and worn. On April 2nd I attempted to perform the operation of suprapubic lithotomy, in the presence of Mr. Chiene of Edinburgh, Mr. Lund, and the members of the surgical staff of the Manchester Infirmary. On attempting to pass a catheter into the bladder with a view to injecting it, the instrument entered a false passage, and all attempts to introduce it proved futile. Being unwilling to abandon the operation, I placed one of Sir H. Thompson's bags in the rectum, which was distended with ten ounces of water. A vertical incision, three inches long, was now made in the linea alba, over the pubes, and the structures being dissected down to and through the fascia between the recti, the bladder was sought for. As, however, it was found impossible to define this organ without running a great risk of injuring the peritoneum, the completion of the operation was postponed, the wound being thoroughly dusted with iodoform and left open. The wound continued healthy, but the patient suffered much from pain in the bladder, owing to his cystitis, for which was prescribed a mixture of hyoscyamus, buchu, and liq. potassæ. The pulse was very rapid, irregular, and so weak as to be at times scarcely perceptible. On April 10th, eight days after the first attempt, the patient was again placed under chloroform, and an attempt made to introduce a catheter into the bladder. This again failed, but after some trouble a ferret was passed, and a catheter, having an eye at the extremity, was slipped in over it. The bladder was then injected with six ounces of boracic lotion, and the rectum distended as before. The divided structures being held aside, the bladder was now, without difficulty, seen presenting in the wound, and was secured by passing through it on each side a ligature held in a handled needle. Between these the bladder was opened with a knife and a director, and the finger and then a pair of lithotomy forceps introduced, and the stone grasped and extracted without difficulty. The wound was left open, dusted with iodoform, and plugged with absorbent cotton wool, which was changed every half hour. No catheter was placed in the urethra, nor a tube in the wound. The wound remained absolutely healthy-looking, the urine which came through it being absorbed by the cotton wool. The patient's weakness, however, increased, the pulse being always rapid, weak, and irregular, often imperceptible. Stimulants were administered a week after the operation; then a low form of delirium set in, with much restlessness. This delirium continued almost constantly for a month, but eventually passed off entirely. Urine came away entirely by the wound until May 1st, three weeks after the operation, when, for the first time, some passed per urethram. After this the wound began to close up rapidly, and was entirely closed by May 16th. On the 27th the patient was discharged well, and has since reported himself as in good health.

CASE 3.—J. M——, male, aged fifty-three, came under my care about the end of April, 1886, giving the following history. In August of last year he had several rigors, followed by the discharge of dark brown urine with frequent micturition and pain at the umbilicus. He was then attended by Mr. Cartmel. Occasional hæmaturia continued, and especially after any jolting there was pain at the umbilicus and passage of blood in the urine, but never any pain in the bladder or penis. On one or two occasions there was, during micturition, a sudden stoppage in the flow, causing much straining and pain. When I saw the patient I found a stone in the bladder, and attempted to perform lateral perineal lithotomy, but without success, owing to the depth of the perineum rendering it impossible to reach the calculus. With a view to performing suprapubic lithotomy, I admitted him to the Manchester Royal Infirmary on May 22nd. On admission he presented the same symptoms as before the first operation a week previously, and he had, of course, an opening from the perineum into the urethra. The general condition was very good. The operation was performed on May 23rd. On examination the bladder was found to be unusually large, dulness extending to within two inches of the umbilicus. Neither the bladder nor the rectum was distended. A staff was introduced into the bladder (through the perineal wound) and its point rendered prominent just above the pubes. An incision 2½ in. long was then made in the middle line above the pubes, and carried down until the bladder was exposed on the end of the staff. It was here torn open, and the small opening thus made enlarged by stretching with the fingers. There was then no difficulty in introducing two fingers and seizing and extracting the calculus, which was encysted in a pouch in the anterior wall. The stone was uric acid, oval in shape, flattened on the sides, and about 1½ in. long by ¾ in. wide. The wound, which gaped considerably, was left open and painted with a mixture of compound tincture of benzoin and an ethereal solution of iodoform, then dusted with iodoform and stuffed with iodoform gauze. The patient was allowed to lie on his back, the whole of the lower part of the abdomen being covered with absorbent cotton wool, which effectually soaked up the urine as fast as it came through the wound, so that no irritation of the skin was caused. On June 4th urine ceased to flow through the perineal opening, but still came freely from that above the pubes. On June 9th the urine was found to be alkaline, and there was a phosphatic deposit on the surfaces of the wound, which gave some trouble, and which was met by the internal administration of ammon. benzoas, with local use of dilute hydrochloric acid. From this date the patient's condition became gradually worse. The urine remained alkaline, and he developed the "typhoid" symptoms of surgical kidney. During August he complained of pain in the left shoulder, probably pyæmic. The temperature was high and irregular. To the end all urine passed by the wound, the flow per urethram never being re-established. The patient died on August 31st.

Remarks.—The fact that two out of the three cases of suprapubic lithotomy recorded proved fatal must not be regarded with undue prejudice against the operation. I am satisfied that in Cases 1 and 2 the patients would have died whichever operation had been selected. The size of the stone in the first case left no alternative, and in the third case suprapubic lithotomy was only resorted to after perineal lithotomy had failed. A practical lesson can be learned from Case 2. The man had undergone perineal lithotomy two years previously, and his recovery was complete in nineteen days, whereas after suprapubic lithotomy forty-eight days were required to gain convalescence. The three cases illustrate three conditions which render suprapubic lithotomy the only operation available: the large size of the stone in one case, an impediment to the introduction of a staff in another, and an encysted calculus in the third. During the last two years I have had an unusually large number of patients suffering from stone in the bladder, and these are only instances in which I have felt warranted in adopting the suprapubic operation, as I am

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at present quite satisfied with the success which I have had during twenty years' practice from perineal lithotomy and litholapaxy. I regard rectal distension as quite unnecessary, and not unattended with danger; in Case 1 the use of the rectal bag was followed by profuse hæmorrhage and subsequent muco-purulent discharge. Pending much stronger evidence than that which has hitherto been advanced in favour of the high operation, I shall continue to crush all stones capable of being crushed both in males and females, either in youth or adult life. I shall perform perineal lithotomy in cases not amenable to crushing, unless associated with some complication rendering it impossible to complete that operation, and I shall reserve suprapubic lithotomy for such cases, and for stones estimated to exceed three ounces in weight. These conclusions will, I believe, be generally shared by surgeons who have had large experiences in the various operations for the removal of vesical calculi.

Manchester.

RESULTS OF CICATRISING PROCESSES IN THE NEIGHBOURHOOD OF THE PORTAL FISSURE.

BY HENRY F. A. GOODRIDGE, M.D., F.R.C.P.,
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IT is well known that structures which derive their blood supply from vessels that pass through a cicatrix, or that traverse the area of a cicatrising process, are liable to undergo atrophy, and that this is due to the contractile property of the cicatricial tissue causing narrowing and diminution of calibre of the supplying vessels. The facts have been observed on the surface of the body, and, indeed, have been turned to good account in some instances in the practice of surgery. But it is not so generally recognised that similar secondary results may under certain circumstances follow cicatrisation occurring in internal parts, and prove serious drawbacks to the healing process. The events that take place here, and their relation to one another, are out of the sphere of direct observation, and the opportunity of tracing them by other methods is comparatively rare. Conceiving that the two cases about to be related afford such opportunity, I propose in this paper to invite attention to the subject, and to submit some pathological considerations in connexion therewith.

In the case of a small superficial ulcer of the stomach, the loss of mucous membrane at the spot with a trifling scar remaining is about the worst evil that can ensue. But it is far otherwise with a large, deep, and long-standing ulcer occupying the usual situation of the "chronic ulcer of the stomach." Besides stenosis of orifices, deformity of the organ is commonly noticed by writers as resulting from the cicatrisation of such an ulcer; it is rather with indirect, but not less important, results of the same that we are now concerned. It has happened to me in the course of my hospital practice to have a case of the latter class repeatedly under my care during a period of nine years extending from the first commencement of symptoms to the fatal termination, and then inspection of the anatomical condition was obtained. The following is a summary of the clinical history.

The patient, A. M——, was a lady's maid, aged thirty in January, 1866, when she was first admitted into hospital. She was moderately tall, of slender figure, and of pale complexion; she had two phthisical brothers, but said that her own health previously had been good. She had been suffering for three weeks from constant and severe vomiting after food, and from pain at the epigastrium, which was relieved, but not removed, by the vomiting; there was tenderness on pressure in the same locality. Her pulse was small and weak, her tongue pale and moist, her bowels sluggish, and her catamenia scanty. Under absolute rest, restricted diet, and nitrate of silver in half-grain doses, with a blister to the epigastrium, and an occasional enema, the symptoms speedily subsided; and with the substitution of iron and hydrocyanic acid, and a more liberal but still regulated diet, she made good progress, so that in the April following she was discharged "convalescent." In September, 1868, she was readmitted. She stated that shortly after she left the hospital she had a return of the symptoms, had to give up her situation in consequence, and had not been well since. The epigastric pain was very severe, and disturbed her sleep. Her catamenia had been absent for three months. She was put upon similar treatment. She vomited only two or three times during her stay, the pain subsided, the catamenia reappeared, and she was discharged convalescent in the ensuing December. She now had some months of comparative, though not entire, freedom from complaint, and resumed domestic service. In the autumn of 1869 she caught cold at a catamenial period, whereupon this function became completely suppressed. The epigastric pain returned, and she soon began to lose flesh and strength. She attended as an out-patient, but, no benefit accruing, she was admitted into the wards again in May, 1871. She was now in a much more pronounced state of anæmia than heretofore. Epigastric pain, increased after food and disturbing her nights, was still her chief trouble, and there was the local tenderness on pressure as before. Omitting on this occasion the nitrate of silver, she had iron given her at once, and solution of sulphate of atropine was used hypodermically as an anodyne. She soon responded to this treatment, gained nearly a stone in weight in six weeks, and went out convalescent in July following. In February, 1872, she returned, stating that three weeks previously she had vomited blood to the amount of one pint. She was very anæmic, and there was marked exacerbation of the old symptoms. Her catamenia had now been absent for sixteen months. The sickness increasing, in spite of the treatment which succeeded on the preceding occasion, she was given nitrate of silver again in half-grain doses, and with good result. On resuming the iron, flying blisters were applied to the epigastrium and dressed with morphia ointment. Although bad fits of epigastric pain not unfrequently recurred, and she had now and then sickness, her appetite increased, she began to get up a little, she improved considerably in looks, and in April following was discharged relieved. Her history for the next two years and upwards was one of attendance off and on as an out-patient. She was admitted into hospital for the fifth time in September, 1874. Her condition at this date was urgent; her pallor and emaciation were both alike conspicuous. She had had a short time previously a recurrence of vomiting of blood; her pain in the epigastrium, increased after food as before, went right through to her back and interfered greatly with her sleep; she generally vomited after her meals, though at various intervals, and this brought a little ease. The existence of considerable dilatation of the stomach was now detected, and the vomited matters were found to contain sarcinæ. There was no response to treatment that formerly succeeded, nor to some other that was tried. Hypodermic morphia as an anodyne, with or without atropine combined, gave but very temporary relief. She was almost incessantly harassed with pain and sickness. On Oct. 16th she vomited dark grumous matter in which red blood discs were abundant. There were some little fluctuations in her condition afterwards, but on Oct. 30th she had similar hæmorrhagic vomit with melænic stools, and, this persisting, she gradually became exhausted, and died on Nov. 1st.

Necropsy, thirty-three hours after death.—The stomach was found occupying the area traced out upon the abdominal parietes during life. It had several adhesions. First, it was inseparably adherent at the small curvature to the under surface of the right lobe of the liver by dense opaque neoplastic tissue, which occupied for the most part the small omentum. Another adhesion was to the pancreas and duodenum in its inferior transverse portion; and a third was to the left kidney, where also a very dense fibro-cartilage-like layer was present. There were slight adhesions to the spleen and to the diaphragm. The stomach at the same time exhibited a well-marked hour-glass contraction. The effect of the latter, as appeared on laying open the interior, was to convert the pyloric segment into a separate sac, which was entered by a quasi-orifice of about the size of a crown-piece. A large irregular stellate cicatrix was discovered at the spot near the small curvature where externally was the dense adhesion to the liver; two or three small superficial ulcers were present near it. The mucous lining of this part was much puckered. At the fundus corresponding to the kidney adhesion was a large somewhat oval-shaped ulcer; it was between four and five inches in length; its floor was constituted of the peritoneal coat, shreddy débris of muscular fibre, and some vessels traversing it. Its margin showed no trace of any reparative action, nor did that of any of the smaller ulcers present. There were several little deposits of melanic pigment in the vicinity

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of this ulcer, with some increased vascularity of the mucous surface, and sundry small ulcers and erosions. The pyloric segment, which, as before observed, formed a separate compartment, included the right half nearly of the great curvature, and was the healthiest portion of the organ, being quite free from ulceration. The pylorus was normal. The total capacity of the stomach was greatly augmented; it was generally in a state of chronic catarrh, and it contained some of the melænic matter which was vomited during the last days of life, but no coagula. The duodenum was considerably dilated and contorted, the adhesion of the stomach to it just at its termination having apparently produced some constriction of the gut there; it also contained melænic matter. The liver had some slight adhesions of its convex surface; its texture was so friable that it broke under the smallest pressure—indeed the organ could not be handled without its giving way; the texture was also dry and granular. It weighed 32½ oz. There was little or no bile in the gall-bladder. The spleen weighed 7 oz., and was pulpy. Except an old adhesion of the upper lobe of the left lung, there was nothing noteworthy elsewhere. On closer examination of the gastro-hepatic adhesion, it was found that the hepatic artery and some branches of the coronary artery lay very much in the focus of the dense neoplastic tissue, and the hepatic artery was distinctly observed to undergo an abrupt diminution in its calibre.

Proceeding now to remark on the pathological events in the foregoing case and to trace their connexion, the cicatrix found in the patient's stomach is obviously the first thing to claim attention. The characters of this cicatrix clearly denote that the pre-existing ulcer was a large one, and that in its extension in depth and progress outwards, having set up adhesive inflammation in the peritoneum, it came to have a thick floor of new tissue, if, indeed, it did not actually invade the contiguous portion of the liver. From the clinical record it is hardly less evident that the ulcer was one of long standing, and in the process of its healing underwent interruptions and relapses. The marked hour-glass deformity of the organ itself attests the magnitude of the lesion and the abundance of contractile cicatricial tissue. Secondly, we observe that, although there were several small ulcers elsewhere in the stomach, and one pretty large one, there was no appearance of reparative action in any of them; whence, I think, we may infer that these several ulcers were not in existence when the one above referred to cicatrised, but must have originated at a later period. Thirdly, we find that the hepatic artery and certain branches of the coronary were for a portion of their course involved in the dense neoplastic tissue which united the stomach and liver together in the site of the same cicatrix, which occupied, in fact, the small omentum. In seeking to understand how this came to pass, we must, I think, bear in mind that, besides the cicatricial fibroid tissue repairing the breach in the gastric wall, there were the products of the inflammatory process excited in the adjacent serous membrane, and rekindled with every relapse of ulceration; so that, with exuberant plastic material, the ultimate result, when at length reparation was consummated and the contractile property of the new tissue had come fully into play, would be a lumpy mass in which the normal relation of parts would be very much disturbed and the anatomical detail difficult to make out. The hepatic artery, however, was unmistakably identified, and it was found to be abruptly obstructed. Assuming that the liver is dependent upon this artery for its common nutrition, its condition corresponded; it was much under weight, and its texture was so friable, its cohesion so impaired, that it could not be handled without giving way. But, in reference to the secondary ulcers observed on the mucous surface of the stomach, and which showed no reparative action, may we not conclude that they owed their origin, in part at least, to a similar constriction of the branches of the coronary artery causing impaired nutrition in the sphere of their distribution? Our next point would seem especially to favour this conclusion. Fourthly, the portion of the stomach included within the pyloric sac (as, for convenience sake, we may call it) was found to be entirely free from ulceration; it was the healthiest portion of the organ. Now, this, we know, is just the portion that receives its blood supply, not from the coronary artery, but from the gastro-duodenalis, a branch of the hepatic artery, given off before this latter enters the small omentum, and therefore in the present instance before it was subjected to any constricting influence.

(To be concluded).

THE OCCURRENCE OF MENORRHAGIA OR METRORRHAGIA DURING THE FEBRILE STATE.

BY ALFRED MANTLE, M.D.

IN bringing before the notice of the profession the subject of menorrhagia or metrorrhagia as occurring during a febrile attack, I may at the outset say that my purpose in doing so is for the consideration of the treatment of such cases when the circumstances of some demand treatment. It is necessary to make this proviso, because most certainly the majority of cases of menorrhagia or metrorrhagia occurring during a febrile disease require no treatment; for the loss of blood may be considered to have a salutary effect upon the disease, and nature is probably doing what the practitioner of a generation ago considered the right course of treatment in all febrile diseases.

It is not an infrequent occurrence for zymotic diseases to be ushered in with hæmorrhage. This is frequently observed in the young when scarlatina or measles is making its appearance, at which time the hæmorrhage is most often seen to take place from the nasal mucous membrane. In older patients epistaxis or hæmatemesis is occasionally observed at the outset or early in the course of the fever; whilst in others—and this is particularly the case with measles, scarlatina, small-pox, typhus, typhoid, yellow, and intermittent fevers, and sometimes in pneumonia—the hæmorrhage shows itself from the mucous membrane of the uterus. In some cases this may mean nothing more than the normal process of menstruation taking place, which may or may not have been hastened a few days by the pyrexial attack, and the amount of blood lost may not necessarily be in excess; but in the strong and plethoric, and particularly in small-pox, typhus, typhoid, and yellow fever, the loss may sometimes be excessive and perilous, demanding active treatment. In other instances the hæmorrhage is quite unassociated with the normal menstrual act, when such cases may be said to be ordinary cases of uterine hæmorrhage or metrorrhagia induced by the febrile condition. I believe, however, that by far the largest number of cases of uterine hæmorrhage occurring during a febrile disease take place at or near the proper menstrual period, the circumstances being favourable to an excessive loss of blood. In considering what conditions are favourable to the development of menorrhagia or metrorrhagia during such an attack, we should remember that in the early stages of fever we have a quickened pulse with increased arterial tension. Incidentally, I may remark that in normal menstruation we have increased arterial pressure with slight pyrexia. In the uterus we have an organ with an unusually good blood supply, and, moreover, it is the only organ in the body from which blood escapes normally as a physiological process. With an increased vascular tension, it is only what we might then expect for blood to escape more freely from the mucous membrane, which probably feels and is most influenced by the increase of arterial pressure. A yet stronger factor, however, is probably at work in the causation of hæmorrhage in the febrile state, and it is *the alteration in the character of the blood.* What these alterations consist of we know as yet little or nothing; but whilst it has been said that in some fevers there is an increase in the fibrin-forming constituents of the blood, undoubtedly in others there is a deficiency in these elements, and consequently a marked fluidity and want of coagulability is observed. I believe this to be the case in many of the zymotic fevers.

That the want of the properties of coagulation in uterine hæmorrhage is not explained by its being menstrual blood, and due possibly to the action of the acidity of the vaginal mucus, is proved by the fact that blood coming from the intestinal mucous membrane, or which has been abstracted by the operation of venesection, has the same characters. Trousseau, when speaking of intestinal hæmorrhage during enteric fevers, says,[1] "At the necropsy of persons who have died of enteric fever, we often find bare mesenteric vessels at the bottom of the intestinal ulcerations. Hence it might be supposed that these hæmorrhages are attributable to the rupture of a mesenteric vessel during the process by which

[1] Clinical Medicine, vol. ii., p. 332.

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the furuncular core is eliminated. Still, for the most part, if not always, this is not what occurs. Blood is exuded by the mucous surface exactly as it is in hæmatemesis and epistaxis, as well as in many other similar circumstances. The immediate cause of this sanguineous exhalation is an essential change in the blood, which is in a dissolved state—a fact you can verify by examining the blood abstracted from patients in our hospital wards.....This particular condition of the blood is seen in a very high degree in the hæmorrhagic putrid fever, and in yellow fever. In scarlatina, diphtheria, measles, and small-pox the blood is also generally in this dissolved state, and to it are attributable the intestinal, renal, and nasal hæmorrhages met with in them. So far is ulceration of the intestine from being a condition essential to the production of hæmorrhages, that they often come on at a period of the disease very far removed from that to which ulceration belongs."

The difficulty and sometimes impossibility of stopping bleeding in fevers was frequently experienced in the days when venesection and the application of leeches were much resorted to in their treatment. Only three years ago I was called into consultation with a practitioner of the old school, who, having applied ten leeches to the chest of a child suffering from pneumonia, produced hæmorrhage which was quite uncontrollable, and proved fatal. In these changes of the normal characters of the blood, together with the increased arterial tension, lies the explanation of the profuse menstrual discharge, or the occurrence of hæmorrhage apart from menstruation, during a febrile attack. If the normal menstruation has not taken place recently, and should it not appear during the earlier stages of the fever, in all probability it will not take place during the after progress or convalescence of the disease; and if it should, the arterial pressure being then lessened, the loss of blood may be diminished rather than increased; but occasionally uterine hæmorrhage, either as menorrhagia or metrorrhagia, does appear as a sequel to fevers, when we may consider it as probably due to the changes in the blood alone.

I shall now briefly relate particulars of two cases of menorrhagia which occurred respectively during typhoid fever and small-pox, and which, I may add, are the only two cases I have witnessed requiring treatment.

In October, 1884, I was called to attend a lady, aged forty, the mother of five children, who had been particularly strong and healthy. She had been at a picnic eight days before, when she got her feet very wet. She had since had a good deal of shivering, and for three days previously had suffered with severe neuralgia, for which I was consulted. I found her pulse very quick, and was convinced that the neuralgia was only a symptom. It was evening, and the temperature was 105°. There was a slight pleuritic rub heard on the left side, and pain was complained of; the abdomen was somewhat distended and tender, and there were some ill-defined lenticular spots of a rose colour, but no diarrhœa. Next day the bowels were very loose, the stools being of a pea-soupy character. The morning temperature was 104·6°, and the evening 104·8°. I diagnosed the case to be enteric fever. Three days afterwards I was informed that menstruation had taken place. I had been consulted by this lady two months before with reference to the menstrual loss being more than usual; and finding great regularity had persisted for five years, since her last child was born, and no history of miscarriage, whilst other symptoms were complained of, I considered the hæmorrhage due to the menopause. The following day (being, as far as I could judge, the twelfth day of the disease) the morning and evening temperature were nearly alike; the diarrhœa had ceased, but I learned that the discharge of blood was considerable. There was low muttering delirium almost constantly. Next morning, finding the patient considerably weaker, I became anxious about the loss of blood; and, seeing the enormous quantity of dark liquid blood which, according to my orders, had been saved, having been wrung out of the diapers, I determined to administer hæmostatics. Full doses of ergot and gallic acid were given at frequent intervals, also champagne and nourishment. My evening visit found the patient's temperature slightly lower, the pulse greatly softened, but the hæmorrhage quite as free. I was anxious for someone to share the responsibility of the case with me, and at the friends' wish I asked Dr. Gibb to consult with me. Next morning, finding the usual hæmostatic measures of no avail, tincture of digitalis was given every three hours, cold applications were applied to the vagina, and I remained with my patient most of the day. Eventually I was compelled to plug the vagina, after which no hæmorrhage ensued. My patient, however, sunk into a collapsed state; a clammy sweat covered the body, which was cold. I stayed with her the whole night, and, by applying warm bottles and bricks around the body, and administering stimulants and food very freely and frequently, the temperature was recovered. A good reaction taking place, and no recurrence of hæmorrhage, she gradually improved, and, with the best of skilled nursing, made a good recovery. I should scarcely like to estimate the amount of blood lost, but it consisted of several pints of a dark liquid blood, which did not coagulate. The difficulty in this case was, in the first place, to know when to take active measures to stop the hæmorrhage; and, secondly, to find remedies to accomplish this, for all save that of plugging seemed useless.

The only other severe case I have met with was that of a woman, the wife of a respectable tradesman, who had small-pox. She was at the time suckling an infant. On seeing the nature of the disease, I ordered her to cease doing so. Four days afterwards menstruation, which had been absent during lactation, came on. The patient was a strong woman and in robust health when seized with illness, and the small-pox was confluent in type. I was not particularly anxious about the menstrual loss, and, learning that it was not excessive, I did not interfere. I unfortunately could not get a trained nurse, and had to put up with a particularly bad one of the charwoman type, who evidently considered self-protection was the first object to be attained—the means adopted being to saturate herself with whisky. I was misled by this woman as to the quantity of blood actually lost. At my next visit the patient showed signs of anæmia in the mucous membranes, and the pulse was greatly weakened. I discovered the loss was very considerable, and though active remedies were adopted she died. It is probable that if active measures had been taken to stop the hæmorrhage sooner—which, unfortunately, was of a far greater extent than was anticipated—the result might have been different.

As regards the management of such cases of menorrhagia or metrorrhagia, in many instances, as I have already stated, we may consider the loss of blood, if moderate, as beneficial, and we are right in not interfering with it. The uterine mucous membrane may be considered to be acting as a safety valve, and good effects may possibly result by lowering the blood-pressure and the temperature. But we must be very watchful and cautious not to let the hæmorrhage continue too long lest it become almost uncontrollable. I am convinced that we take too little notice of the occurrence of menstruation during a febrile attack. We may or we may not be casually told that our patient is menstruating, and if we are we treat the remark almost with indifference. In other cases we may not hear of it, the nurse or friends of the patient considering it a natural occurrence and of little consequence. I imagine that in the old days of bloodletting our fathers were accustomed to inquire and take into consideration more than we do the loss of blood by menstruation, for the simple reason that a lowering of the blood-pressure was a part of the treatment in all febrile diseases; and it is, I think, probable that nature's loss frequently saved the operation of venesection. In considering how far the hæmorrhage is beneficial in such cases, we should be greatly guided by the general bodily condition of our patient. We should consider what loss of blood she is capable of sustaining, and be careful to ascertain the former performance of the uterine function, and also learn if our patient is of a hæmorrhagic diathesis. When we have decided that the loss of blood must be checked or stopped, it is not always easily accomplished; the marked fluidity and want of coagulability of the blood in some cases rendering ordinary hæmostatics almost inert, our treatment then must be very active, and, if necessary, plugging of the vagina must be resorted to.

In conclusion, let me suggest that, as careful practitioners, more attention be paid by us to the occurrence of menstruation during a febrile attack; and let us ascertain whether we have menstruation or uterine hæmorrhage to deal with, bearing in mind that the former is a common term for all forms of uterine hæmorrhage with the laity. It is just possible that by an oversight of this kind we may find, too late perhaps, that a physiological process has stolen a march upon us and insidiously become converted into a pathological and maybe a therapeutical difficulty, and that a hæmorrhage which, had it occurred from the nose, lung, stomach, or bowel, would have received every attention at

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our hands, because it has arisen from an organ which periodically bleeds has been deemed unimportant, and not calling for special attention. It may occasionally happen that in such a neglect lies the explanation of the tardy convalescence or fatal termination of some cases which otherwise seem difficult to understand.

Stanley, Durham.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF COUPLE RHYTHM OF THE HEART.

By W. J. COLLINS, M.D., M.S., B.Sc. LOND., F.R.C.S. ENG.

"COUPLE RHYTHM" was the name first given by Dr. Hyde Salter in 1871 to a rare and curious abnormality of the rhythm of the heart beat which he had observed in three cases. The subject did not appear to attract the attention of any observer until 1882, when Dr. Henry Cook of Bombay published three cases he had observed in India, and added a sphygmographic tracing. Recent medical treatises and dictionaries of medicine do not contain any account of this curious phenomenon; and as the cases are very rare, it may be interesting to publish the notes of one that I have had under my observation. Before doing so I may say that the peculiarity consists in the cardiac systoles going in pairs or couples, the pause between the two being much less than that which separates one couple from another. It is not a reduplication of both sounds, as is proved by the pulse, the sequence of events being lubb-dup, lubb-dup, pause, lubb-dup, lubb-dup, pause. It is neither an intermittence nor an irregularity, as Dr. Hyde Salter pointed out. It is rather an intermittent irregularity than a regular intermittence, and the irregularity is singularly regular. All three of Dr. Salter's cases had valvular disease of the heart, so had two of Dr. Cook's cases, while the other was suffering from malarial fever.

J. R——, aged nineteen, a footman, was first seen by me in January, 1882. He complained of palpitation, which became distressing upon exertion, and was getting worse every year; it had troubled him altogether about five years. He had never had rheumatism, had had measles and whooping-cough, with subsequent bronchitis, at three years old, but since then had enjoyed fair health. The apex beat was in the normal situation, the cardiac dulness not increased; on auscultation, what first of all sounded like reduplication of both sounds was heard, but on listening more cautiously, the couple rhythm described above was very distinctly audible. The pulse, too, exhibited the usual anomaly in these cases. The rate was 48 per minute, and the radial pulse synchronised with the first of each couple. On coughing or exerting himself—e.g., lifting a chair,—the pulse rate was immediately doubled, the second systole of each couple being then also appreciable at the wrist, giving 96 pulsations per minute. A sphygmographic tracing gave an ocular demonstration of the anomaly, exhibiting the paired rhythm of the pulse, and the first of each pair being a more powerful systole than the second. There was a short systolic bruit, most distinct at the left base, and presumed to be hæmic in character and causation. It was very remarkable to observe the pulse while the transition from the rapid rate to the exact half of that rate took place; every alternate beat weakened down, until at last it was no longer appreciable to the finger, and sank into the pause. Urine: specific gravity 1026, acid, no albumen. No other physical signs or symptoms beyond considerable anæmia were observed.

I saw the patient once or twice again in 1882, and each time observed precisely the same phenomena. Then I lost sight of him until April, 1885, when he came complaining of a severe cough which he had had two months, with occasional hæmoptysis; and at the right apex were observed increased vocal vibrations and crackling crepitation, while at the left apex were coarse breath sounds. The couple rhythm was still present, but less marked than formerly—that is to say, the pause between the members of a couple approximated to that between two couples. As an opportunity to go to Australia presented itself, he left England in August, 1885. I heard from him in December last from Lithgow (New South Wales). Alas! the voyage had apparently aggravated his lung trouble, and he entered Sydney Hospital on landing with both lungs seriously diseased. Quite recently I have been informed of his death.

In the absence of any better explanation of this rare and striking phenomenon I would suggest as its cause a rhythmic rise and fall in the activity of the medullary cardio-inhibitory centre, akin to the rhythm which we know to exist in the respiratory and vaso-motor centre; this would produce an alternate reining up and relaxation of the heart's spontaneity, and so occasion the symptom described.

ON THE TREATMENT OF HYDATIDS.

By ARTHUR SENNETT, M.D. ABERD., &c.,
FORMERLY HOUSE-SURGEON, LONDON HOSPITAL.

IN THE LANCET of Jan. 15th, 1887, Mr. Laurence Humphry describes a case of hydatid cyst of the liver, in which collapse and an urticarial eruption followed as the result of puncture with a hypodermic needle, and which was afterwards cured by evacuating the cyst. I believe this method is generally adopted, the aspirator or trocar and cannula being used, and the cyst completely emptied. In this country, where the disease prevails, such is the general practice; and I have operated on about a hundred cases in this manner, with a fair percentage of recoveries. My notes do not extend over all the cases, but about ten deaths out of the hundred would be nearly, if not exactly, correct. The conclusion, however, has been forced upon me that this treatment is not the best, and during the last year I have treated each case by puncturing, using a large hypodermic syringe with two needles, drawing off about two drachms of the fluid, and then injecting a similar quantity of a weak solution (two grains to the pint) of perchloride of mercury. The result of each case has been satisfactory; no suppuration has resulted, and the cyst has gradually contracted. The generally accepted principle that collections of fluid in the internal parts of the body should not be suddenly evacuated is thus not violated. The action of the perchloride, even in such minute quantities, is sufficient to destroy the vitality of the echinococcus, which is never great, and the spontaneous method of cure is simulated as nearly as possible. That many cases do get well spontaneously is shown by the fact that in fully one-third of the necropsies I have made at the Hamilton Hospital on men who have lived in the bush for a length of time, and who have been accustomed to drink any water that they might meet with, a shrunken cyst has been found. I am not aware if the above method of treating this disease has been previously described, nor have I opportunities of referring to the literature of the subject. It seems to me to meet the indications and to be based on scientific principles.

Hamilton, Victoria.

FRACTURE OF ASTRAGALUS; SUBSEQUENT NECROSIS; REMOVAL OF CARIOUS BONE; RECOVERY.

By ARTHUR E. SALTER, M.B.

ON August 3rd, 1886, I attended a child (S. C——), aged four years and four months, with an injury to her left ankle joint, caused by her falling from the top of a heap of house studs, some of the timber falling on the ankle. When I saw her she was in great pain, the accident only having just happened. There was no bruising, but the foot was displaced a little outwards, and there was a large effusion of blood beneath the skin on the inside. She was in intense pain. Having chloroformed her and examined the joint, there was crepitation distinctly below the joint, the inner malleolus was broken. Believing the fragments would unite well, I put up the limb in a splint, guarding against pressure over the effused blood, and in this way it was left for a few days, at the end of which, as great pain was complained of, the splint was removed. The limb having been again put up, it was left for three weeks, when a plaster splint was applied and kept on for another three weeks, after which, the pain commencing to be great, the splint was removed, whereupon some signs of approaching suppuration were visible. In this position it was left without any splint, and on

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Sept. 29th an abscess below the inner malleolus was opened under chloroform, and pus evacuated; on this occasion the opening made with the knife was probed and dead bone distinctly felt. The child took chloroform very badly, requiring a large quantity to produce anæsthesia, and soon regaining her sensation if not kept very deeply under the influence of the drug. On Oct. 4th, under the influence of chloroform, the opening into the diseased bone was enlarged, a small scoop introduced, and a considerable quantity of carious bone in a softened state removed, the cavity so made being well syringed with carbolic water (1 in 80). The bone was still disinclined to heal, and on Oct. 31st the cavity in the astragalus was again scooped out, and more bone in a disintegrated and decomposed state removed. From this date onwards the joint proceeded well. Subsequently a piece of the internal malleolus came away, and the patient was able to walk about, having as a result some enlargement of the joint and not good mobility. I believe the mobility will considerably improve as time goes on, the patient being so young.

Thursday Island, Queensland.

PUERPERAL PYREXIA.

By R. J. CALLENDER, M.R.C.S., L.R.C.P.L.

THE following case may prove interesting and useful to some of the readers of THE LANCET:—

Mrs. P—— was safely delivered of a female child on March 26th. The placenta came readily away and firm contraction of the uterus ensued.—March 27th: Feels quite well. Has taken a quantity of food (slop diet). Discharge abundant.—29th: Slight headache, which she attributes to not having had her bowels relieved since her confinement. Ordered castor oil.—31st: Called at 8 A.M. to see the patient. She complains of excessive heat, restlessness, headache, and thirst. Temperature 103°; pulse 130. Lochia very scanty. Slight pain in the abdomen on the left side. Slight soreness of throat. Ascertained that her bowels had been moved four times. Had been out of bed on the 29th and 30th, while bed was made, and had complained of shivering. Did not sleep the preceding night. Ordered turpentine and hot poultices to be applied to the abdomen, and a mixture containing solution of acetate of ammonia and tincture of opium. I went back at 10 P.M. and found her still very restless. She had had no sleep. Temperature 104°; pulse 140. Lochia very scanty, but not offensive. The uterus was washed out with warm water and Condy's fluid.—April 1st: Has had no sleep. Temperature 105°; pulse 140. Lochia almost ceased. Slight tenderness over abdomen. Ordered a draught containing fifteen grains of quinine, with twenty minims of hydrobromic acid. Called two hours later. She was then sweating profusely, had noises in the head, and was very deaf. She seemed quite under the influence of the quinine. At 10 P.M. the temperature was 104° and the pulse 120. Ordered a quarter of a grain morphia pill, as patient had had no sleep for three nights.—2nd: Temperature 103·2°; pulse 120. Lochia much more abundant; pain gone. Has slept well. Gave fifteen grains more quinine. At 10 P.M. the temperature was 100·2°, and the pulse 95. She felt much better. Lochia profuse. Better able to take the nourishment ordered (half an ounce of brandy, with yelk of egg, every four hours, and beef-tea).—3rd: Temperature 99·1°; pulse 90. Patient has had a good night's rest, and seems inclined to sleep. Ordered a small dose of castor oil. From this time the patient made a good recovery.

I consider the quinine has in this case proved most useful, bringing down the temperature quickly and causing the interrupted lochia to come freely away.

Northumberland.

REMOVAL OF ADENOMA OF THE BREAST: USE OF COCAINE.

By E. F. GRÜN, M.R.C.S.

I DESIRE to give a brief account of the removal of an adenomatous tumour of the breast under the influence of cocaine, no other anæsthetic being used. The tumour, about the size of a walnut, had existed for about six months. The patient, a highly intelligent lady residing at Putney, was extremely anxious for its removal, but had great objection to taking either chloroform or ether. Under these circumstances it was determined to remove the tumour with cocaine only, the ether being at hand in case of necessity. Dr. Woodhouse kindly assisted in the operation, which was conducted in the following manner:—The breast was first smeared with a 5 per cent. solution of oleate of cocaine, which absolutely deadened the pain of the hypodermic needle; then a mixture of a saturated solution of cocaine with the hypodermic injection of morphia (B.P.) was injected over the two extremities of the tumour. In five minutes all sensation had disappeared over an area of about three square inches. An incision about two inches long was now made, the raw surface painted with saturated solution of cocaine, and the tumour gradually dissected out. Two arteries were tied, and the wound stitched together, but it had to be reopened to tie another small artery. The whole operation lasted about an hour and a half. The patient was continually asked during the operation if she felt pain; she stated that she felt no pain whatever. This is the first case in which a tumour of the breast has been removed under the influence of cocaine. The patient has since made a most satisfactory recovery.

Putney.

PUERPERAL ECLAMPSIA; CRANIOTOMY.

By BEAVEN RAKE, M.D. LOND.,
GOVERNMENT MEDICAL OFFICER, TRINIDAD.

ON April 10th, 1887, about 7 P.M., I was called some miles into the country to see B——, a Hindu aged about twenty. I learnt that she had been in labour about twelve hours, and that it was her second child. I found her deeply comatose, lying on her back, her face very sunken, and her pulse 130, very weak. She was said to have been in this state for some hours. The head was at the brim and the os the size of a shilling. There were no pains. I examined the abdomen carefully, but could detect no fœtal movement or heart sounds. Her critical condition seemed to call for immediate emptying of the uterus. After drawing off about half a pint of urine with the catheter, I dilated the os digitally without chloroform, as she was too weak to make any resistance. I then tried to put on the forceps. One blade slipped on easily enough, but the head was so high up that I had not room to get on the second blade. These attempts produced clonic spasms, especially marked in the right upper extremity. Her pulse also became so weak that I feared the result of any more such irritation of the uterus. Feeling also that the child was probably dead, I perforated and completed delivery with the forceps. The child was small, and appeared to be about eight months. There were no further convulsions, and the uterus contracted well. The woman died four days later. She never recovered consciousness.

Trinidad.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum allorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.* lib. iv. Proœmium.

GUY'S HOSPITAL.

POPLITEAL ANEURYSM TREATED BY DIGITAL COMPRESSION FOR TWENTY-TWO HOURS; CURE AFTER PREVIOUS FAILURE OF ESMARCH'S BANDAGE AND ELECTROLYSIS BEFORE ADMISSION.

(Under the care of Mr. BRYANT.)

THE first of the following two cases is an example of the value of digital compression of the femoral artery in popliteal aneurysm. The great advantage which it presents over other methods in the majority of instances is so well known, that few surgeons fail to avail themselves of its use when the patient can be treated under conditions favourable to its successful employment. It would be interesting to have fuller details of the methods employed before the patient came under the care of Mr. Bryant. In the second case, it would appear that the prolonged suppuration and

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inflammation in the antrum was the cause of the new growth which ultimately developed there and required removal. We are indebted for the following notes to Messrs. F. Beard and W. F. A. Clowes.

John E——, aged thirty, was admitted into hospital on Sept. 26th. The family history was good. The patient broke his arm about ten years ago; he has also had yellow fever; with these exceptions he has always enjoyed good health. He first noticed the aneurysm about six months ago; it was a little painful. He does not remember having hurt himself in any way. He has had a great many appliances used, but without success. He had a pad put over his femoral artery, and a weight suspended (partly) over it; finding this did no good, an Esmarch's bandage was tried, but this had no effect. Two needles, attached to an electric battery, were run (across one another) into the aneurysmal sac, and an electric current kept running through; but this had no better effect than the other appliances, so the patient came to the hospital to see if anything could be done for him.

On admission, the patient had a swelling on the outer side of the popliteal space of the left leg, which pulsated, but the pulsation ceased when pressure was applied to the femoral artery.

Sept. 28th.—Mr. Clement Lucas saw the patient this afternoon, and ordered digital pressure to be applied to the femoral artery, and the pressure was commenced at 4 o'clock this afternoon.

29th.—The pressure has been kept up all night, and is still going on (1 P.M.). The swelling, which was before soft and pulsating, has become smaller and hard. The patient had an injection of morphia last night.

30th.—The pressure was discontinued yesterday at 2.30 P.M. No pulsation can be felt in the aneurysm.

Oct. 1st.—There is no pulsation to be felt this morning in the popliteal artery; a slight pulsation can be felt in the posterior tibial artery. The patient's leg is kept still by means of sand-bags, which are placed on either side of the leg. His temperature is normal.

3rd.—There is still no pulsation in the aneurysm, which has decreased in size, but pulsation in the dorsalis pedis can be plainly felt.

16th.—The patient got up for a short time this evening. The aneurysm has become very hard, and has much decreased in size.

31st.—Patient left the hospital to-day; he is quite well. The aneurysmal sac has become very small and hard. The patient has still a little pain round about his knee when walking.

ROUND-CELLED SARCOMA AFTER PROLONGED SUPPURATION OF ANTRUM; PARTIAL EXCISION OF SUPERIOR MAXILLA.

(Under the care of Mr. BRYANT.)

The following notes were taken by Messrs. McDeane and F. J. Nisbet:—

M. H——, aged forty-nine, was admitted into No. 21, Lydia ward, on Feb. 22nd, 1886. Family history good. No previous diseases or injuries. Ten years ago the patient first began to suffer from pains in the head and left side of her nose; then a gathering would form and burst. She got worse about fifteen months ago, and then a swelling came inside her mouth on the upper left jaw; it discoloured her left eye very much. She had some teeth drawn, but this did not help her much. Her doctor then operated, cutting a passage through the left alveolar process into the nose. There was some discharge from the antrum, and this antral suppuration continued for many weeks; it was probably started by the carious teeth above mentioned. She went to the seaside, and returned home quite well. At Christmas she again had pains in her face and eye, and an obstruction of the lacrymal duct, tears escaping over her cheek. She went under an operation on her eye, and was ordered to syringe out her nose with carbolic lotion. About three weeks ago the swelling re-formed in her mouth, and she was advised to come to Guy's Hospital.

On admission the patient was a pale-faced woman; her left cheek was very swollen, and her left eye discoloured and half-closed from œdema of the cellular tissue. Inside her mouth the left upper alveolar process was seen to be greatly swollen. She experienced pain on anything touching her left cheek, the pain shooting up the left side of the face and to the left ear. On looking up the left nostril, a mass of growth could be seen. The left alveolar process showed two or three large polypoid masses, which appeared to be coming from the interior of the antrum. There was a good deal of thickening of the tissues over the left malar bone, and great tenderness on pressure. The mass in the left nostril had much the appearance of an ordinary polypus. There was no depression of the palate or pushing upwards of the orbital plate.

Operation.—Chloroform was administered, and Mr. Bryant commenced by making a vertical incision in the middle line of the upper lip. The coronary artery was twisted, and the incision was carried upwards round the ala of the nose to the left inner canthus. Numerous arteries were twisted. The incision was then carried outwards to the cheek-bone. This flap of skin was then laid outwards, and two vertical cuts were made with a saw through the alveolar process of the superior maxilla (in the middle line and about two inches externally). This piece of bone and tissue was then removed, and the cavity was well scraped and washed out with iodine lotion. The cautery was used to stop any hæmorrhage. The mouth was then washed out with chloride of zinc, the pieces of skin were brought into their proper places and stitched, and the wound dressed with iodoform gauze. The patient's temperature on the night of the operation was 98°.

Report by Mr. TARGETT, *Surgical Registrar.*—The mass of growth removed was rather cubical in shape; there was a large opening in the left gum, circular, one inch in diameter, and leading directly into the antral cavity; this, no doubt, is the remains of the old puncture of the antrum. Through this opening there are large polypoid masses of growth, fungating which are extensions from similar material in the antral cavity. Almost the whole of the thin anterior wall of the antrum has been destroyed, and the growth is now involving the deeper portions of the cellular tissue of the cheek. The antral cavity is quite full of growth, which readily breaks up into pieces; one portion had extended into the left nasal cavity. The line of excision has not gone clear of the growth along the malar border, but the cavity was well scraped at the time of the operation. The growth itself is of a greyish colour, soft, pulpy, and vascular, having the appearance of a soft round-celled sarcoma of the antrum. Under the microscope, masses of round cells, with no fibrous stroma, and large thin-walled vessels, were seen.

Report continued by Ward Clerk.—March 4th: The stitches were all taken out; the sponge came away yesterday evening; patient progresses favourably; the wound looks well and heals nicely.—11th: One or two sloughs come away daily from the inside of the mouth. The wound below the eye is now doing better, the œdema having now almost entirely disappeared. No discharge worth speaking of. Patient doing fairly well.—20th: Patient left the hospital to-day, very much improved in health; the wounds are nearly healed; the cavity at the back of mouth looks healthy; plenty of granulation around the surface.

VICTORIA HOSPITAL FOR CHILDREN.

TRAUMATIC STRICTURE IN A CHILD AGED THREE YEARS.

(Under the care of Mr. H. H. CLUTTON.)

FOR the following notes we are indebted to Dr. Moline, the medical registrar. The case is of interest from the age of the patient, as the child was under two years of age when the symptoms of stricture were first noticed.

A boy, aged three, was admitted in August, 1886, with the following history. When one year and seven months old he was run over by an omnibus, his mother stating that "the horse trod on him and the wheel passed over his leg." For two days his urine was bloody and blood dripped from the end of the penis after micturition. After this the symptoms were those of difficult and frequent micturition, which gradually increased in severity till his admission into the hospital. He was then constantly screaming, straining, and passing only a few drops of urine at a time. The rectum was also frequently protruded. There was no external sign of any injury.

On Aug. 26th, under chloroform, Mr. Clutton succeeded, after injecting the urethra with oil, in passing a fine catgut bougie through a stricture at the bulb. Nos. 2 and 3 silver catheters were then passed, but were very tightly held by the stricture. The patient was much relieved, passed his urine in a stream, and evidently had much less frequent desire to empty his bladder. On Sept. 9th, under chloroform, No. 2 straight silver catheter was passed, and then, in succession, Nos. 3, 4, 5, 6, and 8. They were each in turn tightly held

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by the stricture. After this operation all symptoms of an irritable bladder entirely disappeared, and he was from this time perfectly relieved. On Sept. 15th straight silver catheters were again passed to ensure the perfect dilatation of the stricture. As Nos. 6 and 7 were not held tightly, still larger sizes were tried, and it was then found that Nos. 9 and 10 could be passed, but the latter was very tightly embraced by the stricture. He suffered in no way from this operation, and left the hospital on Sept. 22nd.

Remarks.—The rupture of the urethra was probably not complete, or the symptoms would have been more urgent after the accident. There was no evidence forthcoming as to the possibility of a fractured pelvis, but it would appear as if the rupture had been produced by direct external violence. Another interesting point is the size to which dilatation of the urethra was carried. The penis was of quite the normal proportions for a child of this age, and yet it readily admitted a catheter of the size of No. 10 English scale. This was done for the purpose of thoroughly stretching the stricture, but it proves that a small lithotrite and evacuating tube could be introduced at this early age if lithotrity were necessary.

BRISTOL ROYAL INFIRMARY.

THREE CASES OF INTUBATION OF THE LARYNX.

(Under the care of Drs. SHINGLETON SMITH and WALDO.)

FOR the following account we are indebted to Mr. James Swain, house-physician.

CASE 1.—E. W——, aged two years and four months, was admitted on April 16th, under Dr. Shingleton Smith. There was marked dyspnœa, as shown by the recession of the epigastrium and supra-clavicular fossa during inspiration; the lips were rather blue, and there was a harsh croupy cough. The fauces generally were red, and the tonsils slightly swollen. Temperature 100·6°. By three hours after admission the dyspnœa had become so urgent that intubation (after O'Dwyer's method) was performed. This was followed by a slight attack of coughing, which lasted about half a minute, and then the child breathed quite calmly, the relief being perfect. Throughout April 17th the patient continued comfortable, the temperature ranging between 100° and 102·8°. The slight cough, which still continued, was almost aphonic. — 18th: Tube removed, after remaining in position about thirty-seven hours. After removal, in consequence of gradually increasing dyspnœa, the tube was again inserted about three hours after removal. This time, however, it remained in only for a few minutes, being ejected during a violent attack of coughing. From this time the child improved, the temperature gradually lowering until it became normal on April 23rd. The voice continued to be rather hoarse for upwards of a week after the removal of the tube. A slight attack of broncho-pneumonia supervened, but this did not appear to be in any way connected with the process of intubation.

CASE 2.—R. B——, aged five years, was admitted on April 24th, under the care of Dr. Waldo. The mother stated that the child had been ill a week with symptoms of catarrh, a cough of harsh character, and gradually increasing dyspnœa, with occasional attacks of greater severity but comparatively short duration. On admission, the child's face had a leaden hue; there was great restlessness and dyspnœa, although little epigastric recession; cough of croupy character; fauces slightly reddened, but no membrane visible. Urine concentrated, and containing a trace of albumen. Temperature 101·2°. The symptoms of dyspnœa gradually increased, although temporary relief was obtained by the action of an emetic powder, and intubation was resorted to during a severe attack of paroxysmally augmented dyspnœa early in the morning of the 25th. This was followed by marked relief, but not so complete as in the foregoing case.—April 26th: Cough rather severe. Child is able to speak, but the voice is not loud. Urine still albuminous. In the evening, about thirty-six hours after its introduction, the tube was expelled during a severe attack of coughing. Two hours after the ejection of the tube the child coughed out a piece of false membrane about three-quarters of an inch long. The temperature ascended to 104°, but in all other respects the patient seemed better. A gradual improvement took place, and the temperature reached the normal line on April 30th. On May 1st, however, an increase in the amount of albumen in the urine occurred, and the temperature rose to 102°. It continued elevated for a few days, and then the child began to convalesce. The albuminuria disappeared finally on May 5th. The child's voice was hoarse up to the time of her discharge from the infirmary on May 13th.

CASE 3.—J. M——, aged three, was admitted on May 10th, under the care of Dr. Smith. The patient had only been ill one day with cough and difficulty in respiration. On admission no abnormal appearance about the fauces, but croupy cough and slight dyspnœa. Temperature 99°; urine acid; no albumen.—April 11th: Dyspnœa getting worse, but was slightly relieved by emetic powder.—12th: Patient has had several paroxysmal attacks of dyspnœa during the night. The face is livid, and there is marked epigastric recession. The administration of an emetic powder caused no diminution in the symptoms. Very little air is now entering the chest. The pulse is small and feeble, and the child seems exhausted. Intubation was performed at 6.15 P.M., and was followed by instant relief.—13th: The child continued perfectly comfortable until 5 A.M., when it was found that the string by which the tube had been fastened to the cheek had been gnawed through and the end attached to the tube had disappeared. As the tube was not found *in situ* and had not been ejected, it was concluded that it had been dislodged during the act of coughing and had been swallowed. By 9 A.M. the patient had again become so dyspnœic that intubation with a larger tube was performed; this, however, was ejected in three-quarters of an hour. The breathing continued fairly easy for a few hours, and then the child again became dyspnœic. Temperature 99·4°.—April 14th: Intubated again at 12.30 A.M. Again followed by instant relief. Rhonchus over lungs behind. Slight diarrhœa. Temperature ranging between 99·8° and 102°.—April 15th: The child seems rapidly getting weaker. Pulse 172; respiration 44; temperature gradually ascending, 103° at noon. Air seems to enter the chest fairly freely; no moist sounds; rhonchus over back of the lungs occasionally. Death occurred at 4 P.M., the temperature in the groin being 106·4° just before death, and 109·4° in the rectum immediately after. At the necropsy the trachea and bronchi showed marked signs of acute inflammation, a slight amount of frothy fluid could be squeezed out of each lung, there were a few patches of pulmonary collapse, and emphysema was markedly present in the right and slightly so in the left lung. The tube which the child had swallowed was found in the cæcum, to which it had travelled without doing any apparent injury.

Remarks by Drs. SMITH and WALDO.—The subject of laryngeal intubation has been more or less freely discussed in recent medical publications, but in England, at all events, this comparatively new operation is now on its probation, and cases thereof have been sufficiently few to justify us in pointing out any practical lesson which has been gained from the above cases without any attempt at theoretical speculation as to the merits or demerits of the operation in general. In introducing the tube, it seems best to have the child sitting on the nurse's lap with the head slightly inclined forwards towards the sternum. The tip of the finger which is passed into the child's mouth, after passing over and hooking up the epiglottis, nearly always impinges on the top of the arytenoid cartilages, and the tube, when introduced, can be felt in front of one's finger passed into the lower part of the pharynx behind the upper opening of the larynx. From want of familiarity with the operation, we deemed it advisable in the above cases (except the last intubation of Case 3) to fasten the string which is attached to the tube during its introduction to the cheek of the child by means of strapping. This is, we are convinced, a mistake, for it irritates the child, and by the movements of the tongue under the string the tube is apt to be dislodged, because the outer end, which is fastened, is necessarily a fixed point. The tendency of the tube seems rather to be ejected from than to be drawn into the larynx, and Case 3 shows how the tube may be dislodged and swallowed in spite of an attempt to secure the tube. The process of removal of the tube is, moreover, a comparatively easy one. The acute tracheitis and bronchitis which occurred in Case 3 we feel almost bound to attribute directly to the operation; for the intensity of the inflammation was greatest in the upper part of the trachea and diminished as it went down the respiratory tract. Whether the insertion of a tube which was presumably rather large (for the child had swallowed the tube which corresponded to the size of its larynx) had an increased effect in the causation of this

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inflammation we cannot say, but no doubt there is a tendency to the occurrence of laryngitis, as indicated by the hoarseness of voice which persisted in the other cases some time after the removal of the tube. It is, perhaps, interesting to note that the tube which passed so harmlessly through the pylorus and ileo-cæcal valve measured two inches in length. We cannot enter upon the question of the relative value of tracheotomy and intubation, but it is right to state that in each of the above cases we should have been absolutely compelled to perform tracheotomy had not the process of intubation been substituted. Our object is rather to show that intubation of the larynx is in some cases attended with perfectly satisfactory results, but yet has dangers of a somewhat more serious character than some recent writers would lead us to suppose.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Dermatitis Gangrenosa Infantum.—A form of Inflammation of the Lips and Mouth, usually attended by some Disease of the Skin.

THE last ordinary meeting of the session of this Society was held on Tuesday last, Mr. G. D. Pollock, F.R.C.S., President, in the chair.

It was unanimously agreed, on the proposal of Sir DYCE DUCKWORTH, seconded by Dr. CRAWFORD, that an address be presented from the Society to Her Majesty the Queen on the occasion of the completion of the fiftieth year of her reign.

Dr. RADCLIFFE CROCKER read a paper on Dermatitis Gangrenosa Infantum. Four groups of cases were described. In the first there was no evidence of varicella antecedent to the gangrenous or ulcerating eruptions, and in most it was distinctly negatived. In the second group are cases in which varicella has preceded the sloughs or ulcers, which either developed immediately upon the varicella pustule or occurred as a sequela beginning in independent lesions. In the third group vaccination was the immediate antecedent. In the fourth group are placed certain cases of local gangrene resembling cancrum oris; but the individual lesions began in exactly the same way as the independent eruption which followed varicella, and there was a tendency to generalisation, or, at all events, to extension beyond the region in which it started in some of the cases. A general account of the disease was drawn up from an analysis of the preceding and other cases, and it was shown that there is great difference in the severity of the eruption. In some the gangrenous patches were so numerous and extensive as to lead to the death of the patient in a few days, while at the other end of the chain are cases of so mild a character that there were only superficially ulcerating pustules, which came out in crops, thus protracting the disease as a whole for a considerable time, and generally accompanied by intense pruritus; these milder cases appear to correspond with Mr. Hutchinson's varicella prurigo. Between the two extremes are cases of all grades of severity. Comparison was made between the local and general gangrenous eruptions, and, among other things in common, it was shown that they both attack girls more than boys, and occur at about the same ages. The conclusions arrived at were—that the gangrenous eruptions are pathological accidents, so to speak, which in young children, especially when of tubercular constitution, might supervene upon any pustular eruption, although no doubt such a condition is much more common after varicella. Secondly, that the determining factor is probably a micro-organism derived from without, though cultivation and inoculation experiments could alone prove the truth of this theory. Thirdly, that the initial lesions, both of the local and general gangrenous eruptions, present the same characters.—Mr. JONATHAN HUTCHINSON said that he never doubted that other eruptions than vaccinia and varicella could be followed by gangrenous changes. The various specific animal poisons had the power of altering the condition of the patient and rendering him liable to gangrene of the skin and other parts. He had seen many cases of cancrum oris in children who were in excellent health till the measles or other specific fever had overtaken them. There were cases also in which no known antecedent cause could be made out—neither syphilis, nor scarlet fever, nor vaccinia or varicella, &c. He distrusted the view that tuberculosis as a constitutional tendency was liable to set up gangrene of the skin. He thought this was very highly improbable. He thought that we must receive with caution the statement that no evidence existed of the previous occurrence of varicella, for it may be easily overlooked, having occurred in a sporadic form. Infection may occur in individual pustules which are not of varicellar origin; these are not extensive and not symmetrical, but irregular in distribution, and resulting from injury are succeeded by the formation of pus and absorption of the same. He congratulated Dr. Crocker heartily on the value of his paper.—Dr. RADCLIFFE CROCKER was glad to find that Mr. Hutchinson did not differ so very much from the position assumed in his paper. In one case at least the evidence was of the strongest character that the vesicular eruption was not of varicellar nature, and yet gangrene supervened. As to tuberculosis, if well marked and attended with high fever, he thought that it offered a genuine predisposition to the development of gangrene.

Mr. JONATHAN HUTCHINSON contributed a paper on a form of Inflammation of the Lips and Mouth, which sometimes ends fatally, and is usually attended by some disease of the skin. The paper contains the description of a disease (not, it is believed, previously recognised) in which superficial ulcerations occur in the lips and in various parts of the mouth, followed sooner or later by some form of skin disease and tending to a fatal termination. The form of skin disease may vary, but the hands and feet are the parts usually affected, and the nails are especially prone to suffer. In some instances the eruption may consist of bullæ which are followed by free papillary outgrowths. The patients attacked are usually in middle life, or in early senile periods. No special antecedents can be alleged as the probable cause of the malady. Unless checked by treatment the disease appears to run its course in about six months, producing death by exhaustion. There seems reason to believe that opium given in repeated doses will cure it, and that there is, at any rate in some cases, no tendency to relapse afterwards. All the best marked cases as yet observed have occurred in males, but in several milder ones the patients were women. Of the most characteristic, two were master tanners, one was a farmer, one a clergyman, and one a gentleman of no occupation. All these resided in the country. Careful inquiry has failed to support the suspicion that the disease might perhaps be due to contagion from animals. Of these five cases, two ended fatally and three in recovery. The patients who died were those first observed, and since the discovery of the signal efficacy of opium no case has ended in death. The observation as to the efficacy of opium was simultaneously made by the President of the Society, Mr. Pollock, and by the author, two different patients being at the same time under their separate treatment and recovering under this drug. Since that every case has yielded, if the dose of opium were sufficiently pushed. In one, however, the disease did not yield quickly and for more than a month seemed likely to end in death. As regards permanency of cure, in one case the patient is known to be quite well four years after his recovery, in another there is reason to believe that such is the fact, and in a third a period of two years has elapsed. In two of the milder cases, occurring in younger patients, the disease has repeatedly relapsed. A great variety of remedies had been tried without benefit before the use of opium was resorted to. In no single case has there appeared to be any tendency to spontaneous improvement. In all the cases the inflammation of the lips and mouth took definite precedence of the skin symptoms, and in some the latter were very slight. It is not known that any case has as yet been obtained amongst the poorer classes of society. The author desired to abstain for the present from expressing any detailed opinion as to the causes or nature of the malady. He would, however, venture to suggest that it is allied to other forms of disturbed health attended by skin disease and occurring in early senile periods, such as certain peculiar varieties of psoriasis, pemphigus, lichen planus, and pityriasis rubra. In confirmation of this suggestion, and as an appendix to the paper, a case is narrated (with a portrait in illustration) in which an elderly lady had a kind of spreading eczema-psoriasis of the hands and scalp. She lost her nails and all her hair, and was rapidly failing in health in spite of various measures of treatment, but finally

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recovered quickly and completely under opium. Her case does not belong to the group described in the paper, because she never at any time had inflammation of the mouth.—Mr. POLLOCK referred to the value of opium in all cases of ulceration of the skin. In cases of phagedæna occurring many years ago opium, in his hands, had proved of singular value. He never used any kind of caustic. We were very much indebted to Mr. Hutchinson for the interesting clinical grouping of cases brought forward in the paper.—Mr. MACNAMARA referred to the case which had been under his care. There was no apparent reason for the ulceration and inflammation of the mouth which supervened on the sufferer's return home from India. The spleen and liver were somewhat enlarged. Emaciation and cachexia were already advanced, and although opium was ordered, it was probably not taken as prescribed, and therefore had not had a fair trial.—Dr. RADCLIFFE CROCKER said that so far as the mouth part of the disease was concerned the condition was new to him. He testified to the value of opium in chronic progressive skin affections in old people. Was the affection related in any way to the pemphigus vegetans of Neumann?—Mr. HUTCHINSON, in reply, thought the affection might be so related.

ACADEMY OF MEDICINE IN IRELAND.

Malignant Disease of the Tonsil.—Excision of the Wrist Joint.

AT a meeting of the Surgical Section, held on April 22nd Mr. HENRY GRAY CROLY read a paper on Primary Sarcoma of the Tonsil, and detailed the history of two cases. The first case, Michael D——, aged seventeen years, was admitted into the City of Dublin Hospital on April 22nd, 1886, suffering from a tumour involving the left tonsil and soft palate. The boy was in excellent health until six weeks previous to his admission into the hospital. The disease commenced like ordinary tonsillitis, and so much did the swelling resemble tonsillar abscess that an exploratory incision was made by the medical gentleman who first saw the case; no pus escaped. The patient suffered from dyspnœa and dysphagia. A glandular swelling subsequently formed in the left digastric space. Sir James Paget, who was in Dublin at the time, kindly saw the patient with Mr. Croly, and concurred in his view of the case and in the proposed treatment—viz., preliminary tracheotomy and removal of the growth from within. Tracheotomy was performed on May 4 h. The patient experienced much relief. The tonsillar and palate swelling and the digastric tumour disappeared almost entirely after the bronchotomy, but soon reappeared. Mr. Croly excised the tumour from beneath the angle of the jaw on May 18th, and subsequently removed the tonsillar and palate growth by means of the benzoline cautery. The tonsil and digastric tumours were round-celled sarcoma. The disease returned very rapidly in the digastric space and afterwards in the palate. The patient got drowsy, and suffered from violent headaches; the glands in the neck enlarged. He returned to the country, and died in October—six months from the commencement of the disease. The second case occurred in a man over fifty years of age. The sarcoma was confined to the tonsil, and so much did it simulate tonsillar abscess that an incision was made into the tumour. Mr. Croly declined operative treatment in consequence of extensive infiltration of the cervical glands. The patient returned to the country, and died from exhaustion caused by repeated hæmorrhages.—The PRESIDENT said that the case was one of great clinical interest and of exceptional rarity. Though the operative measure was not attended with success, yet that procedure was eminently justified, and at an earlier stage might have had a different result.—Mr. THOMSON asked whether Mr. Croly had succeeded by this method in getting away the whole of the tonsil with the cautery; because if there was only a spouting mass removed and a portion left behind, the after-history was intelligible. Although he never saw a case of the kind, it occurred to him that the external operation would give increased facility for getting at the structures to eradicate them. The difficulty of operating through the mouth on the tonsil was the uncertainty of removing the whole gland.—Mr. W. THORNLEY STOKER said he approved of the thermo-cautery, and used it freely and frequently; but this was one of the cases in which he would be slow to rely upon it as being an instrument of dangerous facility in finding its way, and therefore if he sought to do more than remove the surface of the gland, especially where malignant disease existed, he would adopt the apparently more heroic operation of dividing the cheek and jaw, and enucleating the gland from its attachment by means of an instrument of less facility.—Mr. KENDAL FRANKS concurred with Mr. Stoker in his objection to the thermo-cautery, not only because the surgeon might travel into undesirable parts, but also because of the increased difficulty which cauterisation created of seeing the limits of the disease. He thought Mr. Croly was right in taking it from the inside, and that the surgeon need not be afraid of going close to the carotid artery, there being a good depth of tissue between the tonsil and that artery to avert danger.—Mr. CROLY replied. His first idea was to relieve the patient by tracheotomy from the sense of choking, having no wish to cut out the tonsil either from inside or outside. His experience of those growths had been, unfortunately, that the operation would only give temporary relief. Hence he asked Sir James Paget what he would do if he had the case in London, and that eminent surgeon replied that he would perform the preliminary tracheotomy and cut out as much of the tumour through the mouth as he could. In fact, in this instance, unless he cut off the boy's head he could not have cut out the disease, and therefore it was immaterial whether he made an external or an internal incision, although he reflected on the hazardous proceeding of cutting within from without. He regarded the case as one of malignant disease occurring with great rapidity, and it was a question whether, in a similar case, he would do anything but tracheotomy to relieve the patient. The external growth was completely encapsuled, and came out as a nut would out of the shell. The wound healed by primary union, but the disease returned with great rapidity, being in the boy's blood. What proved of greatest interest to him was its likeness to tonsillar abscess.

Mr. WHEELER read a paper on Excision of the Wrist Joint.—Mr. HAMILTON asked why Mr. Wheeler retained Esmarch's bandage in this particular excision and objected to it in others. He himself disliked it in almost all excisions, particularly of the knee, owing to the increased amount of blood lost.—The PRESIDENT said there was a tendency to run down Esmarch's bandage, which he was not inclined to endorse from his own experience. In his case, where secondary hæmorrhage ensued, he believed it was due to the faulty application of the bandage, perhaps with too great firmness; but he looked upon it as one of the greatest improvements in modern surgery.—Mr. W. THORNLEY STOKER expressed his unqualified objection to the use of Esmarch's bandage in any excision of a joint; but he would be sorry to object to its use in many other forms of operation—for instance, the removal of necrosed bone, where, without it, the surgeon saw nothing but a pool of blood. In excision of joints, however, there were two great objections to its use: First, troublesome hæmorrhage, which some attributed to want of skill in applying the bandage; but he believed it could never be applied in such a way as to empty the limb of blood without being followed by troublesome hæmorrhage. The second objection was that it altered the appearance of the bone so much that the surgeon could not form a proper estimate as to whether the bone was truly healthy or diseased.—Mr. CORLEY said in excision of the wrist the question of the case being scrofulous was a serious item for consideration, having regard to the probable return of the disease, and therefore the necessity of amputation in the end. Thus Mr. Wheeler's, judging from the ages of the patients, were not strumous cases, and the chances of success were fair. In that view the question of Esmarch's bandage was one of minor importance.—Mr. TOBIN was surprised to hear early passive movement in such cases recommended, except where there was likely to be stiffness. Mr. WHEELER, in reply, said the splint he used was similar to that employed by Lister, but a little more elevated at the heads of the metacarpal bones. Having put in a drainage tube, he bandaged the hand to the splint, putting T nicks at each side, so that he need not remove it. The wrist was steady on the splint, while each finger was moved separately. He had deprecated the use of Esmarch's bandage in excision of joints, for in excision of the knee he had secondary and sometimes intermediary hæmorrhage, and if that occurred whilst the limb was in a fixed apparatus of plaster-of-Paris it would be necessary to take off the plaster-of-Paris to stop the hæmorrhage. He

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did not, however, condemn Esmarch's bandage in suitable cases where there was considerable oozing, and it was necessary to see the parts; for instance, he used it when removing the cuboid bone. Having used the bandage both ways, with the rubber and elevating the limb, he found that by putting the band round above the seat of operation, and not using the rubber, he had an almost bloodless operation. The best time to begin passive movement was on the second or third day folowing the operation, the metacarpal bone being held steady.

Chronic Interstitial Nephritis.—Ideal Paralysis.—Calculous Pyelitis, followed by Albuminoid Disease.

At a meeting of the Medical Section held on April 29th, Mr. C. H. ROBINSON read a paper on a case of Chronic Interstitial Nephritis, which was published in THE LANCET of June 4th.

Mr. W. BERNARD of Londonderry read a paper on Ideal Paralysis; and another on a case of Neurosis of the Viscera, ending in dilatation of the stomach. He also exhibited macroscopic and microscopic specimens of the latter case.—Mr. CONOLLY NORMAN said the first case detailed in Dr. Bernard's paper exemplified the extreme difficulty attending the diagnosis of apparent physical affections in the insane. Instances of absolute silence for years had also some affinity. He remembered a case recorded in one of the German journals, eight years ago, of a man who had been found wandering in a village and was committed to a lunatic asylum, where he remained for years and never spoke, being silent probably through a delusion, so that his identity was not discovered.—Mr. FITZPATRICK mentioned the case of a girl, aged twenty, admitted into St. Vincent's Asylum, suffering from hysterical mania, and she exhibited delusions assuming a variety of diseases. At one time she fancied her arm was paralysed, and after long persuasion that it was not so she got the use of the arm again. At another time she remained without speaking for months. During these delusions she took her food and gave no trouble to the attendants. At length, in January last, after twenty years of intermittent delusions, she had an attack of epilepsy, followed by paralysis of the right side, and she never spoke from that time to her death. Two months ago she was attacked again with epilepsy, followed by paralysis on the left side. She was then in a state of general paralysis. He never had a second opinion but that there was structural disease in the brain, and his prognosis was verified after twenty years. Dr. Bernard's case would, in all human probability, develop in an attack of disease.—Mr. COX said that he had had himself, in the country, a case of ideal paralysis. A strong healthy man took to his bed, suddenly paralysed, but on examination he came to the conclusion that it was only a case of ideal paralysis; he considered that the man would become paralysed if he remained in bed. His opinion, however, was not accepted. Some time afterwards this man was driving, and the wheel coming off his trap, he was forced to get out, and he walked home.—Mr. MOLONEY asked if there were any history of hereditary insanity or of intemperance in Dr. Bernard's case.—The PRESIDENT doubted whether surgical interference would be useful where the stomach was so enormously dilated, as in the present case, because, even if a fresh pylorus were constructed by the skill of the surgeon, so long as the stomach remained dilated it would form a receptacle for decomposing matters, alimentary and secreted.—Mr. BERNARD replied. In the first case the patient had a motive for lying in bed—namely, to get his friends to pay more attention to him; and his pretending to be paralysed went on so long that really he could not walk. The case had nothing in common with that mentioned by Dr. Fitzpatrick. There was no hereditary tendency to insanity whatever. He regretted not having washed out the stomach twice instead of once in the twenty-four hours. Power was never lost over the rectum and bladder.

Dr. J. W. MOORE read a paper on a case of Calculous Pyelitis, followed by Albuminoid Disease. The patient, a porter, aged seventeen, was admitted into the Meath Hospital, under his care, on Thursday, March 24th, 1887. He was exceedingly ill—wasted, blanched, and weak. On being questioned as to the duration of his illness, he said that his legs began to swell a fortnight previously, when also severe pain in the left groin set in. His appetite was bad. The first touch of the liver suggested the probable existence of albuminoid change in the organ. At the same time it was ascertained that the spleen was certainly not to any extent enlarged. The urine, however, was found to be highly albuminous, showing on microscopical examination a few hyaline tube casts, but no pus-corpuscles or blood-cells; it was acid in reaction, and its specific gravity was only 1010. There was moderate anasarca of the lower extremities, and the left leg was flexed, as in hip-joint disease—vital ankylosis. The patient died on April 16th. At the necropsy, the lungs and heart were found to be practically healthy. The liver was greatly, yet uniformly, enlarged. It weighed 7 lb., was very firm and hard, and yielded a pink colouration with aniline blue. The pancreas and spleen were inseparably welded together by old adhesions; they weighed jointly 13½ oz. The spleen was slightly congested; its capsule was thickened, and presented appearances of former perisplenitis. It showed the characteristics of the "sago spleen" of albuminoid disease. The pancreas was firm, almost cartilaginous, and the neighbouring glands were enlarged. But the interest attaching to the examination attained its climax when the kidneys and their environs were reached. The left kidney, or what remained of it, was embedded in a mass of dense, cartilaginous-looking connective tissue. On cutting through this, the organ itself was found almost entirely destroyed, converted into a multilocular cyst with intervening bands of chondroid connective disease. The cysts contained a horribly fetid urino-purulent fluid, and branching calculi were found in some of them. The pelvis of this kidney was obliterated, as the result of old-standing calculous pyelitis, and the ureter also was thickened and widely dilated down to a point about 2½ inches above its entrance into the bladder, where it was completely occluded by a smooth oval calculus. This was of a bluish-black colour (from deposition upon it of a sulphide), so resembling a piece of limestone rounded by the action of the sea. Passing downwards from the tunica adiposa and invading the sheath of the left psoas muscle, a fetid perinephritic abscess had tunnelled, so causing the pain and stiffness in the left hip joint. The presumption is that during the closing weeks of the patient's life this abscess had partly evacuated itself by the bowel, but a careful examination with a catheter failed to discover any opening—valvular or otherwise—into the intestine. The absence of pus in the urine was satisfactorily explained by the complete occlusion of the left ureter, as above described. The left kidney and its surrounding connective tissue weighed 6 oz; but the right kidney weighed more than twice as much—14½ oz., or between three and four times the normal weight of the viscus. It had evidently undergone compensatory hypertrophy to a very marked extent; but in time its fate also overtook it, and at the moment of death it was the seat of albuminoid disease, only in a less degree to the liver. A histological examination confirmed the widespread existence of albuminoid disease.—The PRESIDENT said the case illustrated the difficulty attending the diagnosis of renal mischief. The quantity of urine passed was an important element in disease of the kidney. The morbid specimen had not the very pale colour and consistency for which the genuine albuminoid liver was distinguished.

CAMBRIDGE MEDICAL SOCIETY.

AT a meeting on April 1st the following communications were made:—

Dislocation of Lens.—Mr. DRIGHTON showed a patient with complete dislocation backwards of the lens of more than twenty years' duration. There was no history of a blow or fall: T = + ?, vision only central; with + 11 D. V = $\frac{2}{3}\frac{0}{0}$. With the ophthalmoscopic mirror the lens could be seen freely movable in the vitreous, and of an opaque bluish-white appearance. Examination of the fundus revealed extensive patches of superficial and complete atrophy of the choroid. The optic disc was cupped. Dust-like opacities were present in the vitreous. Vision in the other eye was $\frac{2}{3}\frac{0}{0}$. The patient had suffered severely from syphilis.

Puerperal Fever.—Mr. WHERRY gave a report of an important outbreak of Puerperal septicæmia in Bedford, Gamlingay, and seven villages around. There were at least twenty deaths occurring in the practices of seven different medical men. The outbreak at Gamlingay was especially mentioned: cases occurred from November, 1884, to August, 1885. There were thirteen cases of fever and nine deaths. There was one case of sudden death. The patient expressed

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herself as feeling perfectly well, had a good appetite, and went downstairs. Her temperature was never below 103°, nor her pulse under 120. One week after confinement, while partaking of tea in bed, she fell back dead. An incident illustrating the condition of some of the houses in regard to overcrowding and the method of propagation of the poison by the patients and their friends was also related.

Sanitation of the Lying-in Chamber.—Dr. BOXALL, in a paper dealing with the above subject, pointed out that much of the illness following delivery was essentially of a preventable nature. It is not the mortality alone which should be taken into account. Those minor ills of the puerpera, the outcome of less fatal attacks, must be also included. Septic poison can only be produced within the passages where air is permitted to enter, or any decomposable material is left behind; for both the presence of air and a suitable nidus are essential to decomposition. A special liability, however, exists of the poison, ready made so to speak, finding an entrance from without. Dr. Boxall urged the importance of inquiring into the antecedents of the nurse, with a view to ascertain if she had been nursing or otherwise brought into contact with any person suffering from septicæmia or pyæmia, burns, abscesses, or acute specifics. If exposure have occurred, he advised a complete change of clothing, and a general carbolic or iodine bath. He regarded as the most important element in antiseptic midwifery the thorough washing of the hands with soap and water, including the use of the nail-brush; but he further advised the soaking of the hands and wrists in strong antiseptic solution (sublimate 1 in 1000, or carbolic acid 1 in 20) immediately before making any examination, performing any obstetric operation, or touching the genitals of the patient. Second only in importance to this was the thorough washing and subsequent disinfection of all instruments and utensils employed. The abolition of sponges, and the employment of cotton wool or tow in place of napkins, he thought beneficial in every way. Special inquiries should be made into the source of all articles passed on from one patient to another, such as binders and mackintosh sheets. Parish bags in use among the poor should always be regarded as likely to contain assorted samples of infection. The condition of the drains should be carefully ascertained, and any defects remedied long before the expected date of the confinement. Too little attention was frequently paid to this point, and also to the subject of ventilation. A fire should be kept burning in the grate, and one window at least opened a few inches at top. With regard to the choice of antiseptic agents, he urged the advisability of employing one of universal applicability rather than several, more especially when incompatibility exists. Sublimate is incompatible with soap (hence the hands must be well rinsed before they are immersed in the solution) and with oils (hence sublimated glycerine or vaseline should be substituted for carbolic oil or lard, as a lubricant); carbolic acid is incompatible with Condy's fluid, which, again, is decomposed by soap, while iodine enters into combination with the alkali contained in it. These are points which are frequently overlooked. Whatever antiseptic be used, the strength should invariably be measured accurately, for if the proportion be merely guessed at, not only may the solution be so weak that its sepsis-destroying properties become much deteriorated or are quite destroyed, but, on the other hand, it may be so strong that great danger may result, either locally to the living tissues or generally by absorption, especially when the more powerful agents are employed, in the form of douche after delivery. For the hands and instruments he advocated the invariable employment of corrosive sublimate (1 in 1000), or carbolic acid (1 in 20): solutions of the same strength to douche the vagina in every case during the first stage of labour, and after labour subsequently to douche the uterus also, where any intra-uterine interference or foul discharge from the cervix specially indicated such a proceeding. But after the first douche the solution might usually be reduced to half the strength. The sublimate douche frequently administered was not unattended with danger, and he would never advise its use unless the patient were under constant observation. In ordinary cases, when the douche was given as a routine practice, he considered Condy (colour of claret) or boracic acid (saturated solution) of sufficient potency. While he invariably advocated the douche (given morning and evening till the lochial discharge ceases, at from 110° to 115° F.) as a routine practice when the services of a competent nurse are available, he felt sure that in the hands of an ignorant woman more harm than good might ensue. In such a case it was advisable to trust to the more simple details necessary to ensure thorough washing and disinfection of the hands and instruments, the exclusion of all sources of infection and of decomposition from, and free ventilation of, the lying-in chamber, and to limit the employment of the douche to the labour, unless special circumstances dictated its subsequent use, and then it should be performed by the doctor in person or under his immediate supervision. Intra-uterine irrigation should never be entrusted to the nurse, however efficient she may be.—Dr. INGLE thought Dr. Boxall must have selected an unusual season or place for the statistics given. He did not think the experience of private practitioners would furnish anything near such an estimate, but rather evidence wholly to the contrary. Effort after such sanitation as had been described by Dr. Boxall might be of service in lying-in institutions, with trained skill and careful medical oversight; but in general practice he thought it undesirable that much interference with the parturient should be encouraged other than great cleanliness. Injections of vagina, except specially needed, were rather to be discouraged as involving many risks.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

A MEETING was held on April 14th (Mr. W. A. Garrard in the chair), of the proceedings of which the following is an abstract:—

Malignant Tumour of Œsophagus.—Dr. J. D. WYNNE showed an œsophagus which was involved in a cancerous mass for about six inches from just above the root of the lung downwards, greatly reducing the calibre of the tube below. The patient was aged seventy-nine, and for about a year suffered from occasional dysphagia, which became worse during the last three weeks of life, so that eventually all food was rejected. The tumour was a typical scirrhus. It was interesting to note that during life the patient had complained of no symptoms of heart disease, but had a loud mitral systolic murmur, and at the post-mortem the mitral valve was found to be roughened and very much dilated, the left auricle also being greatly dilated and the left ventricle hypertrophied.

Pemphigus Neonatorum.—Mr. JEFFREYS related this case, occurring in a child five days old. It was not specific; bullæ existed on the face, chest, back, abdomen, arms, and legs; confluent, some being as much as three inches in diameter. The case was treated successfully with opiates and arsenic, the body being washed occasionally with bran water and anointed with purified vaseline.—Remarks were made by Mr. Jackson, Dr. Dyson, Dr. S. Roberts, and Dr. Keeling.

Sarcomatous Tumour of Anterior Lip of Uterus, complicating Labour.—Mr. JEFFREYS also related this case. The patient was in her second pregnancy. Barnes' bags were employed and forceps applied. There was considerable hæmorrhage. After the birth of the child the tumour descended to the vulva, and was found to be a rounded mass of about two inches in diameter, attached to the uterus by a thin pedicle. It was removed by transfixing the pedicle, applying a silk ligature, and cutting it off with a pair of scissors. Satisfactory recovery resulted. Dr. Galabin had kindly examined the tumour, and called it a fibro-sarcoma of the cervix uteri. The time elapsed was too brief at present to discuss the question of recurrence of growth.

Dr. W. R. THOMAS related a case of Paralysis of both Arms from severe exertion.

Mr. SNELL introduced a patient with Right Homonymous Hemianopsia.

BIRMINGHAM HOSPITAL SATURDAY FUND.—A meeting of the subcommittee appointed for the purpose of considering a scheme for the distribution of the proceeds of the local Hospital Saturday collection was held at Birmingon the 8th inst. The total sum received up to the present time exceeds £6800—more than £100 in excess of last year's collection. It was decided that £5500 be divided amongst the medical charities of the town, the apportionment to be conducted on the plan adopted in previous years—namely, in proportion to the ordinary current expenditure of each institution, as stated in the last published or audited report.

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Reviews and Notices of Books.

Die Allgemeine Pathologie, oder die Lehre von dem Ursachen und dem Wesen der Krankheitsprocesse. Von Dr. EDWIN KLEBS. Erster Theil: Die Krankheitsursachen; Allgemeine Pathologische Aetiologie. (*General Pathology, or the Doctrine of the Causes and Nature of Morbid Processes.* By EDWIN KLEBS. Part I.: Causes of Disease; General Pathological Etiology.) Jena: Gustav Fischer. 1887.

THERE are few writers better qualified to produce a work of the scope indicated in the above title than the well-known Zurich Professor. His name has for many years stood in the foremost rank of scientific pathologists for his abundant original researches and for his admirable "Handbook of Pathological Anatomy," which seems to have been destined, like the classical treatise of Virchow upon Tumours, never to be completed. Nevertheless, it remains as a monument of industry and genius, and, since its appearance, it has been succeeded by other text-books, which may have replaced although they have not surpassed it. We trust, however, that a different fate is in store for the present work, and that it will be speedily completed. Professor Klebs is himself sanguine of being able to publish it all within twelve months, and, if his anticipations are fulfilled, we shall soon be in possession of a treatise that may mark an epoch in the history of pathology. For, as he points out in the preface, the sphere of pathological science has greatly changed. It has no longer to confine itself within the limits of morbid anatomy, but has to determine in what manner the anatomical lesions are brought about. Etiology has become an integral part of pathology, and disorders of function have to be dealt with as thoroughly as those of structure. Cohnheim recognised this extension of the pathological domain, but even he failed to grasp it in its entirety. For in the main Cohnheim's work was limited to the elucidation of disease by reference to normal physiological action, whereas Klebs considers that the external agencies operating to induce disease should also receive full treatment at the hands of the pathologist. It is not enough, he says, to employ pathological research merely to explain the symptoms of disease, nor, on the other hand, simply to detect the various modes in which the diseased organism differs in its action from the healthy. The first is too superficial, and is inadequate to solve many problems of disease; the second is misleading, for it is based on the assumption, too often erroneous, that physiological and morbid processes are similar in their operation. We can thus understand why Professor Klebs was always opposed to accepting the cell doctrine of pathology as a final explanation of disease, and why he was among the earliest to recognise the intervention of micro-organisms in morbid processes. We doubt if full justice has been rendered him in this regard. Though, like many pioneers in other fields, he may have allowed his conceptions to overstep legitimate bounds, yet in the main his contention was true. Day by day we are learning its truth, as we meet with proofs of the origin of disease through parasitic agencies, and note how much of what we term predisposition is the permanent effect upon the individual, and even on the race, of the changes wrought in the organism by previous disease. Cellular pathology by itself is incapable of explaining these things, nor can bacteriology, by itself do so. It is the combination of these two—the struggle between cell life and bacterial life—which enters so largely into our conceptions of disease at the present day, and is destined doubtless to still further developments in the future.

Such are the ideas which appear to have dominated in the mind of the author when he determined to write this book—which he intends should treat of general pathology as a science in itself, without regard to the aims of the therapeutist. He is so purely a pathologist that he almost deplores the practice of medicine, as being more or less a hindrance to the advance of pathology. Yet is it not true that pathology must be worked out on its own lines and its fruits be gathered before they can be utilised in the treatment of disease? Treatment must perforce remain in great measure empirical, for medicine has not yet attained to the certainty of a science. We deceive ourselves when we talk so largely about "rational therapeutics," and there is no shame in acknowledging that treatment is largely based on experience, without any reference at all to pathology. If we may venture to look forward to the future position of practical medicine, we should anticipate that it will be concerned for the most part in efforts to deal with the causes of disease, and that prophylaxis will then be as much a part of therapeutics as symptomatic treatment is at present. Pathology then will hold the field, for it is to that science that we must look for the solution of problems as to the causation as well as the nature of diseases. No longer will the "mere pathologist" be regarded as unpractical; rather he will have the keys of all the science of medicine in his hand, and will reveal to him who seeks the mysteries of disease and the methods for its subdual. If this be so—if, indeed, the medicine of the future is to be based upon the facts of pathological research—we may gladly welcome the attempt to mark the position at which pathology has attained in our day, so as to gather therefrom what hope we may of the near approach of this millennium. Professor Klebs has undertaken to do this, and the first of the three parts into which he has divided his work is that now before us. This volume deals with etiology, the next will treat of pathological morphology (in other words, the structural changes in tissues and organs induced by disease), and the third with pathological physiology (the derangements of function).

The first chapter in the present volume discusses the Nature (*das Wesen*) of Disease, from which it appears that our modern knowledge has not advanced beyond the old conception of an *ens morbi*, the only difference being a substitution in terms. Professor Klebs holds that the varied manifestations of disease depend more upon variations in the nature of the etiological factors than in the morbid process itself; but he is careful to make a distinction between the processes and the conditions or states of disease. The former imply activity, and consist in a series of orderly phenomena connected together in time or seat, and are often referable to one and the same cause; the latter are permanent local changes, material lesions, or functional derangements, such as may be imparted by inheritance or initiated by mechanical causes. He holds that these "morbid states" are to be regarded as disease, although often it may be difficult to mark the point where the permanent lesion passes into the active outbreak of disease. A general disquisition upon Etiology forms the basis of the next chapter, where the operation of external agents, combined or not with internal peculiarities or proclivities, is especially dwelt upon. The doctrine that in many diseases the causes are multiple and not single is one that is apt to be disregarded practically. The internal causes or tendencies to disease, as exhibited by heredity or otherwise, are then dealt with, the subject being illustrated by reference to striking genealogical diagrams of many inherited affections. The light thrown on this subject by Darwinism is fully recognised, and the chapter is a most instructive one. But the main bulk of the volume is concerned with those etiological agencies which more than any other have riveted the attention of the pathological world. These pathogenic organisms have, thanks to the labours of biologists as well as of pathologists, been now so clearly differentiated that their recognition is one of the ordinary processes of pathological inquiry. They are discussed here, however not simply from their morphological

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side, but with considerable detail in respect to the changes they initiate in the tissues and organs of the body. Professor Klebs brings all his vast experience to bear upon the elucidation of these great questions, and his work will serve to enhance the interest which attaches to the subject; whilst for purposes of reference the book will prove invaluable. There are many coloured plates and illustrations in the text, upon which we would fain dwell longer did space permit.

Photography of Bacteria. By EDGAR M. CROOKSHANK, M.B. London: H. K. Lewis. 1887.

THE application of photography to microscopical investigation has, in spite of its difficulties, made considerable advances of late. That it entails very great advantages cannot be seriously doubted, since it entirely does away with the intervention of the draughtsman in depicting the characters of a microscopical specimen. Desirable as it may be in histology, the adoption of photography in bacteriology is even more to be wished for; and there is no saying how important it may prove in correcting observations and harmonising conflicting statements concerning such minute objects, where the liability to misinterpretation on the part of the observer is enhanced by the conditions under which the observation is made. Mr. Crookshank should therefore be congratulated in his successful attempt to popularise the employment of photography in bacteriological research in the face of discouraging opinions as to its value put forward by high authorities. A study of the numerous reproductions of his photographs which are contained in this work shows both the weakness and the strength of the procedure. Some are as clearly defined as could be wished; others suffer from lack of definition and lose their characteristic features, without, however, any interference with their general grouping. It will be noticed that the "enlargements" of negatives are those which present the least satisfactory characters; but even in spite of the additional difficulties encountered in procuring good impressions of such enlargements, no more successful results could be desired than those representing Proteus Zenkeri (Plate iv., figs. 1 and 2), Bacillus anthracis (v., 2; vi., 1 and 2; viii.), Bacillus tuberculosis (x., 2), Bacillus alvei (xi., 2), Spirillum Finkleri (xiii., 1), Spirillum choleræ asiaticæ (xiii., 2), Spirillum Obermeieri (xiv., 2), Spirillum volutans (xv., 1), and the cover-glass impressions of Bacillus figurans (xvi.). The photographs from which these enlargements were made are all included, so that the reader can compare the results. These plates will form an excellent addition to the descriptions of such text-books as the author's manual of bacteriology. The technical description of the method of photomicrography pursued by the author is so clear and detailed that it will prove of the greatest service, and will, we trust, impart a stimulus to the study of an interesting and useful subject, which there is good hope may do a great deal to impart precision and accuracy to microscopical investigations.

The Diagnosis and Treatment of Diseases of the Kidney amenable to Direct Surgical Interference. By W. BRUCE CLARKE, M.A., M.B.Oxon., F.R.C.S., Assistant Surgeon to, and Senior Demonstrator of Anatomy and Operative Surgery at, St. Bartholomew's Hospital; Surgeon to the West London Hospital. With Illustrations. London: H. K. Lewis. 1886.

THE volume before us is to all intents and purposes the essay to which the Jacksonian prize was awarded in 1886. The fact that it was considered worthy of this reward by the Council of the College of Surgeons is the best guarantee of its merit that can be adduced. It bears evidence of having been written because the subject was chosen for this prize, and we miss in it the signs of the mastery of a subject that we are accustomed to find when an author is writing upon a branch of surgery that he has made his own by long study and thought. The book will commend itself to many readers by its brevity and the number of illustrations it contains; but for fulness of detail and thoroughness of description it is no rival of Mr. Henry Morris's work on the same subject, and in amplitude of references and statistical information it falls short of Brodeur's recent thesis. It contains, however, a plain statement of the main facts in this branch of surgical pathology, and a very brief and simple description of the various operations on the kidney.

OUR LIBRARY TABLE.

The Principles and Practice of School Hygiene. By ALFRED CARPENTER, M.D. With illustrations, pp. 368. London: Joseph Hughes. 1887.—We are informed in the preface that this volume was "primarily written for students in training for educational work, as well as for those occupied in preparing them for their future duties." It consists of two parts: the first relating to the construction and fitting up of schools, and the general management of the pupils considered from a sanitary point of view; and the second to the accidents and injuries incidental to school life, the more common diseases which occur among the pupils, and the measures which should be taken to prevent their spread. The first part contains much useful information, but might, we think, have been judiciously curtailed, especially as regards construction, considering the object with which the book was written. The chapters on dormitories, physical exercise, time allotted to study, and school desks and seats, are well deserving of study. The second part partakes much of the character of ambulance lectures and "first aid to injured," and, viewed as such, is too long and enters too much into detail. It would, in our opinion, have a strong tendency to induce masters to undertake too great a responsibility in the treatment of cases of disease or injury, and lead to serious results from delay in sending for professional assistance. We regret that Dr. Carpenter does not point out more forcibly the importance of obtaining skilled medical advice in the early stage of illness, or in injuries, particularly those involving joints. The mischief arising from delay is often very great, and is not, we fear, generally appreciated. The book has the advantage of a good index.

Veterinary Science: a Sketch. By GEORGE FLEMING, LL.D., F.R.C.V.S., Principal Veterinary Surgeon to the Army. Pp. 16. London: Hazell and Co., 1887.—This paper, which is a reprint from the *Veterinary Journal*, gives an interesting account of the progress of veterinary science from the period of the formation of the first veterinary school in 1761 to the present time. On the advice of Bourgelat, an advocate at Lyons, Bertin, the prime minister of Louis XV., was induced to establish a veterinary school and school of equitation at Lyons, of which Bourgelat was appointed director. In 1766, under the auspices of the prime-minister, Bourgelat founded a second school at Alfort, and a third was subsequently organised at Toulouse; all three are still flourishing. Shortly after the formation of the school at Alfort one was established at Vienna by order of Maria Theresa, and the example thus set was quickly followed by Prussia, Denmark, Italy, Sardinia, Saxony, and Hanover. In 1791, through the efforts of the Odiham Agricultural Society, the first veterinary school in this country was established in London, under the title of the Veterinary College of London, and M. St. Bel, who had been trained at Alfort, was appointed the first professor. The college, under the superintendence of Professor Coleman, who succeeded M. St. Bel on his death in 1793, received much valuable aid from some of the most distinguished members of our profession, of which he was himself a member, including, among others, Sir Astley Cooper, Sir Charles Bell, Dr. Babington, Dr. Bright, and Sir Benjamin Brodie. In

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1819 a veterinary college was established in Edinburgh by Professor Dick, who, at his death, in 1866, left a considerable sum of money to the college, vested in the Lord Provost and Town Council as trustees. In 1844 the veterinary surgeons obtained a charter of incorporation under the title of the Royal College of Veterinary Surgeons, of which Dr. Fleming is at present the President. In this historical sketch the author directs attention to the valuable lessons which may be learned in our profession from the study of comparative pathology, and "the advantages which human medicine must derive from careful observation and investigation of the diseases of animals." The great importance to the nation of sound veterinary science and skill may be estimated by the fact that "two exotic bovine diseases alone (contagious pleuro-pneumonia, or lung disease, and foot-and-mouth disease) have been estimated to have caused a loss during the first thirty years of their prevalence in the United Kingdom of 5,549,780 cattle, roughly valued at £83,616,854; while the invasion of cattle plague in 1865-66 has been calculated to have caused a money loss of from five to eight millions of pounds.

A Systematic Handbook of Volumetric Analysis. By FRANCIS SUTTON, F.C.S., F.I.C., Public Analyst for the County of Norfolk, &c. Fifth Edition. London: J. and A. Churchill. 1886.—Another new edition of a book so well known and so universally esteemed among scientific men as Sutton's Volumetric Analysis scarcely requires notice. The author has evidently spared no pains to incorporate all the more important of the additions which every month brings to our analytical resources. Among the additions in the new edition may be mentioned some newly devised and simple methods of gas analysis, and a synopsis of the valuable researches of Mr. R. T. Thompson on the indicators used in alkalimetry. These are merely quoted here as samples of the new matter with which Mr. Sutton's industry has enriched a book which is essential in every laboratory, and for which every chemist feels grateful.

The Gas Engineer's Chemical Manual. By J. ALFRED WANKLYN, Hon. Fellow of the Chemical Society of the University of Edinburgh, &c. London: The Scientific Publishing Company (Limited). 1886.—Mr. Wanklyn has, as usual, produced a good, and in some respects an original, little book. It is not without faults, but it will probably be more useful to the gas engineers, for whom it is designed, than a more elaborate scientific treatise. The methods of analysis described are within the range of skill commonly found in gasworks, and if the author prefers methods of his own devising, who shall blame him? The book is short, simple, and handy. New ideas and new systems are hardly touched upon, with the exception of the coal-liming process of Mr. Cooper. Gas engineers ought certainly to be grateful to Mr. Wanklyn.

The Organic Materia Medica of the British Pharmacopœia. By W. SOUTHALL, F.L.S. Fourth Edition. London: J. and A. Churchill. 1887.—We are glad to find that this unpretending little volume has reached a fourth edition. It contains a great deal of useful and practical information, not only on materia medica, but on pharmacy and pharmacognosy. The author has not confined his attention to the British Pharmacopœia, but has consulted other works of reference. The articles are well arranged, and are thoroughly reliable. The book is intended for medical and pharmaceutical students, and will be found useful.

The Year-book of Pharmacy for 1886. By LOUIS SIEBOLD, F.I.C., F.C.S. London: J. and A. Churchill. 1887. It is always a pleasure to record the appearance of this well-known Year-book of Pharmacy, which contains not only the transactions of the British Pharmaceutical Conference, but also abstracts of a number of valuable papers and articles relating more or less to materia medica, chemistry, pharmacy, and pharmacology. The present volume contains a great deal of useful information respecting lanoline, kairine, terebene, acetophenone, urethane, and other new drugs. Mr. Siebold has performed his editorial duties with his usual care, and the work is thoroughly trustworthy.

IRISH MEDICAL ASSOCIATION.

THE forty-eighth annual general meeting of the members of this Association was held at the Royal College of Surgeons in Ireland on the 6th inst., presided over by Dr. Kinkead. The report of the Council referring to the Medical Acts Amendment Bill of 1886, which has now become law, considers its provisions disappointing, inasmuch as they fail to protect the profession against practice by unqualified persons, and perpetuate an excessive and unnecessary number of licensing bodies granting qualifications to practise, of diverse educational grades, and without any settled standard of competency. In a recent report the committee of Council expressed a hope that a Bill to amend the Superannuation Act would soon be introduced into Parliament; but after considerable discussion it was agreed that it would be useless to ask the Government or any private member to introduce a measure of the kind unless the opposition of the Irish members could be overcome or their support counted upon; and that support, it was considered, could not be obtained in view of the facts that the Irish members chiefly represented the interests of the boards of guardians, which were generally hostile to allowing any powers to be taken from them, and further, that several of the Irish members had most strenuously opposed the Bill to amend the Superannuation Act previously put forward in Parliament. The Council had pleasure in stating that further cases of successful applications by medical witnesses at Court had been made for more equitable fees and expenses than were allowed by the rules of the committee of judges authorised to fix them. In opposition to the attempts made during the past year by the guardians of some districts to reduce the salaries of their medical officers, the Council were successful, the Local Government Board having refused to sanction the proposed reductions. An amendment to the report was adopted in reference to that portion of it bearing on the superannuation of medical officers, to the effect that the leaders of all parties in Parliament should be consulted to ascertain their views as to the terms of a Poor-law Superannuation Bill, which would receive their co-operation. The following resolutions were adopted:—

"That it would be but simple justice to the medical officers holding Poor-law or other medical appointments, and would tend towards increasing the efficiency of the service, that they should be entitled to a reasonable period of leave of absence in each year, as in the case of civil servants, and that provision for the same should be made at the public expense."

"That this Association requests the Council to avail themselves of the first favourable opportunity of introducing to the notice of Parliament a suitable measure, with a view to reasonable amendment of the law relating to superannuation of Poor-law medical officers."

The President stated that the result of the scrutiny of the voting papers showed that Mr. H. Gray Croly had been elected to the post of president of the Association for the ensuing year. The members and their friends dined together in the evening in the Albert Hall of the Royal College of Surgeons.

BIRMINGHAM AND MIDLAND SKIN AND LOCK HOSPITAL. The report presented at the sixth annual meeting of the governors of this institution on the 9th inst. showed that during the past year the number of new cases had been 2038—an increase of 41 on the number of the previous year. The finances are in a satisfactory condition, the balance of income over expenditure being £466. The building fund, for which a total of £6000 is needed, amounts to £4000, but it was decided not to commence the work until the remaining £2000 has been subscribed.

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THE LANCET.

LONDON: SATURDAY, JUNE 18, 1887.

AFTER the meetings of the last two weeks, rich in speeches by the best men in every denomination and by leaders in the City and in the State, a common excuse for a poor collection to-morrow will not hold. It will not do any longer to say that an inadequate collection arises from ignorance of the case. The support of hospitals has been an affair with which the run of people, even kindly people, have been apt to think they had nothing to do. It was supposed to be secured by the piety of ancient founders; as if the generosity of one century could do the work of the generosity of another, and as if the piety of a man like GUY was to supersede the benevolence of whole future centuries. It is true of GUY that he actually did, with some assistance from another man of benevolent nature, supply for more than a century the magnificent accommodation to the sick for which Guy's Hospital has been famous throughout the world. But experience shows that men like GUY are of rare occurrence, and that the wants of the sick and the poor of any one generation must for the most part be met by their more fortunate contemporaries. We cannot rely on ancient endowments for the urgent work of relieving the sick that are about us to-day. Even Guy's itself is asking for help, and has a large part of its beds out of use for want of funds. The one good thing about the impecuniosity of Guy's is that it tends to rouse attention to a lamentable failure of public charity. The failure is to the extent of £100,000 a year—i.e., the excess of the expenditure and liabilities of the medical charities of London last year exceeded the ordinary income by £100,000. This sounds a large sum; but it could easily be put into the collection to-morrow without there being a dinner party less in London or the curtailment of summer holidays by one day. Anyhow, there it is staring us in the face. The ministers of religion have a rare opportunity to-morrow. By a sort of providential arrangement they have the Sunday before the great Jubilee day, when the feeling of national and metropolitan gratitude may be expected to require religious and substantial expression. They will not make light of the opportunity. The care of the churches is on their shoulders, and this presses heavily enough. But, as the Bishop of LONDON said at the Mansion House, we cannot pretend to be Christians while we make light of the claims of the sick. The very note of the Messiahship was that the sick were healed, the lame made to walk, and the blind to see. Such services are rendered every day in London hospitals. As far as the services are medical, they are mainly gratuitous. All that the public and the churches are asked to do is to find beds and maintenance and surgical instruments, while the beneficent work of medicine is being done. The Rev. Dr. ALLON justly traced the sentiment of humanity further back, even to the earliest traditions of religion and the scriptures of the Old Testament—a view confirmed by the fact that in this great anniversary Jew and Christian co-operate heartily together, and the Chief Rabbi is as earnest as the Archbishop of CANTERBURY. At one of the hospital meetings it was estimated that if the London churches gave in the same numbers and on the same scale as those of Birmingham the sum raised would be nearer £200,000 than £40,000. Surely the metropolis should not be beaten by a provincial town—even though it be Birmingham, where Hospital Sunday was first instituted. Two churches in London supply nearly a twentieth of the whole collection, and Dr. ALLON showed that the average sum raised by the London congregations is £20 each. He is no mean authority on the power of churches, and of what he called at the Mansion House the "voluntary principle." But he did not speak as if he thought that the churches had done all they could or should do, and he very powerfully contrasted the pleasure of giving to hospitals out of kindness and being made to give by a municipal or parliamentary rate. We heartily emphasise this difference, and recognise on behalf of the medical profession the pleasure of co-operating with the public in a divine and charitable work. There is no abuse in hospitals which does not admit of correction, and no correction of abuses will diminish the amount at present wanted for dealing with urgent cases. In fact, thousands of urgent cases are kept out of hospitals for want of funds. Every medical man knows this. Cases have to be turned out of hospitals prematurely, either to undergo a slow convalescence, or to die in the straitened homes of the uncomplaining poor. Thousands more are never admitted that an ampler charity would admit and greatly benefit. The life of hundreds is handicapped by chronic sufferings that might be alleviated or removed by a few weeks of hospital treatment, which in the present state of hospital funds cannot be given. These facts scarcely come out in statistics. They have to be ascertained by personal experience of the life and death of the poor, and must be taken on testimony. But they are facts all the same, which a very slight exercise of the imagination will make obvious to those who have hearts.

We must leave preaching to ministers. We must, from our point of view, state mainly the medical side of the case. But it is very strong. With all the labours of philanthropists and political economists, life is still hard, and there is still much disabling disease among the poor. Of all uses of wealth none is better than the support of institutions for the mitigation of pain and disease. If we cannot all do as much as GUY did, we can all do work of the same kind; and in doing it we shall do much to hold society together and to make the poor feel thankful to GOD for the existence of the rich. Active measures are in contemplation for eliminating all abuse from hospitals and leaving them free to deal with grave and urgent forms of disease.

NOT a little confusion has occurred, and much misapprehension has been occasioned, by the misuse of the term "medical peerages," instead of "peerages conferred upon medical men." We do not think it has ever entered the head of any sane member of our profession to propose the institution of medical peerages properly so-called. Until quite recently there were no special peerages. Even the fact that certain prelates of the Established Church had seats in the House of Peers did not make their peerages spiritual in a technical sense, although they were "lords

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spiritual." There are now constructively a few legal peerages, but it would be preposterous to ask for the creation of peerages which should be medical. No such desire exists. All we wish, and the profession as a whole demands, is that the reproach which certainly attaches to the fact that no medical man has ever yet been considered worthy of a peerage, and that therefore it would seem to be held that there is something in the calling of, or profession of, the art of healing which is incompatible with the dignity of high social rank, should be wiped away. Surely it is not true that physicians and surgeons, as such, are incapacitated for social distinction? We cannot believe that such a notion prevails in the highest circles. It would be monstrous in these days, when success of almost every sort is recognised as a claim to honour, that the attainment of a prominent position in the service of humanity in the matter of health should be held to specially disqualify a man for distinction. It has, indeed, been contended that the position of the physician and surgeon is so peculiar that it must be regarded as *infra dig.*, he being, as it were, a personal attendant on the sick; but this view, if it were ever actually entertained, must have been so at a time and among persons when and by whom the nature of scientific medicine and surgery and the character of their practitioners were strangely misunderstood. It is no idle pretence to affirm that, taken as a body, the medical profession is not either less well educated or less able to bear the dignity of seeing some of its members raised to the peerage than other professions. The Church, the Military and Naval Services, and the Law are not intrinsically more honourable or of greater service to mankind than are Medicine and Surgery. It is hardly worth while to argue the point. Every unprejudiced person must, we think, agree that such rank as is freely accorded to ecclesiastics, soldiers, sailors, lawyers, men of letters, artists, and a host of successful merchants and manufacturers, cannot be reasonably denied to medical men—at least on the ground of their calling.

We have not the slightest wish to take up a narrow class position on this subject. If there be any solid reason why medical men should not be made peers, we are perfectly willing, and even anxious, to hear and recognise it. We can only say that as yet we have utterly failed to discover any such reason. It will probably be admitted that there is no rational objection to the elevation of medical men to the peerage. Then how does it come to pass that no member of the profession has ever been endowed with a coronet? Will it be alleged that no medical man has ever done anything to deserve so high an honour? Are there not now living members of our profession whose services to the State and the people, whose contributions to the prosperity of the nation, have at least equalled those rendered by some non-medical persons who have been ennobled? It would be mock modesty and argue a very inadequate sense of self-respect if we were to hesitate one instant in making the unqualified assertion that the merits of medical men, as such, are quite as tangible as those of members of other callings which have been duly honoured. Again, we may be told that medical men are, as a rule, too poor to be made peers. Possibly that objection may, though we do not say it ever could, have been held to be a good one in past times; but looking to the way in which peerages have been distributed during the last twenty years, or more, it cannot be seriously contended that great wealth is an absolutely indispensable qualification for membership of the House of Peers. There are, if we mistake not, some among us who are sufficiently provided with the means of maintaining the dignity of a peerage. Indeed, we can confidently state that there are at least three leading members of the profession who are possessed of an income of not less than £10,000 a year from invested property.

We would respectfully but firmly submit to those who advise Her Majesty in this year of jubilee that the occasion is one which offers an excellent opportunity for the redress of what is felt to be a grievance, in the nature of a great slight, by a section of the community which is considerable, both in point of numbers and social position and influence. By conferring a peerage on some one or more of the leading members of our profession, Her Majesty would create a worthy precedent, and do a just and generous action. We do not for a moment suppose any living physician or surgeon desires to be ennobled; we do not even know that anyone would accept the offer of a coronet; but the offer might be made, so that, at least, the profession may know that it is not wholly given over to social neglect. That good would result from the presence of one or two medical men in the Upper House cannot be doubted. The need of a direct representation of the claims of health on the State is daily becoming more apparent. Moreover, it would tend generally to raise the status and tone of the profession as a whole if its claims to well-deserved honours were recognised more generously.

LAST week we commented on the Bills purporting to deal with Adulteration which are now before Parliament, and on the complaints of some of the public analysts in regard to the present and future position of the Chemical Department of the Board of Inland Revenue. But the subject is too extensive to be discussed in a single article, and there are still some remarks which in the public interest it is our duty to make. We do so with all freedom because we have no bias on one side or the other, and are only anxious that, to use a phrase common in Acts of Parliament, the best practical means shall be adopted for the suppression of the trade frauds which are still rampant, in spite of the valuable work accomplished under the Sale of Food and Drugs Act of 1875. Happily the more noxious kind of adulteration which was so rife in 1851, when we undertook our inquiries, has to a great extent been suppressed, and has for the most part become too dangerous to tempt the unscrupulous trader. We cannot say that it has entirely disappeared, because the existing Acts are so irregularly administered that certainty is impossible, but it has undoubtedly been very greatly reduced. The other kind of adulteration, however, by which the purchaser, though not poisoned, is cheated, is still so common that some alteration of the law is imperatively called for. In respect of some articles, indeed—as, for example, milk and drugs—trade frauds involve a very serious danger to public health, and have exercised a prejudicial effect upon it. The child fed on watered milk is fed on food of unknown, and therefore in many cases of insufficient, strength.

The Bills now before Parliament deal with two articles

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only—beer and butter. We have already stated our views in regard to the first of these. No false description of or deleterious addition to beer can in any case be tolerated, and the revenue must of course be protected; but subject to these conditions, we see no reason for limiting the materials used in the manufacture of so artificial a beverage. Competition will regulate the price, and any artificial restriction would only add one more to the sumptuary laws which have in all ages proved failures. The case of butter is somewhat different. There can be no difference of opinion as to what in popular acceptation constitutes butter. It is a semi-solid, prepared from milk only, but containing naturally and unavoidably a considerable quantity of water. The addition of salt and of a minute quantity of some harmless colouring matter is justifiable; but foreign fats, such as are grouped together under the names of butterine and oleo-margarine, are not butter, and their sale therefore as butter is a palpable fraud. But even to this apparently simple story there is another side, which must not be forgotten. It seems certain that these butter substitutes are as wholesome and fit for food as butter. They are much more palatable than the cheaper kinds of genuine butter, and they can be sold at a profit at a cheap rate. But for prejudice they would be asked for and used freely by thousands of families, and but for their illicit use butter would be much dearer than it is at present. It is freely admitted that their sale under the name of butter is at present a fraud, but nevertheless it is a fair question whether it might not be better to destroy the fraud by legalising it. Popular prejudice is entitled to some consideration. We know perfectly well that it will be long ere a housewife can be induced to ask boldly for a pound of oleomargarine. She may suspect that the very cheap fresh butter she buys, pleasant though it be in taste, cannot trace an unbroken lineage from the cow; but she naturally clings to the name with which she is familiar, and would shrink from the idea of offering her children bread and oleo-margarine. Would it not be better to respect her sentiment, and to leave the price of butter, like the price of beer, to be settled by the ordinary laws of trade competition? It would be easy to protect those who want, and are willing to pay for, genuine milk butter. Let a new word be introduced, and let everyone be warned that if he objects to substitutes he has only to ask for "milk butter," and he will either get it or be egregiously cheated. The detection of foreign fats in butter is now so easy, thanks to the labours of the public analysts, and above all to those of Mr. OTTO HEHNER and his former *confrère*, Mr. ANGEL, that adulteration of butter sold as milk butter could easily be made too dangerous to pay.

Of much greater importance is the question of drugs. The patient is practically at the mercy of the dispenser, and the dispenser depends on the merchant, who may or may not be the manufacturer. The manufacturer commands the situation, for the dispenser cannot analyse every drug which he receives. So it happens that, although most manufacturers and dispensers are honest and careful, any individual patient runs the risk of losing all the benefit of medical treatment through the imperfection of the drugs administered to him. The only standard that can be set up is evidently that of the British Pharmacopœia, and even this must be used with discretion, for some drugs are so unstable that it is impossible to keep them for any time without deterioration. It would be for the public benefit that all important drugs should be frequently analysed by some impartial chemist, but in many cases a warning instead of an immediate prosecution would satisfy justice. The adulteration of quinine is one thing, the defective strength of hydrocyanic acid quite another.

The real remedy for the present uncertainties and irregularities of the law can only be found in a new and efficient Food and Drugs Act, framed on the basis of the present. We are prevented by limits of space from stating in sufficient detail our ideas of the Act as it should be. But a few of the salient points may be sketched. The Act should be not less wide than it is now, and ought to include in its purview all adulterations of food or drugs, whether noxious or merely fraudulent. The powers of the central authority should be considerably strengthened, and it should be able to compel the enforcement of the law. A large number of local authorities do their duty thoroughly, and it would be unwise to interfere with them; but others do nothing, or next to nothing. In many places no analyst is appointed, and in others no work is found for him to do. Such authorities must be coerced if the public is to be protected. Opinions will differ as to the best way of securing the administration of the law, but one way is obviously possible. Having compelled the appointment of efficient public analysts in every district, the Local Government Board might have power to insist that a sufficient number of properly selected samples should be sent for analysis. If this duty were systematically neglected, the Board should be able to appoint their own inspector, and to charge the offending district with the expense. The regulations for the collection of samples require thorough revision. We quite agree with Dr. BELL of Somerset House that the inspector should have the power to enter premises and select his own samples, dividing them into portions, and paying for them as at present. Sometimes, as in the case of beer, large samples are required, and there is in all cases a risk that the vendor, knowing the inspector or his envoy, or guessing at the object of the purchase, may substitute a pure for an adulterated article. All articles of food and medicine should be included under the Act, whether subject to excise duty or not. There need be no conflict between the public analysts and the excise chemists. The main duty of the latter is the protection of the revenue; but an analytical department is necessary for this purpose, and we see no reason why the Government chemists should not continue to act as they do now as referees in disputed cases. Their powers should be more accurately defined, and some arrangement should be made with regard to perishable articles, such as milk, the analysis of which can never be quite satisfactory unless made upon a fresh sample. Finally, the new Act should contain a carefully drawn schedule in which the principal articles of food and drugs were defined, and limits of purity assigned. With regard to drugs this can easily be done by referring to the British Pharmacopœia as a standard. Food will occasion more difficulty, but none that need be insuperable after the experience that has been gained in the last few years. Milk, butter, and beer are the articles which have given rise to most controversy. In this and our last week's

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article, we have considered the last two, and we have often stated our views in regard to milk. To the public analyst is at present assigned the impossible task of ascertaining how much water has been added to or how much cream removed from milk, and as milk is sometimes naturally very poor, he is compelled to take a low standard of purity. The Act might properly provide that milk should be held to be adulterated if it did not contain as much as 3 per cent. of fat and 9 per cent. of solids not fat, or if it contained any substance foreign to milk. The offences of watering and skimming could then be detected with certainty, and the public would be secure of getting good if not very rich milk. At present the limits used by most public analysts are 2½ per cent. of fat and 8½ per cent. of solids not fat, which represent a very poor milk.

THE question of the sanitary condition of India has been brought prominently before the British public by the publication in *The Times* of a letter by Mr. Justice CUNNINGHAM, a judge of the High Court of Calcutta, and by a leading article in that journal. Our readers must be well aware that this is no new subject to us, as we have repeatedly brought it under their notice in our reviews of the annual reports of the Sanitary Commissioner with the Government of India, and of the Health Officer of Calcutta. We rejoice that this important question has been raised by so high an authority as Mr. Justice CUNNINGHAM, and backed by the powerful advocacy of the leading journal, because it cannot fail to conduce to some more active measures of improvement than have hitherto been in operation. But to some of the statements which have been made we feel bound to take exception, believing, as we do, that nothing tends so much to retard sanitary improvements as an exaggerated representation of the need of them and of the benefits to be expected from their adoption. Thus, we are told that, "according to Professor MACLEAN, from the time of the commencement of our occupation until about 1860 the mortality of the English troops 'oscillated round' the enormous figure of 79 per 1000; and this frightful death-rate was, within a few years, reduced to reasonable proportions by the adoption of the recommendations of the Royal Commission of 1859-60. In 1882 the English military death-rate was only 13·07 per 1000 from all causes." Now, this comparison is entirely misleading, as it refers to two bodies of troops serving under totally different conditions. In the first period the British troops consisted of men enlisted for service in India, who remained there, unless invalided home as unfit, until they died or had completed twenty-one or twenty-four years' service; while in the later period they were men of the regular army, who were retained in India only ten years, and for the invaliding of whom, if their health broke down, much greater facilities existed than formerly. Those only who have studied the influence of age and of length of residence upon mortality in India will be able to appreciate the important part this change has played in the reduction of the death-rate. We by no means undervalue the influence of sanitary measures upon the health of the troops or of the civil population, but we believe they will carry more weight and be more likely of adoption when carefully and correctly estimated than when supported by inaccurate data.

Mr. Justice CUNNINGHAM in his letter calls attention to the valuable work being done by the Public Health Society of Calcutta, in its endeavours to popularise sanitary knowledge, and to bring forcibly to the notice of Government the evils of the existing state of things, and the improvements necessary for the introduction of efficient sanitation. But we are disposed to think he has not done justice to the sanitary commissioners and health officers, who were working zealously in this direction before the Society was formed; nor to the late Lieut.-Governor, Sir RIVERS THOMPSON, for his firmness in enforcing sanitary measures in Calcutta; and those European residents, of whom Mr. Justice CUNNINGHAM himself was one of the most energetic, who pressed upon the Government the necessity for active intervention.[1] The letter of Mr. CUNNINGHAM points out forcibly the failure of the Municipal Corporation of Calcutta, apparently from want of knowledge of, and belief in, sanitary science, to carry out to a sufficient extent the measures necessary to ensure the health of the population; for, though they have effected some improvement, much yet remains to be done. "While cholera has raged in the insanitary portions of the city—the cholera mortality in some wards attaining for some weeks ratios beween 18 and 36 per mille per annum—the properly conserved portions of the town have enjoyed practical immunity from the disease."

The measures proposed by Mr. CUNNINGHAM for the improvement of the sanitary administration in India are—1. The creation of a body possessed of sufficient knowledge, and armed with sufficient authority, to superintend and control the municipalities in the performance of their duties, and to enforce that performance in the case of persistent neglect or contumacy. 2. A recurrence to the system of Government itself lending the necessary funds to municipalities who have to borrow in order to carry out structural arrangements. 3. The creation of a branch of the Public Works Department whose special duty it shall be to assist municipalities in important projects of drainage or water supply, and to test the soundness of projects. 4. The creation of a staff of officials, sufficiently strong in numbers, ability, and resources, to conduct scientific investigations into disease with the precision and completeness that such inquiries necessitate, and which their importance justifies. He comments, with much justice, upon the inadequate and niggardly arrangement at present existing for scientific inquiries into sanitary questions, which appear to devolve upon "a single official, who receives an honorarium of £30 a month for devoting to microscopic research the small leisure left by his other professional duties. Even this scanty provision is intermittent." We most sincerely trust that the Government may see its way to a proper adjustment of the administrative machinery necessary for the promotion of the health of the people by the adoption of well-considered and efficiently worked sanitary measures. It is a matter which may involve a considerable outlay, but an outlay which we have no doubt will be more than repaid by its results. The improvement of the health of the people is an imperative duty of the Government, and one with which no paltry question of reduction of expenditure should be permitted to interfere. A liberal but judicious expendi-

[1] See THE LANCET of August 9th and 23rd, 1884.

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ture for such a purpose would prove ultimately to be true economy, tending to promote the prosperity of India and the moral and physical well-being of its population.

THE custom of using unqualified practitioners, especially in branch practices, and in situations where the assistant cannot have any guidance or supervision from the principal, has had many severe discouragements of late, but none, perhaps, more so than one involved in a judgment in the Queen's Bench by Lord COLERIDGE and Justice DENMAN in the case of HOWARTH *v.* BREARLEY, reported pretty fully in *The Times* of June 13th. The question raised by the case was whether for services rendered by an unqualified assistant employed by a registered medical practitioner the principal or his representatives could recover in a court of law. The case was begun in an action in the Salford court by the assignee of Mr. FITZMAURICE, a qualified medical practitioner at Bury, to recover from a person near there a sum of £18 12*s.* for medical attendance and medicine for a period from 1880 to January last. It was admitted that the actual attendance was by an unqualified assistant, Mr. FITZMAURICE himself taking no part. At the first trial it was objected that under the 21 & 22 Vic., c. 90, the plaintiff could not recover, as the attendances were by an unqualified person. The judge took this view, and directed a nonsuit. On the present occasion there was an application to the Court of Queen's Bench by way of appeal from that decision. There was a sharp difference of opinion, or, at least, of argument, sustained with much liveliness, between Mr. WILLES CHITTY and Lord COLERIDGE. Mr. CHITTY maintained that the attendances in law were by the principal. He admitted that there was no personal attendance on the part of the principal, but maintained that through the agency of the assistant, who lived at a branch house, he attended the patient. He admitted that the unqualified assistant could not recover for this, but contended that the principal could. Lord COLERIDGE, with much animation, controverted this view, which, he said, would defeat the whole object of the Act, which *is to prevent unqualified persons from acting*. This is, perhaps, rather too absolute a way of putting it. If the Act of 1858 had been expressly designed to prohibit unqualified practice, it would have been very different in its penal clauses from what it is. But it certainly gives such persons no power of recovering fees. It does not recognise their right to make charges, and it prohibits the false use of medical titles, and in this way it discourages unqualified persons from practising; but it does not absolutely prohibit them. Lord COLERIDGE was decided, however, in his view. He entirely supported the judge below who had directed a nonsuit. The medical man whose representatives sued had not rendered the service sued for, and he could not recover, and therefore the nonsuit was right. Mr. Justice DENMAN was equally strong in supporting the non-suit. He said: "The medical man here did not show that he had rendered the services sued for, and so he could not recover. The services sued for were rendered by another person, who was unqualified, without any consultation with him. It was urged that this person acted as his servant; but a qualified practitioner could not thus authorise an unqualified person to act for him in medical attendance. It would be a mockery to apply the doctrine of master and servant to such a case, and it would entirely defeat the intention and object of the Act." The appeal was accordingly dismissed.

This judgment will clear the air a good deal. Some previous cases seem to have been decided in an opposite sense, or at least in a doubtful sense. But the opinion of Lord COLERIDGE and Mr. Justice DENMAN, given with so much clearness, is likely to settle this question. And, indeed, any other view of the case would be as disastrous to the profession as it would be absurd. If a medical man were at liberty to officer half a dozen branch houses or dispensaries with as many unqualified assistants and to enforce payment for their services in a court of law, the practice of unqualified persons might be indefinitely increased and encouraged to the great injury of the public. Such a doctrine would not only cover conduct which the Medical Council has severely condemned, but it would legalise it. We are much gratified, therefore, at the decision given in the High Court, from which it follows that charges for all services rendered by unqualified assistants alone cannot be recovered.

Annotations.

"Ne quid nimis."

THE APPROACHING COLLEGE ELECTION.

THE following gentlemen are candidates for the vacancies on the Council of the Royal College of Surgeons caused by the annual retirement of members:—Mr. John Couper (Memb. 1859; Fell. 1861), of the London Hospital; Mr. Alfred Willett (Memb. 1859; Fell. 1862), of St. Bartholomew's Hospital; and Mr. Brudenell Carter (Memb. 1851; Fell. 1864). Sir T. Spencer Wells, Bart., and Mr. Jonathan Hutchinson, two of the members retiring in rotation, seek re-election; but Mr. John Wood will not again come forward. The last day for the reception of nomination papers was Monday last, *June* 13th, and not *July* 13th, as was accidentally stated in our last issue. The voting takes place on July 7th, at 2 P.M., in the library of the College.

SUCCESSFUL REMOVAL OF A TUMOUR FROM THE SPINAL CANAL.

ON Thursday, June 9th, Mr. Victor Horsley removed a tumour from the spinal canal of a gentleman aged forty. The diagnosis of compression of the spinal cord by a morbid growth was made by Dr. Gowers, who saw the patient with Dr. Percy Kidd. The patient was suffering from paraplegia, which commenced gradually six months ago, and from pain round the chest of four years' duration. Sir William Jenner afterwards saw the patient, and confirmed the diagnosis. Dr. Gowers suggested that an attempt should be made to remove the growth. From the history of severe neuralgic pain in the back and along the course of the left sixth dorsal nerve which preceded the paraplegia, it was considered probable that the growth commenced in the posterior root of the nerve, and afterwards produced pressure on the cord. The operation was performed by a long incision in the mid-line of the back, having its centre about the fifth dorsal, down to the spines of the vertebræ. The muscles were cleared off from the laminæ and retracted. The spines were removed by bone forceps, and then the laminæ trephined. An incision was made

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through the membranes and the cord examined, a tumour about the size of the tip of the little finger being eventually found on the posterior root of the nerve about the level of the third dorsal vertebra. This had pressed the cord forwards and to the right, producing a deep depression in its substance. It was removed with the nerve to which it was attached. The incision through the membranes, which was at least three inches long, was not sutured; the wound in the soft parts was closed with sutures and drained. Strict antiseptic precautions were taken at the operation. Since the operation there has been no rise of temperature, and the pain has diminished. The painful spasmodic action of the muscles of the lower extremities from which the patient suffered has diminished, and there has been less rigidity of the legs, but the paraplegia continues. The growth, which was of a pinkish colour, elastic and vascular, has not yet been submitted to microscopical investigation.

EXPERIMENTAL NEURITIS.

HYPODERMIC injections of ether are now so frequently employed, and with such good effect, that we are apt to forget that occasionally nervous lesions result from their use. Cutaneous anæsthesia, disorders of motility, and even serious trophic lesions have been observed, and the experimental researches of Arnozan and Salvat proved that the mechanism of these lesions was a peripheral neuritis. MM. Pitres and Vaillard find, however, that some of the peculiarities of the action of ether on the peripheral nerves must have escaped the attention of the last-mentioned observers.[1] We reproduce the salient points of this interesting communication. When an injection of half a cubic centimetre of sulphuric ether is made deeply into the cellular tissue which separates the muscles on the back of the thigh of a guinea-pig, there always results a paralysis of sensation and motion in the parts of the limb situated below the level of the injection. Generally the anæsthesia occupies the two outer toes and the outer aspect of the leg, but it may sometimes affect all three toes and the whole of the skin of the leg, probably because the injection has traversed the muscular interstices and attacked the crural nerve. After a few days these phenomena may be accompanied by œdematous swelling of the foot, ulceration of the toes and tarsus, falling off of the nails, &c. The anæsthesia and the paralysis are manifested immediately after the injection, and in a short time they have reached their fullest extent, and, once developed, they persist for several weeks or even months without either increasing or decreasing in severity. In order to study the mechanism of the action of ether, MM. Pitres and Vaillard have made a histological examination of the segments of the nerve situated above, below, and at the level of the injection of ether, and these examinations have been made on the sciatic nerve from animals after a survival of some hours, days, or several weeks. Above the zone of injection the nerve has always appeared absolutely normal; nothing like an ascending neuritis has been observed. At the level of injection the alterations varied according to the length of survival of the animal. When the nerve was examined some hours only after the injection, this nerve being teased after maceration for twenty-four hours in a solution of osmic acid, and coloured by picrocarmine, eosine, or hæmatoxylon, the myeline is found to have become blackened and rather different from the bluish-black tint of normal nerve fibres. Further, the lateral fissures are no longer to be seen, the axis cylinder and nuclei of the internannular segments are not distinct, and it seems as though the nervous elements had become altered in their chemical composition. If the animal be killed six, eight, or ten days after the experiment, the segment of affected nerve shows the same changes; it is only after the fifteenth day that the altered fibres begin to undergo notable modifications: the myeline breaks up, and is slowly absorbed. Below the level of the injection the nervous tubules proceeding from the nerve trunk affected by the ether undergo the Wallerian degeneration, which is well marked on the fourth day. The ether is therefore regarded as causing an immediate necrosis of the nerve trunk at the site of injection. This was also shown by an experiment in which the nerve was first divided at its exit from the pelvis, and on the same day ether was injected into the lower part of the thigh of the paralysed leg. Wallerian degeneration was found eight days after in the nerve, between the point of section and that of injection, and also below the latter, but in the area of injection the nerve had not undergone degeneration; the myeline was continuous and confounded with the axis cylinder, and there were no traces of nuclear multiplication. Other experiments showed that an injection of the sulphuric ether could arrest the Wallerian degeneration at any point in its career. The same facts hold good with nitric and acetic ethers for guinea-pigs, rabbits, and cats. Hydrochloric ether has less severe effects. Formic and valerianic ethers have caused considerable local swellings and gangrene, thus preventing a proper examination of their action on nerves. The authors suggest that, in cases in which neurectomy or neurotomy is needed, injection of ether in the neighbourhood of the nerve trunk might serve equally well.

[1] Gazette Médicale de Paris, No. 22, 1887.

THE HOVE INFECTIOUS HOSPITAL.

WE have received a further communication from Mr. Henriques as to the Hove Infectious Hospital. We do not publish it because it no longer deals with the defects referred to previously; it merely brings forward a few fresh points of objection to the institution. One relates to the use of earth-closets, it being alleged that the contents are not buried "at anything approaching to a sufficient depth to be safe." Surely such a trivial point of local administration can be altered by an order that the man in charge is to dig deeper. Then it is stated that there is no system of drains. The drains themselves we believe to be well and properly laid, but we agree with Mr. Henriques in so far as the absence of a proper system for disposing of their contents is concerned. There is ample ground for this, and here amendment is certainly wanted. Then the water supply is complained of. The supply is derived from a neighbouring public reservoir, and, owing to the levels, it has to be stored in a second reservoir on the hospital site, and to be pumped by horse-power into the hospital cisterns. We are sorry that, owing to the position of the buildings, such an expense should be necessary, but we fail to see why such a matter should be held up as an objection to the hospital itself. "Stored water," we now learn, "is *never* pure," and it "*may*" become contaminated. These are not grounds of objection which merit the publicity which this question has received. In every way we regret the action taken by Mr. Henriques and his supporter General Shute, and in one respect it has been scarcely courteous. Thus, the latter publicly asserts that our comments were inspired by a local partisan, and hence to quote them in favour of the views of the medical officer of health as to the hospital is "simply giving the public credit for being idiots." And Mr. Henriques, referring to the suspicious character of certain dates, regards our comments as "inspired *ab extra*." We may state that our comments have been the result of a personal visit to this partial hospital provision for infectious diseases in Hove, and of a knowledge as to the principles properly governing such provision—which, we believe, is not inferior to that possessed by those who have done so much to bring the institution into public disrepute.

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THE LATE DR. WAKLEY.

THE Executors of the late Dr. James Goodchild Wakley request us to note that he devised his freehold residence at Longcross, Chertsey, Surrey, with its stables, outbuildings, gardens, and pleasure grounds, about eight acres in extent, to University College, London, as a memorial to his late father, Thomas Wakley, Esq., M.P., and in commemoration of the establishment of THE LANCET, of which the late Dr. Wakley was for so many years the Editor and part Proprietor. The expressed object of the devise was that the premises might be used by the College as a Home for the reception and treatment of Convalescent Patients in connexion with University College Hospital, to be called the "Wakley Convalescent Home." He also bequeathed to the College the pictures and prints in the house, to be kept there for the amusement of the patients; and a pecuniary legacy of £1000, to be expended in the maintenance and support of the Convalescent Home at the rate of £200 per annum for the five years next succeeding his death. The Solicitors of the Executors inform us that the premises, with the pictures and prints, have been handed over to the College, and that the legacy has been paid. The late Dr. Wakley also made several other charitable bequests, all of which have been paid or set apart. Notably—to the Hospital Sunday Fund (which, in so far as London was concerned, was initiated by the late Doctor in his capacity as Editor of THE LANCET), £1000, in addition to two previous donations of a similar amount; to the poor of Sunningdale, £200; to the poor of Chobham, £500; to the Bisley Refuge Farm School, £500. And provision was made by the Doctor in his lifetime for the continuance for some years of the religious work among the poor in the neighbourhood of his residence which he had for long superintended.

CHOLERA FORECASTS.

WHETHER or not the German journals are warranted in anticipating a return, in greater force, of the cholera invasion that hovered round Mayence last autumn, they cannot certainly be blamed for treating June and July as the test months for the reappearance of the epidemic. A dry spring like that which heralded the cholera raids on Munich in 1836, 1854, and 1863 has no doubt been absent this year, but the suddenness of more recent explosions of the malady has lessened the importance to be attached to that condition. A vigilant prophylaxis, therefore, is all the more justifiable—a prophylaxis not guided by the worn-out traditions of French or Italian sanitation, but by the counsels of that sagest of hygienic strategists, Max von Pettenkofer. "Zum Gegenwärtige Stand der Cholerafrage" ("On the present Aspect of the Cholera Question") is the title of a series of papers just concluding in the *Archiv für Hygiene* (Munich: Oldenbourg), from the pen of that great authority, and the wholesome truths they inculcate must, if well acted on, "place Germany in as unassailable a position hygienically as her War Office headed by von Moltke has placed her in strategetically." Readers of THE LANCET will remember that von Pettenkofer, even after the second cholera conference at Berlin, saw no reason to modify his non-contagionist view of the origin and spread of the disease. While recognising with M. Koch a cholera bacillus, and *ex hypothesi* accepting that micro-organism as the parasitic basis of the malady, he denies the conclusion sought to be deduced from this theory that cholera is communicated by the contagium of the bacillus Kochianus. Malaria, he contends, has also a bacillus or a germ (vegetable or animal) for its basis, but it does not infect the human subject by contagium; it passes from the soil into the air, whence it reaches the organism through the lungs. Epidemiologically considered, cholera does not effect its foothold in localities by man-to-man contagium. Lyons, Innsbruck, Salzburg, the asylums to which cholera patients by the thousand have fled, have never contracted the disease; in fact, for really contagious diseases no localities can ever be called exempt, as these cities have been from cholera. It is, thinks von Pettenkofer, to the malarial group of epidemics that we must turn for the true analogy of the origin and spread of cholera, and the prophylaxis which that analogy prescribes—attention to the conditions of subsoil when operating in connexion with season—will be found to cut at the root of the outgrowth and spread of the disease. Contagionism with its isolation, its sanitary cordons, its quarantine, its disinfectants, has achieved nothing but *fiasco*. Witness 1884, when cholera, non-existent in Egypt, non-existent in Europe, exploded in France, and almost simultaneously, at Toulon and Marseilles, all M. Fauvel's contagionist machinery notwithstanding; witness the same year and the year following in Italy, where every contagionist precaution was enforced with fanatical strictness, and where nevertheless the malady had everything its own way in the frightful outbreaks. Yet so wedded was M. Fauvel to his contagionist theory, that on his death-bed he solemnly declared that the epidemic that had decimated Toulon and Marseilles could not have been Asiatic cholera because it proved intractable by his contagionist preventives! The practical lesson deduced from von Pettenkofer's findings is this: vigilant attention to the subsoil as to drainage, vigilant attention to water supply, such as within the next decennium Germany relies upon to make her as exempt from cholera visitations as her frontier is from attack. "Forearmed hygienically against the one and strategically against the other," she reiterates her claim to look on both with equanimity.

EPSOM COLLEGE.

THE alterations in the by-laws of this College which were proposed and carried at the last annual meeting establish the institution on a new basis. Hitherto Epsom College has been a class school confined almost entirely to the sons of medical men. A few day-boys were admitted, and only a small percentage of sons of others than medical men were among the boys. This limitation of Epsom College has done much to check the development and extension of the school. Parents have long since recognised that to limit a school to a particular class tends to curtail a boy's intellectual powers, and lessens his social advantages in after-life. Thus, other public schools—notably Wellington College and Marlborough—have expanded from the strictly military foundation of the one and the clerical foundation of the other into large general public schools. This should have been the object at Epsom. From the foundation of the College the disposition has been to make the medical benevolent feature of the foundation too conspicuous. The Epsom boys had at all times before them a not very encouraging emblem in the form of aged professional pensioners located in almshouses adjoining the College. These are found to be a mistake, for the occupants, if given choice, prefer their small pension and residence elsewhere to the precincts of Epsom College. Thus the almshouses are being gradually vacated, and are becoming utilised for school purposes. It would be to the interest of the College, and not to the disadvantage of the pensioners, if the whole of the almshouses were diverted to school purposes, and the proceeds arising therefrom directed to the benefit of the aged pensioners resident elsewhere. Hitherto the College, like some other public schools, has been weighted by a heavy debt. On his retirement from the treasurership of the College, it must have been a great satisfaction to Mr. Francis Hird to have been able to announce that during his period of office this debt had been entirely wiped out. Dr. Holman of Reigate succeeds Mr.

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Hird as treasurer to an institution now unembarrassed and commencing a new era in its existence. Epsom College henceforth is to aspire to be a great public school, fitting boys not only to enter the medical profession, but other professions and the universities. Dr. Holman, on entering office, pledged himself to the governors present at the annual meeting that the sons of members of the profession should reap the full advantage of any extension of the school, and *this, too, at only a fraction above the prime cost of their education.* We place on record this assurance of Dr. Holman in order that it may not be lost sight of in what we hope will be a successful phase in the history of Epsom College. Each member of the profession is as much interested in doing for Epsom what he can, as military men have been in Wellington and clergymen in Marlborough. At these schools masters have been found ready to build boarding-houses for boys, and the same has been done at Charterhouse and Winchester. Epsom College may be extended in the same way, to the advantage of the foundation. But to this end scholars must be forthcoming from outside the profession, and at a rate of remuneration such as shall be a source of profit to the institution. The present happy position of Epsom College cannot but be highly gratifying to the members of the family of the late Mr. Wakley who are now conducting this journal, of which he was the founder. It will be remembered that a large memorial fund, subscribed after his death in 1862 by members of our profession, was presented to Epsom College, to establish a scholarship which should bear his honoured name.

ZIEMSSEN ON COLD WATER TREATMENT OF TYPHOID.

The *Journal of the American Medical Association* for May 14th contains a full abstract of a lecture on Antipyresis and Antipyretic Methods by Professor Ziemssen, director of the Medical Clinic of Munich, especially in regard to typhoid. The lecture is very interesting and earnest. It claims a high value for the treatment by baths, and expresses a hope that after the favourable results of active antipyresis physicans will not lapse again into the therapeutic indifference of the Vienna School. Of all antipyretic measures Ziemssen considers hydrotherapy the chief: first, because it combines in itself all the attributes of a remedial measure; and, secondly, because its action on the fevered organism may be varied to any degree. The benefit of such treatment is not confined to typhoid, but is also to be noticed in other febrile diseases, such as pneumonia, erysipelas, and acute phthisis. The cold and lukewarm baths act, he thinks, by cooling the blood at the periphery, the vital fluid being returned to the internal organs with an indescribably pleasant as well as beneficial effect. Sleep is favoured. There is an improvement in digestion, so that the patient can be fed better. On the circulation the effect is to contract the peripheral vessels, the heart works more slowly, the vessels show an improved tension, dicrotism is decreased, and the elasticity elevation returns. The respiratory apparatus is excited by the peripheral irritation to deeper and slower movements, cough is more effective, and in this way bronchial obstructions and consequent atalectasis and catarrhal pneumonia are better avoided than by the impracticable advice to turn a fever patient on his side. Ziemssen gives two or three statistics to show the effects of the cold and the lukewarm bath treatment respectively. He takes his illustration of the strictly cold bath from Vogl, physician to the Garrison Hospital at Munich. He gives (with a rectal temperature of 102·2° F.) a cold bath at 63·5°, lasting a quarter of an hour, about every three hours, winter and summer, in unheated rooms, with windows open day and night. This is bold treatment, and for soldiers (for the most part with young and picked lives) does well. There were only 52 deaths in 610 cases, or 5·4 per cent. Murchison gives the mortality of typhoid in the London Fever Hospital, after deducting cases which died within forty-eight hours of admission, as 15·82 per cent. Ziemssen compares Vogl's practice with strict cold water treatment with Naunyn's in a civil hospital, who, with an axillary temperature of 103·1°, taken every three hours, gives usually eight baths in twenty-four hours, generally between noon and midnight, at a *not lower* temperature than 72·5°. He divides baths into *cold* (72·5° to 81·5° F.; duration, five to ten minutes), *lukewarm* (from 81·5° to 90·5°, ten to fifteen minutes), and *warm* (90·5° to 95°). The warm are given in the later stages in very active delirious patients with great restlessness and muscular weakness. By this treatment Naunyn lost 10 of 145 cases, or 6·9 per cent, "certainly a favourable percentage." Ziemssen himself says that for twenty years he has recommended, for private practice, the gradually-cooled bath. The patient is placed in a warm bath of 90·5° or 86°. The water is continually poured over him with hands or sponge. While this is being done, cold water is very slowly poured in at the foot of the bath tub, and the water reaches gradually a temperature of 77° or 72·5°, until the patient's teeth chatter, or he declares he can stand it no longer. He is then taken out and placed in a blanket previously warmed, and wrapped in it without being dried. In this he remains in the greatest comfort for fifteen minutes, is then rubbed dry, and allowed to sleep. Ziemssen, like a wise physician, recommends the study of the peculiarities of individual cases. While lauding the bath treatment, he speaks respectfully of antipyretic drugs.

STATISTICS OF SUICIDE.

THE *Chronicle*, an enterprising journal in New York, has made a very painstaking compilation of statistics relating to suicide, culled from the daily press of America over a period of five years. In this way a large number of cases has been brought together, and although the sources of information are not always the best or the channels through which it flows the most trustworthy, yet the result presents many interesting features, and well repays the compiler's trouble. Among the most striking of the facts brought out is the very obscure influence of the season of the year upon the prevalence of suicide. It would be a curious experiment to poll a constituency of ordinary people for opinions on this point. We much suspect that autumn or winter would commonly be credited with being best adapted to develop and foster suicidal tendencies. In America it would seem that summer enjoys this unenviable pre-eminence. And not only so: the summer months all rank high—the highest in the year; but, actually, the highest of them all is "the flowery month" of June. On merely psychological grounds, it would seem quite unintelligible that suicide should be at its maximum just as spring is making way for summer. The reason must be sought elsewhere—in the organism and its environment; and possibly the circumstance that a very large proportion of the suicides are agriculturists affords a practical explanation. At least, this is the season of the year, just before harvest, when a farmer is likely to find himself most hardly pressed for money. The demand for money for agricultural purposes, which is so well known in our own money market as a regularly recurring feature of that season of the year, bears testimony to the existence of a state of things which, indeed, may be seen by the help of merely *à priori* considerations to lie in the natural and necessary course of events. It is very conceivable that this pressure in a country like agricultural America, where banking facilities, compared with ours, are very limited, may be pronounced enough to affect quite appreciably the suicide record of the agricultural class. This explanation does not seem, however, to be fully adequate, for, giving to

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it the fullest weight possible, we still are face to face with the anomaly that a special circumstance is made to explain a very general feature of the figures given. It is probable that the truth lies deeper still in the nature of things and men, and must await for its full disclosure the more complete analysis of the relations between mental states and pathological conditions, and again between these latter and the season of the year. In the meantime these seasonal figures, being among the most reliable, presumably, that our contemporary has put together, are of sufficient interest to warrant reproduction.

Distribution in seasons of 8236 American Suicides.

Spring.		Summer.		Autumn.		Winter.	
March	649	June	833	Sept.	781	Dec.	627
April	687	July	746	Oct.	681	Jan.	538
May	706	Aug.	807	Nov.	600	Feb.	571
Total,	2042	Total,	2386	Total,	2062	Total,	1736

Of the suicides brought under review, nearly 6000 have been classified under causes. The results thus brought out agree more nearly with one's expectations. Insanity, of course, heads the list. Family trouble comes next, while business trouble, dissipation, and disappointed love rank almost together for the third place. So far all is commonplace, but the list contains, as would be supposed, some eccentricities. The refusal of a pension might easily suggest suicide to a severely logical mind, but it is passing strange that self-destruction should be chosen as a refuge from assassination, yet two such cases are recorded; while in one instance a source of trouble is assigned so utterly trivial as a *pimple on the nose!* But more striking, upon the whole, are the results brought out by classifying according to occupations. Strangely enough, farmers contribute by far the largest quota. Possibly the number is not disproportionate to the numerical strength of the farmer class in America—for these proportions are not worked out,—but it is singular to find them outnumbering the saloon-keepers, merchants, labourers, and clerks put together. Yet so it is. Among other classes, that of courtesans is sadly and suggestively conspicuous. For the rest, the list, though long and varied—for no condition is free from the occasional temptation to suicide,—contains nothing of special interest or in any way peculiarly noteworthy. The problem of the seasonal variation, however, appears likely to reward careful examination.

THE PHYSICALLY DETERIORATING INFLUENCES OF CIVILISATION.

AT the meeting of the Anthropological Institute on the 24th ult. (Mr. Francis Galton in the chair), Dr. George Harley, F.R.S., gave a discourse on the "Relative Recuperative Bodily Powers of Man living in a rude, and Man living in a highly civilised, state," in which he brought forward a number of hitherto unpublished, though mostly well known facts in support of his contention that the refining influences of civilisation had not been altogether an unalloyed boon. Cases were cited by the speaker in support of his view that, while man's physique as well as his mental powers had increased during his evolution from a barbaric condition into one of *bienséance* (his stature and his strength, as well as his length of days, having been increased *pari passu* with this improvement gradually), he has deteriorated in his bodily power, either to resist the lethal effects of injuries, or to recover from them as rapidly and as well as his less favoured barbaric ancestors. Nay, more: the cited illustrative cases showed it apparently to be a fact that all the appliances of civilised life which most potently minister to human comfort and human enjoyments have a deleterious enervating effect on the animal frame, as was demonstrated (said Dr. Harley), both by striking examples drawn from gipsy and tramp life, and also from domesticated animals, such as the sheep, the ox, the horse, and the dog, in all of which species high breeding was shown to conduce to a marked diminution in the bodily recuperative capacity. The speaker further maintained that man universally had naturally a high standard of bodily recuperative power inherent in his constitution, and that the present higher bodily recuperative capacity shown to be possessed by all men living in a rude state, whether in the form of savages, like the South African Kaffir or the North American Red Indian, or the gipsy or tramp wanderer among ourselves, arises from the fact that the refining influences of a higher civilisation materially diminish the animal recuperative capacity; and further that, although all men are of the same flesh and blood, their different modes of life and different social habits have induced in them very varied degrees of nerve sensibility, as well as of recuperative bodily power.

EXTREMES OF TEMPERATURE.

IT is not without cause that Englishmen so ceaselessly grumble at the weather. There is no stability, no moderation about our climate. It is either very cold or very hot; or if the general atmosphere be fairly comfortable the bitter north-east wind makes us miserable. At this moment the delicate have barely recovered from the sufferings inflicted upon them by a cruel season, which had no legitimate claims to be called Spring, when they are assailed with the plague of summer heat. There is really no rest or peace for any save the strongest in this "tight" but ungenial "little island" of ours. It is vain to preach caution. How can the most careful of mortals avoid draughts when the ordinary temperature in-doors is between 70° and 80° F.? Windows must be thrown open, and the air will rush in, which is relatively, if not absolutely, of such lower temperature as to give the sensation and do the deadly work of cold draughts. So with clothing. In the sweltering heat it is impossible to wear wraps which are nevertheless necessary to protect the susceptible from those currents of air that rush up side streets and round corners. If, regardless of comfort, the weakly consent to endure these wraps, they cannot do more than in a very moderate way defend themselves against exceptional perils. Perhaps the wisest — certainly the happiest—are those who have never, by pampering their susceptibility, rendered themselves the creatures of conditions in the presence of which it seems impossible to be either contented or safe.

SANITARY WORK IN PETERBOROUGH.

A REPORT which was presented to the Town Council of this city by the inspector of nuisances in March last shows a very discreditable state of things as regards refuse removal. We are informed that house refuse is periodically removed from 332 houses in a city which in 1881 had a population of 21,212, and it is added that great difficulty is experienced with occupiers of small tenements who allow their ashpits to be filled to overflowing before they will have them emptied. We are bound to infer that the inspector is here speaking of houses other than the 332 as to which periodic removal is in force; and we can only wonder what else could be expected than the grave result which he deplores, and which ensues "in the thickly populated and poorer parts of the borough." It is a primary duty of a sanitary authority to see that such refuse is periodically removed from the neighbourhood of all dwellings within their jurisdiction, and this at very short intervals. Occupiers should never be held to have a voice in determining the frequency of such removal unless they have a piece of garden ground on which such refuse can be properly deposited at least once in every week. Where, as in Peterborough, this is not possible, it is the obvious duty of the

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sanitary authority to undertake this duty themselves; and it should be remembered that it is precisely the poor (who can neither pay nor arrange for the frequent visit of a scavenger, and who prefer to wait until there is a good load of stuff to remove) who most need the intervention of the authority in such a matter. Whatever the system or want of system is that prevails in Peterborough, it is evidently one that favours the retention in the vicinity of dwellings of the very materials which a sanitary authority should aim at getting rid of at the shortest practicable periods.

COCAINE AND ITS USE AS A LOCAL ANÆSTHETIC IN DENTAL SURGERY.

COCAINE having now taken a place in the Dental Pharmacopœia for various uses, it was desirable that some *résumé* of the literature of the subject, especially with reference to the injection of the drug for producing anæsthesia, should be made, and Messrs. Cunningham and Hern are to be congratulated upon the exhaustive character of their respective communications to the Odontological Society. Both papers cover much the same ground, and the conclusions arrived at are very similar. With regard to the physiological action of cocaine, much experimental research has been performed by von Anrep, Mays, Biggs, Hughes Bennett, and others; and although the results recorded are not quite uniform, yet these discrepancies are readily explained by the different methods of investigation, and the varying degree of susceptibility to the drug of the individual animal or person. Generally, it may be concluded that cocaine produces the following effects:—On respiration it first increases the number of respirations, then decreases them; in larger doses death ensues from paralysis of respiration. On the heart it has a depressant action, reducing the force and frequency of the pulsation, finally arresting the auricles and ventricles in diastole. In small and large doses it produces at first constriction of the blood-vessels, with a rise of blood pressure, succeeded by a considerable fall. Locally applied, cocaine also produces contraction of the small arteries. On the nervous system, small doses increase the reflex irritability of the cord; large doses reduce it considerably. On nerves, small doses heighten the irritability of the sensory fibres, but exert no effect on the motor fibres; larger doses completely paralyse sensory filaments and greatly diminish the irritability of motor. Salivary secretion is markedly deficient in many, and the temperature raised in some cases. A careful examination of the very large number of cases of cocaine injection now collected has led both Mr. George Cunningham and Mr. Hern to express very much the same views, which we quote in the latter's words, "In judging of the practicability of the employment of cocaine as an anæsthetic for extractions, one has to weigh the advantages and disadvantages of its employment, and compare it with those agents for the production of general anæsthesia now in use. After doing so, I am led to the following conclusion—viz., that as an agent for general use in extraction: 1. The physical barrier to injection which the bony alveolus interposes. 2. The pain, however slight, due to the puncture of the syringe. 3. The mental suspense due to the necessity of waiting several minutes between the injection and operation. 4. The full consciousness under which the operation is performed. 5. The varying idiosyncrasy of patients with reference to the drug. 6. The inconstancy of production of complete anæsthesia. 7. The necessity of limiting the dose, so that only one part of the mouth can be safely anæsthetised for the same patient at a given time, and that only such as to allow of one, or at most two, teeth being removed. These all combine to relegate the drug to a subordinate and secondary position, leaving nitrous oxide in the possession of the field as *facile princeps* for the vast majority of such operations. Other than for extraction there are various operations in which cocaine can be beneficially employed."

THE HEALTH OF THE CROWN PRINCE OF GERMANY.

ON Wednesday, June 8th, Dr. Morell Mackenzie, in the presence of the Crown Princess and Dr. W. Wegner, removed a second piece from the growth in the left vocal cord of His Imperial Highness. At a consultation held the following Friday Professor Virchow read a most fully detailed report of his examination of the growth, which he described as a "pachydermia verrucosa." He stated that the portion submitted to him showed a great increase in the number and size of the epithelial cells, some of which were empty, whilst others contained colloid matter, also that the papillæ were larger and more numerous than in normal mucous membrane. Numerous bloodvessels and nerves were found in the growth, but we believe no morbid products were present in the submucous areolar tissue. Professor Virchow gave a most favourable prognosis. In view of Professor Virchow's statement there is reason to hope that the Crown Prince will in time be entirely cured, though it must not be forgotten that recurrence is a characteristic feature of these papillary growths. At the urgent request of Dr. Mackenzie the Crown Prince has ordered a detailed report of Professor Virchow's examination to be published, and Dr. Virchow has informed us that this report will appear in full in this week's issue of the *Berliner Klinische Wochenschrift*.

DEATH FROM OVERCROWDING.

ALTHOUGH overcrowding is pretty general in manufacturing towns, we seldom hear of a death from this cause. A case has been recently investigated by Mr. Rowbottom, the coroner for Wigan. It transpired at the inquest that the deceased, a young man of twenty-two years of age, was a labourer at some ironworks in the neighbourhood, and retired to rest on the night of the 6th inst. in his usual health. He was called early next morning to go to his work, but stated he would not go that day. The other occupants of the room (lodgers) went to their work, and he was left alone. At 9.30 A.M. he complained to the landlady that his throat was sore, and she applied a poultice. At 12.30 noon she sent for Dr. Brady, who at once went to the man, and found the atmosphere of the room in which he was overpowering. The window was opened, and, after examining the man, he came to the conclusion that he was suffering from the effects of mephitic gases; his throat was of an intense purple colour, the neck slightly swollen, his general appearance indicated inefficient aeration of blood, and there were spasms at times of laryngismus stridulus. Dr. Brady gave directions as to treatment and left the house. The man died shortly afterwards. He made an attempt to vomit, fell back in bed, and died as if choking. Dr. Brady refused a certificate and communicated with the coroner, desiring a second medical man at the post-mortem. The coroner ordered a post-mortem, and asked Mr. Berry to be present with Dr. Brady. The post-mortem appearances were those of poisoning by carbonic acid gas. The trachea was intensely congested, as were also the bronchial tubes. The right side of the heart was filled with very dark fluid blood; the lungs and kidneys were congested, and dark in colour. The mucous coat of the stomach was in appearance as if stained with port wine lees. All the organs were healthy, with the exception of this venous congestion. There was nothing else to account for death. It was shown at the inquest that in this house, with two rooms above and two below (and these small rooms), eleven persons lived—a man, his wife, five children, and

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four grown-up men lodgers. In the room in which Dr. Brady saw the man on his visit, were three beds. The room was 7 ft. high, and 10 ft. 9 in. by 11 ft. 8 in.: making allowances for recesses, and deducting space occupied by furniture, a cubic space of 842 ft. Seven persons had slept in the room, but the belief was that a larger number occupied it. The landlady stated that the deceased had slept in the adjoining room, which was a little less in cubic space, and contained two beds for the lodgers. The jury found a verdict that the deceased died from asphyxia caused by overcrowding. In manufacturing towns like Wigan persons occupy houses and take in lodgers, but, not having these registered, they evade the Lodging Houses Act, and thus escape inspection. The sanitary authority, however, should strive to get houses like this one under its control.

THE NATURAL HISTORY OF WELL WATERS.

ANOTHER important contribution to science comes to us from the celebrated laboratory and experimental farm at Rothamsted. Sir J. B. Lawes and Dr. Gilbert, whose labours, spread over a long period of time, have done so much for agricultural chemistry, did wisely when a few years ago they took Mr. Robert Warington into their scientific partnership. The present research stands in the name of the younger worker only, although he carries on the work and has doubtless been aided by the counsel of his distinguished *confrères*. Mr. Warington's paper occupies more than fifty pages of the current number of the journal of the Chemical Society. It will be studied by all interested in sanitation or scientific agriculture, and it contains such a mass of facts and tables that it is not possible to give any adequate idea of it in a narrow compass. Moreover, there are as yet no great generalisations to record, but chiefly a mass of statistical evidence which grows more detailed and accurate, and therefore more valuable, every year. Fair inductive reasoning is, however, applied to the facts. The first section deals with the rain water of Rothamsted, which has been systematically collected and measured since 1853, and which is evidently the basis of the whole inquiry. The average proportion in one million parts of this water is of chlorine 2·01, of sulphuric acid (SO_3) 2·52, of ammonia 0·35, and of total combined nitrogen 0·67. The last item is equal to about 4·4 lb. per acre per annum. Then comes a consideration of the drainage water. Ever since 1870 several isolated patches of prepared soil, consisting of loam and flint resting on a clay subsoil, supported on perforated iron plates and protected laterally by impervious walls, have been kept free from vegetation and manure. The beds are respectively twenty, forty, and sixty inches thick, and the drainage water is collected, measured, and analysed. The thickness of the bed was found to make no important difference, and the results on the five-feet bed are taken as typical. Of 31·04 inches of rain which fell on this soil, 17·09 inches evaporated and 13·95 inches percolated below five feet. In the drainage water the chlorine was found to be the same as in the rain water, but concentrated by the evaporation; while the nitrogen, as nitrates, was on the average 10·7 per million—the process of nitrification being most active during summer, while the principal discharge of nitrates was during autumn. The influence of vegetation is next studied. The conditions at Rothamsted are remarkably suitable for experiment. One celebrated field has grown wheat continuously since 1843, and one portion of it has never been manured. The drainage water from each is carefully collected, measured, and analysed. Vegetation, especially during its active stage, increases enormously the surface evaporation by transpiration of water through the plant, and in our climate during summer drainage is entirely suspended by the action of a vigorous crop. Interesting details are given as to the quantity and composition of the drainage water at various seasons of the year, especially with reference to the process of nitrification and the absorption of nitrogen by growing crops. As to evaporation, the results seem to show that, in round numbers, about one-half the rainfall of the year percolates through bare soil, and about one-third through unmanured soil cropped with wheat. This, of course, is only true under the conditions prevailing at Rothamsted. Armed with these valuable factors, Mr. Warrington has, with laborious skill, investigated the well waters of the neighbouring village of Harpenden—some of which are uncontaminated, while others are certainly contaminated. We must refer to the original paper for the very interesting observations which the author has made upon these works and their apparently eccentric contamination. He does not profess to explain all the anomalies, but, knowing and using as a basis the composition of the uncontaminated waters of the district, he has been able to throw light upon some of them. The effect of season, variation of rainfall, and local circumstances upon the composition of the well waters is amply illustrated, and the large quantities of calcium, magnesium, and sulphuric acid in the polluted waters is both interesting and important. From the whole study we gather the general inference, by no means new to the experienced chemist, that it is very unsafe to give a definite opinion on the quality of a water without a greater knowledge of its source than can be gained by a mere analysis. The analysis is essential, but it can only be interpreted by what in medical practice is known as the family history of the case.

PROF. GAYET ON OPHTHALMIA NEONATORUM.

DR. GAYET, Professor of Ophthalmic Surgery in Lyons, urges his pupils, in a clinical lecture on Ophthalmia Neonatorum, published in *La Province Médicale*, to search diligently for the gonococcus of blenorrhagia in all cases of ophthalmia occurring in very young infants. It does not, he says, require any extraordinary skill, and can be accomplished in as short a time as the ordinary examination of urine for albumen. A particle of the pus is placed on a glass slide and spread out by means of a second slide; the two are then separated, furnishing two preparations. They are stained by dropping a mixture of an alcoholic solution of methyl blue with an equal volume of water on them, allowing it to remain for two minutes. They are then washed with plenty of water. On microscopic examination each of the leucocytes will be seen to have two, three, or four nuclei, this being a special character of the disease, the increase in the number of nuclei heralding the approach of the gonococci, which will be observed as intensely blue spherical bodies in the interior of some of the leucocytes. If only one leucocyte so invaded is discovered, the diagnosis of blenorrhagic inflammation is rendered certain. With regard to treatment, the child must be watched "like milk on the fire," the visits being more than one per diem. Three indications present themselves: 1. To clear away the agent of infection. 2. To prevent its development. 3. To destroy it where it is. To fulfil the first, frequent and careful washing out is requisite. The eyelids should be everted, the mucous membrane stretched, and all the folds of the conjunctival sac thoroughly syringed out with a ball syringe; the eyelids should then be replaced, well rubbed on the outside, again everted, and the syringing repeated. In this way all the pus will be removed, but it is a somewhat difficult and tedious operation. In order to destroy the microbes which have already penetrated into the substance of the conjunctival mucous membrane, they must be pursued and attacked by the solid mitigated nitrate of silver, a solution of common salt being afterwards employed to neutralise any superabundance of caustic. The

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mother should be directed to wash the eyes with a solution of corrosive sublimate (1 to 6000), and to keep small compresses wet with iced water on them. When the disease appears to be cured it is necessary to be on the look-out for a return; the microscope should therefore be in constant requisition in order to detect microbes, even after all apparent discharge has ceased. The most favoured prophylatic measure by Dr. Gayet is the employment of a vaginal douche with a 1 to 6000 corrosive sublimate solution at the commencement of all labours, especially when the woman suffers from leucorrhœa, in which case the child should not be allowed to remain too long in the passage.

THE NATIONAL MEDICAL CONGRESS OF ITALY.

OUR Rome correspondent writes:—"The Italians are possibly 'over-doing it' in the matter of congresses, but considering how jealously public meeting used to be restricted even on purely scientific subjects, the error is a venial one and quite on the right side. On the 1st inst. the National Medical Congress opened its sittings here in the great hall of the Senatorial Palace in the Capitol. Three hundred medical men from all parts of the peninsula were present, and on the presidential platform Signor Crispi, Minister of the Interior, represented the Government, the Duke Torlonia the Municipality, and a number of well-known physicians and surgeons the various medico-chirurgical associations of the city and provinces. The feature of interest was the eloquent speech of Crispi, who claimed a more than official—a personal—interest in the Sanitary Code of the late Dr. Bertani, brought before Parliament by the Prime Minister, Depretis. Bertani, the surgeon-in-chief of Garibaldi's patriotic campaigns, whose premature decease some thirteen months ago was commented on in THE LANCET, abandoned a brilliant academic and civic career to minister to the wounded red-shirts, and after their common goal was won devoted himself heart and soul to a department of medicine comparatively unfamiliar to him—public health—that he might render physically and morally sound and strong the national life he had helped to unify. Crispi's *éloge* of his friend was in his happiest vein, and seemed to infuse a genial spirit into the more formal speeches that came after. The programme of the Congress, an extensive one, in harmony with the sentence of Cicero, inscribed in imposing characters over the entrance-portal, "Hominum Vitæ et Saluti Consulendum," will doubtless give occasion to discussions of interest, not only for Italian medicine, but for that of other States."

EARLY DIAGNOSIS OF PHTHISIS.

As an original contribution to the *Revue Internationale des Sciences Médicales*, No. 5, Dr. E. Martel writes on the early diagnosis of pulmonary phthisis by an examination of the larynx. We cordially concur in the statement that to diagnose pulmonary tuberculosis as soon as possible is of the highest importance in the treatment of this affection, but far more evidence than has yet been adduced will be required to sustain M. Martel's principal proposition, to the effect that a "paralysis or a paresis of a vocal cord, with or without derangement of phonation, indicates in nearly all cases an incipient pulmonary phthisis." In other words, the discovery of an imperfection in the action of one vocal cord is equivalent to proving that the patient so affected will eventually develop unmistakable signs of phthisis, and this, too, in the lung of the same side as the impaired vocal cord. The impairment of the action of the vocal cord may precede the development of physical or other certain signs of phthisis, even by as long a period as four years. M. Martel's own words may be quoted, as they are so very remarkable and emphatic: "I have always examined the larynx even when there were no signs pointing to mischief therein, and I have been surprised at the number of 'lame' vocal cords which it has been my lot to examine; but we ought not to say, as soon as the discovery of a weakened vocal cord is made, that the apex of the left lung will become tubercular in a nearer or more remote future; there are exceptions, and aneurysm of the aorta, tracheo-bronchial adenopathy, and tumours of the neck may lead to functional troubles of the vocal organ." Nevertheless, in the next paragraph, M. Martel avers that in all cases of examination of the thorax or neck we shall find the cause of the vocal paresis; whilst in incipient phthisis the lung will appear to be healthy to physical examination of all kinds, and yet the lameness of the vocal cord alone will suffice for us to assert that something abnormal is taking place on the same side of the respiratory apparatus (lung).

MEANS OF ISOLATION AT SALFORD.

IN view of the contemplated purchase by a railway company of the existing infectious hospital for Salford, Dr. Tatham has submitted to his sanitary authority an able and exhaustive report on the principles which should govern them in the provision of a new hospital. Care has been taken to study the whole subject, and Dr. Tatham has interviewed the departments of the Local Government Board in order to elicit from them any expression of opinion formed since the last official publications were made on the subject. As a result of these steps, Dr. Tatham recommends that 200 beds—at the rate of one bed per 1000 inhabitants—should be provided as the permanent accommodation for the borough, and he enters into details as to the plan on which these should be arranged in different pavilions. The subject of the isolation of small-pox patients in urban communities is for the moment not dealt with, because the Monsall Hospital, affiliated to the Manchester Royal Infirmary, is available for the reception of cases of that disease. But this, it is admitted, is not likely to be a lasting arrangement; and when it comes to an end this very difficult problem will have to be faced in Salford. Dr. Tatham's report is so complete that its perusal would well repay those authorities and officers who have the provision of infectious hospital accommodation in contemplation.

ACUTE INFECTIOUS MYOSITIS.

THE subject of myositis which Mr. Treves brought under the notice of the Clinical Society last year has been further illustrated in a paper read by Dr. Jackson at a recent meeting of the Massachusetts Medical Society.[1] The case was that of a woman aged thirty-six, who had been seen by Dr. Jackson when in Strasburg. The illness began with malaise, sore throat, and a red papular eruption on the face, which disappeared in a week's time. Then occurred swelling, accompanied by pain, in the shoulders, legs, and sacral region. There was moderate fever, except at the close, when the temperature was high and pneumonia occurred. There was slight œdema of the face and extremities, the muscles of the limbs being fixed and rigid, extension causing pain. There was paresis of the soft palate, diminished electrical reaction, and absence of reflexes. The patient died a week after admission. Professor Kussmaul, who had charge of the case, diagnosed a diffused myositis, and said the case reminded him clinically of one in which thousands of miliary aneurysms were found all over the body. Trichinosis was at first thought of, but was eliminated by the history and the absence of gastro-intestinal prodromata. The post-mortem examination was made by Professor von Recklinghausen, and it was found that the muscles throughout the body, especially in the extremities, the trunk, and the face, were pale and moist, many had small hæmorrhages

[1] Boston Medical and Surgical Journal, 1887, No. 21.

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in their sheaths, whilst their fibres were waxy and granular, and the interstitial tissue was infiltrated with round cells. In the discussion on the paper, Dr. Fitz remarked on the liability of the muscles to participate in infective processes, and suggested that in the case related by Dr. Jackson diphtheria may have been the primary source of the infective inflammation.

AMBULANCE ARRANGEMENTS FOR THE JUBILEE PROCESSION.

WE are glad to be able to state that Colonel Sir Charles Warren, Commissioner of Police of the Metropolis, in view of the probability of accidents which must necessarily occur on an occasion when large masses of people are gathered together, and of the possibility of cases such as sunstroke, syncope, &c., due to the present sultry weather, has taken the precaution of arranging with the Chief Surgeon of the Metropolitan Police for ambulances to be stationed at various points along the route over which the procession will pass. The actual stations of such ambulances will be notified in the police orders. We further understand that in addition to those possessed by the police a certain number of ambulance vehicles will be supplied by the Order of St. John of Jerusalem, and that if the permission of the General Commanding the Home District be obtained the services of the various companies of the Volunteer Medical Staff Corps will be available at their respective hospitals or at any point along the route where their presence may be deemed desirable. It may be interesting to add that in the ranks of the police are a large number of men who have previously served in the Army Hospital Corps, and who have been therefore selected for special duty on this occasion.

THE LOCAL DISTRIBUTION OF PHTHISICAL LESIONS.

IN a memoir upon the pathology of pulmonary diseases (*Zeitschrift f. Klin. Med.*, abstracted by Sahli in *Fortschritte der Medicin*, No. 11, 1887), Dr. A. Hanau suggests that the reason for the preference of the apex of the lung for the initial lesion of phthisis is to be found in the comparatively weaker expiratory power of this part of the organ. In support of this he cites the frequency with which anthracotic and chalicotic processes are to be met with at the apex or a short distance below, corresponding to the sites of tubercular foci. Being unsupported, the apex of the lung can be fully expanded by inspiration, but it is less under the influence of expiratory forces than the lower parts of the lung. As a consequence, in forced breathing the air is very likely to stagnate in the apex; and, as Mendelsohn showed with respect to emphysema, there may even be a reflux of air from the normally acting lower parts of the lung into the upper. The comparative immunity from tubercular phthisis enjoyed by the subjects of spinal curvature, by those whose lungs have become cirrhotic, as coal miners, or the emphysematous, may in each case be attributed to defective power of inspiration possessed by the apex or the whole lung in such conditions. The selection of the middle lobe and lower part of the upper lobe for the occurrence of secondary foci due to the aspiration of the contents of cavities which have escaped into the bronchi is also explained. Usually the areas of broncho-pneumonia arising from aspiration of noxious matter are to be found in the lower and posterior parts of the lung. This is due to the dorsal decubitus of most of the patients in whom this complication supervenes. But it is otherwise in phthisis when the subject is not confined to bed, for the regions next to be involved to the apex, and infected secondarily from it by means of aspiration, are the middle lobe and contiguous part of the upper lobe. These regions are the most liable to be fully distended in coughing, and the products of the apical vomicæ will be more readily pressed in their direction by the backward current of air. Hanau also ascribes the frequently rapid extension of phthisis in women after childbirth to the aspiration of the contents of cavities into previously healthy parts of the lungs following on the extraordinary respiratory efforts made during parturition. Aspiration as a factor in the dissemination of tubercular lesions is not perhaps as fully recognised as it should be, but it certainly serves to explain the matter in a plausible way, and is in absolute harmony with the doctrine of the local infectivity of tubercular products, which is so admirably illustrated in the distribution of the lesions of uro-genital tuberculosis.

THE MATHEMATICAL TRIPOS, 1887.

THE list of Mathematical Honours for the current year exhibits some rather interesting features. In the first place, it is remarkable that four names are bracketed together for the post of "senior" in the Tripos, Trinity and St. John's equally dividing the honour. Of the thirty wranglers, Trinity claims nine; St. John's and Christ's, four; King's College, three; Emanuel, Pembroke, and Sidney, two each; whilst Peterhouse, Jesus, Corpus, and Queen's each supply a single wrangler. Caius College, which in former days furnished so many senior wranglers, and nearly always had a candidate high up in the list, this year supplies no wrangler. It would be interesting to inquire whether this decline in the mathematical honour list is exceptional and due to accidental causes or to failure in drawing mathematic talent to the College. Caius College has been the foremost in providing handsomely for the requirements of natural science teaching, and its success in that direction has been very marked; it is just possible, therefore, that some of its best scholars have been attracted in that direction, and have sought for honours in the Natural Science instead of the Mathematical Tripos. If such should prove to be the case, we may regard the present decline of this, as it might almost be called, Medical College as regards its position in the Mathematical Tripos with equanimity, and indeed with satisfaction, as showing that the medical profession is attracting some of the best intellect at the College to the scientific training necessary for its successful cultivation. Among the successful Colleges this year in the Tripos, Christ's certainly deserves the palm; though considerably smaller than St. John's College, it furnishes an equal number of wranglers, three of whom are in the first thirteen. This, again, is another instance of a change of tradition, since in former years Christ's was regarded more as a classical than a mathematical college.

FREE LIBRARIES AND CONTAGION.

No public institution is so fortunate as not to be liable to misuse. It is not, therefore, to be wondered at that the free library, notwithstanding the benefits it undoubtedly confers, has been found to have its disadvantages. A complaint has been laid against it that it may, and sometimes does, become the means of carrying infection. A correspondent, writing a few days ago, quotes what seems to have been a case directly in point. A child obtained from the library a book which had just come from a house in which there was scarlet fever, and two days later was taken ill with this disease. The period of incubation in scarlatina is somewhat variable, but it is not incompatible with the view that the book was here the medium of infection. Whether the disease could not have been traced to any other possible source is uncertain, but, at all events, this case indicates a danger which appears to be inseparable from the free library system. The only possible safeguards are to be

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found—firstly, in a compulsory notification of infectious disease to the librarian, and secondly, the subjection of every returned book about which there is any doubt on the score of contagion to a process of disinfective fumigation. In this connexion reference may be made to an incident recorded in a Russian periodical. Typhus fever has recently been very prevalent in Sebastopol, and it is stated that its ravages were to some extent controlled by the judicious action of the librarian of the town library, who appealed earnestly to the subscribers to cease temporarily from changing books in case of the fever appearing in their respective families. In this way the frequenters of the library and the readers of the books lent out, as well as the staff of servants and librarians, have been saved from infection.

A NEW AND IMPERVIOUS DRESSING.

PHOTOXYLIN, a substance in use amongst photographers, was recommended some time ago by Dr. Krysinski as a suitable material for mounting microscopic specimens, and more recently still it has been utilised by Prof. Wahl of St. Petersburg as a substitute for collodion in surgical practice. A 5 per cent. solution in equal parts of alcohol and ether he finds preferable to collodion, as it adheres more firmly to the skin, not being so easily rubbed off in washing. It is absolutely impervious to liquids, and exerts a perfectly even compression on the tissues. In out-patient practice Prof. Wahl finds that, after small operations such as the extirpation of glands, the application of photoxylin solution enables him to dispense entirely with voluminous antiseptic dressings; also in plastic operations on the face, and in operations in the neighbourhood of the male congenital organs, such as those for the radical cure of hernia and castration, where it is very difficult to prevent the urine soaking through antiseptic dressings. Prof. Wahl, after carefully arresting all hæmorrhage, closes the wound with sutures and gelatine plaster, and then covers the whole with a thin layer of wool soaked in a solution of photoxylin. This, it is stated, will remain eight or ten days, entirely resisting all the effects of moisture. Even in laparotomy, extensive dressings may, he believes, be dispensed with by painting a solution of photoxylin over the wound with a brush, or by the application of a layer of cotton wool soaked in the same liquid. Photoxylin appears to be unknown in this country. It was introduced by Messrs. Mann of St. Petersburg.

THE NEWINGTON MEDICAL OFFICER OF HEALTH.

WE regret the action which has been taken by the Newington vestry in connexion with the office of medical officer of health, which has become vacant by the death of Dr. Iliff. The bye-laws of the vestry are specially contrived to prevent vestrymen from taking paid offices, and to secure the election of the best available persons. Thus, "no vestryman shall be eligible for nomination or election to any paid office or place under the vestry, and no person shall be nominated or elected to any such paid office within six months after he shall have held the office of vestryman." And further, the mode of election by selection from amongst candidates is provided for. In the face of this the resignation of Mr. G. Millson, L.R.C.P., a vestryman, was accepted at the first vestry meeting after Dr. Iliff's death; Mr. Millson's offer "to discharge the duties of medical officer of health gratuitously until such time as the vestry see fit to elect a permanent officer" was accepted; and it was decided "that the appointment be reviewed"—not made—"at the expiration of six months." In our judgment nothing could have been contrived which would more completely frustrate the intention of the bye-laws than the steps which have been taken.

REG. v. THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

WE publish in another column an important judgment delivered in the Queen's Bench Division in regard to the power of the Medical Council to remove the name of dentists from the Dentists' Register in cases in which the qualifications on the strength of which registration had been effected had been withdrawn by the medical authorities granting the said qualifications. The questions raised by this decision are so important, and the report reaches us so late, that we defer comment till next week. It will be seen that judgment is given in favour of Mr. Partridge, who held a diploma in dentistry from the Royal College of Surgeons of Ireland, which was withdrawn on account, as alleged, of his advertising to attract business. The Council, without an independent examination of the facts, merely on the ground of its duty to keep a correct Register, erased his name. The mandamus, on application on behalf of the Medical Council, will not be drawn up for a week.

DRINKING TROUGHS AND GLANDERS.

AT a recent meeting of the Commission of Sewers, the Streets Committee advised the non-erection of a drinking trough in Farringdon-street on the ground that it was likely to serve as a means of disseminating glanders. This is a serious indictment, and it is said to be supported by the observations of several veterinary surgeons. It would be interesting to learn on what precise statistics it is founded, and the mere assertion made on such authority justifies an inquiry into the subject. In consideration of the undoubted benefit which these troughs confer upon travelling cattle, the sufferings of which in hot weather would often without them be very great, it is to be hoped that the Commissioners will not accept the recommendation of their committee unless it is fully fortified by proof, but it would certainly be well for them to consider the alternative proposal made by one of their number, that the drinking trough should be so constructed that the water within it may be kept running, and thus be constantly renewed.

DEATH OF DR. OXLEY OF LIVERPOOL.

DR. MARTIN G. B. OXLEY, senior physician to the Liverpool Infirmary for Children, died at Llandudno shortly after midnight of the 13th inst. The deceased was a student of King's College, became M.R.C.S. Eng. in 1862, and later on M.K.Q.C.P.I. and M.B. St. And. Some years ago he suffered from mitral disease of the heart, for which he was attended by Dr. Glynn of Liverpool. He rallied from this, and after some months' rest resumed practice. But he had several relapses and recently went to Llandudno, where he hoped to benefit by the sea air and change. He was attended by Dr. Dalton, and it was hoped that he would recover. But a change for the worse occurred, and at 12.30 A.M. on the 14th inst. he expired. He leaves a widow and two sons to mourn their loss, as well as a large circle of professional and lay friends, among whom he was extremely popular.

FEVER AT STAPLEFORD.

STAPLEFORD, in Nottinghamshire, is under the jurisdiction and mismanagement of the Shardlow rural sanitary authority, and the Local Government Board having apparently failed to induce the authority to do away with the conditions periodically leading to fever prevalences in the place, have at last reminded them of the frequency with which the water supply has been condemned as dangerous, of the faulty system of midden-privies and the lack of drainage, and have finally thrown upon them the responsibility for

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such further disease and mischief as may result. In such cases the Local Government Board have no power of enforcing the adoption of proper sanitary measures unless definite complaint is made to them of default under Section 299 of the Public Health Act, 1875. The matter must, therefore, now rest with those who elect the authority and reside in the district.

CONVERSAZIONE AT THE ROYAL COLLEGE OF SURGEONS.

A VERY successful conversazione was given by the President, Mr. W. S. Savory, F.R.C.S., at the Royal College of Surgeons on Wednesday evening last, nearly twelve hundred ladies and gentlemen being present, including a large number of nurses from St. Bartholomew's Hospital, whose dresses lent picturesque variety to a brilliant scene.

DR. DE GROOTE ON HOT CLIMATES.

IN a work on "The European in Hot Climates," recently published by a Belgian naval surgeon, Dr. de Groote, Central Africa in general and the Congo in particular are dealt with. With regard to the Congo, the author considers the climate more healthy than those of Brazil and the English and Dutch Indies. A good deal of practical valuable advice is given to travellers, emigrants, and colonists, for whom the work is mainly intended. The directions given for the immediate treatment of medical and surgical affections when out of the reach of professional aid will also prove valuable to this class of persons, and in the opinion of Dr. Thiriar, of Brussels, who has reviewed it in *La Clinique*, the amount of information given under this head is just what is required.

EUSTACHIAN OBSTRUCTION IN DIABETES.

WRITING in the *Revue Mensuelle de Laryngologie, &c.*, No. 6, on the troubles of hearing sometimes complained of by diabetics, M. Miot comes to the conclusion that the swelling, with œdema of the Eustachian tube, is a complication of diabetes which does not yield to ordinary treatment, but is amenable to the continuous current, which diminishes the congestion of the mucosa and allows of the introduction of bougies, as well as the employment of galvano-caustic agencies. The last-mentioned means appears to be the most efficacious and rapid method of restoring the functions of the canal.

HONORARY DEGREES OF DUBLIN.

IT is probable that several members of the British Medical Association will receive the degree of M.D., *honoris causâ*, at the hands of the University of Dublin on June 30th—Sir James Paget, Sir Spencer Wells, Mr. Simon, Professor Gairdner, and Dr. Edward Waters. It is intended to confer the degree of LL.D. on Prince Albert Victor on the same day.

THE PASTEUR COMMITTEE.

WE learn that the report of the Government Committee appointed to inquire into the efficacy of the Pasteur method is revised, and will be signed in a few days when sent round to the members of the committee. It will probably be in the hands of Mr. Ritchie by the end of the week, when he will, no doubt, lay it on the table of the House.

DEATHS OF EMINENT FOREIGN MEDICAL AND SCIENTIFIC MEN.

THE deaths of the following foreign medical and scientific men are announced:—M. le Dr. Rochas, General Secretary of the Rhone Medical Association.—Dr. L. K. Wagner of Kharkoff.

THE MEDICAL DEFENCE UNION.

THE Transactions of the Medical Defence Union are before us in pamphlet form, and give an account of the position of the Union in respect of membership and the action of the executive. The members amount to about 554. As regards action, some disappointment may be felt that it approaches so nearly to inaction. But this feeling will be modified on a careful perusal of the statement. For one thing, it seems quite candid and complete, telling the reader the various cases in which the action of the Union has been invoked, and the reply of the Union, with its reasons, which are generally sound and sensible. We do not think the worse of the Union for not proceeding heroically and sensationally, and it will take a stronger position if it acts slowly and wisely.

DR. GRAILY HEWITT.

AFTER twenty-two years of service, and in consequence of the pressure of private and other engagements, Dr. Graily Hewitt has resigned the chair of Obstetrics and Gynæcology in University College and his post of physician to the hospital. In accepting this resignation, the Council of the College passed a resolution expressing their high appreciation of the very eminent services which Dr. Hewitt has rendered to the College and hospital during the long period he has held the chair.

CONSULTATION FEES IN RURAL FRANCE.

THE bureau of the Haute Garonne Medical Association has been informed that sometimes a general practitioner calling in a consultant expects to be given a portion of his fee—in fact to receive a commission on the transaction, in the way in which commercial men remunerate others who introduce business to them. The bureau, being asked to express an opinion on this matter, had no hesitation in characterising any transaction of the kind amongst medical men as highly undignified. It added that the general practitioner is entitled to a consultation fee as much as the consultant, and that it would be a desirable practice to intimate this to the patient.

SIR FREDERICK ABEL.

WE regret to learn that Sir Frederick Abel, chemist to the War Department, has had an attack of double pneumonia. He is at present at Woolwich, and is considered by his medical attendant, the medical officer of the Arsenal, to be convalescent. The eminent chemist appears to have "caught a chill" while attending a public ceremonial.

GRANTS FOR SCIENTIFIC RESEARCH.

WE may remind our readers that the Scientific Grants Committee of the British Medical Association will shortly meet to consider applications for grants in aid of medical, surgical, and collateral research, to which purpose £300 is annually devoted. Applications should be forwarded to the office of the Association, 429, Strand, where particulars may be obtained of the conditions under which the grants are allotted.

HENLEY REGATTA.

WE have ascertained that, after all, there is as yet no new regulation in force to prevent the befouling of the London drinking-water supply by the house-boats that will gather together in such large numbers at Henley during the regatta week. The new bye-laws framed to prevent the contamination of the Thames still await the Royal assent. We shall deal more fully with this important question in our next issue.

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SCARLATINAL KIDNEYS.

THE interesting contribution to the Pathological Anatomy and Histology of Scarlatina, appearing in the pages of the *Birmingham Medical Review*, from the pen of Dr. George Crook, whilst confirming the general truth of Klein's histological observations on the changes in the arteries and arterioles, states that the hyaline change is not met with so frequently or so well marked as Klein described. "Interstitial changes are undoubtedly rare in the first week, but in two cases their presence in the form of cellular infiltrations around the glomeruli, and in patches along the vessels in the labyrinth, could not be overlooked."

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—Professor B. Fraenkel has just commenced work in his newly established University Policlinic for Nose and Throat Diseases.—Dr. Thorn, assistant medical officer of Professor Olshausen's University Gynæcological Clinic, has been appointed to succeed Dr. Hofmeier, who has gone to Giessen.

Buda-Pesth.—Professor Jos. Wagner, Director of the Second Medical Clinic, having held the professorship for forty years, is about to retire.

Dorpat.—Dr. Weil, Professor of Special Pathology and Therapeutics, who has been away during the winter endeavouring to recruit his health in the south, not having derived as much benefit as was anticipated from the climatic change, is now unfortunately obliged to relinquish all hope of returning to his work, and is therefore resigning his chair.

Kieff.—The medical library of the late Professor E. E. Miram has been presented to the University.

Prague (Bohemian University).—Dr. Karl Pawlik of Vienna has been appointed Professor of Midwifery and Gynæcology.

St. Petersburg.—Mdme. Auer, daughter of the late Dr. E. V. Pelikan, has given her father's valuable library to the Military Medical Academy.—Drs. Hertsenstein, Gendenreich, Cydakoff, and Sirotinin have been recognised as *privat-docenten.*

IT is officially announced that the Dean of Westminster has received the Queen's permission, and also the sanction of Her Majesty's First Commissioner of Works and of the Lord Chamberlain, to repeat the Jubilee service in the Abbey on Wednesday, 22nd inst., at 3 P.M. The service, which will include musical additions, will be held for the benefit of London hospitals. One third of the proceeds will be given to the Hospital Sunday Fund, which this year will lose the annual collection in the Abbey, one third to Westminster Hospital, and the remaining third will be divided between the Hospital Saturday Fund and the Western Dispensary. Tickets, at prices ranging from one pound to half-a-crown, will be issued by the Secretary of Westminster Hospital, to whom alone application should be made.

THE recent inquiry into the charges made against the Health Committee of the Manchester Corporation by the elective auditors has resulted in the finding that no charges of fraud have been sustained against any member of the committee or the committee's responsible officers, and that the shortcomings were no more than might be discovered in any other concern, public or private, of equal size.

AT a meeting of Convocation of the University of Oxford on the 9th inst. a grant of £100 a year for three years for the purpose of providing instruction in materia medica and pharmacy was carried by 38 votes to 19.

WE regret to announce the death of Mr. J. Beswick Perrin, M.R.C.S. E., of Leigh, Lancashire. Mr. Perrin was for some years Demonstrator of Anatomy in King's College, London, and afterwards at Owens College, Manchester, and will be remembered by many old friends and pupils as a most able dissector, an ardent anatomist, and an excellent teacher. After leaving Manchester, he settled in practice at Leigh, and soon became extremely popular and much respected in the district. In his earlier days he wrote many interesting and valuable anatomical papers in the *Medical Times and Gazette*, the *Journal of Anatomy and Physiology*, and the Transactions of the Zoological Society.

THE election of an Assistant Physician to the Royal Alexandra Hospital for Sick Children, Brighton, took place last week, there being six candidates, all of whom were highly qualified. Mr. W. C. Chaffey, M.B. Lond., late registrar to the Great Ormond-street Hospital, London, was elected by the Committee of Election, who had no personal knowledge of him; he was chosen purely on the ground of merit. The elections at this hospital being carried out by an Election Committee, canvassing either directly or through an agent disqualifies candidates.

THE borough of Oldham is about to receive a charter as a quarter sessions district, which will entail the appointment of a borough coroner. The only medical candidate is Dr. George Thomson, his opponents so far being all members of the legal profession. Our views of the question of medical coroners are well known, and we wish Dr. Thomson every success in his candidature.

ANOTHER outbreak of diphtheria has occurred on the Danish corvette *Dagmar*, which recently left Sheerness to resume her training cruise in the North Sea. The patients have been admitted by the naval authorities to the infectious wards of Melville Hospital, where three of the *Dagmar's* crew have been confined since the 29th ult.

AT the last meeting of the Royal Medical and Chirurgical Society, Professors W. H. Flower, Michael Foster, and Sir William Turner were elected Honorary Fellows, and Professors John S. Billings, Frederick Esmarch, and Richard von Volkmann, Foreign Honorary Fellows of the Society; Dr. S. J. Gee was elected Honorary Librarian.

THE Queen has been pleased to appoint James Patrick Tulloch, M.B., colonial surgeon for the Island of Tobago, to be an official member of the Legislative Council of that island.

A SEVERE epidemic of measles is raging at Winsford, Cheshire. The whole of the schools in the town are closed.

TESTIMONIAL TO MR. GODART.—It is proposed to present a testimonial to Mr. Godart upon the occasion of his departure for Sydney after thirty-seven years' service as pathological and anatomical draughtsman in the Medical School of St. Bartholomew's Hospital. A meeting will be held in the anatomical theatre on Saturday, July 2nd, at 1 P.M., to determine the form which the testimonial shall take. Subscriptions may be sent before that date to Mr. D'Arcy Power, Curator of the Museum, 26, Bloomsbury-square, W.C.

A PHYSICIAN ATTACKED BY ROBBERS IN HAVANA.—Dr. Vincente de la Guardia, a much-esteemed physician in Havana, was recently attacked and robbed in or near the city. He defended himself with vigour, but was unfortunately wounded

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Pharmacology and Therapeutics.

TERTIARY ALCOHOLS.

DR. B. M. SHAPIROFF has made a number of observations on the physiological action of tertiary alcohols, and especially on that of dimethyl-ethyl-carbinol, a tertiary amyl alcohol obtained by the action of chloride of propionyl on zinc methyl. In its pure form this substance is a clear oily liquid with a strong odour. The melting point is 12° C.; the boiling point is 102·5° C.; and the specific gravity at 0° C., 0·828. On oxidation acetic and propionic acids are formed. When 0·001 to 0·005 gramme is injected under the skin of a frog, the first effect is to cause stupor—i.e., depression of the cerebrum; after which paralysis of the spinal cord is induced, evidenced by the arrest of the lymphatic hearts, the centres for which are, according to Veliki, located in the cord. No direct effect is produced on the hæmic circulation. In warm-blooded animals dimethyl-ethyl-carbinol diminishes the blood pressure, paralysing the vaso-motor centres, but does not exert any direct action on the heart. On the temperature it produces a decided effect, lowering it in a marked degree. The action of trimethyl-carbinol is very similar to that of the compound containing a molecule of ethyl, but less marked and slower. In general, according to the author, the tertiary alcohols, though they may have the same composition as primary alcohols, exert a very different physiological action, the latter class of bodies being general stimulants, while the former act as depressants.

Another Russian observer, Dr. Shumoboï-Simanovski has published some recent observations (*Ejenedélnaia Klinicheskaia Gazeta*, No. 11) on trimethyl-carbinol, which, he says, was obtained first by Butleroff by the action of zinc methyl on oxychloride of carbon, and also by its action on chloride of acetyl. It is sometimes described as tertiary pseudo butyl alcohol. As long ago as 1867 Danielevski reported at the first Congress of Russian Naturalists that this substance had the property of allaying irritability of the psychic centres without causing any preliminary excitement. Dr. Simanovski, from observations recently made on both warm- and cold-blooded animals as well as on patients, is now able to confirm the views of Danielevski, and also those of Thierfelder and Mering, who found that tertiary alcohols exerted a soporific effect on rabbits. The dose for an adult of trimethyl-carbinol is from ten to twenty drops. Given to two patients in Professor Botkin's wards suffering respectively from perinephritis and pleurisy, with a high degree of habitual and long-standing insomnia, it produced in both instances a really good night's sleep. There appeared to be no objection to repeating the draught on several successive nights.

ANTIPYRIN AND ACETANILIDE IN PHTHISIS.

IN comparing the effects of antipyrin and antifebrine or acetanilide in phthisis, Dr. Jablovski finds that acetanilide exerts a much more decided effect on the pyrexia. He remarks that by taking acetanilide such patients exhibit far less variation between the morning and evening body weight than under ordinary circumstances. The same is true with regard to antipyrin, but the effect is less marked. The loss by the skin and lungs is increased by antipyrin and very greatly diminished by acetanilide. Dr. Jablovski publishes a series of tabular results obtained during a long and painstaking investigation conducted upon patients in the Helsingfors Military Hospital.

HUAMANRIPA.

The plant known by the name of huamanripa amongst the natives of Peru is made use of by them in cases of bronchitis, catarrh, and slight hæmorrhages. It has been recently examined by Dr. Zapater, who employed an infusion made of 25 parts of the leaves to 1000 of water. In small doses it quickens the cardiac pulsations and augments the secretions, especially the saliva. In larger doses it produces vomiting and sweating, and diminishes the cardiac beats, the respiration, and the temperature. In cases of pleurisy and pneumonia it appears to exercise almost a specific action. It is, besides, an excellent sudorific.

A DEMONSTRATION of amalgamated temperance societies took place on the 12th inst. in aid of the North London Nursing Association.

THE HOSPITAL SUNDAY FUND.

ON the 11th inst. the sixth of the fourteen public meetings to be held in support of the Hospital Sunday Fund was held in the Shoreditch Town Hall. The chair was taken by the Bishop of Bedford, supported by the Marquis of Lorne, Mr. J. Bigwood, M.P., Sir Sydney Waterlow, Sir Edmund Hay Currie, the Rev. Septimus Buss (vicar of Shoreditch), the Rev. Prebendary Billing (rector of Spitalfields), the Rev. W. Cuff, and others. The following is a list of the institutions comprised in the Shoreditch district which benefit from the Hospital Sunday Fund:—City of London Hospital for Diseases of the Chest, German Hospital, North-Eastern Hospital for Children, Poplar Hospital, East London Hospital, Metropolitan Free Hospital, London Dispensaries, and City of London Lying-in Hospital. The expenditure and liabilities of these institutions in 1886 exceeded the income by £30,000. The Chairman, in opening the proceedings, said that if there was one charity which more than another was free from the danger of doing more harm than good it was the Hospital Sunday Fund. At present, however, neither the supply of hospitals nor the support of those existing was, in his opinion, sufficient. He should be very sorry if the hospitals had to become a department of the State or to be supported out of the rates, but if the necessary funds were not otherwise provided they might come to that. Centralisation of management was never very efficient, and the hospitals would suffer very greatly from it; besides, the public would be robbed of one of the most healthy and pure channels of benevolence that were open. The Marquis of Lorne moved the first resolution—"That this meeting pledges itself to use every endeavour to arouse the inhabitants of this district of London to the importance of maintaining the hospitals and medical charities in the utmost efficiency. In furtherance of this object it urges the clergy and the ministers of religion to point out the advantage of giving through the Hospital Sunday Fund, owing to the nominal cost of so collecting funds for the hospitals, and to make an earnest appeal to the people to so increase their contributions as to secure that the whole sum collected shall not be less than £100,000." He said that the grave condition of the hospitals' finances ought not to be allowed to continue. In the East-end, and the more densely populated districts of London, medical and surgical aid should be near at hand, and every well-considered attempt to provide more extensive accommodation in these crowded districts ought to be welcomed. The Rev. S. Buss seconded the resolution, which was unanimously carried. Sir Sidney Waterlow then moved the second resolution—"That this meeting regrets to learn that the expenditure and liabilities of the hospitals and medical charities of this district in the year 1886 exceeded the income by £100,000, and pledges itself to increased exertion, with a view of preventing any like deficiency during the current year." He said that the public of the metropolis did not fully comprehend the duty and responsibility which rested upon everyone of maintaining the hospitals in a state of efficiency to relieve the sick poor. As chairman of the Distribution Fund, he could assure the public that the money contributed to the fund went directly, with the smallest possible deductions, to the objects for which it was intended, the management, collection, and distribution of the fund only costing 3 per cent. The Rev. Prebendary Billing having seconded the resolution, it was carried with only one dissentient. The Rev. W. Cuff then proposed a vote of thanks to the Bishop of Bedford for presiding, and to the Marquis of Lorne for his attendance. Sir Edmund Hay Currie, in seconding the resolution, said he wished to disabuse people of the idea that the money being asked for was for the establishment of new hospitals, though these were needed badly enough. The existing hospitals were not doing anything like the work they might do simply because they had not enough funds, and the money asked for was to carry them on efficiently; £40,000 was collected on Hospital Sunday, and though this might sound a large sum, it was perfectly unworthy of such a great city as London, for it did not amount to £15 for every place of worship. The resolution was carried by acclamation, and the proceedings came to a close.

On the 13th inst. a meeting was held at St. Mary's, Newington, Parochial Hall, Kennington Park-road. The Newington district includes all London south of the Thames

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and contains nine hospitals and eleven dispensaries participating in the fund. During 1886 these institutions accommodated 7594 in-patients and relieved 92,025 out-patients, and in the same year their total income was £41,349, while their expenditure amounted to £44,190. The chair was taken by Sir Wm. Plowden, M.P., who was supported by the Rev. C. H. Spurgeon, the Rev. G. T. Palmer, the Hon. Conrad Dillon, Sir Sydney Waterlow, the Rev. J. Guinness Rogers, and Mr. H. C. Burdett. The Chairman, in opening the proceedings, said that from returns which he had received he found that in Birmingham, where the Hospital Sunday movement was initiated, seventy contributing congregations raised a sum of £5000 for their hospitals. In London and the suburbs there were no less than 2000 contributing congregations, and if they gave to the same extent as those in Birmingham they would raise a sum of £150,000, instead of the £40,000 which they did actually contribute. The deficiencies of the London hospitals were stated at £100,000, but this estimate did not take note of the fact that there were also 2000 beds available, but unoccupied for want of adequate means. If the hospitals were to work at their utmost efficiency a sum of 200,000 would be required. Sir Sydney Waterlow then moved a resolution pledging the meeting to use every endeavour to arouse public interest in the needs of the hospitals, and urging the clergy to make an appeal to their congregations so as to secure that the total sum collected should not be less than £100,000. The Hon. Conrad Dillon seconded the resolution, which was carried unanimously. The Rev. G. T. Palmer then moved a resolution expressing regret at the fact that the expenditure and liabilities of the hospitals in the Newington district exceeded their income by £2800 in the year 1886, and pledging the meeting to increased exertion to prevent any like deficiency during the current year. The Rev. C. H. Spurgeon, in seconding the resolution, said that the hospitals would have inevitably growing needs. But while their liabilities were increasing their incomes were decreasing. People must therefore rouse themselves to make up the deficiencies which had already appeared, and which would continue to appear in greater proportions in the future. From the constant growth of the population of the metropolis more hospitals would be required, and if the tending of the sick and needy could not be properly undertaken by voluntary institutions, the indispensable work would have to be done by Government. He hoped that outsiders would be awakened to the urgency of the case; for it was not only as Christians, but as men, that they contributed to the fund. In giving to the hospitals there need never be any fear of doing injury, for to relieve sickness and suffering must be good. The Rev. J. Guinness Rogers supported the resolution, declaring that the collections hitherto made on Hospital Sunday were not worthy of London's wealth, her humanity, or her Christianity. The resolution having been unanimously carried, the proceedings terminated with a vote of thanks to the Chairman.

On the 14th inst. a meeting was held at the Mansion House. The Lord Mayor, who presided, was supported by Sir S. H. Waterlow, Bart., Alderman Sir W. McArthur, K.C.M.G., M.P., the Bishop of London, the Rev. Dr. Allon, Sir Edmund Hay Currie, Canon Fleming, Dean Vaughan of the Temple, Rev. — Simpson, Mr. Wakley, Mr. H. N. Custance (secretary), Mr. Burdett, and others. The Lord Mayor mentioned the receipt of letters from the Bishop of Bedford, the Bishop of Ripon, Lord Strafford, and the Rev. Dr. Wace, and announced that he had received from Mr. Henry Irving a contribution of fifty guineas. In opening the proceedings, the Chairman said that the promoters of the Hospital Sunday Fund endeavoured to excite in the public, and particularly in the wealthy, feelings of gratitude and thankfulness for the health and prosperity they enjoyed, and as a result to make a special endeavour to support the institutions which were established chiefly for the benefit of those not so fortunate and not so well off as themselves. This year, and this time of the year, when so many of them were spending large sums of money to gratify their feelings of loyalty, curiosity, or enthusiasm, in connexion with Her Majesty's conspicuous jubilee, was particularly suited to be signalised by special liberality in this respect. The Bishop of London then moved a resolution identical with that proposed at the meeting on the 11th inst. by the Marquis of Lorne. It was not anything new, he said, to plead for hospitals in the city where such institutions had been liberally supported from the earliest times. There were no institutions which appealed more strongly to Christian hearts than those which were designed to carry on the work in which their Master had so often engaged, that of relieving and mitigating the sufferings of the sick and afflicted. It was a blessed thing indeed to be permitted to be able to carry on such a work, and it was in truth the very best mode of preaching the Gospel. The Rev. H. Allon, D.D. (Islington), seconded the resolution, and pointed out that the claims of the Fund had been already demonstrated far beyond the need of argument. Experience had proved the need and the value of hospitals and dispensaries, and their care must now be one of practical effort to apply principles that were universally admitted. Referring to the discussion as to the desirability of a Parliamentary grant, the speaker said that money was not the most important thing—sympathy was a necessity, and the need of it had often rendered their Poor-law boards the reverse of what they should be, and had earned for the Charity Organisation Society the unpopularity for which it was notorious. Mr. J. B. Martin, treasurer of Charing-cross Hospital, at this stage attempted to deliver himself of a long and rambling statement as to the refusal of four hospitals to assist the Fund, but was ruled out of order by the Chairman. The motion having been carried unanimously, Sir S. H. Waterlow moved the second resolution, which was similar to the one proposed by him on the 11th inst. Like the first one, it was carried without dissent, and a vote of thanks to the Lord Mayor having been passed, the meeting broke up.

On the 15th inst. a meeting was held in St. Andrew's Hall, Newman-street, W. The St. Marylebone and West Central District, on behalf of which the gathering was held, comprises Marylebone, St. John's Wood, Bloomsbury, Holborn, &c., and contains twenty hospitals and seven dispensaries benefiting from the Hospital Sunday Fund. In the year 1886 these institutions relieved 8980 in-patients and 158,955 out-patients; their income for the same year was £74,274 and their expenditure £84,451. The chair was taken by Major A. H. Ross, M.P., who was supported by Colonel Duncan, M.P., Mr. A. A. Baumann, M.P., and Mr. H. L. W. Lawson, M.P. The Chairman opened the proceedings with a brief speech, in the course of which he pointed out that, taking fourteen of the principal hospitals in London, it was found that their annual average receipts from subscriptions and the Hospital Saturday and Sunday Funds for the past three years amounted to £105,000, while their average expenditure in the same time was £220,000, Colonel Duncan, M.P., then moved a resolution pledging the meeting to use every endeavour to arouse public interest in the needs of the hospitals, and urging the clergy to point out the advantage of giving through the Hospital Sunday Fund, owing to the nominal cost of collection, and to make an earnest appeal to the congregations in order to secure that the whole sum collected should not be less than £100,000. Mr. A. Baumann, M.P., in seconding the resolution, said that nothing less than the £100,000 mentioned in the resolution would suffice if the hospitals were to be relieved from their present financial crisis. The question now was whether the London public preferred to support the hospitals by their voluntary contributions or to submit to having another 2*d.* or 3*d.* added to their rates. In his opinion, it would be a deep reproach to Londoners if they allowed their poorer fellow-citizens to be thrown upon the cold and unsympathetic relief provided by the State in the time of sickness and pain. This resolution having been carried unanimously, Mr. H. L. W. Lawson proposed another expressing regret at the disparity during 1886 between the incomes of the metropolitan medical charities and their expenditure, and pledging the meeting to increased exertion to prevent a like deficiency in the present year. Mr. Arthur Marshall seconded the resolution, which was carried without dissent; and a vote of thanks to the Chairman brought the proceedings to a close.

On the 16th inst. a meeting was held at the Kensington Town Hall. The Duke of Argyle presided, and was supported by, amongst others, Sir A. Borthwick, M.P., Rev. the Hon. E. Carr Glyn, Mr. Brudenell Carter, Rev. Mr. Graves, and Mr. Burdett. The Chairman, in opening the proceedings, expressed the pleasure he had in presiding over a meeting which had for its object the increase of the Hospital Sunday collection. He observed that in no other country and in no other age had there been such a vast aggregation of people as at present residing in London; throughout Christendom there was no other city nearly approaching the population of the metropolis. Provision for sickness

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and disease, while absolutely necessary, was one of the most difficult problems of modern times. Such provision cannot be left to individuals, it must be met by organisation, voluntary, municipal, or State. That it had hitherto been imperfectly performed was proved by the fact that the hospitals of London and the country were living from hand to mouth, and that many of them had had to close some of their wards. The deficit last year in the funds of the medical charities comprised in the Kensington district amounted to about £18,000, and the question was, how was this deficit to be met? He deprecated State assistance, which would, if resorted to, assuredly put an end to voluntary contributions. In Glasgow organised appeals to the industrial classes had proved highly successful, and he advocated systematic and organised appeals to the working classes of London, believing that if this plan were adopted the deficit in the funds of the metropolitan hospitals would cease to exist. The first resolution, which was in exactly the same terms as the corresponding one at the previous meetings, was moved by Mr. Brudenell Carter, who dwelt on the universality of the claim of hospitals for support. He also opposed State aid, such institutions requiring in their management not red-tapeism but flexibility. Sir A. Borthwick, M.P., seconded the resolution, and announced his intention of endeavouring to organise such an appeal to the working classes as had been suggested by the Duke of Argyle. The motion having been carried unanimously, Mr. Burdett moved the second resolution, which was also identical with the one passed at previous gatherings. He earnestly advised those present to visit the hospitals to see the working of them, and to become personally acquainted with the good they do. The Rev. Carr Glyn seconded the resolution, and advocated not only appeals to the working classes, but also house-to-house collections among the middle classes and the well-to-do. A vote of thanks to the Chairman was then carried with acclamation, and the proceedings terminated.

SANITARY LEGISLATION CONFERENCE.

THIS Conference held its fifth meeting on Tuesday last at Argyll-place, Regent-street, when Mr. C. C. Lacaita, M.P., Dr. Farquharson, M.P., and Dr. Cameron, M.P., who, with Sir W. Guyer Hunter, M.P., and Sir Henry Roscoe, M.P., have charge of the Sanitary Registration of Buildings Bill in the House of Commons, were present. In the absence of the President of the Conference, Sir Joseph Fayrer, Mr. H. Rutherfurd, B.L., occupied the chair, and explained that the object of the present meeting was to confer with members of Parliament on the subject of the second reading of the Sanitary Registration of Buildings Bill. Mr. Lacaita, M.P., said the present Bill was to some extent a compromise with an uneducated public opinion. The clauses of the Bill had been framed more or less on the principle that registration should be compulsorily enforced in those cases where the actual residents had not got it in their power to ascertain the sanitary state of houses in which they lived. There was one very grave omission from the Bill in that respect: the great class of tenement buildings often exhibited conditions inimical to health, but the promoters of the Bill and the Conference had considered this class to be dealt with in this Bill. Supposing the Bill became law more or less in its present shape, there would be little difficulty in extending its provisions in modifying circumstances to tenement buildings. The principle of the Bill obviously was that inspection should not be conducted by public officers as such, but that it should be in the power of every owner, lessee, or occupier to go to any licensed practitioner in sanitary science just as he would go to consult any doctor he chose about his own health; but, on the other hand, that the public authorities should be responsible for the registration of the certificates when given, and for the competency of persons who were to certify, they had the guarantee of the Local Government Board or the other responsible bodies mentioned in the Bill. The Bill was down for the second reading on June 22nd.

General Sir Peter Lumsden proposed that a petition from the Conference be presented in support of the second reading of the Bill. Dr. Farquharson seconded the resolution, which was passed unanimously; and it was resolved to leave the convening of the next meeting of the Conference in the hands of the president, vice-presidents, and hon. secretary.

THE SIXTH INTERNATIONAL CONGRESS OF HYGIENE.

THE sixth gathering of sanitary reformers, representing almost every civilised nation in the world, promises to be an exceptionally brilliant affair. It should have taken place last year, for these congresses are held every two years, and it will be three years next autumn since the Congress last met at the Hague. The exact cause of the postponement is not given, but doubtless the cholera epidemics are not foreign to this delay. In any case, everything has been done to make up for loss of time, and the organisers have certainly succeeded in drawing up a most attractive programme. His Majesty the Emperor of Austria and Hungary has granted a subvention to the Congress, and the Crown Prince, Archduke Rodolphe, is its patron. The highest functionaries of the empire, the leading ministers, notably the President of the Council and Minister of the Interior, Count Taaffe, are honorary presidents of the Congress. All the ministries have appointed special delegates, as also the Diets of Upper and Lower Austria, of Carinthia, Bohemia, Moravia, Silesia, and Galicia. Subventions have also been granted, so that the whole empire will be thoroughly represented. The various leading towns and municipalities have likewise joined the movement, and the Austrian railway companies, together with the Danubian navigation companies, have granted a reduction of 50 per cent. on all fares charged to members of the Congress.

A preliminary meeting of the members of the Congress will be held in the evening of Sept. 25th, and a solemn opening ceremony will take place on the morning of the 26th. In the afternoon there will be an excursion to Kahlenberg. The Congress will sit throughout the week, with the exception of Thursday, when an excursion will be made to Höllenthal, Semmering, and the water intake of Kaiserbrunnen. Numerous receptions are to be held, a club will be provided for the use of the members of the Congress, all institutions of interest at Vienna are to be visited, and facilities given for attending at the theatres. On Monday, Oct. 3rd, a special boat will take the members of the Congress who choose to remain after the debates are terminated down the Danube to Buda-Pesth, where an official reception is announced. After visiting the principal objects of interest in the capital of Hungary, the excursionists are to return on the following day to Vienna. It is probable that from twenty-five to thirty nationalities will be represented, and we are pleased to note amongst those already announced to read papers the names of Professor W. H. Corfield, Mr. Shirley F. Murphy, and Dr. Franklin, from England; together with Dr. Brouardel, Dr. Proust, Dr. Jacques Bertillon, and many other eminent Frenchmen; Dr. Corradi and Dr. Pini, from Italy; Professor Max von Pettenkofer, from Germany; Professor Gruber, from Vienna; Professor Hauser, from Madrid; Dr. Bambas, from Athens; and Dr. A. Beaujon, from Holland. Several doctors from Switzerland, Sweden, Belgium, and Denmark have also promised papers. The subjects selected are of a thoroughly practical character, and the Congress promises to be fruitful in good results. Could not the seventh International Congress of Hygiene be held in London?

NORTH LONDON HOSPITAL FOR CONSUMPTION.—The annual festival in connexion with this institution was held on the 15th inst. at the Langham Hotel, Mr. F. D. Mocatta presiding. Since the foundation of the hospital in 1860, 170,000 patients have been treated. Last year 318 in-patients were received at the hospital at Hampstead, while 2700 out-patients attended at the branch in Tottenham-court-road. In the course of the evening subscriptions to the amount of about £2500 were announced, including a conditional donation of £1000.

THE foundation-stone of a new College of Science, affiliated with Durham University, was laid on the 15th inst. at Newcastle-on-Tyne by Sir W. G. Armstrong. The site covers two acres of ground, and the college will cost, when completed, £20,000.

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MEMORIAL PORTRAIT OF

SIR WILLIAM JENNER, BART., K.C.B., M.D.

THE following is a list of the Committees up to June 14th:—

General Committee.

Sir George Burrows, Bart., M.D., Chairman.
Sir James Paget, Bart., Vice-Chairman.
Dr. Charles J. Hare, G. D. Pollock, Esq., } Hon. Treasurers.
Dr. J. Russell Reynolds, Sir Henry Pitman, } Hon. Secretaries.

Adams, Wm., Esq., Regent's-park-road.
Aikin, C. A., Esq., Clifton-place.
Andrew, Dr. James, Harley-street.
Bastian, Dr., Queen Anne-street.
Beck, Marcus, Esq., Wimpole-st.
Best, Palemon, Esq., J.P., Louth.
Birkett, Dr., Russell-square.
Bond, Dr.
Brodie, Dr. G. B., Chesterfield-st.
Brunton, Dr. T. L., Welbeck-street.
Buchanan, Dr. G., Nottingham-place.
Champneys, D., Great Cumberland-place.
Clark, Sir Andrew, Bart., M.D., Cavendish-square.
Corfield, Dr. W. H., Savile-row.
Coupland, Dr., Weymouth-street.
Crawford, Sir T., K.C.B., Director-General, Army Medical Department.
Cribb, Dr. A. J., Highbury.
Duckworth, Sir Dyce, M.D., Grafton-street.
Dukes, Dr. Clement, Rugby.
Duncan, Dr. J. Matthews, Brook-street.
Erichsen, John, Esq., Cavendish-place.
Fairbank, Wm., Esq., Windsor.
Fayrer, Sir Joseph, K.C.S.I., M.D., Wimpole-street.
Fearnside, Henry, Esq., Kensington.
Frank, Dr.
Garrod, Dr. A. B., Harley-street.
Gee, Dr., Wimpole-street.
Gowers, Dr., Queen Anne-street.
Greenfield, Dr. W. S., Edinburgh.
Greenhow, Dr., Reigate.
Gull, Sir Wm., Bart., M.D., Brook-street.
Harley, Dr. G., Harley-street.
Hewitt, Dr. Graily, Berkeley-sq.
Hickman, Wm., Esq., Dorset-sq.
Hill, Berkeley, Esq., Wimpole-st.
Holderness, W. B., Esq., Windsor.
Hughes, H. Spencer, Esq., Bromley.
Ingham, Dr. Amos, Haworth.
Jackson, Dr. J. H., Manchester-sq.
Jackson, T. V., Esq., Mayor of Wolverhampton.
Jessett, Fredk. B., Esq., Upper Wimpole-street.
Jones, Dr. T. Ridge, Chesham-pl.
Jones, Dr. J. Talfourd, Eastbourne.
Knapton, Geo., Esq., Southport.
Legg, Dr. J. Wickham, Green-st.
Lister, Sir Joseph, Bart., Park-crescent.
Marsh, Howard, Esq., Bruton-st.
Marshall, John, Esq., J.P., Dover.
Marston, Dr. J. A., Army Medical Department.
Martin, Dr. R., Queen Anne-st.
Martin, A. H., Esq., Evesham.
Merriman, John, Esq., Kensington.
Money, Dr. Angel, Harley-street.
Monro, Dr. Henry, Upper Wimpole-street.
Moore, Dr. W. W., Brighton.
Oliver, Dr. George, Harrogate.
Patten, C. A., Esq., Ealing.
Pavy, Dr., Grosvenor-street.
Philipson, Dr., Newcastle-on-Tyne.
Playfair, Dr., George-street, W.
Poore, Dr. G. V., Wimpole-street.
Potts, Wm., Esq., Albert-terrace.
Powell, Dr. R. D., Wimpole-street.
Quain, Dr. Richard, Harley-street.
Rigden, Walter, Esq., South Kensington.
Ringer, Dr. Sydney, Cavendish-place.
Roberts, Dr. F. T., Harley-street.
Royle, Arnold, Esq., Army Medical Staff.
Saunders, Sir Edwin, George-st.
Scott, Dr. H., Upper Woburn-pl.
Semple, Dr. R. H., Torrington-sq.
Sewell, Dr. C. B., Cavendish-sq.
Snow, Dr. H. L., Bayswater.
Squire, Dr. Wm., Orchard-street.
Stone, Dr., Sanctuary.
Thompson, Sir Henry, Wimpole-street.
Thompson, Dr. E. S., Cavendish-square.
Thompson, Joseph, Esq., Nottingham.
Waggett, Dr. John, Bournemouth.
Wallace, Dr., Southsea.
Whiting, Dr. H. Townsend.
Williams, Dr. John, Queen Anne-street.
Wood, Dr. Wm., Harley-street.

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Sir Henry Pitman, 28, Gordon-square, W.C. } Hon. Secs.

Anyone desiring to have his name added to the General Committee should signify the same without delay to either of the Honorary Secretaries.

Subscriptions may be sent to any one of the Hon. Treasurers or Hon. Secretaries.

June 14th, 1887.

MEDICAL TRIAL.

RESTORATION OF A DENTIST'S NAME TO THE REGISTER.

REG. *v.* THE GENERAL MEDICAL COUNCIL.

JUDGMENT was delivered on Wednesday last by Mr. Justice Mathew in this case, which was an application on behalf of Mr. H. F. Partridge for a *mandamus* ordering the General Council of Medical Education of the United Kingdom to restore the name of Mr. Partridge to the Register of Dentists kept under the Dentists Act, 1878. The rule was argued last sittings before Mr. Justice Mathew and Mr. Justice A. L. Smith.

Mr. Justice Mathew now delivered the judgment of the Court. His Lordship said the applicant had, since 1867, practised in the metropolis as a dentist, and it was admitted that when the Act passed he would have been entitled to be registered as a dentist if an application had been made by him in accordance with the provisions of Section 7. He had not, however, applied for registration in respect of this qualification. In 1878 he obtained from the Royal College of Surgeons, Ireland, a diploma in dentistry, and as a licentiate of this body, which was one of the medical authorities referred to in the Act, he applied for and procured registration under the statute (Section 6). The diploma had been granted on the terms that the holder should not seek to attract business by advertising or by any practice considered by the College unbecoming, and that the diploma might be cancelled on its being proved to the satisfaction of the President and Council that he had done so. In the year, 1883, the Royal College of Surgeons of Ireland, upon the ground that Mr. Partridge had advertised for business, cancelled his diploma, and thereupon the General Council directed his name to be erased from the Register. Section 11 contains provisions as to the corrections to be made from time to time in the Register, and it was argued for the General Council that, where the original qualification no longer existed, the Council were bound to correct the Register and erase the name. It was argued for the applicant that the name of a person qualified either by practice or diploma and once properly placed on the Register could only be erased in the manner and upon the grounds specified in the statute It was urged that the mere fact that the diploma had been cancelled by the medical authority which had granted it, was not a ground upon which the General Council was justified in disqualifying the applicant or exposing him to the penalties imposed by the Act upon unqualified practitioners. We are of opinion that the contention of the applicant is right and that he is entitled to have his name restored. [His Lordship here read Section 13, and also referred to Section 15.] It appears to us that, in such a case as the present, the Medical Council possessed no further powers of dealing with the Register than those conferred in the sections referred to. It was admitted that the Council had not decided that Mr. Partridge had done anything to justify the removal of his name under Section 13, but had considered that they were bound to erase his name when the determination of the medical authority granting the diploma had come to their knowledge. This is a course which, it seems to us, they were not entitled to adopt, otherwise where a medical authority has withdrawn a diploma on the ground, for instance, that a particular theory of dental surgery had been adopted or discarded, the name of the holder must be struck from the register. But this is a ground upon which the General Council under Section 13 are expressly prohibited from erasing a name. The third clause of Section 13 appears to show that the Council was not intended to be bound by any determination of the medical authority, even with respect to the grounds for erasing a name specified in Section 13, but was required to adjudicate independently. This view is strengthened by an examination of the provisions in the last clauses of Sections 13 and 14. The Act appears to be carefully framed to restrict the right of the General Council to interfere with registered dental practitioners in the practice of their profession to the cases where there are the grave reasons for disqualification specified in Section 13.

The rule for a *mandamus* was accordingly made absolute, but, on an application on behalf of the Council, was ordered not to be drawn up for a week.

Mr. Finlay, Q.C., and Mr. Lyon were for the applicant; and Mr. Kennedy, Q.C., and Mr. Muir Mackenzie for the Council.

THE Lord Chancellor has received a memorial from the laity of the Church of England praying for a limitation to be imposed by authority on the publication of obscene and unnecessary details of divorce and criminal cases. The memorial was signed by 124 peers, 46 medical men, 76 officers of the army and navy, and 44 solicitors, there being altogether 4000 signatures.

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VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 6237 births and 3340 deaths were registered during the week ending June 11th. The annual rate of mortality in these towns, which had been 20·4 and 19·5 per 1000 in the preceding two weeks, further declined last week to 18·9, and was lower than in any preceding week of this year. During the first ten weeks of the current quarter the death-rate in these towns averaged 20·3 per 1000, and was 1·5 below the mean rate in the corresponding periods of the ten years 1877-86. The lowest rates in these towns last week were 11·3 in Leicester, 13·2 in Portsmouth, 13·3 in Bristol, and 13·9 in Derby. The rates in the other towns ranged upwards to 24·6 in Newcastle-on-Tyne, 27·6 in Oldham, 28·9 in Manchester, and 29·4 in Birkenhead. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 532, 522, and 521 in the preceding three weeks, further declined last week to 489; they included 227 from measles, 127 from whooping-cough, 55 from scarlet fever, 31 from "fever" (principally enteric), 29 from diarrhœa, 17 from diphtheria, and only 3 from small-pox. No death from any of these zymotic diseases was registered during the week in Leicester or in Derby; while they caused the greatest mortality in Manchester, Salford, Oldham, and Norwich. The highest death-rates from measles occurred in Brighton, Birkenhead, Sheffield, Newcastle-upon-Tyne, Salford, Oldham, Manchester, and Norwich; from whooping-cough in Liverpool and Norwich; from scarlet fever in Birkenhead; and from diarrhœa in Preston. The 17 deaths from diphtheria in the twenty-eight towns included 9 in London, 3 in Oldham, and 2 in Bradford. Small-pox caused 2 deaths in Sheffield and 1 in Birmingham, but not one either in Greater London or in any of the twenty-five other large provincial towns. Only one case of small-pox was under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease; and no new case was admitted to these hospitals during the week. The deaths referred to diseases of the respiratory organs in London, which had been 333 and 264 in the preceding two weeks, further declined last week to 259, and were two below the corrected weekly average. The causes of 70, or 2·1 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Leicester, Nottingham, Portsmouth, and in six other smaller towns. The largest proportions of uncertified deaths were registered in Oldham and Sunderland.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 22·6 and 19·8 per 1000 in the preceding two weeks, rose again to 21·9 in the week ending June 11th; this rate exceeded by 3·0 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 18·7 and 19·2 in Leith and Greenock, to 22·7 in Perth and 27·3 in Paisley. The 546 deaths in the eight towns last week showed an increase of 51 upon the number in the previous week, and included 35 which were referred to whooping-cough, 12 to diarrhœa, 9 to scarlet fever, 8 to "fever" (typhus, enteric, or simple), 8 to measles, 4 to diphtheria, and not one to small-pox; in all, 76 deaths resulted from these principal zymotic diseases, against 82 and 50 in the preceding two weeks. These 76 deaths were equal to an annual rate of 3·0 per 1000, which was 0·2 above the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 43 and 32 in the preceding two weeks, rose again last week to 35, and included 11 in Glasgow, 9 in Edinburgh, 6 in Dundee, 4 in Greenock, and 4 in Leith. The deaths from each of the other zymotic diseases also showed an increase upon the low numbers in the previous week. The deaths attributed to diarrhœa exceeded by 5 the number returned in the corresponding week of last year. Of the 9 fatal cases of scarlet fever, 6 occurred in Glasgow and 2 in Dundee; while 6 of the 8 fatal cases of measles also occurred in Glasgow. Five of the 8 deaths referred to "fever," and 3 of the 4 fatal cases of diphtheria, were also returned in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 126, 109, and 102 in the preceding three weeks, rose again last week to 109, and exceeded the number returned in the corresponding week of last year by 19. The causes of 72, or more than 13 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 24·1 and 21·4 per 1000 in the preceding two weeks, rose to 31·2 in the week ending June 11th, considerably exceeding the rate in any recent week. During the first ten weeks of the current quarter the death-rate in the city averaged 29·0 per 1000, the mean rate during the same period being but 18·4 in London and 19·8 in Edinburgh. The 211 deaths in Dublin last week showed an increase of no less than 66 upon the number returned in the previous week; they included 18 which were referred to measles, 3 to "fever" (typhus, enteric, or simple), 3 to scarlet fever, 2 to whooping-cough, 2 to diarrhœa, 1 to diphtheria, and not one to small-pox. Thus the deaths resulting from these principal zymotic diseases, which had been 27 and 21 in the preceding two weeks, rose last week to 29, and exceeded the number returned in any previous week of this year; they were equal to an annual rate of 4·3 per 1000, the rates from the same diseases being 3·0 in London and 2·8 in Edinburgh. The fatal cases of measles, which had been 8, 17, and 10 in the preceding three weeks, rose last week to 18, and exceeded the number in any previous week of this year. The deaths from the other zymotic diseases scarcely differed from those returned in the previous week, the 3 deaths from "fever" corresponding with the number in each of the preceding two weeks. Compared with the numbers in the previous week the deaths of infants showed a decline, while those of elderly persons had considerably increased. Three inquest cases and 4 deaths from violence were registered; and 55, or more than a fourth, of the deaths occurred in public institutions. The causes of 25, or very nearly 12 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

Brigade Surgeon Ramsden and the Officers of the Army Medical Staff at Alexandria entertained Surgeon-General O'Nial, C.B., at dinner at the Mohamed Ali Club, prior to his departure for England by the Messageries Maritimes mail steamer.

Surgeon-Major F. W. Trevor has assumed the medical charge of the military prison, and of the officers, women, and children in the North Camp, Aldershot, relieving Surgeon-Major J. W. Morgan, whose time of appointment has expired.

Brigade Surgeon J. Paxton, Colchester, has been appointed officiating Principal Medical Officer, Eastern District, during the absence on leave of Deputy Surgeon-General T. W. Fox.

INDIA OFFICE.—The Queen has approved of the following promotions among the Officers of the Staff Corps and Indian Military Forces, made by the Governments in India:—Surgeons to be Surgeons-Major (dated March 31st, 1887): George Spiers Alexander Ranking, M.D., Robert Davidson Murray, Dennis Wood Deane Comins, Patrick Fenelon O'Connor, James Moran, M.D., William Beatson, William Allason Simmonds, Roderick Macrae, Thos. Elwood Lindesay Bate, and Shibram Borah, of the Bengal Medical Establishment; Surgeon G. Tucker Thomas (dated March 31st, 1887), Surgeon Arthur James Sturmer (dated March 31st, 1887), and Surgeon Archibald Adams, M.D. (dated March 31st, 1887), of the Madras Medical Establishment; and Surgeon Arthur Henry Coles Dane, M.D. (dated March 31st, 1887), Surgeon John Philip Greany M.D. (dated March 31st, 1887), Surgeon John Edward Ferguson (dated March 31st, 1887), Surgeon George Edward Elton Burroughs (dated March 31st, 1887), and Surgeon James McCloghry (dated March 31st, 1887), of the Bombay Medical Establishment.

ADMIRALTY.—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Fleet Surgeon Walter F. Cope Bartlett has been placed on the retired list.

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with permission to assume the rank of Deputy Inspector-General of Hospitals and Fleets (dated June 9th, 1887).

The following appointments have been made:—Fleet Surgeon James Flanagan, to the *Castor;* Fleet Surgeon Edwd. Meade, to the *Cambridge;* and Fleet Surgeon George Mair, to the *Iron Duke.*

Correspondence.

"Audi alteram partem."

"PASTEUR'S METHODS."

To the Editors of THE LANCET.

SIRS,—Will you kindly permit me to offer some remarks in reply to "R.J.P.S.," who writes on the above subject in your issue of the 23rd of April. Your correspondent says that while expressing my anxiety that the dangers of M. Pasteur's prophylactic treatment for hydrophobia should be recognised, I seem somewhat to ignore the much greater danger of untreated bites from rabid animals. But as in my humble opinion, M. Pasteur's methods when they are not hurtful are inefficacious, I submit "R. J. P. S." begs the question. If M. Pasteur's intensive method is attended with the risks indicated by M. Peter clinically, and by von Frisch and others experimentally, it surely introduces an additional danger, since in no case can we be certain that the victim of a bite has been inoculated with rabic virus, though according to M. Pasteur all cases must be dealt with on the assumption that infection has occurred. Here, then, in addition to the danger which is involved in the bite, we have that which may follow the intensive treatment. Your correspondent admits that some of the deaths which have occurred during the present year "very possibly" resulted from the treatment: that being so, I think the concession ought to follow that the experimental test—which M. Pasteur admits to be crucial, and by which he obtained results which neither von Frisch, nor Renzi, nor Amoroso could obtain—should be as expeditiously as possible carried out openly in the presence of those who are opposed to him, and that in the meantime M. Pasteur should revert to his former method, which is comparatively, if not quite, harmless. Your correspondent holds that "it is largely a question of statistics." No doubt that is so, but not of statistics founded on possibilities which are to be accepted as facts. Now, if he accepts M. Pasteur's figures and the deductions which he and his partisans draw therefrom, he will find that cases of hydrophobia in France and Algeria rose suddenly and unaccountably, and without any corresponding increase of rabid animals, from about 50 to 308, omitting all notice of those deaths which occurred outside M. Pasteur's practice. Thus, taking their estimate of 16 per cent. as the incidence of hydrophobia in rabid animal bite cases, and the number of French and Algerian patients treated by M. Pasteur in 1886 at 1929,[1] we have 308. Trousseau told his pupils that hydrophobia was a disease which very rarely occurred in the human subject, and that in France, with a population of more than 36,000,000, only 20 to 25 cases of the disease occurred annually. More recently the average has been fixed at 30. Now, allowing 20—an excessive estimate—for Algeria, we have 50. Then again, how are we to account for the extraordinary circumstance that, notwithstanding M. Pasteur's method, the average annual mortality from hydrophobia in France has not been reduced, but, on the contrary, according to French authorities, it has increased nearly one-third? I have recently submitted to the Government of Bengal a report, founded on the returns of animal bite treated at the dispensaries in Bengal with the local application of potassic permanganate, as advocated by me in 1881, and here furnish some statistical information which, to my mind, is most significant as illustrating the uncertainties of infection with rabic virus in animal bite. I must premise that as a test of the efficacy of the treatment I regarded the returns as unsatisfactory. A reference to your issue of January 29th, 1887, will show that of the forty-eight persons supposed to have been bitten by rabid wolves, seven died. This gives a percentage of 14·58, not 14·0, as M. Grancher has it. Now, the returns with which I had to deal showed forty-two cases of supposed rabid jackal bite, with six deaths, or 14·28 per cent., 0·30 per cent. in favour of the cases in which M. Pasteur's method found no place, and this, too, after eliminating some cases in which the animals had attempted to carry off infants from hunger, and in which no mortality had occurred. Here the jackal takes the place of the wolf, and so far as is known, with the exception of the circumstances mentioned above, it never attacks except when rabid. The fact is, that statistics dealing with methods in cases of doubtful infection are very unsatisfactory, as the data are often of a most erratic character. Take for instance, the following example: At Chumparun twenty-four persons, consisting of ten men, eight women, and five boys, and one of whom no information is afforded, were attacked in one evening by a rabid jackal. This occurred in the beginning of the year 1886. Twenty-three of these people came under the treatment of the assistant-surgeon, but although potassic permanganate was applied, my instructions were not strictly observed. Four of these people died, but, strangely enough, not a single one of the ten men was affected, the victims being three women and one boy. Then again, I found that, after eliminating clearly unsatisfactory cases in which there was no death, of twenty-seven women who were bitten and treated, seven, or 25·9 per cent., and of twenty-four children, four, or 16·6 per cent., died; while only two of the 123 men, or 1·6 per cent., succumbed; and that out of twenty-four men bitten by rabid jackals, only one, or 4·1 per cent., died. Who, may I ask, is justified after this in relying upon statistics alone as proof of the value of his methods of treating cases of this kind? Surely it is not unreasonable to demand that the following question shall be definitely answered and demonstrated by M. Pasteur: Does his method prevent rabies in the dog after it has been infected in the only natural way that infection takes place—namely, by inoculation with the saliva?

In conclusion, allow me to point out a significant fact, and one that should be noted as evidence of M. Pasteur's ever-changing tactics. A medical man in India imagined himself to have been bitten by a rabid dog which had bitten three others, who, so far as we are informed, still remain unaffected, and submitted himself to M. Pasteur's treatment. In his own words I give the description of treatment adopted in his case: "I had to go and be inoculated morning and evening for six days; then every morning for five days. I was finished last Friday, but they asked me, if not inconvenient, to stay in Paris for five or six days more, and then report myself, when a few more inoculations *might* be necessary. After that they said, 'You can go with the most perfect confidence.' They begin with virus fourteen days old, and go on up to that only five days old; they don't use any stronger than that, but virus under seven days will infallibly give a dog rabies."[2] Assuming this to be an accurate description of his treatment, who, with the words of MM. Pasteur, Grancher, and Vulpian ringing in his ears, is not justified in exclaiming, as to M. Pasteur's "methods"—*Credat Judæus apella!*

I am, Sirs, yours truly,

May 14th, 1887. VINCENT RICHARDS.

[1] M. Grancher's figures, THE LANCET, Jan. 29th, 1887.

"PLACENTA PRÆVIA."

To the Editors of THE LANCET.

SIRS,—Dr. Barnes's criticism on my case of Placenta Prævia in THE LANCET of June 4th, is not quite clear to me. He approves of detaching the placenta, but not of the version and plugging the cervix with the breech. Does he appreciate the conditions of the case? I went to it not knowing its nature, and, not possessing his hydrostatic bags, I had to resort to other methods. Having detached the placenta from the whole of its attachment, ruptured the membranes, and the liquor amnii having escaped, a foot was brought down, which I fondly imagined did efficiently compress the placental zone of the uterus and stop the hæmorrhage; but Dr. Barnes objects to my *propter hoc*, and says this was due to the detachment of placenta only. Would he, if called to a similar case, *without his hydrostatic bags*, have been content to detach the placenta, put on a binder, and leave the case to nature after such sudden and alarming hæmorrhage? The child had virtually no claim to consideration at the seventh month, of a delicate mother, and two generations' heredity of a fell disease; but had it been

[2] Indian Medical Gazette for April, 1887.

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an expectant heir, I should still have turned, but completed the labour, having used more oxytocic agents, and dealt with post-partum hæmorrhage as it required. I have just refreshed my knowledge of this subject by reading Dr. Barnes's clinical lecture on Placenta Prævia in THE LANCET, vol. i., 1861. The third case there related has many points in common with mine. The woman at 4 A.M. was found faint and anæmic from loss of blood; placenta quite over centre of os, which was the size of half-a-crown; no bleeding and no pains at time of examination; but delivery was urgent from exhaustion; so the placenta was detached from the lower zone of the uterus, a bag applied, and the cervix freely expanded in about five minutes, but no pains. "I was, however, enabled to pass my hand by the placenta and reach the membranes, which I ruptured with a skewer..... head was presenting. A foot was easily seized. I ascertained that neither cord nor heart was pulsating.....Child extracted.....premature and stillborn. Uterus made to contract by pressure.....the placenta was speedily cast and withdrawn. No hæmorrhage followed the labour. The patient recovered well. In this case, *had I not possessed the caoutchouc dilator*, I should have been compelled to stretch open the cervix with my fingers at the risk of injury, or to encounter the alternative risk of renewed flooding and a lingering labour, with exhausted uterine power. If the uterus still remain flaccid, and if hæmorrhage continue, or generally *where the patient is much exhausted*, so that effective muscular contraction cannot be roused, artificial aid is called for in order to accelerate delivery." He then advises version, if the cervix can be easily expanded (as in my case), or, if undilated and rigid, to use the bags. There was no need to dilate either with bags or fingers, and version was accomplished with the greatest facility and with a happy result. Would Dr. Barnes have completed delivery at once, without uterine pains, or would he have waited?

I am, Sirs, yours truly,

Spondon, Derby, June 13th, 1887. B. WALKER.

TERRIER'S NEPHRECTOMY.

To the Editors of THE LANCET.

SIRS,—In your issue of June 4th you give a leading article under the above heading, and in referring to a paper in the *Revue de Chirurgie*, by M. Terrier, speak of the method as a new one. Two years ago I removed a large diseased kidney by an operation which seems to me essentially like the one you describe. After opening the abdomen over the site of the tumour, I incised the visceral peritoneum vertically over the kidney, enucleated the diseased organ, and carefully stitched the edges of the visceral peritoneum to the margin of the wound, thus completely shutting out the peritoneal cavity from the field of operation, and especially from the cut ureter, the wound being drained to the front. This operation I have since seen performed by one of my colleagues. At the time I did not think there was anything new in the operation, supposing that what seemed to be such an obvious method of shutting out the peritoneal cavity and draining the wound must have been followed out by others. It is my intention in my next nephrectomy to perform the operation in an exactly similar manner; but, instead of draining forward, to push a trocar through the loin, and through the opening so made to pass the detached ureter, together with a celluloid or some firm drainage tube, and afterwards to completely close the anterior incision. As the question has now come to the front, I will take an early opportunity of giving a detailed report of the case.

I am, Sirs, yours truly,

Leeds, June 6th, 1887. A. W. MAYO ROBSON.

TRANSFUSION.

To the Editors of THE LANCET.

SIRS,—In your issue of June 4th, Dr. J. Graham Brown has pointed out that, in a paper on a case of Transfusion which appeared in THE LANCET of April 16th I erroneously attribute the method there described to Mr. Annandale, whereas it was really introduced by Mr. J. M. Cotterill. I beg to be allowed to thank Dr. Graham Brown for making the correction, and to at once acknowledge and express my regret for the error into which I was led by the fact that the leaflet of instructions furnished by the instrument maker with the apparatus described the method as "Mr. Annandale's." In reply to a letter of inquiry from me, Mr. Cotterill has most courteously furnished me with a succinct statement of the facts of the matter, which I shall esteem it a favour if you will allow me to quote:—

"1. The fact that phosphate of soda solution prevents coagulation of the blood has been known for many years. 2. Dr. Braxton Hicks is reported (Bryant's Surgery) to have suggested its use in transfusion, but whether he actually used it or not I do not know. 3. I performed the operation, as described in the leaflet, in 1883, and taught it to my class of practical surgery as the best method. 4. Two years subsequently Dr. John Duncan, of Edingburgh, performed the operation upon my very strong recommendation, and by the same method. He repeated it frequently, and made some further suggestions, which he published in the *British Medical Journal* of Jan. 30th, 1886. 5. Mr. Lawson Tait read a paper before the Midland Society on the subject, in which he connected Mr. Annandale's name with the operation. No contradiction of this was made, and it is probable that he was led into the mistake in the same way as yourself. 6. Mr. Annandale has authorised me to state that he has had no connection with the introduction of the method, though he has performed it upon several occasions."

I am, Sirs, your obedient servant,

Savile-row, June 10th, 1887. WARRINGTON HAWARD.

THE BATH WATERS AND ARSENIOUS ACID.

To the Editors of THE LANCET.

SIRS,—In a letter on the above subject, which appeared in your issue of January 8th this year, I gave expression to the belief that in the certain discovery of arsenious acid in the Bath thermal waters an explanation was obtained of their behaviour under certain conditions which hitherto had been inadequately accounted for. Since then further very careful experiments have been made for me by my friend, Mr. Gatehouse, with the result that we are in a position to state that a gallon of the waters in question contains as nearly as possible $\frac{1}{10}$ gr. of AS_2O_3. Can this amount be held responsible in any way for the "marvellous efficacy" of these waters in the diseases for which they are extolled? We find that even in the case of resident patients, in whose cure change of air can have had no share, chlorosis succumbs very readily to the waters, taken internally. May not the arsenious acid be the cause here? The amount of iron present per gallon is only $\frac{1}{2}$ gr.—therefore the ratio of the amount of water that contains an ordinary dose of iron to the amount that contains an ordinary dose of arsenic is that of five to four. From this it will be seen that, small as the amount of arsenious acid present may be, the share it takes in the action of the waters is probably great. The amount of arsenic eliminated from the salts of bismuth in the purifying process is small, but there is a great difference between the actions of the purified and unpurified salts. From this it appears that the action of arsenic when in a natural compound is much more marked than its action when given in a prepared form. I am strongly disposed to think that certain reagents—among which I would class arsenic—are specially efficacious when administered in their so-called natural state, as obtains in natural springs, both cold and hot.—I am, Sirs, yours truly,

Bath, June, 1887. T. PAGAN LOWE, M.R.C.S., L.R.C.P. Ed.

THE CONTAGIUM OF SCARLET FEVER.

To the Editors of THE LANCET.

SIRS,—In your issue of last week you noticed in an annotation the most recent work that has been carried on in respect to the *materies morbi* of scarlatina, and, in stating the general conclusions arrived at in that research, you indicated the attitude of guarded reserve in which they must for the present be regarded. Dr. Edington's paper has in the meantime been printed, and a careful survey of its contents seems to me to fully justify the spirit in which your remarks were made. Attention has already been fully directed to the observations of Dr. Klein, and the conclusion arrived at by him based on results of the most unequivocal nature. His conclusion is directly and diametrically opposed to that now under consideration. The issue thus raised is fortunately a direct and limited question of fact; it is, moreover, satisfactory to find that Dr. Edington's statement is sufficiently explicit to

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render it readily susceptible of confirmation or disproof. Amongst many organisms found by him in scarlet fever blood and desquamation, the description of which is a distinct addition to our knowledge of the disease, is a small bacillus 0·4 μ in breadth and 1·4 μ in length, which he describes as the specific virus of the disease. This organism is found in the blood of patients up to the third day, and in the desquamation on and after the twenty-first day: in the intermediate period of eighteen days it cannot be demonstrated in any of the tissues examined. Obtained as a pure cultivation in nutrient media it has distinctive specific characteristics in its mode of growth, and if inoculated into calves, guinea-pigs, or rabbits, it produces a disease closely resembling scarlatina, and ending in a desquamative stage. Closely associated with this organism is a micrococcus form, of frequent occurrence in the blood and desquamation, but without pathogenetic effects if inoculated. It is noted, however, that in cases where a vivid and general rash is observed, this organism is a constant concomitant of the so-called "bacillus scarlatinæ"; and, supposing the observations to be as careful and accurate as their mode of presentation to the public would lead us to infer, this point may well call for further investigation, for it must strike everyone at all acquainted with the history of such researches that the life history ascribed to this "bacillus scarlatinæ" is strange and unnatural. A solution in the continuity of its demonstrable presence extending over eighteen days is, to say the least of it, a very suspicious point in its behaviour; and it will necessitate a very strict scrutiny of the conditions associated with its reappearance in the desquamation, to establish its identity in its two manifestations, and to exclude the possibility of aerial contamination under an aseptic dressing three weeks old. Although there are strong points in its technical arrangement which commend this research to favourable consideration, there are some grave omissions in the detailed account before me. The bacillus as found in the blood is not figured, nor are we told whether it is readily demonstrable from its large numbers, or only found in isolated scarcity, in that medium. Neither is any hint given as to the manner of its disappearance from the blood. It does not appear to have been found in the urine, and although spore formation is mentioned, it is neither figured nor described. The suggested *rationale* of its disappearance as due to an exhaustion of its special pabulum is obviously but an *obiter dictum*. There is also a lack of control experiments in regard to organisms normally present in the skin. Until these points are more fully elucidated, it is not possible to accept this bacillus as the *materies morbi* of scarlatina.

In view of the interest at present attaching to the question of the zymotic origin of the disease, it may not be out of place to refer to some of the best known recent publications which have appeared upon the subject. I need not refer to the statement of Dr. Klein's results, already detailed in THE LANCET of May 28th, nor repeat the facts observed by Mr. Power, but refer to some prior investigations of which Dr. Klein's paper affords confirmation, and to which it adds the conclusiveness they themselves lacked. Coze and Feltz ("Maladies Infectieuses," 1872) described a diplococcus in connexion with the disease which they looked on as a causal agent in its production. Pohl-Pincus (*Centralblatt f. d. Med. Wissenschaft*, 1883) described a similar organism in the desquamation, on the skin surfaces, and on those of the palate and pharynx. Crooke (THE LANCET, 1883) described a large bacillus in the last of these situations; but in a subsequent paper from Eberth's laboratory (*Fortschritte der Medicin*, 1885), he recounts the results of a long series of experiments in which micrococci were found, chiefly in the tissues of the neck, and more rarely in distant internal organs. He does not appear to have examined the blood in these cases. In a few very severe cases bacilli made their appearance at the end of the second or the beginning of the third week, but they were not seen in ordinary cases, and he does not ascribe any pathogenetic significance to their presence. Bokai of Buda-Pesth ("Orvosi Hetilap," 1885) found micrococci single and in chains in the post-scarlatinal joint affections. A negative result is recorded by Cornil and Babes ("Les Bactéries," 1885), who examined the desquamation for the presence of organisms. The organisms normally present on the human skin are no less important in their relation to the present question; they are described by Bizzozero (Virchow's *Archiv*, Bd. 98 iii., 1884), and by Bordoni-Uffreduzzi (*Fortschritte der Medicin*, 1886). The latter describes five varieties of micrococci and two of bacilli as normally present. His description of one of the latter, B. epidermis, so closely resembles that given by Edington of his B. scarlatinæ, as to suggest their identity.

I remain, Sirs, yours obediently,

June 15th. M.D.

THE PRACTICAL ELEMENT IN MEDICAL EDUCATION.

To the Editors of THE LANCET.

SIRS,—Requiring an assistant lately to help in my surgery, I engaged a gentleman who said he had been taught practical pharmacy at a large London Hospital. Finding him very slow in dispensing, I made inquiries. He tells me he was never allowed to make up a prescription for a patient, or even to compound a stock mixture. He had never made a pill, and did not know how to spread a blister. He was simply shown the drugs and told to learn their composition and uses, and for this he had to pay four guineas. He then goes to the College of Physicians and passes his examination in materia medica, the chief questions being the action of the alkaloids on the system, and all this before being taught to compound medicine. Sir W. Gull may deprecate drugs, but the large majority of medical men, as well as their patients, believe in their efficacy, and what is wanted is to teach the student the real practice of the medical art, such as he will need in his after professional life. I do hope that the appointment of Dr. Glover's committee will lead to some form of the old apprenticeship being made compulsory. It would be more useful than attending routine lectures, which most students hate and would gladly dispense with.

I am, Sirs, yours truly,

June, 1887. A GENERAL PRACTITIONER.

NORTHERN COUNTIES NOTES.

(*From our own Correspondent.*)

THE NEWCASTLE EXHIBITION.

LAST week must be considered a most successful one for our Exhibition, as nearly 120,000 visitors went up to the Moor. The weather was very dull on Saturday, but towards evening it underwent a favourable change, which has still continued. An accidental circumstance has given a variety to the throng of excursionists in our city. A few days ago the Chinese steamer Toonan came into the Tyne, with nearly 700 "Celestial" sailors on board. They have come to take charge of some Chinese war ships now fitting up at Sir W. Armstrong's. These sailors crowd the streets, and create no little curiosity as they go about in their picturesque groups.

SUNDERLAND.

Mr. A. E. Harris, medical officer of health for Sunderland, is to be congratulated on the present sanitary condition of his borough. During the past week the death-rate was only 15·7, being the lowest point indicated in the list of the twenty-eight great towns. The epidemic of measles, which for some time had assumed so alarming an aspect, appears now to be practically suppressed. A few years ago Mr. Harris, on his appointment to the borough, found a very serious state of matters, and the way he had to grapple with many sanitary abuses before he could effect their removal would have tried the patience of many less determined officers. He is now rewarded, however, for his up-hill work in the present sanitary state of Sunderland.

GATESHEAD.

A letter has been received by the Gateshead Town Council from the Lord Chancellor's secretary, recommending the appointment of new magistrates. Many of your readers will be glad to hear that Dr. George Douglass of Gateshead is included in the list.

HEXHAM.

Lieut.-Colonel Nicholson, who died at his seat, Halliwell Dene, Hexham, on Friday night last, in his sixty-eighth year, was formerly a member of our profession, having served his time to the late Dr. Jefferson of Hexham, and on becoming qualified practised for a few years with much success in this ancient abbey town, but about

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twenty years ago he was enabled by fortunate circumstances to exchange the life of a practitioner for that of a country gentleman. He joined the Volunteer movement at its commencement, and rose through its offices until, on the death of the late Earl of Durham, he was further promoted to the command of a battalion, from which position he retired about seven years ago, and was allowed to retain the honorary rank of lieutenant-colonel. He was active in all that pertained to the welfare of Hexham and its district, and retained to the last a warm feeling for his old profession. The writer was present a couple of years since at a meeting presided over by Dr. T. Stainthorpe of Hexham, when this gentleman (whom I am glad to say is still hale and hearty) attained his jubilee in practice at Hexham, and the manner in which he alluded to his old companion in practice, and to his old profession, did equal honour to his heart and mind. In politics the deceased gentleman was a Conservative; he was widely known and respected by all classes. He leaves a widow and daughter, and two sons, the eldest of whom is practising as a solicitor in Hexham.

Newcastle-on-Tyne, June 7th.

EDINBURGH.

(From our own Correspondent.)

ST. ANDREW AMBULANCE ASSOCIATION.

A DEMONSTRATION of ambulance work was given by members of the Scottish Ambulance Association, in the Waverley Market Hall last week, under the presidency of Sir Thomas Clark, Lord Provost of Edinburgh. The hall is a capital place for such purposes, being capable of containing 30,000 people. On the present occasion about 4000 of the general public were present, ranged round a central area in which the manœuvres were carried on. These consisted of the resuscitation of the apparently drowned, of those suffocated in conflagrations, and the treatment of street accidents. Twelve squads of trained men, representative of the police, the tramway company, the railway companies, and several manufactories and works in Edinburgh, gave an admirable demonstration of stretcher drill and of bandaging and "splinting" in cases of injury. The Edinburgh fire brigade added greatly to the interest of the proceedings by an exhibition of life-saving apparatus, and succeeded to admiration in rescuing two victims from a supposed fire in the lofty rafters of the hall. One of their number demonstrated the safety of leaping into a stretched sheet from a height of over forty feet, coming down unharmed, amidst the enthusiastic applause of the audience, who had awaited the *dénouement* with breathless anxiety. Improvised stretchers and surgical dressings made from articles of ordinary costume were also demonstrated, and the excellent hand and waggon ambulances kept by the association for the benefit of the citizens were fully exhibited in action. A statement was made of the work done by the association, which shows it to be in a flourishing condition, and places to its credit a great deal of most useful activity.

THE EDINBURGH CITY JUBILEE OFFERING.

A meeting was held lately to consider the form to be taken by the Jubilee subscriptions now being raised in Edinburgh. After several consultations of an informal nature, it was decided that a medical charity should be inaugurated for the benefit of consumptives. At the public meeting convened to settle the question, it was decided that the charity should take the form of a permanent fund for supplying consumptives with medicines and delicacies at their own homes; not for building a consumption hospital, as was recently announced in a contemporary journal. The reasons assigned for deciding against the hospital were that the Edinburgh climate is such as to render such an institution of comparatively little service, whilst it is thought that the fund applied as above may be a source of great benefit. Bailie Russell, who is chiefly responsible for this decision, said at the meeting that this opinion largely obtained amongst the medical profession in the city. It is doubtful, however, whether it is so unanimously held as he seems to think, and it is not improbable that a *plébiscite* of the profession here would have shown a directly opposite result.

THE JUBILEE DAY.

The city of Edinburgh hold its jubilee holiday on Friday, the 17th; the chief illuminations, including a monster bonfire on Arthur's Seat, will, however, be postponed till the 21st, when the University also will celebrate the auspicious event. A torchlight procession of unprecedented grandeur is to be held by the students in the evening. During the day a commemoration service will be held in St. Giles' Cathedral, at which the University authorities will be present in robes of office, and at which the other leading corporate bodies of the city will attend.

Edinburgh, June 14th.

DUBLIN.

(From our own Correspondent.)

ROYAL COLLEGE OF SURGEONS.

THE Council, at a special meeting held last Monday, the 13th inst., passed a resolution that delegates from the Council should be appointed to confer with delegates from the Apothecaries' Hall, in reference to a conjoint scheme of examination between the two bodies. If the combination is carried out, the question naturally arises, What will the College of Physicians do under the circumstances? Will they retire from their present alliance with the College of Surgeons or not? There are many who say that if the College of Surgeons join the Apothecaries the Physicians will retire from the scheme between the two Colleges; but I differ altogether from this opinion, and believe that the College of Physicians will not be inclined to dissociate themselves from the College of Surgeons. And the reason may briefly be stated: because they can join no other body; and if they refuse, it is probable that coadjutor examiners will not be granted them by the General Medical Council, and if so, they will very soon disappear from the list of licensing corporations in Ireland.

RICHMOND LUNATIC ASYLUM.

The report of Dr. Conolly Norman, resident medical superintendent, for the past year is a very important one, and will well repay perusal. The admissions during the year amounted to 438, a number considerably higher than the average for the last ten years. The deaths numbered 159. A severe form of dysentery occurred during the later months of 1886, and up to the date of the report still continued to prevail in the institution. Dr. Norman, who was appointed to the asylum only last September, is of opinion, from an examination of the death registers of the asylum, and also from the prevalence of diarrhœa and dysentery during his year of office, that these zymotic diseases appear to be endemic in the institution. These diseases and erysipelas, which is rarely absent from the house, are usually due to defective sanitation, and he states that the sanitary condition of the asylum is deplorable. He adduces ample proof of this statement; but as the main points have some months since been already referred to in these columns, I shall not go into details. Several months ago I mentioned the chief defects in the sewerage; and it will be impossible, now that public attention has been directed to the matter, for the governors to shirk the subject any longer. The defects which undoubtedly exist must be rectified, and that without delay. I believe I am correct in stating that a very eminent sanitary engineer has inspected the institution and reported fully to the Board of Governors, and that he has corroborated in the fullest manner the statement of Dr. Conolly Norman as to the sanitary defects of the Richmond Lunatic Asylum.

ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.

The annual meeting of this Society was held last week, and from the report of the Council it seems that its financial state cannot be regarded as satisfactory. At the meeting the sum of £1154 was awarded for distribution, of which £110 was to medical practitioners, £946 to widows, and £98 to orphans. The Society obtained a sum of £55 15s., which was handed over by the Council of the Royal College of Surgeons, in accordance with a proviso in the will of the late Mr. Richard Carmichael.

A CENTENARIAN.

A widow named M'Ananey died last week at Enniskerry, co. Wicklow, in her one hundred and ninth year.

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THE REGISTRARSHIP OF BIRTHS ETC. IN CRUSHEEN DISPENSARY DISTRICT: ENNIS UNION.

Dr. W. H. Hynes, medical officer of Crusheen dispensary district, was the registrar of births for his district, but some weeks since he was removed by the Registrar-General for Ireland for the alleged reason that he delayed answering his communications. A successor was appointed without any protest from Dr. Hynes, as, from a monetary point of view, the office was of little value; but, on consideration, he concluded that the question of his removal by the Registrar-General was one of very great importance to dispensary medical officers in Ireland. The gentleman appointed having resigned, Dr. Hynes applied for the post, and this application was received by the guardians some few weeks since. Having heard his explanation, the guardians unanimously passed a resolution to the effect that they considered the Registrar-General had exercised high-handed authority in removing Dr. Hynes in such a summary manner, and that, before such a course had been adopted, the matter should have been referred to them. They further asked the Registrar-General to reconsider the matter and reappoint Dr. Hynes, stating, at the same time, that the "unanswered communications" complained of by the Registrar-General were addressed to Dr. Hynes during his absence on leave. I am informed that the Registrar-General has refused to appoint Dr. Hynes, and that a person whom he selected for the appointment has declined to accept it. An official from the General Register Office, under these circumstances, was sent down from Dublin, where for the past ten days he has tried to get the registrarship accepted, but without success. So the matter stands, and at present there is no registration going on in the Crusheen district, which is rather a serious matter. Dr. Hynes and the guardians complain of the want of courtesy in not consulting them on the subject, and refusing to endorse their recommendation of Dr. Hynes as a competent official. If, as alleged, the appointment of registrar according to the Act of Parliament is vested in the local authority, I cannot see how the Registrar-General can make the appointment. The salary of the post is only about £4 per annum!

Dublin, June 14th.

PARIS.

(*From our own Correspondent.*)

MASSAGE IN FRACTURES.

DR. GEORGES BERNE made an interesting communication to the Société Médicale de l'Elysée on the treatment of certain fractures by massage. After showing the importance of a good venous and lymphatic circulation in fractured limbs, he insisted upon the necessity of keeping the joints in the neighbourhood movable and supple. It is particularly in fractures of the radius and fibula that massage is useful, the inferior epiphyses being supported as it were by natural splints in the shape of the contiguous bones. Where there is not displacement, extensive centripetal *effleurage*, commenced early in the treatment, will promote the absorption of the blood extravasated around the fracture. Von Mosengeil has shown that massage displaces effusions through the lymphatic network of the cellular tissue, and the same thing occurs when centripetal pressure is applied above the seat of fracture. The rapid retraction of the tendinous sheaths of the fingers when they are immobilised is a matter of common experience. Dr. Berne maintains that this accident, almost inevitable with the usual treatment, may be obviated by massage. He states that he was the first to investigate this point in the treatment of fractures of the fibula, which he has treated with complete success by massage for the last three years. In 1884 a patient with a fracture of the lower end of the fibula without displacement was treated by Dr. Coupard and himself in the following manner:—Massage was employed from the very first day, the limb being placed in a plaster *gouttière*, from which it was removed every two days for this purpose. After each sitting of a quarter of an hour the apparatus was reapplied. From the fifteenth day the apparatus was laid aside, and the patient was able to walk without difficulty. The limb was in no way atrophied, and all the movements of the tibio-tarsal and tarsal articulations were natural. The temperature was normal. Other cases in the wards of M. Duplay at the Lariboisière Hospital have shown that there exists no better treatment of fractures of the fibula than *relative* immobilisation in a movable plaster bandage and periodical massage. The mean duration of the treatment by this method is from fifteen to seventeen days, instead of thirty, an important point, especially in hospital practice. Dr. Berne is also an advocate for massage in fractures about the elbow and patella, but he urges the necessity of caution whenever there is displacement or wound of the integument. In all cases, however, he maintains that manipulations should be performed by an expert scientific masseur, never by the so-called medical rubber.

SWEATING SICKNESS.

An epidemic of *suette miliaire* has reigned for some time past in several districts of the department of Vienne, principally in that of Montmorillon, but it has now spread to the surrounding country. At Bussière-Poite-Vinne, a village near Mezières, there are 250 cases amongst 2300 inhabitants, and more than twenty deaths have already occurred, some of them with extreme rapidity. A commission, consisting of MM. Chantemesse, Thoinot, and Descoust, has been sent by the Government to investigate the matter, and M. Brouardel has also gone for the same purpose.

PASTEURIANA.

The *Bulletin Médical* publishes a letter addressed by M. Pasteur to the Imperial and Royal Society of Vienna with reference to Dr. von Frisch's strictures on his method, and the comments thereon of Professor Billroth. M. Pasteur points out that the experiments performed by Dr. von Frisch, the results of which were unfavourable to his method, were made chiefly upon rabbits. He discusses their value, and concludes that "these facts not only ruin the experiments in question, but shake all confidence in the whole work of Dr. von Frisch. We must conclude either that Dr. von Frisch is a bad operator, or else that he allowed the virus, which he obtained in Paris, to become deteriorated." At the last meeting of the Vienna Society, reported in the *Semaine Médicale*, Dr. von Frisch went over the same ground as in his previous communication. He maintained that M. Pasteur's reply was not a refutation of his objections, and said that he was confident the future would decide in his favour. M. Ullmann, on the other hand, submitted three provisional conclusions to the Society, which were as follows: 1. Animals do not become rabid by inoculation with the preventive virus. 2. Some animals can be made refractory to rabies by the preventive inoculations. 3. The statistics of the preventive inoculations made (by M. Ullmann) in man appear favourable to Pasteur's method.

Paris, June 15th.

Obituary.

W. A. B. McCABE, F.R.C.S.

WE regret to record the death of this promising young surgeon, which took place at Sydney on April 18th, at the early age of twenty-five. He was born in Jersey, and received his early education at the Victoria College, St. Heliers. In 1879 he entered in the Faculty of Science of University College, London, and a year later, after passing the Preliminary Scientific Examination with honours, he commenced medical study. After a successful career as a student, he obtained the post of house-surgeon to University College Hospital in 1885, and at the commencement of the following winter session he was appointed Assistant Demonstrator of Anatomy in the College. This post he was obliged to relinquish on account of failing health after holding it for one year. As the winter advanced the symptoms of phthisis became more marked, and he was advised to take a voyage to Australia. Unfortunately severe hæmoptysis came on when he was near the end of the voyage, and he landed at Sydney almost in a dying state. Mr. McCabe was characterised in all he did by a conscientious and honest desire to do his best, and to his unsparing devotion to his duties may in part be attributed his early death. He was a good anatomist and a popular teacher. His genial character endeared him to all who knew him, and his abilities and enthusiasm gave promise, had his life been spared, of a brilliant career in the profession he had chosen.

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Medical News.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.—The following gentlemen have recently passed the examination for the licence of the College:—

J. J. Jackson, L.R.C.S. Irel. | A. J. Tomkins, M.R.C.S. Eng.
R. F. McArdle, L.R.C.S. Irel.

COLLEGE OF PHYSICIANS IN IRELAND.—At the June examinations the following obtained licences in Medicine and Midwifery of the College:—

MEDICINE.—Patrick Joseph Barry, Edward Joseph Brady, Stafford Mouritz Cox, John Smyth Crowe, Edwin Tyrrell Cummings, Albert Edward Dyas, Richard Langford Fitzgerald, John Alexander Foreman, Henry Gell, Albert William Gray, Herbert Lennard Hudson, Edward Julian Jacob, Augustus Graydon Johnston, Joseph Christopher Lavertine, Francis James McArdle, Patrick Joseph Molony, John Brooke Moore, Neal Nelson, Richard Pennefather, Horatio Edward Rawlings, Edmund Boys Russell, John Stewart, Francis James Spilsbury, Ebenezer Teichelmann, William Hall Torbock, Patrick Joseph Ward, Edward Henry Wheeler.

MIDWIFERY.—Patrick Joseph Barry, Edward Joseph Brady, John Smyth Crowe, John Alexander Foreman, Henry Gell, Albert William Gray, Augustus Graydon Johnston, Neal Nelson, Richard Pennefather, William Hall Torbock, Thomas Torney, and Edward Henry Wheeler.

A special examination will be held on the 24th inst. and following days.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on the 9th inst., the following gentlemen were appointed examiners:—

MEDICINE.—Dr. Norman Moore, St. Catherine's; Dr. Donald Mac Alister, St. John's; Dr. W. H. Broadbent, London.

MIDWIFERY.—Dr. A. L. Galabin, Trinity; Dr. W. O. Priestley, Edinburgh.

SURGERY.—Mr. G. E. Wherry, Downing; Mr. Charles N. Macnamara, F.R.C.S., Mr. Alfred Willett, F.R.C.S.

Also the following degrees were conferred:—

MASTER OF SURGERY.—Henry Walter Pigeon, Christ's.

BACHELORS OF MEDICINE.—Roger Neville Goodman, Hugh Richard Jones, St. John's; Henry Alfred Haviland, Pembroke; James Black, Sidney Blake Jolly, Gonville and Caius.

BACHELORS OF SURGERY.—Hugh Richard Jones, St. John's; Charles Silvester Evans, Clare.

SOCIETY OF APOTHECARIES.—The following gentlemen, having satisfied the Court of Examiners as to their knowledge of the Science and Practice of Medicine, Surgery, and Midwifery, received certificates entitling them to practise as Licentiates of the Society on June 9th:—

Bence, Frederic Herbert, Lancaster-road, Notting-hill.
Bloomer, Frederick William, Russell-street, Wednesbury.
Carter, John George, Brixton-road.
Clifford, Thomas, Thornhill-terrace, Sunderland.
Cockill, William Baron, Trittiville-gardens, Uxbridge-road.
Dodd, George Herbert, Rush-court, Wallingford.
Raby, Leonard, Southwold-road, Clapton.
Richards, George Frederick, The Firs, Beckenham-road, Penge.
Sandoe, John Worden, Bodmin, Cornwall.
Wakefield, Robert Clark, Ladbroke-grove-road, Notting-hill.

THE annual distribution of prizes to the students of the Bristol Medical School took place on the 7th inst.

VACCINATION GRANT.—Mr. F. M. D. Swallow, of the Silkstone District of the Penistone Union, has been awarded the Government grant for efficient vaccination.

BEQUESTS.—The City of Dublin Hospital has received £200 under the will of the late Mr. William Bannon, and £100 from Mr. Richard Kemmis.

THE prizes gained during the past summer and winter session at St. Thomas's Hospital were distributed to the successful competitors by Sir Henry Acland on the 15th inst.

AT the fourth annual meeting of the supporters of the Paddington Children's Hospital on the 10th inst., the financial position of the charity was reported to be very satisfactory.

VACATIONS OF RESIDENT MEDICAL OFFICERS.—The administration of the Assistance Publique in Paris has ordered that the *internes* (house-surgeons and house-physicians) of the various hospitals shall not take their holidays at the same times as their respective chiefs.

PRESENTATION. — Thomas Lamont Macartney, L.R.C.P. and L.R.C.S. Edin., has, on his leaving Worthen, been presented with a magnificent dining-room marble clock and figure, an illuminated address, and a purse of gold by a few of his friends and grateful patients in and around that district.

THE Duke of Portland will preside at a festival dinner, to be held at the Hôtel Métropole to-day (Friday), in aid of the funds of the West End Hospital for Paralysis and Diseases of the Nervous System.

AT the annual general meeting of the subscribers to the Queenstown General Hospital on the 7th inst. satisfactory financial and general reports were presented and adopted.

THE Water Committee of the Sheffield Corporation have come to an arrangement with the directors of the local water company under which the Corporation will take possession of the reservoirs, &c., next January.

THE Liverpool Marine Biology Committee has received a Government grant of £25 towards the expenses of the exploration of Liverpool Bay and the determination of its flora and fauna.

MEDICAL MAGISTRATE.—Colonel Pearson R. Cresswell, F.R.C.S., commanding the 2nd Glamorgan R.V., and Chief Surgeon to the Dowlais Iron Works, has been placed upon the Commission of the Peace for the County of Glamorgan.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.

FIRST EXAMINATION.

PART I.—CHEMISTRY, INCLUDING CHEMICAL PHYSICS.

Candidates must answer at least four questions, and not more than six. At least one question in each Section must be answered. Candidates unable to answer four questions must report the fact to the Presiding Examiner, and are not allowed to proceed with their examination.

Section I.—1. Explain clearly the construction of the ordinary mercurial barometer. Why does the mercury fall on ascending heights? What is understood by the term "boiling-point," and what is the connexion between the boiling of liquids and the atmospheric pressure? 2. What is understood by "conduction" and "insulation" as applied to electricity? Describe an electrical machine for frictional electricity, and make clear the objects of conduction and insulation in the machine. How would you proceed to electrify a person with positive electricity?

Section II.—3. Show by equations the result of the action of sulphuretted hydrogen upon the following bodies in solution: chlorine, sulphurous acid, ferric chloride, sulphate of copper, and ammonia. 4. Give two methods for the preparation of sulphur dioxide, and explain the bleaching effect of this acid and that of chlorine. 5. A piece of pure silver is dissolved in nitric acid. Describe the preparation from this solution of lunar caustic, of chloride, and of oxide of silver. Give the properties and formulæ of these bodies.

Section III.—6. How may urea be prepared from the urine? What is its composition and its formula? How do you account for the presence of carbonate of ammonium in stale urine? 7. Describe different methods by which starch can be converted into grape-sugar. How is this sugar distinguished from cane-sugar, and how is it detected in a solution? 8. Describe the preparation and composition of ordinary aldehyde. What are its leading properties? How is chloral hydrate prepared? What is its composition, and how is it related to ordinary aldehyde?

PART II.—MATERIA MEDICA AND PHARMACY.

1. Give an account of the action of digitalis. What are the doses of this drug and of its preparations? 2. What are the official compounds and preparations containing arsenicum? Give the strength of the preparations and the doses of all. What is the action of arsenious acid? 3. Give the preparations of ergot, colchicum, and ipecacuanha, and the composition of the pulvis ipecacuanhæ compositus and pilula ipecacuanhæ cum scillâ. Mention the composition, strength, and dose of the hypodermic injection of ergotin. 4. Give a description of (*a*) chloroform, (*b*) iodoform, and an account of the action of each. Enumerate their preparations, and mention the doses of those used internally. 5. Describe the action of the following sulphates: sulphate of iron, magnesium, quinine, sodium, zinc; and give the dose of each. 6. What is the source of pilocarpine? Give an account of its action. How would you administer it, and in what dose?

PART III.—ELEMENTARY PHYSIOLOGY.

1. How would you recognise under the microscope (*a*) the varieties of muscle, (*b*) a medullated nerve-fibre? 2. How does plasma differ from serum, and how may each be obtained from blood? 3. What is the composition of the atmosphere? How does expired differ from inspired air? What are the chief changes produced in the blood by respiration? 4. What are the chief constituents and uses of the gastric and pancreatic juices? 5. In starvation the body temperature is reduced. Explain this. 6. What is meant by (*a*) afferent nerve, (*b*) efferent nerve, (*c*) nerve centre? Give instances of their use.

SECOND EXAMINATION.

ANATOMY.

Candidates must answer at least four questions.

1. Enumerate the bony surfaces which form the anterior fossa of the base of the skull. What markings and foramina are there in this fossa, and what do those foramina respectively transmit? 2. Give the origin, course, and distribution of the external popliteal nerve and its branches. 3. Describe the origin, course, and distribution of the arteries which anastomose in the fossæ of the scapula. 4. Describe the dissection of the anterior part of the perineum down to the superficial layer of the triangular ligament. 5. Give the position, relations, connexions, and arterial supply of the stomach. 6. Give the origin, insertion, and nerve supply of the following muscles: (*a*) levator anguli scapulæ, (*b*) flexor sublimis digitorum, (*c*) rectus abdominis, (*d*) adductor magnus.

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PHYSIOLOGY.

1. Describe the act of deglutition, including its nervous mechanism. 2. Describe the mucous membrane of the uterus. State the changes which occur at the menstrual period and during gestation. 3. Explain the effects of the respiratory movements on the circulation of the blood. 4. State and explain the effects of exercise on the excreta. 5. Describe the structure, action, and nervous mechanism of the iris. 6. Give the structure of adipose tissue. What is the chemical composition of the fats contained in it? From what constituents of food may fat be formed?

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

EXAMINATION FOR THE LICENCE.
(Third Part or Final.)

PRINCIPLES AND PRACTICE OF SURGERY.

1. Cancer of the tongue: give the symptoms, diagnosis, and treatment. 2. Give the symptoms, the possible results, and the treatment of syphilitic iritis. 3. Describe a case of congenital talipes varus, and give in detail the treatment that may be adopted. 4. What symptoms may be produced by the presence of a foreign body in the trachea or bronchus? How would you treat such an accident? 5. Senile gangrene: what are its causes, its usual course, and termination? What methods of treatment may be adopted? 6. Describe the symptoms and treatment of villous tumour of the bladder.

PRINCIPLES AND PRACTICE OF MEDICINE.

1. Describe the course of the transverse aorta. Give its anatomical relations, with special reference to the physical diagnosis of diseases of that portion of the arterial system. 2. Enumerate the symptoms usually met with in the third week of a case of typhoid fever, as they occur from day to day, and the remedial measures that you would adopt for their relief. 3. What are the signs of a pleural effusion on the right side, rising to the level of the third rib? What symptoms would make you come to the conclusion that the fluid was purulent? and, in the latter case, what treatment would you adopt? 4. Describe the pathology, symptoms, and treatment of infantile paralysis. 5. Describe the course of a case of unmodified small-pox, with its possible complications, especially noting its period of incubation (including its prodromal and eruptive stages), results, and proper treatment. 6. What are the symptoms of cancer of the stomach? Indicate the principal differences that would result from varieties of site in the morbid growth. How would you treat such a case? Write in full the prescription you would give.

MIDWIFERY AND DISEASES OF WOMEN.

1. Describe the chorion up to the end of the second month of gestation. 2. What are the causes of fœtal death in the last two months of gestation? 3. What are the chief methods employed for the induction of premature labour, and what are the circumstances which would determine the choice? 4. State fully what means should be adopted to prevent the occurrence of puerperal fever in obstetric practice. 5. Describe the varieties of cancer of the cervix uteri, with the diagnosis and pathology. 6. B——, aged thirty, was confined two years ago of her second child. She did not suckle the infant, and the catamenia reappeared one month after delivery. The periods, which were somewhat profuse, appeared regularly until a year ago, when the patient had a severe flooding. This recurred at irregular intervals until the time of her admission to the hospital a month ago. On examination, the uterus was felt to be slightly enlarged and the os uteri closed. What are the various conditions which may give rise to these symptoms, and what is the treatment?

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

DIPLOMA OF MEMBER.

PRINCIPLES AND PRACTICE OF MEDICINE.

Candidates must answer three of the four questions, including Question No. 4.

1. Give a full account of cancer of the stomach, including its orifices. 2. Describe the causes, diagnosis, and treatment of hæmoptysis. 3. Under what conditions is excessive elevation of the temperature of the body met with? What temperature is to be deemed dangerous, and what are the means whereby it may be reduced? 4. Give the composition, physiological action, medical uses, and doses of decoctum aloes compositum, ferrum redactum, lithiæ citras, liquor morphinæ hydrochloratis, apomorphinæ hydrochloras, pilula saponis composita, pulvis glycyrrhizæ compositus, syrupus chloral.

MIDWIFERY AND THE DISEASES OF WOMEN.

1. Describe the passage of a child through the pelvis with the breech presenting, with the sacrum to the right sacro-iliac synchondrosis. 2. State the circumstances in which convulsions come on in the puerperal state, and how would you distinguish between them? 3. State the means you would adopt with a view to prevent the infection of parturient and puerperal women. 4. A patient three weeks after labour has a painful fixed swelling in the left iliac fossa, with febrile symptoms. What is the probable nature of the swelling, and what course will it run?

SURGICAL ANATOMY AND THE PRINCIPLES AND PRACTICE OF SURGERY.

Candidates must answer at least four (including one of the first two) of the six questions, and are strongly advised to answer all six questions.

1. Describe the shape, position, and relations of the thyroid body. Mention particularly the points which would require attention in an operation for its removal. 2. Describe the arches of the foot, and the structures by which they are maintained, with especial reference to the deformity known as "flat-foot." 3. Name the most frequent dislocations and fractures occurring at the elbow-joint. Give their differential signs. 4. Describe the surgical treatment of empyema under its various conditions. 5. How may the production of lymph as the result of inflammation be accounted for? Describe its physical and chemical properties, and mention the changes it may undergo. 6. Describe the treatment to be adopted in a case of punctured wound of the cornea with prolapse of the iris. Mention the consequences which may ensue, and the proper modes of dealing with them.

MEDICAL NOTES IN PARLIAMENT.

Dog Owners Bill.

IN the House of Lords on the 10th inst. Lord Mount-Temple moved the second reading of the Dog Owners Bill, the object of which was to provide that the owner of a dog shall be liable in damages for any personal injury done by such dog to any person, and it shall not be necessary for the person suing for the recovery of damages for any such injury to show a previous mischievous propensity in such dog, or that the owner knew or had notice of such mischievous propensity, or that the injury complained of was attributable to any negligence on the part of the owner of the dog in the keeping or management of such dog.—The Lord Chancellor opposed the Bill, and the second reading was negatived.

Rabies in Dogs.

On the 14th inst., on the motion of Viscount Cranbrook, the following were nominated as the Select Committee on rabies in dogs:—The Lord President (Viscount Cranbrook), the Duke of Beaufort, the Earl of Coventry, the Earl of Carnarvon, the Earl of Onslow, the Earl of Zetland, the Earl of Kimberley, Lord Walsingham, Lord Ribblesdale, Lord Poltimore, Lord Belper, Lord Mount Temple.

Sanitation in India.

In the House of Commons on the 13th inst., in reply to Mr. Kenyon, Sir J. Gorst said that the sanitary condition of towns and villages in India was constantly under consideration by the Government of India and the Secretary of State, and that every effort had been, and would be, made to introduce from time to time such improvements as may be practicable.

Scarlatina Infection.

Lord John Manners stated, in answer to Sir U. Kay-Shuttleworth, that the investigations which the veterinary officials of the Agricultural Department had been instructed to make into Dr. Klein's theory of scarlatina infection from the milk of diseased cows were still being carried on, and the report would be laid before Parliament.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BEATLEY, WM. CRUMP, M.D. Durh., M.R.C.S., has been appointed Honorary Physician to the Newcastle-upon-Tyne Dispensary, vice R. Young, M.A., M.D., resigned.

BLACK, ROBERT, M.D. Lond., M.R.C.S., has been appointed Assistant Surgeon to the Sussex County Hospital, vice Uhthoff, resigned.

BRADBROOK, WILLIAM, M.R.C.S., L.S.A., has been appointed Medical Officer for the Inkberrow District of the Alcester Union.

CALDER, AUGUSTUS B., M.B., C.M.Ed., has been reappointed Visiting Medical Officer to the Perth Infirmary.

CLARKE, ARTHUR C., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer for the Chipping Warden District of the Banbury Union.

EVANS, C. W., M.B. Lond., has been appointed Medical Officer of Health to the Bakewell Urban Sanitary Authority.

GILLARD, RICHARD, M.R.C.S., L.S.A., has been appointed Medical Officer for the Ugborough District of the Totnes Union.

GOWANS, W. BRUCE, M.B., C.M.Ed., has been appointed District and Dispensary Surgeon to the Perth Infirmary, vice Hunt, promoted Visiting Medical Officer.

GRAHAM, J. T., M.D. Glas., M.R.C.S., has been reappointed Visiting Medical Officer to the Perth Infirmary.

HEGARTY, ANDREW, M.D., M.Ch.Q.U.I., has been appointed District Medical Officer for the Draperstown Dispensary, vice Morewood, deceased.

HONNYWILL, ALFRED O., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer to the Lea Hall Branch of the Essex County Asylum, vice W. T. Davey, M.D., M.R.C.S., L.S.A., deceased.

HUGHES, ALFRED W., M.B., C.M.Ed., M.R.C.S., has been appointed Medical Officer for the Flint District of the Holywell Union.

HUST, LEIGH, M.B., C.M. Glas., has been appointed Visiting Medical Officer to the Perth Infirmary.

JEPSON, EDWARD, M.R.C.S., L.S.A., has been appointed Medical Officer for the Workhouse of the Durham Union.

KELLY, MICHAEL F., L.F.P.S. Glas., L.A.H., has been appointed Medical Officer for the Heworth District of the Gateshead Union.

KELSON, W. H., M.R.C.S., has been appointed House-Physician to the London Hospital.

MELSON, GEORGE HYDE, M.B. Lond., M.R.C.S., House-Surgeon to the Queen's Hospital, Birmingham, has been appointed House-Physician, vice Wm. Richards, M.B.Ed., resigned.

MORGAN, WILLIAM V., M.B., C.M. Aber., has been appointed Medical Officer for the First District and the Workhouse of the Narberth Union.

O'NEILL, J. GOWER, L.R.C.P., L.R.C.S., has been appointed Assistant House-Surgeon to the Rotherham Hospital.

POOLEY, THOMAS A., has been appointed Analyst for the Liberty of Havering-atte-Bower in the County of Essex.

RICHARDS, WILLIAM, M.B., C.M. Ed., has been appointed Resident Surgeon to the Birmingham General Dispensary, vice T. E. Gordon, M.D., M.R.C.S., resigned.

ROBERTS, GEORGE A. E., M.R.C.S., L.S.A., has been appointed Medical Officer for the Fourth District of the New Winchester Union.

SHIPTON, ARTHUR, F.R.C.S.Ed., L.S.A., has been appointed Medical Officer for the Buxton District of the Chapel-en-le-Frith Union.

THOMAS, JOHN, M.R.C.S., L.R.C.P. Lond., has been appointed House-Surgeon to the London Hospital.

THOMPSON, MAITLAND, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Fifth District of the Lincoln Union.

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Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

CLINICAL HOSPITAL FOR WOMEN AND CHILDREN, Park-place, Manchester.—House-Surgeon. Salary £80 per annum, with apartments and board.

COVENTRY AND WARWICKSHIRE HOSPITAL. — House-Surgeon. Salary £100 per annum, with board (exclusive of beer, wine, and spirits), lodging, and attendance.

DURHAM COUNTY HOSPITAL.— House-Surgeon. Salary £100 a year, with board and lodging.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, W.C.—Assistant Physician.

HOSPITAL FOR WOMEN, Soho-square, W.—House-Physician. Salary £75 per annum, with board &c.

LIVERPOOL DISPENSARIES.—Assistant Surgeon. Salary £80 per annum, with apartments, board, and attendance.

NATIONAL DENTAL HOSPITAL AND COLLEGE, Great Portland-street, W.—Anæsthetist.—Lecturer on Operative Dental Surgery.

ST. LUKE'S HOSPITAL. — Resident Clinical Assistant. Board and residence.

WESTMINSTER GENERAL DISPENSARY, Gerard-street, Soho, W.—Honorary Surgeon.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—Surgical Registrar. Salary £40 per annum.—Assistant Surgeon.

WESTERN OPHTHALMIC HOSPITAL, Marylebone-road, W.—Dispenser.

Births, Marriages, and Deaths.

BIRTHS.

DAWSON.—On the 14th inst., at Heathlands, Southbourne-on-Sea, the wife of Yelverton Dawson, M.D., of a daughter.

MACKENZIE.—On the 14th inst., at Finsbury-square, E.C., the wife of Stephen Mackenzie, M.D., F.R.C.P., of a son.

SCANLAN.—On the 8th inst., at Springfield, Pembroke, the wife of Surgeon-Major Scanlan, Army Medical Staff, of a son.

SCOUGAL.—On the 13th inst., at Brooklands, Gledholt-road, Huddersfield, the wife of E. F. Scougal, M.A., M.B., of a son.

SKIPPER.—On the 12th inst., at Tollington-park, N., the wife of Edward Skipper, M.D., of a daughter.

MARRIAGES.

ALLEN—MAIR.—On the 11th inst., at Holy Trinity Church, Hastings, Surgeon-General F. F. Allen, C.B., and Q.H.P., to Florence Mary Jane, third daughter of George J. J. Mair, Esq., F.S.A., of Upper Bedford-place, Russell-square, London.

ARCHER—COMMERFORD.— On the 14th inst., at St. John's, Hackney, by the Rector, the Rev. A. Brook, M.A., Launcelot Archer, M.R.C.S., of 38, Vincent-square, Westminster, eldest son of Thomas Archer, Esq., of Clapton, to Susie, only daughter of N. W. Commerford, Esq., of Clapton-square.

HATCH—HOMAN.—On the 4th inst., at St. Marylebone Church, William Keith Hatch, M.B., F.R.C.S., Bombay Medical Staff, to Clara Catherine, third daughter of S. A. Homan, Esq., Deputy Surgeon-General, Indian Army (retired).

MACKENZIE—CHRISTIE. — On the 15th inst., at St. Mark's Church, Surbiton, by the Venerable Archdeacon Burney, assisted by the Rev. A. H. Murray, Surgeon A. W. Mackenzie, 5th Punjab Infantry, Punjab Frontier Force, to Jessie Thompson, eldest daughter of the late John Christie, of Forth-bank, Stirlingshire.

MILES—KING.—On April 28th, at All Saints' Church, St. Kilda, near Melbourne, Victoria, by the Rev. J. H. Gregory, Incumbent, assisted by the Rev. Horace Tucker, Incumbent of South Yarra, Melbourne, George Edward Miles, L.R.C.P., M.R.C.S., of Callan-park, Sydney, N.S.W., to Ada Louise, youngest daughter of the Rev. Richard King, of Hampstead, late of Prestwich, Manchester.

PRESTON — SADLER. — On the 9th inst., at St. Mildred's Church, Canterbury, by the Rev. J. Parmiter, Rector, assisted by the Rev. R. N. Gandy, Rector of St. Andrew's, Canterbury, and the Rev. T. Preston, Vicar of Swaffham Prior, Cambridge, father of the bridegroom, Henry Octavius Preston, M.R.C.S., to Dora Mary Sadler, only child of Henry George Sadler, of Oswald House, Canterbury.

DEATHS.

CAMERON.—On the 11th inst., at Morefield, Aberdeen, William Hector Cameron, M.R.C.S., late Staff Surgeon, R.N.

GLOVER.—On the 8th inst., at St. Thomas's Hospital, John Philip Glover, M.R.C.S., L.R.C.P., M.D.Lond., late of Quarndon, Derbyshire, aged 41.

LAUDER.—On the 4th inst., at Comely Bank, Tayport, Fife, Robert Scott Lauder, M.D., aged 43.

MCCABE.—On April 18th, at Sydney, William Alexander Bowes McCabe, F.R.C.S., aged 25.

OXLEY.—On the 14th inst., at Llandudno, Martin Gay Black Oxley, M.D., aged 46.

N.B.—A fee of 6s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, June 16th, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
June 10	30·39	N.E.	60	54	112	71	54	...	Cloudy
,, 11	30·44	W.	60	53	116	77	51	...	Bright
,, 12	30·24	W.	65	57	120	80	54	...	Bright
,, 13	30·19	W.	66	58	120	84	54	...	Bright
,, 14	30·24	N.E.	70	60	98	81	60	...	Bright
,, 15	30·31	W.	71	62	122	87	57	...	Bright
,, 16	30·37	E.	67	60	112	79	66	...	Hazy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

SITES FOR INFECTIOUS HOSPITALS.

Mr. G. L. Purchase.—In answer to an inquiry involving the question as to what is the proper area for the site of an infectious hospital, we would point out that for the permanent requirements of an ordinary district arrangement should be made for so placing beds, at the rate of 1 per 1000 of the population, on the site that the number of beds shall not exceed twenty per acre. It may not be deemed requisite to make all the permanent provision at once; but, on the other hand, it is of the greatest advantage to acquire a site exceeding the present requirements and admitting of such temporary hospital extension as an epidemic might necessitate. In placing the buildings on the site an unoccupied zone of not less than forty feet in width should be provided between all buildings intended to receive infected persons and things and the boundary wall or fence. The administrative building ought to be kept free from infection, and it is customary to erect it near the boundary of the site in such a way that entrance to the premises may be effectually controlled from it. Other points relating to the selection of hospital sites will be found in the Supplement by the medical officer to the Tenth Annual Report of the Local Government Board on the Use and Influence of Hospitals for Infectious Diseases.

Dr. G. Thomson (Oldham).—A list of coroners, medical and legal, will be found in Churchill's Medical Directory.

Mr. W. Habgood.—Such clothing can be obtained at 44, Fore-street, E.C.

"TO PASTURES NEW."

To the Editors of THE LANCET.

SIRS,—It should not be difficult to meet the modest requirements of your correspondent, "Emigrant." He desires simply a good climate, an out-door life, and the chance of making £100 a year. He has forgotten, however, to indicate the nature of his ill-health, which would be a material factor in modifying the advice to be given him. He can hardly be far wrong, however, in selecting one of the Australian colonies, and, apart from any personal considerations to guide his choice, probably Sydney affords about the best *locale* at present. If your correspondent dislikes heat, he might try Dunedin in New Zealand. The colonies afford the certainty of a good climate, and a fair prospect of a competency to an active man who can take the rough with the smooth. The sport, however, to which your correspondent alludes is not very first-rate in the colonies, as their legislators have omitted to copy one of our national institutions—viz., the Game Laws.

I am, Sirs, yours obediently,

Belfast, June 13th, 1887. J. A. L.

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A WORM IN AN EGG?

Messrs. A. Kendrick and Co.—The specimen was in so dried a state when received that a precise determination of its nature could not then be made. We hope, however, to be in a position to report next week. Meanwhile it may suffice to say that there is no *primâ-facie* improbability against the entrance of intestinal parasites into an egg; for they are known to wander into the oviducts of birds. We may refer to THE LANCET, 1849, vol. ii., p. 386, where a correspondent forwarded us a specimen of ascaris lumbricoides which had been found in a newly laid egg.

Dr. McNalty.—Most of the treatises on surgery discuss the subject. Our correspondent might refer to the article "Nævus" in Heath's Dictionary of Practical Surgery.

Mr. Harvey (Ottawa).—We cannot exchange.

"SWEATING OF THE FEET."

To the Editors of THE LANCET.

SIRS,—I have seen only two cases of sweating of the feet. The first was a gentleman who had some years before suffered from syphilis. He was accustomed to the morning tub and other necessary sanitary customs of society, but a few days' hard walking on pavements had rendered his society intolerable owing to the offensive smell from his profusely perspiring feet. His sufferings were enhanced by the raw state this condition had induced. I ordered his socks to be changed night and morning, and the feet to be first washed in cold water with carbolic soap and dried, and next swabbed all over with a lotion made by adding a drop of liq. atropiæ to an ounce of liq. hydrarg. perchlor. This to be allowed to dry on by evaporation. In thirty-six hours I found him quite well, and making preparations to go into camp, he being a volunteer. He has since, I believe, had no return of the annoyance. The second case was that of a servant girl. Her feet were less offensive than were those of the gentleman in the former case, but very painful. Similar treatment quickly cured her.

I am, Sirs, yours faithfully,

Skipton-in-Craven, June 11th, 1887. C. W. SESSIONS BARRETT, M.B.

THE MEDICAL PROFESSION AND JUBILEE HONOURS.

A CORRESPONDENT, under the *nom de plume* of "Brackenthwaite," has sent us a communication in favour of the granting of a peerage to a member of the medical profession, and the bestowal upon the Army Medical Staff of honorary rank. The fact that our correspondent's letter has already appeared in a contemporary, above the signature of "B," prevents us allowing it to appear in our columns.

Mr. R. Saunderson.—The title "physician" attaches to an associate of a College of Physicians, and cannot be claimed or used satisfactorily on the strength of the qualification mentioned in our correspondent's letter. A L.S.A. or L.A.H. is a licensed and qualified medical practitioner.

Mr. E. F. Le Souef.—So far as we are aware, the gas has not been employed in the way and for the purpose named.

CHINESE PHARMACOLOGY.

To the Editors of THE LANCET.

SIRS,—In my "Contributions to Materia Medica and Natural History of China" (1871, Trübner) I have endeavoured to provide something like an Anglo-Chinese dispensatory. Dr. Dobson, in his "Medical Vocabulary in English and Chinese" (Shanghai Mission Press, 1858), on page 59, gives several "names of medicines," and I have followed him as much as possible. The terms and names have had to be manufactured, and I have endeavoured to convey by sense and sound some idea (to the Chinese) of the thing indicated. Iodide of potassium I have called *hai-tien sha*, literally, "sea-indigo salt." Iodine is, of course, obtained from the ashes of sea-weed, and the colours are near enough to each other. I should be happy to associate myself with any Chinese scholar, in order to bring about uniformity in the use of medical and pharmaceutical terms in Chinese.—I am, Sirs, faithfully yours,

Shepton-Mallet, June 8th, 1887. F. PORTER SMITH.

THE DIURETIC ACTION OF MERCURIALS.

G. B. (Paisley).—The most recent authority on the subject is Rosenheim of Berlin, who has worked in concert with Fürbringer. He finds that calomel is contra-indicated in parenchymatous nephritis, while, on the other hand, it has a safe diuretic action in interstitial nephritis. Of the other preparations of mercury, the yellow iodide has also given good results in this form of renal mischief, but not so invariably as calomel. The bichloride of mercury, like the grey mercurial ointment, produces diuresis, but comparatively slight and of brief duration.

Dr. Rowe (Basutoland).—According to the last published returns of the Registrars-general for the several parts of the United Kingdom, the proportion of males to females born in England and Wales was 103·9 to 100 in the year 1886; in Scotland the proportion was 105·4 to 100 in 1883; and in Ireland it was 105·3 to 100 in 1885.

Querens.—The question is still undecided.

CHEMICO-LEGAL ANALYSES IN CUBA.

THE Royal Academy of Sciences of Havana has presented a memorial to the Governor General of Cuba, calling his attention to the extremely unsatisfactory and expensive way in which chemical analyses for medico-legal purposes are now carried out in the island, and praying that steps may be taken to establish an institute of chemico-legal examinations similar to the institutes recently established in Spain. The memorial states that the chemical examinations, which are now mostly conducted by pharmacists acting under the authority of the magistrates, cost the State at least about $30,000 annually, and that as the number of analyses required is rapidly increasing, there is no doubt that the sum of $120,000 will very soon be absorbed. This immense sum, while acting as a heavy burden on an already impoverished treasury, does not afford any guarantee that the analyses are conducted in a trustworthy manner, many of the analysts having a very imperfect acquaintance with chemistry, and the good faith of a certain number of these so-called experts not being above suspicion. It is suggested that for the sum of about $12,000 annually a really efficient institute could be maintained, under the charge of a competent chemist with a salary of $3000, and two assistants—a pharmacist and a medical man—each with $2500. An attendant would receive $500, and the cost of materials is estimated at $2500. Certainly, if the state of forensic chemistry is as unsatisfactory as the Royal Academy believes, it is high time some better system were adopted; and the proposed institute, which would be a sort of Somerset House laboratory, seems a fair method of meeting the want.

Junta.—We think the statement one of the most incredible we ever read, though, of course, we receive it on the strength of our correspondent's authority. The duty of the lady and her husband was peremptorily to stop and decline such obtruded services, and to make the practitioner understand that his visits would not be allowed.

Surgeon.—The office of the Crown Agents for the Colonies, Downing-street, S.W.

TREATMENT OF POISONING BY CHOKE-DAMP.

To the Editors of THE LANCET.

SIRS,—Recently a serious accident happened at, or near, Hamilton, and the following is taken from the report of the accident, which appeared in the *Scotsman* of May 30th:—"The more seriously injured were carried into sheds and other places at the pit-head, where Dr. Robertson, who was at that time alone, attended to them. Fifteen of them required his attention for the effects of choke-damp, they being more or less asphyxiated, some of them, indeed, to an extent that was exceedingly alarming. Half a dozen small pits had been dug by the medical officer's orders, and the men were laid with their heads just over the edge of these, in order that as the poisonous gases were exhaled from the lungs they might be absorbed by the fresh earth, which possesses a sufficient quantity of oxygen to change their character. In one or two cases artificial respiration was also deemed necessary."

Many of your readers would no doubt be glad of an explanation of the above treatment.

I am, Sirs, yours truly,

June, 1887. AMBULANCE.

THE BROWN DEFENCE FUND.

To the Editors of THE LANCET.

SIRS,—Kindly insert the following:—Amount already acknowledged, £24 1*s.* 6*d.*; Messrs. Oram and Read, £1 1*s.*; Dr. A. W. Thomas, 10*s.* 6*d.*; Dr. E. Adams (Liverpool), 5*s.*

I remain, Sirs, yours faithfully,

G. STANLEY MURRAY, M.D.

23, Upper Richmond-road, Putney, June 14th, 1887.

CALCULUS IN CHINA.

THE *China Medical Missionary Journal* asks: "Is stone in the bladder anywhere so common as in Kwangtung, where, since the first lithotomy by Dr. Parker at the Canton Hospital in 1844, to the end of 1885, no less than 1057 cases have been operated upon by lithotomy and lithotrity, exclusive of a large number of urethral and preputial calculi extracted? Is it so prevalent in Corea as reported some time since; and what is known of the potent dissolvent of the native physicians there, which potion 'relieved in a few hours, after long and terrible sufferings,' the French Missionary Bishop Ferreol, about 1850?"

ERRATA.—Owing to unavoidable delay in the return of the proof of Sir Andrew Clark's Cavendish Lecture two or three errors escaped correction:—In line 16 of second paragraph the "l" was omitted from the word "causality"; para. 6, line 4, the name "Morell" should have preceded "Mackenzie"; para. 7, line 20, for "assuredly" read *probably;* same para., line 28, for "useful" read *useless;* para. 8, line 13, after "followed" insert "it is said"; para. 9, last line, for "wherewith" read *whereby;* para. 10, line 15, for "arsenic hydrochloric" read *hydrochlorate of arsenic;* para. 11, line 4, for "a thousandth" read *two-thousandth.*

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COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir H. Pitman, London; Mr. W. C. Macnaughton, Glasgow; Messrs. Sampson Low and Co., London; Mr. Shirtliff, Kingston-on-Thames; Dr. Stanley Murray; Mr. Rowell, Houghton-le-Spring; Dr. Léon Petit; Mr. W. Rivington, London; Dr. Elder, Nottingham; Dr. McNalty; Mr. C. Day, London; Mr. A. H. Allen, London; Mr. G. L. Purchase; Dr. G. Thomson, Oldham; Dr. Robertson, Brixton; Dr. Hubbell, Buffalo; Mr. Dunsford, London; Mr. H. C. Gillies, Brockley; Mr. T. Pagan Lowe, Bath; Mr. Maynard, Newcastle-on-Tyne; Messrs. Cassell and Co., London; Dr. Gibson, Edinburgh; Mr. Saunderson; Mr. Sidney Harvey, London; Mr. C. W. S. Barrett, Skipton; Messrs. Bates and Co., London; Mr. Patten, Ealing; Mr. E. R. Williams; Mr. D'Arcy Power, London; Mr. T. F. Raven, Broadstairs; Messrs. Fannin and Co., Dublin; Mr. Ash, London; Dr. B. Walker, Spondon; Mr. Victor Horsley, London; Dr. Cullingworth, Manchester; Messrs. Christy and Co., London; Mr. F. Lott, London; Dr. McClure, Cromer; Mr. V. Wyatt, London; Mr. W. J. Bell, London; Dr. M. A. Boyd, Dublin; Mr. Mansell-Moullin, London; Mr. W. M. Jones, Swinton; Mr. J. B. Pike, Loughborough; Mrs. Thompson, Loughborough; Mr. Le Scouef, London; Dr. A. G. Auld, Wick; Mr. Stump, London; Mr. Logan, Glasgow; Mr. Fuge, Taunton; Mr. Lewis, Wakefield; Dr. Davies, Denbigh; Mr. Hyde, Northampton; Mr. Dicks, Totton; Mr. Manton, London; Dr. Benthal, Southsea; Mr. Pike, Taunton; Mr. Byerley, Portsmouth; Messrs. Takata, London; Dr. Scougal, Huddersfield; Mr. Horncastle, London; Mr. Thompson, Oldham; Dr. Sanctuary, Kensington; Mr. Juler, London; Mr. Freeman, Epsom; Mr. Godfrey, Northampton; Mr. Hosmosjie, Kensington; Messrs. Livingstone, Edinburgh; Mr. Hope, London; Mr. Brown, Westgate; Messrs. Ankin and Son, St. Ives; Mr. Thompson, Manchester; Messrs. Wright and Co., Bristol; Mr. Scott, Manchester; Mr. Burchell; Messrs. Thomas and Co., London; Dr. Silneau, Paris; Mr. Laffan, Cashel; Mr. Evans, Oswestry; Mr. Wood, Bromsgrove; Mr. Farquhar, Harrogate; Rees, Brecknock; Junta; Brackenthwaite; C. H.; M.D.; M.D., Haughley; J. A. L.; Spes.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Harris, Philadelphia; Mr. Ray, Durham; Mr. Crosswollet; Mr. Rustomjee Frommurze, Kurrachee; Mr. Kelly, Nottingham; Messrs. Hutton and Co., Bootle; Mr. Townson, Chesterfield; Messrs. Fawcett and Co., Leeds; Mrs. Inman, Sedburgh; Dr. Humphreys; Messrs. Mills and Co., Hanley; Mr. Hutton, London; Mr. Blythe; Messrs. Arber and Co., London; Mr. Breman, Bristol; Mr. Lister; Messrs. Blake and Co., Leeds; Mr. Saunders, Dublin; Mr. Anderson, York; Dr. Heaton, St. Asaph; Mr. Hoysted, Gibraltar; Miss Hunt, Dublin; Mr. Russell, Liverpool; Mr. Clifford, Sunderland; Mr. Clarke; Mr. Parkinson, Manchester; Mr. Latimer, Swansea; Mr. Adams, St. Leonards-on-Sea; Mr. Tarleton, Ashton; Mr. Whiting, Bodmin; Miss Thomson, Loughborough; Mr. Stephens, Austell; Mr. Hyde, Earls Barton; Dr. Bradford; Surgeon, London; S. E. M.; Locum, Everton; Nemo; Matron, Middlesbrough; T. W., Oldham; Alpha, Brockley; Hope, Smallheath; Francis, London; Tomkin, London; Ethnold, Gateshead-on-Tyne; J. F. J. C., Dublin; Dr. A. N., London; Surgeon; Alma, Manchester; T. H. T. F., Dawlish; Victor, London; Sister; Sigma, London; Cantab., Brixton; X. Y. Z., Birmingham; Matron, Bradford; Surgeon, Brighton; M.A., Cambridge; Country; Medicus, Hackney.

Farm, Field, and Fireside, Walthamstow Guardian, Paisley Daily Express, Oriental Advertiser, Worcestershire Echo, Denbigh Free Press, &c., have been received.

Medical Diary for the ensuing Week.

Monday, June 20.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.

Tuesday, June 21.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.

Wednesday, June 22.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M.; Saturday, same hour.
BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M.—Specimens will be shown by Dr. Francis Imlach, Dr. Fancourt Barnes, Mr. Lawson Tait, and others.—Dr. A. V. Johnstone (Danville, Kentucky): The Endometrium in the Cycle of the Rut. Council at 8 P.M.

Thursday, June 23.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8 P.M. Mr. Lockwood: Specimens illustrating the Anatomy of the Capsule of Tenon.—8.30 P.M. Collection of Evidence regarding Toxic Amblyopia. Communications will be made by Messrs. Nettleship, McHardy, Edgar Browne, Hill Griffith, Frost, Juler, Shrears, Morton, Gunn, and others.

Friday, June 24.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, June 25.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

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Clinical Lecture
ON
FUNCTIONAL DISEASES OF THE LIVER.

BY SAMUEL FENWICK, M.D., F.R.C.P.,
PHYSICIAN TO THE LONDON HOSPITAL.

(*Concluded from page 1220.*)

YOU are aware that the condition of the system producing acute rheumatism has been a fertile subject for discussion, and that numerous attempts have been made to discover it both by chemical analysis and by experiments on animals. Now, it will naturally occur to you to ask whether we may not have hit upon the cause of the disease in the excess of the sulphocyanide present in the saliva of such cases. I fear that we are unable to answer this question in the affirmative; for, as we have before seen, the salivary salt is augmented in various other conditions that are unattended with articular inflammations. Besides, if the cause of the rheumatic fever were dependent on the presence of this salt in the system, we should expect to find it in greater quantity when the disease was hereditary that when it occurred in a single member of a family alone. To ascertain if such is the case I have added the following table.

TABLE X.—*Showing the average amount of Sulphocyanide in persons hereditarily predisposed to Rheumatic Fever.*

—	Average amount of sulphocyanide.	No. of cases.
History of parents liable to rheumatic fever ...	+ 1·4	16
„ other members of family than parents liable to rheumatic fever	+ 1·65	10
Persons who had no history of rheumatic fever	+ 1·4	31

You will see by the above table that a hereditary predisposition has no effect in increasing the amount of the salivary salt, or consequently the severity of the attacks, for the average amount is the same in those whose parents had suffered from the complaint and in those from whom no history of hereditary predisposition could be obtained. It is also curious that previous attacks do not seem to increase the quantity of the sulphocyanide, for of twenty-four who had a history of former attacks the average was + 1·4, whilst in twenty-eight who were suffering for the first time it was + 1·3.

As there is a close connexion between the severity of the complaint and the state of the saliva, I would advise you in every case to watch the amount of sulphocyanide, and, whenever you find the salt in excess, to keep your patient on low diet and guard him carefully from cold and every other circumstance likely to provoke an attack. It is probable that those who have habitually a large amount of the sulphocyanide in the saliva are more liable to local rheumatism than other persons; for amongst the "private cases" 40 per cent. of those who had an excess had suffered from pains of the limbs or joints. This is not, however, so constantly the case as in acute rheumatism, for I have met with cases of lumbago and rheumatic arthritis in which the amount was below the normal.

The occurrence of chorea in rheumatic subjects has long been recognised, and has given rise to much speculation as to the connexion between diseases so very dissimilar. I felt anxious, therefore, to ascertain whether the examination of the saliva would throw any light upon this question. I find nine cases of chorea are recorded in the "later hospital cases," and of these, at the first observation, six presented an amount of sulphocyanide below the normal, some as low as − 3; two were normal; and only one was above the normal—viz., + ¼. One developed acute rheumatism, which affected both ankles, but lasted only one week, the evening temperature being 102° and 103°. The saliva for three weeks before the rheumatism occurred had risen to + 2, + ½, and + ⅓, being + 1 during the articular affection. Two other cases had a systolic mitral murmur, and in both the salivary salt was in excess; one was admitted with + ¼, but next week it rose to + 2¼, + 2, and + 2¼; the other, on first observation, showed − ¼, but next week it was + 2¾, then in the two following weeks + 3 and + 2½. None of those whose saliva remained below the normal had either rheumatism or mitral murmur. It is worthy of remark that the chorea in those in whom the excess presented itself yielded rapidly to treatment, whilst where it continued below the normal the complaint was very obstinate. Thus the two presenting an excess were dismissed on an average in thirty-seven days, whilst the three with a deficiency remained on the average seventy-seven days under treatment. It is strange that in chorea, unlike the diseases we have hitherto examined, there is always a tendency to great variation in the quantity of the sulphocyanide from week to week, very few of the cases showing the same quantity in any two successive observations. I have observed the same variation in the weekly amounts of sulphocyanide in some cases of hysteria, and suspect it may arise from an imperfect action of the nervous centres.

It is always unsafe to draw general conclusions from small numbers of facts, but, if future inquiries should confirm these above stated, it would appear that there is no necessary connexion between chorea and rheumatism, but that the latter is apt to arise whenever the imperfect nutrition which accompanies chorea is suddenly replaced by an excessive amount of vitalised nutriment. The long-continued subnormal amount of sulphocyanide is associated with a long duration of the nervous disturbance, and would seem to indicate that the treatment adopted was ineffectual. In one such case I lately omitted the arsenic the patient was taking, and substituted cod-liver oil and hypophosphite of soda. In a few days the salivary salt increased, and the patient so rapidly improved that she was soon discharged.

Cases of gout usually exhibit an increase of the salivary salt, but not to such a marked extent as those liable to acute rheumatism. In seventeen that were observed in the "private cases" the amount was above the normal, and none of them at any time presented a deficiency. When, however, gout has been complicated with phthisis or kidney disease, I have met with a subnormal quantity; so that the state of the saliva is clearly not the result of the articular inflammation, but is only an accompaniment of that over-action of the nutritive organs which most practical physicians are in the habit of recognising as predisposing to the complaint.

The sulphocyanide is usually in excess in the saliva of persons who suffer from eczema, as this is so often associated with gout; but such is not invariably the case, as the disease also presents itself in persons who are in an imperfect state of nutrition, and under these circumstances the salivary salt is below the normal.

I have never seen a severe case of urticaria in which the sulphocyanide was not in excess, and the severity and obstinacy of the malady may be generally measured by the amount of colour produced by the addition of iron to the saliva. As an illustration let me quote to you the case of a gentleman aged thirty-one. He was stout, and was affected with this troublesome complaint to such an extent that he was in the habit of amusing his friends by writing on his arm beneath the table with a match or pencil, and then exhibiting the letters marked in bright and elevated lines upon his skin. His saliva was + 3, but after six weeks treatment it was reduced to + ½; bilious headache, to which he had been formerly subject at least every week, disappeared, and he lost many pounds in weight.

Headache was one of the most common subjects of complaint to which those having an excess were liable, and the so-called "bilious headaches" constituted 25 per cent. of the whole number of the "private cases" where this condition of the saliva was present. Persons suffering in in this way usually belonged to families of which other members had been victims to gout or rheumatism; the attacks of headache were periodical, and were often followed by a temporary improvement in health. One-tenth of those presenting a deficiency of sulphocyanide also complained of "bilious headaches," but there was usually no gouty history, no relief was afforded by the attack, and the pain seemed to be of a purely neuralgic character. The importance of such a distinction in a practical point of view need not be pointed out, for it will be obvious that symptoms connected with such opposite conditions of the nutritive organs cannot be successfully treated in the same manner.

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A great excess of the sulphocyanide, when it occurs in elderly persons, is often indicative of a dangerous condition of health, and may be for some time unaccompanied by apparent disease of any important organ of the body. Afterwards, however, changes in the vascular system usually declare themselves, and the patients eventually die of apoplexy or become the subjects of disease of the heart or kidneys. As an instance of this, a gentleman, aged fifty-nine, first complained in 1877 of irritability of the bladder, the urine being very acid, but neither albuminous nor saccharine. This soon passed away, and in the following year he suffered from shooting pains of his arms and shoulders, although he had never had gout or rheumatism previously. In 1881 he had bronchitis, and his saliva was then recorded to have contained a great excess of sulphocyanide. In the same year he suffered from intense mental depression and dyspepsia, the saliva still presenting a great excess. Towards the end of the year it was +4, and a diastolic murmur was first noticed over the aortic valves. This was followed by a slight paralytic attack. The loss of power soon passed away, the saliva rose quickly to +8, and he complained of general weakness and depression. In 1882 the saliva was +6, there was no paralysis, the diastolic murmur was still audible, but the urine proved to be slightly albuminous. He remained in this condition for a few months, when he was carried off by a sudden apoplectic seizure.

Cases like the above are by no means uncommon, and are subjects of great anxiety to the physician on account of the indefinite nature of the symptoms from which the patient suffers. They are generally said to arise from "suppressed gout," but I suspect that atheroma of the arterial system takes place from the abnormal nutrition, and produces changes in the blood supply of various important organs. I know of no test for such a state but the excess of the sulphocyanide, and I have found this almost always to be the case under such circumstances.

A deficiency of the sulphocyanide is much less common in persons enjoying a moderate share of health than the opposite conditions. It chiefly shows itself in females, and especially in those who are thin and feeble in muscular power. They seem to be especially liable to neuralgic affections, and as these also often arise from gout, rheumatism, or malaria, in which the sulphocyanide is in excess, an examination of the saliva will often throw light on the nature of a case otherwise hopelessly obscure.

We may now ask whether the foregoing facts and the conclusions we have derived from them throw any light upon the uses of the sulphocyanide in the saliva. Does this substance perform any beneficial purpose in the mouth or throat, or is it only an excretion, removed on account of some deleterious effects it might produce upon the system? Again, what is the material from which it is separated, and is this material broken up by the salivary glands, or is the sulphocyanide only an ultimate product of the action of a number of organs associated together in function? In answer to the first of these inquiries, we may assume that the sulphocyanide must be of use in assisting the functions of the upper part of the digestive tract, for we can scarcely suppose that any deleterious substance would be excreted in a part where there is a certainty of its being rapidly resorbed into the system.

Before attempting to settle the remaining questions, let us first examine two suggestions that have been made by physiologists to account for the presence of the salt in the saliva. It has been stated that it is the result of decomposition set up by the presence of decayed teeth, and that it is not therefore a normal constituent of the secretion, but is merely a pathological product. In order to test how far such an opinion was founded upon facts, careful inquiries were made into the state of the teeth in eighty-seven cases in the hospital, and with the following results. The teeth were quite perfect in 18 per cent. of those whose saliva contained a normal or excessive amount of sulphocyanide, and in only 14 per cent. of those in whom it was deficient. One or two teeth were carious in 47 per cent. of the former and in 44 per cent. of the latter; whilst many were decayed in 42 per cent. of those in whose saliva the sulphocyanide was below, and in 35 per cent. of those in whom it was normal or excessive. It is evident, therefore, as the salt presents itself in excessive quantities where there is no decay of the teeth, and is as often deficient as superabundant where many are carious, the opinion before mentioned must be incorrect.

Others have attributed the presence of the sulphocyanide to the smoking of tobacco, and the habits of two hundred and thirteen patients in the hospital were investigated as to this point. As the greater number had been confined to their beds in wards in which smoking was not allowed, only a few of them had latterly enjoyed the opportunity of using tobacco. On analysing these cases, it appeared that, of those whose saliva contained an excess of sulphocyanide, 6 per cent. had only latterly smoked; of those presenting a normal quantity, only 2 per cent.; whilst of those in whom there was a deficiency, 8 per cent. had latterly consumed tobacco, and one represented himself as an excessive smoker. It is therefore evident that no material influence is exerted by the use of tobacco, although my own impression before analysing these cases was that the salt is usually present in greater quantity in the saliva of those who smoke than of those who abstain from tobacco.

From the facts we have before considered, it is plain that an excess of the sulphocyanide is present in the saliva whenever the nutritive functions are in a state of unusual activity, and that a deficiency of this salt coincides with a defective supply of new material. As, however, a number of different organs co-operate in the preparation of the materials for the growth of the tissues, to which of these can we attribute the formation of the salivary salt? At first sight we might suppose it was the result of some chemical change connected with the gastric digestion, for its diminution in cancer of the stomach, stricture of the œsophagus or pylorus, atonic dyspepsia, and even frequent vomiting, seems to point in this direction. But, on the other hand, this will not explain its deficiency in cases of cirrhosis attended with ascites, or its sudden increase directly the pressure had been removed from the portal vessels by tapping, nor does it show why the quantity should be so often below the normal amount in jaundice.

A full supply of albuminous food is, however, necessary for a free secretion of bile, and for this purpose the conditions both for its digestion and absorption must be favourable. We before found that chronic diarrhœa and dysentery lessened the amount of the salivary salt, and it is interesting to observe that Dr. Rutherford, when reviewing the results of his experiments on the secretion of bile in dogs, states that "we have, however, found several drugs that have an indirectly depressant action; thus, when the intestinal glands are excited to secrete, there is an indirectly depressant effect on the liver, whereby the bile secretion is lessened. We invariably observed that while slight purgation by a purely intestinal irritant scarcely, if at all, depressed the secretion of the bile, powerful purgation produced a very marked effect."[1]

I have before pointed out that the sulphocyanide is either absent or in very small quantity in the saliva of persons affected with lead colic, but that as soon as the symptoms are relieved it reappears. Now, if we turn again to the experiments of Dr. Rutherford, we find the following remarkable statement: "It cannot fail to strike the reader as a remarkable fact, that while in the long list of drugs whose hepatic effect we have investigated we have found so many that stimulate the liver, there is only one—acetate of lead—which appears to have a directly depressant effect."

Physiologists are generally agreed that the main portion of the fat of the animal body is the result of the breaking-up of the albuminous material of the food by the liver, and in reviewing the "private cases" in which the condition of the saliva was tested, I find that only 6 per cent. in whom there was an excess of the sulphocyanide were thin; 20 per cent. were moderately stout, and 74 per cent. are recorded as fat. On the contrary, of fifty-three cases where the sulphocyanide was below the normal amount, forty are stated to have been thin, three as moderately stout, and only ten as stout. In some of the latter the deficiency of the salivary salt was only temporary, and of the remainder four were stated to have been losing flesh when the saliva was examined. But if we thus find the same circumstances that tend to promote a free secretion of bile also accompany an increase of the sulphocyanide, and the circumstances that lessen the formation of bile also diminish or suppress that of the salivary salt, and if we discover the condition of the body present in those whose saliva presents an excess and diminution of the salt such as

[1] Professor Rutherford on the Action of Drugs on the Secretion of Bile, p. 170.

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we might expect from an increased or lessened activity of the liver, I think we are justified in connecting the presence of the salt in the saliva with the action of the hepatic cells.

I need not remind you that the bile is a complex secretion containing colouring matters, cholesterine, and biliary salts; now from which of these may we suppose the sulphocyanide is derived? Clearly not from the cholesterine, for this is excreted; nor from the colouring matters, for they also pass out of the body, and if they were the source of the salt in question, we should always find it in excess in cases of jaundice, as they are in that disease retained in the circulation. The remaining constituent of the human bile, the taurocholate of soda, seems to be the most likely source of the salivary salt, as it passes from the liver into the intestine and is resorbed into the circulation; for I think we can only account for the absence or diminution of the sulphocyanide in jaundice by supposing that the material from which it is produced passes in the normal state from the liver into the duodenum. This view is supported by the fact that in all the cases of dyspepsia accompanied by eructations of sulphuretted hydrogen gas which I have examined there was an absence of the sulphocyanide. In such instances, we may suppose that the biliary acids are decomposed in the duodenum into sulphuretted hydrogen, instead of undergoing their normal decomposition.

But a difficult question now meets us. The albuminous materials of the food absorbed from the digestive canal undergo certain changes which fit them for the purposes of nutrition, and the greater part of these are again broken up into urea and carbonic acid, without entering into the composition of any of the organs of the body. Is, then, the substance from which the sulphocyanide is derived (? taurocholate of soda) the product of the chemical changes connected with the conversion of the peptones into the circulating albumen, or is it the result of the decomposition of the vitalised material? If the latter were the, case we should find the amount of the salivary salt bear some relation to that of the urea in the urine, and I have not, unfortunately, a sufficient number of cases recorded in which the quantities of these two substances were simultaneously determined so as definitely to settle the question.

In non-febrile conditions I have generally found that an excess of the sulphocyanide corresponded with a high specific gravity of the urine, but this probably arises from the fact that the introduction of an undue amount of nutriment into the system is quickly followed by an increased metabolism, whereby the surplus nutriment is broken up and eliminated. But during the course of a febrile disorder the quantity of the salivary salt is not increased, as you will see in the case of typhoid fever, although the amount of urea eliminated is excessive, and it is not until the fall of the thermometer and the renewal of the functions of the stomach and liver that the quantity of the sulphocyanide is augmented. Pointing in the same direction is also the fact that, as was before observed, the quantity of the salivary salt in acute rheumatism is not in proportion to the average height of the fever, so that from the data we possess we have no reason to conclude that the material from which the sulphocyanide is derived results from the destructive processes of the system. In addition to this, let me remind you that in the cases of granular kidney admitted with uræmic convulsions there was no large amount of sulphocyanide, but it increased as the patients improved in health; showing there is no connexion between the retention of the albuminous materials in the state of retrograde metamorphosis and the quantity of the salivary salt. I think, then, as far as we can at present see, the facts we possess seem to point to the conclusion that the sulphocyanide is derived from some substance separated from the peptones absorbed into the system from the digestive canal, and produced during the process (of the exact nature of which we are ignorant) by which these are converted into material fitted for the purposes of nutrition. This substance we have before seen reason to suspect is the taurocholate of soda, which is secreted by the liver and forms one of the constituents of human bile.

But if the sulphocyanide is only the ultimate product of the action of a number of secreting structures, such as the liver, duodenum (? pancreas), and the salivary glands, are we justified in expecting that its quantity can be accepted as a measure of the activity of the first of these alone? There can be no doubt that, as in the case of dyspepsia accompanied by sulphuretted hydrogen, an abnormal action of any of these structures may alter the amount of the sulphocyanide; and it is from feeling the force of this objection that I have trusted to averages rather than to isolated observations. By so doing, the statements have lost much in force, but they are, I think, more trustworthy for the purposes we have in hand.

The saliva of a person in good health varies but slightly, as regards the quantity of the sulphocyanide, at different times of the day, or from day to day. If secretion is very active, the colour with the iron is a little less deep; if, on the contrary, there is much dryness of the mouth, it is necessarily somewhat deeper, from concentration. It has appeared to me to be increased in persons in the habit of using alcohol in any form, and especially in those who consume malt liquors. Whenever, therefore, the salivary salt has been in abnormal quantity, I have advised these to be given up; and in most instances where the amount was deficient I have recommended either wine or some other form of alcoholic stimulant. In cases of excess of the sulphocyanide, I usually lessen the quantity of the animal food, and forbid soups and all fatty materials; when the opposite condition of the saliva is present, I prescribe as liberal a diet as the patient is able to digest. I have been often greatly assisted in the choice of an appropriate diet by the examination of the salivary secretion.

As regards the action of drugs, lead is the only one that has appeared to me directly to check the secretion of the salivary salt, but I have seen a temporary decrease produced by citrate of caffeine; but as the administration of it had been followed by nausea and vomiting, it is doubtful whether the change in the saliva may not have been produced by the sickness. The quantity of the sulphocyanide is always lessened by a long course of aperients, especially by salines, calomel, and podophyllin; but a single purgation, however brisk, seems to have little effect in this way. The alkalies, iodides, and bromides, in like manner, reduce the salivary salt; but all tonics, such as iron, quinine, and the vegetable bitters, have the opposite effect, probably by increasing the appetite, and thus augmenting the supply of albuminous material. Cod-liver oil seems to be especially efficacious in increasing the quantity of the sulphocyanide, but it rarely agrees where this is in excess of it.

The most accurate method of ascertaining the amount of the salivary salt is to obtain all the saliva the person is able to secrete in five minutes, adding to it the tincture of perchloride of iron in the proportion of one drop to a drachm, filtering this through a little cotton wool, and then to compare the colour with solutions of sulphocyanide of iron carefully graduated. The bottles containing the tests and those to be compared with them should be of exactly equal size, and those used by spectroscopists are best fitted for the purpose. I found that 320 milligrs. of sulphocyanide of potash added to 300 cc. of water containing 24 cc. of the tincture of perchloride of iron produced a colour eight times the strength of that which I adopted as the normal. This plan has, however, the disadvantage of requiring the tests to be replaced every six or eight weeks, as in that time the colour begins to fade. A better method is therefore a great desideratum. For ordinary use in practice I have been in the habit of using my own saliva as a test, and guessing the amount of increase or decrease as compared with it. In bringing before you this interesting subject, I must remind you that the facts I have adduced and the attempts to explain them are on a very different footing. The facts you can easily verify or disprove—only, in doing so, be careful to use the necessary precautions to avoid errors, and do not too hastily condemn the results of many years' experience. I cannot expect to have solved all the difficulties of such an intricate subject, for, as in the case of the thermometer, varieties must occur from the temperament of each person and the circumstances by which he is surrounded. As regards using the facts for practical purposes, let me remind you that, although the nutrition of a patient is a most important matter, it is not the only thing to be attended to, for circumstances may force you for a time to put aside its consideration and direct your attention to other structures, the abnormal condition of which are threatening his existence.

As regards the explanations of the facts we have been considering, they seem to me to be the most probable I can offer you, but it would be absurd of me to say they are necessarily correct. Let me remind you that physiology has as yet not offered even a plausible conjecture as to the occurrence of the sulphocyanide in the saliva, the uses it

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performs, or the materials from which it is derived. Nor is more known of the changes that the inflowing tide of nutriment undergoes before it is fitted to perform its part as a portion of the living animal, although we are sure a knowledge of this subject must be of the greatest interest both to the physiologist and to the investigator of disease. Physiology should ever precede and guide inquiries into all disordered functions, and it is only when it fails that pathology may venture to cast its more dubious light upon the darkened path. If I can be the means of attracting the attention of those better fitted than myself to elucidate the difficulties environing the whole of this intricate subject, I shall consider the labour I have expended upon these inquiries as amply repaid.

THE RECENT RESEARCHES IN CONNEXION WITH THE ETIOLOGY OF SCARLET FEVER.

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THE last link in the chain of evidence in favour of believing that the Hendon cow disease caused human scarlatina was afforded by the researches of Dr. Klein—that is to say, when it was taken for granted that these researches could be accepted without question. Indeed, assuming this evidence to be correct, and attaching it to the cogent arguments brought forward by Mr. Power, such a strong case was made out that the subject appeared to be almost beyond the region of controversy. The researches of Drs. Jamieson and Edington, of Edinburgh, which have just been published, have thrown a cloud of doubt over the evidence adduced by Dr. Klein. The Edinburgh research carries with it the weight of considerable authority, and, though somewhat incomplete, appears so careful that it cannot be overlooked. On the contrary, an impartial criticism is called for of the evidence brought forward on both sides.

In the Eighteenth Annual Report of the Local Government Board (1885-86, pp. 90-99) Dr. Klein describes in detail the course followed in his investigation. The effect of direct inoculation with the matter of the ulcers of the diseased cows first claimed attention. No result was obtained by inoculating ten guinea-pigs. In one out of four dogs an ulcer resulted, which healed on the tenth day. In four cows the places of inoculation became swollen, tender, and spreading; the marginal part showing vesiculation, and the centre formation of a crust. In from nine days to a fortnight these ulcers healed.

From these experiments Dr. Klein concluded that this disease of the cow was directly communicable from animal to animal. The question then arose as to the existence of any specific micro-organisms. Cover-glass preparations were made from the matter expressed from an ulcer: cocci, diplococci, and streptococci were discovered which did "not differ from those described in connexion with foot-and-mouth disease." In sections the same diplococci and streptococci were found in the contents of the superficial cavities as well as the depth of the epithelium. From the deeper parts of an ulcer tubes of nutritive gelatine were inoculated. In these media a growth of streptococcus resulted, which was "very similar to that presented by the streptococcus of foot-and-mouth disease." In gelatine tubes the streptococcus of foot-and-mouth disease is a little faster in its growth, and the component granules are a little more distinct. Nevertheless, Dr. Klein adds that in some tubes of both kinds of organisms in gelatine and in agar-agar the general appearances could not be easily distinguished. Only by one test can the organisms be readily distinguished—namely, by the different result obtained by cultivation in milk. In form, mode of division, branchings of the chains, and in the presence here and there in the chain of a large element amongst the smaller ones, the organisms of the Hendon cow disease are admitted by Dr. Klein to hardly differ from the description he was preparing of the streptococcus of foot-and-mouth disease. These points are entered into in detail to first of all correct an idea, which is very prevalent, that the so-called streptococcus of scarlatina is an organism in its morphology and characters on cultivation, [illegible] *markedly* in these particulars from other organisms viously described. This idea has doubtless arisen interpreting the statement of Dr. Klein that the of scarlatina "in its mode of growth on nutriti on agar-agar mixture, on blood-serum in broth and proved very peculiar and different from other micrococcus hitherto examined."[1]

The next stage in the inquiry involved the st effect of inoculating these artificial cultivati calves were inoculated; one died and the other In neither of these cases was a "real ulcer" prod the post-mortem appearances recalled to Dr. Klein human scarlatina. In the blood from the heart calves a few diplococci and streptococci could b and cultivations were made from the blood in t taining nutritive agar-agar. A growth, it is st obtained of a streptococcus which was in all identical with the streptococcus that had been emp inoculation. We are not informed in what per the tubes the streptococcus grew, or whether organisms appeared in any of the tubes. How the statement that only diplococci and a few st were observed, we may fairly conclude that the re microscopical examination of the blood and of the o was to reveal the fact that *only* diplococci and st were to be found in the blood of an animal inocul the Hendon cow disease. No plate-cultivations have been made to ascertain whether the diplococ be grown apart from the streptococcus, or whet only a phase in the life-history of the streptoco Klein apparently takes this for granted, and conclu these experiments that the streptococcus is ident the virus of the cow disease. From the experim dence, we may conclude safely that this streptococc mately associated with the disease in cows, but that the same organism was responsible for the human scarlatina lacked at this time any exp corroboration. The inoculation of a known milk into the human subject was necessarily wanting there was obviously no distinct proof, so far, Hendon streptococcus could produce scarlatina in

Let us now examine the experiments which were to for supplying some further evidence in suppo theory just mentioned. An account of these ments will be found in the Proceedings of the Roya vol. xlii., March 3rd, 1887. Dr. Klein here recites sults obtained in the attempt to prove that human was dependent on the Hendon streptococcus; that, this streptococcus, when obtained from the human was capable of producing in the bovine species the ease as was observed in the Hendon cows and in experimented upon. The experiment consisted in cultivations in nutritive gelatine, nutritive agar-ag serum, and other media, from the blood of acute human scarlatina. Out of *eleven* acute cases, *four* positive results. In these four cases "several dro were used after the customary methods." Genera very small number of these tubes revealed, after tion of several days, one or two colonies of the strep

There is no record of any control tubes being i from the blood of persons in health and kept u same conditions of incubation. This may not appe essential, but if it had been done and no Hendon cocci had occurred in them, Dr. Klein would ha himself from the criticism that the scanty growth tubes inoculated from scarlatinal blood might po attributed to accidental contamination in the labora

There is, however, another possible explanation appearance of only a scanty growth in so small centage of the tubes—namely, that this strepto is only occasionally associated with scarlatina; that in fact, possibly be identical with the *streptococcus lorum*, which was isolated by Löffler from a diphtheria, and subsequently encountered by Heu Bahrdt in post-scarlatinal suppuration. This org inoculation in the lower animals was found to a rash, and to be very closely allied, if not identical, streptococcus which Fehleisen believed to be the erysipelas.

In further support of his conclusions, Dr.

[1] Proceedings of the Royal Society, March 3rd, 1887.

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announced the discovery of the Hendon streptococcus in condensed milk which was suspected of having caused an outbreak of scarlatina. This organism appears on inoculation to have produced a similar disease to the disease of the Hendon cows. Again, in the tissues and blood of a monkey which died, it is said, from drinking suspected milk, the same streptococcus was found. But the conclusion that the animal died of scarlatina was merely speculative, and the omission of any experiments with scarlatinal blood or with the cultivated streptococcus, to prove that a healthy monkey could suffer from scarlatina with the reappearance of the streptococcus, is a very grave one. One must admit, then, that the experiments with scarlatinal blood are not sufficient and complete enough to justify the belief that the contagium of scarlet fever is a streptococcus which will produce in cows the Hendon disease. And yet this is the key to the conclusions that have been arrived at, and it will therefore only be when Dr. Klein's experiments have been extended and confirmed that we shall be justified in saying that the cow disease is distinctly proved to be a cause of human scarlatina. Without this we are only justified, from a purely bacteriological point of view, in concluding that Dr. Klein has isolated and cultivated a streptococcus which is intimately associated with a peculiar eruptive disease of the udders and teats of cattle. That the contagium of scarlet fever may be conveyed by milk is an accepted fact, but whether this disease in cows is a source of the contagium is another question altogether.

Let us now pass on to consider the Edinburgh researches which were alluded to. In the latter end of October, 1886, Dr. Edington received instructions from Professor Chiene to make investigations into the desquamation and blood in human scarlet fever. These investigations were carried out with every possible practical precaution, especially with respect to avoiding contamination of cultivations. Several different organisms were isolated and studied. Two of these appeared to be especially important—the provisionally named *diplococcus scarlatinæ sanguinis* and *bacillus scarlatinæ*. The diplococci occurred in 45 per cent. of the inoculations from the skin; the bacilli in 30 per cent. of the tubes inoculated from the blood, and in every case, with the exception of one tube accidentally broken, in the tubes made from the desquamation—i.e., if taken after the termination of the third week and never before this; the bacilli also occurred in every tube made from scarlatinal blood if taken before the third day of the fever. These bacilli measure from 1·2 μ to 1·4 μ in length, and ·4 μ in width. They readily grow in nutritive jelly, and rapidly liquefy it, but without producing any characterstic appearance. The bacilli are, according to Dr. Edington, to be seen in cover-glass preparations of scarlatinal blood. Inoculation of the bacilli produced in rabbits erythema and fine desquamation, in guinea-pigs erythema and coarser desquamation, and in calves febrile symptoms and a rash followed by desquamation. Further, blood direct from a case of scarlatina injected into a guinea-pig produced also erythema and desquamation. It was an unfortunate omission that the direct inoculation of blood was not also made in a calf, as we should have been able to compare the results with the Hendon disease.

As another omission in this research I may mention the absence of any control experiments with the bacteria found on the skin in health. It may be urged that these have already been studied by Biszozero and by Bordoni Uffreduzzi. The latter found several cocci, a bacillus, and a saprogenic bacterium. The *bacillus epidermidis* measures 2·6 μ to 3 μ in length and ·3 μ in width. It grows but scantily in nutritive gelatine, and pure cultivations inoculated into rabbits and guinea-pigs produced no effect. This bacillus obviously differs very markedly from the *bacillus scarlatinæ*, but nevertheless it would have been much more satisfactory if these experiments had been repeated with a view especially to ascertaining whether there might not be another bacillus, though not met with by the Italian investigators, which would prove on cultivation and inoculation to be identical with the bacillus credited with being the contagium of scarlet fever.

Thus we have brought face to face independent observations on the contagium of scarlet fever, with the perplexing result that neither of the observers finds the special organism described by the other as the specific one. Dr. Klein found and cultivated his streptococcus by the "ordinary methods." A lack of knowledge of these ordinary methods can hardly be supposed on the part of Dr. Edington, which might account for his overlooking the streptococcus. On the other hand, it is evident that Dr. Klein never encountered in his researches the Edinburgh bacillus.

We must bear in mind, in connexion with this subject, that saprophytic organisms may occur in man, both in health and in disease, which produce very characteristic symptoms in the lower animals.

If they gain access to the circulation through some surface lesion, they may, in an advanced state of disease especially, escape disintegration and be detected in the blood and in the organs after death. Thus they may readily be mistaken for the specific organism, if there be one, of the disease in question. We may also find more than one organism associated with a disease as the result of a double infection. Kassowitz and Hochsinger found in the organs of children who had died of congenital syphilis streptococci, which were regarded as the result of *Mischinfection*. It is interesting also to recollect how commonly streptococci have been met with. In addition to those I have already mentioned, we must bear in mind the streptococci in purulent inflammations found by Ogston, Rosenbach, Krause, Garrè, Hoffa, and Biondi, the streptococci found by Weichselbaum in acute pneumonia, the streptococcus isolated by Nicolaier from earth, the streptococci found by Emmerich in the air, and, I may add, the streptococci found by Babes in the liver and kidney in two cases of yellow fever; in the liver, kidney, and spleen in a case of *fièvre typhoïde bilieuse*, and in inflammatory products consecutive to scarlatina, by Bokai and by Babes in joint affections after scarlatina, and by Charrin in septicæmia consecutive to anthrax in rabbits. In conclusion, it is obvious that the experiments which have been analysed must be repeated and extended before a definite opinion can be expressed; and as in addition to its pathological interest the inquiry involves a question of national importance, it is to hoped that a commission will be appointed. By testing the result of inoculating blood from human scarlatina direct into the calf and the monkey, and by repeating and extending the experiments of Dr. Klein and Dr. Edington, there ought to be no difficulty in dispelling the present contradictions.

ON LATERAL CURVATURE OF THE SPINE.

By RICHARD BARWELL, F.R.C.S.,
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LATERAL curvature of the spine is, it appears to me, a subject of increasing importance; because, if I am to judge by my own considerable practice in this branch of surgery, the victims of that condition are yearly increasing in numbers. The fact is in part to be ascribed to the greater pressure of school work, more and more carried on in writing, to which young girls are now subjected. Before, however, discussing the etiology and treatment of spinal curvature, it will be necessary to give some few explanations and definitions.

Lateral curves receive from the direction of their convexity the name of right or left, and they are termed dorsal or lumbar according to the region they affect. Most curvatures are double or S-shaped; but in some cases the upper, in others the lower, bend is the original evil, and is named primary dorsal or primary lumbar; the other curve, called secondary or consecutive, is an addition forced upon primary curvature probably by the necessities of balance. Other varieties, however, are not uncommon. Thus the whole spine may be bent either to the right or left in one long curve from top to bottom; and we occasionally meet with multiple curvatures—i.e., cases in which the spine is bent in a series of three or more sharp short curves, alternately to right and left. Combined with the bend of the spine is always rotation of vertebræ,[1] in such sense that the anterior faces of the vertebræ always look towards the convexity, and the tips of the spinous processes towards the concavity of the curve. This connotes that the transverse processes of the lumbar, those processes and also the ribs in the thoracic region, project abnormally backward on the convex side, and are too little prominent

[1] The contention of Nicoladoni and Hüter, that rotation as seen clinically and in the skeleton is merely an ocular delusion, is quite untenable.

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on the concave side of the curve; also that the muscles—more especially do I here refer to the erectors—no longer act symmetrically on each side of the mesian line, but unilaterally and in a false direction. But although it is true that in all cases of scoliosis the vertebra which has deviated most from the straight line is also that which has most rotated, curvature and rotation do not in different cases bear the same proportion to each other; but, on the contrary, the one or the other may be the predominant deformity in any given instance.

Theories as to the causes of these deviations are very numerous—more so, indeed, than can be here specified. Rather more than twenty years ago, when the first edition of my work on lateral curvature was published, I named most of them, and pointed out where they failed to account for the phenomena; also I showed that all these curves, and perhaps some examples of rickety scoliosis, are produced by one-sided muscular action. This view has, of course, met with a certain amount of adverse criticism, chiefly from those who assert that lateral curvature is due to certain postures. Such contention, as opposed to the theory of asymmetrical muscular action, is, however, a mere *logomachia*, for it must be evident that postures, except those assumed in recumbency, are the results of muscular

FIG. 1.



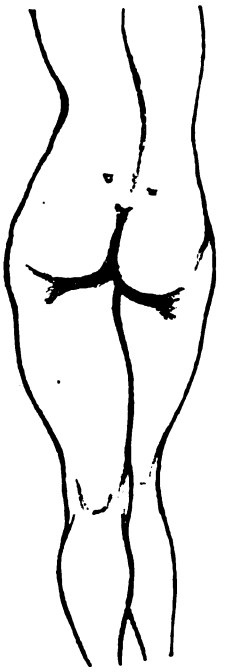
FIG. 2.



acts. Therefore, even after studying and giving full attention to the various objections that have been made, I again assert the correctness of my theory, including in the term—predominant action of muscles on one side of the body—any and every peculiar posture which such habitual predominance may maintain. Thus, in a young subject any one-sided predominance, be it respiratory, be it postural (either from mere habit or occupation), or be it from difference in the length of the lower limbs, may, and often does, produce a lateral curve and twist of the spine, which at first is an affection of soft parts only, but which after a time produces certain deformations of the bones. The exigencies of small available space will not allow me to go thoroughly into the many changes which are thus produced in the vertebræ; but, to place the matter as shortly as possible, I will ask the reader to picture to himself a rapidly growing girl between the ages of seven and fifteen, who has from one of the above causes acquired a constant, or nearly constant, side twist of the spine. It is evident, firstly, that the ligaments on the convex side will become lengthened, those on the concave side shortened, binding the vertebræ still more fixedly in their false position. Moreover, since the bones are still growing, more especially from the junction-lines of the epiphysial plates and from the neuro-central suture, it happens that the growth of that side upon which more weight is thrown will be diminished, of that upon which less weight is thrown increased; therefore the vertebral bodies become after a time wedge-shaped—thicker, that is to say, on the convex, thinner on the concave side of the curve; the pedicles also, and to a less extent the laminæ on the concave side, are shortened and generally stunted; in bad cases they are changed in direction, as are also the articular processes and their facets. Later on both the transverse and the spinous processes also are deflected and misplaced. The condition is now very different from that first described: the habitual curve has become what is termed permanent. I need hardly point out how much more grave is this latter condition, nor how important it therefore is to correct the earlier phase, while still merely habitual.

One of the most common forms of curvature whose etiology is the most simple is lumbar curvature, and this perhaps rather more commonly to the left; it originates in the vast majority of instances from pelvic obliquity—i.e., from one side of the pelvis lying on a lower level than the other, which means of course that the sacrum also slopes, and that the basis on which the spinal column stands is awry. Therefore the column itself, in order to preserve its and the body's balance, must be deflected or, in other words, the spine must curve. Pelvic obliquity may result from unevenness in length of the two lower limbs—a condition constantly arising from disease or injury, but very often found when no such causation can be traced. Such unprovoked inequality is much more common in girls than in boys, and usually, though by no means always, the right limb is the longer one. Fig. 1 is from a lad whose left limb is short, probably from early and transient infantile paralysis. An extreme case has been chosen in order to show more clearly the oblique position of the pelvis and the curve of the loins therefrom resulting. While Fig. 2 (which will be reverted to again in the subject of treatment) shows how a block under the foot compensating the shortness of the left limb will restore the horizontal position of the pelvis; and since this device straightens the spine, it also shows how long even an extreme habitual curve may by judicious management be kept in that phase. But pelvic obliquity is not always the result of uneven limb growth. It sometimes is produced by a mere trick or habit, such as many young girls acquire, of standing on one leg and letting the other fall loose with bent knee; and unfortunately the habit is to thus use always the same limb; the result is the same as though one were shorter than the other—viz., pelvic obliquity, as shown in Fig. 3.

FIG. 3.



Another condition has, I am convinced, considerable influence on the production of curvatures, especially as it occurs at a period of life when growth is rapid, when muscular development is in progress, and while yet the spinal epiphysial junctions are soft and active. This condition is due to the increased and increasing study now forced on girls chiefly through the medium of writing, and is in all probability the chief cause of a greater prevalence of lumbar curve to the left, which, as stated in my opening sentence, I have observed during the last ten years. Writing, of course, has no evil influence on the spine provided the pupil sit square and even on the chair and before the table, but very many sit so as to support the weight on the right ischium and right arm, the spine being bent (convexity to left) chiefly between the last lumbar and tenth dorsal vertebræ. Some girls even exaggerate this evil posture by pushing the chair back from the table and bending the body still more over.

Doubtless certain other more recondite causes of lumbar curve exist, such as constantly crossing, during sitting, the left leg over the right; also certain uterine and ovarian

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conditions causing uneasiness, for which relief is sought in some faulty posture of standing, sitting, lying, or all three. These are, however, exceptional, and rarely produce other than slight curves. In all curvatures primarily lumbar rotation plays a less prominent part than in dorsal curves. In certain cases it is very slight, in others more marked in proportion to the deviation, but is never so considerable or so important as it is in most cases of dorsal curvature. In another paper I shall describe the diagnosis and treatment of loin curvature.

Wimpole-street, W.

ON SOME

RESULTS OF CICATRISING PROCESSES IN THE NEIGHBOURHOOD OF THE PORTAL FISSURE.

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(*Concluded from p. 1227.*)

THE second case exhibits cicatrisation bringing about in the same way a different result; as will be observed, it has an additional connecting link with the first case.

J. T——, aged eighty, was admitted on May 25th, 1875. She stated that through the whole of her life up to the last winter but one she never had any illness; she then had what she called "the cold shivers" with slight cough. Her present attack commenced between four and five weeks previously with pain over the region of the liver, shooting through to the right shoulder blade; at the same time she became jaundiced. Her bowels were confined, the stools being light-coloured; and her urine was very dark. She had vomited three or four times during the last week, and her appetite had failed. On admission, she exhibited marked jaundice, but the pain had pretty well subsided. Her temperature in the axilla was 97°; pulse 68, radial artery senile; respiration 32; and tongue moist, but coated with whitish fur. Her bowels had not been open since the 23rd, when the stool, it was said, was pale; the urine was acid, sp. gr. 1017, very dark, and on testing showed the presence of bile pigment. She had some itching of her skin.

May 26th: She had slept well. The bowels had acted slightly, the stool being clayey. Her temperature was 97·4°, pulse 64, and respiration 28. The liver extended to near the umbilicus; it did not feel hard, and presented no inequalities of surface except at the extreme right, where there seemed to be a small hard nodule on the convex surface; it was near the edge, which could be distinctly felt all along, but was not thickened or rounded. There was apparent distension of the ascending colon, a feeling as of a firm tube extending vertically under the right rectus muscle.—28th: She had had good nights, and her appetite was improved. When she had taken a little wine that was ordered she said it gave her pain in the stomach. She vomited once in the evening.—June 1st: She had had no further sickness, and had no pain whatever. She was sleeping well and taking her food well. Her temperature was 97°, pulse 56, and respiration 24. A little brandy-and-water, which was substituted for the wine, she said she could not get on with.—15th: She had had some bronchial catarrh the last few days. Her bowels were open about once daily; the stools had continued clayey, but were now of a slate colour. She passed upwards of thirty ounces of urine in the twenty-four hours. The jaundice was much as before.—20th: She had vomited several times to-day.—25th: There had been no return of vomiting. Her cough had continued troublesome. She had no pain. Her temperature was 96°, pulse 72, and respiration 32. Her bowels were open daily, the stools being still slate-coloured. The jaundice was much as before.—26th: About 3 A.M. she began to vomit black coffee-ground-like matter. At 9 this had amounted to upwards of two pints. She had no pain, but felt exhausted; her pulse was 116 and very feeble. There was a little tenderness on pressure in the epigastric region, none elsewhere. In the vomited matters were numberless red blood-discs. The patient became much collapsed and died the same evening.

Necropsy, forty-four hours after death.—On opening the abdomen the liver presented nothing remarkable, except near the margin of the right half of the right lobe, in the situation where was observed the hard nodular feel during life. Here the convex surface exhibited an opaque yellowish white puckered look; in fact, the appearance of a large cicatrix with some amount of central depression. The texture was dense and indurated, and this condition was felt to extend through the entire thickness of this part of the organ. Underneath was a thick, tough, and pretty extensive adhesion of the transverse colon, so that only by the knife could the intestine be separated. Its lumen was slightly diminished in consequence, and on opening it there was found some puckering of the mucous surface, but no ulceration. On making a section through the indurated portion of the liver here, the same cicatricial character was observable. Corresponding somewhat in situation to the gall-bladder was a small cyst-like cavity that would contain about one fluid drachm; a little mucoid matter was in it; there was no trace of duct. The opaque tissue gradually and in a somewhat radiating manner passed into the surrounding hepatic texture. The capsule could not be separated over this part. There were also some diaphragmatic adhesions and thickening of the capsule, but nowhere else in the organ was there any appearance similar to that described. The hepatic duct, as it issued from the liver, was quite pervious; so also was the common bile duct at its entrance into the duodenum, but even a No. 1 catheter would not pass through the latter. The liver weighed 40 oz.; its parenchyma generally was coarse. No gall-stone was found anywhere. The stomach was considerably dilated. It contained a quantity of thin melanic fluid like what had been vomited during life. Near the small curvature on the posterior wall, but not so near the pylorus, was a largish ulcer, which reached to the peritoneal coat, and was distinctly terraced. Just within its margin, which presented no thickening, was the open mouth of an artery, evidently a branch of the coronary. The kidneys were somewhat granular; the two together weighed 6 oz. Nothing important was found elsewhere.

Now, the cicatricial appearances in this woman's liver had *primâ facie* very much the characters of a syphilitic lesion; I was disposed, however, to think that they were due to an old suppurative inflammation of the gall-bladder, perhaps connected with gall-stones, which had discharged by a fistulous opening into the transverse colon. Be that as it may, the origin of the cicatricial tissue does not so much concern us as its presence, and its presence in quantity, in the substance and on the under surface of this part of the organ; though here, as in the case of A. M——, the products of adhesive local peritonitis were clearly more or less blended with it. Caught apparently in one part of its course within the fibrous bands of this contracting tissue, the common bile duct became constricted, and jaundice ensued. As to the ulcer in the stomach, we may remark in passing that possibly it owed its origin to arterial degeneration, which is recognised by authorities as a cause of gastric ulcer in old people. The same condition might also explain how it was that the hæmatemesis was not of that florid and instantaneously fatal character that the size of the gaping artery would have led one to expect.

The products of adhesive inflammation have been above referred to as having had a share in bringing about the pathological events under consideration. These products and cicatricial tissue, we know, are histologically closely allied forms of fibrous connective tissue, and they possess alike the property of contraction. In the cases before us the share taken by the inflammatory products was a subordinate one; but in some instances, as, from the facts just noticed, and from our acquaintance with the operation of such products on a larger scale elsewhere, we might well anticipate, they show themselves capable *per se* of inducing similar results. "Now and then the fibroid tissue developed in the portal fissure from the products of inflammation produces constriction of the bile duct or portal vein."[1]

It is not unimportant, I think, to discriminate between cases such as we have been considering and those where vessels, ducts, &c., are compressed by the gradual stuffing by adventitious products of the spaces wherein they run. Thus, in a case of lymphadenoma of the retroperitoneal glands under my care, "the disease had attacked also the portal glands, and a considerable mass was found deep between the liver and stomach, in which the vessels in the portal fissure were embedded. On cutting transversely

[1] Murchison on Diseases of the Liver, 3rd edition, p. 310

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through the mass, the common bile duct, the hepatic artery, and the portal vein were divided, their mouths being quite patulous and their calibre undiminished."[2] The tissue here possessing no marked contractile property, the vessels, though embedded in the same, did not suffer. At a further stage of the growth, of course, compression would ensue, with narrowing or occlusion of one or more vessels, according to the resistance they might respectively offer. But then the *modus operandi* would be that of a pretty uniform constriction, comparable to the slow tightening of a ligature. Not so, however, in the class of case dealt with in this paper. We use the terms *contraction* and *constriction* in discussing the same, but, as has been pointed out, the contraction of cicatricial tissue in cases of this kind is, strictly speaking, a *concentric retraction*, a shrinking which takes place in all dimensions, and is directed in radial lines towards a centre or centres which are determined by the conditions of the original lesion, and the foci, one or more as the case may be, of tissue destruction. Hence the effect on vessels, ducts, &c., traversing the area of cicatrisation, is rather an irregular traction or torsion than a uniform constriction as in the former instance. And hence also it happens, that in the same cicatricial area, while one vessel is implicated, another is not at all so, or only in a minor degree.

Bath.

THE RELIEF OF THE MORPHIA CRAVING BY SPARTEINE AND NITRO-GLYCERINE.[3]

BY OSCAR JENNINGS, M.D., M.R.C.S.,
ELECTRICAL PHYSICIAN TO THE CLINIQUE OF ST. ANNE.

IN a note on the Condition of the Pulse in Morphinomania presented by Professor Ball and myself at the French Academy of Sciences,[4] we discussed the mechanism of the morphia craving, and showed that during the period of privation there is ischæmia of the general circulation. An injection of morphia administered at this time causes a disappearance of the psycho-somatic suffering which constitutes the craving, and is followed by a restoration of the pulse. In a second communication to the Academy of Medicine[5] we stated that we had found, moreover, that the morphia craving can be appeased by the use of other medicines having the property of restoring the pulse in a similar manner. We had experimented extensively with two agents of the kind on patients at Laennec, St. Anne, and in our private practice. The first of these is sparteine. "We thought it would be preferable to try heart tonics, and strengthen the action of this organ in moments of weakness. To this end we have employed sulphate of sparteine, which fulfils most of the conditions, and can easily be administered by hypodermic injections. We watch for the moment of weakness as indicated both by *plateau* in the sphygmographic tracings and by the intimate sensations of the patient. At this moment we administer an injection of from two to four centigrammes, which may be repeated when necessary, and at the expiration of a few minutes we see the pulse strengthen and the craving disappear. To use the words of one of our patients, 'the medicine gives heart.' This expresses in familiar language a physiological truth of which the sphygmograph confirms the absolute exactitude..... Another medicine which procures a passing relief of the symptoms is nitro-glycerine. Its effects, very similar to those of sparteine as regards the point in question, are at the same time much more rapid and much more ephemeral."

Since the preceding lines were written I have administered sparteine and nitro-glycerine repeatedly in fourteen different cases, and I feel convinced that in these agents, properly administered, we possess a means which will enable any morphia *habitué* earnestly desirous of leaving off his intemperance to carry the process of weaning to a successful issue. All morphia *habitués* have from time to time a maudling hysterical desire to give up the practice, but this vanishes at the first feeling of discomfort. For such cases there can be no suppression without restraint, and a result so obtained is very unsafe for the future. Deprived of their morphia in an asylum, patients are not thereby cured of the craving. They have been forced by a compulsion, which has provisionally taken the place of their will, and a morphinomaniac is no more cured of his passion by this forced deprivation than is the dipsomaniac by abstinence from alcohol during a certain time. A relapse generally occurs as soon as the patient has recovered his liberty. But there are morphia *habitués* who honestly loathe their thraldom, and who would do anything short of the impossible to break through it. Very few medical men seem to realise the nature and intensity of the suffering which accompanies the privation from morphia, and upon which they are occasionally called upon to advise. A gentleman, whose case I related in the *Encéphale of* March, 1887, and who was cured of the habit by inhibition of the craving, was informed by some of the consultants he had seen that the confirmed habit of morphia was incurable. I believe it is the writer of the section on Morphinism in Ziemssen's Cyclopædia who is responsible for this opinion. But the greater number of his previous advisers had been of opinion that all that was necessary to cure him of the habit was for him to "throw away his syringe and solution, and just make up his mind not to get any more."

Now, the truth lies between these extremes of theoretical error and practical ignorance. Some morphia *habitués* would have sufficient resolution to wean themselves of the practice of the terrible distress resulting from privation if this could be alleviated in a certain measure; and it is to these that I refer when I say that those who are earnestly desirous of breaking off the habit can be enabled to do so by the help of sparteine and nitro-glycerine. To be properly administered the remedies mentioned must only be used when really needed, and should not therefore be at the patient's disposal. The only results I have ever seen of giving succedanea to morphinomaniacs has been to complicate the first disease by a second, and very often a much more dangerous, intemperance. And just as I have seen morphia *habitués* acquire an additional craving for alcohol, chloral, cocaine, and other drugs of the kind, so I think it quite possible that the reckless and uncontrolled administration of the medicines I recommend may give rise to an artificial desire for them—a possibility foreshadowed by Dr. Murrell in his work on Nitro-Glycerine in Angina Pectoris. Given at the right moment, and in suitable doses, sparteine and nitro-glycerine, either separately or together, form an admirable means of relieving the morphia craving, and the only modification I have to make in the statement quoted above is with reference to the intensity and duration of the action of nitro-glycerine. Further, experience has taught me that the effect of nitro-glycerine is most satisfactory and persistent in those cases where there is a predominance of the "yearning" over the "craving"—that is to say, in which the psychical symptoms are more distressing than those of a somatic order. When, on the other hand, there is more physical craving than morphine-nostalgia, as I have termed it, the use of sparteine, which is a tonic to the circulation, gives better results than nitro-glycerine alone, which I take to be nervo-inhibitory. What, however, I would especially insist upon in the present note, is that, in the simultaneous administration of the two drugs, the one by subcutaneous injection and the other placed upon the tongue, we possess a perfect remedy for the morphia craving in its double psycho-somatic modality. Some patients, as would naturally be expected, say that one or both drugs fail to give them relief; but, as far as my experience goes, these are persons who have no real intention of giving up their morphia. Indeed, all they desire is to be allowed to indulge without interference in their vice. But those who have retained sufficient will to resist the first promptings of a capricious impulse will find that the true morphia hunger can be entirely appeased by sparteine and nitro-glycerine taken when there is a genuine necessity. The subjoined sphygmographic tracings show better than a lengthened description the relative values of the two remedies.

Tracings Nos. 1 and 2 were taken from a patient at Laennec, whose case is partially reported in my little work on Morphinomania,[6] No 1 being before, and No. 2 after, an injection of morphine; the first shows the state of suffering, the second that of satisfaction. No. 3 is a tracing of the same pulse after a hypodermic injection of sparteine instead of morphine. The patient having stated that the sparteine

[2] Extract from the post-mortem notes.

[3] Read at the Société Médicale de l'Elysée of Paris.

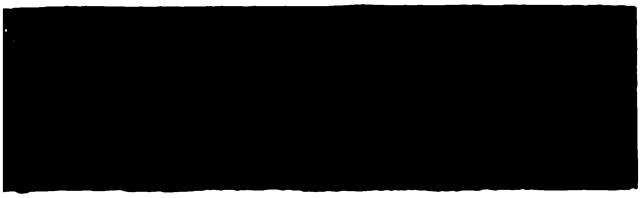
[4] Des Modifications du Pouls dans la Morphinomanie. Comptes Rendus de l'Académie des Sciences. March, 1887.

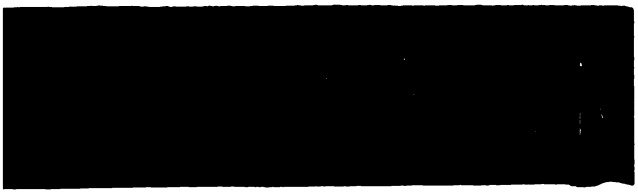
[5] Considerations sur le Traitement de la Morphinomanie. Bulletins de l'Académie de Médicine. March, 1887.

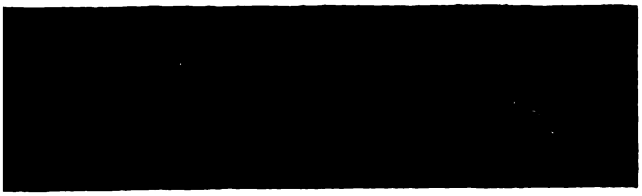
[6] De la Morphinomanie, 2nd edition. Baillière, Tindall, and Cox, 1887.

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Sphygmograms illustrating the cases.









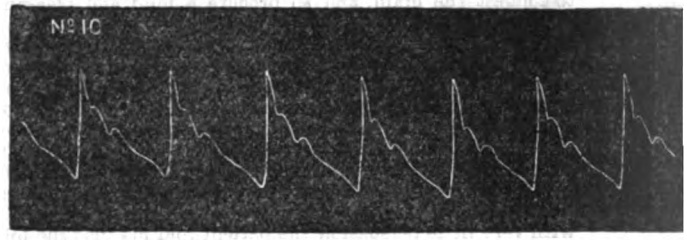


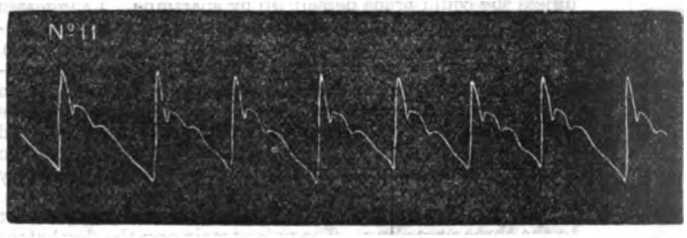


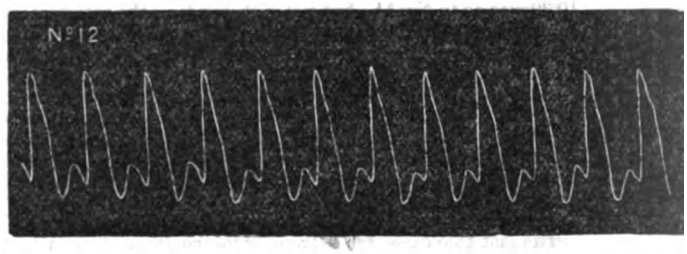














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"gave her heart," the morphia was suppressed, and she was given two grains per day of sparteine instead of half a grain of morphia, to which she had decreased from eight grains, to which she had been accustomed for seven years. Thanks to the sparteine and occasional faradisation, she got over the craving in three weeks.

Nos. 4, 5, and 6 are the sphygmograms corresponding to different degrees of morphia hunger in a young medical man, who had taken morphia for insomnia six years previously, and had become accustomed to twelve grains per day. The whole suppression took less than a month, and fifteen days after the last injection of morphia his pulse kept up by nitro-glycerine was as in No. 7. A few days later he was entirely cured, and took no substitute whatever. In a letter to me on the effect of the different medicines employed, he says: "Antipyrin congested the brain the first time. At the third or fourth trial it produced no further effect. Its action diminished progressively. As to any relief it procured, it was very trifling. What did procure me the greatest relief, and which replaced by its effects the morphia, was without doubt nitro-glycerine. In a state of craving, at the time of my worst sufferings two or three drops, taken every three or four hours sufficed to remove all agitation and restlessness, and perhaps also perspiration. I will not be positive about this last point, as I only remarked it once. As regards the nitro-glycerine, its action increased progressively. I tried the tablets of nitro-glycerine, which had the same effect as the solution, and at the present moment it suffices for me to take a single tablet to congest the brain, and so procure a mild and pleasant intoxication resembling that of morphia."

The next three tracings relate to a woman whose pulse during her cure at St. Anne presented the truncated appearance which constitutes the *plateau* of morphia craving. The administration of sparteine had enabled her to be weaned of morphia without difficulty. Six weeks after the cessation of the treatment I took her pulse with a view to ascertain whether her habit, which was of ten years' duration, had left any permanent injury to the vascular tonicity. The tracing No. 8 indicated that the circulation was unsatisfactory, and with very little persuasion the patient told me that she felt uncomfortable about the heart, and would certainly be obliged to resort to morphia when she recovered her liberty unless she could brace herself up by sparteine. I suggested that she should try nitro-glycerine instead, and placed successively four drops of the 1 per cent. solution on her tongue. Five minutes afterwards she said she felt much more comfortable, and the pulse showed an improvement as in No. 9. She still maintained, however, that something more was needed to keep her away from morphia, so I injected two centigrammes of sparteine, with the effect seen in tracing No. 10, the patient expressing herself perfectly satisfied.

The last three sphygmograms form an interesting contrast to the three preceding. The pulse tracing on the day before having been found by the clinical clerk to present my *plateau*, Professor Ball had ordered sparteine. The pulse at 10.30 was as in No. 11; but notwithstanding the satisfactory condition of the circulation, the patient was in a state of restlessness and enervation, unable to keep still, and crying hysterically. I gave her two drops of nitro-glycerine solution. The effect upon the circulation was greater than in any case I have seen; but although the hyperdicrotism made me feel a little uneasy, the patient was thoroughly comfortable and became quite cheerful. I remained with her an hour and a half, during which time she was calm and tranquil, and before leaving took a tracing, which showed that the arterial tension was entirely restored. (See No. 13.)

The last two cases are extremely instructive. The patient whose symptoms were associated with a condition of the circulation shown in Fig. 8 has a bodily malaise depending partly on an embarrassed action of the heart. Her urine contains albumen. Here the nitro-glycerine was insufficient, and it was not until the condition of the heart was modified by sparteine to that shown in Fig. 10 that she expressed herself relieved. The woman whose pulse is recorded in Fig. 11, on the other hand, was not, as far as physical investigation could discover, suffering from the effects of ischæmia, and yet her distress was painful to witness. Here the successful remedy was nitro-glycerine.

To sum up, the morphia craving is a complex suffering, at the same time cerebral and peripheral, each factor of which can be relieved by appropriate treatment. The organic distress may be soothed by sparteine, which recovers the heart in the same way as a hypodermic injection of morphia. The cerebral craving (or yearning), often the more painful of the two, corresponds to a want of habitual congestion. This can be arrested by nitro-glycerine, which gives rise to the same kind of sensation in the morphia *habitué* deprived of his stimulant as the hypodermic injection. It acts probably by inhibition *à distance* rather than by essential sedation of the nervous centres.

Paris.

CORKAGE OF THE URETER WITH CLOT IN CASES OF ADVANCED CANCER OF THE KIDNEY.[1]

BY E. HURRY FENWICK, F.R.C.S.,

ASSISTANT-SURGEON TO THE LONDON HOSPITAL, SURGEON AND PATHOLOGIST TO ST. PETER'S HOSPITAL FOR URINARY DISEASE.

I HAVE long been strongly impressed with the necessity for adopting some measure, other than excision, in the treatment of cancer of the kidney. The statistics of nephrectomy show the futility of removing a kidney thoroughly attacked by carcinoma. Cases such as these are often met with in practice, but sometimes there is superadded a profuse and ungovernable hæmaturia—a hæmaturia which prostrates our patient, defies our remedies, and which slowly, always surely, reduces that short term of life allowed by the disease to a minimum. In casting about for some conservative measure to arrest the hæmorrhage, without attempting to remove its source, I bethought me of the skilful manner in which the ureter is sometimes spontaneously plugged with clot, obstructed by growth, or pressed upon and rendered impassable by the enlarged lower segment of the kidney; the hæmorrhage being thereby suddenly and permanently arrested. Post-mortem examination of these cases shows the pelvis to be distended with a large firm blood clot, and the canal to be impervious. It seemed to me to be within the range of possibility to imitate this, by inducing clottage of the blood in the ureteral canal, and it did not seem beyond the range of probability that the mere pressure of the distended pelvis upon the renal vessels would restrain slightly the flow of nourishment to the neoplastic growth, and thus reduce its rate of increase. The course I proposed to myself to adopt in a suitable case was to introduce into the bladder some form of instrument which would allow of the vesical orifice of the ureter being nipped between it and the compressing finger in the rectum. The instrument I decided upon was my ureter aspirator,[2] which can be made to embrace either ureteral orifice without trouble. Although a good many cases of hæmaturia pass through my hands every year, yet it was not until 1885 that a case came under my care at St. Peter's Hospital which seemed to justify such an attempt being made. I submit this case not for criticism, for I regret to say it is incomplete; although its clinical aspect is strongly in favour of the conclusions I have drawn being correct, yet its pathological history is wanting, and without post-mortem evidence its accuracy is questionable and its value greatly diminished.

J. L——, aged fifty-three, had been healthy up to July, 1884. On the 31st of that month he received a severe blow upon his chest which caused him an hour afterwards to pass much blood in his urine. From that time he continued passing blood in large quantities and at irregular intervals for thirteen months. The hæmaturia was often apparently causeless in its origin, always painless in its course, and generally beyond the control of drugs. It used to stop gradually, only to reappear suddenly in a few days' time. Thirteen months after its onset he applied for relief at the out-patient department of St. Peter's Hospital, bringing with him a bottle of scarlet hæmaturia. He was at this time suffering from some pain in the right kidney, and had lately lost flesh and strength. He was very anæmic. There was no renal tumour to be felt, although pain was experienced on pressure in the region of the right kidney. No vesical or prostatic cause for the hæmorrhage was found. I explained the case to him, and, finding the hæmaturia unaffected by drugs, I advised attempting to close the right ureter with a clot, and failing

[1] Abstract of a paper read before the Medical Society.
[2] Vide THE LANCET, September 18th, 1886, p. 529.

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this to excise the kidney. He consented to the former operation. After carefully washing out the bladder I injected two drachms of a 20 per cent. solution of cocaine. I then introduced my right-sided ureter aspirating catheter, and turned it a quarter of a revolution on its long axis, so that the lateral eye of the instrument overlay the orifice of the right ureter. I now made a little counter-pressure per rectum with my left index finger, and exhausted the air in the catheter by means of its evacuator ball. On removing the catheter ten minutes after I found a large white clot, which I believed had been sucked from the ureter into the eye and shaft of the instrument, and I concluded that more of the same clot was collected in the lower third of the ureteral canal. Had I plugged the canal? With the exception of a little bleeding that night, which I believed came from the bladder instrumentation, *he had no recurrence of the hæmorrhage up to the date of his death six months after;* and this although the hæmorrhage for the previous fourteen months had been recurrent and profuse. The patient now rapidly picked up in health, weight, and strength. In three months' time, however, he relapsed, and I found, what I had often examined him for—viz., a right-sided renal tumour. The pain in the same region became worse, and in a month or two he wasted considerably, and finally died exhausted six months after my interference.

I had the opportunity of examining the patient shortly after the operation with Dr. B. Ward Richardson, and although there was no disagreement as to the site of the hæmorrhage, our opinion as to the nature of the lesion differed. This we expected to reconcile by post-mortem examination, a privilege which was, however, most unfortunately denied us. The case, therefore, must stand upon its clinical merits, but sinks in value in comparison with the question of the advisability and possibility of closing the ureter in cases of which the foregoing is an example. If it be possible, is it surgical? The answer to that question is ready but not complete. The interference is *imitative*, and is based upon pathological ground. It has the advantage of being painless, and though palliative it is strictly conservative. Its probable objection rests in the formation of a renal blood tumour, for there is but little renal substance left to form a hydronephrosis. Usually the hæmorrhage is directly into the pelvis, and the fibrous wall of the pelvis is rarely attacked, so that its integrity will generally prohibit the formation of a large blood collection.

Old Burlington-street, W.

TWO CASES OF

ACUTE COMPLETE INVERSION OF THE UTERUS AFTER DELIVERY.

BY MONTAGU HANDFIELD-JONES, M.D. LOND.,
OBSTETRIC PHYSICIAN IN CHARGE OF OUT-PATIENTS TO ST. MARY'S HOSPITAL, AND LECTURER ON MIDWIFERY AND DISEASES OF WOMEN AT ST. MARY'S MEDICAL SCHOOL.

CASES of acute complete inversion of the uterus are fortunately rare, and recovery after this accident is by no means constant: the notes, therefore, of the following cases may prove interesting, especially as they illustrate two varieties in the causation of this obstetric complication. The report of the second case has been kindly forwarded to me by my friend Mr. Ambrose Fairles, in whose practice it occurred.

CASE 1.—Mrs. I——, aged twenty-four, has been married three years, and has passed through two normal confinements. Naturally delicate, her health lately has been much depreciated by trouble and scanty feeding. In the present instance labour was attended with severe vomiting and diarrhœa and great exhaustion, but the birth of the child took place without further complication. The midwife states that, as after ligature of the cord and the removal of the infant the placenta was found to be lying in the vagina, she removed it at once, using for this purpose two fingers in the passage and gentle traction on the funis. "A few minutes" after removal of the placenta the patient complained of feeling unwell, and then fainted; free hæmorrhage occurred at the same time. Both the midwife and the mother of the patient were positive that no force was used in extracting the placenta, also that the sudden onset of alarming symptoms took place some minutes after the removal of the secundines. On arriving an hour later, the patient was found in a state of intense collapse (though brandy with ergot had been freely administered), and the uterus was completely inverted. In restoring the organ, no difficulty was encountered while replacing the lower segment; this unrolled easily and resumed its normal position, but the fundus gave great trouble: as fast as one portion was pushed up into position with the finger tips and then left in order to deal with another section, so certainly did the part last replaced reinvert. At length, under persistent pressure with the whole of the upper part of the right hand, the fundus reinverted with *a distinct snap*, and the uterus at once retracted, expelling the hand. Relief was immediate, and the symptoms of collapse disappeared with striking rapidity. The patient was up on the tenth day, and has lately passed through another confinement without mishap.

CASE 2.—Mrs. E——, aged thirty-four, the wife of an agricultural labourer, has passed through four confinements without any mishap. In the present labour everything went smoothly at first: the vertex presented, the pains were strong, and labour was rapid. As soon as the head had cleared the perinæum, the body of the child followed without delay, and then immediately the placenta appeared at the vulva, still adherent to the fundus uteri. The cord measured fifteen inches in length, and was unusually thick and strong. The shock to the patient was intense, as evidenced by the collapse, fainting, and death-like pallor. Recognising the nature of the complication, Mr. Fairles at once tied and divided the cord, and then, having quickly peeled off the placenta (a proceeding attended with much hæmorrhage), prepared to return the inverted uterus. Having grasped the mass of the fundus with the hand, no difficulty was experienced in pushing it upwards; but when the process was a little more than half completed, the fundus suddenly left the operator's hand and with *a distinct snap* resumed its normal position. As soon as the fundus had been restored the patient rallied, and expressed herself as feeling immensely relieved. No further difficulty ensued, and recovery was rapid and complete.

Causation.—The cause of inversion in this latter case is sufficiently evident: the placenta remaining adherent, the shortness of the cord rendered inversion of the uterus on snapping of the funis inevitable. In the first case the reason for the accident is more difficult to assign; there is no ground for supposing that it was in any way due to unskilful removal of the secundines, as this was accomplished with great care, and as, moreover, serious symptoms did not set in until some minutes had elapsed. The most probable explanation is the following. The tissues of the patient, exhausted by starvation, diarrhœa, and vomiting, were in a toneless, flabby condition, and the uterus was thus prepared for inversion after the method described by Dr. J. E. Taylor, which consists in a rolling out of the cervix with gradual implication of the body and fundus. As long as the placenta remained in the vagina the lower uterine segment was to some degree supported, but with the removal of the afterbirth all obstruction to the completion of the accident was taken away, and in a few minutes complete inversion had become established.

Reposition.—In neither case was any obstacle to reposition offered by the tissues of the cervix or lower uterine segment. In Case 1 the fundus was the only part which proved difficult to replace; it seemed to be the only part of the uterus which maintained a degree of retraction, and the existence of this latter is an argument against the hypothesis that the process of inversion could have commenced at the fundus. In Case 2 one feature is full of interest—viz., the readiness with which the fundus *reinverted itself* after once Mr. Fairles had started the process. Cases of spontaneous restoration of a completely inverted uterus have been observed by various physicians, and the behaviour of the viscus during reposition in Case 2 goes far to confirm the correctness of such observations.

Montagu-square, W.

AT the annual meeting of the governors of the Dundee Royal Infirmary on the 13th inst., satisfactory reports were presented and adopted.

THE members of the medical staff of Jervis-street Hospital, Dublin, on the 18th inst. entertained a number of the friends and supporters of the hospital to breakfast. The visitors were afterwards conducted over the institution.

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A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum allorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. MARY'S HOSPITAL.

A CASE OF GALL-STONES IN THE CYSTIC DUCT; CHOLECYSTOTOMY; RECOVERY.

(Under the care of Dr. BROADBENT and Mr. PAGE.)

THE operation of cholecystotomy has not yet been performed in so many cases as to deprive of considerable interest the record of a successful case. The following is an example of the operation in which, after previous tapping of the gall-bladder, with only temporary relief and with no ill effect to the patient, stones were removed from the cystic duct which without surgical aid could not have been passed. The after progress of the case was all that could be desired. For the notes we are indebted to Mr. P. A. Lloyd, house-physician.

S. W——, aged thirty-three, was admitted under Dr. Broadbent on Jan. 24th, 1887, complaining of a tumour in the region of the gall-bladder. In April of last year she had an attack of what appears to have been biliary colic, though she had no jaundice, and did not pass a gall-stone per rectum. Shortly after this attack the swelling was first noticed, though it caused no inconvenience till Christmas, when the patient began to feel a dragging pain in the right side, especially after exertion. No further history of colic, nor any history of jaundice, could be obtained, but the patient said she was subject to "bilious attacks" from time to time.

On admission, there was a swelling in the region of the gall-bladder, about the size of an orange, which was smooth, hard, and freely movable. No enlargement of the liver could be discovered.

On Feb. 13th six ounces of slightly opaque fluid were drawn off by aspirator. The fluid was faintly alkaline, sp. gr. 1008, and contained about one-tenth albumen. No hooklets or echinococci could be discovered on microscopic examination. After the tapping the tumour could no longer be felt, and the patient left the hospital ten days later, free from all symptoms. On March 17th she was readmitted, as the cyst had again filled; she had felt the pain in her side during the previous week. On March 31st the tumour was again aspirated, and eight ounces of fluid were drawn off, of a pale green colour, faintly alkaline (sp. gr. 1010), and containing mucin and about one-sixth albumen. Microscopic examination showed only a few blood-corpuscles, small masses of yellow pigment, and a few epithelial cells. On April 3rd the cyst had once more refilled to its former size. Dr. Broadbent now considered that the tumour was a distended gall-bladder, and not a hydatid, as had at first been suspected. Mr. Page was therefore asked to perform cholecystotomy.

On April 9th, chloroform having been administered, Mr. Page made a vertical incision two inches long, commencing half an inch below the ninth costal cartilage on the right side and extending down to the level of the umbilicus. The abdominal walls having been divided immediately external to the rectus, and the peritoneum opened, the gall-bladder and the edge of the liver were seen. There were some slight recent adhesions between the gall-bladder and the parietal peritoneum. The cyst, having been carefully examined, was then aspirated, and ten ounces of purulent fluid drawn off. The empty gall-bladder was now seized with forceps and incised; its cavity was wiped dry with sponges and then explored by the finger. A stone about the size of a walnut was felt in the cystic duct, and removed with a pair of small lithotomy forceps. Two minute calculi were afterwards detected, and were removed on a sponge. There was no discharge of bile-stained fluid after the removal of the calculus. The walls of the suppurating cyst (i.e., the distended gall-bladder) were now fixed by catgut sutures to the abdominal wall, and a large drainage tube was passed as far as possible towards the cystic duct. Wood-wool pads formed the dressing, and perchloride of mercury was the antiseptic used. The fluid removed had a specific gravity of 1012, was alkaline, and contained a large quantity of pus. When the pus had settled the supernatant clear fluid contained about half albumen, and gave Gmelin's and Pettenkofer's tests for bile-pigments and acids.

The wound in the gall-bladder healed in five days, and that in the abdominal walls in about five weeks. There was neither pain nor rise of temperature after the operation, and no bile was discharged through the wound. The patient left the hospital on May 17th, with no trace of tumour, and quite free from abdominal discomfort, and there has been no reappearance of the swelling up to the present time.

HAMPSTEAD HOME HOSPITAL.

CHRONIC RENAL ABSCESS; ABDOMINAL NEPHRECTOMY; RECOVERY.

(Under the care of Dr. HEATH STRANGE and Mr. EDMUND OWEN.)

E. M——, widow, aged thirty-seven years, a domestic servant, was admitted Feb. 15th, 1886. Her father and two of her brothers had died of phthisis. As a young woman she had been the subject of hæmaturia, and during married life her urine had contained blood from time to time, but from 1877 to 1886 the urine had been, so far as she knew, quite normal. Twelve months before admission she found that she got easily tired after exertion; although the urine was normal, she had frequent desire to pass it. The chief cause of her coming into the hospital was the pain which she had in her legs (which were much wasted). She complained also of great debility—indeed, she was unable to stand. Dr. Strange observed a tumour in the left side of the abdomen, which, the patient said, had increased rapidly in size. It appeared to be about the size of a cocoa nut, and was evidently renal in origin. She bore physical examination well, but fomentations had to be occasionally applied over the region of the tumour for the relief of pain. She lay prostrate in bed. She passed her urine but twice in the twenty-four hours; it averaged twenty-eight ounces, specific gravity varying from 1010 to 1028; it contained neither pus, blood, nor albumen; in fact, during her stay in hospital it was normal, but scanty.

The diagnosis was made of cystic disease of the kidney, and removal of the tumour by abdominal section was advised; it seemed too large to be brought away entire by the post-peritoneal or lumbar operation. There were two unfavourable elements as regarded prognosis: the woman was in a very feeble state of health, and the other kidney, though not tender, was evidently larger than natural. Sir Spencer Wells—one of the consulting surgeons to the institution—saw the patient with Dr. Strange and Mr. Owen, and agreed that the tumour should be removed by abdominal section; he kindly arranged also to be present at the operation, which was performed on May 18th by Mr. Owen, Dr. Strange and Dr. Percival Cockey assisting, and Dr. Pidcock administering the anæsthetic. The abdominal cavity was opened through the left linea semilunaris, the posterior layer of the peritoneum being opened on the outer side of the descending colon, so that the kidney might be reached without interference with the branches of the inferior mesenteric artery. The renal vessels were so small that it was at once evident that they were supplying an organ unusually poor in vascular tissue. Their size confirmed the diagnosis of cystic disease. Had they been associated with a malignant growth they would have been larger than normal. They were tied with carbolised gut, which was then cut short. The ureter was tied in two places and divided, and as the section showed a drop of pus, the lining of the tube was scraped clean and touched with iodine. The bed from which the tumour was removed was washed out with a warm and weak solution of mercuric chloride, and the laceration in the posterior layer of the peritoneum was closed with sutures of fine gut. No drainage tube was used. The abdominal wound was also sutured with gut, and dressed with thick pads of sublimate wool and a flannel binder.

For eight days after the operation the temperature remained at normal, but after this it was raised for three days, on one occasion reaching 101°F., but it descended immediately after a small collection of blood and serum was dislodged from the wound; and until she left the hospital

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on July 3rd, the chart was not marked above the normal line. After leaving the hospital she was so well and strong that she was able to enter domestic service again as a cook.

The tumour consisted of the thickened fibrous tissue of the kidney, in which were a number of large and small cysts which contained ten ounces of creamy pus, of a pale green tint; it was not examined for bacilli. Before operating, the tumour seemed too large to come readily by the loin; but when it was exposed it was evident that the retro-peritoneal operation would have served; the cyst walls, moreover, were so tough that they probably would not have burst during the extraction. It was about the size of a very large fist.

The patient was afterwards admitted into St. Thomas's Hospital under the care of Dr. Harley in May last, and we are indebted for the report of her condition at that time to Mr. H. J. M. Montague, house-physician. She complained of a tumour in the right side, which pained her very much on movement, becoming much more painful after she had been walking about for some time; she also complained of pain in the left lumbar region. On examination, a scar was found in the left linea semilunaris, at the seat of which there was a hernia. In the right lumbar region was a smooth rounded body, quite movable, and slipping under the liver on manipulation; tender to pressure, but not causing nausea when pressed upon. Diagnosis: Healthy movable kidney; urine of high specific gravity, with a large deposit of urates, no albumen. Uric acid crystals were seen under the microscope. The other organs were healthy.

The kidney became less painful, and the patient left the hospital wearing an abdominal belt.

GENERAL HOSPITAL, BIRMINGHAM.

CASES OF OVARIOTOMY.

(Under the care of Dr. MALINS.)

CASE 1.—A. H——, aged thirty-five, married. Admitted on Feb. 4th, 1886. Multiple cyst of left ovary, with fluid of varied consistence. Weight 240 oz. Adhesions to anterior abdominal wall and to right broad ligament and Fallopian tube. Right ovary enlarged to about four times its normal size, with numerous cysts; removed also with corresponding tube. Pedicles transfixed and tied with silk. Keith's drainage tube used. Recovery.

CASE 2.—J. T——, aged forty-four, married. Admitted on March 2nd, 1886. Multiple cyst of right ovary. Large cyst containing porter-like fluid and papillomatous growths inside. Adhesions to anterior wall of abdomen. Pedicle short; transfixed and tied with double silk close to uterus. Use of Keith's drainage tube; removed on the evening of the 4th. Recovery.

CASE 3.—E. P——, aged forty-three, married. Admitted on May 27th, 1886. Multiple cyst of right ovary. One large cyst containing twenty-seven pints of brown viscid fluid; solid. Weight 85 oz. No adhesions. Good pedicle, transfixed and tied with double silk. Quantity of ascitic fluid. Keith's drainage tube employed; removed on the 30th. Subsequently, continued sickness and quick pulse; average temperature 100·4°. Later, some tympanites. Died on June 7th from peritonitis.

CASE 4.—C. G——, aged forty-nine, married. Admitted on Sept. 2nd, 1886. Multiple cyst of left ovary. Very thick walls, undergoing myxomatous degeneration. Weight of liquid contents, 180 oz.; solid, 37 oz. Fair pedicle; transfixed and tied with double silk ligature. Recovery.

CASE 5.—M. W——, aged fifty, married. Admitted on Sept. 30th, 1886. Dermoid cyst of left ovary, containing hair, bone, and two teeth. Pedicle sessile; transfixed and tied with silk. Weight of cyst, 10¼ oz.; of contents, 36 oz. Opposite ovary enlarged; also removed. A fibroid tumour at right angle of uterus; transfixed and tied with double silk ligature and removed. Weight 6½ oz. Keith's drainage tube employed; removed on the morning of Oct. 2nd. Recovery.

CASE 6.—C. H——, aged thirty-six, single. Admitted on October 21st, 1886. Multiple cyst of left ovary. Weight: fluid, 120 oz.; solid, 42 oz. Papillomatous growths inside. Right ovary irregularly shaped, enlarged about three times the normal size; filled with pellucid cysts; removed. Some pelvic adhesions. Pedicle of first sessile; transfixed and tied with silk. Pedicle of second longer; transfixed and tied. Peritoneum velvety and vascular; some ascitic fluid. Keith's drainage-tube used; removed on the 28th. Recovery.

CASE 7.—E. P——, aged forty-four, married. Admitted on November 4th, 1886. Large multiple cyst of left ovary, undergoing interior degeneration. Some adhesions to small intestine. Good pedicle; transfixed and tied. Drainage tube used. Recovery.

CASE 8.—J. H——, aged thirty-three, married. Admitted on November 13th, 1886. Large unilocular cyst, containing 206 oz. of clear, slightly viscid fluid. Some solid matter at base. No adhesions; short pedicle; transfixed and tied with silk. Recovery.

CASE 9.—J. P——, aged twenty, single. Admitted on December 30th, 1886. Dermoid cyst of left ovary; globular; containing a quantity of hair and about 12 oz. of oily liquid at temperature of body, solidifying in open air. Weight of cyst, 4½ oz.; thick walls; base tied in two parts with silk below cyst. Recovery.

Remarks.—The above cases represent the number of ovariotomies performed in the year 1886 at the General Hospital as they were admitted, without selection. The one death was in a feeble emaciated woman, who made a good struggle for life, but succumbed to peritonitis twelve days afterwards. The tumour was very large, and the health much impaired before admission. Keith's drainage tube was used in the majority of cases, being removed when the fluid drawn through it became clear and free from blood. The operations were done singly in an isolated ward with special nurses, no precautions beyond stringent cleanliness being observed. The peritoneum was washed out when there had been fluid in it with a solution of boracic acid in warm water, with a glass tube, and glass funnel connected by a piece of indiarubber tubing, as little handling or sponging as possible being always observed.

Medical Societies.

OPHTHALMOLOGICAL SOCIETY.

Uniocular Optic Atrophy and Temporal Hemianopsia.—Permeability of the Suspensory Ligament by Organised Substances.—Choroido-retinitis.—Cyclotomy in Glaucoma.

AN ordinary meeting of this Society took place on the 9th inst., Mr. J. W. Hulke, F.R.S., President, in the chair.

Mr. STORY read a case of Optic Atrophy in one eye, with Temporal Hemianopsia in the other, occurring in a young woman, a dressmaker, who gradually lost her sight in one eye, and partially in the other. The menses were irregular. As had been observed in similar cases of tumour of the pituitary body, the patient grew much stouter. Headache and giddiness were complained of, but the sight improved, and though the optic atrophy remained, she was enabled to follow her occupation.—Mr. NETTLESHIP remarked that a very similar case had been recorded in the Society's Transactions, and in that instance, after death, a tumour was found in the pituitary fossa. Other similar cases had been published, and he had lately seen a case at St. Thomas's Hospital where the same train of symptoms had been produced in the same way.—Dr. HILL GRIFFITH said that he had placed on record a case identical with that of Mr. Story. Cessation of menstruation and sleepiness had been present in his case; and in several cases that he had seen the patients had complained of getting stout.—Dr. JAMES ANDERSON briefly described the case he had published, which closely agreed with that of Mr. Story. He said that it was the rule in pituitary tumours that the patient should get very stout.—Dr. COUPLAND mentioned also the concurrence of an increased development of tissue in conjunction with disease or enlargement of the pituitary body—a condition known as "acromegaly" (*vide* THE LANCET, p. 1195).

Dr. HILL GRIFFITH read a communication on the Permeability of the Suspensory Ligament by Organised Substances. He mentioned several cases of keratitis punctata without any iritis, but with recent patches of choroido-retinitis, and also two cases of retinal gliomata, with separate nodules free in the anterior chamber, and showed naked-eye and microscopical specimens. He endeavoured to show from these two groups of cases that solid particles were carried by the nutrient currents through the zonule at the circumlental space.—Mr. JESSOP mentioned a case of an old opaque lens in which, on opening the eye, a gush of cholesterine

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spangles came from above behind the iris, and fell to the lower part of the anterior chamber, taking up a triangle with the apex upwards. The cholesterine was so large in quantity that it must have come from the vitreous.—In reply to Mr. Marcus Gunn, Dr. HILL GRIFFITH said that in his case there was evidence of choroiditis, gradually passing into atrophy of the usual description.—Mr. LANG, who showed a specimen, with the suspensory ligament *in situ*, said that he was much interested in the association of solitary patches of choroiditis with keratitis punctata, and he thought that the two conditions were always associated; the cases were more frequent in young women, but occurred also in young men. The etiology was obscure. The vision was not much affected when the cases were first seen.—Mr. NETTLESHIP partly agreed with Mr. Lang as to the presence of isolated patches of choroiditis in a large number of cases of keratitis punctata. Opacities of the vitreous were often present, and were sometimes found even when there was no choroiditis, and in some only the keratitis punctata could be seen. The dots on the back of the cornea could only be explained on the hypothesis that there had been migration through the suspensory ligament.—Mr. J. B. STORY could not accept this view, as it would not explain those cases where there was no keratitis punctata. He thought it was very difficult to exclude the theory that there was some cyclitic deposit.—The PRESIDENT thought another explanation was possible apart from the mechanical transfer theory. There might be an inflammatory process, and cyclitis or choroiditis, or both, expressive of some general conditions. Some of the spots were only flocculent precipitates or coagula lying loosely; some might be due to proliferation and disintegration of the epithelium. The anatomical difficulties in regard to the mechanical convection theory appeared to him to be very great.—Mr. SILCOCK mentioned the case of a lady in which a punctate appearance at the back of the cornea was associated with opacities in the vitreous, but without choroiditis.—Mr. MACKINLAY observed that he was unable to detect the spaces in the suspensory ligament, even with powerful lenses.—Mr. HUTCHINSON, jun., argued that a transmission of particles might take place in a direction the reverse of the ordinary, as there was reason to believe happened in cases of secondary infection from axillary tumour.—Mr. W. J. COLLINS suggested that particles might pass along the canal of Stilling, and thus the necessity for supposing that they traversed the impervious hyaloid membrane would be obviated.—Dr. HILL GRIFFITH said he was much gratified by the excellent discussion that had taken place, it would not be necessary for him to take notice of all the points mentioned. He had, like Mr. Nettleship, seen cases of descemetitis without iritis, in which he had failed to make out choroiditis, the cases he had recorded were only made out to support the proposition contained in the heading of the paper, and were but put forward as examples of the most usual conditions met with in descemetitis. To Mr. Story's objection that choroiditis did not always produce descemetitis, he would reply that cystitis was not always followed by that condition. He would not accept Mr. Hulke's explanation of a coincident cystitis to account for his cases, for here, as in diseases of the nervous system, we should avoid a "double lesion" if one be sufficient to account for all existing symptoms.

Mr. BRAILEY narrated a case of successively occurring Isolated Spots of Choroido-retinitis affecting the yellow spot region of an independent gentleman, aged forty-one, who had been under observation seven months and a half, during which period he had five times experienced the development of a small relative scotoma at or near the centre of the field of vision of the right eye, which was wearing its full correction (+3·50 sph. and +1 D, cylinder). His left eye had been absolutely blind from glaucoma for twenty years, and was still hard, though painless. The scotomata, as appreciable by him at eighteen inches, varied in size from two to six inches square. Each appeared as a round or oval disc of dim and troubled vision, surrounded by a bright, glittering edge. At first the disc was well marked with annoying dimness and distortion of objects, which appeared materially darkened when embraced in its area. Printed letters appeared diminished as well as huddled together. Distant vision, though it might be diminished even to one-half in a moderate light, was not much affected with bright light, whether natural or artificial. All colours, except perhaps green, were dulled as if dashed with grey. Soon the spot began to amend, and was more translucent, giving to his sight the impression of an interposed disc of neutral tinted glass whose sharp edge slightly glistened in places. Each spot had resulted in almost perfect restoration of vision, as estimated by test types, though the ophthalmoscopic appearances still persisted to some degree. Ophthalmoscopically, each scotoma corresponded to a small, rounded, isolated, not well defined spot of dull greyish colour. Most of them were in close relation to, though clearly on a lower level than, the retinal bloodvessels, which were also decidedly larger than usual. The optic disc was slightly hazy at its margin, but of normal colour. An ophthalmoscopic drawing showed three of the spots—one moderately recent, and two in process of fading.—Mr. WARREN TAY considered the case in some respects unusual, and said that the retina must have been damaged.—The PRESIDENT remarked that, being an artist, the patient could observe and describe with great accuracy.

Mr. G. E. WALKER read the sequel to the case of Cyclotomy in Glaucoma. He also showed a young man with pulsating exophthalmos in process of cure. He had been shown at the November meeting, when the symptoms were much more marked. The disease had been caused by his fall down some cellar steps on to a flagged floor in January, 1886; this produced insensibility for three days, and on awakening, the boy found he had a swishing noise in his head. No ocular symptoms became manifest until July, when engorgement of the right eye appeared, and a fortnight later, of the left. In a day or two the noise disappeared, and the proptosis of the right took place. This increasing, he had proposed to tie the carotid artery, as he believed a true aneurysm of the artery, where it passed up from the cavernous sinus, had been produced. [illegible] on account of the opinion of two gentlemen who believed it was not true aneurysm, but an opening of the carotid into the cavernous sinus, the operation was not performed. From October to the end of January the general symptoms appeared to be stationary, but at that time (Jan. [illegible]) he was much frightened by being caught in a crush at a theatre, and soon afterwards found the bruit had returned. The extrusion of the eye, its engorgement and pulsation at first were considerably increased, but afterwards decreased at first rather quickly, and since then very slowly. He contended that, although in this case a happy result had been brought about by an accident, it would be [illegible] future case to tie the carotid, and not to trust to the [illegible] of accidents; and he gave a short account of a case in which he had performed the operation with complete restoration of the use of the eye, although at the time of operation it was lying on the cheek, thrust out from [illegible] the lids, and with mere perception of light.

The following living and card specimens were [illegible]. Mr. Silcock: Kerato-iritis in a woman probably the result of congenital syphilis. The peculiarity of the case consisted in the presence of a number of minute dots situated on the surface of Descemet's membrane or in the superficial layers of the cornea, and arranged in the form of a ring which corresponded in position with the pupillary margin of the iris. The affected cornea also presented the characteristics of interstitial keratitis. The cornea of the other eye was not affected. Mr. Cross: (1) Tumour of the orbit, probably sarcomatous, in connexion with which Mr. Cross mentioned a case which he treated by shaving off the growth, free application of nitrate of silver, with the result of which had so far not been followed by a recurrence. (2) A case of Opaque Nerve Fibres, limited to the Papilla. Mr. J. Collins: Extensive Hæmorrhage into a Blind Eye. Coarctation of Retina. Mr. Lawford: Coredialysis. A complete Anteversion of the detached portion. Mr. Story gave an experimental demonstration bearing on the Pathology of Glaucoma.

ACADEMY OF MEDICINE IN IRELAND.

Distribution of Phthisis and Diseases of the Respiratory Organs in Ireland.

AT a meeting of the Sub-section of State Medicine on May 19th,

Dr. T. W. GRIMSHAW (Registrar-General for Ireland) read a paper on the above subject. The total number of deaths in Ireland during the decade was 966,745, of which phthisis caused 103,528, or more than one-tenth; other diseases of the respiratory organs 142,091, or nearly

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sixth—the two groups taken together causing more than one-fourth of the total mortality of Ireland. Lung disease was, therefore, the most important element in considering questions connected with the health of the people of Ireland. The main conclusions arrived at by Dr. Grimshaw were that the less civilised portion of the population of Ireland were less affected by phthisis and lung disease than the more civilised portion of the community; that not only was phthisis more prevalent among urban than among rural populations, but that essentially rural populations near large towns suffer more than those in remote districts, thus pointing to infection as a means of spreading the disease. Comparing the distribution of phthisis with the physical configuration of the country, it was found that, as elsewhere, the low levels suffered more than the high levels. The bogs do not seem to specially favour the prevalence of phthisis; indeed, they seem rather to counteract the disease. There was no constant relation between the prevalence of phthisis and other forms of disease of the respiratory organs. In many cases there is an absolute contrast between the prevalence of phthisis and the other forms of lung disease. There did not appear to be a close relation between the general distribution of the geological formation and the prevalence of either phthisis or other forms of lung disease, except in so far as geological formation influenced elevation, &c.—Sir CHARLES CAMERON said the subject opened a vast domain for investigation to those interested in the etiology of disease. It was remarkable that there seemed to be a greater prevalence of the diseases in question on the eastern than on the western seaboard. Dublin occupied a bad position of eminence in the order of mortality—exceeding, as it did, even Belfast, where, on account of the flax manufactures, diseases of the respiratory organs might be expected to abound. The death-rate would be a means of comparing the salubrity of the different districts.—Dr. CHARLES MOORE, referring to Dr. Grimshaw's observation that sudden change was apt to produce bronchitis, said there was no country where there was greater suddenness of change of temperature than Egypt, and yet it was a common thing to send people to Egypt to be cured of phthisis. The drainage question was important in Dublin, where the subsoil water had greatly increased since the disuse of pumps. Many years ago Sir William Wilde drew attention to the prevalence of phthisis round the coast of Ireland. The Bog of Allen and other bogs in the centre of Ireland were factors which favoured phthisis. So also did crowded populations. In the Zoological Gardens, Phœnix-park, phthisis prevailed amongst the monkeys.—Dr. COSGRAVE adverted to the observations of Dr. M'Neill, medical officer of the Gesto Hospital, Isle of Skye, as indicating that consumption was communicable from one person to another.—The CHAIRMAN pointed out that the rule that large cities favoured the prevalence of consumption found a remarkable exception in London, where the disease was below the average, except in the eastern districts. Turning to Ireland, there could be no doubt that the large towns acted as foci from which pulmonary phthisis seemed to spread. He agreed with Dr. Grimshaw that rainfall had very little to do with the matter as regards Ireland. He did not agree with Dr. Charles Moore as to the pernicious effect of the Bog of Allen. His opinion was, on the contrary, that large peat districts perhaps tended to control phthisis by acting antiseptically. The distribution of bronchitis in the south of Ireland was most puzzling, and he was at a loss to explain it.—Dr. GRIMSHAW, in reply, said, with regard to Kilmallock, it was curious the mortality from bronchitis appeared to indicate rather a healthy condition of the population. The number of old people who died there from bronchitis was extraordinary, and the great majority of the bronchitis cases were returned as from the Kilmallock Workhouse. The disease was not, in fact, strictly speaking, bronchitis, but the bronchial effusion of old age. Of course that depended on how the certificates were given. The effect of drainage was well known in diminishing phthisis, cholera, and typhoid fever. It was, however, always a question as to whether drainage diminished the phthisis death-rate. For his own part, he was inclined to think that it acted indirectly by improving the general health of the people, and by diminishing the prevalence of pneumonia, which was one of the principal foundations of phthisis, and also by diminishing the prevalence of typhoid fever. The drainage of towns was not a question of the drying of soils so much as the getting rid of dirt and sewage matter. How much was due to the drying of the soil itself, or how much to getting rid of dirt, it was impossible to say, or to explain which was the main factor of disease. With a perfect system of sewerage in Dublin and the dirt kept out of the Liffey, and a clean gravel bed in the centre, the public health would improve. When cholera prevailed in Pembroke township district there was practically no cholera in Rathmines, the reason being that Rathmines was dry, while Pembroke was waterlogged, having a gravel bed with the clay below it like a sponge in a basin. Sir William Wilde had mentioned that the prevalence of phthisis along the eastern coast was specially referable to the general conditions of life. Unfortunately, when he made his observations he had as reliable data very few facts, there being then no machinery for registration, and the only evidence being hearsay. As to the bogs, he was of opinion that a bog was a totally different thing from a marsh, so far as the health of the community was concerned. The most familiar example in proof was that ague prevailed in the marshy lands of England, but it never occurred in a marshy bog. What the antiseptic property of peat was he did not know, but that it was antiseptic there was no doubt. Many examples of the antiseptic properties of bog had been observed. The presence of phthisis in the animals in the Zoological Gardens was due, he had no doubt, to their eating tuberculous food.

Notices of Books.

The Treatment and Utilisation of Sewage. By W. H. CORFIELD, M.A., M.D. (Oxon.), Fellow of the Royal College of Physicians, London; Professor of Hygiene and Public Health at University College, London, &c. Third Edition. Revised and enlarged by the Author and LOUIS C. PARKES, M.D. Cert. Public Health Lond. London: Macmillan and Co. 1887.—A third edition of this well-known and valuable work was much needed, and it has been satisfactorily executed. The first edition appeared in 1870, and the second in 1871. Much additional experience has since been gained, and many elaborate inquiries have been carried out, but it is to be feared that very little real progress has been made. The obstinate persistence of the Metropolitan Board of Works in their erroneous treatment of the sewage of London has indeed produced a searching and satisfactory inquiry by a Royal Commission; but as the Board still persists in disregarding the most important of the recommendations of the Commissioners, the great problem cannot at present be solved in London. In evidence of the little real advance made in our knowledge, we find that the summary with which Prof. Corfield concluded his first edition is now reprinted entire and without addition, the present authors remarking that they see no reason to alter it. It must not, however, be supposed that the bulk of the book is left unaltered. On the contrary, all the experience gained in England and abroad during the last sixteen years is well chronicled. Thus we have the Croydon experience in regard to the ventilation of sewers, an account of the Liernur system, the Berlier system (partly adopted in Paris), and the Scott system tried at Ealing. We have also critical descriptions of the many precipitating schemes which have from time to time been tried, and a full account of the results of the labours of the Royal Commission on Rivers Pollution and on Metropolitan Sewage Discharge. Altogether it will be seen that the book well maintains the reputation of the author. It is in fact essential to every sanitarian.

Grundriss der Bakterienkunde. Von Dr. Med. CARL FRAENKEL. Berlin: A. Hirschwald. 1887.—The author of this handbook on bacteriology can claim to speak with authority, since in his capacity of assistant in the Hygienic Institute of Berlin University he has frequently had the conduct of those monthly courses of instruction which Professor Koch has so successfully established. The book is intended to furnish all the details necessary to be borne in mind in laboratory work, but it includes more than a de-

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scription of technical methods. These form about one-half of the volume, the remainder being descriptive of the morphological and physiological characters of micro-organisms. The absence of illustrations is compensated by the clear descriptions given by the author, and as the book is one especially for laboratory work, there is no absolute necessity for elaborate illustration. The subject matter is most systematically arranged, and presented in the form of lectures, or rather demonstrations with oral exposition. They will doubtless serve as a model for bacteriological instruction in similar institutions.

What can a Mother do to preserve her Children's Teeth? By HENRY C. QUINBY. Liverpool: G. G. Walmsley.—The above is the title of a useful pamphlet designed to take its place amongst the books on domestic medicine. The author gives clearly and in a popular form the reasons for the necessity of attention to the health of the deciduous teeth, a subject which has been frequently mentioned in these columns. With regard to patients seeking professional advice for their children, it seems to be a frequent occurrence that they do not expect to pay a fee unless some operation is performed; and he rightly urges that this temptation should not be put in the way of the dentist, and that, in fact, advice is quite as valuable; nay, more so, than taking out a temporary tooth or putting in a dressing. There is a good deal of useful information cited such as the deformity that may be produced by thumb-sucking, and the mistake so constantly made of believing the six-year molar to be one of the temporary set. Most of the views expressed are those generally accepted by the profession, although exception must be taken to some of them; for instance, Mr. Quinby objects to any tooth-brush the bristles of which are harder than horsehair; also he does not advocate the filling of temporary teeth of which the pulps are dead, thus leaving fetid food traps with the almost certainty of decay of the contiguous teeth. He, however, goes a little too far with amateur doctoring when he expects a mother not only to diagnose between toothache due to an inflamed nerve and that caused by periostitis, but in the latter case to drill into the pulp cavity to let out its fetid contents.

Travels in the Interior. By LUKE THEOPHILUS COURTENEY. Edited by a London Physician. London: Ward and Downey.—"A London Physician," in the preface to this book, states that he found the above story in manuscript on his table one morning after the departure of his patients. Thinking the method of teaching physiology ingenious and finding no owner, he resolved to publish it. The plot may be given briefly. Belinda Courteney, her brother (who is a M.R.C.S.), and a friend accompany the uncle, Captain Courteney, to Trebizonde, where they purchase in the bazaar a box of pills capable of reducing them to the smallest dimensions from an old woman who repeats a rhyme to them to the effect that in order to regain their natural size it is necessary to place a grey hair between the teeth. They have scarcely time to reach the room where the uncle sits before they become almost microscopic, and are whisked up by him with his eye-glasses, and fall thence into his mouth. This they explore fully, afterwards passing into the throat and climbing into the Eustachian tube. The description of this is picturesque, the cilia being compared to ripe corn waving in the summer breeze. Phil, the brother, advises Belinda always to breathe through her nose, and remarks that when on night duty in his hospital ward he counted two hundred patients sleeping with their mouths open; a large proportion of these patients suffered from lung diseases. The three young people next pass into the stomach and observe the digestive process. Finally, they ascend by the thoracic duct and are introduced into the venous system. They then work up a small vein and emerge through a pimple. Placing a grey hair between their lips, they return to their normal size. There is a curious slip near the beginning of the book, where Phil (a M.R.C.S.E.) is described as a lad of eighteen. The interior is seen by means of a portable electric lamp, and Phil is supplied with numerous unknown inventions for the maintenance and comfort of life. The book is ingenious and amusing, and may serve to impress some of the leading facts of physiology on non-professional readers.

Variations of Fortune. Illustrated by sketches of some old towns of Italy, and those who influenced them. London: Sampson Low, Marston, Searle, and Rivington.—Those who travel in Italy, either for health or pleasure, may find some interest in the above book. It is quietly and thoughtfully written, and contains an account of Miguel de Molinos, the famous Quietist, who was condemned by the Inquisition to perpetual imprisonment. A curious method of payment to a doctor is related in an old Italian document. The family of Signorelli, the painter, were ill of the plague, and about this time an agreement was made between the doctor and the painter "that for services received, and for those which Luca Signorelli hopes to receive from Dr. Luigi de Rutania, a Frenchman settled in the town of Montone; he had painted a picture gratuitously for a chapel built by the doctor, and dedicated to Santa Christina in the church of S. Francisco at Montone, the said Luigi de Rutanis promising to attend without fees on Luca Signorelli, or any of his family, when ill in the future."

ROYAL SOCIETY.

Note on the Functions of the Sinuses of Valsalva and Auricular Appendices, with some remarks on the Mechanism of the Heart and Pulse.

ON Thursday, the 16th inst., Mr. MAYO COLLIER read on the above subject a paper which may be thus summarised. The object of the paper was to disprove the present apparently accepted idea that the sinuses of Valsalva are mere bulgings of the arterial walls, formed by a reflex current, induced by the sudden closure of the semilunar valves. The existence of a reflex current was shown to be impossible, and the theory of the sudden opening and closure of the semilunar valves was disproved. The presence of the sinuses of Valsalva was shown to be an absolute essential to the mechanism of the heart's action. The paper then treated of the action of the auricle and the part played by the auricular appendix, the latter being considered as the only part of the auricle that sensibly and vigorously contracts. The causes of the first sound of the heart were next alluded to, and the theory that the closure and vibration of the tricuspid and mitral valves assist in its production was refuted. The mitral and tricuspid valves do not close suddenly, and anything like an audible vibration of these structures, or the chordæ tendineæ, was shown to be impossible. The action of the ventricle and the mode of its injection into the aorta were dwelt upon at some length. The latter part of the paper was devoted to the mechanism of the pulse, and an explanation was given of the so-called dicrotism. The following is a summary of the chief points of the conclusions arrived at:—1. The sinuses of Valsalva are absolutely essential to the mechanism of the heart's action. 2. The musculi papillares serve the same purpose for the auriculo-ventricular valves as do the sinuses of Valsalva for the aortic. 3. The auricular appendices complete the distension of the ventricles without appreciably altering the general tension in the auricles. 4. The first sound of the heart is not due to nor influenced by the closure or tension of the tricuspid and mitral valves. 5. The semilunar valves open and shut gradually, the second sound of the heart being due to the sudden difference of pressure on the two sides of the valves at the moment of commencing diastole of the ventricle, causing them to vibrate. 6. At each systole the contents of the ventricle distend only a segment of the length of the aorta, the force of the ventricle exercising no influence directly on the general circulation, but indirectly by the elastic recoil of the aorta. 7. That the pulse is due to a wave of dilatation and recoil, which wave is normally single. 8. That when the arterial tension is below a certain standard one or more secondary pulse waves can be frequently felt, due to a redistension of the penultimate section and its consequent repeated recoil.

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THE LANCET.

LONDON: SATURDAY, JUNE 25, 1887.

No class or section of Her Majesty's subjects rejoices with greater sincerity, or better reason, in the fruition of a happy and illustrious reign than does the medical and surgical profession. Under the benign influence of that progressive peace and domesticity which, in spite of many regrettable interruptions, have characterised the administration of State affairs in this country since VICTORIA came to the throne, the eminently peaceful arts of medicine and surgery have flourished exceedingly; they have attained a very high development, and, which is more important, they have been consolidated and securely based on the cognate sciences with which it may be confidently affirmed they are now indissolubly associated. It cannot be doubted that the scientific arts to which we as a profession are devoted, in common with the arts of peace in general, owe much to the providential fact that the crown of England devolved on a female Sovereign at the particular conjuncture when VICTORIA came to the throne, and that its wearer has been a woman in whom the highest virtues have been combined with the purest and truest love of home and family happiness which has been manifested in the life of any monarch that ever sat on the English throne. The spirit of our national life has been one of quietness, albeit, as we have said, there have been painful outbreaks of those baser passions and that greed of conquest which lie beneath: and the long spell of comparative tranquillity we have enjoyed has given space for the growth of that peaceful and peaceable stability on which the permanent prosperity of every nation must in the long run depend.

We have no thought of reviewing the progress of medicine during the reign of VICTORIA. To do this in the most cursory way would require much greater space than we are able to devote to the subject. Meanwhile, there are one or two reflections which it may be worth while to offer for the consideration of our readers in this week of jubilee.

The profession may be congratulated on the immense progress which has been made in developing the sciences of medicine and surgery, and especially in the development of two almost new branches of knowledge during the last half century. Turning to the Students' Number of THE LANCET for 1833 we find this significant remark: "In the medical department of the London University" (which was at that date a *teaching* university in Gower-street), "the student will find there are two subjects engaging the attention of two celebrated Professors which are not taught in the other academical establishments; we allude to the lectures on *Comparative Anatomy* by Professor GRANT, and those on *Morbid Anatomy* by Professor CARSWELL. ..... We have selected for especial notice the lectures of Professors GRANT and CARSWELL, as we find that comparative and morbid anatomy are subjects which do not appear to be entitled to the notice of the rulers in our chartered Colleges and Halls." To the "University of London" (which we now know as "University College"), be it remembered, the profession owes the development of these two branches of knowledge as special subjects of study; and who among us can fail to perceive that out of the study of comparative and morbid anatomy has grown that physiology of medicine and surgery which is the distinguishing feature of the art of healing as we know it to-day? Physiology, properly so called, could have no real existence apart from comparative anatomy and morbid anatomy. Not merely structure but function is elucidated by the study of organic development in the light of comparative anatomy. And the inferences derived inductively from the study of development could only be corrected by the study of such departures from the normal type of structure as are found associated with disease, whether as causes or as effects. We have repeatedly called attention to the fact that mistakes may be very readily made if morbid anatomy be scrutinised without carefulness to distinguish between changes which may have been the effects of abnormal function and those which were clearly the causes and not the consequences of error in the working of the organisms wherein they are discovered; but the avoidance of this class of error is to be sought and may be found in the combined light of comparative anatomy and morbid anatomy. Therefore, we say that the debt which medicine and surgery owe to the then London University in giving these two subjects an individual existence among us cannot be overrated. A re-perusal of the introductory lecture delivered by Prof. GRANT at the opening of his course in 1833 would well repay the trouble. We venture to think that if a careful digest of all that has been achieved in medicine and surgery during the last fifty years were made and just conclusions drawn, it would be found that the progress achieved has been not only notably but almost exclusively due to the development of the two branches of knowledge especially inaugurated at the period named.

It is very interesting to note in this connexion how much we owe to the great and energetic race with which the family of our Sovereign very closely links us. We have no reason to be ashamed of our indebtedness as a nation to the infusion of that love of home life which dominates the German people, and which has done much to foster and strengthen our own peaceful disposition as a community of islanders. Nor need we try to veil or qualify the fact that to the medical *savants* of Germany we are under obligations of the largest and most practical description for contributions to the sum of medical knowledge, and in many respects for the formulation of the fundamental laws of our science and art. Her Majesty's beneficent reign has been of the highest value to medical science, as we believe it has been to our national life as a whole. Medicine has made gigantic strides between 1837 and 1887, and its progress

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has been sensibly aided by—we will not say the patronage, but—the encouragement extended to its professors by the occupant of the throne, and conspicuously by the opportunity for advancement which has been afforded to all the sciences and the arts by the peaceful and enlightened influences of a period passed under the pure and happy auspices of a Sovereign who is not less loved than she is revered by a loyal and affectionate people. GOD SAVE THE QUEEN.

IT is natural that the recent researches into the nature of the contagium of scarlet fever should excite attention—both those prosecuted, on the one hand, by Dr. KLEIN in his investigations upon the relation between the Hendon disease of cattle and milk scarlatina, and, on the other, by Dr. EDINGTON in an attempt to test the value of the hypothesis on which Dr. JAMIESON had based a line of successful prophylactic treatment of scarlet fever. The disease is so common, its characters are so well marked, and its contagiousness is so striking, that it cannot be surprising to find bacteriologists keenly alive to the solution of the causes of its contagion. Nor was it likely that the researches referred to should have escaped criticism by those qualified to pass an opinion upon what is indeed a bacteriologist's question; as is to be found elsewhere in Mr. CROOKSHANK'S paper, which we publish to-day, and which was unavoidably held over last week. There is, we fear, a tendency to take sides in this matter; for it is plain that if Dr. KLEIN'S conclusions be accepted as universally true of the *materies morbi* of scarlet fever, then Dr. EDINGTON'S must fall, and *vice versâ*. We may remark here that a statement made in this journal a fortnight ago, which has been not unnaturally criticised, was not intended in the wide sense in which it was liable to be taken in consequence of the inadvertent omission of the word "such" before the word "controversy"—an omission which was overlooked in proof. We should be the last to close the door to scientific inquiry on any subject, especially one of this grave importance. There is nothing in common between the two series of results referred to, although, etiologically speaking, there is a far graver and wider issue presented in the one case than in the other. Perhaps one ground for their divergence is to be found in the distinctly different lines upon which the inquiry proceeded in each case.

Taking them in chronological order, we have first the remarkable chain of evidence adduced by Mr. POWER to prove that certain epidemics of scarlet fever traceable to infection through milk were directly related to disease in the cows yielding the milk. The facts in support of this doctrine have been slowly accumulating; and it may be remembered that some years ago Mr. POWER drew a somewhat similar conclusion in the study of the etiology of an outbreak of diphtheria. Mr. POWER has, therefore, for some time had his mind prepared for the contingency that such diseases as scarlet fever and diphtheria may be communicable from animals to man. The duty that fell to Dr. KLEIN was to establish, if possible, the identity of the human and bovine disease. In this task, we think, as we have previously intimated, he was successful. The streptococcus which he detected in the sores on the udders of the affected Hendon cows, and by the inoculation of which he was enabled to reproduce in calves a fatal disease that resembled in its morbid anatomy the lesions of scarlet fever, supplied one link only in the chain of reasoning that led him to this important conclusion, and taken by itself could not, as Mr. CROOKSHANK points out, be held as direct evidence that the Hendon disease was identical with human scarlet fever. Dr. KLEIN was satisfied of the identity of the original streptococcus and that which occurred somewhat sparsely in the blood and tissues of the inoculated animals; and his known skill as an expert in these matters should go far towards ensuring acceptance of the accuracy of his statement. The real *crux* of the matter lies, however, in the later stages of his inquiry, which were communicated to the Royal Society and detailed at the Royal Institution. His examination of scarlatinal blood proved the difficulties of the inquiry, and is in remarkable contrast with the same examinations conducted by Dr. EDINGTON, who seems to have had but little trouble in obtaining from the blood in the early stages of the disease the bacillus which he holds to be characteristic of it, whilst at later periods there were found diplococci and streptococci, which appeared to replace the bacillus in the blood. There is, of course, considerable cogency in the argument that so scanty a growth of streptococci as Dr. KLEIN obtained from scarlatinal blood may have been due to accidental contamination, especially as no mention was made of any control experiments. But this view is outweighed by the further proofs adduced by Dr. KLEIN as to the identity in nature between the streptococcus of the Hendon cows, that found in the specimens of condensed milk connected with an outbreak of scarlatina, and that found in scarlatinal blood. It may be possible that the scarlet fever due to milk contamination is specifically distinct from other cases, but unless we are prepared to go so far we do not see any mode of escape from the conclusion to which Mr. POWER'S and Dr. KLEIN'S investigations have led them.

It is well, however, that so important a subject should be thoroughly viewed on all sides, and it is therefore a fortunate circumstance that Dr. EDINGTON'S researches should have been so far completed as to allow of their publication whilst attention was still being directed to the subject through Dr. KLEIN'S inquiry. More especially is this important, since Dr. EDINGTON proceeded on quite different lines, and devoted his main efforts to detect and isolate the specific contagium, of the existence of which in the desquamating epidermis there is little doubt. Dr. JAMIESON had succeeded in preventing the spread of scarlet fever by assiduous attention to disinfection such as bathing and antiseptic inunction directed to remove the desquamation as soon as it formed; and it was owing to this that he sought Professor KLEIN'S co-operation to have a thorough bacteriological investigation undertaken. The inquiry was placed in the hands of Dr. EDINGTON, who pursued it with great ardour, and his report contains a record of a large number of micro-organisms which he detected in the desquamation and in the blood, while [illegible] precaution against contamination. M[illegible] seem to have been innocuous, for wit[illegible] lations of animals produce any [illegible] was a bacillus, which occurred in [illegible] (an exception being in the case of a tu[illegible] before the organism had time to de[illegible]

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the products of desquamation, and also in those obtained from the blood taken before the third day. Rabbits and guinea-pigs inoculated with this bacillus suffered from an erythema followed by desquamation; and of two inoculations made in the calf, one was fatal, and the lesions found after death were declared to be similar to those in man in the early stage of scarlet fever. There are, however, some weak points in the reasoning in favour of this being the scarlatinal germ, which have been pointed out in these columns by Mr. CROOKSHANK or "M.D." One is the close resemblance it bears to other non-pathogenic organisms that exist normally on the surface of the body. Then we have the curious association of this bacillus with other forms, most of which are indubitably little more than ectophytic parasites, and with one, which is not of this class (the diplococcus scarlatinæ sanguinis), the inter-relation is singularly close. That the bacillus should not be found in the blood after the third day, nor in the cuticle till after the end of the third week is, as "M.D." remarks, a singular feature in the life-history of such organisms. Lastly, there is a possibility of contamination here also, as in the case of Dr. KLEIN'S experiments.

Irreconcilable as these two series of researches are, they are both very suggestive, and point the way to further discovery. For whether the contagium of scarlet fever be a bacillus or a streptococcus, it has at any rate been demonstrated that it can be conveyed through milk, and transmitted thereby from the bovine to the human organism; and it has also been shown, as much by Dr. JAMIESON'S treatment as by Dr. EDINGTON'S bacteriological study, that it is contained within the desquamating cuticle, and that it may be directly attacked and rendered impotent by reason of this fact. It is, of course, impossible for the subject to rest here, on public as well as on scientific grounds. The grave question of the transmissibility of the disease from cattle to mankind is not to be dismissed with contempt like that in which the Agricultural Department of the Privy Council would seem to hold the results of Mr. POWER'S inquiry into the Hendon disease; nor, on the other side, can Dr. EDINGTON'S circumstantial and elaborate reports of his discovery be set aside without an attempt to verify or refute them. Bacteriology has achieved many successes hitherto, but as great a triumph as any remains for it if it can demonstrate without dispute the specific organism which few can doubt underlies one of the most contagious of human diseases. Mr. CROOKSHANK'S suggestion of a Commission is deserving of note, but hitherto we have not gained so much from bacteriological committees of inquiry as to make us sanguine of a satisfactory result.

IT is surprising that anyone interested commercially in the private asylum system should object to the Lunacy Bill introduced by the Government. Practically that measure creates a monopoly, and the proprietors of "licensed houses" existing at the date of the passing of the Act will be able to command their own prices for the establishments in their possession. Of course the legitimate and only rational way of settling the question would have been to buy out the owners or lessees of these houses. If the existence of asylums wherein lunatics are received and retained as a paying business is really opposed to the public welfare—in short, so opposed to it that Parliament deems it wise to prevent any extension of the commercial enterprise,—surely the system ought to have been at once abolished. Either there should be no limitation to the trade or it should be interdicted. Anything more monstrous, from an economic point of view, than the paltry and time-serving expedient which a spirit of parsimony and the influence of red-tape have combined to embody in this measure it would be difficult to conceive. This is the common-sense and only honest view of the matter. Meanwhile, as we have said, the proprietors of existing licensed houses have no cause to complain, and it is strange, indeed, that they should help to throw obstacles in the way of the passing of a measure so greatly to their advantage as the Bill now waiting the convenience of the House of Commons to be engrossed on the statute book. It is impossible to conceive that any obstinate opposition will be offered to its progress by those who have nothing to lose, but, on the contrary, much to gain when it shall become law.

There are doubtless some good features in the Government Bill: for example, that which—at least professedly—provides for the appeal of the alleged lunatic to an official and presumedly impartial judge; but even as regards this provision, meagre as it is, so much is left to "discretion" that we doubt whether anyone erroneously charged with being insane will be able to prove his sanity. If the Parliamentary Committee of the Medico-Psychological Association should have its way, the last vestige of hope in this direction will be dissipated. The committee would fain place the judge under the direction of the doctor signing the certificate. If this were done, the whole proceeding would be converted into a mere farce. Practically, the function of the lay judge or justice, as the Bill now stands, is to take the place of a guardian, and watch over the personal interests of the alleged lunatic, protecting him from *all* other persons as a parent should protect a child. When once the decision has been arrived at that the case is to be placed under treatment in an asylum, the doctor will be free to make his diagnosis and to carry out his treatment without interference. The generally admitted objection to the law of lunacy as it stands is that the preliminary question whether a man is or is not so ill as to necessitate his removal to an asylum is placed at the sole disposal of the doctor; and the mere fact of a decision that he is in need of such treatment puts an end to the liberty of the subject, and by a stroke of the pen destroys his claim to the right of self-control. This is held—and we think rightly so—to be a grave fault of the law. This Bill has for one of its objects to give the person thus placed an appeal to the decision of a lay judge before being removed to an asylum. If anything whatever is done to limit that appeal, or to embarrass the alleged lunatic in its use, for anything we can see the Bill will be waste paper, and ought to be abandoned. We have therefore no hesitation in expressing a hope that the committee of the Medico-Psychological Association will either withdraw its suggestion on this point, or that the Government will disregard it. Other objections urged—for example, that levelled against the judicious resolve that the medical practitioner who signs an urgency certificate shall not also sign the certificate on the subsequent petition—having for their purpose to baffle the endeavour to

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free an alleged lunatic from the toils of any scheme laid for him, strike us as equally absurd and inexplicable.

Again, why should the endeavour to relieve medical practitioners from business which is in no sense professional be opposed? The treatment of mental disease is one of the very highest departments of scientific medicine; the trade in lunatic boarding and keeping is purely a business. Let there be no misapprehension as to what, precisely, we mean by these remarks. It cannot be supposed that we cherish any of the exploded theories about the inferiority of trade as a vocation. The man who employs his skill and acumen as a man of business in the keeping of boarding-houses for the insane is no less to be respected than the man who makes a profit by his skill as a scientist and practitioner of the art of healing, but the two vocations are no more compatible than would be the teaching and preaching of religion and the keeping of religious houses in which converts were to be retained at a profit. The labourer is always worthy of his hire, but he must not engage in two branches of industry the one of which plays—or may be made to play—into the hands of the other. It is a worthy enterprise to cure the insane, and it is a worthy enterprise to care for the insane; but inasmuch as the profits made by keeping asylums are capable of being increased by tardy treatment and slow cure, the two vocations are distinctly incompatible. Let us never forget the dictum of the founder of THE LANCET on this point: "If you say to a doctor, 'Sir, I will give you £300 a year so long as my liver is diseased,' what is the chance of having it cured?" It is useless to fly into a passion of virtuous indignation if we are suspected. We can only quite clear ourselves of suspicion by putting it out of the power of anyone to suspect us, therefore we protest that the profession of medicine ought to clear itself of the *possibility* of any suspicion with regard to the care and cure of the insane. The opposition to this really very meagre Bill fills us, we confess, with astonishment. We heartily hope it will pass: not because we think it effective; it is very far from securing thorough reform. Nevertheless, as the best we are likely to get, it is a duty to urge the Legislature very earnestly to pass the measure.

OF the several important papers contained in the volume of the Transactions of the Epidemiological Society which has just been issued, there is none which merits more serious attention than that presented by a Committee of the Society on the subject of vaccination. It is now many years since the Society put itself in communication with the profession, and collected evidence which was largely instrumental in bringing about legislation which has conferred untold benefits upon the kingdom. It was right, therefore, that after a lapse of years further inquiry should be made and a Committee appointed to report on the evidence which the present state of medical knowledge supplies as to the conditions affecting the protection afforded by vaccination against death by small-pox occurring in persons contracting that disease. This Committee, after seeking information from small-pox hospitals and from many practitioners, collected together the facts as to nearly ten thousand cases of this disease, and the results which are now published form the latest contribution to vaccination and small-pox statistics. Speaking generally these statistics fully substantiate the opinions previously held as to the protective value of vaccination, but when considered in detail they teach lessons which have not hitherto been fully understood. In previous papers on this subject it has been assumed that the appearances of vaccination marks are not altered as the result of time; the Committee, however, have been led to adopt a different view, and the grounds upon which their opinion is based appear to be sufficient to warrant the conclusion at which they have arrived.

When the death-rate from small-pox among unvaccinated persons is studied, it is found that there is a greater tendency to death when this disease attacks young children under five years of age than during the next quinquenniad; from ten to fifteen years the death-rate still further decreases, but after this period it increases again. For persons possessing foveated cicatrices, the result of vaccination in infancy, the lowest death-rate is during the first five years of life; but as the protective effect of vaccination wears out, the fatality increases in each successive age period. For persons, however, with unfoveated cicatrices at the time of attack by small-pox, the story is altogether different. After the first five years of life this kind of vaccination appears at first sight to become more largely protective than is to be accounted for by any lessening of mortality due to increased age, and the Committee explain this circumstance by attributing it to the disappearance of foveation in some persons whose scars previously possessed this character, leading to their inclusion with others who had never at any period had other than plain cicatrices, thus giving at a later age an apparent protective value to plain cicatrices which is greater than they deserve. This opinion is supported by the fact that when another class is considered, those who at the time of attack by small-pox have no vaccination scars, although they are stated to have been vaccinated, the same circumstance is observed; but the diminished fatality referred to does not occur until a later age period, leading to the conclusion that a longer period is required for the complete disappearance of a scar than for the loss of its foveation. This point is of so much interest that it deserves to be finally decided by direct observation of the changes in the appearance of vaccination scars in children; and those who have charge of the young, either in families or in schools, would do well to record any alterations observable after periods of time. The importance of foveation, and especially of permanent foveation, is emphasised; and certainly the kind of vaccination which produces scars of this character is that which should be aimed at.

In discussing the effect of quantity of scars, the evidence collected by the Committee shows the urgent necessity for the production of the larger number of vesicles, and it may be hoped that a perusal of the report will lead every vaccinator not to rest content with a smaller number of vesicles than that recommended by the Local Government Board.

The period of life at which revaccination should be performed must necessarily depend upon the character of the primary scars; but, under any circumstances, the

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statistics show that even where vaccination has been well performed a greater interval than fifteen years should not be allowed to elapse between the primary and secondary operation. Indeed, we are reminded of the conclusion of the German Commission, of which an excellent account is given in the same volume, that the duration of the protection afforded by vaccination is on the average ten years.

The small-pox hospitals have supplied the Committee with the most positive evidence as to the immunity from small-pox conferred by revaccination upon attendants on the sick. Of 734 persons thus employed, 79 had previously had small-pox, leaving 655, of whom 10 were not revaccinated; all but these ten persons escaped small-pox, and all these ten were attacked. This should entirely dispose of the oft-repeated but erroneous statement of anti-vaccinationists that small-pox attendants escape disease from the fact that they are recruited from those who have already passed through an attack of small-pox. It is, indeed, impossible to read the evidence adduced on this point without understanding that it is within the power of every person absolutely to protect himself from all attacks of this disease.

Some of the difficulties of the Committee in obtaining information may well be taken to heart by those who have the control of small-pox hospitals. It is upon the evidence these institutions afford that we must mainly rely for teaching the public the value of JENNER'S discovery, and the want of a uniform system of recording statistics at once becomes apparent when any attempt is made to utilise them. The Statistical Committee of the Metropolitan Asylums Board will, it is to be hoped, in the future ensure that the records of their own institutions will be free from this objection; for others we must rely upon the interest which all medical men take in so important a means for preventing disease.

AN interesting contribution to the literature of the subject of the influence of infectious hospitals on houses in their neighbourhoods is contained in the last annual report on the health of the Hackney district. Dr. TRIPE, having convinced himself of the injurious influence which followed on the aggregation of small-pox patients in the Homerton Hospital, set himself to investigate the effects following the use of that hospital for the purpose of isolating cases of scarlet fever. In dealing with this disease in a district where compulsory notification is not in operation, greater difficulty is met with than is the case as regards small-pox, and this because the cases of the former disease reported to the health officer are not so numerous as in respect of the latter class of disease. But doing the best with the materials which were available, Dr. TRIPE marked out the district around the hospital in circles having quarter-mile, half-mile, three-quarter mile, and one mile radii, in the same way as had been done with small-pox, and during 1886 he obtained the following results. In the quarter-mile area 44 out of 283 houses were invaded; that is to say, 15·5 per cent. of the cases occurred there against 6·1 per cent. of houses in the whole district. Between the quarter-mile and half-mile radii there were 112 houses invaded, or 39·6 per cent. amongst 15 per cent. of the total number of houses. Between the half-mile and three-quarter-mile radii there were 35, and between the three-quarter-mile and one-mile radii 31 houses invaded, making a total of 23·4 per cent. of cases amongst 31·5 per cent. of the total houses, and outside the one-mile radius 61 houses were invaded, or 21·5 per cent. of all infected amongst 47·4 per cent. of the total number of houses.

These figures might be regarded as indicating some injurious influence of the hospital on the population, but a glance at the map which illustrates the report goes to show that any such influence could not have been aerial, as in the case of small-pox, but that it might have been induced by personal contact, as during traffic, the disease existing chiefly in the streets which form approaches to the hospital. And not only so, but the disease attacked one group and spared another in the same area, and this although the inhabitants of the area having immunity were poor, and were certainly not in the enjoyment of sanitary arrangements of a better sort than were their neighbours in localities infected. Then, again, there is an absence of that constancy which marked the influence of small-pox hospitals. The returns for scarlet fever in 1882, being submitted to a similar examination, are quite different from those for 1886, and they would point much less conclusively to any mischievous effect. Having regard to the total result of the inquiry set on foot, Dr. TRIPE gives his opinion to the effect that his statistics as to scarlet fever "show that it is not at all likely to spread from a hospital in the way that small-pox has done, and that, whilst it is almost certain that hospitals for small-pox in London have proved injurious, those for scarlet fever tend to reduce the spread of that disease."

We should hardly have gone so far as to draw this conclusion from the facts to which this report is limited; but we find that it is at least in accord with previous experience in this respect. When Dr. THORNE THORNE published his official report on the influence of hospitals for infectious diseases, he, with the aid of Mr. SHIRLEY MURPHY, then resident medical officer to the London Fever Hospital, set out in a tabular and diagrammatic form the history of houses surrounding that hospital with regard to scarlet fever and to several other infectious fevers. The result was that over a series of years the number of attacks from scarlet fever in houses immediately surrounding the hospital happened to be slightly less than that which might have been expected to have occurred in a similar group of houses situated elsewhere than near an infectious hospital. Very similar experience was obtained at Sunderland and Warrington, where the infectious hospitals were situated in close proximity to the houses of the labouring classes. As yet the investigations into this subject have not been of the precise character that have marked the similar ones as to small-pox hospitals, and hence we think it wise not to draw any very definite deductions from them; but we can at least assert that, apart from spread of disease under conditions of personal contact, which should not be allowed in a properly administered hospital, scarlet fever hospitals have never been shown to have any but a beneficial effect on the communities providing them.

IT is understood that the Medical Council will appeal from the decision of the Court of Queen's Bench in the case

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of Reg. *versus* the General Medical Council. The case, our readers will remember, was an application on behalf of Mr. H. F. PARTRIDGE for a *mandamus* ordering the Medical Council to restore his name to the Register of Dentists, from which it had been removed under the Dentists Act, 1878. The name was erased in the following circumstances. Mr. PARTRIDGE, though entitled to be registered under the Dentists Act in virtue of being in practice before it was passed, elected to be registered in virtue of a diploma in Dentistry which he held from the Royal College of Surgeons of Ireland, subject to the condition that he should not seek to attract business by advertising or by any practice considered by the College to be unbecoming. In 1883 the Royal College of Surgeons of Ireland withdrew or cancelled his diploma on the ground that Mr. PARTRIDGE had attracted business by advertising. Mr. PARTRIDGE'S diploma being withdrawn, his *locus standi* in the Register seemed to cease; and accordingly the Medical Council in February, without any independent examination of the case, ordered the Registrar to erase his name from the Register. The Dentists Act differs in an important respect from the Medical Act. It does not contain a clause like Clause 28 of the Medical Act, which provides that Colleges or bodies exercising the power of striking off the names of any of their Members shall signify the same to the General Council; and that the Council may, *if they see fit*, direct the Registrar to erase from the Register the qualification derived from the College or body in respect of which such member was registered, always provided that the name of no person shall be erased on the ground of his adopting any particular theory of medicine or surgery. This provision is not repeated in the Dentists Act; and Mr. FINLAY, Q.C., with much skill, argued that it must have been present to the framers of the later Act, and been by them intentionally omitted. From this position he went further, and argued that it was clearly not the intention of the Act to give the Medical Council power to erase except under Clause 13. The Court of Queen's Bench endorsed this view, and laid down that the Council are not entitled to remove a dentist's name from the Register, even under Section 13, merely on the report of any College or body that it had removed a given name from its list of members, except after an independent inquiry and proof that the person affected had been guilty of certain offences specified in the clause—viz., of infamous or disgraceful conduct in a professional respect.

This decision may be a very sound one in point of law, but it leads to some curious consequences. The Council is required to publish from time to time a *correct* copy of the Dentists' Register. Obviously a Register is nothing if it is not correct. Is it possible for even the Queen's Bench to require the Council to publish a Register that is incorrect? Clearly we think not. How, then, can the Court order the Council to register the possession of a qualification which has been cancelled? It may be said that Mr. PARTRIDGE was entitled to be registered in virtue of being in practice before 1878. So he was, but this title to registration lapsed after the first day of August, 1879. The consideration of such lapsed right to registration might advantageously have been remembered by the Council when

It is difficult to see in what sense Mr. PARTRIDGE can be registered under this decision. His name may be inserted, it is true; but what is a name in a Medical or Dental Register without the facts or letters which indicate the nature of the right to be there? The advantage of such a registration would be very doubtful. It could not excite anything but inquiry, and such inquiry would elicit the fact that the only qualification once possessed had been withdrawn. The case is one of the many which go to prove that the Medical Acts are drawn with culpable carelessness, and are more calculated to benefit the legal than the medical profession or the public. We shall be curious to see if the Court of Appeal will confirm a judgment which leaves both the Council and the suitor in such an unsatisfactory position, to say nothing of its tendency to encourage modes of attracting "business" which we can only regard as derogatory to the dental profession and as militating against the interests of the public.

Annotations.

"Ne quid nimis."

THE VACANCIES IN THE COUNCIL OF THE COLLEGE OF SURGEONS.

ON former occasions we have sought to influence the prospective action of the Fellows in their voting with a view to secure such new members for the Council as would be most suitable for the attainment of those changes in the policy of the College that are so much sought for by the profession at large. On this occasion matters are quite changed, and nothing that we can now say will have any influence on the immediate action or policy of the Council, directly or indirectly, seeing that the Council, for good or for evil, and notwithstanding the recent introduction among them of men more or less pledged to reform, have rejected all overtures made to them by their constituents. For the Council have now presented their petition for a new Charter, which, while embracing considerable changes, some directly opposed to the wishes of the Fellows and Members, completely ignores the three great desiderata as formulated at the annual meetings of the College and carried by overwhelming majorities. Nevertheless, it is desirable that all those who really wish to see the Council reformed should sustain their efforts, and should vote only for such candidates for seats as will be likely to keep up and [illegible] the reform element which already exists, though [illegible] a minority at present. A few weeks ago we published a brief abstract of the changes sought by this Council. At the risk of seeming wearisome, we may remind our readers that these changes leave untouched the three [illegible] proposals made at and passed by the annual meetings, viz., (1) that the Council shall present a report [illegible] reprint of the Minutes of their proceedings) for discussion by the annual meeting; (2) [illegible] tion in the Constitution, or in the [illegible] College, or in any of its bye-laws or [illegible] effected without the consent of the Fellows [illegible] convened to discuss the same; and (3) [illegible] Members, under certain restrictions, [illegible] shall take part in the election of, and [illegible] Council. These fundamental changes in the [illegible] of the College have been [illegible] resolved to agree to [illegible] by the Council [illegible]

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with a *non possumus*, and are now seeking for what will practically amount to the endorsement of this policy by the Privy Council. It remains to be seen with what success. The two Associations of Fellows and Members respectively have done, and we hope are still doing, their utmost to have their views represented in any new Charter that may be granted. It will indeed be strange in these days of general representation if the wishes of a large body of the Fellows and the petition of some six thousand carefully educated Members of the College of Surgeons be entirely ignored in matters of such obvious common sense as those in dispute. Besides the three great questions just alluded to, there are continually cropping up questions in which the general practitioner is largely and chiefly concerned, and in legislating on which it is quite clear that his practical knowledge will prove of real service.

THE CONJOINT COLLEGES.

THE following report on the utilisation of the vacant ground adjoining the Examination Hall on the Thames Embankment will be laid before the respective authorities of the two Colleges at early meetings:—"1. That a central theatre for lectures and demonstrations should constitute a part of the proposed additional buildings. 2. That the central theatre should be built so as to contain seats for an audience of about 250 persons. 3. That the plan submitted by the architect be, in its general arrangements, adopted, and recommended to the two Colleges, it being understood that the theatre shall be constructed to contain about 250 persons, and that the side wings be proportionately enlarged. 4. That, subject to the approval of the above resolutions by the two Colleges, a subcommittee be appointed to investigate and report upon the best arrangements at present existing in scientific institutions in the construction of a lecture theatre and laboratories. 5. That the appointment of the subcommittee be left in the hands of the two Presidents of the Colleges, and that the subcommittee be requested to report within four months."

POLICE AMBULANCE ARRANGEMENTS ON JUBILEE DAY.

THE ambulances consisted of six horse-ambulances and various bearer sections. The horse-ambulances were posted as follows:—One in Scotland-yard, one in Dean's-yard, one at King-street Police-station, one at Buckingham Palace, one in Cleveland-row (at the bottom of St. James's-street), and one at the entrance to Spring-gardens, opposite the Union Club. The bearer sections occupied positions at Scotland-yard, Parliament-square, the Abbey, King-street Police-station, Hyde-park-corner, top of St. James's-place, bottom of St. James's-place, Piccadilly-circus, Waterloo-place, Spring-gardens, Charing-cross, and the Embankment end of Northumberland-avenue. Three of the horse-ambulances, fully equipped and with an efficient *personnel*, were kindly placed at the disposal of the police authorities by Mr. John Furley of the St. John Ambulance Association, whose name has been so long and honourably before the public in connexion with ambulance work both in civil and military practice. Mr. Furley personally superintended the working of his ambulances, and Mr. S. Osborn, as the surgical representative of the Order of St. John, was in charge of the horse-ambulance in Dean's-yard. The permission of the General commanding the Home District having been obtained, the Volunteer Medical Staff Corps, under the command of Surgeon-Major Norton, furnished three strong detachments, consisting of about 160 men. The police ambulances provided eight bearer sections, the men being specially selected for this duty from those who had previously served in the Army Hospital Corps (many of them wearing the medals of two or three campaigns), and from those who had obtained certificates of proficiency and efficiency in ambulance duties. The equipment, stretchers, haversacks, and water-bottles were kindly supplied by Surgeon Lees Hall, A.M.D. (adjutant of the Volunteer Medical Staff Corps), whose services were extremely valuable. The various ambulance contingents paraded at Scotland-yard at 8 A.M. on the morning of Tuesday, when after a few words of address from Sir Charles Warren, they marched off to their allotted positions. Medical men were posted in various parts of the Abbey. Dr. H. G. W. Mackenzie and Mr. Battle of St. Thomas's Hospital were in the Triforium, Dr. Hawkins in the Peers' Gallery, Mr. Farr at the north door, Dr. Marsden Low at Poets' Corner, and the Chief Surgeon of the Metropolitan Police at the Royal entrance. Fortunately, their services were not called into requisition. The accidents and casualties treated by the ambulances were rather numerous than serious, and consisted mainly of individuals fainting and crushed by struggling in the crowd, fits, contusions, wounds, and injuries and fractures of limbs. At Piccadilly-circus so numerous at one period were these minor casualties that Dr. Kemp, the divisional surgeon in charge, felt himself compelled to utilise the Vine-street Police-station as a temporary hospital. All the details are not to hand, but it is roughly computed that between 500 and 600 were treated in the streets. The serious cases, fortunately few in number, include a fracture of skull, admitted into St. George's Hospital; concussion of brain and severe injuries of chest, resulting from a kick from a trooper's horse, which shortly proved fatal. Dr. A. E. Hardy, house-surgeon to Charing-cross Hospital, has kindly sent us the following list of cases treated at that hospital on the 21st. Contusion 1, sprains 6, various wounds (slight) 31; fractures, of the radius 2, forearm 1, leg 1; dislocation of shoulder 1, alcoholism 5, syncope 2, hysteria 1, epilepsy 7, sunstroke 2, brought in dead 1, trivial cases 11. Ten cases were admitted: severe contusions 3, concussions 3, epilepsy 2, apoplexy 1, delirium tremens 1. Altogether about 98 cases required attention. This is a fair example of the kind of cases treated during the day chiefly at the hospitals along the line of route—viz., Charing-cross, St. George's, and Westminster. Every assistance was given by the police, and the numerous cases were rapidly transported to the hospitals or to their homes. The arrangements, which were, we believe, made but a few days before, were admirably carried out, and Sir Charles Warren, the Commissioner of Police, and Mr. MacKellar, F.R.C.S., Chief Surgeon, are entitled to the highest credit.

HYDROSTATIC PRESSURE IN INVERSION OF THE UTERUS.

PROFESSOR MAX RUNGE of Dorpat, having a case of inversion of the uterus, caused by a midwife pulling on the cord which had been allowed to remain without medical advice for nine weeks, made several fruitless endeavours to effect reduction by manipulation and by distension of the vagina, by means of Braun's colpeurynter, which consists merely of an indiarubber ball with thin walls, provided, like Barnes's bags, with a tube and stopcock. He then bethought himself of a plan recommended and practised successfully by Krukenberg—viz., the application of considerable hydrostatic pressure to the vaginal canal, with the view of dilating the os uteri and of softening the inverted uterus itself. Professor Max Runge sprinkled the colpeurynter well with iodoform, and again introduced it, connecting it with a vessel of water hung at the height of about 3 ft. 8 in. above the bed. Communication between the colpeurynter and the water-vessel was kept open, the stopcock not being turned off, and so a high degree of hydrostatic pressure was continually exerted, distending the vagina

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and the os and compressing the body of the uterus. Next morning the pain caused by the apparatus became unendurable, and the patient pulled it away from her. Upon examination, it was found that the fundus had retreated within the os, which was widely distended; there was still, however, a partial inversion, which was readily reduced with the finger. The uterine cavity was then washed out with a carbolic solution, and a tampon of iodoform wool introduced into it. The mucous membrane of the vagina showing signs of sloughing, it was well powdered with iodoform; ergot was also given. The parts were carefully dressed for some days, and the patient made a rapid recovery.

DEGREES IN MEDICINE AND SURGERY FOR LONDON MEDICAL STUDENTS.

AN extraordinary meeting of the Fellows of the Royal College of Physicians has been summoned for Monday next, at which a report from the delegates of the two Colleges on the granting of degrees in Medicine and Surgery will be submitted for approval. The chief features in the report are the refusal to undertake united action with University and King's Colleges in the formation of a new University to confer degrees in Arts, Science, and Medicine, and the recommendation of an application for a charter and power to grant degrees in Medicine and Surgery by the two Colleges acting jointly, but independently of any other bodies. We understand that the charter will suggest a governing body of forty-eight persons (twenty-four from each College), and that power will also be sought to confer degrees on those who have already passed the examinations for the membership of the College of Surgeons and for the licentiateship of the College of Physicians.

CONTAMINATION OF THE THAMES BY THE HENLEY REGATTA.

WHEN last year we published a special report on the contamination of the Thames at the Henley regatta, the matter was brought before the House of Commons. To a question put by Mr. H. S. Wright, the President of the Local Government replied that the Thames Conservators, acting according to the Act passed in 1885, had drawn up bye-laws which would enable the owners of house boats to be prosecuted if the drainage of these vessels went into the Thames. The bye-laws only awaited the approval of Her Majesty in Council. With this assurance the public was lulled into a sense, we regret to say, of false security. On inquiry we find that even at this, the eleventh hour, the bye-laws in question have not yet received the Royal assent. The Henley regatta will be held on June 29th, 30th, and July 1st, and the owners of house boats, steam launches, and other craft are still at liberty to drain their sewage into the chief drinking-water supply of London. This scandalous state of affairs seemed so inexplicable that we at once proceeded to inquire at the Thames Conservancy office as to what were the causes of such a dangerous delay. We were then informed that immediately after the publication of our report on the contamination of the Thames at the Henley regatta, the Thames Conservancy drew up a set of bye-laws calculated to put an end to the grievance. These, according to the law in such matters, were extensively advertised and objections invited. Such objections were entered, but they did not relate to the clauses protecting the Thames from contamination. It was the rules concerning the marking and numbering of the boats which elicited the opposition of many of the persons concerned. Nevertheless, the delay was effective in retarding the whole measure. The bye-laws had to be drawn up again in a modified form and once more advertised. A few objections were raised to this second project, but we have good reason to believe they were not of a serious nature, so that there is now no valid reason for withholding the Royal assent. This may be obtained at any moment—perhaps, we were informed, in three days, or in three weeks, or in three months. We would earnestly urge that there is not an hour to be lost. The Thames Conservators, with commendable energy, have drawn up and printed a circular, which they will send to the owners of every house boat the moment the Royal sanction to the new bye-laws is given. This circular points out that by Clause 9 of the new Regulations in question, a penalty will be inflicted on those who "cast or throw into or upon, or place or cause or suffer to fall or flow into or upon any of the places specified in Subdivision 1 of this bye-law, any sewage, rubbish, or other offensive matter or thing." But till this bye-law is approved, custom, long established, allows the drainage of boats into the water on which they float. Rubbish, sand, and ballast may not be thrown into the river. This is forbidden by the 27th and 28th Victoria. And the 29th and 30th Victoria prevents the drainage of houses into the Thames; but the Thames Conservators do not consider that these Acts empower them to interfere with the construction of watercloseta on board vessels, even if these navigate the Thames above the intake for the drinking-water of London. On the other hand, foreseeing that the Royal assent will probably not be obtained in time to prevent the mischief and danger caused by the large concourse of crafts at Henley during the regatta week, the Thames Conservators, at their own cost, have followed our suggestion and appointed two scavenging barges. These will pass up and down the course both morning and evening, so as to remove the contents of night-stools and all the garbage and refuse. It is to be hoped that the visitors will profit by this new facility placed at their disposal, and will not throw overboard anything likely to befoul the water. Nevertheless the bye-laws should have received the necessary sanction before this, and so important a matter ought not to have been left to mere voluntary effort. It is hardly yet too late; and we still hope to see this error of neglect rectified before the Henley regatta week.

INCREASE OF ALCOHOLISM IN FRANCE.

A SPECIAL commission appointed by the French Senate to investigate the above-named subject has drawn up a regular impeachment against the trade in alcohol. During the last ten years the consumption of alcohol in France has increased from 970,000 to 1,500,000 hectolitres. This, however, only represents the officially recognised figure; the fraudulent and clandestine trade in alcohol cannot be estimated, though it is considerable in amount, and the liquor thus vended must be vile in quality. The number of suicides attributed to excessive consumption of alcohol has multiplied sixfold during the ten years in question—1874 to 1885. There were formerly 137 cases per annum; there are now 868. In those departments there has been a notable augmentation in the sale of alcohol, the number of recruits who have proved unfit for military service has increased fourfold. Criminal assaults have also largely multiplied in these same counties. The proportion of patients suffering from insanity due to alcohol received in public asylums has, on an average, risen from 9 to 16 per cent. during the last ten years. In certain departments, out of the total number of insane from alcohol the proportion given of those who are victims of alcohol reaches the enormous figure of 21, and even, in one case, 28 per cent. During the last five years (1881-1885) there have been 51,000 insane received in the public asylums, and of these no less than 7400 cases are said to have been due to the excessive use of alcohol. Among the accidents recorded, no less than 20 per cent. are attributed to drunkenness; and the birth-rate has also notably decreased in those parts of the country where the use of alcohol has

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increased. Yet all these are but official figures, and the case would be even worse if it were possible to record all the facts that escape the control of the public authorities. Nevertheless, the indictment is strong enough as it stands, and the Commission of the Senate have not failed to express their serious alarm and concern. To remedy the evil, it is proposed to increase the tax on alcohol, and to impose more stringent regulations with respect to wine shops. This, however, will scarcely meet the case. The phylloxera is undoubtedly in a great measure responsible for the increase of drunkenness in France. Given cheap and pure wine, there would probably be but little alcoholism. Drunkenness is almost unknown in wine-growing countries; and intemperance in France prevails principally in the northern departments, where the vine cannot grow. What is more particularly wanted is the stringent application of laws against the sale of bad alcoholics and adulterated wine, combined with facilities of transit, so that pure wine may be brought within reach of the poorer classes. When once the palate is accustomed to natural and wholesome wines, the intoxicants that do so much harm will be considered too coarse to be drunk with any sort of pleasure. A Spanish peasant from the vineyards of Andalusia, accustomed to the unsophisticated Manzanilla or the Montilla of his native country would find the schiedam drunk in Northern Europe inexpressibly nasty. It is difficult to prevent drinking by Act of Parliament, but the Legislature may seek to check fraud and adulteration.

A CURIOUS VERDICT.

AN inquest was held at the Crowndale Hall, Crowndale-road, on June 15th, by Dr. Wynn Westcott, deputy coroner for Central Middlesex, touching the death of a man aged fifty years. Deceased had been in pecuniary difficulties, and on one occasion, some three months ago, he stated that had he not been relieved he would have poisoned himself with the contents of a packet he produced from his pocket. About a fortnight before his death he disappeared from his home and was not heard of for a week, nor was his whereabouts subsequently traced. When he returned home on June 7th he appeared very ill, and was suffering from symptoms of gastric irritation. During the week he confessed to his wife that he had taken poison, and directed his son to the contents of his coat pocket. Two packets, each of which had been opened, were there found. They bore labels marked "Oxalic acid," "Poison." One packet was nearly empty, and a small quantity of the acid had been taken from the second packet. The chemist who supplied the acid deposed that each packet originally contained half an ounce, but that he had no knowledge of the purchaser, as the poisons falling under Schedule B of the Sale of Poisons Act, it was not necessary that it should be signed for. Dr. Mac Larty, of 204, Camden-road, was called to deceased on June 9th, whom he found suffering from vomiting, pain in the stomach, and other symptoms of gastric irritation. Medicines were prescribed for the alleviation of the patient's troubles, but death from exhaustion ensued on June 11th, two days later. Although the wife of deceased knew that her husband had admitted taking poison, she did not tell Dr. Mac Larty of the circumstance; consequently, in the absence of other evidence, there was no indication for other than symptomatic treatment. Very promptly, but unfortunately, an alkali was administered; just the last drug one would think of giving in a case of oxalic acid poisoning, on account of the solubility of the sodic and potassic oxalates, compounds practically as poisonous as oxalic acid itself. There was no evidence, however, to show that any acid had been taken after deceased returned home—that is, within three days of Dr. Mac Larty seeing him. The necropsy was conducted by Mr. Pepper on June 14th, the day before the inquest. The stomach was found to be acutely inflamed, the whole surface presenting a bright-red appearance, varied by black arborescent markings due to coagulated blood in the veins of the submucosa. There was no corrosion. The lower half of the œsophagus was affected in much the same manner as the stomach, and there was slight corrugation of the mucous membrane at the cardiac end. The mucous membrane of the small intestine was much congested. In reply to the coroner, Mr. Pepper said he had no doubt that an irritant poison had been taken, and that analysis showed this was not metallic, nor was it a mineral acid or caustic alkali. The condition of the stomach might possibly have been caused by a large quantity of strong alcohol, but it was more consistent with poisoning by oxalic acid. He doubted if oxalic acid would be found in the stomach five days after it was exhibited, as it was soluble, and would be farther got rid of by vomiting and diarrhœa. The lungs were extremely congested, but there was no hepatisation. There was nothing abnormal about the brain. The viscera generally showed signs of degeneration incidental to age, but were not so diseased but that life might have been considerably prolonged under ordinary conditions. Dr. Westcott advised the jury that a further analysis would probably disclose nothing more of importance, and that it did not seem necessary to adjourn the inquiry. The jury, after consultation, returned a verdict of "Death from natural causes, accelerated by alcohol," whereupon the coroner pointed out that the medical evidence went to show that the stomach had been acted on by some irritant poison, and that there was an entire absence of recent alcoholism. At his suggestion the verdict as registered ran, "Death from syncope, consequent on inflammation of the stomach and gullet, but that how the latter was caused there was no direct evidence to show."

THE PATHOLOGY OF FATIGUE.

PROFESSOR ANGELO MOSSO of Turin, with the aid of coadjutors in his laboratory, has for some years been working at the physiology of fatigue, and now he has turned his attention to the pathological manifestations of that physical condition. Fatigue carried beyond the moderate stage, at which it is decidedly beneficial, subjects the blood to a decomposing process through the infiltration into it of substances which act as poisons—substances which, when injected into the circulation of healthy animals, induce malaise and all the signs of excessive exhaustion. The researches which seem to justify this finding are embodied in an elaborate paper recently submitted to the Accademia dei Lincei, and shortly to be made accessible in its printed Transactions. Fatigue, according to Prof. Mosso, when incurred within limits regulated by the resisting power of the subject, has its pleasures and even joys—these being the expression of the organic consciousness that the active destruction of tissue is normally balanced by its reconstruction, a process yielding the sense of reinforcement and exhilaration. It was on the soldiers of the Italian army that Mosso's experiments were made, and he has convinced himself that he has arrived at practical regulations as to the amount of exertion to be put forth on the march, as to the best distribution of the halts and of sleep, and as to the lightening of the weight each soldier has to carry. The tent, for instance, which the Italian linesman has to take in his knapsack might, he thinks, be advantageously dispensed with. Again, the *vexata quæstio* of the comparative strength of the much-extolled Roman legionary and his modern counterpart has not been neglected by Professor Mosso, who has even traversed the archæological field in order to settle it. He has examined the richly-furnished museums of antique Roman armour and *impedimenta* scattered through the Italian cities, and he comes to the conclusion that in point of stature and bodily power the modern soldier is in no way inferior to the ancient. The Roman armies under the ablest

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disciplinarians had their stragglers and their physically distressed upon the march; while the treatment available for their wounded on the battlefield and the ambulance-tent was comparatively rude and ineffective. And yet they were the conquerors of the then known world.

MORTALITY IN MANCHESTER.

THE high death-rate that has prevailed in Manchester in recent years, and the still higher rate that has been recorded there since the beginning of this year, seem to call for more local attention than has yet been given to the matter. The recorded death-rate in this city appears, from the Registrar-General's returns, to have averaged 26·5 per 1000 in the five years 1881-5; it was 26·3 during 1886, and in the first twenty-four weeks of this year the annual rate has been equal to 30·7 per 1000. Now the mean death-rate in the twenty-eight largest English towns during the five years 1881-85 did not exceed 21·5 per 1000, and was 20·9 in 1886; in the first twenty-four weeks of this year the mean annual death-rate in these towns was 21·2. These figures show a striking excess in the Manchester death-rate compared with the mean rate in the twenty-eight towns, an excess which has prevailed continuously during the past six years, and has been more strongly marked since the beginning of this year. In each of the last six years Manchester has been placed last, or last but one, in the list of these towns ranged in the order of their rates of mortality from the lowest. If the recorded death-rates in these twenty-eight large towns be corrected for differences of age and sex distribution, as is done by the Registrar-General in his annual summary, the result shows that the recorded and uncorrected death-rate in Manchester considerably understates the excess of mortality in the city. The age and sex proportion of Manchester is so exceptionally favourable to its mortality that the recorded death-rate in 1886 (26·3 per 1000) is raised by the Registrar-General's method of correction to 29·4 before it is fairly comparable with the corrected rates in the other large towns, and the general rate in England and Wales. The corrected rates in these twenty-eight large towns last year ranged from 17·6 in Brighton, 18·9 in Derby, 19·5 in Hull, and 20·0 in Bristol, to 26·1 in Liverpool, 27·8 in Blackburn, 29·4 in Manchester, and 31·4 in Preston. All the four towns at the bottom of the list are Lancashire towns, to which may be added Bolton and Oldham, which stand next to them, with rates very little lower than the rate in Liverpool. The Manchester sanitary authority has, we believe, asserted that the Registrar-General under-estimates the present population of the city, and thus overstates its death-rate. So far as we know, however, no serious attempt has been made to prove the probability of this assertion, by furnishing returns of inhabited houses on the rate-books of the city. The numbers of births annually registered in the city since 1881, moreover, do not afford evidence of increase of population since the last census much exceeding the small rate that prevailed within the present boundaries of the city between 1871 and 1881. We do not propose on the present occasion to discuss the causes of the long-continued high death-rate in Manchester. It should, however, be noted with reference to the death-rate in 1886, which was almost identical with the rates in 1884 and 1885, (1) that the mortality from the principal zymotic diseases was considerably above the mean rate in the twenty-eight towns, and that the excess was especially marked in the mortality from scarlet fever and "fever," which in most other towns shows a striking reduction resulting from improved sanitary organisation; and (2) that the excess of mortality is conspicuous at all ages, infant mortality being 183 in Manchester, against 169 in the twenty-eight towns, the death-rate among children and adults between one and sixty years was 16·0, instead of 11·8, in the aggregate population of the large towns, and the rate among persons over sixty years of age was 101·4 per 1000 living at those ages, against a mean rate of 77·1. Such facts as these should engage the serious consideration of the sanitary authority and of the ratepayers of the city of Manchester.

MERCURIAL INJECTIONS.

A DISCUSSION has recently been taking place in the Brussels Medical and Scientific Society as to the relative advantages of mercurial injections and inunctions combined with internal medication. Dr. Thiry prefers the latter method, as he thinks injections are attended with serious risks and inconveniences. M. Ed. de Smeth, on the other hand, practises injections largely—in fact, always—when mercury is indicated in syphilitic patients. At present there are in his wards 24 such cases in which no less than 900 injections have been given without any accident occurring; and M. de Smeth thinks that, as, apart from his own practice, M. Martineau has reported a series of 180,000 injections without any accident, Lewin 300,000 with 20 abscesses, and Paikert 5000 without any, it cannot be said that this form of treatment is more liable to inconveniences than other forms. He points out that there is a great difference between injecting insoluble salts, as calomel and the yellow oxide, in the way recommended by Scarienzo, upon which method M. Thiry's experience of injections was mainly gained, and injecting soluble salts, which is the plan he himself prefers and follows. Here, he says, the only objection to the injections is that the patient must be regularly seen by the doctor, which in private practice is sometimes inconvenient. Of course care must be taken that the syringe is perfectly clean and that the liquid is well filtered. In order to illustrate the occasional importance of the rapid action which can only be obtained by the method of injecting soluble salts of mercury, M. de Smeth mentions a case of syphilitic laryngitis of so urgent a character that it was thought that laryngotomy would be needed. However, by means of hypodermic injections repeated five or six times during the course of twenty-four hours all danger was averted.

CORSETS AND TIGHT-LACING.

IT has always seemed to us to be somewhat of a satire on the work of nature that the female form should be thought to require the support of a corset in order to make it graceful. We observe therefore with satisfaction that ladies, and even young ladies, are here and there to be found who have with equal courage and good sense dispensed with this unnecessary article of dress. Among the majority who continue to wear it there are also signs, though less pronounced, of the same healthy tendency. Tight-lacing is viewed with much less favour than formerly. Women as well as men are coming to see that artificial slenderness is no beauty, and indeed the sham and unreason apparent in a figure wantonly contracted must create in all thinking persons a feeling of repugnance which effectually prevents the possibility of admiration. Victims of this hurtful practice and grievous error in taste are still, however, not uncommon. Only a few days ago an inquest on the body of an elderly female revealed the fact that death was due to the direct consequences of her having the stays too tightly laced. This is by no means the first instance in which the coveted fineness of waist has been thus dearly purchased. It is, in fact, impossible that this custom can but injure health, for what are its effects? By tight-lacing, which forces together the elastic ribs and narrows the space within the thorax, free action of the lungs is obviously rendered impossible, the liver and heart are displaced, and the great bloodvessels unnaturally stretched. The organs placed at a

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ower level are hardly less affected, and the pressure tells nore or less on every important structure between the ollar-bone above and the pelvis below. The unfortunate vorshipper of a false ideal thus loses with free respiration he due effect of the most powerful force which aids the eart in driving its blood through the body—the force of horacic suction. Displacement of the heart, moreover, an only result in palpitation, or severer cardiac troubles. Thus it comes to pass that every organ and tissue is under-ourished, digestion is little more than a meaningless term, nd healthy life in any part of the body is unknown. This ıay seem to be forcible language, but it is nevertheless the :lothing of facts which it does not merely envelope, but in ıany cases fits with a strictness not incomparable to the rm embrace of the most fashionably strait corset.

THE VETERINARY PROFESSION AND PUBLIC HEALTH.

A WELL-KNOWN veterinary surgeon has, in a letter to *he Times*, protested against certain recent statements ılculated to reflect on the attitude of the veterinary pro-ession towards the scientific study of animal diseases hich are related to the health of man. We are convinced ıat it would be unfair to attack the whole profession because ırtain of its members have recently appeared less willing to ılue scientific observation than we think should have been ıe case. As matter of fact, however, diseases of the lower ıimals have hitherto been considered rather in relation to eir effect upon these animals than to the health of man. or this no possible blame can attach to veterinarians; it ıs been necessary in the first instance for the importance these maladies to be recognised; but we are sure, now that me have assumed unexpected prominence, they will meet ith all the consideration they deserve. The scientific study disease, whether of man or of the lower animals, has come more possible during the last few years owing to e better opportunities which exist for its investigation, d a more definite knowledge is now expected than here-fore. No public health department is complete without e aid of those skilled in animal diseases, and we anticipate e need for services of this kind will not less stimulate the ıuiries of veterinary surgeons than it has members of our n profession. It is not many years ago that human infec-us diseases were not properly differentiated; it will pro-bly not be long before those of animals are as well under-od as are now human maladies of this kind. With the ssibilities of experimental inquiry which are open to the erinary profession, it may, indeed, be expected that the owledge of animal diseases will soon be more precise ın that of human maladies.

DAIRY SCHOOLS.

THE future of dairy farming in this country is a subject ıssessed of no small interest for the whole population. e importance of fat in food, alike as a sustainer of mus-ar energy and of the body heat, is now better understood n formerly. The daily and universal need of milk, the lculty in many quarters of obtaining it unadulterated, well-founded accusations levelled at it of late years as a rier of disease, not to mention many other matters ıting to the quality and cost of dairy produce in general, st therefore commend themselves to us as cogent reasons y education should have more to do than it has had h teaching the best methods of conducting this great ıstry. We hear on all hands complaints of foreign com-ition, and it is not remarkable, nor on the whole to regretted, that other nations compete with us in this artment of trade. The public is better fed in con-ience. It is not certainly any measure of protection we would ask for in the interest of home producers; but nothing can be more reasonable than the proposal that dairy schools should be established in conjunction with dairy factories in various rural districts. This would strengthen the competition on our side, and would go far to ensure a general supply of sound produce and the correction of existing abuses. A suggestion has been made that such a scheme should be instituted with the help of a moderate Government grant. It would certainly be better, however, if the project could be worked without applying to the national exchequer; and it seems to us that farmers, by combining for this purpose, especially when assisted, as they must be, by the proceeds of the factories, might make the system work, and even pay, without aid from the State. If, however, a small grant or loan were necessary to start with, it should be easily possible to refund it within an appointed time.

CARBOLIC ACID AS A SAFEGUARD AGAINST INSECTS.

MANY people do not know how easily they can protect themselves and their children against the bites of gnats and other insects. Weak carbolic acid sponged on the skin and hair, and in some cases the clothing, will drive away the whole tribe. A great many children and not a few adults are tormented throughout the whole summer by minute enemies. We know persons who are afraid of picnics and even of their own gardens on this account. Clothing is an imperfect protection, for we have seen a child whose foot and ankle had been stung through the stocking so seriously that for days she could not wear a leather shoe. All this can be averted according to our experience, and that we believe of many others, by carbolic acid judiciously used. The safest plan is to keep a saturated solution of the acid. The solution cannot contain more than 6 or 7 per cent., and it may be added to water until the latter smells strongly. This may readily, and with perfect safety, be applied with a sponge. We have no doubt that horses and cattle could be protected in the same way from the flies, which sometimes nearly madden them, and it even seems possible that that terrible scourge the African Tsetse fly, might be kept off in the same manner.

DEATH FROM CHLOROFORM AND FEAR.

AN inquest recently held at University College Hospital on the body of a woman forty-one years of age opens up two important questions bearing upon the administration of volatile narcotics under special circumstances of disease. The patient had suffered from pleurisy, followed by effusion of serum into the left pleural cavity, and the operation to which she was subjected was that of tapping the chest in order to draw off the fluid. The needle was inserted, but as the fluid did not flow it was proposed to tap at a point lower down. To quiet the anxiety of the patient, who had become nervous, and who asked for chloroform for the second puncture, chloroform was administered, but before the quantity put into the inhaler—about two drachms—was used up, the pulse stopped and death followed. In order to give a chance of recovery, the fluid was drawn off from the chest, and the other usual means of restoration were supplied, but without avail. The post-mortem showed the heart to be fatty and empty, and death was returned as from syncope under chloroform. The two practical questions in connexion with this untoward event are: (1) Is it extra hazardous to administer an anæsthetic when a pleural cavity is charged with fluid? (2) Is it extra hazardous to administer an anæsthetic like chloroform after a patient has expressed fear or anxiety during an operation? In answer to the first question, we should infer—although the matter has, we admit, been little argued—that in all cases

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where the capacity of the chest is reduced by effusion of fluid or other cause there is some extra risk, and that in such cases local anæsthesia is the safest method. On the second question we have less doubt. We believe, as we before expressed in these columns, that it is always an extra risk to administer chloroform when a patient is becoming faint or nervous from fear. Chloroform acts on the heart like fear, and had better be avoided when nervous trepidation leading to faintness is present. We do not for a moment say that this patient would not have died under any other method of anæsthesia, or that she might not have died if no anæsthetic had been employed. But in the future it may perhaps be preferable, guided by the experience here afforded, not to administer chloroform under any persuasion of the patient, when, with reduced capacity of respiration from mechanical impediment, there is nervous shock and threatened syncope from fear.

JUBILEE HONOURS TO MEDICAL MEN.

The *Gazette* published on the eve of Jubilee Day did *not* chronicle the fact of a peerage having been allotted to any medical man. Well, the most we can say is that an opportunity has been allowed to slip. The fact remains that no member of our profession has ever been raised above the rank of a baronet. We are not disposed to magnify this grievance, but it is undoubtedly felt to be one, and it would have been an act of grace in this year of jubilee to wipe away the reproach that the practice of medicine disqualifies a man for very high social position. For the rest, the honours conferred on the profession, though scanty, are of a nature to be approved. Professor Garrod, always supposing he did not care to accept a baronetcy, is clearly entitled to knighthood. Mr. MacLeod will wear his new honours with credit. The other honours have been appropriately conferred. As a whole, the *Gazette* is a meagre one; but while many aspirants will be disappointed, there is nothing to be urged against the little that has been bestowed.

SPAYING FOR FIBROIDS.

DR. G. ZVORYKIN has collected statistics of nearly 300 cases of spaying (*kastratsia*) for uterine fibroids. A large proportion of these are from English and American sources; seven, however, are contributed by Russian surgeons, six by Dr. Zvorykin's chief, Professor Lebedeff, and one by Dr. Salmanoff. Two of them are described as interstitial, three as multiple interstitial, one as interstitial cavernous, and one as subserous multiple interstitial. In all these seven cases, both ovaries, and in three of them more or less of the tubes, were removed. The hæmorrhage from which all the patients had suffered ceased, and no bad symptoms occurred. Dr. Zvorykin compares spaying with myotomy, and believes the one to be as devoid of danger as the other. Spaying, he considers, is indicated in cavernous fibromata; in retro-cervical or inter-ligamentous tumours, where myotomy would be attended with danger; in all interstitial fibromata, especially in small ones where menorrhagia is the chief symptom; in subserous fibromata of large size, if they give rise to menorrhagia; and in cases where the patient has become so anæmic and weak that the loss of blood necessarily attendant on the operation of myotomy would be likely to affect her condition seriously. Spaying he considers contra-indicated in subserous fibroids with long pedicles which can easily be removed; in large interstitial fibroids causing symptoms of weight and bearing down, but unattended with menorrhagia; in fibro-cystic tumours; in young subjects in whom fertility may be restored after myotomy; and, lastly, in cases where the ovaries are enclosed in a mass of false membranes, and their removal is consequently attended with great difficulty.

THE HEALTH OF THE CROWN PRINCE.

HIS Imperial Highness the Crown Prince of Germany continues in excellent health, and the appearance of the larynx is quite satisfactory. There is now no congestion, though the ventricular bands are slightly relaxed. As the Crown Prince could not possibly manage to keep very quiet during the past week, Dr. Morell Mackenzie has not yet thought it desirable to perform another operation. He has, however, applied a solution of perchloride of iron on several occasions, and it is probable that some more of the growth will be removed early next week. Dr. Norris Wolfenden has, by desire of Dr. Mackenzie, been added to the resident medical staff in attendance on the Crown Prince at Norwood, in order that he may make applications to the larynx and report to Dr. Mackenzie on those days on which he does not examine the illustrious patient himself.

THE CEREBRAL CENTRES FOR GASTRIC MOVEMENTS.

DR. B. A. HLASKO, of Dorpat, has recently followed up some researches of Oppenchowski, Knaut, and Dobbert upon the mode in which the stomach is affected by cerebral influences. His experiments were conducted on no less than seventy-six dogs, by stimulating different regions of the brain by the faradaic current. He finds that the centre for the contraction of the cardiac extremity of the stomach are situated in the corpora quadrigemina, and that the nerve fibres connecting these centres with the cardiac pass in part down the spinal cord, but more especially along the pneumogastric. The centres for contraction of the sides of the stomach are likewise situated in the corpora quadrigemina, the impulses travelling mainly through the spinal cord. The centre for the dilatation of the cardia—i.e., the origin of Oppenchowski's "dilator nerve of the cardia"—is situated at the junction between the lenticular nucleus with the anterior inferior extremity of the caudate nucleus close to the anterior commissure. The vagus is here the medium of communication with the cardia. The cardio-dilator fibres found by Knaut in the spinal cord appear to originate from some other not yet known centre in the cord or brain. From these researches Dr. Hlasko is inclined to doubt the existence of a single "vomiting centre," such as is believed in by many. He thinks that the different actions on the stomach and the abdominal and respiratory muscles which are concerned in the act of vomiting are probably each governed by a different centre.

METROPOLITAN ASYLUMS BOARD.

THE report as to small-pox prevalence in the metropolis which was presented at the meeting of the Asylums Board on Saturday continues to be satisfactory. In the preceding fortnight not a single patient had been admitted. Two had been discharged, and one only remained under treatment. When the size of London is considered, the almost complete absence of this disease is in every way quite worthy. Scarlet fever however, has been distinctly prevalent, as many as 452 cases being in the hospitals of the Board together with five patients suffering from typhus and three from enteric fever. The Ambulance Committee has reported that so long as the hospital ships remain open for the reception of patients, no further modifications could be made with due regard to the efficiency of the ambulance service; and even if the ships were closed the staff would have to be maintained [illegible] fication for the protection of the [illegible] observe with satisfaction that the Board has received the honour of knighthood [illegible] the Queen's Jubilee. This people [illegible]

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which are rendered to London by the hospital-providing authority for infectious diseases will give satisfaction to those who are cognisant of the difficulties against which the managers have to contend. It is indeed time that the complaints of other authorities as to the board's expenditure should cease. That there have been carelessness and extravagance in the past there is no matter for doubt; but London is dependent, as are other communities, upon hospital provision for the prevention of disease, and we congratulate Sir Edwin Galsworthy and his colleagues upon the estimation in which their efforts are held by Her Majesty and her responsible advisers.

THE JOHN LUCAS WALKER STUDENT IN PATHOLOGY.

DR. WM. HUNTER, M.D. Edin., F.R.S.E., &c., has been elected the first holder of this studentship. After a brilliant university career, culminating in the Ettles Scholarship, Dr. Hunter took his M.B. degree at Edinburgh in 1383. He then acted for six months as assistant to Prof. Rutherford, and for the following six months as one of the resident physicians in the University wards of the Edinburgh Royal Infirmary. Since that time he has been engaged in original work on pathology at Vienna, Leipzig, and Edinburgh. His graduation thesis for the degree of M.D. on "The Physiology and Pathology of Transfusion and the Fate of Extravasated Blood" was awarded a gold medal. Other papers giving an account of his researches—chiefly on the pathology of the blood—have appeared in the *Journal of Anatomy and Physiology* and elsewhere. Dr. Hunter's past success as an investigator of pathological problems, and the opportunities which he has had of becoming acquainted with experimental work as well as with morbid anatomy and histology, render him extremely well qualified to occupy worthily the post to which he has been elected.

THE HOSPITAL SUNDAY FUND.

IT is too soon to take any accurate view of the success of the Hospital Sunday Fund this year, and of the discussion of the merits of our hospital system which has taken place in connexion with the Hospital Sunday anniversary, wide and important beyond precedent. We shall not delay a week in acknowledging the earnestness and energy of all helpers, lay and clerical, but we shall defer comment till we have more data in our possession.

DYSACUSIS.

M. LANNOIS has contributed to the *Lyon Médical*, No. 24, an interesting article on hyperacusis in facial paralysis and on the influence of mastication on the acuity of hearing. Amongst some individuals a very notable diminution of the faculty of hearing may be detected during mastication, and this diminution may even amount to actual deafness, so that on addressing the masticating individual not a syllable reaches his consciousness. In some cases of facial paralysis a distressing sensation in the ear of the paralysed side may be experienced, and this has gone incorrectly by the name of hyperacusis. The tensor tympani or internal muscle of the malleus receives its nerve supply through a small branch from the otic ganglion on the third part of the fifth nerve. It is held, therefore, that in paralysis of the facial nerve the auditory phenomenon is due to concomitant paralysis of the stapedius, which is believed to be supplied by the facial nerve, but this nerve does not supply the tensor tympani. The diminished auditory capacity observed in some individuals during contraction of the masseter and other muscles supplied by the motor part of the fifth nerve is the result of a simultaneous but too energetic contraction of the tensor tympani, which is innervated motorially by the fifth nerve also.

MEDICAL RELIEF IN GLASGOW AND THE CHARITY ORGANISATION SOCIETY.

FOR some time past the families of the able-bodied poor have been attended by a medical practitioner appointed by the above Society for this purpose, and paid by it. The Society considers this provision essentially temporary, and now seeks to throw the duty of medically attending the able-bodied poor on the various medical charitable agencies, notably on the Glasgow Medical Mission, as "admirably suited for affording suitable attention to that class of the poor." The Charity Organisation Society will still investigate the cases. The question is a difficult one, the only thing clear being that society at large should pay for this attendance, and not throw it on the gratuitous services of the profession.

THE HOSPITAL SATURDAY FUND.

THE results of the recent Hospital Saturday collection, as so far announced, are still very unsatisfactory. The sum collected in factories was £6675 5*s.*, and by ladies in the streets £145 1*s.* 6*d.*, a total of £6820 6*s.* 6*d.*, against £6702 9*s.* 3*d.* last year. There will be no adequate success in this matter till the committee of the Hospital Saturday Fund takes into its serious consideration the methods practised by similar committees in Birmingham, Sheffield, Sunderland, and other provincial towns.

DEATHS OF EMINENT FOREIGN MEDICAL AND SCIENTIFIC MEN.

THE deaths of the following foreign medical and scientific men are announced:—Dr. Eduard Heymann, Geheimer Sanitätsrath, of Berlin, at the age of seventy-one.—Dr. Gustav Hauck, Geheimer Sanitätsrath, of Berlin, at the age of seventy-six.—Dr. D. Jaime Vilar y Colom, editor of the Spanish medical journal, *La Lanceta*, published at Barcelona.—Dr. T. R. Pasternatski, *docent* of mental diseases in Warsaw, at the age of thirty-nine.—Dr. A. Zagumeni of St. Petersburg, having after many fruitless endeavours failed in obtaining a professorship of chemistry in Warsaw, Kieff, or St. Petersburg, poisoned himself with prussic acid. He was forty-two years of age, a Doctor of Medicine, Master of Chemistry, and "Laborant" of the Academy of Sciences.

THE REMOVAL OF A SPINAL TUMOUR.

WE are glad to be able to report the continued good progress towards recovery of the patient from whom the tumour was removed from the spinal canal on June 9th, a short account of which we gave in our issue of the 18th (p. 1244). Comparatively little improvement in the condition of the lower extremities has as yet been noted, and there is much discharge of cerebro-spinal fluid from the wound, but the temperature indicates an aseptic course, whilst the general condition of the patient is improving.

OXIDISING ACTION OF TURPENTINE ON ALCOHOL.

IN the method of preserving biological specimens proposed by Mr. M'Alpine of Melbourne, which consists in abstracting their moisture with alcohol after hardening in chromic acid, and then placing the specimen in turpentine for some time, great discrepancies are found to arise according as the alcohol is or is not allowed to evaporate from the specimen before dipping it into the turpentine. An explanation of this discrepancy has just been suggested by some recent experiments of Mr. Steedman of Victoria, who finds that dilute ethyl alcohol becomes oxidised to acetic acid in presence of air and turpentine. Thus a clear glass 16-oz. bottle containing two drachms of alcohol one drachm of turpentine,

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and one ounce of water, corked securely, and left exposed to a temperature averaging about 80° F. for three months, was found to contain a liquid which was decidedly acid from the presence of acetic acid.

SINE CURRICULO DENTAL EXAMINATIONS.

AT last the Royal College of Surgeons of Edinburgh have given notice that they will close their doors to *sine curriculo* men for the dental examination after the end of next year, and we sincerely hope that the Irish College and the Faculty of Physicians and Surgeons of Glasgow will do the same. It is now nine years (less one month) since the passing of the Dentists Act: surely that is sufficient time for any man in practice to prepare for and pass the Licentiateship in Dental Surgery. Not only can no good accrue either to the dental profession or to the general public by the examining boards admitting men who have not had a hospital training, but they lay themselves open to the charge of being actuated by pecuniary motives.

QUEEN'S COLLEGE, BIRMINGHAM.

AT a meeting of the Council on the 16th inst., Mr. Bennett May, F.R.C.S., B.S., surgeon to Queen's Hospital, was elected to the chair of Professor of Surgery, to fill the vacancy caused by the resignation of Mr. Furneaux Jordan.

DIPHTHERIA IN ONTARIO.

GREAT prominence is given in the last annual report of the Provincial Board of Health of Ontario to the history and causes of diphtheria, that disease having prevailed during 1886 in the area under the Board's jurisdiction to an extent unprecedented and unequalled in the history of the province. The death-rate reached 0·76 per 1000 of the population, the total deaths having been 1470. The etiology of the disease is discussed at considerable length, and the views of German, English, and other authorities are referred to. Regulations as to the prevention of the infection, such as have been drafted by the Provincial Board, are also set forth in detail. Dr. Chas. W. Covernton, chairman of the Board, also deals with the subject in his introductory chapter as to the matters which have occupied the attention of the Board during the year reported on.

DRY HOT-AIR BATHS FOR SYPHILITIC PATIENTS.

DR. STEPANOFF of Moscow has contrived a plan of treating patients suffering from syphilis which has resisted mercurial and iodine treatment. He has had a box or bath constructed with an iron bottom lined with thick felt, in which the patient is placed. The bath is heated to about 170° to 190° F. by means of two Bunsen's lamps, each consisting of five burners. After the patient has been "baked" he is put to bed and covered with blankets, so as to prolong the sweating process commenced in the bath for an extra half-hour. After this he is allowed to dress and go into the ward to his dinner. By means of these baths the mercury is rapidly eliminated from the system and the patient's condition greatly improves, and after a course mercury is found to act quickly and energetically.

THE CHEMICAL EQUIVALENT OF ZINC.

LIEUT.-COL. REYNOLDS and PROFESSOR RAMSAY have communicated to the Chemical Society the result of a series of twenty-nine experiments, conducted with great care, with the object of determining the exact equivalent of zinc. The zinc used was prepared by electrolysis from sulphate of zinc, the final sample being so nearly pure that dilute acid would scarcely act on it. The equivalent arrived at was 65·4787 + 0·016135.

FOREIGN UNIVERSITY INTELLIGENCE.

Dorpat.—Dr. Friedreich Schultze, Extraordinary Professor in Heidelberg, has been offered the chair of Special Pathology and Therapeutics, vacated by Professor A. Weil on account of ill health.

Kasan.—Dr. Bogoluboff, Professor of Clinical Surgery, is about to retire in consequence of ill health. The *Vratch* understands that the chair will be given to Dr. V. T. Razumovski, *privat docent* for Operative Surgery in the same University.

Leipsig. — Professor de Bary of Strasburg has been appointed to the Professorship of Botany.

Madrid.—Notice has just been given that a *concurso* is to be held immediately, for the selection of the directors of, and assistants in, the medico-legal laboratories of Madrid, Barcelona, and Seville, which institutions were established, on paper at least, about a year ago.

Poitiers.—M. le Dr. Buffet-Delmas has been appointed acting Professor of Anatomy and Physiology.

Prague.—A memorial which has recently been presented to the Berlin authorities, requesting that study in Prague might be recognised in the case of students of German nationality has not been acceded to.

St. Petersburg (Military Medical Academy).—Dr. Tarenetski, Prosector of Anatomy, has been appointed to the Professorship of the same subject, vacated by Professor V. Gruber. Professor T. T. Nasiloff was also appointed to the chair of Surgery lately held by Professor Kolomnin, deceased.

THE repetition of the Jubilee service in Westminster Abbey on the 22nd inst. was attended by a large congregation. As we announced in our last issue, the admissions were in great part by ticket, given in consideration of donations for hospital assistance. A third of the receipts go to Westminster Hospital, whose secretary has sustained the chief burden of the arrangements; a third to the Hospital Sunday Fund; and a third to the Western Dispensary and the Hospital Saturday Fund jointly.

WE learn that the report published by an evening contemporary a few days ago, to the effect that measles was very prevalent amongst the boys in Winchester College, was exaggerated. There are a few cases of German measles in the school sanatorium, but, contrary to what had been stated, the cricket match between Winchester and Eton has not been postponed, but commences this day (Friday).

MR. F. J. WILLIAMSON, of Esher, has been entrusted with the commission of executing the marble statue of the Queen, which the Royal Colleges of Physicians and Surgeons have resolved to place in the Examination Hall to celebrate the Jubilee of Her Majesty's reign. It is to be finished by June of next year and will be placed on the half-landing facing the entrance to the Hall.

A GENERAL meeting of the Zoological Society of London was held on the 16th inst., on the lawn of the Society's gardens, which was reserved for the occasion. Professor Flower, the president, delivered an address in which he reviewed the history of the Zoological Society from its foundation in the year 1826.

CHOLERA is stated to be again spreading rapidly in Tonkin. The circumstance is all the more important because it was from Tonkin that cholera was first imported into the military port of Toulon, whence resulted the serious epidemic of 1884-86.

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JUBILEE MEDICAL HONOURS.

THE QUEEN, on the occasion of Her Majesty's Jubilee, has been graciously pleased to order the following appointments and promotions to be made:—

Knights.

Dr. Garrod.
G. H. MacLeod, Esq., Queen's Surgeon, Edinburgh.
Dr. Aitken, Netley Hospital.

ORDER OF THE BATH.

Ordinary Member of the Military Division of the Second Class, or Knights Commanders.

Surgeon-General John Harrie Ker Innes, C.B., Honorary Surgeon to the Queen.

Additional Members of the Military Division of the Second Class, or Knights Commanders.

Inspector-General of Hospitals William Mackenzie, M.D., C.B., C.S.I., Indian Medical Service, Honorary Physician to the Queen.

Inspector-General of Hospitals and Fleets James Jenkins, C.B., Royal Navy.

Knights Commanders (Civil Division).

John Simon, Esq., M.D., C.B., late Medical Officer, Privy Council Office.

Dr. Arthur Mitchell, M.D., C.B., Lunacy Commissioner, Scotland.

Ordinary Members of the Military Division of the Third Class, or Companions.

Inspector-General of Hospitals and Fleets James Nicholas Dick, Royal Navy.

Surgeon-General Herbert Taylor Reade, V.C., Medical Staff.

Deputy Surgeon-General Jeffery Allen Marston, M.D., Medical Staff.

An Ordinary Member of the Civil Division of the Third Class, or Companion.

Professor W. H. Flower, British Museum.

ORDER OF ST. MICHAEL AND ST. GEORGE.

Ordinary Member of the Second Class, or Knight Commander

James Alexander Grant, Esq., M.D., of Ottawa, in the Dominion of Canada.

Companion.

Sir Oscar Clayton.

The Queen has been pleased to give orders for the appointment of the undermentioned officer to be a Companion of the "Distinguished Service Order":—

For Operations in Burmah.

Fleet-Surgeon Thomas D'Arcy Bromlow, M.D., Royal Navy.

The Queen has been graciously pleased to confer the decoration of the Royal Red Cross upon the undermentioned Nursing Sisters under the provisions of Clause 5 of Her Majesty's Warrant, dated April 23rd, 1883:—Miss Louisa Jane Mackay, Army Nursing Sister; Miss Christina Fergusson, Army Nursing Sister; Miss A. B. Holland, Army Nursing Sister; Miss Edith King, Stafford-house Committee; Miss Emma Durham, Stafford-house Committee.

The following members of the Veterinary profession have also participated in the distribution of honours:—

Knight

H. L. Simpson, Esq., Mayor of Windsor, President of the Royal Veterinary College.

Ordinary Members of the Civil Division of the Third Class or Companions of the Order of the Bath.

Principal Veterinary Surgeon George Fleming, Head-Quarters Staff of the Army.

Professor Brown, Agricultural Department of the Privy Council.

A MR. D. O. MILLS has given 80,000 dols. for the purpose of erecting a new building on the grounds of Bellevue Hospital, New York, which will be used mainly as a training school for male nurses.

THE HOSPITAL SUNDAY FUND.

ON the 16th inst. a public meeting in aid of the Hospital Sunday Fund was held at Wellington Hall, Islington. The Islington north and north-west district contains eleven hospitals and six dispensaries benefiting from the fund. In 1886 these institutions relieved 6243 in-patients and 105,849 out-patients; their total income was £52,581 and their total expenditure £60,346. The chair was taken by the Rev. H. W. Barlow (Vicar of Islington), who was supported by Sir A. K. Rollit, M.P., the Rev. Canon Hurst, the Rev. Dr. Allon, the Hon. Conrad Dillon, and others. The chairman having briefly opened the meeting, Sir Albert Rollit, M.P., moved the first resolution, insisting upon the importance of maintaining the hospitals in the utmost efficiency, and urging the clergy to earnestly appeal to their congregations in order to secure that the whole sum collected on Hospital Sunday should not be less than £100,000. He said that the great deficiencies which had arisen in the funds of the hospitals were a breach in the continuity of the history of the century. At the beginning of the century there were only 51 of these institutions, and at present there were 496 scattered over the United Kingdom. This was a thing to be proud of, and was characteristic of the humane spirit of the age. The Hon. Conrad Dillon seconded the resolution, pointing out that the sanitary education given by the hospitals was very great. The motion having been carried, the Rev. Canon Hurst moved the second resolution, regretting that in the year 1886 the deficit of the hospitals in that district amounted to £8000, and pledging the meeting to increased exertion to prevent a repetition of the deficiency. Dr. Glover seconded the resolution. He said that the hospital accommodation of London at present was barely sufficient to meet the cases of urgent necessity, while cases of chronic disease had to suffer in consequence. The expenditure of the hospitals was very narrowly watched nowadays by business men, and extravagance was almost impossible. The resolution was carried, and the meeting terminated with a vote of thanks to the chairman.

On the 17th inst. a meeting was held at Stratford Town-hall. The Stratford and East-end district contains seven hospitals and five dispensaries benefiting under the fund. In 1886 these institutions relieved 14,190 in-patients and 189,401 out-patients; their total income was £78,565 and their total expenditure £109,399. The chair was taken by Mr. John Meeson, Mayor of Stratford. Lord Rosebery moved the first resolution, which was similar to the one moved by Sir Albert Rollit, M.P., at Islington on the 16th inst. He said that if we are to continue facing a deficit every year with regard to hospitals, the natural result would be that they must come upon the rates. This he was not in favour of, for two reasons—one being that the rates are high enough already, and the second because he believed that the best of all energy and of all motive powers is voluntary effort. Zeal cannot be bought. Again, where subscriptions are voluntary the subscribers look out very closely to see that their money is well spent. Lord Rosebery expressed the opinion that this was not the case with rate-supported hospitals, and alluded to the recent disclosures respecting the management and expenditure of the Eastern Hospital. Canon Scott, Sir Edmund Hay Currie, Mr. Forrest Fulton, and others also addressed the meeting.

In the afternoon of the same day another meeting was held at Westminster Town-hall, the Dean of Westminster presiding, and resolutions were passed similar to those passed at all the previous meetings.

On the 18th inst. the last of the series of meetings was held at the People's Palace, under the Presidency of the Duke of Cambridge. Among those present were the Right Hon. C. T. Ritchie, (M.P.), Sir Edmund Hay Currie, the Bishop of Bedford, Mr. J. H. Buxton, Mr. H. C. Burdett, and Canon Scott. The chairman, in opening the proceedings, referred to the great and useful work carried on by the hospitals. More especially, he said, were those institutions deserving of liberal public support in the East-end, for it was there that their assistance was most essential. He concluded by moving the usual resolution. Mr. Ritchie, M.P., in seconding the motion, said that he trusted that the public would do away with the scandalous state of things under which the hospitals were spending £100,000 a year more than they received. The resolution having been supported by the

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Bishop of Bedford, it was carried unanimously. Sir Edmund Hay Currie then moved a second resolution, regretting that the deficit in the accounts of the hospitals of East London amounted to £30,000 in the year 1886. He said that there were no fewer than 2100 beds unoccupied in the eastern hospitals. Mr. J. H. Buxton seconded the resolution, which was also carried unanimously. A vote of thanks to the chairman having been carried with acclamation and briefly acknowledged, the meeting terminated.

On the 19th inst. the annual collections were made at nearly all the churches, and other places of worship in the metropolis. The congregations were as a rule good, especially in the West-end, the large number of visitors in town for the jubilee festivities having a marked effect upon the ordinary attendance.

The following is a list of the principal contributions which have up to the time of our going to press been received by the secretary of the fund:—St. Michael, Chester-square (Rev. Canon Fleming, B.D.), £1023; St. Jude's (Rev. D. Forrest), £800; St. Paul's Cathedral, £232; Holy Trinity, Kilburn, £81; St. John the Evangelist, Penge, £85; St. Peter's, Brockley, £69; St. Matthew's, Brixton-hill, £70; All Saints', Blackheath, £75; Dulwich College Chapel, £50; St. Marylebone Presbyterian Church, £56; Barnes, Surrey, Parish Church, £54; Amelia, Countess of Lauderdale, £50; St. Mark's, North Audley-street, £146; St. Saviour's, Pimlico, £52; St. Mark's, Reigate, £84; Brixton Unitarian Church, £58; St. Paul's, Forest-hill, £66; St. Andrew's, Wells-street, £114; St. John's, Clapham-rise, £61; Trinity Church, Hampstead, with St. Cuthbert's, £91; St. Michael's Parish Church, Highgate, £66; All Saints', Margaret-street, £70; Metropolitan Tabernacle (Rev. C. H. Spurgeon), £250; St. Matthew's, Denmark-hill, £56; St. Matthew and Holy Trinity Missions, Upper Clapton, E., £100; Mr. James Carnegie, £50; the Temple Church, £273; St. Stephen's, Wandsworth, £60; City Temple, £58; Clapton Park Congregational Chapel, £100; Christ Church, Highbury, £113; All Saints', Ennismore Gardens, £357; St. Mark, Hamilton-terrace, £295; St. Paul's, South Hampstead, £104; St. Paul's Presbyterian Church, Westbourne Grove, £63; Hampstead Parish Church, £70; Westminster Abbey (afternoon service at St. Margaret's), £58; St. Stephen's, Ealing, £129; Christ Church, St. Marylebone, £62; St. Paul's, Clapham, £50; St. Peter's, Dulwich Common, and St. Dunstan's, £51; St. James's, Kidbrook, £141; St. John's Presbyterian Church, Forest-hill, £87; Clapham Parish Church, £58; St. James's, Piccadilly, £132; Holy Trinity, Sydenham, £120; Brixton-hill Wesleyan Chapel and Schools, £79; St. James's, Paddington, £189; Trinity, St. Marylebone, £84; Lewisham High-road Congregational Church, £57; Sir W. B. Gurdon, £50; St. Mary's New Church, Stoke Newington, £58.

The secretary of the Fund has also received £820, being the third, less expenses, of the receipts derived from the repetition of the Jubilee service in Westminster Abbey on the 22nd inst.

According to the last reports received previous to our going to press the sum total of the subscriptions up to that time amounted to over £12,000.

THE CROWN PRINCE OF GERMANY: NATURE OF THE LARYNGEAL GROWTH.

THE following is a translation of the report (published in the *Berliner Klinische Wochenschrift*, No. 25, June 20th, 1887, and forwarded to that journal by the physician to his Imperial and Royal Highness the Crown Prince, General Physician Dr. Wegner) "of Privy Councillor and Professor Dr. Virchow, upon fragments of a swelling in the larynx which have been removed by Dr. Morell Mackenzie from his Imperial and Royal Highness the Crown Prince by means of avulsion (*Zangenoperation*)." The report runs as follows:—

The two specimens delivered yesterday by General-Physician Dr. Wegner exhibit, on macroscopic inspection, the appearance of a coarsely granular papillated tumour. Their convex surface had a glandular, bluish-white, slightly transparent, glistening aspect, in so far as they retained their natural conditions; large portions, indeed, which had been acted upon by catechu showed a dull, brownish, somewhat crumbling character. The cut surfaces were somewhat retracted, and concealed by the turning up of the margins; they consisted of a soft, slightly fibrillated tissue, from which projected some shreds of various lengths. The larger of the two portions was 3 mm. in height, and had a diameter of 2·5 mm.; the smaller was about 2 mm. in diameter. However, these measurements could not have quite corresponded to the conditions during life, for by the retraction and infolding of the cut surfaces after extirpation they must have undergone a diminution. Microscopical examination confirmed the diagnosis made by the naked-eye inspection:—1. The surface everywhere consisted of a very firm and thick layer of stratified squamous epithelium. Large colloid granules appeared in many of the cells. Here and there lay a nest of concentrically laminated cells. Internally there occurred a similar stratified layer of cylindrical cells (without cilia), which were seated directly on the connective tissue. 2. The connective tissue layer of the mucous membrane was furnished on its surface with long papillary outgrowths, which contained large vascular loops besides the connective tissue elements. Each such papilla corresponded to a granulation on the surface. Otherwise the mucous membrane showed scarcely any changes; even proliferation of nuclei and cells were only sparsely detected. The blood-vessels were moderately dilated. Both sections have been made deeply into the mucous membrane, and through this into the submucosa. Hence there are found, besides connective tissue with numerous fine elastic fibres, a large number of small nerve-trunks (from four to six fibres) and their branches, as well as small arteries and veins; in some places are seen also collections of lobules of the mucous glands. Although it is thereby proved that the operation had reached the deep parts underlying the mucous membrane, yet in spite of the most careful examination of these deeper parts, especially at the cut surfaces, no single portions could be found altered in an appreciable degree. All such changes were confined to the surface. They characterise the lesion as an epithelial growth combined with papillary offshoots (misnamed papilloma)—*pachydermia verrucosa*. In no part could an ingrowth of this epithelial formation into the mucous membrane be detected.

The foregoing statement is an important advance upon the statement of the 21st of May. In the specimen then examined changes resembling those now present were only very scanty in comparison with irritative changes, but all such appearances were limited to the periphery of the lesion. Now, on the other hand, a more central portion of the growth has apparently been obtained. Although this portion is very much diseased, yet the healthy condition of the tissue on the cut surface allows a very favourable opinion to be formed as to prognosis. Whether such an opinion would be justified in respect to the whole disease cannot be ascertained with certainty from the two portions removed. However, there is nothing present in them which would be likely to excite the suspicion of wider and graver disease. (Signed) PROF. DR. RUD. VIRCHOW.

Berlin Pathological Institute, June 9th, 1887.

LOCK HOSPITALS.

THAT part of the report of the Dublin Hospitals' Commission which refers to the Westmoreland Lock Hospital is of great importance not only to all concerned in the working of the hospital itself, but also as it bears upon the important question of hospital accommodation for patients with venereal diseases. It may appear to medical readers somewhat late in the day to be raising such a question, but, as we shall see, it is not only still a question, but a veritable *vexata quæstio*, surrounded with difficulties which appear to be almost insuperable. The commissioners first allude to the reports of a former Commission and Select Committee, both of which recommended that, as the Westmoreland Lock Hospital received assistance from the State, students should be admitted for the purpose of receiving clinical instruction, which recommendation, however, has not been complied with. The reasons for this are next dealt with. The governors of the hospital, who were responsible for the carrying out of this as of the other recommendations, were against the admission of

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students. Dr. Donnelly, the resident surgeon of the hospital, while admitting the importance of students having clinical instruction, expressed his opinion that it would not be practicable, and would deter the women from entering. Dr. Henry Fitzgibbon did not go quite so far as this; but Mr. Reginald Harrison, surgeon to the Liverpool Royal Infirmary, was enabled to give the commissioners important evidence on this point from the experience of the Liverpool Lock Hospital, which is a part of the Royal Infirmary. There it was found that the admission of students did deter women from entering, and when the former were excluded from the female side some years ago there was a marked increase in the number of female patients. In spite, however, of this, and of the fact which was also given in evidence that the examining medical authorities do not require certificates of attendance upon such institutions (i.e., lock hospitals), the commissioners report as follows:—

"Having regard, however, to the fact that this hospital 'does not,' to quote the words of the select committee, 'afford medical instruction,' we are clearly of opinion that it has forfeited its claim to participate any longer in the Parliamentary grant in its present form; while it is clear that, if our recommendation should be adopted, it will be excluded from any share in the newly created fund so long as it abstains from affording this instruction; and, further, that even if it were to comply with the condition upon which alone any hospital in Dublin will in future obtain an allotment from the fund, the amount to be allotted to it must inevitably be too small to admit of its continuing to exist without support from other sources. We are therefore brought face to face with the question as to how this hospital is to be supported in the almost certain event of the Parliamentary grant in its present form being discontinued."

There is, to say the least, a want of reasoning throughout the whole of this paragraph, which is very remarkable in so important a document, upon which such very weighty issues depend. To disestablish and disendow a hospital, which is admitted to be well managed, and which fulfils the object for which it was founded, because it does not afford clinical instruction, which the examining bodies do not require, and which comparatively few students would seek, is illogical in the extreme. But with the evidence before them, that the governors would not sanction the admission of students, and the great probability that this would deter patients from entering, the paragraph becomes worse than illogical—it is, indeed, wholly unjustifiable. Should the Westmoreland Lock Hospital be closed for this reason only, it would be nothing short of a scandal. The commissioners evidently feel this for they proceed:—

"That Parliament will again consent to place the Lock Hospital in Dublin in the singular position of being the only hospital of the kind which is supported by moneys charged on a vote included in the estimates for Civil Services, is in the highest degree improbable.....How, then, is this hospital to be supported in future? It is plain that there are but two ways in which it can be done—the one by private charity, the other by local rates; but it seems to be generally admitted that an appeal to the public would be in vain, and if this view be well founded, it is certain that the hospital must be closed unless it can be supported out of the rates. That this will be the ultimate solution we can hardly doubt, and we believe that it will in various ways be attended with great benefits, moral and material, to the community at large."

With the exception that Dr. Thomas Myles was secretary, the Commission appears to have been wholly composed of laymen. Had the Commission been a medical one, its members would probably have congratulated Dublin on possessing so valuable an institution as a lock hospital supported by Government, and have suggested, not its abolition nor its disendowment, but its initiation in other towns and cities, especially such as, like Dublin, are garrison cities and seaports. The commissioners rightly conclude that the public are not likely to take up the duty of supporting this hospital after the Government have given it up, but the suggestion that the ratepayers should be called upon to support the hospital does not indicate the same amount of knowledge of the world which might have been expected of them. What reason have they to assume that the public will do compulsorily as ratepayers that which they will not do voluntarily as individuals and philanthropists? It is true that destitute persons suffering from venereal diseases are admitted into workhouses, but they are admitted because they are paupers; and it is only as such that they are admissible at all. Thirty years ago the late Mr. Acton made a proposal somewhat similar to that suggested by the Dublin Commission, of the reception of which he gives a brief and plaintive description: "My so-styled 'preposterous idea' that the overtaxed ratepayers—many of them hardly able to support themselves—should be called upon actually to search out and then maintain in idleness a parcel of invalid harlots, thus qualifying them for fresh campaigns against the public, was duly sifted over and ridiculed, and its unlucky author was dismissed to keep the company of other visionaries." By the repeal of the Contagious Diseases Acts the Government Lock Hospitals at Kildare (Curragh Camp) and Cork have been closed. Should the Westmoreland Lock Hospital be also closed, as appears only too probable, Ireland will be without any lock hospitals at all—a great disaster, since the lock wards of its general hospitals are so few, so far between, and contain so few beds as to be a mere "drop in the bucket."

Let us turn to London and see what has been done there in the way of lock hospital and lock ward accommodation. The London Lock Hospital was founded in 1747 in Grosvenor-place, and removed to Westbourne-green in 1846; the hospital for male patients being opened in Dean-street, Soho, in 1862. In spite of this ancient history, the patronage of Royalty and of the nobility, and the fact of its being the only hospital of the kind in London, its very existence has from the first been one continued struggle; and but for the almost superhuman exertions of the late Lord Kinnaird and the partial support of the Government, it must long ago have been closed. As it is, the withdrawal of the Government grant will affect the hospital finances very seriously. Passing on to the lock wards in the general hospitals, it appears that in six hospitals—those of Guy's, King's College, the Royal Free, St. Bartholomew's, St. Thomas's, and the Middlesex, there has been a reduction in the beds for females of 97. Thus Guy's Hospital had formerly 30 beds, King's College 6, the Royal Free 30; now there are no beds for females with venereal diseases in any of these hospitals. Again, the beds in St. Bartholomew's Hospital have been reduced from 50 to 14; in St. Thomas's, from 30 to 28; in Middlesex, from 8 to 7. The London Hospital has 8 beds for female venereal cases. In all the other London Hospitals—Charing-cross, St. George's, St. Mary's, University College, and Westminster Hospitals, lock wards are conspicuous by their absence. The Lock Hospital has 36 beds made up for females, which, if the funds permitted, could be increased to 68. The lock wards in all the other London hospitals contain an aggregate of 57 beds; thus 93 is the total number of beds available in the whole of London for the many females who must at any given time be more or less afflicted with these diseases.

Passing on to other parts of the kingdom, we find the same deplorable dearth of lock hospitals and lock wards. There is the Glasgow Lock Hospital, for females only, with 60 beds available, which could be increased to 81. Manchester has a female lock hospital, with 20 beds made up and a capacity for 60. The Liverpool Lock Hospital of the Royal Infirmary (now temporarily closed) had 25 male and 25 female beds. The Bristol Lock Hospital, for females only, has 16 beds. There are lock wards in the Aberdeen Royal Infirmary (8 beds), Edinburgh Royal Infirmary (16 beds), Queen's Hospital, Birmingham (7 beds), Devon and Exeter Hospital (6 beds), Newcastle-on-Tyne Infirmary (12 beds), and Stafford General Infirmary (2 beds)—a total of 51 beds for females in six large and important hospitals. The same hospitals contain male wards with a total of 35 beds, increased recently by new male lock wards in the Edinburgh Royal Infirmary.

All this shows very conclusively that, unless a very great change takes place in public opinion, lock hospitals and lock wards will never be supplied or supported by the public in anything like a reasonable proportion to their necessity. Whether they will receive any share of the flow of charity during this Jubilee year remains to be seen, but it is very doubtful. When such great difficulties are experienced in raising funds for hospitals and other institutions for the most deserving inmates, it is obvious that these difficulties are increased when the patients are either dissolute men or common prostitutes. And though it has been frequently shown that married women infected by their husbands form a proportion of the patients in lock hospitals and wards, this does not seem to enhance the latter in public favour. The truth is that it is another illustration of the old saying, "What is everyone's business is nobody's business." The medical profession ought long

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ago to have demanded through the examining bodies the compulsory practical study of, and examination in, these diseases; until this is done the public will not be convinced of the necessity of lock hospitals and wards. The male wards should be open to clinical instruction. Female wards cannot be so open to students; there are obvious difficulties in the way which need not be discussed. But under stringent regulations advanced students previously to their final examinations might be permitted to witness the examination of a few female patients, which is all that would be required. The arrangements of the Liverpool Lock Hospital, which were described by Mr. Harrison to the Dublin Commission, possess many advantages, notably those of economy combined with isolation. The patients are in a separate building, with its own surgical and administrative staff, but under the management of the committee of the Royal Infirmary. Before it is again proposed to support lock hospitals out of the rates, it is well that we should know what are the present arrangements in our existing workhouses. A return showing the average annual number of paupers admitted with venereal disease, whether they are admitted into special or general wards, and other details, would be of great interest, and we hope that such a return will be moved for.

MEMORIAL PORTRAIT OF SIR WILLIAM JENNER, BART., K.C.B., M.D.

THE following is a list of names of members of the General Committee additional to those already published:—

Acland, Sir Henry, K.C.B., Oxford.
Bagshawe, Dr., St. Leonards.
Batten, Dr., Gloucester.
Beale, Dr., Grosvenor-street.
Church, Dr. W. T., Harley-street.
Cooper, Alfred, Esq., Henrietta-street.
Critchett, J. A., Esq., Harley-street.
Falls, Dr., Bournemouth.
Fincham, Dr., Belgrave-road.
Fowler, Dr. J. K., Clarges-street.
Glover, Dr. J. G., Highbury.
Grigg, Dr., Curzon-street.
Habershon, Dr., Brook-street.
Jackson, Dr., Notting-hill.
Johnson, Dr. George, Savile-row.
Lawrence, Dr. H. C., Oxford-terrace.
Manifold, Surgeon-General, Cathcart-road.
Matterson, Dr., York.
Millington, Dr., Wolverhampton.
Morison, Dr. A., Highbury.
Odling, Dr., Oxford.
O'Neill, Dr., Lincoln.
Ord, Dr., Upper Brook-street.
Palmer, Dr., East Sheen.
Potter, Dr. J. B., George-street.
Priestley, Dr., Hertford-street.
Pye-Smith, Dr., Harley-street.
Roberts, Sir William, Manchester.
Savory, W. S., Esq., President, Royal College of Surgeons, Brook-street,
Sawyer, Sir James, Birmingham.
Scott, Dr. John, Chandos-street.
Semple, Dr. C. E., Torrington-square.
Sibley, S. B., Harley-street.
Smith, Dr. R., George-street.
Snow, Dr., Bournemouth.
Tirard, Dr., Weymouth-street.
Turner, Halifax.
Wakley, Thomas, Esq., Redcliffe-gardens.
Wakley, Thomas, Jun., Esq., Redcliffe-gardens.
Warner, Dr., Harley-street.
Weber, Dr. H., Grosvenor-street.
West, Dr. Symes, Croydon.
Whipham, Dr., Grosvenor-street.
Willcock, Dr., Manderville-street.
White, Dr., Weymouth-street.
Williams, Dr. C. T., Brook-street.

WILLS OF MEDICAL MEN.

THE will of Edward Nolloth, M.D., M.R.C.P., F.R.C.S., a retired Fleet Surgeon, R.N., late of 13, North-terrace, Camberwell, who died on April 29th last, was proved on May 11th by the Rev. Henry Edward Nolloth, one of the executors, the value of the personal estate amounting to upwards of £16,000. The testator gives £5000 and his furniture, plate, and household effects to his brother, Peter Brames Nolloth, £20 to his executor, and the residue of his property to his brother, Henry Ovenden Nolloth, and his two sisters in equal shares.

The will of Alfred Meadows, M.D. Lond., F.R.C.P., late of 27, George-street, Hanover-square, who died on April 19th last, was proved on May 11th by Mrs. Sara Stirling Meadows, the widow, the value of the personal estate amounting to over £15,000. The testator gives all his household furniture and effects to his wife. The residue of his property he leaves upon trust for his wife for life, and then to his daughter Anna Gertrude absolutely.

The will of Mr. William Tiffin Iliff, M.D., medical officer of health for St. Mary's, Newington, late of 37, Kennington-park-road, Surrey, who died on April 25th last, was proved on May 20th by Miss Louisa Susanna Iliff and Miss Ellen Agnes Iliff, the daughters, and Mr. Edward Chester, the executor, the value of the personal estate exceeding £8000. The testator gives legacies to his executors, servant, and Mr. Alfred Long, his faithful friend and invaluable assistant. The residue of his property he leaves to his seven children, Louisa Susannah, Ellen Agnes, Fanny, Eveleen, Lillian, Jessie Marrian, and Percy.

The will of Mr. Ralph Beardshaw, late of 2, De Grey-terrace, Leeds, Yorkshire, surgeon, who died on March 2nd last, was proved on May 11th, at the district registry, Wakefield, by Mr. Henry James Harrison and Mr. John Beardshaw, the executors, the value of the personal estate amounting to upwards of £3000. The testator leaves all his property upon trust to pay the annual income thereof to his three daughters, Mrs. Mary Helen Benham, Mrs. Harriet Dawson, and Margaret Ann, in equal shares, and after their death to their respective children.

The will of William Frederick Scoresby, M.D., late of Wawarsing, in the county of Ulster and State of New York, who died on November 17th, 1884, was proved in London on May 14th, by Mrs. Grace Ada Scoresby, the widow, John Frederick Scoresby Eastgate, the nephew, and George Halstead Smith, the executors, the value of the personal estate exceeding £3000. The testator gives the third share of his house and furniture to his wife for life, and all his medical books and instruments to his nephew, John Frederick Scoresby Eastgate. The residue of his real and personal estate he leaves upon trust for his wife for life, and at her death to his sisters, Mary Eastgate and Louisa Sherman, in equal shares.

The will, with a codicil, of Mr. George Bacon Sweeting, surgeon, late of King's Lynn, Norfolk, who died on March 25th last, was proved on May 12th by Miss Alice Helena Cox, the niece, and Mr. Charles Bagge Plowright, the executors, the value of the personal estate exceeding £2000. The testator gives £100 each to his nephews, Frederick Gould and George Gould; as to the residue of his property, he leaves one moiety to Mrs. Mary Ann Palmer Cox, and the other moiety to Mary Ann Elizabeth Sweeting and Robert Charles Sweeting, the children of his deceased brother, in equal shares.

The will, with a codicil, of Mr. William Henry Thornton, surgeon, late of Margate, Kent, who died on March 20th last, were proved on May 17th by Mrs. Ann Thornton, the widow, and Bertram Thornton, the son, the executors, the value of the personal estate amounting to over £5500. The testator, after bequeathing a legacy of £200 to his wife, leaves the residue of his real and personal estate upon trust for her for life, and after her death to his children absolutely.

The will of Geddes McKenzie Scott, M.D., late of 16, Stonebridge Park, Willesden, who died on April 11th last, was proved on May 19th by Mr. Thomas James Scott, the nephew, and Mr. Walter Brodie, the executors, the value of the personal estate in the United Kingdom amounting to £900. The testator gives legacies to grandchildren, and the residue of his property to the daughters of his son in equal shares.

The will of Vincent Ambler, M.D., late of No. 14, Colville-square, Bayswater, who died on February 6th last, was proved on May 13th by Mrs. Helena Ambler, the widow, the value of the personal estate exceeding £700. The testator leaves all his property upon trust, to pay the income thereof to his wife for the education and maintenance of his five children till they attain the age of twenty-one years, after which the principal is to be divided equally between his two daughters; his three sons, having a good education, will participate in other moneys. The testator leaves the piece of plate presented to him by the Duke of Cambridge, and the gold watch presented to him by his Excellency Prince Malcolm Khan, the Persian Ambassador, to such of his sons as his wife thinks most deserving.

The following legacies have recently been left to hospitals and other medical charities:—Mrs. Elizabeth Ann Forest, late of Uplands, Winchester, £100 each to the Brompton Cancer Hospital, the West Kent County Hospital, and the Royal Hants County Hospital.—Mr. Benaiah Gibb the younger, late of 1, Dartmouth Villas, Lewisham, £100 to the Seamen's Hospital, Greenwich.—Mr. James Bigwood, of Bristol, £100 each to the Royal Infirmary, General Hospital, and Children's Hospital, Bristol.

THE Cottage Hospital which has been erected at Burslem in connexion with the Haywood Charity was opened on the 20th inst.

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VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5799 births and 3252 deaths were registered during the week ending June 18th. The annual rate of mortality in these towns, which had been 20·4, 19·5, and 18·9 per 1000 in the preceding three weeks, further declined last week to 18·4, and was lower than in any preceding week of this year. During the first eleven weeks of the current quarter the death-rate in these towns averaged 20·1 per 1000, and was 1·5 below the mean rate in the corresponding periods of the ten years 1877-86. The lowest rates in these towns last week were 12·2 in Derby, 13·4 in Birmingham, 13·8 in Halifax, and 14·1 in Norwich. The rates in the other towns ranged upwards to 24·3 in Huddersfield, 25·0 in Blackburn, 26·2 in Newcastle-on-Tyne, and 28·5 in Manchester. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had declined in the preceding four weeks from 532 to 489, were last week 501; they included 226 from measles, 132 from whooping-cough, 41 from scarlet fever, 49 from diarrhœa, 26 from diphtheria, 27 from "fever" (principally enteric), and not one from small-pox. No death from any of these zymotic diseases was registered during the week in Wolverhampton; while they caused the greatest mortality in Brighton, Blackburn, Birkenhead, and Manchester. The highest death-rates from measles occurred in Sheffield, Oldham, Salford, Norwich, Brighton, Manchester, and Birkenhead; from whooping-cough in Plymouth, Bradford, and Nottingham; and from scarlet fever in Blackburn. The 26 deaths from diphtheria in the twenty-eight towns included 16 in London and 2 in Huddersfield. Small-pox caused no death either in Greater London or in any of the twenty-seven large provincial towns. Only two cases of small-pox were under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease; one new case was admitted to these hospitals during the week. The deaths referred to diseases of the respiratory organs in London, which had been 333, 264, and 259 in the preceding three weeks, further declined last week to 213, and were 23 below the corrected weekly average. The causes of 78, or 2·4 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Birmingham, Bristol, Sunderland, Nottingham, and in three other smaller towns. The largest proportions of uncertified deaths were registered in Huddersfield, Halifax, Salford, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 19·8 and 21·9 per 1000 in the preceding two weeks, declined again to 19·3 in the week ending June 18th; this rate exceeded, however, by 0·9 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 9·7 and 12·4 in Perth and Aberdeen, to 22·2 in Paisley and 23·0 in Dundee. The 483 deaths in the eight towns last week showed a decline of 63 from the number in the previous week, and included 48 which were referred to whooping-cough, 13 to measles, 10 to scarlet fever, 10 to diarrhœa, 5 to "fever" (typhus, enteric, or simple), 4 to diphtheria, and not one to small-pox; in all, 90 deaths resulted from these principal zymotic diseases, against 50 and 76 in the preceding two weeks. These 90 deaths were equal to an annual rate of 3·6 per 1000, which was 0·7 above the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 32 and 35 in the preceding two weeks, further rose last week to 48, and included 16 in Glasgow, 14 in Dundee, 8 in Edinburgh, 4 in Greenock, and 4 in Leith. The deaths from measles and scarlet fever also exceeded the numbers in recent weeks; measles caused 11 deaths in Glasgow, and scarlet fever 6 in Glasgow and 3 in Dundee. The 10 deaths attributed to diarrhœa showed a decline of 2 from the number in the previous week, but exceeded those returned in the corresponding week of last year by 2. Of the 5 deaths referred to "fever," 3 occurred in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 102 and 109 in the preceding two weeks, declined last week to 76, and was 17 below the number returned in the corresponding week of last year. The causes of 76, or nearly 16 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 21·4 and 31·2 per 1000 in the preceding two weeks, declined again to 26·7 in the week ending June 18th. During the first eleven weeks of the current quarter the death-rate in the city averaged 28·8 per 1000, the mean rate during the same period being but 18·3 in London and 19·6 in Edinburgh. The 181 deaths in Dublin last week showed a decline of 30 from the number returned in the previous week; they included 18 which were referred to measles, 6 to scarlet fever, 5 to "fever" (typhus, enteric, or simple), 3 to whooping-cough, and not one either to small-pox, diphtheria, or diarrhœa. Thus the deaths resulting from these principal zymotic diseases, which had been 21 and 29 in the preceding two weeks, further rose last week to 32, and exceeded the number in any previous week of this year; they were equal to an annual rate of 4·7 per 1000, the rates from the same diseases being 2·9 in London and 1·8 in Edinburgh. The fatal cases of measles, which had been 17, 10, and 18 in the preceding three weeks, were again 18 last week. The deaths from scarlet fever and "fever" showed an increase upon recent weekly numbers. The deaths both of infants and of elderly persons were fewer than those returned in the previous week. Two inquest cases and 2 deaths from violence were registered; and 57, or nearly a third, of the deaths occurred in public institutions. The causes of 24, or more than 13 per cent., of the deaths registered during the week were not certified.

Correspondence.

"Audi alteram partem."

"THE DOCTOR'S INCOME."

To the Editors of THE LANCET.

SIRS,—Dr. Paget Thurstan is doubtless right in saying that his letters on the income of doctors have excited much interest. It is surely interesting, though not encouraging, to learn how poor we most of us are, and how unequal is the distribution of what wealth there is amongst us. What strikes me as of chiefest interest, however, in his letters and in other communications from other pens, is the tacit assumption that the hospital doctor is largely and mainly answerable for all the woes and the poverty of his non-hospital brethren. And yet not a tacit assumption only, for after detailing the case of a patient who ultimately reached a hospital, where she was treated for nothing, and then died, her whole medical expenses throughout a long illness having amounted to *five shillings*, he says: "But the system which *makes* the hospital doctor *breaks* hundreds of his less fortunate brethren." If the hospital doctor is *made* in the country by his hospital connexion—*made*, that is, both as to professional status and pecuniary comfort—and we will not deny that it is a vast help to him towards success in life,—it is far different with his hospital brother in London. The hospital doctor in London may derive a certain position from his hospital appointment, but no greater delusion exists than that it is the means of bringing him professional income. I doubt if the profession has the shadow of a notion as to the pecuniary difficulties which beset many a hospital doctor in London. Doomed for years, it may be, to the monotony of out-patient practice, by which he is supposed to be qualifying himself for the treatment of in-patients in the remote future, and, so far, too inexperienced for consulting work, forbidden by custom to earn a living by general practice, and compelled to have a respectable house in a respectable quarter—Harley-street or Brook-street, for example—that he may look, at any rate, as if he were a prosperous man, it is neither more nor less than the truth that, unless by some lucky chance or other he has an independent income to maintain himself, has a lucrative appointment, or a wife with a dowry, has property of his own, or enjoys an allowance from his parents, he has to pass the best years of his life—perhaps his whole life—oppressed by the load of pecuniary want. The public has little idea that the doctors alone of the staffs of the hospitals

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do their work without remuneration or reward, and general practitioners are many of them so slow to seek or encourage consultative advice that true *consultations* are extremely rare. Hence it happens that, with a few solitary exceptions, the men who thrive pecuniarily and are satisfied are those who know best how to appeal to the public, and who best cultivate the art of advertising themselves, even though it be at the risk of some distrust on the part of their own brethren. The profession does not hear much of this side of hospital doctors' lives in London, for where is the man who will openly tell you that he is not getting on, or who will boldly admit that he has not taken a single fee for many months? Could the truth be told, the profession would stand amazed at the insignificance of the purely professional incomes of hospital doctors here in London, and at the utter inadequacy of their incomes, even for the bare necessaries of life. Cutting sections and showing fragments of your departed patients at the Pathological Society may do much for scientific progress: neither pastime does much for bringing in the means of living. When, therefore, Dr. Paget Thurstan and others write and speak of a system which *makes* the hospital doctor and *breaks* his less fortunate brethren, they do so in ignorance of the real pecuniary condition of one important branch of the profession, the so-called pure consultants in London, supposed to be ever flourishing on the plethora of their guinea or two guinea fees. No, it is not the hospital doctors who *break* the general practitioner; and if the general practitioner desires to raise his income, let him look for and find the means of improving it nearer home. If combination be necessary towards this end, by all means combine; but, above all, do away with the practice of underselling each other, which cannot be otherwise than harmful to the whole profession. Let it not be forgotten, moreover, that the system of *hard work and no pay* which prevails in this rich metropolis amongst hospital doctors demands as much reform as the system of "hard work and poor pay" against which Dr. Paget Thurstan has raised his voice. "Consultants," he says, "are to family doctors almost precisely as barristers are to solicitors." There is much aptitude in this comparison. The briefless barristers who swarm in the law courts have their exact counterpart in the feeless consultants who herd together and who look so cheery and contented in the regions round about Cavendish-square.

I am, Sirs, yours truly,

June 15th, 1887. A HOSPITAL SURGEON.

To the Editors of THE LANCET.

SIRS,—Dr. Paget Thurstan has sent you a letter, very valuable in pointing out some great abuses, but ending in so miserable and hopeless a manner that it becomes simply a jeremiad. To me the very blackness of the present condition of general practice is the most hopeful of signs. It is always darkest just before the dawn, and it is the monstrous nature of the abuses to which we are subject which will infuse energy and method into the amœboid mass of general practitioners, and show that they have both brains and mouths, not to mention pens. The most powerful agent at our command is the press, and I believe we shall always find the medical journals more especially willing to aid us in gaining proper respect for the position and remuneration for the services of the medical practitioner. We must have *combination*. *Cela va sans dire.* We do not require a trades' union which shall fetter individual discretion, but combination to protect us from the encroachment of gratuitous treatment and the contract system as applied to people able to pay ordinary fees. That is the question in a nutshell. Hospitals, clubs (including friendly societies' associations), and dispensaries, free or provident, must be regulated in the interests both of the general public and the profession. The Council and Corporations will do for us absolutely nothing unless by means of pressure from without. Like Coriolanus, "alone we must do it," but "alone" for us means an army of over 10,000. We want leaders in this reform, and you, Sirs, with your influential organ, which can both form and lead the opinion of the profession, ought to be our leaders. Free us from the nightmare of the clubs and hospitals, and we can protect ourselves. Dr. Thurstan says the upper and middle classes pay fairly. Some of them do—some of them are club patients. It ought not to be possible that they can obtain medical advice for a shilling a quarter.

The chief requisite reforms seem to be:—1. That [illegible] mission committees shall investigate the circumstances of all patients receiving gratuitous advice, or semi-gratuitous advice, by means of provident dispensaries, clubs, and friendly societies' associations. 2. That a certain scale shall be fixed from time to time to guide these committees in the exercise of their duties. 3. That amongst the working-classes the ready-money system should be encouraged by a system of small fees. 4. That provident dispensaries should be instituted over the whole country by a national movement for the poor of the working class. 5. That for parish appointments some uniform system of payment should be provided.

I cannot agree with Dr. Thurstan as to payment by shilling fees for paupers. It would involve a heavy burden upon the ratepayers in populous districts. Parish patients are (or ought to be) destitute, as far as means of procuring medical advice is concerned; and if it be necessary to provide for the class above them by provident dispensaries, it would be palpably unfair to tax the local rates with fees for their attendance which would be in excess of the average obtained from the provident patients.

If the above five reforms were insisted on, the medical profession would become more honourable and unselfish in its internal dealings, as well as in its relation to the public. THE LANCET has the power of passing these or similar measures by bringing the subject persistently and repeatedly before the profession and the public, and to THE LANCET I trust chiefly to accomplish this very desirable result.

I am, Sirs, yours truly,

J. B. PIKE,

May 23rd, 1887. Med. Officer, Loughborough District and Workhouse.

REFERENCE CASES UNDER THE SALE OF FOOD ACT.

To the Editors of THE LANCET.

SIRS,—Suppose a man to be accused of rape, and the medical examination of the woman to have been made promptly. Suppose in the course of some weeks the case to have come before the court, and the medical man who made the examination to state his decided opinion that a rape had been committed. Then suppose some doubt to be raised as to the accuracy of his opinion, and that the court in consequence order an examination of the woman by some higher authority. Suppose the referee were subsequently to come into court and state that he "could not affirm that the rape had been committed," and declined to give any further explanation. Would not the whole of the medical profession be up in arms against such evidence as one-sided, and calculated to frustrate the ends of justice? Why could not the referee state that, owing to the length of time which had elapsed since the crime was alleged to have been committed, his examination was worthless for the intended purpose, and that he could not form an opinion worth having, either one way or the other?

Now I will ask you in the light of this parable to read the following condensation of the complaint formulated in my letter to the *St. James's Gazette*, on which you comment in an article in THE LANCET of the 11th inst.

The Somerset House chemists who are appointed referees under the Act are placed in a very disagreeable and invidious position. Thus they are required to certify whether the condemnation of a sample by a public analyst was correct, when it very frequently happens that they are not in a position to certify either one way or the other; but instead of stating this, the wording of their certificates has commonly been that they were "unable to affirm that the sample in question was adulterated," thus leaving the magistrates to imagine that they affirmed it to be *un*adulterated, whereas the fact has been that from decomposition or other circumstances they could form no positive opinion on the matter. That this is frequently the case is evident from the fact that it has often been five or six weeks before the sample in dispute has reached their hands. Naturally, under such circumstances, no reliable analysis of the milk has been possible, and although the referees have attempted to avoid the difficulty by making an allowance for change in the milk according to the number of days it has been kept, it is evident that without a knowledge of the circumstances and temperature under which it has been preserved any such corrections are of a wholly worthless character. I may point out also, with every

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personal respect for the Somerset House chemists, that the assumption that they are bound to give the benefit of any doubt to the defendant is not in accordance with their position as impartial referees. It is their duty to state fairly the result of their analysis, and whether from it they believe the milk to have been adulterated. If they cannot speak with certainty, they might speak of probabilities, and if they cannot make up their minds at all they should say so, and leave the course of giving the benefit of any doubt to the court in the usual manner, and not exercise the prerogative of mercy themselves. I would further point out that the example of testing for arsenic is by no means a fair parallel with that of examining milk for water. It is not the *analysis* that is the actual determination of the constituents of the milk which is difficult, but the *interpretation* of those results, with due regard to the variable composition of natural milk, and to the fact that the rate of decomposition of milk by keeping is extremely variable. If arsenic were a body liable to a certain range of variation in its characters, and liable to considerable change by keeping, a toxicologist might be quite justified in saying that he was not certain if there had been arsenic originally present, but he thought it probable. The toxicologist might with advantage add that his opinion under the circumstances was necessarily of very little value as compared with that of the man who had examined the material under much more favourable conditions. No one suggests that the Somerset House chemists should certify that a sample was adulterated unless their own analysis proved the adulteration. My contention is that when, from decomposition or other circumstances, they know their analysis to be worthless they should state so candidly, instead of contenting themselves with the statement that they are "unable to affirm the fact of adulteration." The fact is that it is unfair to the Somerset House chemists to place them in such a position. The remedy is a simple one, and consists in adopting the plan which has been in use with great success for several years past in Derbyshire, for the southern division of which county Mr. Otto Hehner is the analyst, while I am the similar officer for the northern division. In the case of either of us having a sample of milk believed to be adulterated, he sends it without delay to the other, who also gives a certificate on it, so that there are two independent analyses made of the fresh, or nearly fresh, milk. This course practically precludes all chance of error on the part of the analyst, and is a far more satisfactory way of checking him than by sending the milk to Somerset House when five or six weeks old, and when, therefore, it is quite impossible to make any trustworthy analysis of the sample.

I am, Sirs, yours truly,

ALFRED H. ALLEN, F.I.C., F.C.S.,
President of the Society of Public Analysts.

Sheffield, June 13th, 1887.

THE IRISH MEDICAL ASSOCIATION AND THE PRACTICAL ELEMENT IN MEDICAL EDUCATION.

To the Editors of THE LANCET.

SIRS,—The annual meeting of the above body was held the other day, and though I previously invited the secretary, Dr. Chapman, to refer to the various matters of interest to provincials which I have ventilated in your columns and in those of the medical press during the year, yet no reference whatever was made in their report to them. I trust to be able to attend the annual meeting of that body next year, and I will then and there raise the question of grievances which it is the interest of the metropolitan knot who at present pull all the wires in that association to stifle. I was very much struck the other day with a remark of Montesquieu, to the effect that the father who gives his art to his children has left them a fortune. Now this is what the physicians and surgeons of former generations were able to do, and what numbers of nearly every calling of the present day (our own excepted) can do. Metropolitan folk, by abolishing apprenticeship, have contrived to make us an exception to every other class in the community. It now costs us as much to induct our sons into the profession as if their fathers were the veriest strangers to it. I hope that the approaching meeting in Dublin will witness the establishment in Ireland of a branch of the English General Practitioners' Association.

The mouse which the committee of the General Medical Council on the practical element in medical training brought forth as the result of the labours of the mountain is an insult to common sense and to the whole of us, and the public have a right to ask for a strict account of the part taken on that occasion by each of its elected representatives.

I am, Sirs, yours truly,

THOMAS LAFFAN.

June, 1887.

*** Mr. Laffan writes as if the Council had disposed of the "practical-element-in-medical-education" question, which is quite a mistake. The report of the committee is still *sub judice*, and has been referred to an Education committee. And that report contains the nucleus of most important suggestions with regard to pupilage, an improved midwifery course, and more attention to practical subjects and common diseases in the final examinations.—ED. L.

"A SUGGESTED IMPROVEMENT IN ETHER INHALERS."

To the Editors of THE LANCET.

SIRS,—I think that most anæsthetists who have read the recent letters in your journal under the above heading will agree with the criticisms passed on that class of ether inhalers in which a bag for the inhalation of a mixed atmosphere of ether and the products of respiration is an essential part of the apparatus. With the view of inducing anæsthesia by the inhalation of ether unmixed with respiratory products, I designed some years ago a simple apparatus, a description of which appeared in your columns on July 5th, 1884. Continued experience with this inhaler fully endorses the remarks made on that occasion, and I have only to add that the patient does not foul the instrument, and that it is always ready for use. It was constructed for me by Messrs. Krohne and Sesemann, London.

I am, Sirs, yours truly,

P. BLAIKIE SMITH, M.D.,
Physician, late Anæsthetist, Aberdeen Royal Infirmary.

June 16th, 1887.

LIVERPOOL.

(From our own Correspondent.)

MEASLES EPIDEMIC.

THE medical officer of health reports that the epidemic of measles, which has been prevalent for the past three or four months, is now subsiding. The number of new cases reported daily by the school officers has undergone a more marked diminution than the recorded deaths, which during the last eight weeks have been as follows:—

April 23rd	...	49 deaths.	May 21st	...	25 deaths.
„ 30th	...	39 „	„ 28th	...	15 „
May 7th	...	38 „	June 4th	...	25 „
„ 14th	...	30 „	„ 11th	...	17 „

The deaths are still considerably above the average. Dr. Taylor has repeatedly urged the necessity for the provision of hospital accommodation if threatening epidemics are to be grappled with, and it is sincerely to be hoped that the city council will give the matter their careful consideration.

THE WEATHER.

The change from the almost wintry weather which prevailed here during the last month to the intense heat of this month has been most remarkable, and in some instances has been attended with serious results, several cases of sunstroke having occurred.

BURIAL REFORM.

A meeting of the Church of England Burial, Funeral, and Mourning Reform Association was held here on the 7th inst. The Lord Bishop of the diocese presided, and advocated the use of perishable coffins and simple burial in the earth. Mr. Clarke Aspinall, the city coroner, who seconded the first resolution, defended burial clubs as a prudent provision, without which there might otherwise be frequently very serious difficulties; but he deprecated the popular idea that the whole of the club money should be spent upon the funeral. Mr. F. W. Lowndes, who seconded the second

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resolution, condemned the practice of washing the body, as also that of standing bareheaded at funerals, urging that the health of the living must always be preferred to any wish to do honour to the dead.

ALLEGED TRIPLE MURDER BY A MOTHER.

A woman has been committed for trial for the murder of her three children, a son and two daughters. The boy was taken to the Stanley Hospital, where Dr. Arthur Wood, the resident surgeon, found him suffering from a gaping wound in the throat about four inches long and two inches broad; the windpipe was nearly severed, being cut in two places. A silver tracheotomy tube was inserted, and the child lived for sixteen hours, subsequently dying from hæmorrhage. The pupils of the eyes were strongly contracted. The two other children were seen at their own home by Dr. Robert Gordon, who found them both dead on his arrival. One of them had a wound almost three inches in length, extending to within an inch of the left ear and half an inch of the top of the breast bone. The windpipe was half divided between the second and third rings. The left internal jugular vein was also severed. The other child had apparently died from suffocation. It was shown in evidence that the prisoner had sent a girl eleven years old for twopennyworth of laudanum, which had been supplied. The magistrate remarked that the Poisons Act required amendment. When arrested, the prisoner admitted having given the children laudanum to quiet them.

THE LATE DR. OXLEY.

The remains of this much-lamented gentleman, whose death occurred at Llandudno on the 14th inst., as noticed in last week's LANCET, were brought home for interment in St. James's Cemetery, which is within a very short distance of the house where the deceased resided. The funeral was of a very simple character, the body being carried on a hand bier to the cemetery and buried in a grave. It was largely attended by his medical brethren—some from a considerable distance—as well as a number of friends, with all of whom the deceased was extremely popular. Though so young, being only in his forty-seventh year, he had suffered from heart disease more or less for some years past, and could probably have only lived to suffer even more than he had. He will be greatly missed.

JUBILEE CELEBRATION AT THE ROYAL SOUTHERN HOSPITAL.

A special service was held in the chapel of the Royal Southern Hospital at 10.30 A.M. to-day, when jubilee hymns were sung, and a short address was delivered by the chaplain. After this, a distribution of medals took place to the number of nearly 350, each medal being attached to a blue ribbon, stamped with the name of the hospital and the date. A band of music was stationed on the bridge commanding the two wings of the hospital, and all the inmates of the hospital who were sufficiently convalescent, together with the medical and nursing staff, and some visitors, were present while a programme of music was excellently performed. Oranges and other refreshments were provided for the patients, as well as an extra good dinner.

BEQUESTS TO HOSPITALS.

Under the will of the late Mr. John Bacon (late of Liverpool and of Clwyd Hall, Llanyelian, Denbighshire), shipowner, the following medical charities receive £1000 each: Liverpool Royal Infirmary, Northern Hospital, Royal Southern Hospital, Stanley Hospital, Bootle Borough Hospital, and Denbigh Infirmary. The Convalescent Institution, Woolton, near Liverpool, receives £300.

JUBILEE DAY AT THE LIVERPOOL NORTHERN HOSPITAL.

The patients at the Liverpool Northern Hospital were entertained with a cheering repast, and each was presented with a medal, the gifts of two ladies, Mrs. Harmood Banner and Miss Johnson. The male patients were permitted to smoke, pipes and tobacco being given them. A concert was given in the evening, Dr. Fisher presiding at the piano, assisted by Drs. Thomson, Servaes, Haswell, and Ross.

Liverpool, June 21st.

ON the 19th inst. the eleventh annual demonstration of the friendly societies in aid of the funds of the medical charities of the borough was held at Middlesborough.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

ILLNESS ON BOARD THE CHINESE TRANSPORT "TOO NAN"

SOME uneasiness in the public mind here was lately caused by the report of serious illness on board the Chinese transport *Too Nan*, now lying in the Tyne. The vessel had only been a day or so in the river when two of the crew, which numbers nearly 700, became so seriously ill that they had to be removed to the Newcastle Infirmary, where they died soon after their arrival; a third died on board before he could be removed. It appears also that two of the crew died at sea on the voyage to the Tyne. Dr. Slater of this city has been called in to attend the sick on board, and he found as many as fourteen suffering from that obscure Oriental disease known as beri-beri or kakkè. Like most other general diseases, beri-beri appears to assume an acute and chronic form. In the former, there are general anæmia and dropsy, severe pain over the cardiac region and a feeble tottering gait, with speedy death, either from syncope or from blood-clots in the right side of the heart or pulmonary artery. In the mild or chronic form recovery is frequent, and Dr. Slater's present cases fortunately belong to this class. The treatment, as might be expected from the symptoms, consists in stimulants, iron and quinine, with nourishing diet; but it is to be hoped that Dr. Slater will send you a detailed account of this outbreak of a curious disease, so rarely observed in European ports.

SUNDERLAND.

As a result of the representations of an influential deputation which waited on the Ecclesiastical Commissioners last week relative to the new Hartley wing of the Sunderland Infirmary, the Commissioners have decided to increase their donation from £250 to £500. Mr. A. E. Harris, medical officer of health, writes to say that the registered deaths for Sunderland last week were 37, and not 57, as stated in mistake in the Registrar-General's returns, which brings out the death-rate as 14·9, and not 22·9, as published in the official returns. Some interesting vaccination returns have been published for Sunderland, which show that the total number of births for the past year had been 5603; of these 4929 had been successfully vaccinated, 488 died before vaccination, 55 were postponed on medical authority, and 128 had removed to other parishes, which had been communicated with by the vaccination officer. Only three cases of the whole had not been vaccinated, and the parents of these had been summoned.

MEASLES IN NORTHUMBERLAND AND DURHAM.

Dr. Duncan, medical officer of health for Chester-le-Street, says that the outbreak of measles at Birtley is the worst that has occurred at the union for many years. A large number of deaths have taken place at Birtley and Portobello, and the officer had personal knowledge of over 300 cases. At Jarrow, too, the disease has been rife, and has become a subject of discussion in the Town Council. At Killingworth and Morpeth the disease continues. Newcastle and Gateshead are comparatively free, but fears are expressed that the coming jubilee festivities may give rise to a recrudescence of the disease.

Newcastle-on-Tyne, June 20th.

EDINBURGH.

(From our own Correspondent.)

PROFESSIONAL COMPLIMENT TO DR. HERBERT ASHDOWN

ON the 16th inst. Dr. Herbert Ashdown was entertained at a complimentary dinner and presented with an address by his professional brethren in this city. The occasion chosen was that of his departure on a visit to Canada, there being a strong feeling that this juncture offered an appropriate opportunity for expressing the wide-felt sympathy awakened by the difficult and painful position which he has recently been compelled to occupy through no fault of his own. Between forty and fifty gentlemen attended the dinner, which was presided over by Dr. George A. Gibson.

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Secretary of the Royal College of Physicians, and the proceedings were throughout of the most enthusiastic character. Numerous apologies for absence were intimated from prominent members of the Edinburgh School, expressing sympathy with the object of the meeting. In proposing the toast of the evening the chairman referred to the warm esteem in which Dr. Ashdown is regarded, and to the faithful and efficient services he has rendered in the University Medical School. Throughout a long career in Edinburgh he had comported himself with the dignity and integrity of a Christian gentleman, and should he at a future period return amongst us he might depend on all the sympathy and support that warm hearts and strong hands can give. He then presented the address, which was read by Mr. C. W. Cathcart, and is as follows:—"To Herbert H. Ashdown, Esq., M.B., F.R.S.E., late Senior Demonstrator of Physiology, University of Edinburgh. We, the undersigned, members of the medical profession in Edinburgh and of the teaching staff in the University, desire to take this opportunity of testifying to the high esteem in which you are held amongst us, and our sympathy with you in the difficult position which recent circumstances have compelled you to occupy. Your brilliant career as a student, and your success as a teacher, both of anatomy and physiology, in the University of Edinburgh have earned for you the respect of all with whom you have been brought in contact, while your high scientific attainments have been recognised by a wider circle of fellow-workers. Your published writings have reflected credit on the school with which you have been long and honourably connected. Personally, your geniality of disposition, your sympathetic nature, your devotion to duty, and your stainless character have attached to you in close friendship a large number of the best men among your contemporaries. The feelings they entertain towards you afford the strongest testimony to your worth. In conclusion, we heartily assure you of our constant interest in your welfare. We anticipate for you a bright future, and feel certain that this is guaranteed by the possession of those qualities which have already gained for you so distinguished and honourable a place." This address was signed by ninety-eight names, representing all phases of professional interest in Edinburgh, and a number of additional names have since been appended. The address is handsomely engrossed on vellum. Dr. Ashdown accepted the gift amidst enthusiastic applause, and replied to the compliment in very cordial terms. The toast list included "The University of Edinburgh" and "The Edinburgh Medical School," the whole proceedings being of the most harmonious and congenial nature.

THE CONTAGIUM OF SCARLET FEVER.

At the last meeting of the Edinburgh Medico-Chirurgical Society specimens of the organism discovered by Dr. Edington in scarlet fever were demonstrated under the microscope. On the proposition of Professor Chiene, a commission was appointed to inquire into the results of Dr. Edington's research, and to bring a report to the Society at its special meeting next month, when the subject of scarlatina is to be discussed. The following gentlemen were appointed members of the Committee:—Prof. Grainger Stewart (convener), Prof. Greenfield, Drs. Carmichael, Philip, and Woodhead, and Mr. Hare. It is hoped that they will be in a position to give some opinion on the subject at the meeting which is fixed for July 20th.

RESEARCH SCHOLARSHIP.

Dr. William Hunter, F.R.S.E., has been appointed to the John Lucas Walker Scholarship in Experimental Pathology in the University of Cambridge. Much regret is felt in Edinburgh at the loss of this careful and successful observer, whose work on the blood has won him an honourable position among physiologists and pathologists. It is hoped, however, that his transference from this school to that of Cambridge may not be of a permanent character, but that the credit he is certain to reflect on his *alma mater* may in the future be associated with work done on her native soil.

THE JUBILEE CELEBRATIONS.

The 21st of June was observed as a University holiday. In the evening the students assisted in adding to the picturesqueness of the civic illuminations by holding a torchlight procession. About 600 torchbearers mustered in the University Quadrangle at 10.30 A.M., and traversed many of the chief streets of the city. Enormous crowds filled the streets, and collected on the various eminences in the city to watch the beacon fires which flashed out from the hills on all sides. No casualties are reported.

Edinburgh, June 22nd.

ABERDEEN.

(From our own Correspondent.)

THE ROYAL INFIRMARY.

THE quarterly meeting of the managers of the Aberdeen Royal Infirmary was held on Monday, the 13th inst., when the Lord Provost, who presided, intimated that the Jubilee Fund for the extension and reconstruction of the infirmary amounted to nearly £23,500. It was therefore resolved to proceed as soon as possible with the erection of the west pavilion, in which there is to be accommodation for 108 surgical cases, 12 beds for eye diseases, 13 for "lock patients," and 7 for diseases of women. The east pavilion is to be built afterwards, and is to be the medical side of the hospital, affording accommodation for 84 medical cases and 8 beds for cases of erysipelas. When the new buildings are completed there will be 233 beds, the space allowed for each being 90 superficial feet and 1400 cubic feet.

At the same meeting it was resolved to appoint a third resident medical officer, and to give each of the residents a honorarium of £25 a year. Professor Hamilton was appointed pathologist to the institution, and permission was given him to appoint a duly qualified practitioner to act as his assistant.

HEALTH OF THE CITY.

The measles epidemic has played itself out, and although there are several cases of scarlet fever and a few of typhus, still the health of the city, as compared with what it has been for a few months, may be considered satisfactory. The death-rate has fallen from 37·5 in March to 19·08 at present. Unfortunately, however, we are threatened with an outbreak of small-pox. The first individual affected is said to have been a ragworker, and it seems some time elapsed before the true nature of the disease was detected, and in a short time fourteen individuals became affected. They have all been removed to the city hospital, and it is to be hoped that the prompt means taken to isolate the cases will prevent the disease becoming epidemic. One of the town councillors at their meeting yesterday, when this threatened epidemic was under consideration, made the extraordinary statement "that there were four or five medical men in Aberdeen who did everything they possibly could to thwart the sanitary officials, refusing or delaying to report cases of zymotic disease until such time as an outbreak like the present occurred!"

Aberdeen, June 21st.

DUBLIN.

(From our own Correspondent.)

UNIVERSITY OF DUBLIN.

AT the annual meeting of the Senate, to be held on Wednesday, June 22nd, the following graces from the Provost and Senior Fellows will be submitted: That the degree of Doctor of Medicine be conferred (*honoris causâ*) upon William Tennant Gairdner of Glasgow; Sir James Paget, Bart., F.R.S.; Sir Thomas Spencer Wells, Bart., M.D.; Sir John Simon, K.C.B.; and Edward Waters, M.D. That the degree of Doctor *utriusque juris* be conferred (*honoris causâ*) upon His Royal Highness Prince Albert Victor Christian Edward of Wales.

THE QUEEN'S JUBILEE.

The executive committee of the Queen's Jubilee Memorials Association have decided to make a considerable grant to the Hospital for Incurables, in aid of the establishment of the new wing for the treatment of patients suffering from cancer and consumption. This arrangement, it is to be feared, will do away with the erection of the Hospital for Consumption and other Chest Affections which it was suggested should be established at Killiney, and which is so

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urgently needed. His Royal Highness Prince Albert Victor will formally open the Royal Jubilee Wards in the National Children's Hospital, Dublin, on Wednesday, the 29th inst.

ROYAL COLLEGE OF SURGEONS: BEQUEST BY THE LATE DR. JOHN BARKER.

The College of Surgeons has had a sum of more than £1000 transferred to its credit, being a legacy by the late Dr. John Barker, formerly a Curator and Examiner of the College. Dr. Barker wished the money to be expended in prizes for the best dissections sent in by medical students, the prize to be awarded by the Curator of the College, the President, and the Professor of Anatomy in the University of Dublin. The sum of £10 was to be given to the Curator to entertain, in the College if possible, the successful student. Counsel's opinion was obtained as to whether this money could be utilised for general College purposes or for prizes for dissections, and as a result the Council were informed that they should follow the directions of the testator's will, unless they could not be carried out.

CORK-STREET FEVER HOSPITAL.

From the eighty-third annual report of this institution, I learn that of 709 cases treated in the hospital during the year, 59 died, or 10·31 per cent. Were it not for a prolonged epidemic of scarlatina existing in the city, the total number of zymotic diseases would have fallen far short of those treated during previous years. There were only sixty-two cases of typhus fever under treatment during the past year, a number below any previous record in the hospital. The mortality from scarlatina was only 8·72 per cent.

Deputy Surgeon-General R. Webb has taken over the duties of principal medical officer for the Dublin district.

The late Mr. Richard Kemmis has left £100 respectively to the Adelaide and Meath Hospitals, Dublin.

Dublin, June 21st.

BELFAST.

(From our own Correspondent.)

THE ULSTER MEDICAL SOCIETY.

AT a meeting of the members of this Society, held last week, it was decided, upon the motion of Professor Dill, seconded by Dr. Gibson, that an address be forwarded to Her Majesty the Queen on the occasion of her Jubilee. The address was then adopted, in which attention is drawn to the interesting fact that the Ulster Medical Society is one of the oldest medical organisations in Ireland, having witnessed Her Majesty's birth, coronation, and happy reign of half a century.

DEATH OF THE PRESIDENT OF THE ROYAL HOSPITAL.

I regret to have to announce the death of W. T. B. Lyons, D.L., President of the Board of Management of the Royal Hospital, which took place under exceptionally sad circumstances on May 4th. The deceased gentleman was suddenly seized with illness while presiding at the weekly meeting of the Hospital Board of Management. He was removed to the superintendent's room, and thence to his daughter's residence, where, a few hours after his sudden seizure, he succumbed, his death being due to cerebral hæmorrhage. Mr. Lyons was one of the warmest friends of the Royal Hospital, and as chairman of the Board of Management he always displayed great tact, judicial wisdom, and kindness. No one has as yet been appointed as his successor.

THE CHAIRMANSHIP OF THE PORTADOWN TOWN COMMISSIONERS.

At a special meeting of the Portadown Town Commissioners held last week Dr. George Dougan was re-elected chairman for the ensuing year, having already occupied that position for the past two years. Dr. Dougan had come to the meeting determined not to hold office any longer; but so unanimous and cordial was the request of his brother commissioners that he would again preside, that he ultimately acceded to their wish.

EPIDEMIC OF RÖTHELN.

During the past two months Belfast has been visited by a very widespread epidemic of German measles. The type of the disease, as a rule, has been mild, but adults have suffered much more when attacked than children. In some of the public schools its spreading has been much facilitated by the fact that parents have in some cases, from the mildness of the attack, allowed their children to go on attending classes. I have not heard of any fatal cases. The enlargement of the glands at the back of the neck has been a marked feature in the epidemic.

THE ULSTER EYE, EAR, AND THROAT HOSPITAL.

In the printed report of this hospital I find that Dr. McKeown gives a very interesting tabular statement of forty-nine cases of cataract for the year 1886. In all except three the new operation by injection was done, a method which was first introduced by Dr. McKeown in 1884, and which has the advantage that by it patients need not wait until the cataract is ripe, but can be operated upon more speedily and with greater ease and certainty than formerly. This is the second series of cases published by Dr. McKeown.

Belfast, June 21st.

PARIS.

(From our own Correspondent.)

PROPHYLAXIS OF SYPHILIS.

AT the two last meetings of the Academy of Medicine, Professor Fournier read the report of the commission appointed to inquire into this question, and the importance of the document may be understood from the fact that the first instalment takes up nearly thirty pages of the *Bulletin de l'Académie*. The best *résumé* of it is given by the *Gazette Hebdomadaire*, which sensibly moderates the eminent professor's somewhat undue raciness of description, at the same time weeding out some of the more questionable neologisms—e.g., to quote but a single example, such expressions as the hybrid "polymortality." This report is the basis of the propositions submitted by the commission to the Academy in order to be transmitted to the Government with the view of showing to what extent syphilis is a permanent danger to the public health, and what means should be taken to remedy this danger. The disease, says the reporter, is, indeed, disastrous and dangerous through its multiple consequences, individual, social, and hereditary. It is, with alcoholism, one of the gravest social evils of the present time. It is looked upon in society as the result of a series of successive contaminations rather than the consequence of a single contagion, and it is therefore supposed to be evidence of an ill-spent life of debauch. This view is erroneous. Syphilis is contagious, like all other contagious diseases—i.e., it results not from repeated infections, but from one alone. There are numbers of people who acquire the disease from what Professor Fournier terms "moral virtuous," or purely accidental, contagions, but syphilis, both deserved and undeserved, has a common origin. The infection of a virtuous wife and the contamination of a child may most often be traced back to disease of a prostitute; hence the consequence that to combat syphilis in the latter is to protect both the virtuous wife and child. Public interest requires that such an evil should be repressed by general measures capable of reaching it at its source. These measures are of three kinds: 1. The extension of the disease may be restrained by administrative or police regulations to prevent provocations in the public thoroughfares, by what is called the inscription or registration of prostitutes, which brings them under police and sanitary supervision, by the inspection of those establishments which, under the names of taverns and drinking bars, are in reality nothing else than houses of assignation. 2. Syphilis may be checked, in the second place, by treatment by hospitalisation—i.e., by extinguishing its germs of contagion. 3. It may be combated not less efficiently by teaching the rising medical generation more thoroughly than has hitherto been done all that concerns the symptom of this disease in its different forms, its social dangers, and its treatment. As regards measures of administrative prophylaxis, the Commission was unanimous in declaring that prostitution constitutes a public danger by the contagion which it disseminates in the population. It is therefore indispensable, both on hygienic and moral grounds, that it should be supervised, and, if necessary, repressed by the public authorities. The measures proposed for this purpose

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by M. Fournier are briefly as follows: In the first place public provocation should be considered as a misdemeanour (*delit*). This measure, entirely in accordance with public opinion, would have the effect of removing habitual prostitutes from the arbitrary jurisdiction of the police. Those convicted of the offence should be *inscrites*, and subjected afterwards to periodical examination. Special hospitals for the treatment of venereal diseases should be created for the large centres of population, and the medical direction given to specialists, who should engage to remain in charge for at least five years; but in respect to the army, the Commission proposes that lectures on syphilis should be delivered to the soldiers to make them understand the dangers of contagion; that the men should never be punished for having contracted venereal disease; and that treatment should be continued after the soldier has returned to duty. Professor Fournier's final recommendation is for the benefit of society at large. Henceforth no wet nurse should be allowed to receive an infant without a medical certificate that the parents are free from syphilis.

LA SUETTE MILIAIRE.

The *Bulletin Medical* gives the following particulars concerning the epidemic mentioned in my last letter. Towards the end of April and the beginning of May an epidemic of measles of exceptional violence broke out in a little village of the arrondissement of Montmorillon, and during the first days of May the miliaria was seen at Montmorillon concurrently with measles. Under fifteen years of age all the deaths occurred from measles. Above that age the cause of death was always *la suette*. Measles and *suette* killed in two days at the outside, and the latter sometimes in a few hours. From Montmorillon the epidemic spread to the neighbouring villages, the order of invasion being always the same, measles in the children, miliaria in the adults, the first preceding the second chronologically. In the same house all the children would be attacked with measles, whether they had had it before or not, and the adults by the sweating disease. The measles was peculiar in that it always began by a sweat. In some instances the extension of the disease was more rapid than in others. In one place there were 63 pupils attending the school. The first day 26 of these were suffering from the disease; on the second, 38; on the third, 46; and on the fourth the school was closed. A short time afterwards the master had the *suette* and one of his children the measles. The symptoms of this pseudo-rubeola and of the *suette*, which are essentially the same disease, were as follows. The patient was generally seized suddenly at night or in the evening. A profuse sweat then occurred, "running down as if water had been poured on the head." At the same time a feeling of extreme anxiety, resembling angina pectoris, was complained of. The sweats and suffocations would return by paroxysms, and these symptoms would be accompanied by an eruption of sudamina. In fatal cases death took place by syncope, preceded by delirium and slowing of the pulse. After the first five days the worst was generally over, although even during convalescence there was still danger, death occurring occasionally at this period with strange nervous symptoms, such as anomalous pains, feelings of suffocation, irregularity of the pulse and of the cardiac contractions. Death was sometimes preceded and often followed by nasal and buccal hæmorrhages, and the post-mortem decomposition was very rapid. During convalescence there were polymorphous desquamations, resembling those of measles, scarlatina, and even psoriasis, sometimes with patches of purpura, and the patients remained for some time profoundly cachectic, with tremulation of the tongue and falling of the lips. The *suette* may be sporadic endemo-epidemic or pandemic, but it does not appear to be contagious, or, at all events, inoculable. Its miasma does not seem to be carried by the wind, the progress of the disease having been hitherto, in the Vienne, in the opposite direction.

Paris, June 21st.

LONGEVITY IN RUSSIA.—A woman named Sophia Masluchenóff has just died in Kharkoff at the age of 122. Up to the time of her death she enjoyed good health, and had an excellent memory.—A medical man practising at Novo Baiarzet writes to the *Vrach* that there is a peasant of the name of Mamed in the village of Beiok Mazra who is now about 122. He has good health and very fair eyesight. He is an exceedingly good walker. In his mouth are five sound teeth.

Obituary.

HENRY MILNE, M.D. ABER., &c.

DR. HENRY MILNE died on the 27th ult. at Bridge of Allan in his seventy-sixth year. In him passed away one of the finest specimens of a country surgeon and general practitioner that the north of Scotland has known during the last half-century. He was born in 1812, and came of a family that had been connected with Banff for about 300 years. Mr. John Milne, his father, had eleven sons, of whom nine grew to manhood, and to all of whom he gave a university education. Alumni of King's College, Aberdeen, Dr. Henry Milne and an elder brother took their whole medical curriculum at Edinburgh University under Abercrombie and Alison. After a voyage to India he took the degree of M.D. at King's College, Aberdeen, in 1833, and almost immediately succeeded to his brother's practice at Banff on his premature death. From that date till his retirement in 1861 his native district and county were the field of his ever-widening labours and success. His singular ability as a lithotomist and surgical operator very soon made itself known among his brethren and the public beyond his own county. The late Dr. Keith, the well-known lithotomist of Aberdeen, his contemporary, bore frequent testimony to his unrivalled skill, and had only one fault to find—that Dr. Milne would not publish his cases. Conducted as they were before the days of antiseptics, had he cared to do so, his would have been a proud boast that he had forty-two or forty-four consecutive cases of lithotomy without a death; and it must be remembered that many of these were undertaken in distant Highland glens and under conditions and surroundings that the operator of to-day knows nothing of. But it is the belief of those who remember him in his early days that this marvellous success and facility in resource were but a small portion of what struck his patients. There was a gentleness, a courtliness, and yet withal a quiet concentration about him that carried confidence and regard wherever he moved. To the few that knew him intimately he unbent freely, and showed a fund of humour and sly wit that at first was little suspected. The toilsome life he led slowly impaired a naturally healthy, but not vigorous, constitution. Gouty dyspepsia made itself known, and at last compelled him to retire at the early age of forty-nine. Dr. Milne married, in 1839, Miss Keith of Netherthird, and is survived by Mrs. Milne and their only child, a married daughter. He never mixed in public matters, though on one occasion pressed to accept the honour of the Provostship of Banff. For some time after his retirement he resided in the neighbourhood of this town, but in later years spent his life mainly at Bridge of Allan, Bournemouth, and Harrogate. His last years were passed in very precarious health, cardiac troubles rendering him much of an invalid and often a great sufferer; yet no weight of years or sickness ever dimmed the brightness of his intellect or narrowed his sympathies: true to the chief characteristics of his life, helpfulness and unselfishness. Even early and large success never spoiled the natural goodness of the man, for he was ever at the command of the poor man as well as the rich, and gave ungrudgingly.

JOHN PHILIP GLOVER, M.D. LOND.

DR. J. P. GLOVER was born at Derby on July 4th, 1846. At the age of sixteen he went to Australia, where he was engaged with a friend in hard and exciting work as a squatter until the great drought which caused the ruin of so many farmers. He then returned to England and entered the office of his uncle at Derby, where, by working alone and unaided in his spare moments, he qualified himself for passing the matriculation examination of the London University. After a year spent at the Derby Infirmary he entered St. Thomas's Hospital in 1879; he quickly passed his first college examination and preliminary scientific (in the first class), and gained distinction in the medical school. After he had obtained his diplomas at the Royal Colleges of Physicians and Surgeons, he was appointed house-surgeon to the Cheltenham Hospital, which appointment he held for twelve months. He then passed the M.B.Lond. examination

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with honours in medicine. Afterwards he was house-surgeon to the West London Hospital, and then became a surgeon in the Orient Company's service for some months. Only last year he passed the M.D. Lond. examination, and showed no signs of the disease (tuberculosis) from which he died until about two months ago, when an attack of pleurisy developed, which was followed by symptoms indicating a general dissemination of the disease. Those who knew him well admired him very much not only for his cleverness, but also for his indomitable perseverance. He was a man of retiring disposition, and made few friends, but those were true, appreciating to the full his many merits.

JOHN TOPHAM, M.D. LOND.

OUR profession has lost an amiable and accomplished member by the death of Dr. Topham, whose life came to a close on June 17th, after a long and painful illness, endured with great fortitude and resignation.

Dr. Topham was a son of the late Rev. John Topham, for many years vicar of Droitwich. His professional education was received at University College, London, where he took a high place amongst the students, and secured many distinctions in the class competitions. He graduated in the University of London, taking the degree of M.B. in 1843, and gaining a scholarship in surgery at the examination for honours. He spent some time in Paris, took the degree of M.D. in London in 1846, settled in Wolverhampton, and was virtually the founder of the South Staffordshire Hospital in that town. A threatened development of lung disease in his wife compelled him to leave England, and he removed to Rome, where he resided and practised from 1860 to 1870. He was highly esteemed by and had many friends amongst the Anglo-American population of that city. Mrs. Topham's better health warranting his return to England, he took up his abode in Torquay, and lived there for some years; but for a considerable time his home has been in London. Endowed with an ample fortune, he gave up practice after his removal to town, and indulged his love for science and music. He was one of the most constant frequenters of the Royal Institution and of the concerts of the Philharmonic Society. He became an extra-Licentiate of the College of Physicians in 1848, a Member in 1861, and was elected to the Fellowship in 1880.

THE SERVICES.

WAR OFFICE.—Army Medical Staff: Surgeon Arthur Maher Kavanagh, from the seconded list, to be Surgeon (dated June 13th, 1887).

INDIA OFFICE.—The Queen has approved of the retirement from the service of the undermentioned officers of the Staff Corps and Indian Military Forces:—Brigade Surgeon Jas. Champion Penny, M.D., Bengal Medical Establishment (dated June 3rd, 1887); Brigade Surgeon John Cruickshank, M.D., Bombay Medical Establishment (dated April 1st, 1887); and Surgeon-Major George Moncrieff Govan, M.D., Bengal Medical Establishment (dated March 3rd, 1887). The undermentioned officers have been granted a step of honorary rank on retirement:—Brigade Surgeon John Cruickshank, M.D., of the Bombay Medical Establishment, to be Deputy Surgeon-General (dated April 1st, 1887); and Surgeon-Major George Moncrieff Govan, M.D., of the Bengal Medical Establishment, to be Brigade Surgeon (dated March 3rd, 1887).

ARTILLERY VOLUNTEERS.—2nd Northumberland (the Percy):—Adam Scott Purves, M.B., to be Acting Surgeon (dated June 18th, 1887).

RIFLE VOLUNTEERS.—3rd Cheshire: Surgeon Thomas Moreton is granted the honorary rank of Surgeon-Major (dated June 18th, 1887).—4th Volunteer Battalion, the Norfolk Regiment: Surgeon J. R. Clouting resigns his commission (dated June 18th, 1887).

UNDER the will of the late Mr. Fox, of Aberford, who died about a year ago, the treasurer of the Leeds Hospital for Women and Children has just received a legacy of £1000, and the treasurer of the Leeds Infirmary one of £5000.

THE memorial stone of the Merthyr General Hospital was laid on the 20th inst.

Medical News.

UNIVERSITY OF DURHAM FACULTY OF MEDICINE.—At the recent examinations for degrees in Medicine and Surgery the following candidates were approved:—

DEGREE OF DOCTOR IN MEDICINE FOR PRACTITIONERS OF FIFTEEN YEARS' STANDING.

Counsellor, William Parkinson, M.R.C.S., L.K.Q.C.P.I.
Goldie, Robert William, M.R.C.S. Eng., L.R.C.P. Edin.
Goude, Herbert, M.R.C.S., L.S.A., F.R.C.S. Edin.
Lloyd, Albert Eyton, M.R.C.S. Eng., L.R.C.P. Edin.

DEGREE OF DOCTOR IN MEDICINE (Essay)

Ainsley, Thomas George, M.B., M.R.C.S.
Bowden, Reginald Treacher, M.B., M.R.C.S., L.S.A.
Clowes, Herbert Alfred, M.B., M.S., L.R.C.P., M.R.C.S.
Hubbard, Arthur John, M.B., L.R.C.P., M.R.C.P.
Morgan, Llewellyn Arthur, M.B., M.R.C.S.
Willis, Charles Fancourt, M.B., M.R.C.S., L.R.C.P. Edin.

FINAL EXAMINATION FOR THE DEGREE OF BACHELOR IN MEDICINE.

SECOND CLASS HONOURS (IN ORDER OF MERIT).

Murray, G. Alfred Everitt, L.R.C.P., M.R.C.S., St. Barthol. Hosp.
Wholey, Thomas, L.R.C.P., M.R.C.S., L.S.A., London Hospital.

PASS LIST.

Bailes, Lewis Lamb, B.A., Coll. of Med., Newcastle-on-Tyne.
Baker, J. Barrington, M.R.C.S., L.R.C.P. Edin., Charing-cross Hospital.
Bird, Matthew Mitchell, St. Mary's Hospital.
Blight, William Lyne, L.R.C.P., M.R.C.S., Guy's Hospital.
Blurton, John Frederick, M.R.C.S., Queen's Coll., Birmingham.
Bootiman, John Smith, College of Medicine, Newcastle-on-Tyne.
Bredin, Howard Albert, M.R.C.S., L.S.A., Liverpool Roy. Infirm.
Brodrick, Harry Edw., M.R.C.S. L.S.A., Liverpool Roy. Infirm.
Close, John Borrill, M.R.C.S., L.S.A., St. Barthol. Hosp.
Edridge-Green, Frederic William, St. Barthol. Hosp.
Essery, William Joseph, King's College.
Evans, O. Conrad Penrhys, L.R.C.P., M.R.C.S., St. Barthol. Hosp.
Gibbon, Ernest Henry, Coll. of Med., Newcastle-on-Tyne.
Halsted, Harold Cecil, L.R.C.P., M.R.C.S., St. Barthol. Hosp.
Herring, Herbert Thomas, University Coll. Hosp.
Lodge, Samuel, Coll. of Med., Newcastle-on-Tyne, and Leeds Med. School.
Lund, Theodor, Coll. of Med., Newcastle-on-Tyne.
Metcalfe, George, Coll. of Med., Newcastle-on-Tyne.
Morton, Thomas, Coll. of Med., Newcastle-on-Tyne.
Nihill, John Edward, L.R.C.P., M.R.C.S., St. Barthol. Hosp.
Norton, John, Westminster Hospital.
Nott, Arthur Holbrook, L.R.C.P., M.R.C.S., Queen's Coll., Birm.
Pridmore, Walter George, M.R.C.S., Middlesex Hospital.
Robinson, Louis, M.R.C.S., L.S.A., St. Barthol. Hosp.
Steenberg, Charles William, Coll. of Med., Newcastle-on-Tyne.
Stokes, John, Coll. of Med., Newcastle-on-Tyne, and Sheffield Med. School.
Turtle, Frederick Wenman, M.R.C.S., Guy's Hospital.
Walker, Benjamin, M.R.C.S., L.S.A., London Hospital.
Watson, John, Westminster Hospital.
Wheeler, Humphry John, L.R.C.P., M.R.C.S., St. George's Hosp.
Wilbe, R. Haycock Wiffin, L.R.C.P., M.R.C.S., St. Barthol. Hosp.
Wilde, Leonard, St. Thomas's Hospital.

DEGREE OF MASTER IN SURGERY.

Openshaw, Thomas Horrocks, M.B., B.S., F.R.C.S., London Hosp.

DEGREE OF BACHELOR IN SURGERY.

Bird, Matthew Mitchell, St. Mary's Hospital.
Bredin, Howard Albert, M.R.C.S., L.S.A., Liverpool Roy. Infirm.
Edridge-Green, Frederic William, St. Barthol. Hosp.
Herring, Herbert Thomas, University College Hospital.
Lazenby, James Matthew, M.B. Coll. of Med., Newcastle-on-Tyne.
Lodge, Samuel, Coll. of M.d., Newcastle-on-Tyne, and Leeds Med. School.
Metcalfe, George, Coll. of Med., Newcastle-on-Tyne.
Nihill, John Edward, L.R.C.P., M.R.C.S., St. Barthol. Hosp.
Pridmore, Walter George, M.R.C.S., Middlesex Hospital.
Steenberg, Charles William, Coll. of Med., Newcastle-on-Tyne.

SOCIETY OF APOTHECARIES.—The following gentlemen, having satisfied the Court of Examiners as to their knowledge of the Science and Practice of Medicine, Surgery, and Midwifery, received certificates entitling them to practise as Licentiates of the Society on June 16th:—

Barton, George Pigott, Lympstone, Exeter, Devon.
Benson, Alfred Hugh, Marchlands, Stoke Bishop, Bristol.
Best, Norrys Dewes, Lime House, Walsall.
Brewis, Andrew Seymour, Eskdale-terrace, Newcastle-on-Tyne.
Hill, Edward Brereton, Longfleet, Poole, Dorset.
Mallard, Frank Reginald, Rosendale-road, West Dulwich.
Saunders, Henry, High-street, Eton.
Shemmonds, John Onley, Cambridge-road, Kilburn.
Wheeldon, Frederick John, Stockport-road, Manchester.

We are informed that the Final Examinations at the Society of Apothecaries will no longer be held every week, as hitherto, but once a month—viz., on the third Monday, Wednesday, and Thursday. The Primary Examinations will be held only once a quarter, of which due notice will be given.

ON the 21st inst. the foundation stone of the new Victoria Hospital, at Bournemouth, was laid amid great rejoicings. The estimated cost of the building is £7000.

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THE seventh annual meeting of the Zenana Medical College was held at Exeter Hall on the 16th inst., when a satisfactory report was presented by the secretary and adopted.

LONDON FEVER HOSPITAL.—A loyal and congratulatory address has been forwarded by the nurses of this hospital to Her Majesty the Queen and very graciously accepted.

PRESENTATIONS.—On the 13th inst. Mr. J. G. Symes was presented by the officers and staff of the Dorset County Asylum with a handsome embossed silver bowl on an ebony stand, on the occasion of his retirement after more than thirty-two years' service as medical superintendent of that institution.——Mr. Waldy has been presented with two cases of surgical instruments by the students of the Newcastle-on-Tyne Infirmary, on the occasion of his retirement from the position of house-physician to that institution.

QUEEN'S COLLEGE, CORK.—The following class prizes have been awarded in the Faculty of Medicine:—First Year: Practical Anatomy—1st, Daniel O'Driscoll; 2nd, W. J. Prendergast. Second Year: The following have been awarded, in addition to those already published: Anatomy and Physiology—Thomas Jones. Practical Anatomy—3rd, Thomas Jones. Practical Chemistry—2nd, Thomas Jones. The exhibition in Practical Midwifery has been awarded to William J. O'Meara.

ILLEGAL PRACTICE IN FRANCE PUNISHED.—A bone-setter at Aubervilliers, being applied to by a man with a nasal polypus for advice, covered him with blisters from head to foot, and, by dint of promises to cure him, and threats about *le grand Albert* and *le Dragon-Rouge*, extracted 500 francs from his credulous patient. His illegal practice, however, was not allowed to go unpunished, for a French court sentenced him to three months' imprisonment, and his wife, who had been assisting him, to fifteen days' imprisonment.

VOLUNTEER AMBULANCE CORPS.—On the 18th inst., the non-commissioned officers and men trained as an ambulance for the 1st Volunteer Battalion, South Wales Borderers, were presented with the Geneva Cross and certificates of proficiency, as a bearer company, by Mrs. Somerset, wife of the Rev. B. Somerset, chaplain. The examining officer, Surgeon-Major Barrow, Army Medical Department, expressed himself in complimentary terms as to the high state of efficiency to which the men had been brought by Acting Surgeon Hill, who is in charge of the ambulance.

NORTH-EASTERN HOSPITAL FOR CHILDREN.—The annual meeting of the subscribers and friends of this institution, which is situated in the Hackney-road, was held on the 17th inst. From the report which was presented by the secretary, and subsequently adopted by those present, it appears that although the hospital had been closed for a month during the past year to in-patients, the number treated, 618, was larger than in any preceding year. There had been 14,083 new cases in the out-patients' department, with 50,170 new attendances, as compared with 13,801 patients and 46,164 attendances in the previous year.

METROPOLITAN FREE HOSPITAL.—On the 14th inst., at a special general meeting of the governors of this charity, it was decided that the word "Free" be omitted in the title, and that the institution be in future known as the Metropolitan Hospital. The following resolution was also adopted:—"That henceforth the institution be conducted on provident principles, no letter of recommendation to be required for any patient, and all cases of accident and urgency to be seen at once. The provident principle is that every patient shall contribute in health and sickness to the cost whilst under treatment, and that it be referred to the General Purposes Committee of Management to make provision and rules for carrying this principle into practice."

UNIVERSITY COLLEGE, LONDON.—A statement has been drawn up and signed by Lord Kimberley, late president, Lord Justice Fry, late vice-president, Sir Julian Goldsmid, late treasurer, and four members of the Council, for the purpose of laying before the members of the College the reasons which caused them to resign their seats on the Council. This step they have been compelled to take because they cannot concur with the resolutions passed by the Council on March 5th and May 21st in the present year with regard to the promotion of a Teaching University for London. They object to the proposal that the professors and teachers should confer degrees upon their own students; they object also to making attendance on a regular course of instruction in the College a condition of obtaining a degree; and, thirdly, they are convinced that the only prudent course for the College to adopt in the present crisis is to endeavour to maintain cordial relations with the University of London, and to seek for a more intimate union with it.

MEDICAL NOTES IN PARLIAMENT.

Smoke Nuisance Abatement (Metropolis) Bill.

IN the House of Lords on the 20th inst., on the order of the day for going into committee on this Bill, Lord Stratheden and Campbell complained of the sudden opposition which had sprung up on the part of Her Majesty's Government to this measure. He trusted that the Bill would be allowed to pass into committee or be referred to a select committee.—Earl Brownlow moved that the House do resolve itself into a committee on the Bill that day three months.—Earl Granville having expressed his disappointment at the want of action on the part of the Government, the Earl of Harrowby said that the time had come when some steps should be taken, as the present state of things was a scandal to our civilisation.—The Duke of Westminster hoped that the Government would consent to refer the Bill to a select committee. After some further discussion, in which Lord Mount Temple and Viscount Cranbrook took part, this suggestion was adopted, and the Bill was accordingly referred.

Vaccine Matter.

In the House of Commons, on the 16th inst., Mr. Burt asked whether the vaccine now in use was obtained by the inoculation of the cow with matter from the human subject in small-pox; whether such variolous vaccination was declared to be contrary to law by the Irish Local Government Board in 1879; and whether the Local Government Board agreed with that declaration.—Mr. Ritchie said the vaccine now in use was obtained by the inoculation of the cow with matter from a human subject.

Coal Mines Regulation Bill.

On the 20th inst. Mr. Matthews moved that the House go into Committee on this Bill.—Mr. Burt said that the Bill was a step in the right direction.—Mr. Staveley Hill asked the House to be very careful before they took away from the pit-brow women the power of earning their livelihood. Several members having spoken in support and criticism of the Bill, the debate was ultimately adjourned.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BAIGENT, WILLIAM, M.B., B.S., late Assistant Medical Officer to Dunston Lodge Asylum, has been appointed House-Surgeon to the Newcastle-on-Tyne Infirmary.

DAUNT, GEORGE, L.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer for the Third District of the Yeovil Union.

DAVIES, HUGH HUGHES, L.K.Q.C.P.I., has been appointed Medical Officer for the Western District of the Corwen Union.

HADDOW, R. W. TAYLOR, M.B., C.M.Glas., has been appointed Resident Medical Officer to the Stamford Hill, Stoke Newington, &c. Dispensary, vice C. A. James, M.R.C.S., L.R.C.P.Lond., resigned.

HARLOCK, HARRY, M.R.C.S., L.R.C.P.Lond., has been appointed Medical Officer for the Singleton District of the Westhampnett Union.

HEBBERTSWAITE, HAROLD, M.R.C.S., L.S.A., has been appointed Medical Officer of Health for Burley-in-Wharfedale, Yorks.

HUTCHINSON, JOHN H., M.R.C.S., L.S.A., has been appointed Medical Officer for the Catterick District of the Richmond Union (Yorks).

LOW, JOHN H., M.B., C.M.Glas., has been appointed Medical Officer for the Appleby District of the East Ward Union.

MAY, BENNETT, F.R.C.S., has been elected joint Professor of Surgery in the Queen's College, Birmingham, vice Furneaux Jordan, resigned.

PALIN, HENRY V., M.B., C.M.Ed., has been appointed Medical Officer for the First District of the Wrexham Union.

SHETTLE, HARRY WYNTER, L.R.C.P.Ed., M.R.C.S., has been appointed Assistant Surgeon to the Royal South Hants Infirmary, Southampton, vice A. B. Wade, M.B., C.M., M.R.C.S., appointed Surgeon.

TARGETT, JAMES HENRY, M.B., B.S.Lond., F.R.C.S.Eng., late Surgical Registrar to Guy's Hospital, has been appointed Sub-Curator of the Museum and Assistant Demonstrator of Pathology at Guy's Hospital.

WADE, ARTHUR BICKDON, M.B., C.M., M.R.C.S., has been appointed Surgeon to the Royal South Hants Infirmary, Southampton, vice George King, M.B., M.R.C.S., deceased.

WHITELEY, DANIEL FLOCKTON, M.R.C.S., L.R.C.P.Lond., has been appointed House-Surgeon to the Rochdale Infirmary, vice A. Watson, resigned.

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Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

COVENTRY AND WARWICKSHIRE HOSPITAL. — House-Surgeon. Salary £100 per annum, with board (exclusive of beer, wine, and spirits), lodging, and attendance.

EAST SUFFOLK AND IPSWICH HOSPITAL.—House-Surgeon. Salary £100 per annum, with board, lodging, and washing.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, W.C.—Assistant Physician.

KENT COUNTY LUNATIC ASYLUM, Chartham Downs, near Canterbury.—Second Assistant Medical Officer. Salary £120 per annum, with furnished apartments, board, and attendance.

LIVERPOOL DISPENSARIES.—Assistant Surgeon. Salary £80 per annum, with apartments, board, and attendance.

MASON COLLEGE, Birmingham.—Professor of Physiology.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Librarian.

UNIVERSITY COLLEGE HOSPITAL, London. — Assistant Physician.—Assistant Surgeon.—Assistant Obstetric Physician.

WANDSWORTH AND CLAPHAM UNION.— Dispenser. Salary £80 per annum, rising £5 annually to a maximum of £100 per annum, with dinner and tea daily.

WEST-RIDING LUNATIC ASYLUM, Wakefield.—Resident Clinical Assistant. No salary, but board, apartments, &c.

Births, Marriages, and Deaths.

BIRTHS.

BRODIE.—On the 16th inst., at Downing-street, Farnham, Surrey, the wife of Wm. Haig Brodie, M.B.Ed., of a son.

BROWNRIGG.—On the 17th inst., at Hill House, Gravesend, the wife of J. Annesley Brownrigg, M.A., M.D., of a daughter.

CRIPPS.—On the 20th inst., at Stratford-place, W., the wife of Harrison Cripps, F.R.C.S., of a son.

DOUGHTY.—On the 21st inst., the wife of W. Doughty, M.R.C.S., Friern Lodge, Lordship-lane, Dulwich, of a daughter.

JULER.—At 77, Wimpole-street, W., the wife of Henry Juler, F.R.C.S., of a son.

SHORE.—On the 21st inst., at Crouch-hill, N., the wife T. W. Shore, M.D., B.Sc., of a son.

THURLAND.—On the 12th inst., at 184, Aldersgate-street, E.C., the wife of the late Francis Edward Thurland, M.R.C.S., L.S.A., of a daughter.

TREWMAN.—On the 18th inst., at Portsdown Lodge, Hants, the wife of Surgeon G. T. Trewman, Medical Staff, of a daughter.

WATERSCHOODT.—On the 16th inst., at Lewisham High-road, S.E., the wife of C. van Waterschoodt, M.D., of a daughter.

MARRIAGES.

CLOSE—SEAGAR.—On the 18th inst., at St. James's Church, Norlands, W., Henry A. Close, Fleet Surgeon, H.M.S. *Durham*, to Mary, daughter of the late Mark Seager, of Palermo.

DREW—BRADY.—On the 14th inst., at H.B.M. Legation, at Berne, and subsequently at the R.C. Chapel, W. B. Drew, Staff-Surgeon, R.N., to Edith, daughter of Henry Brady, of Thurleston Lodge, Ipswich.

GELSTON—RUDGARD.—On the 14th inst., at St. Thomas's Church, Heaton Chapel, near Manchester, John Seymour Gelston, L.R.C.S.I., L.K.Q.C.P.I., to Edith, second daughter of the late Francis Rudgard, of Bunker's-hill, Lincoln.

JAMES—PHILIPSON.—On the 21st inst., at Christ Church, Plymouth, by the Rev. B. Mills, M.A., assisted by the Rev. W. E. Roome, B.A., Charles Alfred James, M.R.C.S., L.R.C.P.Lond., D.P.H.R.C.P. & S., second son of John James, of Boon's-place, to Annie Lucy, eldest daughter of the late Rev. W. Philipson, M.A., Rector of Bradley, Lincolnshire, and granddaughter of the late Edward George Baron, M.R.C.S. (At home on Tuesday after July 25th, 24, Cazenove-road, Stoke Newington.)

MACDONALD—SYMES.—On the 15th inst., at Bradford Peverell, by the Rev. R. G. Watson, Rector of Gussage, All Saints, assisted by the Rev. E. J. Pope, Rector of Bradford Peverell, Peter William MacDonald, M.D., Medical Superintendent of the Dorset County Asylums, to Lydia Josephine Squire, eldest daughter of Joseph Gustavus Symes, late Medical Superintendent of the Dorset County Asylums, and granddaughter of the late Rear Admiral Symes, of Crewkerne.

MARSHALL—CHAMBERLAIN.—On the 18th inst., at St. Stephen's, Manchester, John G. Marshall, B.A., M.B., Clare Coll. Cambridge, M.R.C.S., to Lilian, only daughter of the late W. Mawer Chamberlain, of Barnsley.

DEATHS.

LINDSAY.—On the 16th inst. (of pneumonia), at Clifton-road, Maida-vale, W. William Vickress Lindsay, M.D., in his 40th year.

RENTZSCH.—On the 17th inst., at Chelsea, George Henry Rentzsch, M.R.C.S., L.S.A., formerly Army Medical Staff and District Medical Officer of Chelsea, aged 55.

TOPHAM.—On the 16th inst., at Collingham-road, South Kensington, John Topham, M.D., F.R.C.P., aged 66.

WILLMOTT.—On the 15th inst., at Weston-super-Mare, Alfred Willmott, M.D., aged 70.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, June 23rd, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
June 17	30·37	E.	68	60	117	77	57	...	Fine
,, 18	30·27	E.	66	60	116	79	55	...	Hazy
,, 19	30·26	E.	69	62	124	85	56	...	Hazy
,, 20	30·32	E.	60	55	112	74	55	...	Fine
,, 21	30·35	E.	61	54	119	74	47	...	Fine
,, 22	30·33	E.	57	52	112	74	52	...	Cloudy
,, 23	30·27	E.	58	55	...	...	55	...	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

A CURIOUS ADVERTISEMENT.

THE following is a curious advertisement:—"To Surgeons.—Wanted, a middle-aged single man or widower, who must be of good address, to attend for consultation daily at a patent medicine vendor's, to devote his whole time to the practice.—Address, in strict confidence, stating salary required, and with all particulars, to ——." What can be the need of a surgeon in the patent medicine department, where consultation is superseded and the medicines fitted by the patent to all cases and comers? It looks, too, as if the qualification of singleness or widowership were of more importance than the "ordinary qualifications." We cannot commend the appointment to any of our readers.

Ignoramus.—The 30th of June is the day after which such applications should be made. Our correspondent will ascertain the fee on inquiry of the registrar, 299, Oxford-street.

Quirens.—Most treatises on obstetrics supply the information.

TOWN SANITATION.

To the Editors of THE LANCET.

SIRS,—Some years ago in the town in which I reside the public slaughterhouse was removed to another part of the borough. The old building was then converted into four tenements, which have been since continuously occupied by poor families. Neither of these tenements has a back outlet, the privies are in small courtyards close to the entrance doors, and there is no proper drainage from them. A short time ago the sanitary committee of the Town Council requested the medical officer of health to inspect and report upon them. He pronounces them to be in a "perfect sanitary condition." As the committee hold a contrary opinion, and are anxious to have the cottages (?) removed, can you suggest how this is to be done in the face of the medical officer's report? I am, Sirs, yours truly.

June, 1887. A TOWN COUNCILLOR.

*** Proceedings can be taken by the sanitary authority under Section 9 of the Public Health Act, which deals with houses unfit for habitation, but it may be a question whether the court would be satisfied to act without medical evidence. Such evidence is, however, not necessary under the section. The proper remedy in such a case is to be in possession of an efficient code of bye-laws as to new buildings. Such bye-laws would come into operation, under Section 159 of the Public Health Act, on "the conversion into a dwelling-house of any building not originally constructed for human habitation." The Annotated Model Code of Bye-laws of the Local Government Board shows what should be required under such circumstances.—ED. L.

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UNQUALIFIED ASSISTANTS AND THE JUBILEE.

Spes.—Our correspondent thinks the Jubilee ought to bring advantage to unqualified assistants, as well as to other unfortunate people, and he suggests how it might be so used. He proposes that within a given time each unqualified assistant be registered, and that on certain conditions of character and service he should be admitted to a *vivâ voce* examination and qualification to practise as an assistant surgeon only, and that at any subsequent time he should be allowed to present himself for examination at the conjoint examination of the Royal Colleges or other similar bodies *sine curriculo*. The idea is that ten years' service as an unqualified assistant is or should be considered equivalent to a curriculum. We believe that neither the Medical Council nor the medical bodies would agree to such proposals, which would neither be fair to the practitioners and students who go through the expensive and laborious system of medical education, nor to the public, which believes that in a recognised medical man they have one who has gone through this process. In the case even of the legal profession, though ten years' service as a managing clerk to a solicitor reduces the term of articles from five years to three, the three years' man has nevertheless to pass his intermediate and final examinations.

Mr. J. E. Edwards.—We are of opinion that the coroner was quite right not to pay our correspondent the fee. In fact, we believe he would have rendered himself liable to refund the guinea on its being disallowed by the magistrates. Our correspondent must look for payment to the person employing him.

J. Q.—The subject is discussed in our issue of April 16th.

THE HUTTON FUND.

To the Editors of THE LANCET.

SIRS,—May I again appeal to your kindness, and ask you to insert the enclosed list of subscriptions? The list will be kept open until Friday, July 15th, up to which date Dr. Cumberbatch, 25, Cadogan-place, Belgrave-square, will be glad to receive and acknowledge contributions.

Already acknowledged ..	£968	19	6	Lord De Saumarez ...	£5	0	0
Mrs. Thexton	15	0	0	A Friend	5	0	0
Mrs. Benson	10	0	0	Edwin Humby, M.D. ...	2	2	0
Hon. L. Vesey Fitzgerald	8	0	0	Mrs. W. Wood	2	1	0
Matthew Arnold, Esq..	5	5	0	Miss White	2	0	0
W. Wickham, Esq. ...	5	5	0	W. Wightman Wood, Esq.	2	0	0
Nalder Hollyer, Esq. ...	5	5	0	Mrs. G. F. Prescott ...	2	0	0
John Muir, Esq.... ...	5	5	0	E. L. Webb, M.D. ...	1	1	0
Mrs. Bosworth	5	0	0	J. Rushforth, Esq. ...	1	1	0
Charles Gore, Esq. ...	5	0	0	W. S. Falls, M.D. ...	1	1	0
T. Ridge Jones, M.D. ...	5	0	0	Lady Vavasour	0	10	6
Mr. Agg Gardiner ...	5	0	0				
W. Denman Benson, Esq.	5	0	0		£1071	16	0

I am, Sirs, your obedient servant,

W. HOWSHIP DICKINSON,
Secretary to the Committee.

June 20th, 1887.

THE NEW SANITARY CODE FOR ITALY.

THE sanitary interests of the Italian kingdom will henceforth be superintended by a Supreme Council of Health, to consist of a cabinet minister who will be president; the procurator-general of the Court of Appeal; a jurist; six doctors in medicine and surgery, specially qualified in public hygiene; a chemist; a pharmacist; a veterinary surgeon; three engineers, experts in sanitary architecture; a medico-sanitary inspector for the Army and a similarly qualified functionary for the Navy; the directors-general of the statistical bureaux and mercantile marine. Of these, six at least must be resident in Rome. In every provincial capital there will also be a council of Health, consisting of the prefect, the public prosecutor, a jurist, two doctors of medicine and surgery, a chemist, a pharmacist, a veterinary surgeon, and a sanitary engineer. For each district within the provinces there will be a similarly constituted Board of Health.

New Zealand.—Cassell's Domestic Medicine would probably answer the requirements of a person resident in a distant colony when beyond the reach of medical assistance.

Invalid should consult his medical attendant.

HEALTH OF THE "WILD WEST."

To the Editors of THE LANCET.

SIRS,—A rumour has been spread by some malicious person or persons that an outbreak of scarlet fever had occurred in the camp. We beg to state that, with the exception of accidents and one case of pneumonia (since recovered), there has been no case of illness, and the camp is and has been in a perfectly healthy state. It is open at all times to the inspection of the medical officer of health for the district.

Kindly insert this letter in your valuable journal, and oblige

Yours truly,

J. B. W. BIDLACK, M.D.Phil.U.S.A.,
Medical Director of the American Exhibition,
R. J. MAITLAND COFFIN, F.R.C.P.Ed.,
Medical Officer in charge of the Wild West Camp.

West Brompton, June 22nd, 1887.

NOVELISTS AND THE MEDICAL PROFESSION.

IN that clever and interesting novel by Maxwell Gray, "The Silence of Dean Maitland," which, though bearing this year's date, has already reached a fourth edition, there is a graceful allusion to the medical profession, the members of which receive but scant justice from novelists in general:—"The medical profession, strangely enough, has never been popular, skill in the healing art being usually attributed by the unlearned to the favour of the Evil One; a clever physician is prized and feared, but rarely loved. Even among the cultured there still lingers a faint repulsion for the man who is the only welcome guest in the day of sickness and peril, and society is only just beginning to honour the cultivated intellect and recognise the social value of the doctor." The real hero, and certainly the finest character in the book, Henry Everard, is a young surgeon, and when asking his clerical friend, Cyril Maitland, the future dean, for the reason why clergymen were more popular than doctors, received a reply in which the truth is somewhat satirically given: "Clergymen are of no use save at two or three august moments of life—when a man dies, gets married, or is born; therefore they inspire popular reverence as belonging to the ornamental and superfluous portion of existence, its fringes, so to speak. Doctors, on the contrary, cannot be dispensed with; their services are needed and obtained on the most homely occasions, and men never reverence the indispensable. Bread and cheese are taken as a matter of course, but the champagne of festivals is thought much of." The book will well repay the reading.

Mr. A. C. Cocks.—Our correspondent has a right to complain that he was not informed previously to his patient receiving a visit from the official medical adviser of the stores.

Mr. J. Harris Jones (Wilkes Barre).—We shall be pleased to receive the reports, and to give them our attention.

Dr. Birmingham (Dublin).—44, Fore-street, E.C.

REMOVAL OF BREAST TUMOUR WITH THE AID OF COCAINE.

To the Editors of THE LANCET.

SIRS,—Dr. H. F. Grün, in your issue of the 18th inst., publishes a case of removal of a tumour from the breast with the aid of cocaine, in which he confidentially asserts that "this is the first case in which a tumour of the breast has been removed under the influence of cocaine," but he neglects to give the date of his operation. I do not wish in the least to deprive him of any honour in being the first, but on May 29th, with the assistance of Dr. Stanley Ward, I removed with cocaine a much larger tumour, it being almost the size of a human kidney, together with a second growth nearly as large as a walnut. The incision was necessarily longer than in Dr. Grün's case. It was almost four inches in length. The parts were painted with a 20 per cent. and injected with a 10 per cent. solution in two places. It was not considered advisable to use chloroform from the condition of the heart. The patient felt a little pain, particularly when the final stitches were being inserted, probably from the effect of the cocaine passing off, but it must have been very slight, as she never moved even her arm during the operation. The wound healed by the first intention, the temperature did not rise above 100°, and within a week she was able to go out. I should not have thought of publishing this case, deeming it nothing exceptional, had not Dr. Grün made an assertion that his was the first case, which, of course, it still may have been, as he omitted to give any date.

I am, Sirs, yours faithfully,

Haverhill, June 21st, 1887. B. L. TANDY.

Alpha.—The coroner is bound to subpœna in statutory form. If our correspondent is not summoned, he must use his own discretion as to whether he will attend the inquest or not. It is certainly desirable that friction should be avoided between coroners and the medical representatives of large public institutions. In the case mentioned, our correspondent appears to have understood that his attendance would not be required, when in reality it was. A little give and take ought to have removed the misunderstanding. It is clear from the coroner's reply that he was cognisant of the fact that legally he was bound to command by subpœna the attendance and evidence of our correspondent.

Mr. A. J. Dalton.—In an early number.

Mr. Walter Greene.—The paper is marked for insertion.

ENCEPHALOCELE (?).

To the Editors of THE LANCET.

SIRS,—Four weeks ago I delivered a woman of a female child at full term. Labour was natural. After birth, the child was found to have a bilobed tumour behind and below the occipital bone. The tumour, I believe, contains the cerebra; it is the size of two oranges joined together, and is covered by a thin membrane, which gave way some days after birth and discharged a milky fluid. The discharge has since ceased. The usual prominence of the frontal region is absent. The cranial bones are more than usually ossified, no fontanelles being present. The child is strong and healthy, and takes the breast well. May I inquire how long such a child is likely to live, and what is the usual cause of death? I am, Sirs, yours truly,

June 21st, 1887. A. B.

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DOCTORS' INCOMES.

Mr. D. Lloyd.—We regret to say that we think our correspondent's proposals unpractical. Nobody who studies the inability of Parliament to do its own proper work can fail to see the impossibility of its doing what our correspondent proposes. The profession must rely on itself, and certainly not on Parliament, to secure proper remuneration for its services.

Dr. Van Waterschoodt.—We do not know of an institution which would meet the requirements named.

Mr. Merces.—The letter is too long for insertion.

Dr. Beaven Rake is thanked.

ERRATA.—The remarks attached to the case of intubation of the larynx, published on page 1232 in our last number, were by mistake attributed to Drs. Smith and Waldo; they should have been credited to Mr. James Swayne.—The name of the recipient of a presentation, of which a notice was given on page 1164, should have been printed W. Jenner Clarke, not Reid.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Wm. Budd, Exeter; Dr. Dickinson, London; Mr. E. Owen, London; Prof. Roy, Cambridge; Mr. K. Millican, London; Mr. H. Travers; Dr. P. Blaikie Smith, Aberdeen; Rev. T. Dixon-Spain, Brlesdene; Dr. A. Thompson, Ulverstone; Mr. J. P. Gray, Halifax; Dr. Brett, Watford; Mr. B. L. Tandy, Haverhill; Mr. Bennett May, London; Mr. A. Wood; Mr. R. Jones; Dr. Lewers, London; Mr. T. J. Barnardo, London; Mr. T. Laffan, Cashel; Dr. Dunlop, Jersey; Mr. Benham, London; Dr. Percy Kidd, London; Mr. J. H. Jones, Wilkes Barre; Dr. Andrew Smart, Edinburgh; Dr. A. H. Hassall, Lucerne; Mr. Littlewood, Leeds; Dr. Fearnside, London; Mr. P. E. Hill, Crickhowell; Mr. Lennox Browne, London; Mr. R. B. Cooke, Scarborough; Messrs. Freeth and Co., Vauxhall; Mr. N. E. Davies, Sherborne; Messrs. G. Mason and Co., London; Mr. D. G. Marshall, Edinburgh; Surgeon-Major Briggs, Madras; Mr. Lyson, Burmah; Mr. Logan, Glasgow; Messrs. Isaacs and Co.; Mr. A. J. Dalton, London; Mr. Moore, Aden; Mr. Barlow, Birmingham; Mr. Jas. Swain, Bristol; Mr. Pease; Dr. McMurray, Liverpool; Mr. Henriques, London; Mr. J. Merces, London; Mr. G. Barling, Birmingham; Mr. Raw, Newcastle-on-Tyne; Messrs. Savory and Moore, London; Mr. Armstrong, Harpurhey; Mr. Skrimshire, Blaenon; Mr. Graham, Bristol; Mr. Fox, Manchester; Mr. Hawkins, London; Dr. Baker, York; Mr. Linsey, Mansfield; Mr. Symes, Dorchester; Mr. Ladd, Canterbury; D. Pressland, London; A Locum; H. D. F.; Coventry; Alpha, Clapham; M.D., Manchester; M.D., Suffolk; Francis; Ignoramus.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Squire, London; Dr. Juler, London; Lady Lambton; Messrs. Thomae and Co., London; Mr. Crewes, Truro; Mr. Lowther, Hull; Messrs. Morgan and Co., Morriston; Dr. Thompson, Oldham; Messrs. Hankin and Son, St. Ives; Mr. Simpson, Oydh; Mr. Evans, Oswestry; Mr. Rees, Brecknock; Mr. Fiske, Dawlish; Dr. Shore, Hornsey; Messrs. Blake and Co., Leeds; Mr. Lewis, Wakefield; Mr. Chadwick, Lancaster; Mr. Williams, Richmond; Mr. Bunbage, Coventry; Mr. Williams, Abertillery; Dr. Connon, Blackburn; Mr. Marsh, Wigan; Mr. Christie, Southsea; T. S., Lalon; P. K., Winchester; Alpha, Everton; Dragon; Medicus, Liverpool; Alpha; X.; Assistant, Hull; Surgeon, Liverpool; X. Y. Z., London; Surgeon, Bradford-on-Avon.

Orvosi Heti Szemle, Newcastle Daily Chronicle, Liverpool Evening Express, Scotsman, Scarborough Post, Glasgow Herald, &c., have been received.

Medical Diary for the ensuing Week.

Monday, June 27.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.

Tuesday, June 28.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.

Wednesday, June 29.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M.; Saturday, same hour.

Thursday, June 30.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

Friday, July 1.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, July 2.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

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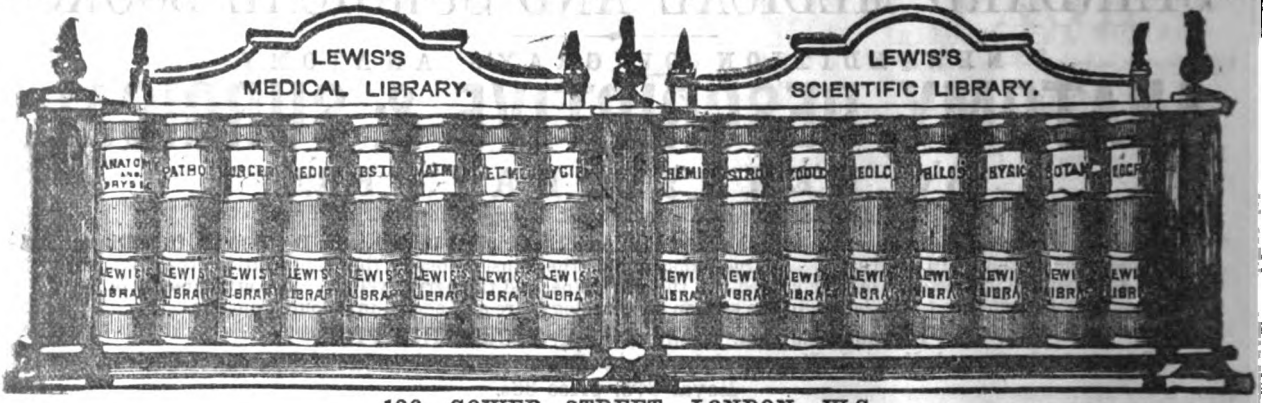
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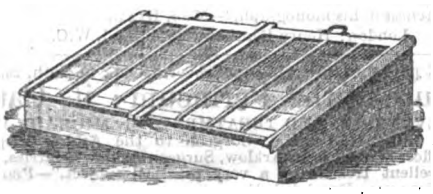
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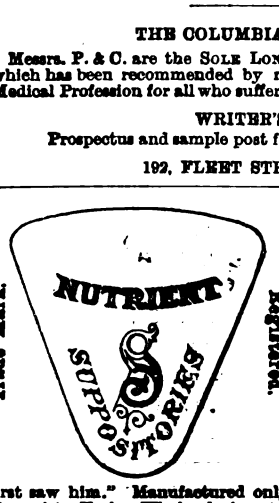
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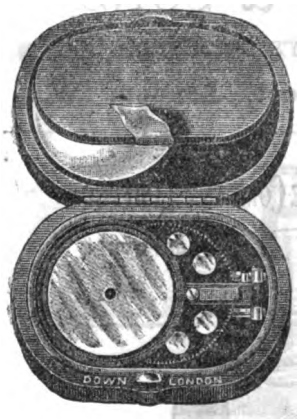
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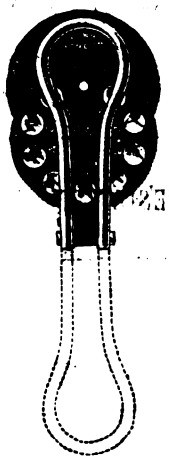
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By augmenting the peristaltic movement of the intestine without producing undue secretion of the liquids. Unlike pills and the usual purgatives it does not predispose to intestinal sluggishness, and the same dose always produces the same effect, that is to say, never needs increasing.

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Aloin,	1-5 gr.
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Ext. fol. Belladonnæ,	1-8 gr.

(Dose: 1 Pill.)

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This salt, which under ordinary circumstances rapidly spoils, keeps well in the soluble coated pill.

CASCARÆ SAGRADÆ EXTRACT. Pil., 2 grs.

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EUONYMIN ET COLOC. COMP. EXT. PIL.

Euonymin,	1 gr.
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(Dose: 1 Pill.)

FERRUGINOUS (Blaud's) PIL.

Ferri Sulph.,	2½ grs.
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(Dose: 1 to 3 Pills.)

These pills are admirably adapted for the assimilation of iron, as the ingredients react upon each other to form protoxide of iron, which, owing to the protection afforded by the soluble coating, remains unaltered until freed for action by the stomach juices.

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(Dose: 1-100 to 1-20 gr.)

In our pills the Phosphorus is incorporated with the other ingredients while in solution so as to effect a uniform and thorough diffusion. The Phosphorus is perfectly protected from oxidation, which may be readily ascertained by cutting one of the pills however long it may have been kept. At the same time the excipients with which the Phosphorus is mixed sufficiently dilute the mass to prevent the degree of irritation which is liable to follow when a mass strongly charged with Phosphorus comes in contact with the mucous surfaces. Hence the several Phosphorus Pills, though each containing small and different quantities of the active ingredient, are all of a medium size.

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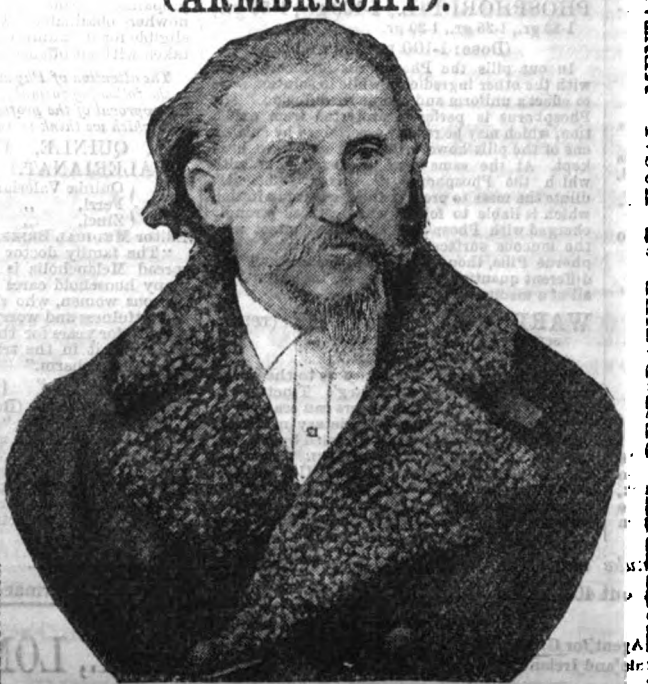
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MALTOPEPSYN.

That many of the diseases from which mankind suffer during infant and adult life are caused by malnutrition, there can be no doubt; and the extent to which non-assimilation of the life-giving properties of food interferes with recovery from severe illness, baffling the best directed efforts of the physician, points to the necessity for an agent or combination of agents sufficiently potent to replace the deficient principle and aid nature in renewing the degenerated tissues.

Realising this need, the science of chemistry produced *Pepsine*. Of this remedy RICHARD TUSON, F.C.S., Professor of Chemistry, London, speaks through the August 13th, 1870, number of THE LANCET as follows:—

"Since the introduction of Corvisart and Boudault's poudre nutrimentive into medicine in the year 1854, Pepsine obtained from the stomach of the pig, calf, or sheep, in a state of greater or less impurity, has been extensively prescribed in Dyspepsia and certain other affections. According to the testimony of some authorities of high standing, long experience in the use of this agent fully justifies Corvisart's predictions relative to its therapeutic value, which were based on physiological reasoning. There are other authorities, however, who express doubts as to the efficacy of Pepsine.

"This difference of opinion undoubtedly arises from the circumstance that pharmaceutists supply medical men with various preparations, all bearing the same specific name of Pepsine, but differing very considerably in their digestive powers and other qualities. In fact, I find those who speak favourably of its employment in the treatment of diseases have prescribed that prepared by the best makers; while those who express a doubtful opinion have been in the habit of prescribing those varieties or makes which the experiments of myself and others have proved to be practically without any digestive activity"—i.e., *worthless*.

Under these circumstances it is *absolutely* necessary for the practitioner to be certain of the *make* of Pepsine he uses. *Pure* Pepsine, thoroughly triturated with finely-powdered sugar of milk (saccharated pepsine), will undoubtedly produce the best results. Experience in diseases of the stomach, Dyspepsia, &c., has demonstrated in many cases the lack of other agents required to promote a healthy digestion besides Pepsine—namely, Pancreatine and Diastase, or vegetable Ptyalin. Pancreatine, the active principle of the sweetbread or pancreas, possesses the wonderful power of emulsifying the fats and oils of food, rendering them easy to assimilate, and which are not affected by Pepsine in the slightest degree. Diastase, or vegetable Ptyalin, as obtained from malted barley in the *dry* extract of malt, represents the saliva, and has the remarkable property of converting the insoluble starchy portions of food into the soluble glucose, thus rendering the said indigestible and innutritious article—starch—into the nutritive and easily assimilated food, glucose.

The value of these different ingredients, and the difficulty of procuring them of the right quality, led Hazen Morse, chemist, late of Toronto, now of Ontario, Canada, to experiment with various combinations, during seven years' employment in the manufacture of Pepsine, on a large scale; and, with the assistance of several prominent physicians, he was finally enabled to present to the profession the following formula:—

Saccharated Pepsine	10 grains.
,, Pancreatine	5 ,,
Acid Lacto-phosphate of Lime ...	5 ,,
Exsiccated Extract of Malt equal to one teaspoonful of Liq. Ext. of Malt	10 ,,

and registered it at Ottawa, Canada, and London, England, under the distinctive name

MALTOPEPSYN,

thus giving the physicians a guarantee of always procuring the same standard preparation and preventing their being imposed upon by imitations of inferior quality, at the same time putting it at as *low a figure* (2s. 9d. for 1 ounce) as possible for such a formula to be compounded, using the ingredients of the *best possible* make.

Maltopepsyn has digestive power *ten times* greater than the best Pepsine in the market, as it digests Fibrine and Caseine, emulsifies the fat of food taken into the stomach, thus rendering it assimilable, converts starch into glucose; in fact, it combines all the agents that act upon food, from mastication to its conversion into chyle, digesting all aliment used by mankind, while Pepsine acts only on plastic food. Maltopepsyn also combines with the above the nutritive qualities of Extract of Malt, and the brain- and nerve-strengthening powers of the Acid Phosphates.

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LIQ. PODOPHYLLIN (HOCKIN).

Miscible (bright) in Aquos, Acids, or Alkaline Solutions, also with Decoctions, Ethers, Infusions, Tinctures, &c.

These preparations contain no colouring matter whatever.
Each Drachm is equal to Podophyllin Pur. ¼ grain.

The BRITISH MEDICAL JOURNAL, Feb. 12th, 1887, says:—

"Although the value of Podophyllin as a cholagogue has long been recognised, much difficulty has been experienced in prescribing it in a liquid form. Many patients cannot take pills, and prefer having a mixture. The new preparation contains a quarter of a grain in a drachm, and is miscible not only with water, acid, and alkaline solutions, but also with infusions and tinctures. It is active in very small doses, and undoubtedly supplies a long-felt want."

The MEDICAL PRESS and CIRCULAR, March 30th, 1887, says:—

"Owing to its insolubility, podophyllin is mostly exhibited in the form of pill; and, as a consequence, occasionally passes through the intestinal canal more or less unabsorbed, and to the disappointment both of patient and physician. This liquor contains one-quarter of a grain of podophyllin to the drachm, and when added to water produces a clear solution the colour of sherry, and without any precipitation of the drug. In cases of dyspepsia occasioned by torpidity of the liver, I have obtained excellent results from the administration of a drachm of this liquor in an ounce of gentian mixture two or three times a day. From two to four drachms of the liquor, together with an ounce of decoction of aloes and five minims of tincture of capsicum, form a good cholagogue aperient."

The EDINBURGH MEDICAL JOURNAL, April, 1887, says:—

"LIQ. PODOPHYLLIN (HOCKIN). Prepared only by HOCKIN, WILSON, & Co., London.—This is an excellent preparation, containing two grains of podophyllin in every fluid ounce, and one which we can recommend to the notice of the profession."

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DOSE:—One Drachm.

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(*Synonymous* **LIQ. HOCKIN**).

EACH DRACHM EQUALS—

Podophyllin Resin	**1-4 gr.**
Ext. Belladonna Rad. Alch.	**1-8 ,,**
Strychnia	**1-30 ,,**

Acts most beneficially in torpid liver from defective nerve-influence, and also upon the alimentary canal. It increases the tone and vascularity of the stomach, improves appetite and promotes digestion, and in atonic dyspepsia, and various chronic catarrhal affections of the gastric mucous membrane it acts as an excellent tonic, greatly increasing the muscular contractions of the intestinal tube, and counteracts constipation and fæcal accumulations.

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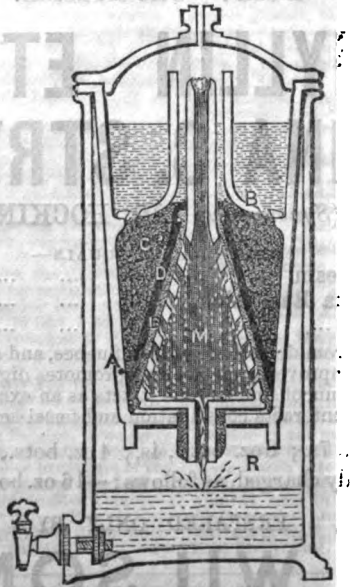
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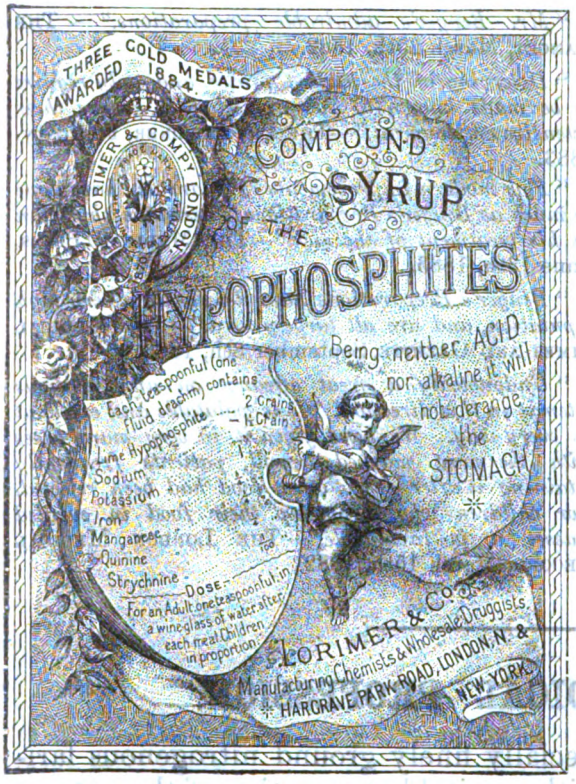
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"An invaluable remedy in Pulmonary Tuberculosis—the patients like it, finding it an agreeable stimulant and tonic, and quickly improving the appetite. I shall in future use it more extensively. "M.D."

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"Your Syrup of Hypophosphites is an elegant preparation, which is something, and a very effective one, which is everything. I have used it in a number of cases with much success, and shall use no other in future. "M.D."

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"Lorimer's Hypophosphites.—I have given your Syrup Hypophosph. Co. in several cases, and always with marked benefit. I consider it an elegant compound, and superior to all others,

"Honorary Surgeon, Kidderminster Infirmary."

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"I prefer it to any other. It appears to meet the desideratum long sought for—viz., an elegant preparation, definite and stated formula, and moderate price. "M.D."

Has the following advantages over all other similar preparations:—

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7th.—The price is not a fancy one, 1 lb. bottles, unstamped, for dispensing, **4s.** each; stamped bottles, **24s.** and **42s.** per dozen.

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The product will contain about three grains Hypophosphites per fluid drachm, be most pleasant for children, and **equal in themical and therapeutical value** to either of the **foreign nostrums**, so largely advertised.

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"With reference to the foreign manufacturer who claimed to be the inventor of Syrup Hypophosph. Comp., and declared all similar preparations inferior to, and imitations of his own, we have already publicly challenged him to prove either statement, and offered a sum of £200 for London Hospitals if he could succeed. This offer is still open, and we are prepared at any moment to abide by the terms of our challenge."—See THE LANCET, BRITISH MEDICAL JOURNAL, &c.

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Pepsina Liquida (Schacht)
will Peptonise **1000** grains of Albumen.
A palatable, odourless liquid,
attractive to Patients, and
of guaranteed strength.

SCHACHT'S LIQUID PEPSINE.

We prepare also

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Each drachm contains in a concentrated form, besides the liquid pepsine, a full dose of Schacht's Liquor Bismuthi.

PEPSINA LIQUIDA c. EUONYMIN (SCHACHT).

Each drachm contains one grain of soluble Euonymin.

THE FORMULÆ ARE GIVEN ON EVERY LABEL.

Price of each remedy:—One pound bottles, 7s. each; half-pounds. 3s. 9d.; 4 oz. bottles retail at 2s. 6d.

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Allsopp's Pale or Bitter Ale.—Messrs. SAMUEL ALLSOPP and SONS, Limited, beg to inform the TRADE that they are now Registering Orders for the SEASON-BREWED PALE ALE, in casks of 9 gallons and upwards, at the Brewery, BURTON-ON-TRENT, and at the undermentioned Branch Establishment:—
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Guaranteed Pure and Soluble Cocoa

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ORIGINAL MANUFACTURERS,

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Of all Decorators & Contractors. Seventeen Medals, including Gold Medal, International Health Exhibition.



HUXLEY'S

Spiral Abdominal Belts,

for Pregnancy, Obesity, Ovarian Disease, and with Air-pads for Hernia. Made on Principles approved by the first Physician-Accoucheurs and Surgeons. Directions for measurements: Circumference at *a b c*; depth, from *a* to *c*. HUXLEY'S OBSTETRIC BINDER, 3s. 6d. each. Discount to the profession 20 per cent. Illustrated and priced Circulars on application to ED. HUXLEY, 13 (late of 12), Old Cavendish-street, Oxford-street.



SALMON, ODY, & CO.'S PATENT SELF-ADJUSTING TRUSSES

are considered by the leading members of the profession to be the most effectual for Hernia. The principle of these Trusses are the Ball and Socket adaption of the front pad, which, while retaining its position on the Hernia, oscillates with every movement of the body, and requires no straps to hold them in position. Price list post free.—292, Strand, London, W.C.

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BATH CHAIRS, £1 5s.
Reading Machines, from 21s.
Consulting Room Couches.
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Bassinette Perambulators, rubber tyres, £2.
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ALFRED CARTER, 47, Holborn Viaduct, E.C.

No connexion with any other Firm.

Hansom Cab, Brougham, and Victoria.

These carriages are light, in nearly new condition, and are for Sale at a great reduction, or can be hired.—Apply, E. KESTERTON & CO., 93 and 94, Long-acre, London.

Private Hansom, circular front, by

Kesterton; nearly new. Cost 120 guineas; to be sold for 60 guineas, Trial allowed.—Can be seen at 4, Gaspar-mews, Courtfield-gardens. South Kensington.

NEW PATENT

BROUGHAM HANSOM,

No. 574,
Introduced by
W. & F. THORN
LONDON only.
Weight 6½ cwt.



The most luxurious Close Carriage, on two wheels, ever invented, and 2 cwt. lighter than any ordinary Brougham or Hansom.

Particulars and Price from

W. & F. THORN, 19, Gt. Portland-st., London, W.

J. MAYTHORN & SON, BIGGLESWADE,

Builders of Carriages of every description, of
HIGHEST QUALITY ONLY.
ESTABLISHED 1842.



MAYTHORN'S CIRCULAR-FRONT BROUGHAMS are roomy, comfortable easy of draught, and perfectly ventilated.

At STAND No. 24,
SPORTSMAN'S EXHIBITION, OLYMPIA,

From 20th to 30th of April, 1887, J. M. & Son will exhibit seven specimens of their celebrated Carriages, including the above, and earnestly invite a careful inspection of the same.

Horse for Sale or Hire, cheap, 15-2

bay; aged five; stoutish built; ride or drive; in good condition. No blemishes, sound, perfectly quiet, and good-looking. Terms £4 per month, owned if retained nine months; or £30 during first month.—Address, Frederick Orchard, 118, Portobello-road, Notting-hill, London.

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A newly-invented Carriage for the Medical Profession. Light and easy, with safety and comfort combined. Suitable for town or country use. Painted to choice; lined with cloth and leather hood. Price 58 guineas. Illustrated Catalogues sent free.

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Funeral Reform.—Simple Funerals

and perfect burials. Explanatory pamphlet gratis. LONDON NECROPOLIS COMPANY, 2, Lancaster-place, Strand. Patent Return to Earth perishable coffins. The Archbishop of Canterbury, writing to the Church of England Funeral Reform Association, says:—"The double object of your association—viz., to simplify funeral and mourning ceremonial, and to encourage burial in perishable coffins in the simple earth—has my full concurrence and sympathy."



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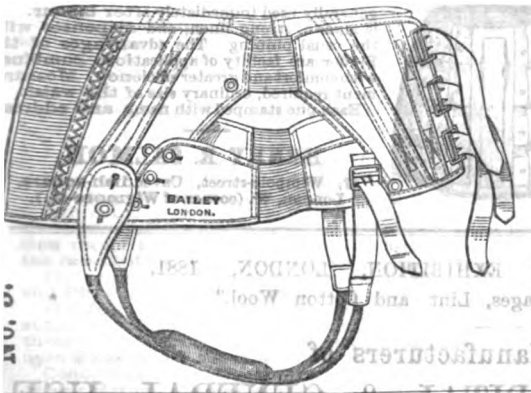
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We are making a speciality of the above, and guarantee it the best value in London. Tailoring in all its branches at moderate prices. Patterns and forms for self-measurement free to any part of the world.

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BAILEY'S PATENT ABDOMINAL BELTS.



For Measurement: Circumference of Abdomen at the largest part and Hips.—(Special Department for Ladies.)

No. 1. FOR GENERAL SUPPORT.

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With Improved Indiarubber Perineal Pads and Regulating Straps.

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CLINICAL THERMOMETERS. REDUCED PRICES!



NOTICE.—We do not sell any Thermometers in which the Index can be shaken down into the bulb, and so rendered useless.

Every Thermometer is guaranteed of Standard precision. Government Certificate from the Royal Kew Observatory can be had with each if desired. Price 1s. 6d. extra. Any one can be had in Silver Case at 2s. 6d. extra.

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This Thermometer is guaranteed to take the maximum temperature of patient in ONE MINUTE. Postage 3d. extra.

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HOOPER'S ELASTIC WATER OR AIR MATTRESS WITH CENTRAL TUBE,

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For Conveying the Evacuations in Cases of Paralysis,



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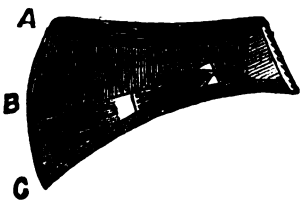
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in Silk Elastic, and Thread do., from 25s. to 50s.

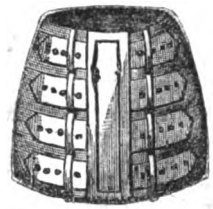


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The Binder is a substitute for the towel generally used immediately after labour. It is made of strong linen, and dispenses with the usual pinning. The advantages of the Binder are facility of application, combined with comfort and greater efficiency. Measurement required, ordinary size of the waist.
Each one stamped with name and address

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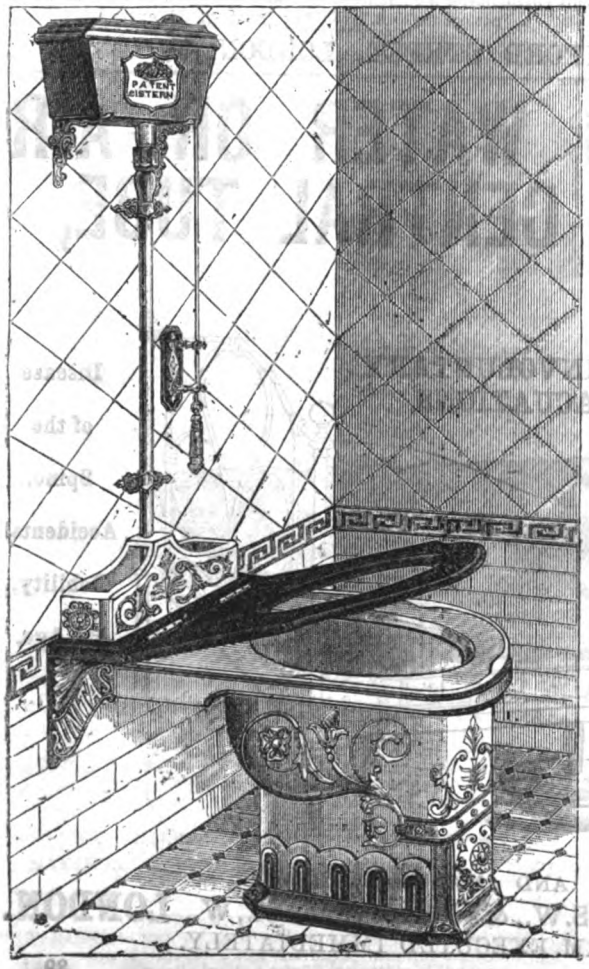
IMPROVED BANDAGES FOR HOSPITAL & GENERAL USE.

These Bandages are manufactured from our Patent Bandage Cloth, which enables us to produce a greatly improved Bandage at a very low price.
The following are always kept in stock, unbleached, for hospital use, in two qualities, close and open wove (absorbent):—6 and 6 yards long, by 2½ inches wide; 6 yards long, by 2, 3, and 6 inches wide; 8 yards long, by 2, 2½, and 3 inches wide.
Absorbent, Water-dressing, Muslin, White Calico, Flannel, and Domette, 6 yards long, by 2½, 3, and 6 inches wide.

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TWYFORD'S "UNITAS,"

Combining W.C. BASIN and TRAP, URINAL and SLOP SINK, has the following Special Advantages:—

Unlike ordinary W.C. Basins, *it is not enclosed with woodwork*, but is fully exposed, so that no filth, nor anything causing offensive smells can accumulate, or escape detection.

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No Wood Fittings are required except a hinged seat, which being raised, the Basin can be used as a Urinal or a Slop Sink, the "wetting" so objectionable in Closets having permanent seats being avoided. Free access can thus be had to all parts of the Basin and Trap, so that everything about the Closet can be easily kept clean.

Made with or without Slop Top in three ways.

No. 1. With raised Ornamentation, Oak or Florentine Pattern (White or Ivory).
No. 2. Plain, White or Ivory, or with Printed Pattern.
No. 3. In strong Fire Clay, specially adapted for Factories, Workhouses, Asylums, Infirmaries, Hospitals, &c. &c.

The flushing arrangements are so perfect, that with a flush of two gallons of water, it is guaranteed that all the soil and paper will be completely removed from the Basin, and through the Trap, the whole of the inside being thoroughly washed, and with the aid of the Patent "After-flush" Chamber, the full quantity of water required to receive the soil is left in the bottom of the Basin.

THOMAS W. TWYFORD,
Manufacturer of all Descriptions of Sanitary and Plumbers Earthenware, and Sole Maker of the "Unitas," "National," "Alliance," and "Crown" Closet Basins.
Hanley, Staffordshire.

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St. Bartholomew's Hospital and COLLEGE.

The SUMMER SESSION begins on Monday, May 2nd.

The Hospital comprises a service of 750 beds (including 75 for convalescents, at Swanley).

Students may reside in the College within the Hospital walls, subject to the collegiate regulations.

For particulars, apply personally, or by letter, to the Warden of the College, St. Bartholomew's Hospital, E.C. A handbook forwarded on application.

St. Bartholomew's Hospital and COLLEGE.

OPEN SCHOLARSHIPS IN SCIENCE.

Two Scholarships of the value of £130 each, tenable for one year, will be competed for on September 27th and three succeeding days. One of the value of £130 will be awarded to the best candidate at this Examination under twenty years of age, if of sufficient merit. For the other, the candidates must be under twenty-five years of age.

The subjects of examination are Physics, Chemistry, Botany, Zoology and Physiology. No candidate to take more than four subjects.

The Jeaffreson Exhibition will be competed for at the same time. The subjects of Examination are Latin, Mathematics, and any two of the three following languages: Greek, French, and German. This is an open Exhibition of the value of £50.

Candidates must not have entered to the Medical or Surgical Practice of any Metropolitan Medical School.

The successful candidates will be required to enter at St. Bartholomew's Hospital in the October succeeding the Examination, and are eligible for the other Hospital Scholarships.

For particulars, application may be made to the Warden of the College, at St. Bartholomew's Hospital, E.C.

The Royal Westminster Ophthalmic HOSPITAL, King William-street, Charing-cross.

The Practice of this Hospital is open to Practitioners and Students from 1 to 4 P.M. daily.

Special Instruction is given in the Diagnosis, Pathology, and Treatment of all EYE AFFECTIONS, including the Operations on the Eye, the Treatment of Errors of Refraction, and the use of the Ophthalmoscope.

The next Clinical Evening, Friday, May 6th, at 8 P.M.: Mr. ROUSE and Mr. HARTRIDGE.

Terms for six months, £3 3s. Perpetual, £5 5s.

For particulars apply to Mr. Juler, 77, Wimpole-street, W.

Westminster Hospital Medical School,

Caxton-street, S.W.—The SUMMER SESSION commences on May 1st. A Science Scholarship, value £40, is offered for competition. The examination will be in Chemistry (Organic and Inorganic) and Physics, and will be held on April 30th. In September Entrance Scholarships, value £80 and £40, will be offered for competition.

Students entering in the summer (except those who have already obtained a Scholarship) are allowed to compete for the Entrance Exhibitions in the following September.

Fees: £100 in one sum on entrance, or 100 guineas in two payments, or £115 in five payments. No extras, except parts for Dissection and Class of Experimental Physics.

For prospectus and particulars apply to

F. DE HAVILLAND HALL, M.D., Dean.

Charing-cross Hospital Medical SCHOOL.

SUMMER SESSION, 1887.

Lectures and Clinical Instruction in the Wards will commence on Monday, May 2nd, at 9 A.M.

Gentlemen can enter to any Course of Lectures, or to Hospital Practice only.

The Hospital has a service of 230 beds for Clinical Teaching, including those of the adjoining Royal Westminster Ophthalmic Hospital, to which General Students are free.

Two ENTRANCE SCHOLARSHIPS of £30 and £20 respectively, for which General Students now entering can compete, are awarded annually in October.

The LLEWELLYN SCHOLARSHIP of £35 and the GOLDING SCHOLARSHIP of £15 are open to General Students who have completed their third and first academical years respectively.

The PEREIRA PRIZE of £5 is open to all General Students, and is awarded for the best Clinical Reports.

Students are eligible for the appointments of Resident Medical, Surgical, and Obstetrical Officer, for Clinical Clerkships, Surgical Dresserships, and for Assistant Demonstratorships of Anatomy, Physiology, &c., without additional fee.

FEES.—For the curriculum of Study required by the various examining bodies and hospital practice, 90 guineas in one sum, or 100 guineas in five instalments. The Composition fee for Dental Students is £42 2s., payable in two instalments.

*** The hours of Lectures have been specially rearranged to suit the convenience of Dental Students. Charing-cross Hospital is within three minutes' walk of the Dental Hospital of London.

PRELIMINARY SCIENCE INSTRUCTION.—Arrangements have been made for Students desirous of undergoing a Course of Instruction in Science, such as that required for the Preliminary Scientific (M.B.) Examination of the University of London, to attend at the Normal School of Science, South Kensington.

A Prospectus containing every information will be forwarded on application to the Librarian and Secretary, Mr. J. Francis Pink, who attends daily at the Office of the School, Chandos-street, Charing-cross, between the hours of 10 and 4.

J. MITCHELL BRUCE, M.A., M.D., Dean.

St. George's Hospital Medical School, HYDE-PARK-CORNER, S.W.

The SUMMER SESSION will commence on Monday, May 2nd.

The Fees for Perpetual Students are £125 on entrance, or £130 paid by instalments extending over three years.

£10 10s. will be deducted from these fees in the case of Students who, under the Conjoint Scheme, do not require instruction in Chemistry and Materia Medica.

Second and third-year Students are received upon payment of £90 and £85 respectively.

Dresserships, Clerkships, and all the House Appointments are awarded without extra fees, and the latter on the result of competition.

The William Brown £100 Exhibition, tenable for two years, and the £40 Exhibition, tenable for three years, are open to all Perpetual Students.

The following Entrance Scholarships are offered for competition in October, and Students entering in the Summer Session are eligible to compete for them:—

1. A Scholarship, value £125, for the Sons of Medical Men who have entered the School during the current year.

2. Two Scholarships, value £50 each, open to all students commencing their studies in May or October. Subjects: Latin, French or German, and Elementary Physics.

3. A Scholarship, value £90, open to all students who have entered the School during the current year, having passed the Cambridge 1st M.B. since the previous October. Subjects: Practical Chemistry and Elementary Biology, Physiology and Anatomy.

4. A Scholarship, value £65, open to all students who have entered the school during the current year, having been previously signed up for or passed the Oxford 1st M.B. or Cambridge 2nd M.B. Subjects: Anatomy and Physiology.

Other Prizes of the value of £150 are offered for competition annually.

The Appointments of Obstetric Assistant, with a salary of £100 a year and board and lodging; Curator, £50; Medical and Surgical Registrars, £50 each, are awarded yearly upon the recommendation of the Medical School Committee.

The New Physiological Laboratories are now finished, and have been placed under the superintendence of Dr. Delépine.

Prospectuses and further details may be obtained by application to

WILLIAM WADHAM, M.D., Dean.

St. Mary's Hospital Medical School.—

The SUMMER SESSION will commence on May 2nd. The Hospital contains 281 beds, is situated in one of the most pleasant districts of London, and is in direct communication by rail with all parts of the Metropolis. Several Scholarships in Natural Science will be offered for competition in September. Students entering in May are eligible to compete for these Scholarships. Special classes are held for the Preliminary Scientific Examination of the University of London. Fee £10 10s., which will be returned to any member of the class who enters as a Perpetual Pupil. Gentlemen who enter for this course count their medical studies from the time at which they commence their attendance on the Lectures on Anatomy and Physiology.

The School buildings, to which large additions were made in 1883, especially as regards the laboratories for the teaching of Physiology and Chemistry, have been further enlarged this year by the addition of a wing containing a new Library, Pathological Laboratory with arrangements for Bacteriological research, and various class-rooms for Anatomy, Physiology, and Chemistry. In the Students' Club a larger Dining Hall and Reading Room have been added.

The course of teaching at this School insures careful and complete preparation for all the Examining Boards, the Public Services, and the higher University examinations.

In addition to the clinical instruction and lectures given in the wards daily, distinct Clinical Lectures will be given on Fridays throughout the academical year at 4 P.M.

The medical, surgical, and obstetric tutors assist the students in preparing for the final examinations.

Post-Graduate Course.—These lectures and demonstrations are given on Saturdays, at 4 P.M.

All the Medical Appointments in Hospital, including the seven House-Surgeoncies, are open to pupils without additional fee or expense of any kind.

For prospectus and further information, apply personally at 4 P.M. or by letter to

GEORGE P. FIELD, Dean.
SIDNEY PHILLIPS, M.D., Sub-Dean.

RESIDENCE FOR STUDENTS.

St. Mary's Hospital Medical College,

33 and 35, Westbourne-terrace, W.

Students may reside in the College under the supervision of the Warden, Dr. Robert Maguire.

Terms, 90 guineas for the academical year, payable 30 guineas in advance on Oct. 1, Jan. 1, and May 1, to include special instruction by the demonstrators on four days a week. The Warden will be happy to show the arrangements of the College, or to give any further information concerning it.

Curriculum of the M.D. Degree,

LONDON.—Students who have matriculated and are intending to enter, or who have already entered, at any one of the London Medical Schools for the purely Medical portion of their studies can prepare for the PRELIMINARY SCIENTIFIC EXAMINATION at University College, under Professor Williamson, LL.D., F.R.S., Professor Carey Foster, F.R.S., Professor Oliver, F.R.S., and Professor Lankester, LL.D., F.R.S.

Fee for the complete course of study required, including lectures and laboratory work, 35 guineas.

For particulars, apply to the Secretary, University College, Gower-street.

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POST GRADUATE COURSE.

St. Mary's Hospital Medical School.

The following Lectures and Demonstrations will be given by Mr. MALCOLM MORRIS, on Saturdays, at 4 P.M.

Practical Demonstrations.

April 23rd—Eczema.
" 30th—Psoriasis.
May 7th—Tinea Tonsurans.
" 14th—Lupus Vulgaris.

Cases will be shown, and new methods of treatment explained.

Fee £1 1s. for the course.

For further information apply to

GEORGE P. FIELD, Dean.
SIDNEY PHILLIPS, M.D., Sub-Dean.

Royal London Ophthalmic Hospital,

Moorfields, E.C.

Two months' course of practical instruction.

Use of the Ophthalmoscope every Monday and Thursday at 7.30 P.M., commencing on Monday, May 9th, by Messrs. Gunn and Silcock. Fee £2 2s.

Refraction of the Eye every Tuesday and Friday at 7.30 P.M., commencing on Tuesday, May 10th, by Mr. Lang. Fee £2 2s.

A few Clinical Lectures will be delivered by Mr. Nettleship during the course. Notice of these will be given at the Hospital.

ROBERT J. NEWSTEAD, Secretary.

University College, London.—Faculty

OF MEDICINE.—The Summer Session will begin on May 2nd. Prospectus containing full information respecting the Classes in the College, Clinical Instruction at the Hospital, Scholarships, Exhibitions, &c., may be obtained at the offices of the College, Gower-street, W.C.

G. V. POORE, M.D., Dean of the Faculty.
J. M. HORSBURGH, M.A., Secretary.

University College, London. — Ad-

VANCED INORGANIC CHEMISTRY.—Dr. S. Rideal will give a course of Thirty Lectures, on Mondays, Wednesdays, and Fridays, at 4 P.M., commencing April 20th. The course is fitted for students reading for honours in chemistry at the University of London July Examinations. Recent progress in physical chemistry and the study of the rarer elements form part of the course. Fee £2 2s.

J. M. HORSBURGH, M.A., Secretary.

St. Thomas's Hospital Medical School,

Albert Embankment, S.E.

The SUMMER SESSION will commence on May 2nd. Students entering in the summer are eligible to compete for the Science Scholarships of 125 guineas and £60, awarded in October.

There are numerous prizes and scholarships, and all appointments are open to students without extra charge.

Special Classes for the Examinations of the University of London are held throughout the year. A register of approved lodgings and of private families receiving students to reside is kept in the Secretary's Office.

Prospectus and all particulars can be obtained from the Medical Secretary, Mr. G. Rendle.

W. M. ORD, Dean.

Guy's Hospital Medical School.—The

SUMMER SESSION commences on Monday, May 2nd. The Hospital contains, besides the beds for medical and surgical cases, wards for obstetric, ophthalmic, and other special departments. Special classes are held in the hospital for students preparing for the examination of the University of London and other examining boards. Appointments: The House-Surgeons and House-Physicians, the Obstetric Residents, Clinical Assistants and Dressers, are selected from the students according to merit, and without payment. There are also a large number of junior appointments, every part of the hospital practice being systematically employed for instruction. Entrance Scholarships: Open Scholarship of 125 guineas in Classics, Mathematics, and Modern Languages. Open Scholarship of 125 guineas in Chemistry, Physics, Botany, and Zoology. Students entering in May are eligible for the Open Scholarships competed for in September. Seventeen Scholarships, Prizes, and Medals, varying from £50 to £10 each, are open for competition to all the students. The Hospital is in close proximity to the Metropolitan, District, South-Eastern, Brighton, Chatham, North London, and Great Eastern Railway Systems.

For Prospectus, apply to the Dean, Dr. F. Taylor, Guy's Hospital, London, S.E.

March, 1887.

London Hospital and Medical College,

Mile-end, E.—The SUMMER SESSION will commence on Monday, May 2.

The New College Buildings are now complete, and afford more than double the former accommodation.

Intending Students are advised that, under the New Regulations of the Examining Board in England, it is exceedingly advantageous to enter for the Summer Session. Students now entering are also eligible for the Entrance Scholarships in September.

The Hospital contains nearly 800 beds, and is the largest General Hospital in Great Britain.

General Fee for Lectures and Hospital Practice 90 guineas in one sum, or 100 guineas in three instalments. The Resident and other Hospital Appointments are free to full Students.

Special entries may be made for Medical and Surgical Practice, also for the Course of Practical Surgery.

The London Hospital is now in direct communication by rail and tram with all parts of the Metropolis, and the Metropolitan, Metropolitan District, South-Eastern, and East London Railways have stations within a minute's walk of the Hospital and College.

For Prospectus and particulars apply to

MUNRO SCOTT, Warden.

The Throat Hospital, Golden-square, W.

CLINICAL EVENINGS.

Cases of interest will be exhibited by Members of the Staff on the following date, at 8.15 P.M.:—

Wednesday, April 27th.

Limelight illumination will be used. Medical practitioners and senior students will be admitted.

T. MARK HOVELL, Dean.

King's College, London.

SUMMER SESSION.—The Lectures will commence on Monday, May 2nd.

Botany—Professor Robert Bentley, F.L.S.
Materia Medica and Therapeutics—Professor Tirard, M.D.
Obstetric Medicine—Professor W. Playfair, M.D.
Forensic Medicine—Professor Ferrier, M.D., F.R.S.
Practical Chemistry—Professor C. L. Bloxam, F.C.S.
Demonstrators—J. M. Thomsen, F.C.S., and G. S. Johnson, F.C.S.
Practical Physiology—Professor Gerald F. Yeo, M.D.
Demonstrators—E. M. Crookshank, M.B., and E. H. Herroun.
Pathological Anatomy—Professor A. B. Duffin, M.D.
Osteology—Professor Curnow, M.D., and A. S. Kenny.
Clinical Therapeutics—Professor Burney Yeo, M.D.
Dean—Professor Curnow.

All intending students who have passed a Preliminary Examination in Arts are informed that under the new regulations of the Royal College of Physicians it is advisable to begin their studies in the Summer Session.

PRELIMINARY SCIENTIFIC EXAMINATION OF THE UNIVERSITY OF LONDON.

The Course of Lectures, Special Classes, and Demonstrations of Practical Chemistry, Botany, Practical Biology, and Experimental Physics for this Examination will commence on Saturday, April 30th, and will be continued during the months of May, June, and July. There are also Special Classes and Special Tutors for all the Medical Examinations, without extra fees.

KING'S COLLEGE HOSPITAL.

Clinical Lectures are given daily by the Physicians and Surgeons.

Clinical Instruction is also given in Diseases of the Eye and Throat, in Skin Diseases, and in Diseases of the Ear.

Ophthalmic, Dental, Aural, Skin, and Throat Departments, and a Ward for Children are attached to the Hospital.

The Physician's Assistant, Physician-Accoucheur's Assistant, and House-Surgeons, as also their Assistants, Ophthalmic Clinical Assistants, Clinical Clerks, and Dressers, are selected by examination from amongst the Students, without extra fees; and those who are elected to the Resident Appointments at the Hospital have rooms and commons free.

SCHOLARSHIPS, REGISTRARSHIPS, AND PRIZES.

WARNEFORD SCHOLARSHIPS.—Students entering the Medical Department of this College at this time will be eligible to compete in October for Two Scholarships of £25 per annum each, to be held for three years. These Scholarships are given for proficiency in Divinity, Classics, Mathematics, History, and English.

Five Medical Scholarships are awarded at the close of each Winter Session for proficiency in professional subjects—viz., one of £40 for two years, one of £30 for one year, and three of £30 for one year.

A Resident Warneford Scholarship of £25, for two years, is also annually awarded for proficiency in Divinity, Medicine, Surgery, and Hospital Practice.

Sambrooke Registrarships: Two of £50, tenable for two years, are annually awarded to Matriculated Students of this department.

Daniell Scholarship: One of £20, for two years, given for proficiency in Chemistry.

Science Scholarships: One annually of £50, for two years, and one of £25 for two years, given by the Clothworkers' Company.

Sambrooke Exhibitions: Two annually, one of £60 and one of £40, for proficiency in Science.

Rabbeth Exhibition: One annually of £30 for the subjects of the Preliminary Scientific M.B. London.

Endowed Prizes of the value of £35, £15, £10, and £4 4s. each, and College Prizes of the value of £60, are annually awarded.

For prospectuses apply, personally or by post-card, to J. W. Cunningham, Esq., Secretary, from whom or from Professor Curnow, Dean of the Department, further information may be obtained.

SCHOOL OF

ANATOMY, PHYSIOLOGY, SURGERY,

and all PROFESSIONAL SUBJECTS: Practically taught by different masters. DISSECTING-ROOM, PHYSIOLOGICAL, CHEMICAL, and PHARMACEUTICAL LABORATORIES. Prospectus on application to Mr. THOMAS COOKE, F.R.C.S., Senior Assistant-Surgeon to the Westminster Hospital, who conducts the Classes of Anatomy and Surgery. Private address—40, Brunswick-square, W.C. Special tuition of an evening for resident pupils.

Chemistry, Materia Medica, Pharmacy, Operative Surgery, Fellowship of R.C.S., H.M.'s Services.

Special Classes for above.

By decision of the Royal Colleges of Physicians and Surgeons gentlemen reported at their Anatomical and Physiological Examinations (Primary, R.C.S. or Second Conjoint) except "signed up" from this School.

Mr. Cooke's Tablets of Anatomy,

price 7s. 6d. (Longmans), contain "in the fewest words and plainest language, and in about one-tenth the space, the matter which is found in the most accredited standard works."—THE LANCET.

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Society of Apothecaries of London.—

The next Examination in Arts will be held at their Hall, Blackfriars, E.C., on Friday and Saturday, the 3rd and 4th of June, 1887.

This examination will qualify candidates for registration as Medical Students.

A Syllabus of the subjects, which, according to the regulations of the General Medical Council, may be passed at one or more examinations, can be had on application.

An Examination in Arts will again be held on the 2nd and 3rd of September, 1887.

T. PEREGRINE, M.D., Secretary to the Board of Examiners.

Cambridge Examination in Public

HEALTH.—A Special Class, to include Laboratory Instruction, will be formed in May to prepare for the October examination.—Address, Hygiene, THE LANCET Office, 423, Strand, W.C.

Guy's Hospital Medical School.—

UNIVERSITY OF LONDON PRELIMINARY SCIENTIFIC (M.B.) EXAMINATION.—Instruction is given in all the subjects of the above Examination at GUY'S HOSPITAL, during the winter and summer sessions. The fee for the whole course is ten guineas. The class is not confined to Students of the Hospital.—For further particulars, apply to the Dean, Guy's Hospital, Southwark, S.E.

University College, London.

ORGANIC CHEMISTRY.

Assistant Professor—H. FORSTER MORLEY, M.A., D.Sc.

The following Courses of Lectures will be given in May, June, and July:—(*a*) Elementary; Tuesdays, Wednesdays, and Fridays, at 11. (*b*) Special Course, including subjects required by candidates for Int. M.B.; 3 lectures a week. (*c*) Advanced, including the more important results of recent research in organic chemistry, and in the study of the physical constants of organic bodies; 2 lectures a week. Dates of beginning: (*a*) May 3rd; (*b*) May 4th, at 9 A.M.; (*c*) April 19th, at 9 A.M.

J. M. HORSBURGH, M.A., Secretary.

Research Scholarships of the Grocers' COMPANY.

The following Lectures on "Malarial" Fevers will be given, by permission of the Board of Managers, in the theatre of the London Institution, Finsbury-circus, by W. North, Esq., one of the Company's Research Scholars.

LECTURE I.

Monday, April 18th, 5 P.M. Subject: Their Distribution, and the general conditions under which they prevail. History of them in the province of Rome.

LECTURE II.

Monday, April 25th, 5 P.M. Subject: Local Conditions affecting their distribution as studied in the province of Rome.

LECTURE III.

Thursday, April 28th, 5 P.M. Subject: Recent Researches into their otiology and pathology. The possibility of prevention in the individual, and of improving the conditions of malarious countries.

University of Durham College of MEDICINE, Newcastle-upon-Tyne.

The SUMMER SESSION will commence on Monday, May 2nd.

LICENCES AND DEGREES IN MEDICINE, SURGERY, AND SANITARY SCIENCE.—Three Licences and four Degrees are conferred by the University of Durham—viz., Licences in Medicine, in Surgery, and in Sanitary Science; the Degrees of Bachelor in Medicine, Master in Surgery, Bachelor in Surgery, and Doctor in Medicine. Attendance at the University of Durham College of Medicine during one of the four years of professional study, or subsequently to qualification elsewhere, is required as part of the curriculum for the Degrees, except in the case of Practitioners of more than fifteen years' standing, who have attained the age of forty years, who can obtain the Degree after examination only.

The first and second examinations for the Degree of M.B. may be passed prior to attendance at Newcastle.

The extra Preliminary in Arts may be passed at any time previously to the candidate's entry for his Final Examination for the Degree. Candidates who have passed the First Examination of the Conjoint Board in England of the Royal Colleges of Physicians and Surgeons will be admitted to the Second Examination for the Degree of M.B. without further examination, except in Chemistry, with Chemical Physics, and Botany with Medical Botany. Candidates who may pass the First and Second Examination for the Degree of M.B. will be exempt from the First and Second Examinations of the Conjoint Board.

SCHOLARSHIPS, &c.—A University of Durham Scholarship, value £100, for Proficiency in Arts, awarded annually to Students in their first year only. The Dickinson Scholarship, value £15, annually, together with a Gold Medal, for Medicine, Surgery, Midwifery, and Pathology. The Tulloch Scholarship, value £20, annually, for Anatomy, Physiology, and Chemistry. The Charlton Scholarship, value £35, annually, for Medicine. The Gibb Scholarship, value £25, annually, for Pathology. The Goyder Memorial Scholarship (at the Infirmary, Newcastle), value £16, for proficiency in Clinical Medicine and Clinical Surgery. At the end of each Session a Silver Medal and Certificates of Honour are awarded in each of the regular classes. An Assistant Curator of the Museum is annually appointed from among the Senior Students, and receives an honorarium of £12. Four Assistant Demonstrators of Anatomy (each receiving an honorarium of £5), two Assistant Physiologists, and two Pathological Assistants are also elected. Four Resident Assistants, three non-resident Clerks, and sixteen non-resident Dressers are chosen every three months.—Further particulars with regard to Examinations may be obtained from Luke Armstrong, M.D., 1, Eldon-square, Newcastle-upon-Tyne; or, on all other matters connected with the College, from Mr. Henry E. Armstrong, College of Medicine, Newcastle-upon-Tyne.

The Yorkshire College, Leeds: Medical

Department.—The Fifty-sixth SUMMER SESSION of the Leeds School of Medicine will begin on May 2nd. Prospectus free from the Registrar.

University College, Bristol,

MEDICAL SCHOOL.

The Summer Session will commence on Monday, May 2nd. Prospectuses may be obtained on application to

E. MARKHAM SKERRITT, M.D., Dean.

VICTORIA UNIVERSITY.

University College, Liverpool.

MEDICAL FACULTY.

The SUMMER TERM will COMMENCE on MONDAY, MAY 2ND.

LECTURES AND CLASSES.

Materia Medica	Dr. Carter.
Medical Jurisprudence	Mr. Paul.
Botany	Dr. Shearer.
Practical Chemistry	Dr. Campbell Brown.
Operative Surgery	Mr. Rushton Parker.
Practical Pathology	Dr. Davidson and Dr. Barron.
Practical Anatomy	Mr. Banks and Dr. Ross.
Practical Physiology	Dr. Caton and Mr. Larkin.
Hygiene	Dr. Hope.
Comparative Anatomy	Dr. Herdman.
Physics	Dr. Oliver Lodge.

DENTAL LECTURES.

Surgery	Mr. Phillips.	Anatomy	Mr. Paul.
Mechanics	Mr. Councell.	Metallurgy	Mr. Royston.

For Prospectus and information apply to the Vice-Dean, Mr. PAUL, 38, Rodney-street.

Owens College, Victoria University, MANCHESTER.

MEDICAL DEPARTMENT.—SUMMER SESSION.

Principal—J. G. GREENWOOD, LL.D.

Dean—Professor ALFRED H. YOUNG, M.B., F.R.C.S.

PROFESSORS AND LECTURERS.

Practical Anatomy—Professor Alfred H. Young, M.B., F.R.C.S.
Practical Histology—Brackenbury Professor, William Sterling, M.D., D.Sc.
Practical Chemistry—Professor Harold B. Dixon, M.A., F.R.S.
Botany—Professor W. C. Williamson, LL.D., F.R.S.
Zoology and Embryology—Professor A. Milnes Marshall, M.D., M.A., D.Sc., F.R.S.
Comparative Osteology—C. Herbert Hurst.
Materia Medica and Therapeutics; Practical Pharmacy—Professor D. J. Leech, M.D., F.R.C.P.
Practical Morbid Histology—Professor Julius Dreschfeld, M.D., F.R.C.P.
Operative Surgery—Thos. Jones, M.B., B.S., F.R.C.S.
Practical Surgical Pathology—Alfred H. Young, M.B., F.R.C.S.
Obstetrics and Gynæcology—Professor Charles J. Cullingworth, M.D., M.R.C.P.
Clinical Obstetrics and Gynæcology—Professor Charles J. Cullingworth, M.D., M.R.C.P.; D. Lloyd Roberts, M.D., F.R.C.P., F.R.S.E.
Diseases of Children—Henry Ashby, M.D., M.R.C.P.
Medical Jurisprudence and Practical Toxicology—J. Dixon Mann, M.D., M.R.C.P.
Hygiene—Arthur Ransome, M.D., M.A., F.R.S.
Mental Diseases—George Wm. Mould, M.R.C.S.
Ophthalmology—David Little, M.D.
Clinical Ophthalmology—David Little, M.D.; Charles E. Glascott, M.D.
Dental Surgery—Leonard Matheson, L.D.S.
Dental Anatomy and Physiology—A. M. Paterson, M.D., M.R.C.S.
Dental Metallurgy—C. A. Burghardt, Ph.D.

With Assistant Lecturers in all the principal subjects.

The Session commences May 2nd.

The Classes at the College qualify for Degrees in the Victoria University, for many of the Degree Examinations of the University of London; and for the Diplomas of the Royal Colleges of Physicians and Surgeons of London, &c. &c.

Prospectus will be forwarded on application to the Registrar.

HENRY WM. HOLDER, M.A., Registrar.

"MORNINGSIDE," LATON ROAD, HASTINGS.

HOME SCHOOL

For Delicate Girls.

Speech for the Dumb.—The Associa-

TION for the ORAL INSTRUCTION of the DEAF and DUMB, 11, Fitzroy-square, W., under the presidency of EARL GRANVILLE, K.G., educates children upon the pure Oral or German system (by which they are taught to speak and to understand what others say by means of lip-reading), and trains teachers on that system, both for public institutions and private families.

Members of the medical profession are cordially invited to visit the school and college of the Association any time by appointment, or to attend the public lessons on Wednesday afternoons, at 3 o'clock.

For terms and particulars, apply to William Van Praagh, Esq., Director, 11, Fitzroy-square, W., any morning between 11 and 1.

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Clinique on Diseases of the Skin.—

Professor McCALL ANDERSON'S Clinique on Diseases of the Skin (at the Hospital for Skin Diseases, 8, Elmbank-street, Glasgow) will commence on Wednesday, May 4th, and be continued during the Summer Session every Monday and Wednesday, at half-past 2 P.M. Students enrolled at the hospital. Fee 1 guinea. The directors offer the sum of £5, to be expended in a prize or prizes to the most deserving students.

University of Edinburgh.

SUMMER SESSION, 1887.

The Summer Session will commence on Tuesday, May 3rd, 1887.

Principal—Sir WILLIAM MUIR, K.C.S.I., D.C.L., LL.D.

The Classes for the different Branches of Study will be opened as follows:—

Classes.	*Days of Opening and Hours of Attendance.*	*Professors.*
Medical Jurisprudence (for Law and Medical Students)	Tues., May 3, 11 A.M.	Prof. Sir Douglas Maclagan.
Botany	Tues., May 3, 8 A.M.	Prof. Dickson.
Practical Botany and Vegetable Histology	Tues., May 3, 9 A.M.	
Field Demonstrations on Saturdays.		
Obstetrical and Gynæcological Operations (Tuesday and Friday)	Tues., May 3, 10 A.M.	Prof. Simpson.
Practical Materia Medica (including Pharmacy) ...	Tues., May 3, 10 A.M.	Professor Thomas R. Fraser.
Practical Chemistry ...	Tues., May 3, 9 45 and 11 A.M...	Prof. Crum Brown.
Practical Morbid Anatomy and Pathology	Tues., May 3, 11 A.M.	Prof. Greenfield.
Anatomical Demonstrations	Wed., May 4, 11 A.M. daily	Prof. Sir William Turner, and David Hepburn, M.B., Demonstrator.
Practical Anatomy... ...	Tues., May 3, daily.	
Clinical Surgery (Royal Infirmary, Mon. & Thurs.)	Thurs., May 5, 12 noon.	Prof. Annandale.
Clinical Medicine (Royal Infirmary, Tues. and Frid.)	Tues., May 3, 12 to 2 P.M.	Profs. Grainger Stewart, T. R. Fraser, and Greenfield. Prof. Simpson, on Diseases of Women.
Chemistry (Organic) Advanced Class (Tues., Wed., and Thurs.) ...	Tues., May 3, 1 P.M.	Prof. Crum Brown.
Natural History	Tues., May 3, 2 P.M.	Prof. Ewart.
Practical Natural History	Tues., May 3, 3 P.M.	
Practical Physiology, including Histology ...	Tues., May 3, 2 P.M.	Prof. Rutherford.
Operative Surgery and Surgical Appliances.	Tues., May 3, 4 P.M.	Prof. Chiene.
Practical Hygiene ...	Tues., May 3, 2 P.M.	Prof. Sir Douglas Maclagan.
		Lecturers.
Mental Diseases, with Practical Instruction at Morningside Asylum. (Mon., Wed., Frid.)	Wed, May 4, 3 P.M.	Thomas S. Clouston, M.D.
Diseases of the Eye... ...	Wed., May 4, 9 A.M.	D. Argyll Robertson, M.D.
Clinical Instruction on Diseases of Children at Royal Hospital for Sick Children.	Tues., May 3, 10 A.M.	James Andrew, M.D. James Carmichael, M.D.
Comparative Embryology	Tues., May 3, 3 P.M.	Mr. George Brook.

Royal Infirmary, daily, at noon.

Summer Session ends July 22nd. Graduation Ceremonial in Medicine, &c., Monday, August 1st.

The classes in the Faculty of Medicine, except Botany, Natural History, Clinical Medicine, and Clinical Surgery, meet in the University New Buildings.

Faculty of Arts.—Tutorial Classes in Latin, Greek, Mathematics, Natural Philosophy, Logic and Psychology, and Moral Philosophy, will meet on Tuesday, May 3rd. Fees payable to the Class Assistants.

Practical instruction is afforded in laboratories furnished with all the necessary appliances, and in Tutorial and Practical Classes in connexion with the above chairs, and under the superintendence of the professors.

Information relative to Matriculation and the Curricula of Study for Degrees, Examinations, &c., may be obtained on application to the respective Deans, or at the Secretary's Office, and full details are also given in the University Calendar, published by James Thin, 55, South Bridge. By authority of the Senatus.

March 1887. JOHN KIRKPATRICK, Sec. Sen. Acad.

Edinburgh.— Students.— Boarding.—

A Physician residing in a healthy locality within a short distance from the University and Hospitals, &c., can receive one or two Students attending classes during the summer session, beginning early in May. Studies superintended and control maintained over juniors to prevent idleness. Home comforts ensured.—Particulars forwarded on addressing Physician, care of Messrs. Keith & Co., Advertising Agents, 65, George-street, Edinburgh.

COLWYN BAY, NORTH WALES.

CLIMATE MILD, DRY, BRACING.

First-class SCHOOL for Young Gentlewomen. Most highly recommended by several physicians. Principal, Miss BARLOW.

Individual attention is given, and a healthy, natural, moral tone is aimed at, a tone befitting GOOD WOMEN.

Colwyn Bay has lovely country walks, good sea bathing, and mild winters.

King Edward VI.'s School, Berkhamsted,

Herts, twenty-eight miles from Euston. Good Scholarships and Exhibitions. Laboratory, heated Swimming Bath, Fives Courts, Workshops, &c. £52 per annum.—Address, Head Master.

Education.—To Professional Men of

Limited Income.—A few BOYS, sons of the above, are admitted from time to time into a well-known school of high tone, on greatly reduced fees.—For full particulars, address, in strict confidence, Mu, care of Messrs. Relfe Brothers, 6, Charterhouse-buildings, Aldersgate, London, E.C.

Epsom College Preparatory School.—

For Sons of Medical Men. Under the patronage of the Council.—Mr. Jeffery, twenty years Assistant-master, prepares boys, under fourteen, for Epsom College. Latin, Greek, German, French, thorough English, Arithmetic, Algebra, Euclid. Cricket and football during the seasons.—Prospectus of J. Jeffery, Parade, Epsom.

Oral Education of the Deaf.—Mr. H. N.

DIXON, M.A. Lond. and Cambridge, F.L.S., gives a thorough and high class education to deaf children, based upon the Oral Method.

For Prospectus, apply to H. N. Dixon, 25, St. Paul's-road, Northampton.

DEFECTS OF SPEECH.

Mr. WILLIAM VAN PRAAGH'S System for the Cure of all Defects of Speech, both ACQUIRED and CONGENITAL.

For information, apply to Mr. William Van Praagh, 11, Fitzroy-square, London, W. Personal interviews by appointment.

Deaf and Dumb Children of the higher

Classes educated on a Pure Oral System. Private and select school for limited number. Special home comforts.—Address, Harry W. White (formerly Vice-principal Ealing Training College for Teachers of the Deaf), 115, Holland-road, Kensington. Next Term April 25th. "By this method alone is the intellect of the mute enabled to travel beyond the range of a few who are skilled in the manual sign language, and to converse freely with all."—THE LANCET, July 11th, 1885.

College for Daughters of Medical

MEN.

Pelican House College (in connexion with Pelican House School), Grove-park, Denmark-hill, S.E., for the Education of the Daughters of Medical Men, at fixed, inclusive, and moderate terms, varying according to age, as at the Epsom College for Boys.

The educational advantages will be equal to those of the best high schools; but the College, being designed for the Daughters of Professional Men only, will offer the further desideratum of suitable companionship.

Applications must be made to the Secretary, Captain Pead, Ivyhurst, Dulwich-grove, Dulwich, S.E.

Massage.—Lectures and Demonstra-

TIONS at the West-end HOSPITAL for DISEASES of the NERVOUS SYSTEM, Welbeck-street, W.—Particulars, apply to Matron.

MASSAGE AND ELECTRICAL TREATMENT.

LECTURES and DEMONSTRATIONS will be delivered at the SCHOOL of MASSAGE and ELECTRICITY, West-End Hospital for Paralysis, Epilepsy, and Diseases of the Nervous System, 73, Welbeck-street, Cavendish-square, W., by HERBERT TIBBITS, M.D., F.R.C.P. Edin., and THOMAS STRETCH DOWSE, M.D., F.R.C.P. Edin., Physicians to the Hospital. Ladies and Nurses admitted to the School for training. Trained Masseuses and Electricians sent to all parts of the United Kingdom. For particulars, apply to the Lady Superintendent.

By order.

H. ALEX. DOWSE, Hon. Sec.

PROFESSIONAL & ARMY EXAMINATIONS.

M.D. (London) reads with Gentlemen for all the Professional Examinations. Small classes are held for the College of Physicians, Licence, and Membership, the Hall, and College of Surgeons. 16 out of 18 passed for the services. Tuition by correspondence.—64, Guilford-street, W.C.

Brussels, Army, Navy, and all Exami-

nations.—Candidates prepared for the above, either individually or by correspondence, by a double-first man. Next Brussels examinations May and June. Last exam. papers 2s.—For particulars, apply to M.D., 50A, Lincoln's-inn-fields, W.C.

Dr. A. C. Maybury, D.Sc., M.R.C.S.,

A.R.S.M., &c., 19, Bloomsbury-square, W.C., prepares for all Medical and Science Examinations. Classes are now forming for PRELIMINARY SCIENTIFIC, 1st M.B. Lond., and L.R.C.P. SPECIAL INSTRUCTION IN HYGIENE.

Now ready, Student's Chemistry, Part I., Non-Metals, 400 pages; price 4s., post free. All booksellers.

Rapid and Successful Coaching for

MEDICAL PRELIMINARIES.

Mr. W. P. STRANGWAYS, B.A. (Honours T.C.D.), who has had thirteen years' experience, receives a very limited number of gentlemen's Sons preparing for the above.

Large staff of highly qualified tutors. The utmost attention to individual requirements. Large house and grounds, tennis, boating, evening study. Strictly moderate terms.

Prospectus, references, &c., on application.

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INTERNATIONAL MEDICAL CONGRESS AT Washington, September 5th, 1887.

Messrs. THOS. COOK & SON have pleasure in announcing that, at the request of the Council of the above Congress, they have undertaken the travelling and hotel arrangements for the benefit of the members. A full programme will be sent on application, showing fares to the United States by all routes.

THOS. COOK & SON, Ludgate Circus, London.

Health Exhibition in Warsaw.

Under the protection of the Countess AUGUSTE POTOCKA, and the assistance of the most eminent Polish Physicians and Engineers, a Hygienic Exhibition will be opened in Warsaw on the 15th of May, and remain open until the 1st of July. The Exhibition will consist of the following sections:—

FOOD.
ARTICLES OF CLOTHING.
DWELLINGS.
HYGIENE OF SCHOOLS, WORKSHOPS, AND HOSPITALS.
STATISTICS AND METHOROLOGY.

Programmes and all information may be had at

Messrs. SCHENKER & CO.'s, 64, Moorgate-street, E.C.,

who also undertake the forwarding of all goods to Mr. MAURYCY LUXEMBURG, Warsaw, who is the agent for the said Exhibition.

Mr. Maurycy Luxemburg attends to the Customs Formalities, placing of the articles to be exhibited, and selling of the same free of commission.

The Rt. Hon. G. J. Goschen, M.P., will Preside at the ANNUAL FESTIVAL DINNER in Aid of the Funds of the NORTH LONDON or UNIVERSITY COLLEGE HOSPITAL (supported by voluntary contributions), which will be held in the Grand Hall at the Criterion, Piccadilly, W., on Wednesday, April 27th, at 7 P.M. Dinner tickets, £1 1s. each inclusive, may be obtained at the Criterion, or of the Secretary of the Hospital.

NEWTON H. NIXON, Secretary.

Royal Statistical Society.—The Sixth Ordinary Meeting of the present Session will be held on Tuesday, the 19th inst., at the Royal School of Mines, Jermyn-street, London, S.W., when a paper will be read on "Class Mortality Statistics," by N. A. Humphreys, Esq. The chair will be taken at 7.45 P.M.

Classes are now being formed in Theoretical and Practical Chemistry, Physics, Materia Medica, Pharmacy, &c., and also in Osteology, Anatomy, and Physiology, as required for the first, second, and third parts of the first examinations of the Royal Colleges of Surgeons and Physicians.—For particulars, apply to Orestes V. Pisani, Savoy House, 115, Strand, W.C.

A M.B. (honours), practising in Kent, is prepared to take a pupil. Studies supervised and assisted. Comfortable home. Premium required. References exchanged.—Apply, by letter, Dr. B., 3, Kellett-road, Brixton.

London Matriculation. — 37th half-yearly course of Special Preparation. All last class passed except one. Two in honours. Also for other Preliminary Medical Examinations.—Address, H. SERGEANT, 8, High-street, Camden Town, not far from King's-cross and Euston Stations.

London Matriculation, College of Preceptors, and all MEDICAL PRELIMINARIES. Rapid and thorough Preparation for these Examinations by Private or Class Lessons. Also special Postal Tuition. Highest references to Students successfully prepared in short periods. Experienced in Coaching backward Students.—For particulars, address, A. H. DAWES, First B.A.Lond., Adderstone, Vardens-road, New Wandsworth, S.W. (close to Clapham Junction Station).

Matriculation.—Medical and Law Preliminary Examinations. Fifteenth year's course. J. BECKTON, O.M., continues to prepare for the above with his usual success. "It seems impossible to fail under your tuition." "The greatest dullard need not despair." Boarders received; terms moderate.—Address, 41, Torrington-square, Russell-square, W.C.

Matriculation.—Apothecaries' Hall and College of Preceptors Preliminary Arts Examinations. Payments based on results. The dullest or most backward got through. Reference to students passed in periods varying from three weeks to three months. Special coaching daily in Mechanics, Biology, and Chemistry. For list of successes, pass and honours, scholarships won, &c., apply at any hour to M. WAITE, 342, Strand, W.C.

Instruction in Professional Subjects.—Classes are about to be formed in the following subjects:—Surgery, including operations on the dead subject; Medicine, Pathology and Pathological Histology, Physiology (Senior and Junior), Histology, Anatomy (Senior and Junior), Physics and Materia Medica, Chemistry (Theoretical and Practical).

Gentlemen can attend all or any single class. Special arrangements made with men reading for Honours, and in the case of brothers.—Address, University Medical Scholar, THE LANCET Office, 423, Strand, W.C.

Medical and Law Preliminaries, and MATRICULATION.—Mr. H. CRASSWELLER, B.A. Lond. (First Division), continues his successful preparation of Candidates for these and other Examinations. Resident Pupils received. Special attention given to backward youths.—12, Aberdeen-road, Highbury, N. (near Canonbury, Highbury, and Finsbury Park Stations).

Preliminary, Medical, and Law, and LONDON MATRICULATION EXAMINATIONS. — JOHN GIBSON, M.A., of Quernmore, Bromley, Kent, brings out the Questions and Answers to the above directly after each examination. Tuition at Bromley, London, and Bonn-on-Rhine.

Preliminary Examinations.—Mr. Thos LYLE, M.A., F.R.Hist.S. (Dublin and Lond. Univ.), continues to prepare Gentlemen for the above Examinations of the Apothecaries' Hall, College of Preceptors, and the Universities of London and Cambridge.—For terms, &c., address, Grove House, Shacklewell-lane, London, E. A few Resident Pupils received. More than 300 Gentlemen have succeeded under Mr. Lyle's tuition.

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ADDRESS AND TESTIMONIAL

TO

DR. B. BURKE KENNEDY.

At a meeting held at the Shelbourne Hotel, Sir CHARLES CAMERON in the chair, it was resolved to open a "Defence Fund" to pay the heavy legal expenses incurred by Dr. BERNARD BURKE KENNEDY, Resident Surgeon, Mercer's Hospital, against whom a charge of manslaughter was recently brought, and which charge was proved to be groundless, before a legal tribunal, on the evidence given for the prosecution, the jury having stopped the case, returned a verdict of acquittal, and added the following rider:—"*We consider that, according to the evidence, Dr. Kennedy should not have been subjected to the hardship of a prosecution.*"

Mr. Justice Murphy expressed his concurrence with the view taken by the jury. Dr. KENNEDY would not have been warranted in leaving a delirious man amongst the other patients in the ward, for if anything had, through his doing so, happened to the other patients, censure would undoubtedly be passed on him. They could not say on the evidence that he had used any unnecessary violence. No complaint had been made to the hospital authorities. This case was brought against Dr. KENNEDY by witnesses being got here and there, and suggestions being made; however, it was much the best thing for Dr. KENNEDY that the open investigation in this court should have been made.

The man died in August, 1886. The Legal Process was not commenced until January, 1887.

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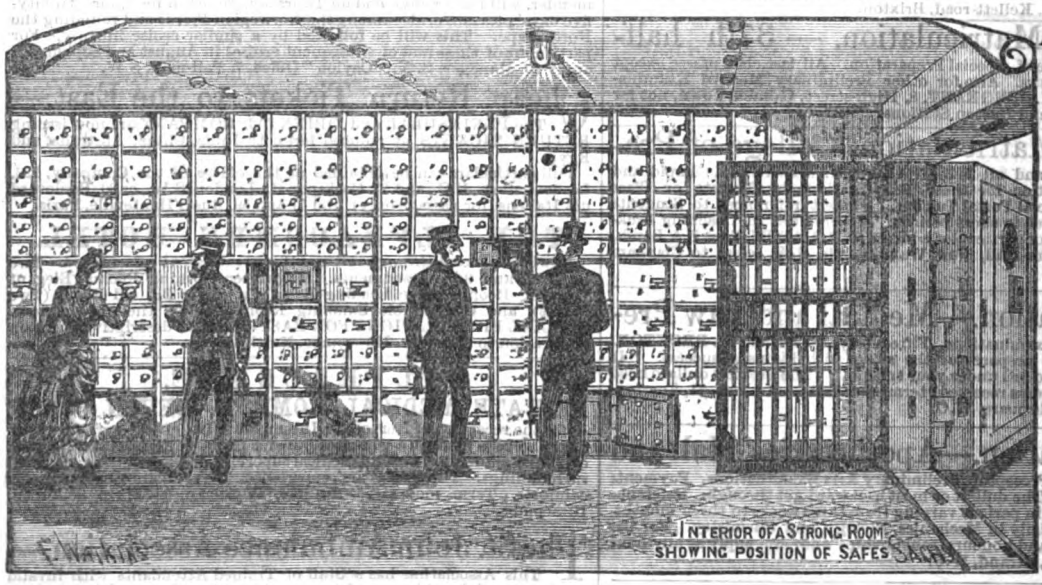
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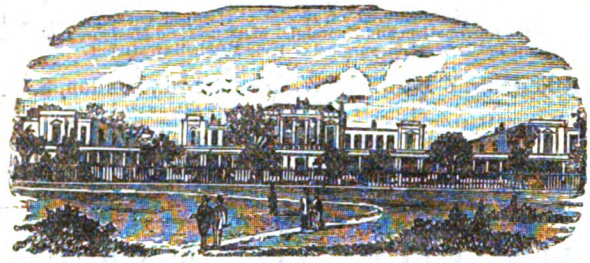
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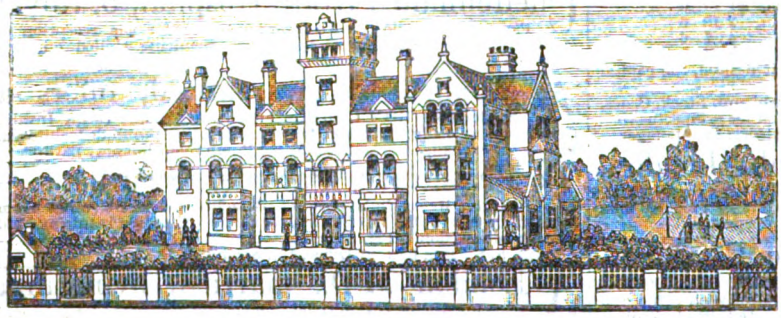
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For further information, apply to Dr. Rorie at the Asylum.

Haydock Lodge Retreat, for the Care

and Cure of Persons of Unsound Mind, Ashton, near Newton-le-Willows, Lancashire, about two miles from Newton Bridge Station on the London and North-Western Railway. Terms: First-class patients from £1 10s. to £6 6s. per week, according to accommodation, attendance, &c.; middle-class from £1 1s. to £1 10s. per week, according to the nature of the case. Suites of private rooms for a gentleman and a lady now at liberty.—Apply to E. H. Beaman, M.R.C.S.E. and L.S.A. Lond., resident medical proprietor, or to the Medical Superintendent.

St. Andrew's Hospital for Mental

DISEASES, NORTHAMPTON.
For the Middle and Upper Classes only.
President—The Right Honourable the Earl SPENCER, K.G.
Chairman of the Committee of Management—The Most Honourable the Marquis of NORTHAMPTON, K.G.
The main object of this Institution is to provide accommodation and comforts suitable to the former social and present mental condition of persons belonging to the Upper and Middle Classes *at moderate rates of payment.*
The terms of admission vary from £1 5s. to £3 3s. per week, according to the requirements of the case.
These terms may be reduced, after the first quarter, if the friends can satisfy the Committee of Management that so much cannot be afforded.
Patients paying higher rates can have private rooms, and special attendants, carriages, horses, &c.
There are also houses at Moulton-park, a branch establishment, two miles from the Hospital, but in telephonic communication; and a sea-side house, to which Patients can be sent.
For further information apply to the Medical Superintendent.

Crichton Royal Institution, Dumfries,

endowed by the late JAMES CRICHTON, Esq., of Friar's Carse, and Incorporated by Act of Parliament, as a Hospital for the Insane and a Home for Mental and Nervous Invalids of the Higher and Middle Classes.
The Trustees and Directors of the Crichton Royal Institution, in order to meet the requirements of a large section of the community, have instituted an INTERMEDIATE DEPARTMENT *for the care and treatment of persons of unsound mind, at rates of board of £40 and £52 per annum.*
Information regarding higher class rates to be had on application.
Communications to be addressed to Dr. Rutherford, Medical Superintendent.

Hendon Grove Asylum for Ladies,

Hendon, Middlesex. Beautifully situated in extensive grounds and a park, half a mile from the Hendon Station on the Midland Railway, and less than six miles from Hyde and Regent's Parks. Inclusive terms from £4 4s. a week.—Apply to Dr. H. HICKS, Resident Physician and Proprietor.

THE COPPICE, NOTTINGHAM.

HOSPITAL FOR THE INSANE OF THE MIDDLE AND UPPER CLASSES.
President—The Right Hon. the Earl Manvers.
This Institution having been considerably enlarged, there are now Vacancies for Patients of both sexes, at moderate rates of payment. Particulars as to terms, &c., may be obtained from Dr. TATE, Medical Superintendent.

Grove House, All Stretton, Church

STRETTON, SHROPSHIRE.
A Private Asylum for the Care and Treatment of a limited number of LADIES of the Middle and Upper Classes.
For terms and particulars apply to Mrs. McLintock (widow of the late Dr. McLintock), the Resident Proprietress, or to the Medical Superintendent.

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Private Home for the Treatment of

INSANE LADIES,
ASHBROOK HALL, HOLLINGTON,

within half an hour's walk of St. Leonards-on-Sea, conducted by the Widow of the late Samuel Hitch, M.D., formerly of Sandywell-park near Cheltenham, for many years Physician to the General Lunatic Asylum for the County of Gloucester.

Station: Warrior-square, St. Leonards. Telegraph Office: Silverhill.
For particulars and terms, apply to
Mrs. LETITIA A. HITCH.

Northgrove, Hawkhurst, Kent (1839).

This Asylum, situate midway between Tunbridge Wells and Hastings, stands in extensive grounds, and has an extra house for special cases and convalescents; also a Cottage Hospital. This Asylum is an excellent home for middle-aged and elderly patients, being replete with all the comforts and advantages necessary for the treatment of mental diseases. Patients can keep their own carriages and horses. Terms strictly moderate. Railway station: Etchingham, S.E.R.—For full particulars, apply to F.R.C.P., Physician-Superintendent.

FOR MENTAL AND NERVOUS INVALIDS.

West Malling Place, Kent.—A Family

MANSION, standing on its own extensive grounds, beautifully and healthfully situated among picturesque scenery, for Residence, Care, and Home Treatment of a limited number of ladies and gentlemen. Carriage exercise, billiards, lawn-tennis, seaside residence. Twenty-eight miles by road from London. Station on L.C. & Dover Railway. Terms strictly moderate.—Letter or telegram addressed to Dr. Adam, Resident Physician, will receive immediate attention.



MAVISBANK HOUSE, near Edinburgh.

A Hospital for the Insane, and a Home for Mental and Nervous Invalids.

Chairman of the Board of Direction—The Right Honourable Sir Thomas Clark, Bart., Lord Provost of the City of Edinburgh.

Mavisbank House is about six miles from Edinburgh, in the beautiful neighbourhood of Roslin. It is a comfortably furnished old mansion, containing large and handsome dining- and drawing-rooms, billiard-room, library, conservatory, and private parlours.

The estate is upwards of 120 acres in extent, with stabling, large flower and fruit gardens, hot houses, and vineries.

The Directors have arranged to receive a limited number of patients at ONE GUINEA A WEEK, who will reside in the comfortable farm house on the estate. They will receive careful supervision and every comfort.

The terms are inclusive, clothing only excepted.

Mavisbank House is five minutes' walk from Polton Station, on the North British Railway.

For further information apply to the Resident Medical Superintendent, Dr. KEAY, Mavisbank House, Polton, Midlothian.

Chester General Infirmary.—Wanted,

a VISITING SURGEON for this Institution. Unexceptionable testimonials will be required of moral conduct. The candidates must possess a double qualification, and be duly registered. Salary to commence at £80 per annum, with residence and maintenance in the house.

Testimonials to be sent in, addressed to the Chairman of the Board, on or before the 29th inst.

The successful candidate will be required to enter on his duties immediately.

By order.
April 5th, 1887. J. R. EDWARDS, Secretary.

Tottenham Local Board of Health.—

To AMBULANCE MAKERS.—The Local Board invite tenders for an Ambulance Carriage suitable for the conveyance of persons suffering from infectious disease.

Full details and price of the Ambulance proposed to be supplied to be sent to me at the Board's offices, Coombes Croft House, High-road, Tottenham, on or before the 25th inst.

The Board will not be bound to accept the lowest or any tender.

By order.
EDWARD CROWNE, Clerk to the Board.
Tottenham, April 14th, 1887.

County and County of the Borough of

CARMARTHEN INFIRMARY.—Wanted, a HOUSE-SURGEON for this institution, who must be registered to practise both in Medicine and Surgery. He must be unmarried and free from the care of a family. Salary £100 per annum, with board, lodging, fire, light, and washing. He will have the privilege of taking two apprentices. It is desirable that he shall have a knowledge of the Welsh language, and must produce testimonials as to ability and character.

The successful candidate will be required to enter into an agreement not to practise in the County of the Borough of Carmarthen for a period of five years from the day of his election.

Applications to be sent to the Secretary, Mr. H. Howells, 11, Morley-street, Carmarthen, on or before May 12th, 1887.

50

TRAINED MALE NURSES.

THE HAMILTON ASSOCIATION supplies trained Male Nurses for Medical, Surgical, and Mental Nurses in town or country. Terms, one Guinea per week and upwards. Also skilled masseurs. Last annual Report, Report of Annual Meeting, Rules, &c., post free on application to the Medical Superintendent, 50, South-street, Park-lane, London, W.
Registered Telegraphic Address:—Hamilton Association, London.

General Nursing Institute,

5 and 4, Henrietta-street, Covent-garden, W.C.
Established 1862. Solely under Medical Direction.

HOSPITAL-TRAINED NURSES for every description of disease—Medical, Surgical, Mental, and Midwifery—can be obtained at this Institute, on application to the Secretary or Lady Superintendent, at a moment's notice, being resident in the Home.

Male Attendants and Nurses specially for Fever cases sent to all parts. Telegraphic address, "Nursing Institute, London."

The London Association of Nurses.

Chief Office—62, New Bond-street, W. Branch Office—36, Kennington-park-road, S.E. Supplies superior Hospital-trained Monthly, Mental, Medical, Surgical, Fever, and Small-pox Nurses. Also Male Attendants and Medical Rubbers. Rooms are provided for Invalids where patients can be received under the care of their own physicians.—Telegraphic address, Firth's Association London.

General Lying-in Hospital, York-road,

Lambeth.—Respectable WET NURSES and Certificated MONTHLY NURSES, also Certificated MIDWIVES, supplied on application. Female Pupils are trained in Midwifery and Monthly Nursing.—Address, A. Atkinson, Matron.

MR. D. E. WILSON'S

INSTITUTION
for supplying the Medical Profession and the Public with

HOSPITAL TRAINED NURSES

For Medical, Surgical, Monthly, Medical Rubbing, Mental, Dipsomania, Fever Cases, &c.

The nature of the case and sex should be described personally, or by letter or telegram, to Mr. WILSON, or to the Lady Superintendent.

Nurses sent to all parts of England and abroad.

Having the largest and most experienced staff of Nurses in London, every application can be supplied.

Also

MALE ATTENDANTS.

Respectable and experienced Men for all cases.

Female and Male Nurses especially adapted for accompanying Ladies, Gentlemen, or Children to the Seaside or abroad.

Established 1867. 40,000 families have been provided by Mr. Wilson with his own Resident Nurses, recommended by the most eminent of the Medical Profession, continually nursing under their instructions, guarantees of Efficiency and Respectability.

96, 97, 98a, WIMPOLE STREET,

Cavendish Square, London, W.

Guy's Hospital Trained Nurses' Institution.

—MEDICAL and SURGICAL NURSES supplied.—Address, Lady Superintendent, 12, St. Thomas's-street, S.E.

Nurses (thoroughly trained) for

Medical, Surgical, Monthly, Medical, and Fever Cases, supplied at the shortest notice.—Address, Lady Superintendent, Nursing Institution, Leicester.

The Queen's Hospital, Birmingham.—

There is a Vacancy in the office of OBSTETRIC and OPHTHALMIC HOUSE-SURGEON.

The appointment carries with it board, lodging, &c., and is tenable for six months.

Candidates, who must hold a registered qualification, are requested to send in their applications, testimonials, and certificates of registration, to the Secretary of the Hospital, on or before Saturday, April 23rd, 1887, from whom all further information may be obtained.

By order of the Committee.
ARTHUR HULME, Secretary.
The Queen's Hospital, Birmingham, March 30th, 1887.

Kidderminster Infirmary. — Wanted,

a HOUSE-SURGEON. Salary £140 (increasing by £10 per annum to £170), with rooms in the Infirmary and attendance. Candidates must be unmarried. Duties, which will include the Dispensing of all medicines, to commence on Saturday, the 7th day of May. Selected candidates will be required to attend before the Committee on Friday, the 29th day of April, at 12 o'clock, and the gentleman appointed to enter into a bond not to practise within six miles of Kidderminster until after the expiration of five years from the time of the termination of his engagement.—Further information may be obtained from the Secretary, to whom applications should be sent on or before April 26th.

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The Hospital for Sick Children.—There are vacancies for CLINICAL ASSISTANTS in the Out-patient Department (Dr. Robert Lee).—Applications to be made to Great Ormond-street, Bloomsbury. ADRIAN HOPE, Secretary.

Infirmary for Consumption and Diseases OF THE CHEST AND THROAT, Margaret-street, Cavendish square, W.—An appointment as HONORARY VISITING PHYSICIAN is now vacant. Candidates must reside within one mile of the Institution. Particulars of qualification to be obtained at the Infirmary.
FRANCIS BAILY, Secretary.

City of London Hospital for Diseases OF THE CHEST, Victoria-park, E.—Applications, with testimonials, for the office of RESIDENT CLINICAL ASSISTANT are invited to be sent to the Secretary, at the Office, 24, Finsbury-circus, E.C., not later than April 21st. The appointment will be for a period of six months, commencing July 1st, 1887.
A gratuity of £20 is usually awarded at the close of the term of office.
Candidates must be qualified.
April 4th, 1887. T. STORRAR SMITH, Secretary.

The Great Northern Central Hospital, Caledonian-road, N.—A vacancy has occurred in the office of AURAL SURGEON, by the resignation of Mr. A. E. Cumberbatch. Candidates for the appointment, who must be graduates of one of the British Universities, or Fellows or Members of any of the Royal Colleges of Surgeons of England, Scotland, or Ireland, are desired to forward their applications, with copies of testimonials, to the Secretary, at the Hospital, on or before April 22nd, 1887.
April 4th, 1887. WILLIAM T. GRANT, Secretary.

Holborn Union.—Assistant Medical OFFICER wanted.—The Guardians of the Poor of the Holborn Union require the services of a fully qualified (according to the order of the Local Government Board) Assistant Medical Officer at their Infirmary, Archway-road, Upper Holloway, N. Salary £100 per annum, with board, lodging, and washing.—Applications, stating qualifications, with not more than three testimonials, must be delivered at this office on or before Thursday, the 21st inst., endorsed "Application for Assistant Medical Officer."
Candidates will have notice to attend when required.
By order.
JAMES W. HILL, Clerk to the Guardians.
Clerk's Office, Workhouse, Gray's-inn-road, W.C.

The Chelsea, Brompton, and Belgrave DISPENSARY, 41, Sloane-square, S.W.
A Vacancy having occurred in the office of SURGEON to the above Institution, the Governors will proceed, on Thursday, May 12th, to fill it up by election. Candidates must possess the diploma of one of the Royal Colleges of Surgeons.
The Ballot will be open from 10 A.M. to 1 P.M.
Gentlemen desirous of becoming candidates are requested to send in their testimonials and certificate of registration on or before Thursday, April 28th, on which day their personal attendance will be required at 7.30 P.M. No Governor is entitled to vote whose subscription is in arrear, or who has not been a Governor three months previous to this date.
By order of the Committee.
April 7th, 1887. ALFRED HEPBURN, Secretary.

Assistant Medical Officer (Resident) wanted, at the WHITECHAPEL UNION INFIRMARY. Salary £150 per annum, with furnished apartments, coal, gas, and washing.
Forms of application may be obtained of me or at my Office up to Saturday, the 16th of April.
Canvassing the Guardians is strictly prohibited.
WILLIAM VALLANCE, Clerk to the Guardians.
Union Offices, Baker's-row, Whitechapel, E., April 5th, 1887.

Evelina Hospital for Sick Children, Southwark-bridge-road, S.E.—The office of HOUSE-SURGEON will shortly be vacant. Salary £70 per annum, with board, washing, and residence. Candidates, who must possess a recognised qualification, are requested to send in their applications, with testimonials, on or before Monday, the 25th inst., addressed to the Committee of Management, at the Hospital.

Belgrave Hospital for Children, 79, Gloucester-street, Pimlico, S.W.—NURSE wanted. Must be hospital trained, and a member of the Church of England.—Apply by letter to the Lady Superintendent.

Assistant Matron.—The Guardians of the Poor of the Parish of St. MARYLEBONE desire to receive applications for the appointment of SECOND ASSISTANT MATRON at their Infirmary, Notting-hill. Salary £35, rising £5 per annum to £50, with residence, rations, washing, and two suits of uniform annually.
Candidates must not exceed thirty-five years of age, and must have had not less than one year's training in a general hospital.
Applications, in own handwriting, stating age and previous occupation, together with testimonials as to character and efficiency, to be forwarded to me, on or before the 23rd April instant.
Personal canvassing is strictly prohibited.
By order.
JOSEPH BEDFORD, Clerk.
Guardians' Offices, Northumberland-street, Marylebone-road, W., April 13th, 1887.

Great Northern Central Hospital, Caledonian-road, N.—Two CLINICAL ASSISTANTS required. Candidates must forward their applications, on or before April 23rd, 1887, to the Secretary.

London Temperance Hospital, Hampstead-road, N.W.—A vacancy has occurred in the office of JUNIOR HOUSE-SURGEON.
Candidates must have one registrable qualification.—Applications, with copies of testimonials, to be forwarded to the Secretary not later than the 23rd inst. Board and residence in the hospital.

Wanted, the Address of James Heming- WAY CLAY, late Surgeon of Nottingham.—Address, T. H., THE LANCET Office, 423, Strand, W.C.

Required, by Attendant, Re-engage- ment; Mental or Invalid Gentleman. Good medical testimonials. No objection to travel.—G. G., 8, Nutford-place, Hyde-park, W.

Wanted immediately, thoroughly Trained Hospital NURSES.—Apply, Miss Minks, 39, Royal-avenue, Chelsea.

The Matron of West Bromwich Hos- pital recommends a Lady, Certificated in Surgical Nursing, who wishes to enter a hospital for six months' further experience in medical work. No salary.

Wanted, Head Nurse, Hospital for Women and Children, at Leeds. £25 and uniform.—Apply at once to the Secretary.

Wanted, Situation as Attendant-Com- PANION to a mentally afflicted lady, with entire care. Experienced. Medical reference. Age twenty-eight.—Address, M., Heatherside, Gerrard's-cross, Slough.

Wanted immediately, four Trained NURSES and one PROBATIONER, for Private Nursing.—Apply to Lady Superintendent, Nurses' Institute, Canterbury.

Wanted, Charge Nurse; 10 beds; male; one accustomed to Medical and Surgical work. Commencing salary £20, uniform and all found.—Address, Matron, Great Northern Central Hospital, Caledonian-road, N.

Victoria Hospital, Burnley.—Wanted, PROBATIONERS. Salary £12 first year, with uniform.—For further particulars, apply Matron.

Wanted, a Trained Surgical Nurse. Salary £20 and uniform.—Apply, Matron, Royal Hospital for Children and Women, Waterloo-bridge-road.

Wanted, for the Llanelly Hospital (twenty beds), a Trained NURSE for the Wards. Salary £25 per annum.—Applications to be sent in on or before the 18th April instant.
JOHN JENNINGS, Hon. Sec.
Llanelly.

District Nursing. — North London Nursing Association.—Ladies are wanted for work among the poor. Candidates must be educated gentlewomen, and of good training and experience as Nurses.—Apply, by letter, to Miss de Lüttichau, 413, Holloway-road.

Wanted, a Matron at St. Catherine's CONVALESCENT HOME for WOMEN and CHILDREN, Penn, near Wolverhampton. Twelve beds. Salary £30 per annum, with board. Candidates must have received hospital training, and not be under thirty years of age. Applications, with testimonials, to be sent in to Miss E. J. Sparrow, Penn, near Wolverhampton, not later than April 23rd.

Junior House-Surgeon wanted for the Royal Albert Edward Infirmary and Dispensary, Wigan. Salary £80 per year, apartments, and rations (exclusive of wines, spirits, and washing). Candidates must be doubly qualified, and prepared to enter into an agreement not to practise in the Wigan Union for a period of three years from the date of appointment.
Applications, stating age and qualifications, with copies of testimonials, must be delivered to the undersigned not later than the 26th April, 1887. WILLIAM TABERNER, Secretary.

Liverpool Infirmary for Children, Myrtle-street.—A HOUSE-SURGEON is wanted at the above institution. Salary £85 per annum, with board and lodging.—Applications, with testimonials, to be sent in on or before the 30th inst. to
C. W. CARVER, Hon. Sec.

Cumberland Infirmary. — Assistant HOUSE-SURGEON.—Wanted immediately, a duly qualified gentleman as above. Salary £40 per annum, with board and lodging. The appointment will be for one year.—Applications and testimonials to be sent, on or before the 22nd inst., to the Secretary, Cumberland Infirmary, Carlisle.

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The Infirmary, Rochdale.—Wanted, a Trained SURGICAL NURSE for alternate day and night duty. Salary £22, with uniform, board, and washing. No stimulants allowed.—Apply, with copies of testimonials, to the Matron.

Wanted, trained Nurses for Private Nursing, Medical, Surgical, and Monthly. Age from twenty-five to thirty. Also one for District Nursing, age about thirty.—Apply, Lady Superintendent, 44, Rivers-street, Bath.

Midwifery Training.—Trained Nurses will receive three months' training free. Binding for three years.—Personal application to be made to the Hon. Sec., Miss Wilson, Workhouse Nursing Association, 44, Berners-street, W. Fridays and Mondays, 11 to 1. Letters requiring answers must enclose a stamped envelope.

Birmingham Boro' Asylum.—In consequence of the appointment of Dr. Harold Shaw as Assistant Medical Officer of Gloucester County Asylum, there is a vacancy in this Asylum for a RESIDENT CLINICAL ASSISTANT. Board and residence are given, but no salary.—Apply to E. B. Whitcombe, Medical Superintendent.

East Suffolk Hospital, Ipswich.—Wanted, TWO TRAINED NIGHT NURSES for Male Medical and Female Surgical Wards. Salary £20, with uniform and laundry.—Applications, stating age and experience, with testimonials, to Lady Superintendent.

Wanted immediately, a Trained Nurse for the FEVER HOSPITAL, Newcastle-upon-Tyne. Salary £25 a year and £2 a year increase to £35, with board, washing, and uniform. Application, in the handwriting of the applicant, stating age, experience, &c., with original testimonials, to be forwarded to the Medical Officer of Health, Town Hall, Newcastle-upon-Tyne.

Metropolitan Asylums Board.—Eastern FEVER HOSPITALS, The Grove, Homerton, E.—Wanted, an ASSISTANT MEDICAL OFFICER (Clinical Assistant) for a period o three months. Particulars may be obtained from the Medical Superintendent at the Hospitals.—Applications for the appointment should be sent to the Clerk to the Metropolitan Asylums Board, Norfolk House, Norfolk-street, W.C. on or before April 20th inst.

County Hospital, Durham.—Wanted, a HEAD NURSE, thoroughly trained, and accustomed to train Probationers. Salary £25, with uniform. Also a TRAINED NURSE for Children's Ward. Salary £20 and uniform.—Applications, with testimonials, &c., to the House-Surgeon.

Bristol Royal Infirmary.—An Assistant RESIDENT MEDICAL OFFICER and PATHOLOGIST wanted. Candidates must possess a registered qualification. Salary £80 per annum, with board, lodging, and washing.—Applications, accompanied by testimonials, to be sent to the Secretary on or before Tuesday, May 3rd, and the elected candidate will be expected to enter upon his duties on June 1st.

Lieut.-Colonel CHARLES L. GRAHAM, Secretary B.R.I.

Scottish Medical Agency.
JAMES LOGAN, 198, St. Vincent-street, Glasgow.
Transfers of PRACTICES and PARTNERSHIPS arranged.
OUTSTANDING ACCOUNTS collected in town or country.
ASSISTANTS supplied free of charge.
LOCUM TENENS on shortest notice.
Inquiries free.

Mr. Armstrong's Medical Agency, 27, Brazennose-street, Manchester.—High-class NUCLEUS within ten miles of Manchester, returning about £150 per annum. Good prospects of increase. Good house, stabling, every convenience; built for medical gentleman.—Premium, and further particulars, apply, J. Armstrong.

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LEE & MARTIN,
LINCOLN'S INN, CORPORATION STREET.
PRACTICES of £400 and upwards can find ready purchasers through the agency, Lee & Martin having many clients desiring such.
PURCHASERS.—List of Practices for Disposal free.
LOCUM TENENS and ASSISTANTS at short notice.
Telegraphic Address: "Locum, Birmingham."

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ASSISTANTS INTRODUCED FREE OF ALL CHARGE TO PRINCIPALS.
SPECIAL NOTE.—Gentlemen desiring appointments as LOCUM TENENS and ASSISTANTS are not placed on our Books until after reasonable inquiries as to antecedents and abilities have been satisfactorily replied to.

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Messrs. Orridge and Co., Medical Transfer Agents, Referees, and Valuers, in offering their services to the Profession have pleasure in referring to the fact that for ABOUT HALF A CENTURY the name of Mr. ORRIDGE has been known in the advertising columns of the leading medical journals as that of one to whom a very large proportion of the Medical Men throughout the kingdom have confided their interests in the adjustment of PARTNERSHIPS and TRANSFERS.

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London Suburb, N.W.—Within 7 miles of town, attractive and good-class locality, NUCLEUS of select Private Practice for Disposal. Receipts at present about £400 (can easily be doubled). Visiting fees, lowest, 5s. Midwifery one guinea to three guineas. No horse required. Large attractive house, and small garden. Six months' introduction will be given. Premium about £400. Full particulars at
Messrs. ORRIDGE & Co.'s Offices, 32, Ludgate-hill, London, E.C.

Cambridgeshire. — Rural Practice, unopposed, for immediate Disposal. Receipts (increasing yearly) at present nearly £400 yearly. Includes Clubs, but no Union. Good house, with stabling, lawn, &c.; rent low. Introduction to be arranged. Premium about £250. Part can be paid by instalments if wished. Vendor having purchased a larger Practice will arrange easy terms with a suitable gentleman.
Apply at Messrs. ORRIDGE & Co.'s Offices, 32, Ludgate-hill, London, E.C.

Midland County.—Good Locality.—PARTNER required for the third share of a very old established good-class Practice. Held by vendor many years. About £200 to £250 required.—Full particulars, in strict confidence, at
Messrs. ORRIDGE & Co.'s Offices, 32, Ludgate-hill, London, E.C.

South of England. — Fashionable Watering-place. — For Disposal, an old-established good-class PRACTICE. Receipts at present about £500 yearly. Capable of great extension. Good house; moderate rent. No horse required. Six months' introduction. Premium about £500. Full particulars at
Messrs. ORRIDGE & Co.'s Offices, 32, Ludgate-hill, London, E.C.

MEDICAL TRANSFER OFFICES,
19, Craven-street, Strand, W.C.
Established 1868.

Mr. W. T. Peacock, Medical Transfer and PARTNERSHIP AGENT, inform the Profession that he has special facilities for introducing Successors and arranging Partnerships, that if Members who are desirous of Disposing of their Practices will forward him full particulars (and which will be received in strict confidence) an immediate Transfer will probably be effected.

Gentlemen requiring Practices or Partnerships can, on application, select and obtain full particulars of those on Mr. Peacock's books which are open for negotiation.

ASSISTANTS and LOCUM TENENS, with satisfactory testimonials as to sobriety and general abilities, can be engaged at very short notice.

No charge made to purchasers or for inquiries.

Office hours from 10 to 5; Saturdays 10 to 2.

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Mr. W. T. Peacock also makes this a *special* branch of his business, and is prepared to undertake the posting and balancing of Books annually or otherwise by thoroughly efficient Clerks at his own Offices, or, if preferred, at the Residence of Medical Gentlemen (in *Town* or *Country*), and, when desired, will likewise make and send out the accounts.

NOTE.—Outstanding accounts in *Town* or *Country* also promptly collected.

Prospectus of Terms, &c., which are strictly moderate, will be sent, post free, or can be obtained on application to Mr. Peacock's Offices, 19, Craven-street, Strand, W.C.

Surgeons.—Sea.—Abroad.—Surgeons with families or friends going abroad will find an immense saving by obtaining their passages through Moore & Co. All passages booked free of charge. Surgeons as medical officers to ships or for the outward voyage only to the Colonies are all obtained through MOORE & Co., the recognised agents to all shipping firms.

Stamped envelope to MOORE & CO., Medical Agents, Wholesale Druggists, 125, Houndsditch, E.C.

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(No. 1.) LONDON SUBURB.—High-class PRACTICE of over £1200 per annum; all good-class patients; good fees; very little night-work. Premium £1800 to £2000 cash, according to length of introduction (six to eighteen months). Large house in a good position.

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(No. 7.) HOME COUNTIES.—Unopposed Country PRACTICE of about £700 per annum, including appointments. Near a good town. Excellent house. Premium for goodwill, with introduction as desired, £1000.

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(No. 9.) MIDLANDS.—Old-established unopposed PRACTICE of over £425 per annum, including nearly £150 from appointments. First-rate hunting district. Expenses light. Small house. Premium £400.

(No. 10.) LONDON.—Half-share in a well-established Dispensary PRACTICE of about £1200 per annum. Would occupy only three days a week, and admit of Private Practice in addition. Premium £900.

(No. 11.) LONDON SUBURB.—PARTNERSHIP in a good Practice, with appointments, in a pleasant suburb. Share would yield at first £300 per annum. The opening is suited only to a well-qualified man, who must be energetic (though the work would not be hard at first), and have some private income.

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(No. 15.) HOME COUNTIES.—Increasing PRACTICE of over £300 per annum, in a town within forty minutes of London. Unqualified Assistant kept; other expenses very light. Rent of house £35. Vendor has held the Practice ten years. Premium, to include drugs, £800.

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(No. 17.) PRACTICE IN A NORTHERN MANUFACTURING TOWN of £1200 per annum. Excellent house. A purchaser will require a capital of about £2000, and will at once receive an income of the amount stated.

ASSISTANTS AND LOCUM TENENS PROVIDED.

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Apply Sec., Med., &c., Assn., Ld., 8, Lancaster-place, Strand.

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Mr. J. C. Needes begs to inform members of the Profession desirous of Disposing of their Practices that they can on application to him be promptly introduced to Successors. All matters connected with the Transfer of Practices and Partnerships, Medical Arbitrations, Valuations, &c., receive Mr. Needes' immediate personal attention, and negotiations are conducted by him in the strictest confidence.

Trustworthy LOCUM TENENS and ASSISTANTS can be had at a few hours' notice.

N.B.—No charge made to Purchasers or to Gentlemen seeking information.

In a beautiful residential district and health resort, within easy distance of Brighton, a well-established PRACTICE, worth between £400 and £500 per annum. Fees 2s. 6d. to 10s. 6d. Midwifery one to five guineas. Commodious residence, with large garden.—Apply to J. C. Needes, 1, Adam-street, Adelphi, W.C.

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Junior Partnership.—A Share yielding £300 a year (with immediate prospects of increase) is offered to a well-qualified gentleman at the usual rate of purchase. The Practice is old-established, and situated in one of the best residential suburbs of London.—Apply to J. C. Needes, 1, Adam-street, Adelphi, W.C.

Death Vacancy.—£1200 a year; appointments £500.—An unopposed PRACTICE, held by late incumbent over forty years, situate within seventy miles of London. An efficient qualified gentleman carrying on the Practice, who has been associated with it for some time past. As there is no opposition within six miles, the whole of the Practice can reasonably be expected to be transferred to an active gentleman. A portion of the premium can be paid by instalments.—Apply to J. C. Needes, 1, Adam-st., Adelphi, W.C.

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£1500 a year.—Within an hour of London, a very old established PRACTICE, averaging for some years past the above amount. The connexion is situate in a small town with good district around, and there is every reason to believe it could be transferred to a doubly qualified energetic gentleman not less than thirty years of age, as the opposition, as compared with the number of inhabitants, is below the average. Reference can be given to several gentlemen on the staff of one of the London hospitals. A partnership introduction given to meet wishes of purchaser.—Apply to J. C. Needes, 1, Adam-street, Adelphi, W.C.

Canada, near Niagara.—£1250 per annum; unopposed, the nearest Medical Man residing eight miles distant. Railway station in place. Area of Practice about ten miles. Expenses small. The house, which is suitable for a family, and stands in two acres of ground, is vendor's freehold, valued at £700, and will be disposed of, together with the Practice, for the moderate sum of 1000 guineas, of which 500 guineas can remain on mortgage. Climate mild. Reference given to a Medical Man in London, who can give the fullest information.—Apply to J. C. Needes, 1, Adam-street, Adelphi, W.C.

London, S.W.—A mixed Private and Dispensary PRACTICE, the cash receipts of which last year were £630, inclusive of appointments worth £140, which may reasonably be expected to be transferred to a doubly qualified successor. Present incumbent has been in delicate health, and has avoided nearly all night-work.—Apply to J. C. Needes, 1, Adam-street, Adelphi, W.C.

West of England.—£900 a year.—In a large town, an old-established and lucrative PRACTICE, averaging over £900 per annum. The connexion is nearly all good middle-class, and the Visiting fees range from 2s. 6d. to 10s., exclusive of medicine. Very easily worked, only one horse required. Convenient family residence can be secured by the successor at a moderate rental. Premium one year's purchase.—Apply to J. C. Needes, 1, Adam-street, Adelphi, W.C.

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Messrs. H. Wilson and Son,

26, CHARLES-STREET, ST. JAMES'S-SQUARE, S.W.
Established half a century.
QUALIFIED ASSISTANTS PROVIDED.
LOCUM TENENS.—Suitable qualified Gentlemen can be engaged at a moment's notice.

1. N.W. Suburbs.—A well-established PRACTICE, about £600 per annum; has been conducted by the present practitioner about ten years, who can give most satisfactory reasons for relinquishing. A good house; rent £80. It is proposed to give three months' introduction. Premium one year's purchase. This is a good opportunity for any active practitioner seeking a connexion capable of increase.

2. In a leading thoroughfare, within two miles of the Bank, a NUCLEUS, about £250 to £300, including an appointment of £60. A good house, been the residence of a medical practitioner for half a century.

3. On easy terms, a mixed-class PRACTICE, chiefly Catholic, for immediate disposal, with short introduction, at present worth about £400 per annum, capable of great increase. Good opportunity for an active Catholic gentleman. Easy terms can be arranged, to include furniture, drugs, and surgery fittings.

4. Partnership.—London Suburbs.—A JUNIOR PARTNER required in a mixed-class Practice, in a populous and increasing district. Present amount of income £1500 per annum. The incoming Partner should be well up in Midwifery, there being some 200 cases a year. Working expenses light, and a convenient house can be obtained. The Practice has been conducted by the present practitioner some twelve years.

5. Seaside Town.—A General Practice, which produced in cash last year £333 and booked £371. A semi-detached villa residence held at a moderate rental; working expenses very light. Midwifery from 1 guinea; about sixty cases a year. This is suitable for any active Practitioner wishing a Practice capable of increase. The town is much frequented by visitors, and an improving one. An efficient introduction; good educational advantages.

6. W.C. District.—A General Practice, about £250 per annum. Good house, held on lease. Premium £250. A good introduction given.

7. In a good residential district, four miles from a large and important town. Income between £600 and £700 per annum, which can be very considerably extended by an active gentleman fond of work. Good detached house; large garden and stabling. Good class of patients. No Union or Clubs.

8. In a large town in the North of England.—PRACTICE for disposal in consequence of the present practitioner being desirous of retiring for a time from the profession. Income about £1600 per annum, including appointments. A good house, stabling, and every convenience for a professional residence. Premium one year's purchase; part can remain over provided security is given. The vendor has conducted it twenty years, and has saved money sufficient to retire upon.

9. Devonshire.—Partnership Introduction. A General Practitioner who has conducted a Practice situate in a town for some years, and which is producing about £500 per annum, including appointments about £170. Good house; rent £45. Midwifery from £2 2s. It is proposed to give twelve or eighteen months' introduction.

10. Nucleus.—In a good and increasing suburban district, S.W. A good detached house, with garden. An introduction can be given to many good families. Suitable for a gentleman with private means wishing a good-class Practice capable of increase.

11. Near the Crystal Palace.—A NUCLEUS, about £200 per annum. Convenient house in a main thoroughfare; rent £56. An introduction can be given to many good families.

PRACTICES REQUIRED.

Practice wanted, by a Gentleman fully qualified, in a country town within sixty miles of Town. Premium can be paid down.—Apply, H. S.

Practice wanted, by a Gentleman (married), F.R.C.S. Eng., L.R.C.P., who wishes to purchase a PRACTICE, £500 to £700 per annum, in a country town not less than 3000 population.—Apply, B. F.

Practice wanted in the Eastern Counties, by a Gentleman, M.B., M.R.C.S., &c., in a town, from £500 to £700. Is prepared to carry out an immediate arrangement.—Address, in confidence, M.B.

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Qualified Resident.—Eastern County, £70 to £80; Midland Counties, £60; plenty of time for reading.

A qualified Practitioner wanted to conduct an open Surgery in the S.W. district. Personal application only.

Mrs. Needes' Medical Agency Offices,

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The Business carried on for the past eighteen years by Mrs. Needes (widow of J. W. Needes), at 17, Belgrave-street, has been removed to the above address, where it is conducted by her as usual. No connexion with any other agency advertised under the same name, this being the original business established by her late husband in 1860.

LOCUM TENENS.—Reliable Gentlemen always on the books.
ASSISTANTS provided free of expense to principals.
No charge made to purchasers.

Twelve Months' Partnership Introduction given to an old-established good-class PRACTICE, situate in a pleasant country town, and held by the incumbent many years. The receipts last year amounted to over £1150, including appointments. Expenses moderate. Commodious family residence to be had on lease. Premium required, about one and a half year's purchase. £800 to be paid on entry.

For immediate Disposal, the Vendor having other engagements, an old-established, unopposed country PRACTICE, with freehold residence standing in about three-quarters of an acre of ground. Annual income £500, inclusive of appointments of £250. About £1250 will be required, part of which may remain on mortgage. The Practice is situate in a pleasant district within 100 miles.

London. — Old-established Practice, situate in a good open district, and held by the vendor many years. The income, including valuable appointments, transferable to a suitable man, averages over £700 per annum. About forty cases of Midwifery yearly, from a guinea. Comfortable house, fitted more especially for a bachelor. Premium, with an efficient introduction, one year's purchase. Horse and brougham kept, but not necessary.

London. — General Practice (chiefly ready money), held by the incumbent many years, and returning about £600 per annum. Capable of considerable increase by an active gentleman. Good house, held at a moderate rental. An efficient introduction given and less than a year's purchase accepted.

Cathedral Town.—Small and increasing PRACTICE of about £100 per annum, including £80 from appointments. Visits 2s. 6d. to £1 1s. No Midwifery under a guinea. Good society, with educational advantages. Convenient house, rent £50. An excellent opening for a well-qualified active gentleman commencing practice, there being plenty of scope.

Midland.—Rapidly increasing Practice, situate in a rising town, and realising nearly £650 per annum, including £250 from transferable appointments. There are only three other medical men in the district, to a population of over 15,000, and an active man, well up in Midwifery, would find this an excellent opportunity for practice. Premium, with six months' introduction, £600.

Required, by a married Gentleman, of independent means, a good-class PRACTICE in a London suburb or at the Seaside. South or West coast preferred. Income from £600 to £800. A comfortable but not large house necessary.

Required, a genuine Country Practice, unopposed preferred, of from £500 to £600 a year, with appointments, good house and garden, and not too far from a railway station. Would prefer South or West, but has no particular objection as to locality.

Required, a Practice of about £800 a year, in a country or seaside district. Lancashire preferred. Or would entertain a Partnership, with smaller income, in a provincial town. Advertiser is ready to enter upon an investment at once.

Required, Partnership, or long Introduction to a good-class Practice, in the W. or S.W. district of London. Income from £400 up to £800. Advertiser is accustomed to the best society, and has ample means at command.

Required, within 70 miles of London, an increasing PRACTICE of £500 upwards, with appointments, in a town preferred. Advertiser is a graduate of considerable experience, and is most anxious to invest without further delay. Means at command.

Required in the S.W. of England, or the Midlands, a good-class PRACTICE or a Partnership of from £600 to £900, in a nice town, where a Roman Catholic would be well received. Advertiser is a married graduate, age thirty-two, and can invest up to £1500.

Required, at once, a qualified resident ASSISTANT, for an extensive country Practice in South Wales. Must be able to ride. One able to speak Welsh preferred. Salary £80.—Apply to Mrs. Needes,

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to £900 a year. A Midland or southern county will be preferred. Any reasonable sum of money can be invested.—Apply to Messrs. Sladden, Son, & Johnson, 6, Duke-street, Adelphi, W.C.

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Transfer of Practices and Partnerships arranged.

Locum Tenens and Assistants introduced. Reliable gentlemen, fully qualified, with unexceptionable testimonials, on the list.

No charge to purchasers or to gentlemen seeking information.

Gloucestershire.—Practice unopposed

for five miles. Good house and grounds (the old Manor-house), pleasantly situated in a lovely country; rent and taxes £19. Receipts over £200, and may be increased to between £500 and £600. Price of practice, furniture, fixtures, and drugs, £560.

London. — North. — Practice con-

veniently situated in an improving neighbourhood. Receipts in 1885 £130, but decreased last year owing to illness. £200 cash will be taken, as the vendor must go abroad. Rent £42.

South Coast.—Small Select Practice;

annual income £200, but may be largely increased. Price £150, part down and rest in easy instalments. Ample introduction given.

Suburban. — Walthamstow. — Small

PRACTICE, with plenty of scope. No immediate resident opposition. Receipts from £150 to £200. 30 guineas premium will be taken on account of illness. Rent £34.

Country unopposed Practice, in a pretty

village in Sussex. Average receipts between £350 and £400. Various Clubs, transferable, about £78. Midwifery fees up to £3 3s. Fair village house, with coachhouse, stable, and large garden; rent and taxes £35. Held by vendor for twelve years. Price £350.

Yorkshire.—Village Practice, inexpen-

sively worked, and with good scope for increase. Cash receipts £330, including transferable clubs about £60. Rent of house, coachhouse, stable, and garden, £26. Premium about £250.

Nottinghamshire.—First-class Nucleus,

with good opening. Receipts at the rate of £280. Efficient introduction, including some of the best county families. Price £100, or payment by results. Good house; rent £36. Furniture may be taken by arrangement.

Market Town (15,000 inhabitants in

town and neighbourhood).—NUCLEUS, £210s. weekly, and increasing daily. Fees 2s. 6d. at home, Visits 5s. A good opening. Price £10.

Assistantships wanted by fully qualified,

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Apply to WM. HORNIBROOK, Medical Transfer and Professional Agency, 17, Bloomsbury-street, Oxford-street, W.C.

Wanted to Purchase, a West London

or Suburban PRACTICE of £500 to £1000 a year. Must be good class. Capital ready for a genuine thing. Purchaser is an Edinburgh graduate, and has been practising in Edinburgh.—Apply, Mr. G. B. Stocker, Managing Director, Medical, &c., Assn., Ld., 8, Lancaster-place, Strand, W.C.

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PRACTICE, town or country. Purchaser is M.R.C.S., L.S.A. (Guy's), aged thirty-five, and, having ample private means, could entertain either a large Practice or a small one (not less than £500 per annum), where there would be scope for increase.—Apply, Mr. G. B. Stocker, Managing Director, Medical, &c., Assn., Ld., 8, Lancaster-place, Strand, W.C.

To Let, Ivy House, Preston, with

large garden, stable, carriage-house, &c., the residence of the late Mr. William Shillito; a capital opening for a medical gentleman.—Apply to R. Kemp, Schoolmaster, Preston, Hull.

£50 cash.—With immediate Introduc-

tion, a NUCLEUS situated in a large Town. Advertiser retiring having succeeded to property.—Apply by letter only, to M. L., Lindore Villa, Messina-avenue, West-end-lane, London, N.W.

Furnished Ground Floor to be Let in

the best part of St. James's, comprising four rooms communicating, well furnished, and eminently suited to a medical man. Rent 150 guineas per annum.—Apply at 3, King-street, St. James's.

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TICE for Sale, with Partnership introduction, to meet the wishes of purchaser.

The Practice is old established and well known. Every investigation courted. Lowest price £900, for which vendor offers full value. No agents.—Address, F. B. J., THE LANCET Office, 423, Strand, W.C.

The British and Colonial Agency

(Limited) are instructed to Let a RESIDENCE, London, W., which has been occupied by a medical man as a consultant for a considerable time. There is an opening for General Practice, and the house can be obtained at a very low rent.—Address, No. 1065, 27, Margaret-street, Cavendish-square, London, W.

13, Upper Wimpole-street, W.—

To be Sold (with possession) on Tuesday, April 26th, 1887, at the Mart, Tokenhouse-yard, E.C., at 2 o'clock.—For particulars, see THE LANCET, March 26th; or apply to Messrs. Fred. Long & Son, Auctioneers, 4, Adelaide-place, E.C.

South Devon.—To be Let, one mile

from Newton Abbot, six from Torquay, a nicely furnished Country HOUSE. Two sitting, seven bedrooms, very good kitchens, stabling for two horses, large kitchen garden, two orchards. For twelve months from May, £5 per week.—Apply, Mrs. Melland, Westwoods, Newton Abbot.

Wanted, a Country Practice of over

£500 per annum, by a middle-aged, experienced practitioner, doubly qualified (St. Bart.'s). Good house and garden required. Purchaser has ample means.—Apply, Mr. G. B. Stocker, Managing Director, Medical, &c., Assn., Ld., 8, Lancaster-place, Strand, W.C.

Wanted, an unopposed Country

PRACTICE, about £500 per annum, Midlands or west of England preferred. A good residential neighbourhood and detached house, with stabling, large garden, &c., will be of the first importance. Doubly qualified, married, and will pay the market value for a Practice, which must bear full investigation. An early arrangement desired.—Address, G. B. D., THE LANCET Office, 423, Strand, W.C.

Practice or Partnership wanted. —

Mr. Percival Turner has at present an unusual number of applications on his register for good genuine PRACTICES and PARTNERSHIPS in almost any part of England, and he will be happy to hear from Practitioners contemplating retirement or the assistance of a suitable Partner. All negotiations are conducted privately, and no expense incurred unless business done. The full value can in all cases be secured for vendors.—Address, 4, Adam-street, Adelphi, London, W.C.

Yorkshire.—Wanted, an active, experi-

enced, doubly qualified man, competent to take sole charge (Physician, Surgeon, and L.M. preferred). No horse kept, but very easy place. No Club or Poor-law work. State age, height, weight, what experience, and where gained. Salary required in- or out-, and enclose photo. Should above not be engaged, a sober, active, experienced, unqualified man might answer. Can only give very small salary, so that it is most suitable to a man seeking a very easy and comfortable place.—Address, L. M., THE LANCET Office, 423, Strand, W.C.

Eastern Counties.—For Disposal, a

well-established General PRACTICE, in a small country town on a line of rail. Income £600 a year, and good prospects of increase. One horse sufficient. Midwifery from 21s. Good house, with eight bedrooms, garden, orchard, &c. Pleasant residential district. Ill-health the sole cause of leaving. Premium £500, with an efficient introduction.—Address, East, THE LANCET Office, 423, Strand, W.C.

For Transfer, an increasing mixed

PRACTICE. Average yearly income for the last three years £130, including appointments. Is in a good and large thriving Midland town. Equal share of income during introduction, lasting according to purchaser's wishes. Expenses light, and appointments not transferred deducted from premium, which is moderate.—Address, Alpha, THE LANCET Office, 423, Strand, W.C.

Old-established Practices in a Country

Town in South Wales. £360 per annum. Appointments £100, Union. Premium £200, by instalments. One pony. Hunting, shooting, fishing, &c. Knowledge of Welsh not at all required. Every investigation. Choice of capital houses from £25 per annum. Leaving for better facilities of education.—Address, Lex, THE LANCET Office, 423, Strand, W.C.

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Partnership.—A doubly qualified, registered practitioner desires to meet with a suitable Country Partnership or Introduction where the present holder contemplates retirement. Practice must bear the strictest investigation, so that worthless ones need not be offered. No agents.—Address, with full particulars, in confidence, Medicus, 7, Gower-street, W.C.

Partnership in a small Practice (capable of great immediate development by anyone of energetic disposition) in a populous town, within thirty minutes by rail from London. Price £100 to a good worker. Income guaranteed.—Address, M.D., care of H. Ayres, Esq., Dentist, 11, Princes-street, Cavendish-square, W.

Wanted, by a M.B., C.M. Edin., an ASSISTANTSHIP, with a view to early Succession, in an easily worked Country Practice, returning about £500 per annum.—Address, Trocar, THE LANCET Office, 423, Strand, W.C.

The British and Colonial Agency (Limited) are requested to secure for one of their clients a bonâ-fide PARTNERSHIP, preferably in the country, where from £300 to £500 can be paid down at once, and the rest by annual instalments. He is thoroughly qualified, and well up in his profession. Replies will be treated in the strictest confidence.—Address, The Secretary, 27, Margaret-street, Cavendish-square, London, W.

An Excellent Opening.—A Gentleman is obliged to relinquish a place which he is fitting up as a DISPENSARY in one of the most central parts of London. An active man could make an immediate lucrative practice there. Should be seen at once. Fixtures £30.—Call at 309, Holloway-road, N., before 12.

A Physician and Surgeon, wishing to go abroad, would sell his PRACTICE for £50. Books can be inspected. Receipts realise £3 per week. A rare opening for a young man.—Address, M.D., THE LANCET Office, 423, Strand, W.C.

Wanted, by experienced, fully qualified, married Churchman, an unopposed Country PRACTICE, about £450 (with at least £120 appointments), and scope. Dry climate indispensable.—Send fullest particulars (to save time) to M.B., 7, Arbutus-place, Dublin.

Wanted to Purchase, a small Practice, or SHARE (increasing) in a Practice, in or near London (North), by a fully qualified man willing to work. Premium must be small.—Address, J. Harold, Post-office, Enfield.

London Suburb.—Good Opening for PRACTICE in a rising neighbourhood in the S.W. district. Small premium required. An introduction can be given to a few good patients.—Address, Statim, THE LANCET Office, 423, Strand, W.C.

For immediate Disposal, a good Nucleus, with first-class opening, in a small market town in Midlands. A nominal sum of £50 will be taken, as vendor must leave in three weeks. Furniture at valuation. Reasons given for leaving.—Please address, Immediate, THE LANCET Office, 423, Strand, W.C.

For immediate Disposal, a select and easily worked PRACTICE in the best part of a popular county. Cash receipts over £600 a year. An excellent detached residence, with garden, orchard, stabling, &c., on lease at a low rent. Premium moderate.—Address, R. H., 21, Stowe-road, Shepherd's-bush, London, W.

To be Sold immediately, Vendor having accepted an appointment, a thoroughly genuine Cash PRACTICE, situate in an aristocratic neighbourhood, and can be increased to any amount. It is requested that only those with means at command and who intend business will apply. Would suit a young man well.—Address, J. W. Q., THE LANCET Office, 423, Strand, W.C.

A Branch Practice for Disposal in one of the Midland Counties. On line of rail. An hour from London. Receipts over £200. £50 transferable. A good opening for young man. Easy terms.—Address, Salus, THE LANCET Office, 423, Strand, W.C.

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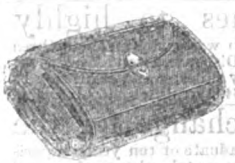
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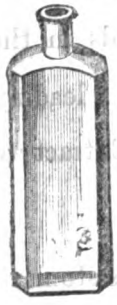
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INFANTS' FOOD.

SPECIAL NOTICE.—THE MALTED FARINACEOUS FOOD (Patented) manufactured by ALLEN & HANBURYS, is the result of a PRACTICAL application of the advice of LIEBIG, and the benefits accruing from its use verify in a remarkable manner his predictions of the value and efficacy of such a Food.

It is PARTIALLY predigested, having as a basis a carefully cooked wheaten flour, especially rich in gluten, to which are added the active and nutritive constituents of pure malt IN A SOLUBLE FORM. It thus contains all that is VALUABLE in Malt, whilst all that is irritating and indigestible is rejected.

When this Food is prepared for use, by mixing with warm milk or milk-and-water, as indicated in the directions, the diastasic action on the already broken starch granules is very rapid, whilst the milk is prevented from forming indigestible curds in the stomach, partly by the mechanical action of the Malted Food, as described in a leading article in THE LANCET of Nov. 20th, 1886, and partly by the power of Malt Extract to prevent the aggregation of the caseine.

This Food is not so entirely predigested as to leave nothing for the infant's stomach to perform, and it is believed that the excellent practical results obtained are largely due to the special proportion maintained between the predigested and the unaltered portions.

NOTE.—Where Medical Men have an opportunity of making comparative experiments with this Food as in crèches, children's hospitals, &c., ALLEN & HANBURYS will gladly supply a reasonable quantity for such purposes, free of charge.

Sold only in Tins, at 6d., 1s., 2s., 5s., and 10s. each.

MANUFACTURED BY

ALLEN & HANBURYS, Plough Court, Lombard Street, LONDON.

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